

# **Program for the International Assessment of Adult Competencies (PIAAC) 2012: U.S. Main Study Technical Report**

**April 8, 2014**

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April 2014

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This report was prepared in part under Contract No. ED-04-CO-0059/0030 with Westat. Mention of trade names, commercial products, or organizations does not imply endorsement by the U.S. Government.

**Suggested Citation**

Hogan, J., Montalvan, P., Diaz-Hoffmann, L., Dohrmann, S., Krenzke, T., Lemay, M., Mohadjer, L., and Thornton, N. (2013). *Program for the International Assessment of Adult Competencies 2012: U.S. Main Study Technical Report* (NCES 2014-047). U.S. Department of Education. Washington, DC: National Center for Education Statistics. Available from <http://nces.ed.gov/pubsearch>.

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# 1. INTRODUCTION

The Program for the International Assessment of Adult Competencies (PIAAC) is the most comprehensive international survey of adult skills ever undertaken. The survey examines literacy in the information age and assesses adult skills consistently across participating countries (24 for Round 1). It focuses on what are deemed basic cognitive skills and key generic work skills for individuals to participate successfully in the economy and society of the 21st century. This multicycle study is a collaboration between the governments of participating countries, the Organization for Economic Cooperation and Development (OECD), and a consortium of various international organizations, referred to as the PIAAC Consortium. This consortium is led by the Educational Testing Service (ETS) and includes the German Institute for International Educational Research (DIPF), the German Social Sciences Infrastructure Services' Centre for Survey Research and Methodology (GESIS-ZUMA), the University of Maastricht's Research Centre for Education and the Labour Market (ROA), the U.S. research company Westat, the International Association for the Evaluation of Educational Achievement (IEA), and the Belgian firm CapStan.

The study assesses the following key adult skills for the information age: basic reading skills, reading literacy, numeracy, and problem solving in “technology-rich environments” (the OECD term for “on or with a computer”). PIAAC also measures the ability of individuals to use computer and web applications to find, gather, and use information and to communicate with others. The study uses a “Job Requirements Approach” to ask employed adults about the types and levels of a number of specific skills used in the workplace. These include not only the use of reading and numeracy skills on the job but also physical skills (e.g., stamina, manual dexterity), people skills (e.g., public speaking, negotiating, working in a team), and information technology skills (e.g., using spreadsheets, writing computer code). It asks about the requirements of the person's main job in terms of the intensity and frequency of the use of such skills. PIAAC also breaks new ground by being the first to use computers to administer an international assessment of this kind, although some individuals are given a paper-and-pencil version of the assessment.

An important element of the value of PIAAC is its collaborative and international nature. In the United States, the U.S. Department of Education's National Center for Education Statistics (NCES) is collaborating with the U.S. Department of Labor (DOL) on PIAAC. Staff from NCES and DOL are co-representatives of the United States in PIAAC's international governing body, and NCES has consulted extensively with DOL, particularly on development of the job skills section of the Background Questionnaire. Internationally, PIAAC has been developed collaboratively by participating countries' representatives from both ministries or departments of education and labor and by OECD staff through an extensive series of international meetings and work groups. These international meetings and work groups, assisted by expert panels, researchers, and the PIAAC Consortium's support staff, have developed frameworks used to develop the assessment and Background Questionnaire and the common standards and procedures for collecting and reporting data, and also guided the development of a common, international “virtual machine” software that administers the assessment uniformly on laptops. All PIAAC countries must follow the common standards and procedures and use the virtual machine software when conducting the survey and assessment. As a result, PIAAC can provide a reliable and comparable measure of adult skills in the adult population (ages 16–65) of participating countries.

NCES contracted with Westat to work with NCES and the PIAAC Consortium on the conduct of the study. Westat's key tasks include instrument development (a screener to enumerate and select study participants), adaptation of the international Background Questionnaire and assessment for the United States, instrument translation (as necessary), sample design and selection, data collection, scoring, and the production of reports detailing the results of the Field Test (FT) and the Main Study (MS). In the United

States PIAAC was fielded under the user-friendly name International Study of Adult Skills (ISAS); however, this report will refer to the study as U.S. PIAAC.

The U.S. Field Test data were collected between September and November 2010, with 1,510 adults interviewed and assessed in 22 primary sampling units (PSUs) across the country. The Main Study data collection took place between August 25, 2011 and April 3, 2012. Five-thousand ten (5,010) cases were completed in 80 PSUs across the United States.

## **2. MEETING PIAAC CONSORTIUM REQUIREMENTS**

The PIAAC Consortium oversees all PIAAC activities on behalf of the OECD and provides technical support to all participating countries regarding all aspects of PIAAC. Each country is responsible for conducting PIAAC in compliance with the Technical Standards and Guidelines (TS&Gs) provided by the Consortium to ensure that the survey design and implementation yields high-quality and internationally comparable data. The standards are generally based on agreed-upon policies or best practices to be followed when conducting the study, and it is essential that all participating countries follow them.

To ensure that standards were met, the Consortium set up a comprehensive quality control (QC) process to monitor all aspects of the study. Details on the PIAAC QC process as it pertained to the U.S. Main Study are covered in this chapter. This chapter also documents all of the major PIAAC tasks that required interaction with, approval from, and/or deliverables to the Consortium.

Westat complied with virtually all of the standards provided by the Consortium. Deviations were documented on the National Survey Design and Planning Report (NSDPR), described below, and agreed upon with NCES.

### **2.1 National Survey Design and Planning Report (NSDPR)**

The United States was required to document the proposed methods and procedures for adhering to the PIAAC TS&Gs in the National Survey Design and Planning Report (NSDPR). This report consists of a series of questions relating to each of the following sections of the TS&Gs:

- Ethics (chapter 2);
- Survey planning (chapter 3);
- Sample design and selection (chapter 4);
- Survey instruments (chapter 5);
- Translation and adaptations (chapter 6);
- Information technology standards (chapter 7);
- Field management (chapter 8);
- Training (chapter 9);
- Data collection (chapter 10);
- Data processing (chapter 11);
- Data file creation (chapter 12);
- Steps to ensure data confidentiality and security (chapter 13);

- Weighting/estimation (chapter 14); and
- Quality assurance and quality control (chapter 15).

The U.S. Main Study NSDPR report was submitted to NCES for review and successfully submitted to the Consortium on February 1, 2011. Each participating country was required to specify the rationale for any deviations from the technical standards for Consortium review and approval. The only deviations to the PIAAC standards for the United States concerned the translation methodology, and the Consortium approved these deviations.<sup>1</sup> No concerns were raised by the Consortium regarding any other aspect of the design and procedures proposed by Westat.

## **2.2 Sample Selection and Monitoring**

Several QC sampling checks were required by the Consortium to ensure adherence to the PIAAC TS&Gs. Completion of the QC checks for the Field Test served as practice for the Main Study, where they were important in producing high-quality data that are comparable between countries. The United States completed the following (required) sampling documentation and submitted the documentation to the Consortium:

- sampling plans, consisting of a series of questions on the sample design for the Field Test and Main Study, which served as part of the NSDPR;
- QC sample selection forms, completed after each stage of sample selection, describing the sample selection process and the characteristics of the sampled units;
- QC sample monitoring forms, due periodically throughout data collection and used to monitor sample yields and response rates by subgroup; and
- a final sample monitoring form due after data collection created using final edited and cleaned data.

In addition, the United States attended two sampling workshops<sup>2</sup> held by the Consortium to prepare countries for sampling-related activities for the Field Test and Main Study, including sample design, sample selection, confidentiality, weighting, and nonresponse bias analysis.

## **2.3 Background Questionnaire Adaptations**

The Consortium developed the PIAAC international master version of the Background Questionnaire, which was the basis for the U.S. national Background Questionnaire. The Main Study international master was updated by the PIAAC Consortium based on the Consortium's analysis of the PIAAC Field Test data. As a result of the Consortium review, countries were expected to implement a number of

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<sup>1</sup> The recommended procedure for developing the national versions of the Background Questionnaire (BQ) was double translation by two independent translators followed by reconciliation. Instead, Westat followed its established procedures for translation of the BQ into Spanish. A member of the Westat Translation Unit translated the BQ into Spanish. This initial translation was then thoroughly reviewed by another member of the unit. Subsequently, all comments were reconciled by the head of the Translation Unit, and the translation underwent a final review by the project translation coordinator and NCES. More detail is provided in section 2.4.

<sup>2</sup> The first sampling workshop was in March 2009 in Barcelona, Spain. The second sampling workshop was in December 2010 in Princeton, New Jersey.

changes based on the Consortium changes to the international master version to eliminate problematic items and to reduce the overall length of the Background Questionnaire. In some cases the changes to the international master also precipitated changes to the U.S. national Background Questionnaire.

Working in conjunction with NCES, its support staff at the American Institutes for Research (AIR), and the Consortium, Westat developed a set of recommended changes to the U.S. national Background Questionnaire. These changes were implemented over a 9-month period, including at the Consortium June 2010 meeting in Frankfurt and the December 2010 meeting in Princeton. At these meetings, recommended changes to the Background Questionnaire and assessment items were implemented using the Consortium-provided tools and the Item Management Portal (IMP). The impact of the international changes to the U.S. adaptations was also reviewed, and revisions were made as needed to these items as well.

Changes that were made to the U.S. national Background Questionnaire for the Main Study are listed in appendix A.

## **2.4 Translation of Instruments**

Westat's translation unit translated the PIAAC questionnaires into Spanish employing a four-step process intended to ensure that the Spanish-language instruments would be universally comprehensible to the various Spanish-speaking groups in the United States, equivalent to the original English-language instruments in terms of intent and meaning, and written using correct Spanish grammar and syntax. These four steps were:

1. Initial translation by a native Spanish speaker with more than 20 years of experience in English-Spanish translation, and experience translating other educational studies (e.g., National Assessment of Adult Literacy);
2. Editorial review of the initial translation by a native Spanish speaker with 10 years of experience in English-Spanish translation, as well as work experience in the U.S. educational community.
3. Editorial review by a native English speaker with 20 years of experience in English-Spanish translation, with a focus on equivalency of the English and Spanish question items.
4. Final editorial review by a native Spanish-speaking research analyst with 10 years of experience in designing and testing questionnaires and in developing, administering, and monitoring research studies.

Subsequently, a draft of the Spanish-language questionnaires was submitted to NCES for final review. In addition to the Spanish language translation, Westat "translated" PIAAC's international English-language questionnaires into U.S. English and submitted those edits to NCES for final review.

Once the translated text for the questionnaires was approved, Westat incorporated the approved translated text into the XLIFF<sup>3</sup> files that were provided by the Consortium. New text was added and/or replaced using the supplied Open Language Tool (OLT) software to implement the translation, in both English and

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<sup>3</sup> XLIFF is an XML-based file (XML Localization Interchange File Format) format that enables translators to concentrate on the text to be translated.



Spanish versions. As no “text replace” function existed in OLT, the major task for creating the U.S. English version—finding and replacing intricate phrasings and replacing recurring phrases—had to be performed manually for each instance where a change to PIAAC’s international English required “translation” (i.e., adaptation to U.S. English) using this OLT interface. For the Spanish version of the questionnaire, consistent changes to text had to be made; therefore, Westat chose to handle the XLIFF files as text and apply more capable text editors for both quantitative and qualitative improvement and easier implementation. However, going outside the OLT software triggered some subsequent handling problems of this XLIFF (e.g., related to Spanish special characters). Once the initial Background Questionnaire implementation containing Consortium IT adjustments to American English language versions was received, Westat conformed to Consortium requirements by using the supplied OLT software for the remaining light editing.

Another challenge for preparing translated versions of the questionnaires was the volume of Spanish text that needed to be reentered into XLIFF, a tool not intended for large document handling. This required files to be artificially split to fit size limits of the tool.

## **2.5 Interviewer Training**

To ensure that interviewers are trained in a consistent fashion across countries, the Consortium provided guidelines and training materials to be used by each participating country but allowed countries to make adaptations as necessary. In addition, the Consortium recommended a minimum of 33 hours of interviewer training for all interviewers plus an additional 4 hours of general interviewing techniques training for trainees new to interviewing. Westat followed all of the interviewer training recommendations, used all of the training materials provided by the Consortium, and made the adaptations necessary to meet U.S. needs and practices.<sup>4</sup>

To monitor the quality of interviewer training, the Consortium required each country to fill out Interviewer Training Forms within a month of completing training, which the United States did.

## **2.6 Data Collection QC Monitoring Process**

The QC monitoring of data collection required each participating country to submit a number of forms and to participate in a number of calls with the Consortium. The required forms and their respective due dates are listed below:<sup>5</sup>

- one Data Collection Form per month for each of the 2 months leading up to the start of the Main Study data collection (July and August 2011);
- one Data Collection Form for each of the 7 months of the official Main Study data collection (September 2011 through March 2012);
- one Data Collection Form after data collection ended (April 2012);

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<sup>4</sup> Westat’s approach to interviewer training relies on a progressive exposure of interviewers to the questionnaire and training by example. Important points are highlighted as training progresses. The training scripts provided by the Consortium had to be adapted to conform to this approach.

<sup>5</sup> Dates provided are adapted from standard deadlines set for all other countries. These adaptations were necessary due to the U.S. Census moratorium, which imposed a delay in (U.S. PIAAC MS) data collection. Due dates for all other countries occurred much earlier.

- one Data Collection Form after data submission (July 2012); and
- an interviewer Debriefing Report (May 2012).

Westat met all the Consortium-mandated contact and submission requirements for this activity, and the aforementioned forms for the United States are attached in appendixes B, C, and E.

## 2.7 Coding and Data Processing

To ensure that coding and data processing tasks were performed in a uniform way within and across countries, the Consortium provided training for both scorers and national data managers as follows:

- scoring training in Bologna, Spain, in January 2010, attended by Pearson, the contractor responsible for scoring and data entry in the United States;
- national data manager training in Frankfurt, Germany, in February 2010, attended by Westat; and
- Main Study training in Dublin, Ireland, in June 2011, attended by Westat.

The Consortium provided the Data Management Expert (DME) software to be used to import the TAO<sup>6</sup> interviews, data entry of the scoring process, editing and QC, importing of coding results, and exporting of the final data files. Westat entered Consortium-approved national adaptations within the DME and followed the Consortium recommendations for the use of the DME.

Questions relating to occupation, education, language, and country of birth were identified for external coding by the Consortium, and coding schemes were provided. Westat followed Consortium guidelines for the coding process as well as for identifying and coding several national adaptation questions. A complete list of the coded variables and the coding schemes used is available in chapter 9.

## 2.8 Data Delivery

As part of the DME, the Consortium provided “back-end data” processing software to standardize data delivery for all participating countries. Each country was to use this software to (1) aggregate country data into a common format, (2) combine assorted data products into one deliverable data set, and (3) perform some basic quality control (QC) checks. This software fulfilled the major requirements of data cleaning and preparation that each country was responsible for performing. Data cleaning and preparation included loading the individual data files created at the conclusion of each interview into the DME, flagging possible data inconsistencies or errors needing review, generating error reports for key data items needing review, and providing the ability to correct data errors found during the review process.

Significant data delivery issues identified by the Consortium required individual review, comment, and possible corrections. This review included comparing the delivered data with the original data files to ensure that files were correctly loaded into the DME. Helpdesk reports and other edit logs were also

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<sup>6</sup> TAO (Testing Assisté par Ordinateur = computer-based testing, supplied by Centre de Recherche Public Henri Tudor, based in Luxembourg) is a Consortium-supplied software made available to execute the Background Questionnaire, computer-based assessment, and the automated interviewer guide and instructions to be followed when administering the paper-based assessment.

reviewed to determine if other edits had been correctly applied to problematic cases. Listed below are data delivery issues that were identified for the United States:

- Main interview log data (BQL data type) were to be included as part of the international delivery, but due to U.S. confidentiality laws they were withheld from the international delivery. See section 9.9 for further description.
- QC checks in the DME were expanded for the Main Study to help improve the initial quality of the data file delivered and identify issues early in the data processing cycle so that corrections could be made, if needed, prior to sending the files to the Consortium. The DME software included 45 data checks that countries were to perform. These checks included ensuring unique identifiers across data rows; ensuring no orphaned rows by identifiers; range checking where appropriate; ensuring that data rows existed for each identifier for the modules that were comprehensive; and identifying inconsistencies between disposition codes and the various assessments. Booklet checks were also applied to the paper assessment and reading components booklets. Eleven of the checks could not be fully reconciled for the United States. Many of these false positive checks related to paper booklet disposition codes and Consortium direction to alter as little as possible. Another cause was the limited disposition code frame of the core module (see section 9.8). Another set of false positive checks arose from Consortium implemented check logic that did not account for U.S. adaptations of the BQ. The United States' reporting of these items was generally accepted by the Consortium (see section 9.9).
- Countries were asked to compare the aggregate distribution of collected data on specific topics (education attainment, employment status, industry, and occupation) against existing national measures of the same topics. For the United States, the national measure used to compare the aggregate distributions of PIAAC data was the U.S. Census Bureau's Current Population Survey (CPS). The Consortium TS&Gs did not specify specific ranges of acceptability; however, based on review and discussions with NCES, Westat determined that comparisons for education, employment, and industry were acceptable. A direct comparison of occupation could not be done because no cross-walk matching PIAAC codes to CPS codes exists. Therefore, Westat reported a statistical analysis of results rather than aggregated direct matching. The Consortium subsequently accepted this approach, noting that most U.S. variation trended with international variations.
- A small number of computer-based assessments were lost due to technical problems, and a few other cases suffered other technical problems and could not be delivered. In the Main Study, these technical problems were less than 1 percent of completed cases.
- The Consortium requested review of a small number (less than .5 percent) of age or gender discrepancies that occurred between screening and the completion of the Background Questionnaire. This is a common data issue when performing enumeration and confirmation in separate instruments, perhaps at different times or with different respondents.

## 2.9 Weighting and Variance Estimation

During the weighting period, the Consortium required each country to report on its weighting process using quality control monitoring forms. Quality checks were developed to review the weighting process and evaluate the potential for nonresponse-related bias in descriptive variables (such as region of the country and percentage of minority population). The quality checks were performed after each step in the weighting process. These included the following:

- reviewing the distribution of weights at each stage to identify any missing or extreme values;
- computing the weighted frequencies of important survey characteristics after each weighting adjustment to show how each adjustment affects the estimates for key survey variables. In addition, weighted frequencies were compared to reliable external totals;
- reviewing a random listing of records for abnormalities;
- producing the mean, median, minimum, and maximum and checking for each replicate weight after each weight adjustment; and
- after the final weights were produced, producing preliminary standard errors and design effects on survey variables as a check on the replicate weights.

Westat performed all required checks and submitted all the required forms within the expected time frame.

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### 3. SAMPLE DESIGN

The PIAAC Consortium specified Technical Standards and Guidelines (TS&Gs) for all aspects of the sample design, including the identification of the target population, the creation of the sampling frame, and the sample size requirements and the sample selection methods. All countries were required to submit sample design plans detailing these aspects to the Consortium for approval several months before data collection. Also, countries were required to complete quality control sample selection forms, which collected sampling information for each stage of selection. These were designed to capture aggregated information necessary for verifying that the sample is representative of the target population and that sampling was conducted in an unbiased and randomized way.

This section describes the sample design and selection for the U.S. Main Study in accordance with PIAAC's TS&Gs. An overview of the design is provided in section 3.1. Section 3.2 focuses on the sample size requirements and coverage issues, including the initial sample size of the dwelling unit sample given response rate and eligibility rate assumptions at each stage of data collection. Section 3.3 discusses the sample design, sample frames, and sample selection procedures. Quality control methods employed during sample selection are provided in section 3.4 along with procedures used to monitor the sample during data collection.

#### 3.1 Overview

To arrive at a minimum of 5,000 completed cases among non-institutionalized persons age 16-65, a four-stage, stratified area probability sample was selected as follows:

- 80 primary sampling units (PSUs) consisting of counties or groups of contiguous counties;
- 901 secondary sampling units, or segments, consisting of 2000 Decennial Census blocks or block groups;
- 9,468 dwelling units (DUs); and
- 6,100 eligible individuals within DUs resulting in 5,011 respondents to the survey.

Random sampling methods were used, with known probabilities of selection at each sampling stage.

During the fourth stage of selection, a Screener interview was used to identify the eligible persons within selected dwelling units. A sampling algorithm was implemented within the computer-assisted personal interviewing (CAPI) system to select one or two sample persons among those identified to be eligible. Once selected, the Background Questionnaire (BQ) interview was completed. Upon completion of the Background Questionnaire, the respondent was provided either the paper-and-pencil or automated assessment, based on their performance on the information and computer technology (ICT) core instrument, conducted after the Background Questionnaire.

Following the completion of the assessment, a monetary incentive of \$50 was paid to each respondent. The incentive was also paid to those adults who attempted to complete an assessment but were legitimately not able to complete it for reasons of language barriers or physical or mental disabilities. Respondents who refused to continue with the assessment were not compensated.

## 3.2 Sample Sizes

The PIAAC target population consisted of non-institutionalized adults age 16 to 65 who resided in the United States at the time of interview, where age was determined during the Screener questionnaire. Adults were included regardless of citizenship, nationality, or language. The target population included only persons living in households or group quarters; it excluded all other persons (such as persons living in shelters, the incarcerated, military personnel who live in barracks or bases, or persons who live in institutionalized group quarters, such as hospitals or nursing homes). The target population included full-time and part-time members of the military who did not reside in military barracks or military bases, adults in other non-institutional collective dwelling units, such as workers' quarters or halfway homes, and adults who lived at school in student group quarters, such as a dormitory, fraternity or sorority (refer to section 3.3.4.2 for more information about selection procedures for college students in dormitories). Adults unable to complete the assessment because of a hearing impairment, blindness/visual impairment, or physical disability were considered to be "out of scope" since the assessment did not accommodate such situations.

Persons temporarily in the country were eligible depending upon how long they have been in the country. The household respondent was asked in the Screener how many people live in the dwelling and have no usual place of residence elsewhere. Those who thought of the household as their primary place of residence, or spend most of the year in the household even though they may have another residence, were listed as eligible household members. The list included persons who usually stay in the household but are temporarily away on business, vacation, in a hospital, or living at school.

Although the PIAAC sample selection methods presented here give all eligible persons a known probability of selection, and although procedures were implemented to include any missed structures and hidden DUs, almost all surveys are subject to some amount of undercoverage. One known source of undercoverage in PIAAC resulted from the selection of one segment within a gated city.<sup>7</sup> Since field staff could not gain entry into the segment to construct a DU sampling frame, and would subsequently be prevented from contacting selected DUs, this segment was eliminated from the sample. The result is undercoverage of approximately 0.08 percent of the target population.<sup>8</sup>

To achieve the targeted number of completed assessments (5,000) for PIAAC, assumptions were made regarding the rates of occupancy of the selected DUs, the eligibility of household members, and the level of cooperation of the selected individuals. Table 3-1 provides a summary of the actual rates experienced. PIAAC 2011 experienced a slightly higher occupancy rate and rate of two-person households than assumed and a lower than assumed eligibility rate.

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<sup>7</sup> A gated city differs from a gated community in that the gated area encompasses an entire municipality rather than just a small neighborhood or development. Municipal authorities refused to allow the PIAAC listers access after repeated refusal conversion attempts by the field manager and the Westat project management team.

<sup>8</sup> Estimate obtained by taking the ratio of the segment population in households (adjusted to the 2010 Census) to the total population in households according to the 2010 Census.

Table 3-1. PIAAC occupancy, eligibility, and response rates

Component	Rate & percent
Screener – Occupancy Rate	86.4
Screener – Eligibility Rate	81.8
Screener – Response Rate	86.5
Number of Screeners completed with two sample persons	7.3
BQ – Response Rate (weighted)	82.2
Assessment – Response Rate (weighted, without reading components)	99.0
Overall – Response Rate (weighted)	70.3

NOTE: Technical problems with the computer-assisted Background Questionnaire and Assessment, which were provided by the Consortium, are excluded from the numerator of response rate computations to be consistent with NCES standards, while deviating from PIAAC Technical Standards and Guidelines.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).

Table 3-2 provides a summary of the actual sample sizes; table 3-3 provides sample sizes by region and metropolitan status.

Table 3-2. PIAAC sample sizes

Sample	Sample size
PSUs	80
Selected segments	901
Selected segments with eligible dwelling units	896
Selected dwelling units	15,580
Dwelling units screened	9,468
Dwelling units released	9,401
Dwelling units added through quality control (QC) of listings	67
Eligible households screened	5,686
Sample persons	6,100
Background Questionnaires	5,030
Completed cases <sup>1</sup>	5,011
Cases receiving a final weight for analysis	5,010
Assessments (with reading components)	4,846
Assessments (without reading components)	4,853
Background Questionnaires not completed as a result of technical problems	20
Assessments not completed as a result of technical problems	11

<sup>1</sup> Defined by PIAAC Technical Standards and Guidelines 4.3.3.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).



Table 3-3. Distribution of PSUs, segments, DUs, and persons and numbers of completed Background Questionnaires, by region and metropolitan status

Domain	PSUs	Segments	DUs	Persons	Background Questionnaires
Total	80	901	9,468	6,100	5,030
Region					
Northeast	18	208	2,067	1,260	978
Midwest	17	200	2,109	1,348	1,149
South	31	347	3,764	2,458	2,036
West	14	146	1,528	1,034	867
MeSA status					
Non-MeSA	11	162	7,784	5,114	4,196
MeSA	69	739	1,684	986	834

NOTE: Non-MeSA: All counties in the PSU are not part of a Metropolitan Statistical Area; MeSA: All or some of the counties in the PSU are part of a Metropolitan Statistical Area. See *Federal Register*, Vol. 75, No. 123, June 28, 2010, for more information.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).

Initially, a sample of 15,580 DUs was selected and then divided into subsamples. The entire sample was systematically assigned (with a random start) to several subsamples. Initially, only the first subsample of 7,195 DUs was released. The yield from this release was monitored and used to project estimates of the total yield from this group. Based on these figures, the second group of 1,439 DUs, and then a third group of 767 DUs, was released (see table 3-4).

Table 3-4. PIAAC release group distribution

Release group	Number of dwelling units released
1 (Initial release)	7,195
2	1,439
3	767

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).

### 3.3 Sample Design, Sampling Frames, and Sample Selection

#### 3.3.1 Primary Sampling Units

In the first stage of sampling, 80 PSUs were selected for the PIAAC study. This stage of selection involved the formation of PSUs leading to the creation of the PSU sampling frame (section 3.3.1.1). The selection process included the stratification of the PSUs as well as the selection of one PSU per stratum with probabilities proportionate to a measure of size (MOS) as described in section 3.3.1.2.

### 3.3.1.1 *Frame*

The PSUs consisted of single counties or groups of contiguous counties. The Census Bureau provides a list of all counties in the United States with the most recent (2008, at the time of PSU design) resident population estimates by age group and sex. These estimates were adjusted to remove adults living in institutions or military quarters. Counties not meeting the minimum MOS criterion based on these population estimates for the targeted age group were combined with adjacent counties respecting metropolitan/micropolitan statistical area definitions, state boundaries, and the travel distance for data collectors until the minimum size criterion was met. Counties meeting the minimum size criterion served as PSUs. This resulted in five types of PSUs as follows:

- single counties;
- two or more counties within the same metropolitan Core Based Statistical Area (CBSA);<sup>9</sup>
- two or more counties within the same micropolitan CBSA;
- two or more counties not part of a larger statistical area; and
- a combination of counties that are not part of a larger statistical area and those that are part of a micropolitan CBSA.

PSUs were formed based on a county-level input file and some PSU parameters. The main parameters were the minimum MOS, the maximum distance or area within a PSU, and the formation objective (i.e., to minimize distance). The formation algorithm started by designating each county as a resolved or an unresolved county. A resolved county is one that met all the requirements of becoming a PSU by itself, and an unresolved county is one that failed to meet one or more of the requirements. An unresolved county was merged with one or more of the contiguous unresolved counties, if available. Otherwise, an unresolved county was merged with a contiguous resolved county. If there was more than one choice for merging, the resulting PSU was chosen with the lowest end-to-end distance (in miles). If an unresolved county could not be merged with any of the contiguous counties because of other parameter restrictions, then that county was left “unresolved,” which was a situation that was handled manually (outside of the automated process). Once the formation process was complete, a PSU-level file was created by aggregating the relevant county-level variables of the counties within a PSU.

As mentioned above, the objective for the PIAAC 2011 PSU formation process was to minimize the distance (i.e., maximum travel distance within a PSU), subject to the following constraints:

- The minimum population size (i.e., the minimum MOS) in a PSU was 15,000.
- The maximum distance between the two farthest corners of a PSU was 100 miles, generally. A distance of more than 100 miles was allowed in some special cases (i.e., some single counties exceed this criterion).
- A county within a metropolitan CBSA was not combined with counties outside those areas, except in some special cases.
- A PSU was formed within a state boundary.

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<sup>9</sup> See *Federal Register*, Vol. 75, No. 123, June 28, 2010, for more information.

The result was a frame consisting of 1,949 PSUs, with characteristics as shown in table 3-5. Most PSUs consisted of one county.

Table 3-5. PIAAC characteristics of the PSU sample frame

Characteristic	Minimum	1st Quartile	Median	3rd Quartile	95th Percentile	Maximum
End-to-end distance (miles)	10	37	48	66	136	1,435
Area (square miles)	25	527	802	1,379	6,106	288,144
Number of counties per PSU	1	1	1	2	4	9
Estimated civilian non-institutionalized population age 15-64	15,009	22,524	35,385	81,076	420,995	6,669,325

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).

Each PSU on the frame was assigned an MOS equal to the estimate of the non-institutionalized population age 15-64 within the PSU. This was derived from the Census Bureau population estimates available for the county non-institutionalized resident population in that age group. While the MOS included those of age 15 and excluded those of age 65, this was not expected to impact the sample since the population rates for single age groups should be fairly constant across counties.

### 3.3.1.2 Selection

Four PSUs with the largest MOS were selected with probability equal to one before stratification using a certainty cutoff determined from probability proportionate to size sampling. Such PSUs are referred to as self-representing. The non-self-representing PSUs on the frame were grouped into major strata. The major strata were based on state-level small area estimates (SAE) of the percentage of the population in each county lacking basic prose literacy skills<sup>10</sup> and whether the PSU was part of a metropolitan area, as shown in table 3-6.

<sup>10</sup> U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table 3-6. PIAAC characteristics of the PSU major strata

Major strata	Metropolitan status	State small area estimate of percentage of the population lacking Basic Prose Literacy Skills	State ranking	Number of non-self-representing PSUs in frame	Total measure of size in stratum	Number of minor strata
Overall				1,945	185,583,235	76
A	Non-MeSA	6-7	1-10	207	5,497,387	2
B	Non-MeSA	8-9	11-20	178	5,321,891	2
C	Non-MeSA	10-12	21-30	160	4,829,189	2
D	Non-MeSA	13-16	31-44	332	10,779,966	4
E	Non-MeSA	17-23	45-51	166	5,086,448	2
F	MeSA, but not CSA	6-8	1-13	60	4,229,566	2
G	MeSA, but not CSA	9-12	15-30	96	10,261,359	4
H	MeSA, but not CSA	13	31-35	42	4,966,365	2
I	MeSA, but not CSA	14-16	36-44	51	4,610,072	2
J	MeSA, but not CSA	17-20	45-49	70	14,355,553	6
K	MeSA, but not CSA	22-23	50-51	18	5,239,463	2
L	MeSAs in CSAs	6-7	1-10	67	9,047,361	4
M	MeSAs in CSAs	8	11-14	63	9,416,494	4
N	MeSAs in CSAs	9-15	16-39	253	44,045,481	18
O	MeSAs in CSAs	16	41-44	30	4,166,443	2
P	MeSAs in CSAs	17	45-46	54	10,011,661	4
Q	MeSAs in CSAs	19-20	47-49	44	9,542,202	4
R	MeSAs in CSAs	22-23	50-51	54	24,176,335	10

NOTE: “Non-MeSA” means that all counties in the PSU are not part of a Metropolitan Statistical Area; “MeSA, but not Combined Statistical Area (CSA)” means that all counties in the PSU are part of a Metropolitan Statistical Area, but are not part of a Core Based Statistical Area; “MeSAs in CSAs” means that all counties are part of a Metropolitan Statistical Area that is part of a Core Based Statistical Area. See *Federal Register*, Vol. 75, No. 123, June 28, 2010, for more information.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).

Once major strata were identified, substrata (minor strata) were formed via a nested stratification process, as discussed in Krenzke and Haug (2009), using auxiliary variables related to the expected proficiency scores. An extensive search was conducted for county-level variables for the National Assessment of Adult Literacy (NAAL) SAE task (Mohadjer et al. 2009), and the key predictors of literacy proficiency were related to race/ethnicity, poverty, English-speaking ability, and education attainment. An evaluation of the 2003 NAAL PSU strata was conducted (Krenzke and Haug 2009), and using the key predictors in the SAE process as stratifiers helped reduce the between-PSU variance. Based on these results, the indirect estimate of the percentage lacking Basic Prose Literacy Skills was included as the evaluation variable, while forming explicit strata using the most recent demographic estimates (the SAE predictors) from the Census Bureau. Table 3-7 shows the variables used to form the minor strata within each major stratum. Strata were close to equal in size to reduce the variation in interviewer workload.

Once the strata were formed, one non-self-representing PSU was selected per stratum with probability proportionate to its MOS. The resulting 80 self-representing and non-self-representing PSUs were diverse in terms of literacy skills, geographic region of the country, and urbanicity of the PSU, as well as diverse in education attainment, spoken-English ability, race/ethnicity, and poverty status.

The probability of selecting PSU  $i$  in stratum  $h$  is

$$P_{hi} = \frac{m_h \times MOS_{hi}}{\sum_{i \in h} MOS_{hi}},$$

where

- $m_h$  = Number of PSUs to be sampled in stratum  $h$ ; and  
 $MOS_{hi}$  = Measure of size for PSU  $i$  in stratum  $h$ .

Table 3-7. PIAAC variables used to form the PSU minor strata: 2011

Major strata	Variables used to form minor strata
A	Percentage of the population age 25 and older with some college or more
B	Percentage of the population age 25 and older with some college or more
C	Percentage of the population age 25 and older with some college or more
D	Percentage of the population below 150 percent of poverty; percentage of the population age 15-64 that is non-Hispanic Black
E	Percentage of the population age 15-64 that is Hispanic
F	Percentage of the population age 25 and older with some college or more
G	Percentage of the population age 25 and older with some college or more; percentage of the population age 15-64 that is non-Hispanic Black
H	Percentage of the population age 15-64 that is Hispanic
I	Percentage of the population age 25 and older with some college or more
J	Percentage of the population age 15-64 that is Hispanic; percentage of the population age 5 and up that are English speakers; percentage of the population age 15-64 that is non-Hispanic Black; percentage of the population age 25 and older with some college or more
K	Percentage of the population age 25 and older with some college or more
L	Percentage of the population age 25 and older with some college or more; percentage of the population below 150 percent of poverty
M	Percentage of the population age 15-64 that is non-Hispanic Black; percentage of the population age 15-64 that is White or other (non-Hispanic, non-Black)
N	<i>PSUs in the Northeast and Midwest regions with the estimated percentage of the population lacking Basic Prose Literacy Skills (BPLS) is less than 9 percent:</i> Percentage of the population age 25+ with some college or more; percentage of the population age 5 and up that are English speakers; percentage of the population age 15-64 that is non-Hispanic Black
N	<i>PSUs in the Northeast and Midwest regions with the estimated percentage of the population lacking BPLS is greater than or equal to 9 percent:</i> Percentage of the population age 25+ with some college or more; percentage of the population age 5 and up that are English speakers

See notes at end of table.

Table 3-7. PIAAC variables used to form the PSU minor strata: 2011—Continued

Major strata	Variables used to form minor strata
N	<i>PSUs in the South and West regions with the estimated percentage of the population lacking BPLS is less than 10.3 percent:</i> Percentage of the population age 25+ with some college or more; percentage of the population age 5 and up that are English speakers; percentage of the population age 15-64 that is non-Hispanic Black
N	<i>PSUs in the South and West regions with the estimated percentage of the population lacking BPLS is greater than or equal to 10.3 percent:</i> Percentage of the population age 5 and up that are English speakers; percentage of the population age 15-64 that is non-Hispanic Black
O	Percentage of the population age 5 and up that are English speakers
P	Percentage of the population age 15-64 that is White or other (non-Hispanic, non-Black); percentage of the population age 25+ with some college or more
Q	Percentage of the population age 25+ with some college or more; percentage of the population 5 and up that are English speakers
R	<i>PSUs with the estimated percentage of the population lacking BPLS is less than 15 percent:</i> Percentage of the population age 25+ with some college or more; percentage of the population below 150 percent of poverty
R	<i>PSUs with the estimated percentage of the population lacking BPLS is greater than or equal to 15 percent:</i> Percentage of the population age 15-64 that is non-Hispanic Black; percentage of the population age 25+ with some college or more; percentage of the population below 150 percent of poverty

NOTE: Percentage of the population age 25+ with some college or more and the percentage of the population age 5 and up that are English speakers are current year estimates obtained from Claritas, 2009. All other data are from the Census Bureau's 2008 population estimates (as of July 1, 2008). Where noted, population estimates were available for the age range 15-64 for counties, instead of the target population 16-65 age range.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).

### 3.3.2 Secondary Sampling Units

For the second stage of sampling, a probability proportionate to size sample of 901 segments from within the 80 sampled PSUs was selected.<sup>11</sup> The segments were formed using 2000 Decennial Census block definitions and they were selected using a pre-assigned sampling rate that lead to a self-weighting sample of DUs as described in section 3.3.3.

<sup>11</sup> During the design phase of the survey, it was determined that 900 segments would be sufficient to reach the goal of 5,000 completed cases based on Census Bureau population estimates for a point between the 2000 and 2010 Decennial Censuses. The segment sampling rate was calculated as  $900 / \sum MOS$ , where the MOS was based on data from the 2000 census and the result was the selection of one more segment than targeted as a result of the incongruent estimates between sample design and selection.

### 3.3.2.1 *Frame*

Due to the timing of the data collection and the listing effort, the frame of segments was created within the selected PSUs using the Census 2000 Summary File 1 (SF 1) block<sup>12</sup> data, which was the most recent decennial census data available at the time.

Housing or demographic data from the last decennial census becomes outdated late in the decade. Data for local areas with considerable growth or demographic shifts since the census-taking are affected the most, and intercensal estimates are not available at the required level for segment formation. Using outdated data such as the MOS could result in considerable differences between the number of ultimate sampling units and expected counts, and increased variation in the number of sampling units across segments.

Varying approaches have been proposed to deal with this issue, including those that employ a different sampling approach and use alternative sources of data for the MOS other than (or in combination with) the usual detailed decennial census data. Two methods used to update MOS late in the decade include building permit sampling (Bell et al. 1999) and a two-phase segment sampling approach (Montaquila et al. 1999; Mohadjer, Montaquila, and Sherris 2002; Dohrmann, Harding, and Li 2008).

Given the restrictive timeline for creating the segment sampling frame, a different approach was used for PIAAC. Rather than employing different field methods to improve the segment sampling frame, counts of United States Postal Service (USPS) addresses within geographic areas were used to update the segment MOS. USPS counts were incorporated only in areas in which they appeared to more accurately reflect the number of DUs in 2010 (as compared to the 2000 Decennial Census data).<sup>13</sup> For these segments, the number of DUs in the segment were adjusted upward so that the segment MOS for sampling would be as accurate as possible (Dohrmann, Li, and Mohadjer 2011).

The segments consisted of at least 60 DUs in area blocks or combinations of two or more nearby blocks. Within each PSU, the block data from the SF 1 files were sorted by tract, block group, and block number before creating the segments. Blocks with no DUs and no population were included so that all areas, presumably some of which contained DUs constructed after the 2000 Decennial Census, were involved in the formation process. The result was a segment frame consisting of 218,000 segments.

Once segments were formed, the number of DUs in each segment was compared with counts of residential addresses from the USPS.<sup>14</sup> Additionally, segment-level predicted values from a model (Montaquila et al. 2011) developed to determine areas for which the USPS lists are expected to have good coverage were also calculated.<sup>15, 16</sup>

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<sup>12</sup> Blocks are very fine partitions of the United States, formed using visible semi-permanent features such as roads, railroad tracks, mountain ridges, bodies of water, and power lines. The only invisible boundaries used are county, state, and national boundaries. Minor civil division boundaries and property lines are ignored. A block group is a small group of contiguous blocks. A tract is a collection of contiguous block groups all within the same county.

<sup>13</sup> USPS address counts tend to undercover areas without residential mail delivery, other rural areas, and areas with large proportions of their population living in non-institutionalized group quarters.

<sup>14</sup> Addresses were obtained from the USPS's November 2010 Computerized Delivery Sequence File.

<sup>15</sup> For details about the match rate model, refer to J.M. Montaquila, V. Hsu, and J.M. Brick (2011), "Using a 'Match Rate' Model to Predict Areas Where USPS-Based Address Lists May Be Used in Place of Traditional Listing," *Public Opinion Quarterly* 75: 317-335.

<sup>16</sup> The model uses mostly segment-level characteristics (including the ratio of USPS DU counts to census DU counts, urbanicity, mobility, occupancy rate, etc.), which are available from the ACS and decennial census, to predict how well the USPS addresses can cover a segment. For example, a predicted value of 0.85 means that the USPS addresses can cover 85 percent of the actual DUs in a segment. These predicted values, referred to here as "match rate values," help to determine areas for which the USPS DU counts may be the most accurate.

After careful examination of the estimated growth according to those USPS counts and the match rate values from the model, it was decided that adjustments would be made only in the following circumstances:

- In counties for which
  - The county-level count of USPS residential addresses exceeded the number of DUs according to the 2000 Decennial Census; and
  - The number of DUs according to the 2005–2009 ACS also exceeded the number of DUs according to the 2000 Decennial Census;
- In those segments with segment-level growth of over 20 percent indicated by USPS DU counts compared to the 2000 Decennial Census;
- In those segments with match rate values larger than 0.85; and
- Dormitory units are not included in the census count of DUs and are not in the target population of this survey since students living in dorms were sampled through their permanent residences. Since these units may be included in the USPS DU counts, only segments with zero dormitory population (according to the 2000 Decennial Census) were adjusted.

About 10 percent of segments in the frame met all of the above criteria. For these segments, the 2000 Decennial Census segment-level DU counts were adjusted by the following factor:

$$\min \left\{ \sqrt{\frac{\text{USPS count}}{\text{2000 census count}}}, 10 \right\}.$$

The square root and maximum value of 10 were used in the factor to dampen the effect of USPS counts on MOS (to be conservative in our adjustment). The adjustment factor ranged from 1.096 to 10, with the MOS of about a quarter of the segments inflated by more than 44 percent.

An evaluation of this adjustment showed that using the USPS counts to update the segment MOS improved the MOS accuracy. It further showed that while more segments could have benefited from the adjustment, adjusting all segments in this manner would not have resulted in improved MOS accuracy overall. Finally, using the conservative MOS adjustment shown above resulted in more segments having increased MOS accuracy.

### **3.3.2.2 Selection**

The segments were stratified by PSU and selected with probability proportionate to size, with size being based on the segment MOS. The systematic selection used a sorted list based on the geographic sequencing of the segments within the PSU to ensure spatial representation, which also provides a good representation of a variety of demographic subgroups.



The conditional probability of selecting segment  $j$  from PSU  $i$  in stratum  $h$  is

$$CP_{hij} = \frac{q \times \left( \frac{MOS_{hij}}{P_{hi}} \right)}{\sum_{hij} (MOS_{hij}/P_{hi})} = \frac{MOS_{hij}/P_{hi}}{ISSU},$$

where

- $q$  = Total number of segments to be sampled;
- $MOS_{hij}$  = Measure of size for segment  $j$  of PSU  $i$  in stratum  $h$ ; and
- $ISSU$  = Sampling interval for the selection of segments.

### 3.3.3 Dwelling Units

The third stage of sampling for PIAAC involved sampling DUs from listings of addresses in each selected segment to arrive at the targeted number of completed assessments. As mentioned in section 3.2, more DUs were selected than needed to guard against unexpected occurrences in the field.

#### 3.3.3.1 Dwelling Unit Sampling Frame

All DUs within each selected segment were listed by trained listers. The listing sheets were prepared by the listers and included the information in table 3-8. Table 3-9 provides the quantiles for the number of DUs listed in each selected segment.

Table 3-8. Information on the listing sheets

Information	Description
Listed by	Contains the name of the lister who conducted the listing procedures
Name of city, township, etc.	Contains the name of the city or town
Zip code(s)	Contains the 5-digit zip code and the 4-digit extension when available
PSU #	Contains the PSU ID
Segment #	Contains the segment ID
MS	Missed structure flag for the segment
Line #	Contains a consecutive number for each listed dwelling unit
House #	House number
Street name	Street name
Apartment #	Apartment number
Description of location	Contains comments that may help to describe the location
Group quarters	Contains a flag to indicate whether the dwelling unit is a group quarter
Remarks	Contains information that is special to identify the listed dwelling units
Hidden DU flag	Contains a flag to identify the hidden dwelling units

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).

Table 3-9. Quantiles of the number of dwelling units listed per segment

Quantile (percent)	Number of dwelling units
100 (Max)	328
99	283
95	249
90	223
75 Q3	166
50 (Median)	104
25 Q1	74
10	63
5	59
1	38
0 (Min)	0

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).

### 3.3.3.2 Selection of Dwelling Units

Given the actual number of listed DUs and derived sampling rates for each segment, line numbers were selected from the listing sheets to identify the DUs. The DUs were stratified explicitly by segment and selected systematically using pre-defined sampling rates assigned for each segment in order to arrive at a self-weighting sample of DUs.

The conditional probability of selecting housing unit  $k$  from segment  $j$  of PSU  $i$  in stratum  $h$  is

$$CP_{hijk} = \frac{r}{P_{hi} \times CP_{hij}} = \frac{r \times ISSU}{MOS_{hij}},$$

where  $r = d/D$ , and where

- $d$  = Total number of housing units to be sampled; and
- $D$  = Total number of housing units in the sampling frame.

The overall probability of selecting housing unit  $k$  in segment  $j$  of PSU  $i$  of stratum  $h$  is

$$P_{hijk} = P_{hi} \times CP_{hij} \times CP_{hijk} = r.$$

The DU sample size in a segment is

$$d_{hij} = CP_{hijk} \times D_{hij} = r \times ISSU \times \frac{D_{hij}}{MOS_{hij}},$$

where

- $d_{hij}$  = Number of housing units to be sampled in segment  $j$  of PSU  $i$  of stratum  $h$ ; and
- $D_{hij}$  = Number of housing units in segment  $j$  of PSU  $i$  of stratum  $h$ .

### **3.3.3.3     *Procedures for Selecting Missed Structures and Hidden Dwelling Units***

The missed structure and hidden DU procedures were developed to correct for any undercoverage that occurred during the listing operation. Procedures were implemented during data collection to handle any DUs identified through the missed structure and hidden DU procedures.

For the missed structure procedure, interviewers looked for entire structures missed during the listing operation within segments where the first line number (first dwelling unit listed) within each segment was selected. The segments designated for the quality check were selected at a rate such that the inclusion of all units found retained the self-weighting feature of the sample. Twenty-seven DUs were added through the missed structure procedure and received the probability of selection associated with the dwelling unit with the first line number in the segment.

For each selected structure (e.g., DU), the hidden DU procedure was applied at the time of screening. The hidden DU procedure looked for DUs within a structure not included in the listed DUs during the listing operation. Forty DUs were added in PIAAC through the hidden DU procedure, and each received the probability of selection associated with the selected structure for which the hidden DU was found.

### **3.3.4        **Persons****

The fourth stage of selection involved enumerating the age-eligible household members (aged 16 to 65) for each selected household.

#### **3.3.4.1     *Person Selection Frame***

The enumeration and selection of persons was performed using a computer-assisted personal interviewing (CAPI) system. Using the Screener instrument, information that included age and gender of persons in the household was collected and a systematic sample of eligible persons selected. Household members away at college and staying in college dormitories were considered to be part of their family's household.

#### **3.3.4.2     *Person Selection***

One person was selected at random within households with three or fewer eligible persons, and two persons were selected if the household had four or more eligible persons. The design involves the selection of two persons in households with a large number of eligible persons to reduce the variation in the resulting sampling weights. Taking only one eligible person per household from households with a considerable number of eligible persons causes substantially different weights and consequently unduly increases the variance of the sample estimates.

Students residing in dormitories were sampled through their permanent residence. Under this design the dormitories were excluded from the listing procedure to ensure that such students had only one chance of selection. If a college student was selected as a respondent from the sampled household, there were two options: (1) depending on the location and the availability of nearby staff, an interview was attempted at

the student's dormitory, or (2) an interview was scheduled with the student at the sampled residence, at a time when he or she was home from college.

The conditional probability of selecting person  $l$  from housing unit  $k$  of segment  $j$  in PSU  $i$  within stratum  $h$  is

$$CP_{hijkl} = \frac{n_{hijk}}{N_{hijk}}.$$

The overall probability of selecting person  $l$  from housing unit  $k$  of segment  $j$  in PSU  $i$  within stratum  $h$  is

$$P_{hijkl} = P_{hi} \times CP_{hij} \times CP_{hijk} \times CP_{hijkl} = r \times \frac{n_{hijk}}{N_{hijk}},$$

where

- $n_{hijk}$  = Number of persons to be sampled from housing unit  $k$  of segment  $j$  in PSU  $i$  within stratum  $h$ ; and
- $N_{hijk}$  = Total number of eligible persons in housing unit  $k$  of segment  $j$  in PSU  $i$  within stratum  $h$ .

Once the selection process was complete, the Screener data were read into the virtual machine platform system and then the Background Questionnaire interview conducted. The Information and Computer Technology (ICT) Core assessment occurred after the interview, and the virtual machine system proceeded with the Core assessment and subsequently the main assessment.

### 3.4 Quality Control of Sample Selection and Sample Monitoring

In surveys with multistage designs such as PIAAC, it is essential to monitor the sampling procedures closely to uncover and correct any errors in the preparation of sampling specifications, computer programming, or clerical operations. The Consortium stipulated several QC procedures in the PIAAC's Technical Standards and Guidelines. These procedures were strictly followed throughout the U.S. PIAAC sample selection process.

For example, after the PSU, segment, and dwelling unit samples were selected, the expected sample yield was computed to check that it was satisfactory and in line with the sample design expectations. In addition, the QC sample selection forms required by the Consortium were completed on a flow basis after the sample at each stage was selected. Prior to data collection, the within-household selection algorithm was tested in the CAPI system. A test file was created and processed through the system and checked to ensure that the sample was selected as expected.

While data were collected by the field staff, the following two major tasks were implemented to ensure that the sample requirements were met:

- monitoring and calculating response rates; and
- monitoring sample yield (number and demographic distribution of cases complete and number of cases worked).

Sample monitoring began the first week of the data collection. During the data collection period, a weekly progress report for sample monitoring was produced and contained the number and demographic distribution of cases sampled, cases worked, and cases completed, as well as response rates, for each data collection stage.

Sample yield checks were made by comparing actual sample yield distributions to expected distributions. The information was reported by age and gender (for all stages but the Screener) and some key demographic and geographic subgroups such as education attainment, income, urban/rural, race/ethnicity, and census region.

## **4. LISTING**

### **4.1 Overview**

After primary sampling units (PSUs) and segments were selected, a field listing operation was implemented to create a sampling frame of dwelling units (DUs) for the third stage of sampling. Listers were hired and trained as part of a 2-day training to construct a list of all DUs within the segment boundaries, using tract and segment maps created by the Westat mapping department. Nine hundred and one segments (901) were selected and listed for PIAAC.

### **4.2 Listing Materials**

PIAAC listing materials were developed based on Westat's corporate listing training package. Minor modifications and adaptations were made to these materials to incorporate training points, clarifications, and examples to highlight the listing protocol to be followed to support the PIAAC sample design.

### **4.3 Staff Training**

Lister training included a total of 15 hours, including a home study packet, classroom training, and a field listing exercise and review. Listers received a home study packet to complete 1 week before training. The packet included the Westat Listing Manual and the Westat Listing Manual Exercise Booklet. This manual and the related exercise booklet were designed to help listers become familiar with listing terms and activities before they arrived at training. It included an introduction to listing, descriptions and examples of the materials that would be used, a step-by-step overview, and information about listing special areas and structures. Written exercises were included to ensure that the listers completed the required components of the home study packet. The home study took approximately 2 hours to complete.

Five 2-day in-person lister training sessions were held at Westat's offices in Rockville, Maryland, February 28-March 5, 2011. Multiple training sessions, comprising 18-20 trainees per group, were held to accommodate the field listing exercise in a nearby Rockville neighborhood, without overwhelming the residents. There were no more than two training groups in progress at any one time—one in which listers were completing the first day of classroom training and one in which they were preparing for and debriefing from the field listing practice exercise completed on the second day of training. Each training session was led by a lead trainer and supported by an assistant trainer, the field manager, and the region's supervisor. The lead trainers were very familiar with Westat's standard listing procedures and the PIAAC specific guidelines.

Of a total of 96 listers hired, 92 attended the in-person training sessions and 89 successfully completed training.

## 4.4 Listing Operations

Field listing work was undertaken during March and April 2011. Listing activities were completed on a flow basis, and finalized segments were sent to the Westat home office weekly for review and quality control (QC) checks described in section 4.5.

Throughout the field period, Westat statisticians and survey operations staff worked together to support the listing process by monitoring the ongoing listing fieldwork and responding to issues as needed. In addition, they worked with listers to complete segment chunking. “Chunking” is a procedure to reduce the burden of listing large sampled segments (generally more than 300 DUs) by dividing the segment into chunks. A chunk was selected with probability proportionate to the estimated number of DUs within the chunk, and listing was conducted within the selected chunk.

Hard-copy materials were stored in and shipped to and from the listers via the Westat field room. In addition to handling the materials, ongoing field room procedures included receipt and QC of listed segments; recording the selected DUs and related data items on the hard-copy listing sheets; and QC review of the keyed data file.

Field listing activities were completed for all 901 sampled segments, except for one gated city. A gated city differs from a gated community in that the gated area encompasses an entire municipality rather than just a small neighborhood or development. Municipal authorities refused to allow the PIAAC listers access after repeated refusal conversion attempts by the field manager and the Westat project management team.

## 4.5 Quality Control

Throughout the listing field period a number of QC activities were undertaken to ensure that listing procedures were being correctly followed. QC activities for listing included the following:

- The first two segments completed by each lister were reviewed by the field manager to ensure that all procedures were followed correctly. As needed, the field manager, supervisor, and lister had a conference call to review problems found during the QC check. Segment folders with issues were returned to the lister for “repair work” before additional assignments were made.
- Home office/field room staff conducted a detailed review of every completed segment to ensure that all activities were undertaken. Issues were documented on a Listing Segment Problem Sheet, which was then used to provide feedback to the lister or to make corrections to the listing sheets and maps if needed.
- The following QC checks and verifications were completed for each segment:
  - all materials returned in the segment folder;
  - listing line numbers recorded accurately;
  - DUs listed in the correct order following the appropriate directions on the map;

- each DU listed on a separate line;
  - recorded descriptions of rural routes if needed;
  - no duplicate listings;
  - the route was clearly marked on the segment map; and
  - “No DUs” or listing line numbers recorded appropriately on the segment map.
- The field room also tracked each assigned segment and documented the receipt of each segment folder upon completion.
  - Completed segments were reviewed to determine if the number of DUs listed was not within the expected range. In cases where the range expectations were not met, the field room notified the statisticians, who reviewed the segment and advised further QC measures as appropriate to ensure that the lister canvassed the proper area.
  - After the final successful review of the listed segment, the statisticians selected the sampled DUs and the field room documented this information on the hard-copy listing sheets.
  - Finally, QC checks were completed after sampled DUs were keyed to ensure that selected DUs were correctly keyed into the survey control file that would be used during data collection.



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## **5. DATA COLLECTION**

### **5.1 Introduction**

U.S. PIAAC Main Study data collection occurred between August 25, 2011, and April 3, 2012. The goal was to interview and assess 5,000 adults in 80 primary sampling units (PSUs) across the country. Each sampled household was administered a Screener to determine the eligibility of household members. Within households, each sample person selected was administered (1) an in-person Background Questionnaire, and (2) either a computer-based assessment or a paper-and-pencil assessment (for those who could not or would not use a computer). A description of the development process as well as additional details about these instruments is provided below.

### **5.2 Development of the Background Questionnaire and Direct Assessment**

In the United States, the Department of Education's National Center for Education Statistics (NCES) collaborated with the U.S. Department of Labor (DOL) on PIAAC. Staff from NCES and DOL are co-representatives of the United States on PIAAC's international governing body, and NCES has consulted extensively with DOL, particularly on the development of the job skills section of the Background Questionnaire. Internationally, PIAAC has been developed collaboratively by participating countries' representatives from both ministries or departments of education and labor and by OECD staff through an extensive series of international meetings and work groups. These international meetings and work groups, assisted by expert panels, researchers, and the PIAAC Consortium's support staff, developed the framework used to design the Background Questionnaire and Direct Assessment and guided the development of a common, international virtual machine software to administer the Direct Assessment uniformly on laptops. All PIAAC countries followed the common standards and procedures and used the virtual machine software when conducting the survey and assessment.

### **5.3 Data Collection Instruments**

The U.S. PIAAC Main Study interview was conducted by means of three distinct instruments: the Screener, the Background Questionnaire, and the Direct Assessment.

#### **5.3.1 Screener**

The Screener was a Blaise-based<sup>17</sup> computer-assisted personal interviewing (CAPI) system programmed by Westat. The Screener was used to determine the eligibility of household members to participate in the study. Interviewers were required to collect the first name, age, and gender of each household member. After this information was collected, the CAPI system conducted a within-household sampling procedure to select the sample persons (SPs) to participate in the study. Household members who were age 16-65

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<sup>17</sup> Blaise is a powerful and flexible software package used to develop instruments for computer-assisted personal interviewing (CAPI), interactive editing, high-speed data entry, and data manipulation capabilities. Blaise is used widely in Europe and North America by government statistical agencies, private research firms, and universities to support the development of interviewing instruments and related capabilities.

were eligible to be selected, with up to two sample persons being selected in households with four or more qualifying adults.

The Screener also collected race and ethnicity data for the sample persons as well as a phone number for subsequent validation of the interviewer's work. Additionally, the Screener included a question designed to determine if the sampled address contained any hidden dwelling units (DUs). Found DUs were reviewed by the home office and added to the sample.

### 5.3.2 Background Questionnaire

The Background Questionnaire had 10 sections (A-J), which included questions about the sample person's education, work experience, language use, technology use and skills, and literacy practices. A brief summary of each section follows:

- A. **General Information.** Questions that determined the month and year of sample person's birth and the sample person's gender;
- B. **Education and Training.** Questions relating to the sample person's formal and nonformal education and training;
- C. **Current Status and Work History.** Questions about the sample person's employment status at the time of the interview and his/her work history;
- D. **Current Work.** Questions about the sample person's current occupation and earnings;
- E. **Last Job.** Questions for sample persons who are not currently working but who had recent work experience in the last 12 months or had left paid work longer than 12 months ago;
- F. **Skills Used at Work.** Collected information about the frequency of use of a number of generic skills used in the workplace, including communication, presentation, and team-working skills;
- G. **Literacy, Numeracy, and ICT Skills Used at Work.** Questions about skill practices at work – specifically reading, writing, mathematics, and information and communication technologies (ICT) activities;
- H. **Literacy, Numeracy, and ICT Skills Used in Everyday Life.** Questions about skill practices in everyday life – specifically reading, writing, mathematics, and ICT activities;
- I. **About Yourself.** Questions about sample person's attitudes, health, and civic activities; and
- J. **Background Information.** Questions about general household information, such as the number and age of children, partner's job status, as well as questions about the sample person's background, including country of birth, linguistic familiarity, and parental background.

The Background Questionnaire was available in both English and Spanish.

### **5.3.2.1 Background Questionnaire Adaptation and Translation**

The Main Study followed the Consortium-prepared guidelines for adaptation and translation. The final adapted national English version was reviewed by the Consortium to verify adherence to the specified design and ensure consistency with international practice. A parallel Background Questionnaire Adaptation Spreadsheet (BQAS) documentation of changes was produced and submitted to CapStan.<sup>18</sup>

Westat relied on its corporate translation unit to update the Spanish translation of the Background Questionnaire for the Main Study. The translation unit made the changes required by the Consortium and approved by NCES, following the translation process described in section 2.4. The updated translated Main Study Background Questionnaire was submitted to the Consortium.

### **5.3.3 Direct Assessment**

The Direct Assessment included several sections. The first section was the Core, which was a self-administered series of tasks to determine whether the sample person could use the computer to complete the assessment and had sufficient literacy and numeracy skills to undertake either the computer or paper-based assessment. The Core consisted of three components: the computer-based assessment (CBA) Core Stage 1, the CBA Core Stage 2, and the paper-based assessment (PBA) Core.

The CBA Core Stage 1<sup>19</sup> was designed to determine whether a sample person had the basic set of skills needed to complete the computer-based assessment. It was administered to all sample persons who were willing to take the assessment on the computer. Those who refused to take the self-administered CBA Core Stage 1 were routed to the PBA Core. The CBA Core Stage 1 measured the following six skills:

1. Clicking;
2. Typing;
3. Selecting from a pull-down menu;
4. Scrolling and clicking;
5. Dragging and dropping text; and
6. Highlighting text.

To pass the CBA Core Stage 1, a sample person needed to correctly answer at least three of the first five Core tasks, plus the sixth task (highlighting text). Because many of the assessment items required highlighting of text, the sample person had to correctly complete the highlighting task in the CBA Core Stage 1 to be directed to the CBA Core Stage 2.

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<sup>18</sup> A significant number of wording changes from International English to American English were processed prior to the Field Test as translations following a request by ROA. Originally the plan was to treat these as adaptations.

<sup>19</sup> The CBA Core Stage 1 was referred to as the ICT Core in the PIAAC Field Test.

CBA Core Stage 1 questions were automatically scored by the computer, and sample persons who passed the CBA Core Stage 1 continued onto the CBA Core Stage 2. Sample persons who did not pass the CBA Core Stage 1 were routed to the PBA Core.

The CBA Core Stage 2 and the PBA Core both measured basic literacy and numeracy necessary to undertake the assessment. CBA Core Stage 2 consisted of six tasks and the PBA Core consisted of eight tasks, and in both cases these tasks measured basic literacy and numeracy skills.

CBA Core Stage 2 questions were automatically scored by the computer, and sample persons who passed the CBA Core Stage 2 continued on to the computer-based assessment, which was self-administered and measured literacy, numeracy, and problem solving in technology-rich environments. Sample persons who did not pass the CBA Core Stage 2 were routed directly to the paper-based reading components portion of the assessment.

PBA Core questions were scored by the interviewer and scores were entered into the computer to determine if the sample person passed the PBA Core. Sample persons who passed the PBA Core continued on to the paper-based assessment, which was also self-administered and measured literacy, numeracy, and reading components. Sample persons who did not pass the PBA Core were routed directly to the paper-based reading components portion of the assessment.

#### **5.3.4 Challenges of the TAO VM**

The TAO Virtual Machine (VM) is the software package provided to all participating countries by the Consortium to ensure that PIAAC was administered in an identical manner in all countries. It consists of two software systems: (1) the TAO (Testing Assisté par Ordinateur = computer-based testing, supplied by Centre de Recherche Public Henri Tudor, based in Luxembourg), which conducts the Background Questionnaire, computer-based assessment, and paper-based assessment instruments; and (2) the virtual machine (supplied by VMW, based in the United States), commercial software that allows applications developed for different operating systems to run on a single computer. The VM was needed because the TAO software, previously developed for another study and modified for PIAAC, was a LINUX software product that would not run on the Windows PC operating system, the operating system used on most laptops and selected by most participating countries for their field operations.<sup>20</sup> The use of a virtual machine solved two major challenges: (1) how to run a LINUX application on a Windows PC, and (2) how to create comparable software packages for 24 participating countries in different languages.

A software interface between country-specific study management systems (automated or manual) and the VM software was required to provide a stable, seamless environment for interviewers to manage their work. Use of the VM-provided interface allowed all countries to integrate the Consortium-provided PIAAC virtual machine instruments with country-provided study management software. While each country had to follow intricate VM configuration specifications, once this integration was completed, a high level of standardization and modularity existed for subsequent software updates.

During the administration of the instruments via the TAO VM, a notable sluggishness in computer response was present (especially at virtual machine integration point). This was most notable when moving between the assessment items and occasionally between questionnaire items. Considerable effort by the Consortium went into reducing this latency after the Field Test, and some improvements in the

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<sup>20</sup> One country, Poland, subsequently chose to deploy on a LINUX PC.

Main Study instruments were made. Nevertheless, there is still room for improvement in this area if future rounds of data collection are undertaken with this software.

Another issue with the TAO VM was an unfortunate choice of button wording for break-off that led users to incorrectly exit the VM software. Interviewer use of this button occasionally caused freezes or crashes. Based on the Field Test experience, U.S. programmers during the Main Study developed expertise focused on repairing and re-fielding cases with these problems and reduced incidents of VM technical problems from around 10 percent during the Field Test to less than 1 percent for the Main Study.

Another U.S. enhancement for the Main Study was the development of the observation module questions (Consortium ZZ section) in Blaise rather than relying on the internal TAO instrumentation section. This section recorded interviewer observations about the case after the interviewer left the household and therefore required the interviewer to pause the VM software and come back at a later time to answer these questions. Exiting a nearly complete case at the end of the assessment and then restarting later to finish the interviewer observations in the ZZ section proved the most common point of failure during the Field Test. So, completing this short series of questions outside of the VM eliminated this point of failure in the workflow. The Blaise ZZ module data was inserted into the DME data repository during post-processing aggregation. The U.S.-developed ZZ Blaise also allowed us to add two U.S.-specific questions (observed economic status and presence of second respondent).

A technical evaluation of the U.S. TAO virtual machine experience after the Field Test determined four general areas for software improvement: integration, performance, robustness, and usability.

Each country was asked to nominate the top five issues to establish priorities. Because of the compressed international schedule between the Field Test and Main Study, Consortium progress on these priorities was limited. Ongoing software refinements did produce limited gains in the integration, performance, and robustness mentioned above. For future PIAAC cycles, the U.S. suggests revisiting the prior list of priorities and advocating for more improvements. While the software worked, there are still opportunities to refine and improve.

### **5.3.5 Instrument Timings**

The average administration time for the PIAAC Main Study instruments is displayed in table 5-1.

Table 5-1. Average administration time, by instrument

Instrument	Average administration time (minutes)
Screener	4.24
Background Questionnaire	36.80
Core – Computer-based	6.80
Core – Paper-based	12.14
Direct Assessment – Computer-based	47.12
Direct Assessment – Paper Booklet 1	24.90
Direct Assessment – Paper Booklet 2	25.11
Direct Assessment – Reading Components	18.69

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).

## 5.4 General CAI System Features

### 5.4.1 Interview Management System (IMS)

The management of an interviewer’s assigned cases and other activities associated with the study were provided through an integrated software system called the Interview Management System (IMS). This system had various features that were accessed using one of two laptop modes of operation – either standalone mode or online mode.

The IMS standalone mode provided the following capabilities:

- the ability for the interviewer to browse his or her assigned cases;
- the ability to enter details about attempts to contact a given household;
- the ability to review the status of a case as well as its the status of each interview task (Screener, Background Questionnaire, and assessment); and
- the ability to launch and conduct CAPI instruments.

The IMS online mode provided the following capabilities:

- reporting of time and expenses (T&E);
- shipping of case materials;
- data transmission; and
- email.

The IMS was used to conduct the in-person interview and launch all of the CAPI instruments.

## **5.4.2 Study Management System (SMS)**

During the data collection, the SMS was used by the supervisors, interviewers, and the home office staff to manage and monitor the data collection effort. This included managing both electronic and hard-copy data. The electronic data consisted of Screener, Background Questionnaire, and Direct Assessment data, as well as the status codes for each of these tasks. The hard-copy materials returned included assessment booklets and household folders.

The SMS was used by supervisors to manage the case work within their region. The functions of the SMS are described below:

- The Assignments function was used to review, assign, reassign, and unassign cases to and from interviewers.
- The Case Browse function was designed to search for cases by using various criteria.
- The Case Details function allowed supervisors to set the final status of cases or individual tasks that were not completed.
- The T&E function was used to review a subset of time and expense data that interviewers recorded.
- The Reports function was used to generate all study reports (see section 5.7 for a discussion of the reports).
- The Receipt Control function was used to track and monitor the distribution and use of the assessment booklets within the system.

Interviewers were instructed to ship via FedEx hard-copy materials for completed assessments to the Westat home office twice weekly. All shipments were also tracked electronically through the interviewer functions within the SMS. Upon arrival, packages were checked in by the field room staff using the Receipt Control function. Each item was compared with the interviewer's list of items included in the shipment and marked as received in the system. Any discrepancies were brought to the attention of the systems management team and, where needed, to the attention of the field director and supervisors.

The SMS also contained a detailed reporting system that was used throughout the data collection period. Data in these reports were reviewed by the field supervisors, the field director, and the home office staff throughout the field period. See section 5.7 for more information regarding the SMS reports.

## **5.5 Field Staff Training**

Westat adapted the training materials provided by the Consortium and also prepared U.S.-specific training materials for locating households and respondents, the SMS, the household Screener instrument, and administrative procedures. All training was conducted using a Trainer's Guide, which included all lecture



scripts, role-playing exercises, and written exercises. The Trainer's Guide was used to ensure standardization of the materials presented to interviewers.

Five training sessions were held for the PIAAC Main Study: a train-the-trainers/supervisor training, an initial interviewer training, and three attrition trainings, as described below.

### **5.5.1 Train-the-Trainers/Supervisor Training**

The train-the-trainers/supervisor training session was held at Westat on July 25-30, 2011. The purpose of this session was threefold: to test the training scripts and procedures, to train the trainers on how to conduct the interviewer training, and to train supervisors on study procedures.

Eleven lead trainers, six data display staff,<sup>21</sup> eleven supervisors, and two field managers were trained during this training session. Revisions were made to the Trainer's Guide and training procedures after this training session.

Supervisors received a supervisor manual during training. This document, used exclusively by the 11 field supervisors, the field managers, and the study manager, covered all of the study procedures and the use of reports for monitoring work in the study regions.

### **5.5.2 Main Interviewer Training**

Interviewers received a home study packet to complete a week before training. The home study packet used was based on the version designed by the Consortium but adapted to U.S. study-specific content. It included an introduction covering the study history, design, and purpose of PIAAC, as well as guidance on issues related to obtaining respondent cooperation. A written exercise was included to ensure that the interviewers completed the required components of the home study packet. The home study took approximately 2 hours to complete.

The interviewer training session was held August 18-23, 2011, at the Renaissance Hollywood Hotel in Hollywood, California. There were 11 training rooms, one for each region in the study. Each room had a lead trainer, the region's supervisor serving as assistant trainer, a data display person from Westat or an experienced interviewer to fill that role, and an average of 17 trainees. Lead trainers were experienced trainers able to motivate trainees and keep the training on schedule. They were very familiar with general interviewing techniques, specific materials, and CAPI applications. Westat tech staff (approximately one for every two rooms) familiar with the virtual machine software and the SMS were available at all times during the training to troubleshoot and answer questions.

Training scripts were adapted from a package provided by the Consortium. Training featured 39 hours of in-person training, including the following topics:

- general interviewing techniques;
- gaining respondent cooperation;

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<sup>21</sup> In addition, five experienced interviewers acted as data display operators during the main interviewer training. Consequently only six data display operators were trained during the train-the-trainers/supervisor training session.

- locating the sampled dwelling units;
- administering the Screener;
- Background Questionnaire and Direct Assessment; and
- administrative and quality control procedures.

The basic concepts of the instruments were taught through interactive lectures that increased in complexity as the training progressed. The trainees were led through the CAPI instruments and were called on to play the role of the interviewer while the trainer acted as the respondent. The trainer stopped frequently to explain a question more fully or to make a particular point about a question or its administration.

Towards the end of training, trainees practiced administering the interview via the following:

- **Role-Playing Exercises.** The trainers arranged trainees in pairs, taking into consideration their strengths and weaknesses. Within each pair, one trainee took the role of the interviewer while the other played the respondent, using a prepared script. They then reversed roles. Training staff observed the pairs, correcting the interviewers if needed.
- **Paid Respondent Practice.** The trainees conducted practice interviews with paid respondents. This allowed the trainees to practice in an unscripted situation and provided a more realistic experience of what they would encounter with “real” respondents.

Interviewers were provided with an interviewer manual during training. This document contained an overview of the study and explained data collection procedures and protocols to interviewers.

A total of 186 trainees registered for interviewer training. In addition, trainees had the opportunity to attend CAPI lab evening sessions to improve their CAPI skills or to catch up on missed sessions due to travel delays. Two trainees and a supervisor were dismissed for poor performance before the end of training.

The bilingual interviewers hired were paired up to complete the role-play exercises for the Background Questionnaire in Spanish.

### 5.5.3 Attrition Trainings

As a result of interviewer attrition, two additional trainings were held in December 2011 and January 2012.<sup>22</sup> A total of nine people were trained in these sessions, one of which did not complete training due to poor performance. These trainings were held at Westat. One experienced lead trainer and one assistant trainer conducted these trainings based on the same training package used in August 2011. However, the training progressed significantly faster due to the smaller number of people being trained.

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<sup>22</sup> The attrition trainings sessions were held December 9-12, 2011; December 12-15, 2011; and January 10-13, 2012.

## **5.6 Field Staffing and Management for Data Collection**

### **5.6.1 Management and Organization**

For the Main Study, two field managers supervised 10 regional supervisors.<sup>23</sup> Field managers were responsible for an area of the country and managed the work of supervisors in their area. Supervisors were each responsible for a region (consisting of 5-11 PSUs) and oversaw the work of 17 interviewers, on average, in their region.

Fieldwork activities were coordinated by home office staff, who worked closely with the field supervisors to meet the production goals for the Main Study and ensure high standards of quality control. The study manager held weekly calls with the field managers about production and other issues in their assigned regions. Field managers communicated with the study manager on a daily basis via email or telephone. The study manager directed specific requests or questions from field managers to the appropriate home office project staff.

### **5.6.2 Interviewer Recruitment**

The Main Study interviewer recruitment goal was 200 interviewers. This allowed for attrition during training and data collection. Recruitment started on April 12, 2011, and ended on January 9, 2012.

Recruiting was done by home office staff, two field managers, and four experienced supervisors working closely together. The home office staff was responsible for placing ads and for reviewing online applications. Field managers and field supervisors conducted in-depth telephone interviews with candidates. During conference calls held four times a week, the field managers, field supervisors, and home office staff discussed candidates and made hiring decisions together.

In recruiting, Westat gave preference to interviewers and supervisors with experience on the International Survey of Adult Skills (ISAS) Field Test, the ISAS Main Study Listing, as well as the 2003 and 2008 National Assessment of Adult Literacy (NAAL) and the Adult Literacy and Life Skills Survey (ALL). Westat also drew on the large pool of more than 11,000 experienced interviewers and supervisors in its Data Collector Management Information System (DCMIS). Finally, other sources such as employment websites, newspaper advertising, and community organizations were used as necessary.

In hiring all field staff, Westat considered survey and related interviewing experience, location, available hours, general personality traits, computer skills, education, and availability of transportation. Additionally, Westat considered the racial and ethnic diversity of the sample population, as hiring interviewers of various backgrounds helps to establish respondent rapport and improve response rates.

Westat project staff recruited 205 interviewers by the end of the recruitment period on January 9, 2012. Ten interviewers declined the offer of employment as U.S. PIAAC interviewers; therefore, 195 attended one of the interviewer training sessions. Information about attrition can be found in section 5.6.4.

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<sup>23</sup> Eleven supervisors were hired but one was dismissed at training.

The sources for interviewer hires and the number of hires from each source were as follows:

- Westat.com career ads – 45;
- other websites linking to Westat.com ads – 1;
- Westat’s Data Collector Management Information System – 78;
- newspaper ads – 30;
- CareerBuilder ads – 7;
- word of mouth – 18; and
- unknown – 16.

### 5.6.3 Interviewer Management and Supervision

Supervisors used a web-based interactive SMS to update case information, record interim and final case disposition codes, review interviewer productivity, and monitor overall production in their region. Data collection was monitored through reports reflecting case status, weekly reports by field managers and supervisors, and receipt control reports generated at Westat reflecting completed cases received.

More specifically, supervisors performed the following tasks regarding managing and supervising field interviewers:

- **Set Goals.** Establish clear production and cost goals with interviewers.
- **Assign Cases.** Assign and reassign cases in accordance with cost-efficiency and response rate requirements.
- **Hold Weekly Interviewer Conference Calls.** Hold weekly conferences by telephone with interviewers to review status of each of their cases, find out how much they have worked, review any problem situations, and motivate them to finish on time. Additionally, be available to receive calls from interviewers who have problems throughout the week.
- **Monitor Progress of Data Collection.** Review production reports regularly and implement strategies for meeting production goals and response rates.
- **Review Nonresponse Cases.** Review interviewer production and implement reassignment and conversion procedures.
- **Monitor Interview Cost.** Review, correct, and sign each interviewer’s time and expense report for accuracy and authenticity. Ensure that interviewers are working effectively keeping costs to a minimum.
- **Conduct Quality Control.** Review audio recording from each interviewer’s third and tenth completed case and provide feedback, and conduct validation.

## 5.6.4 Interviewer Attrition

Of the 195 interviewers hired for data collection, 149 resigned or were terminated during the field period, resulting in an overall attrition rate of 76 percent. The week-by-week breakdown of attrition with cumulative totals is provided in table 5-2 below. This rate was consistent with other Westat studies and, as noted earlier, was planned for during the recruitment effort. Table 5-3 indicates the reasons for interviewer attrition.

Table 5-2. U.S. PIAAC main study interviewer attrition

Attended initial training – 186 (Completed training late August – 183)		
Date	Remaining	Attrition
September 14	172	14 (8%)
October 14	146	40 (22%)
November 14	109	77 (42%)
December 14	95	94 (51%)
January 14	79	116 (63%)
February 14	65	127 (69%)
March 14	50	142 (78%)
April 3	34	149 (81%)

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).

Of the 149 interviewers who left the project before the end of the field period, 46 resigned for various reasons and 88 were released when work was no longer available. The other 15 were terminated due to performance issues or falsification. Although seemingly high, this rate of attrition was anticipated and did not negatively impact data collection.

Table 5-3. U.S. PIAAC main study reasons for interviewer attrition

Reason	Number of interviewers	Percentage of total
Total	149	100
Resigned	46	31
Released (laid off)	88	59
Terminated: Poor production	4	3
Terminated: Falsification	11	7

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).

## 5.7 Monitoring Data Collection Progress Using Computer-Generated Reports

As mentioned in section 5.4.2, one of the SMS functions was to provide a reporting mechanism, which was used to manage and monitor the progress of the fieldwork and provide critical management information to field and home office staff.

The reports allowed all levels of management to monitor on a daily basis the progression of completion rates, response rates, and distribution of cases in interim status with pending codes by region, interviewer, PSU, and segment for each of the study instruments. Managers were also able to view the daily electronic record of calls information entered by interviewers. Costs were entered and monitored on a weekly basis as well.

The data for most of the management reports were updated each morning, so reports were static throughout the day. However, a few field management reports were generated in real time so that the reports would reflect all supervisor-entered information or transmitted data. Supervisors would thus have the most recent data available for conference calls with their interviewers.

The reports available to the management staff are described below.

The Production Summary and the Interviewer Reports allowed the supervisors to view the overall status of production and response rates for PSUs in their region and PSUs across all regions within the country.

The Interviewer Conference Report gave supervisors a detailed view of pending cases for every interviewer, including the status for each component of the case. The Interviewer Cost Summary Report listed each interviewer's weekly and cumulative hours, expenses, and number of completed Background Questionnaires. Using these two reports as a starting point, supervisors discussed each pending case as well as overall completion rates, response rates, and costs with each interviewer during the weekly conference call. Plans and strategies for handling each pending case and overall performance were discussed during these calls, and workloads were adjusted as necessary. The quality of an interviewer's work was also discussed based on the results of tape edits and validations.

The Missing Booklet Report listed finalized cases for which booklets had not been receipted in the field room.

The Interviewer Transmission Report documented each interviewer's last transmission of new data. Supervisors used this report to determine whether an interviewer was having difficulty in transmitting because of a problem in understanding the transmission process or a problem with the laptop. Supervisors monitored this report very closely because it affected the accuracy of all other reports.

The Assignment History of Non-Finalized Cases Report allowed supervisors to view and track the history and progress of reassigned cases. The supervisors could view, in one location, each interviewer's attempts to complete the instruments for cases that had been reassigned for efficiency and nonresponse conversion.

The Unassigned Cases Report documented any unassigned cases and also allowed the supervisor to check for entry errors in assigning or transferring cases.

The Validation Report documented all cases preselected for validation, including the completion or finalization date of each case to indicate that it was available for validation. Supervisors used this report to document the results of their validation efforts and to substitute or select any additional cases for validation.

Additional reports were run each week to allow the project statisticians to monitor the sample yield. Selected variables from the sample selection file were merged with production data from the SMS to allow a comparison of projected and actual results.

## 5.8 Obtaining Respondent Cooperation

### 5.8.1 General Factors that Influenced Respondent Cooperation

Westat utilized a variety of approaches and outreach materials to obtain respondent cooperation. A study-specific logo was designed and used on the materials to lend legitimacy and recognizability to the study.

- **Study Identification Badge.** All interviewers were issued a prominent photo identification badge. Interviewers were required to wear it at all times while conducting fieldwork. The badge authenticated their official role in connection with the study. (See example on ISAS website noted below).
- **Advance Contact with Selected Households.** All sampled DUs were mailed an introductory letter on NCES letterhead explaining the study, confidentiality, and the importance of participation. A refrigerator magnet featuring the study logo, the website address, and the toll-free respondent hotline number was included with the letter to make the letter more memorable to households. (See example on ISAS website noted below).
- **Brochure.** A study brochure aimed at informing sample persons was developed and printed. Upon selection, sample persons were given the study brochure. As the brochure provided a concise and well laid-out summary of the study, some interviewers chose to use it to gain cooperation at the screening level. (See example on ISAS website noted below).
- **Study Website** (<http://nces.ed.gov/surveys/isas>). A website featuring clearly articulated, detailed information about the study was set up at NCES. This website could be accessed by interested sample persons to ascertain the purpose and legitimacy of the study. The website address was included in the brochure and magnet, and all other outreach materials provided to sample persons.
- **Study Toll-Free Telephone Number.** This number provided contact with a Westat home office project staff person who addressed respondent concerns or relayed messages left by respondents or households to field supervisors. It was cited on all survey documents provided to respondents.
- **Pen With Study Logo.** A pen featuring the U.S. ISAS logo, website address, and toll-free study number was given to respondents as a token of appreciation.
- **Outreach Flyers.** This series of four one-page flyers was aimed at sample persons who were reluctant to participate. Each flyer was tailored to specific types of reluctant respondents and was mailed to SPs who had not participated after several contact attempts by interviewers. (See examples on ISAS website noted above).
- **Postcard.** This card was mailed 1 month prior to the end of data collection reminding all nonresponse households that the study was about to end and of the importance of participation and the \$50 incentive payment.
- **Endorsement Letter.** An endorsement letter from former news anchor Tom Brokaw was available for distribution to respondents at the interviewer's discretion.

- **Nonresponse Letters.** Several types of nonresponse letters were used by supervisors to address specific concerns expressed by households or respondents. These were mailed using priority mail to convey the importance of the study.

Appendix D includes copies of the nonresponse letters, endorsement letter, and the postcard. In addition to the aforementioned outreach materials, Westat employed the following strategies to gain respondent cooperation:

- **Review of Non-Finalized Cases.** Several times during the field period, a thorough review of the contact attempts for each non-finalized case was conducted by field supervisors, field managers, and the study manager. Cases that showed potential for completion were flagged and tallied, and additional strategies for contacting these households were discussed with interviewers.
- **Switching Cases Between Interviewers.** Supervisors reassigned nonresponse cases (including refusals and no contacts) between interviewers within a PSU to see if a different interviewer was able to gain response.
- **Travelers.** Westat sent 43 top-producing interviewers to PSUs where there were not enough interviewers to work the cases or where special circumstances required a different interviewer. A total of 516 assessments were completed by travelers.
- **Mail-in Screener.** A simplified version of the Screener was designed and mailed to households who refused the in-person screening procedure. A total of 2,262 Screeners were mailed out and 209 completed Screeners were returned.

## 5.8.2 Main Study Results

The goal of 5,000 completes was reached on April 20, 2012. The overall weighted response rate for the Main Study was 70 percent. Tables 3-1 and 3-2 provide the weighted response rates and resulting sample sizes, respectively.

## 5.9 Quality Control

### 5.9.1 Quality Control Measures

Quality control was an integral component to the overall success of the Main Study. The fieldwork quality control measures listed below were implemented to ensure that the data collected met high-quality standards.

- **Validation.** Validation ensures that interviews are actually conducted with the sampled person and that cases are assigned the correct final disposition code. All interviewers working on the Main Study data collection had at least 10 percent of their finalized work validated, which included completes, ineligible, and nonresponse cases. All cases were



selected randomly as they were being finalized.<sup>24</sup> The highest producing interviewers were validated at a rate of 15 percent. The validation process uncovered 84 instances of falsification involving 11 interviewers. All cases worked by these interviewers were validated to check for additional falsification. Nine interviewers were immediately dismissed.<sup>25</sup> Falsified cases were re-fielded or flagged as appropriate.

As a result of the extra validation conducted, 20 percent of all finalized cases were validated.

- **Tape Recording of Interviews.** High-quality survey research also requires that the interview be conducted in a professional and ethical manner and that interviewers be given a chance to improve their interviewing techniques. Interviewers were required to tape record their third and tenth interviews. These tape recordings were reviewed by supervisors who then provided feedback to interviewers about any aspect of their interviewing technique that needed improvement.
- **Falsification Detection Reports.** Several automated reports were developed to monitor various aspects of interviewer behavior that may be indicative of falsification. Reports to monitor the following aspects were developed:
  - interview start time (too early/too late in the day);
  - elapsed time between interviews;
  - Background Questionnaire administration length;
  - multiple interviews completed per day;
  - Background Questionnaire and assessment completed on different dates; and
  - proportion of item nonresponse in Background Questionnaire and in assessment results submitted by interviewer.
- **Review of Completed Case Materials.** Interviewers were required to return completed case materials (case folders, paper exercise booklets, etc.) to the home office on a regular basis. Upon receipt, these materials were reviewed for completeness and accuracy, and feedback was given to field interviewers if necessary.

## 5.9.2 CAPI Helpdesk

The PIAAC CAPI helpdesk was maintained and operated by staff specially trained on the PIAAC instrument and who were well versed with the workflow, instrumentation, and the systems aspect of the Main Study. Field interviewers and supervisors who experienced technical difficulties while administering the interviews or completing systems-related tasks called the helpdesk via a toll-free number for assistance; problems that could not be resolved by helpdesk staff were passed on to PIAAC IT

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<sup>24</sup> Nonresponse also affects validation efforts. Substituted cases were sometimes used when it was necessary to reach the 10 percent threshold for an interviewer.

<sup>25</sup> One falsifying interviewer was discovered only after she was released from the project due to a lack of production and therefore could not be fired. This interviewer was, however, removed from the list of potential candidates to work on any other Westat survey.

staff for further direction on resolution. The helpdesk staff reported receiving 1,704 calls throughout the period of the Main Study data collection.

Calls that were received could be broadly categorized into those related to the following:

- 203 calls—administrative tasks (e.g., procedural tasks such as transmission, shipping of materials, sending and receiving emails);
- 175 calls—Interviewer Management System (IMS);
- 242 calls—Study Management System (SMS);
- 247 calls—equipment (laptop hardware, laptop accessories, printer);
- 284 calls—virtual machine issues;
- 262 calls—data cleanup and recovery/power outages/non-systems errors; and
- 44 calls—miscellaneous.

Virtual machine-related issues accounted for the largest number of calls received through the data collection period.

### **5.9.3 Interviewer Debriefing Results**

The first step of the debriefing process consisted of all interviewers completing the Interviewer Debriefing Form provided by the Consortium. The form was sent to all field interviewers who were working through the close of the data collection period on April 3, 2012. Upon receipt of the completed forms at the home office, the forms were reviewed for completeness and quality of feedback provided by the interviewers. The second step required identifying interviewers who submitted valuable feedback. Six high-producing interviewers were selected to participate in a debriefing conference call on May 1, 2012, with home office staff, NCES, and American Institutes for Research (AIR) staff. The call, which lasted 1½ hours, focused on issues not covered in the Interviewer Debriefing Form, including reasons cited by respondents for not participating; useful strategies for gaining respondent cooperation; comments about the website, brochure, and video; effective outreach print materials; effectiveness of the monetary incentive; and suggestions for improvements to future rounds of the study.

See appendix E for the Interviewer Debriefing Form submitted to the Consortium on May 18, 2012.

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## 6. REDUCING THE RISK OF DATA DISCLOSURE

Over the past decade, concerns about the disclosure of information related to individual survey respondents have increased dramatically. Laws have been passed since the Privacy Act of 1974 to further ensure the protection of confidential data. The most recent of these is the Education Sciences Reform Act of 2002, which explicitly requires that the National Center for Education Statistics (NCES) protect the confidentiality of all those responding to NCES-sponsored surveys. More specifically, NCES Standard 4-2, “Maintaining Confidentiality,” provides guidelines for limiting the risk of data disclosure for data released by NCES.<sup>26</sup> This chapter describes the procedures for controlling statistical disclosure for PIAAC in accordance with the guidelines specified in NCES Standard 4-2.

### 6.1 Overview of PIAAC Data Collection and Dissemination

Several types of data were collected and derived during the PIAAC sampling, data collection, and weighting processes. These variables were reviewed to determine their disclosure risk levels. The confidentiality analysis used a three-step process to reduce disclosure risk: (1) determining the disclosure risk arising from existing external data, (2) coarsening the data, and (3) swapping the data. Westat conducted the risk analysis, coarsening, and data swapping procedures to produce the following files, included in the PIAAC data dissemination products:

- International Public-Use File (PUF) – to include international variables only;
- International PIAAC Data Explorer (developed by ETS) and International Database Analyzer (developed by IEA) data tools;
- U.S. PUF – to include both international and U.S. variables; and
- U.S. Restricted-Use File (RUF) – to include both international and U.S. variables.

Following the NCES guidelines, the RUF contained noncoarsened, swapped data and the PUF contained coarsened, swapped data. In addition, a data tool created for PIAAC followed the confidentiality procedures established for disseminating data via data tools. The data swapping was done in one step for the RUF and the PUF ensuring consistency between detailed and coarsened variables.

The approach for the PUFs included categorizing several critical variables with some risk of data disclosure and suppressing several variables with a very high risk of disclosure. These actions were based on extensive initial disclosure risk analyses, which included the following steps:

- identifying personal identifiers, geographic information, and contextual variables (variables that can indirectly identify a geographic area);
- evaluating the existence of other publicly available files;
- evaluating the disclosure risk associated with release of the sampling and variance estimation variables; and

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<sup>26</sup> Available at [http://nces.ed.gov/statprog/2002/std4\\_2.asp](http://nces.ed.gov/statprog/2002/std4_2.asp).

- evaluating the disclosure risk associated with release of key variables (i.e., visible variables) through extensive frequency tables.

One aspect of the disclosure risk analysis for the PUF was a review of each Background Questionnaire (BQ) variable and groups of Background Questionnaire variables to determine whether any of the data presented a non-negligible risk of individual disclosure. Several types of variables were available, including variables collected through the survey and assessments as well as variables created during weighting. These variables are summarized below.

The following are the main sources of the variables considered for dissemination for public use:

- Sample Design International File;
- case initialization data from the Screener;
- Background Questionnaire data;
- cognitive data from the assessment; and
- Weighting International File.

Careful attention was given to the Background Questionnaire items and combinations of items. Even a very limited amount of demographic detail—such as income, occupation, age, year of immigration to the United States, foreign language spoken, and country of birth—can increase the chance that an individual can be identified. As discussed in section 6.2, personal and geographic identifiers were removed. Section 6.3 presents outcomes from the risk analysis in the form of variable suppression and recodes. Section 6.4 summarizes the final disclosure reduction step, data perturbation in the form of swapping.

## **6.2 Personal Identifiers and Geographic Identifiers**

Any information that might be used to directly identify sample persons and/or sample locations was suppressed from the PUF. This information included direct personal identifiers such as names, addresses, and telephone numbers. The inclusion of any geographic detail has a large impact on the level of disclosure risk. Review of the available variables indicated that there were several geographic variables, such as the primary sampling unit (PSU) and segment identifiers embedded in the in-house person ID, county, and zip code. However, only census region (four levels) was retained on the PUF; all other geographic indicators were suppressed. The person ID included on the PUFs was randomly generated with no linkages to clustering or other geographic or sampling information embedded in the original person ID.

## **6.3 Data Coarsening**

In general, data coarsening includes several types of procedures that decrease disclosure risk by reducing the amount of information released. Coarsening approaches include removing direct identifiers, limiting geographic detail, categorizing continuous variables, performing top- and bottom-coding,<sup>27</sup> and recoding

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<sup>27</sup> With top-coding, the largest values of a variable are replaced with an upper limit, reducing the appearance of outlier data. Similarly, bottom-coding replaces the smallest values with a lower limit.

values into broader categories. Targeted or local suppression is also performed by removing the sensitive item's value from the record or suppressing the variable from the file. After a thorough disclosure risk analysis had been conducted, the results of frequencies and multi-way cross-tabulations were used to guide the coarsening process. First, one-way tabulations were reviewed to determine the categorical variables that would need to be recoded because of the small number of responses in one or more categories. Next, multi-way tabulations were reviewed to identify variables that had problematic categories when used in combination with other variables. The following paragraphs further describe the various statistical disclosure control treatments.

**Suppressed Variables.** A number of variables were suppressed due to low frequency counts (i.e., frequencies of less than 15) because they revealed too much detail about the sample design units and geographical location or because they were used to derive coding variables.

The PSU ID variable and other variables related to the sample design units were suppressed in response to disclosure concerns about being able to indirectly identify the location of the respondents. The variance strata and variance unit variables were retained on the PUF to facilitate variance estimation.

All open-ended variables (e.g., "other, specify" responses) were also suppressed from the PUFs to prevent the possibility of revealing geography or an individual identity from the responses.

**Recoded Variables.** The process of recoding categorical variables helps to minimize the risk of data disclosure. Candidates for suppression included variables for which adequate protection was not possible without losing the meaning and usefulness of the data.

The process for recoding categorical variables involved grouping different levels of the same variable to create categories with larger frequencies. As a guideline, categories that comprised less than 0.5 percent of the total sample (approximately 25 cases) were grouped with others. This reduces the risk of identifying a respondent when an attack consists of combining survey variables.

**Continuous Variables.** Top-coding was performed for some continuous variables. One approach considered was to categorize all continuous variables, since, with top-coding, there is still potential for bias on computations of the average for subgroups or for regression analysis. Categorization protects against bias and reduces disclosure risk. However, it was decided to use top-code cutoffs for these continuous variables because the analytical value of continuous versions of some variables outweighs the potential disclosure risk. The criterion was that the proportion of cases with values greater than the cutoff was at least 0.5 percent of the weighted number of persons; most variables had proportions between 1 percent and 5 percent for extra protection. The top-coded cutoff was used as the replacement value for the cases with values greater than the cutoff.

While top-coding applies to some continuous variables, the following continuous variables were recoded to be categorical: B\_Q12F (Activities - Last year - On the job training - How many), B\_Q20A (Activities - Last year - Time spend for activities - Hours), D\_Q05A1 (Current work - Start of work for employer - Age), D\_Q05B1 (Current work - Start of work for business - Age), E\_Q05A1 (Last job - Start of work for employer - Age), and E\_Q05B1 (Last job - Start of work for business - Age).

**Derived Race/Ethnicity.** The logic shown in figure 6-1 was used to create a derived race/ethnicity variable.

Figure 6-1. Derived variable for race/ethnicity

Variable name	Value	Value label	Derivation
P_RACETH	1	Hispanic or Latino	If J_Q04dUSX1a = 1, then P_Raceth = 1;
	2	NH <sup>1</sup> White alone	Else if J_Q04dUSX1a = 2 and (J_Q04dUSX2_1 = '01' and all of J_Q04dUSX2_2, J_Q04dUSX2_3, J_Q04dUSX2_4, J_Q04dUSX2_5 blank), then P_Raceth = 2;
	3	NH Black alone	Else if J_Q04dUSX1a = 2 and (J_Q04dUSX2_1 = '02' and all of J_Q04dUSX2_2, J_Q04dUSX2_3, J_Q04dUSX2_4, J_Q04dUSX2_5 blank), then P_Raceth = 3;
	4	NH Other <sup>2</sup>	Else if (J_Q04dUSX1a have values 7, 8, or missing) or (J_Q04dUSX2_1 have values 'DK' or 'RF' or blank), then P_Raceth = . ; Else P_Raceth = 4;

<sup>1</sup> NH represents non-Hispanic and non-Latino sample members.

<sup>2</sup> "Other" represents sample members of another single race category or multiracial sample members.

NOTE: Variable names match those provided in the Background Questionnaire available at <http://nces.ed.gov/surveys/piaac/questionnaire.asp>.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).

## 6.4 Swapping

To ensure that a data intruder could never be sure that the individual is identified, the risk of data disclosure was further reduced on the PUFs by using the data swapping technique requested by NCES. Data swapping is an NCES requirement that reduces risk by modifying microdata. In data swapping, a probability sampling of records are paired with other records on the file using selected characteristics, and then some identifying variables are swapped between the two records. The sampling rate for PIAAC swapping was designed to protect the confidentiality of the data without affecting the usability of the data set. This method is an effective way of keeping as much valuable data as possible while not identifying any research participants.

The standard swapping software that has been approved for use on NCES studies was applied to the household sample to (1) select target records to be swapped, (2) select swapping partners, and (3) swap the data. Swapping preserves the unweighted frequencies, means, and variances; however, it may affect the weighted distributions and multivariate relationships. The NCES software selected swapping partners with the smallest absolute bias pertaining to a variable of interest. As a check, analysts reviewed pre- and post-swapping percentage distributions (unweighted and weighted), as well as correlation analyses and regression models, to examine the relationships between the swapped variables and the key variables.

## 7. NEED FOR CONDUCTING A NONRESPONSE BIAS ANALYSIS (NRBA)

Under ideal situations, every eligible adult in the target population would have a non-zero chance of selection in a national sample, would be located, and would agree to participate in the study. In practice, these circumstances are not realized in any survey population. Response rate is a valuable data quality measure and the most widely used indicator of survey quality. A high response rate increases the likelihood that the survey accurately represents the target population, and a low response rate reflects the possibility of bias in the outcome statistics.

It is well understood that when response rates are low, there is a greater chance for nonresponse bias. The extent of nonresponse bias depends on many survey conditions, including the differential impact that the likelihood of response has on the bias of each of the survey outcomes. It is, therefore, critical to evaluate the potential for nonresponse bias as a quality check on the estimates at the conclusion of the data collection.

There are several ways to reduce the potential for nonresponse bias, including the planning and implementation of field procedures that obtain a high level of cooperation, and monitoring the distribution of the sample during data collection to ensure steps are taken to reduce the potential for bias as much as possible. Further, if nonresponse rates increase, one needs to actively seek auxiliary data to reduce the impact of response propensities on the survey estimates. These auxiliary variables can then be used in weighting adjustments for the purpose of reducing nonresponse bias.

Although sample weight adjustments based on auxiliary data are effective in reducing nonresponse bias, they are not considered as replacements for a vigorous effort to achieve the highest response rate possible.

### 7.1 Standards and Procedures Relating to NRBA

The PIAAC estimates of literacy-related skills in the United States are subject to potential bias due to nonresponse at various levels of data collection. As mandated by the PIAAC Consortium, the U.S. National Center for Education Statistics (NCES), and the U.S. Office of Management of Budget (OMB), a Nonresponse Bias Analysis (NRBA) is required if response rates are below the guidelines shown in table 7-1.

Table 7-1. Cut-point on response rates requiring a nonresponse bias analysis, by component and organization

Component	(Percent) PIAAC consortium	NCES	OMB
Data collection phase	80	85	†
Overall	70	†	80
Item	85	85	70

† Not applicable.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).

This report provides the results of a systematic analysis of bias resulting from the fact that some households or persons selected in the PIAAC sample chose not to participate; further, not all items on the questionnaire or assessment were fully completed. This report is in accordance with National Center for



Educations Statistics (NCES): Standard 4-4, and PIAAC Technical Standards and Guidelines 4.7, Indicators of Survey Quality – Undercoverage Bias, Nonresponse Bias, and Response Rates.

NCES Standard 4-4-1 states that “any survey stage of data collection with a unit or item response rate less than 85 percent must be evaluated for the potential magnitude of nonresponse bias before the data or an analysis using the data may be released.”

Similarly, PIAAC Standard 4.7 requires “establishing indicators to measure the quality of PIAAC survey data with respect to representation of the target population, and to provide standard procedures for measuring these indicators.” The specific PIAAC Technical Standards (4.7.4-4.7.6) and Guidelines follow:

- Standard 4.7.4:

- A minimum overall response rate of 70 percent is the goal.

- Guideline 4.7.4A:

- Data from all countries with a minimum response rate of 70 percent will generally be included in international indicators and reports unless sample monitoring activities (discussed in section 7.4.9 of PIAAC Standards) and/or nonresponse bias analyses (discussed in Standard 4.7.6) indicate serious levels of bias in the country data.

- Guideline 4.7.4B:

- Unless problems resulting from response rates of between 50 percent and 70 percent are compounded by other factors, such as undercoverage bias, results from countries with such response rates will typically be included in international indicators and reports (in which case the OECD Secretariat will prepare for the Board of Participating Countries (BPC) a specific recommendation on the use and annotation of country results). Deviations from the international standards on response rates will, however, be documented in the international reports and publications.

- Guideline 4.7.4C:

- Results from countries with response rates below 50 percent will not be published unless the country can provide the OECD Secretariat with evidence that the potential bias introduced by the low response rates is unlikely to be greater than the bias associated with response rates of between 50 percent and 70 percent. (See Standard 4.7.6 on evaluating nonresponse bias.) The OECD Secretariat will examine this evidence, along with estimated undercoverage bias, and prepare a recommendation to the BPC on the use and annotation of the country results. The costs for this examination will be borne by the individual country and will not be charged to the general PIAAC budget.

- Standard 4.7.5:
 

Countries with any unit nonresponse will be required to conduct a basic nonresponse bias analysis and report on the results. The basic analysis will be used to evaluate the potential for bias and to select variables for nonresponse weighting adjustments.
- Guideline 4.7.5A:
 

The analysis will involve an evaluation of the relationship between response status and available auxiliary variables.
- Guideline 4.7.5B:
 

A logistic regression analysis or classification tree algorithm should be conducted for this evaluation of potential bias, to incorporate interactions between the auxiliary variables as well as main effects.
- Standard 4.7.6:
 

Countries will be required to conduct and report the results of a more extensive nonresponse bias analysis for:

  - All stages of data collection (Screener, Background Questionnaire/job requirements approach module, assessment without reading components, reading components) with less than an 80 percent response rate;
  - The overall sample if the overall response rate is less than 70 percent.
- Guideline 4.7.6:
 

Some possible analyses include:

  - a comparison of estimates to external totals;
  - a comparison of response rates by demographic subgroup;
  - a comparison of respondents and nonrespondents on auxiliary variables;
  - a logistic regression model of the relationship between response status and auxiliary variables;
  - a comparison of estimates before and after weighting adjustments;
  - correlations between weighting adjustment variables and proficiency measures;
  - a comparison of “late” or “hard-to-contact” respondents to “early” or “easy-to-contact” respondents; and
  - calculation of the range of potential bias.

PIAAC had three stages of data collection where unit nonresponse occurred, the Screener, the Background Questionnaire (BQ), and the assessment components. Participation in the BQ was dependent

upon the completion of the Screener. Likewise, participation in the assessment was dependent upon completion of the BQ. The final weighted response rates for each data collection stage are shown below, including the overall response rate for the survey.

- Screener (86 percent);
- BQ (82 percent);
- assessment (99 percent); and
- overall (70 percent).

The BQ is the only stage below the 85 percent response rate requirements. Therefore, the unit-level analysis is focused on the BQ stage. The key subgroups for the analysis are defined in section 7.2.

### **7.1.1 An Extended Analysis**

The basic descriptive analysis required by Standard 4.7.5 provides an initial assessment of nonresponse bias (NRB) and is essential in identifying effective weighting variables. However, it has its limitations. The analysis relies on auxiliary variables and does not evaluate the effectiveness of weighting adjustments on reducing NRB. The descriptive analysis assesses the potential for bias in some statistics that may not necessarily be highly related to the final proficiency estimates.

The goal of the extended analysis is to assess the effect of weighting adjustments by assessing remaining bias in the key statistics or closely related variables. For PIAAC, the key statistics are scores measuring proficiency in the components of the assessments. Accordingly, preliminary scores (i.e., literacy, numeracy, and problem solving plausible values), provided by ETS, are used in analyses of Background Questionnaire (BQ) variables believed to be closely related to proficiency to determine if they show patterns of bias that were not effectively eliminated by the auxiliary variables used in weighting.

Multiple analyses to assess NRB are necessary because each analysis has its own limitations. Together, they provide an insight into the patterns and potential for bias. Using the PIAAC Consortium NRBA template, the components of the extended analyses are, as follows:

- comparison of estimates before and after weighting adjustments;
- comparison of weighted estimates to external totals;
- correlations of auxiliary variables and proficiency estimates;
- comparison of estimates from alternative weighting adjustments;
- analysis of variables collected during data collection;
- level-of-effort analysis; and
- calculation of the range of potential bias.

More detail on and the results of each of the extended analyses is found in section 7.3.

### **7.1.2 Classification of Nonresponse**

Literacy-related nonrespondents (LRNR) did not complete the BQ due to language problems, mental disability, and reading and writing difficulties. The BQ response rate is 82% if treating the BQ LRNR cases as respondents and 80% if not treating them as respondents. In this nonresponse bias analysis (NRBA), the BQ LRNR cases are sometimes included and sometimes excluded. If included, they are treated as respondents. To explain, these BQ LRNR cases were included in the weight calibration process and received non-zero final weights because of their non-ignorable reasons for nonresponse; however, plausible values for literacy scores were not generated due to the lack of available information. A national estimate of BQ LRNR cases in the population can be generated, if desired. The weights for the BQ LRNR account for the LRNR at the Screener stage. Those that completed the BQ but did not complete the assessment due to literacy-related reasons are referred to as assessment LRNR. Plausible values were generated for assessment LRNR cases by assuming they would have incorrect responses to the test items. The BQ LRNR cases were excluded from the basic NRBA in section 7.2, since the analysis focused on respondent and nonrespondent cases assumed to be similar (e.g., would have scored at the same level). The BQ LRNR cases are included in selected analysis, where appropriate.

At the BQ stage, non-literacy related nonrespondents for the NRBA include the following: partial complete/breakoff, refusal, speech impairment, maximum number of calls, temporarily absent or unavailable during the field period, technical problem, hearing impairment, blindness or visual impairment, physical disability, and other disability.

### **7.1.3 Procedures Used to Reduce Bias Due to Nonresponse**

There were several ways to reduce the potential for NRB in PIAAC. First and foremost was the planning and implementation of field procedures that achieved the overall response rate goal. Second, it was also critical to monitor the field when data collection was in progress and monitor the distribution of the sample during data collection to ensure steps were taken to reduce the potential for bias as much as possible. Finally, an extensive search for auxiliary data was conducted so that the variables could be used to evaluate the potential for bias and those results could be used to reduce the impact of nonresponse on survey estimates during the weighting process.

#### ***7.1.3.1 Reduce NRB Before Data Collection***

No single factor leads to obtaining high response rates in any survey, especially large-scale national surveys. One of the most critical steps in improving response rates was to hire the most qualified staff for operating the survey. Such interviewers had extensive field experience; demonstrated good people skills; and had the enthusiasm, perseverance, and language skills necessary to conduct PIAAC interviews. Some senior interviewers were hired to travel to areas with high nonresponse. In addition, supervisors with experience and knowledge to mentor, motivate, and monitor interviewers were hired. Finally, a sufficient number of interviewers and supervisors were hired to ensure that all the field activities could be completed within the established data collection period.

A related critical aspect is establishing effective plans for training the staff. The goal was to ensure that all field staff understood PIAAC so well that they would be able to focus on obtaining quality data and high

response rates, not just on the mechanics of the work. Initial training was provided to emphasize the importance of PIAAC, the presentation of the study to respondents, and the techniques for convincing reluctant respondents to participate. In addition, ongoing training was provided, as needed, via telephone and email. Supervisors were trained on initial case assignment and reassignment strategies for potential/actual nonresponse.

Community/respondent outreach was another critical component in increasing response rates. An outreach plan, containing an attractive/cohesive set of materials (e.g., letters, brochures, etc.) was designed and implemented. Materials also included information on media coverage, such as newspaper/journal articles about PIAAC that interviewers could show/give to respondents. Various endorsements also were obtained from well-known and well-respected authorities and agencies.

Interviewers/supervisors were trained how best to use these materials. In addition, a website was set up to be used by respondents for reference and to legitimize the survey. A toll-free telephone number/hotline was available to answer questions and concerns raised by survey participants.

The timing of various activities was also critical. Introductory materials were mailed 7-10 days prior to respondent contact and nonresponse conversion letters were used for reluctant or hard-to-contact/reach respondents in a timely manner.

A non-interview report (NIR) form was constructed to collect information about nonrespondents. The NIR helped gather information for future interview attempts and provided some information for the NRBA.

Finally, data collection was monitored closely to control nonresponse and to ensure the lowest NRB attainable. Every effort was made to maximize response rates for groups that had potential to increase NRB (i.e., identify pockets of nonresponse and use methods to bring in initial nonrespondents that are not like respondents). In order to help with the sample monitoring process, another critical task prior to the start of data collection identified and collected auxiliary variables known to have a high correlation with nonresponse bias for both respondents and nonrespondents. Evaluating and reducing NRB requires auxiliary variables, available for all sampled units, which were correlated with competency and response propensity. The correlation with literacy was measured using a segmentation analysis (described in the next section) to determine correlation with response propensity using PIAAC field test data.

### ***7.1.3.2 Reduce NRB During Data Collection***

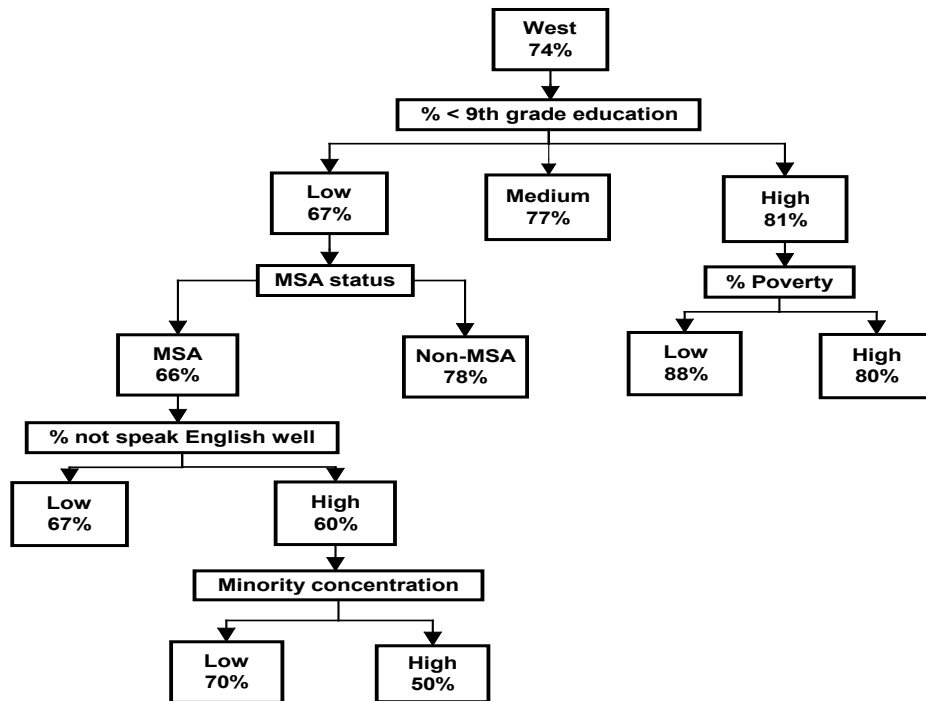
National Project Managers (NPMs) maintained close and timely supervision/monitoring through scheduled weekly telephone conference calls with interviewers. They kept pressure on performance and allowed for timely feedback. PIAAC Consortium forms were used, which allowed for regular/frequent monitoring of case completion. Reports were based on daily interviewer transmission of interview/assessment data and current contact attempt and disposition code information.

The aforementioned planned procedures were used to monitor response rates and sample yield according to key demographics known to be associated with competency. This helped to identify potential shortfalls for specific subgroups that could result in biased estimates. The goal was to reach subgroups or areas with low response and use various approaches to improve response rates for these subgroups (areas). The first step identified pockets of potential NRB through segmentation analysis with local area-level auxiliary variables (smallest geography for which reliable auxiliary data are available, or registry data when available). A typical segmentation modeling approach involves a classification tree algorithm that uses a

chi-square test of independence to identify auxiliary variables that best define subgroups with differential response rates. The subgroups with low response rates, or areas containing these subgroups, can then be targeted for follow-up efforts to address the potential for NRB.

Figure 7-1 shows an example of a classification tree used for the West region during the 2003 U.S. Adult Literacy and Lifeskills (ALL) survey data collection period.

Figure 7-1. Example response rates in west region, USA, during data collection of the 2003 Adult Literacy and Lifeskills survey



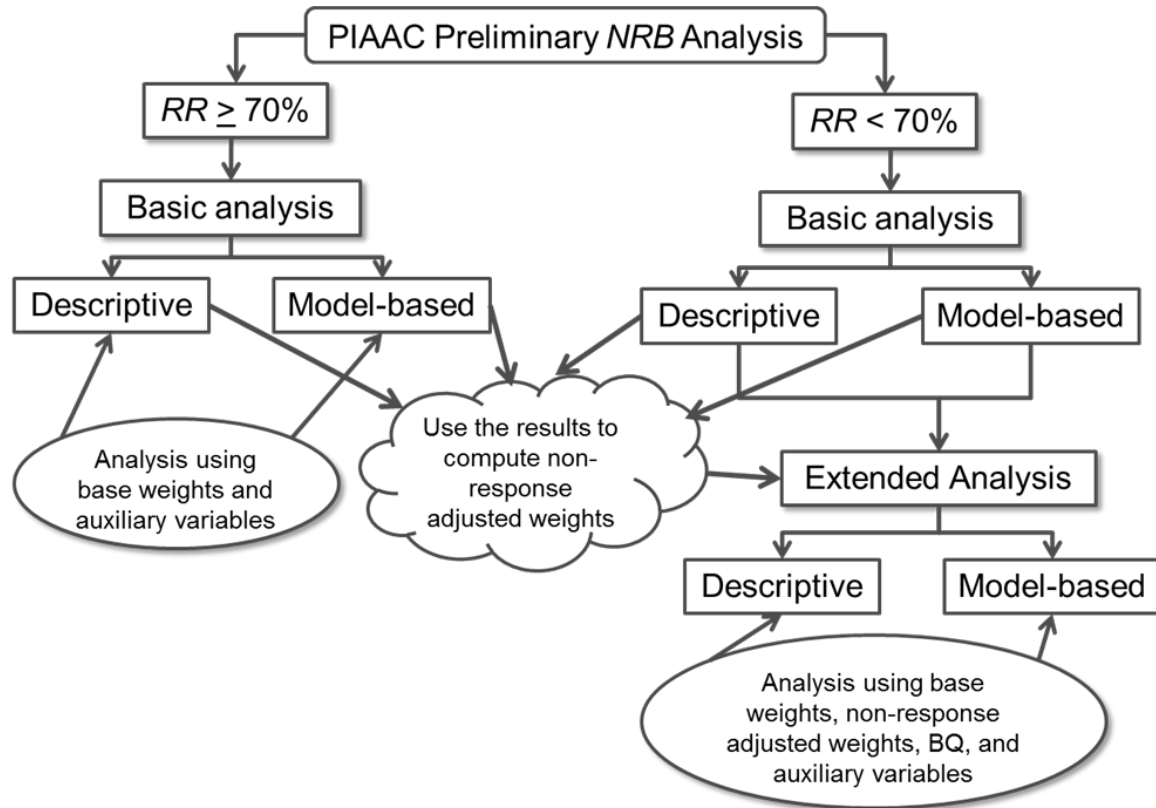
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2003 Adult Literacy and Lifeskills Survey.

From figure 7-1, it is evident that during data collection in the West, persons living in segments with a high minority concentration, a high percentage of the population not speaking English well, located in metropolitan statistical areas (MSAs), and having a low percentage of the population with less than a ninth grade education had a very low response rate of 50 percent. To the extent that these variables were related to literacy, the low response rate in these areas indicated a potential for NRB.

### 7.1.3.3 Reduce NRB After Data Collection

Figure 7-2 (extracted from the PIAAC Consortium document “PIAAC Reducing Nonresponse Bias and Preliminary Nonresponse Bias Analysis” dated March 10, 2010) provides a schematic of the processing after data collection. The preliminary NRBA occurs during the data collection period and sample monitoring process. The descriptive and multivariate basic analyses allowed the variables to be selected for weighting, and the weighting process helped to adjust for differential nonresponse across subgroups. An extensive analysis was then used to further investigate the potential for nonresponse after weighting procedures are conducted.

Figure 7-2. Post-data collection activities relating to PIAAC nonresponse bias analysis



SOURCE: OECD PIAAC document “PIAAC Reducing Nonresponse Bias and Preliminary Nonresponse Bias Analysis” dated March 10, 2010.

## 7.2 Results of the Basic NRBA

This section presents weighted response rates and a set of basic analyses of the potential for nonresponse bias conducted to arrive at the set of variables used in weighting adjustments. The analyses focus on identifying variables that are highly correlated with nonresponse and with the outcome statistics and closely follow the guidelines provided for the basic nonresponse bias analysis (NRBA) by the PIAAC Consortium. Section 7.3 provides a more extensive NRBA focused on evaluating the potential for bias remaining after weighting adjustments are conducted, using the outcome statistic (proficiency scores) following the NCES standards.

Total survey error has two components: variable error (measured through the calculation of variances) and bias. The variance is the first term in the following equation for total survey error in a survey estimate:

$$\text{Total survey error} = \text{variance} + \text{bias}^2.$$

Bias, the second term in the equation, contains all sources of error other than variable error. A major contributor to bias is nonresponse, that is, the bias owing to the failure of some selected persons in the sample to respond to the survey. Nonresponse bias can be substantial when two conditions hold: (1) the response rate is relatively low, and (2) the difference between the characteristics of respondents and nonrespondents is relatively large.

An estimate for nonresponse bias, assuming that nonresponse is the only source of bias, is expressed in Cochran (1977) as

$$\text{Bias}(\bar{y}_R) = (1 - W_R)(\bar{Y}_R - \bar{Y}_N)$$

where  $W_R$  is the response rate and  $\bar{Y}_R$  and  $\bar{Y}_N$  are the mean values of the survey items estimated among the respondents and nonrespondents, respectively. Thus, the estimates from any survey are subject to bias when some selected persons fail to participate in the survey. Because we do not have survey values for nonrespondents, nonresponse bias is not known and can only be estimated.

An alternative model of nonresponse assumes each sampled person has a certain propensity to respond, and NRB in a characteristic is a function of the covariance between the response propensity and the characteristic:

$$\text{Bias}(\bar{y}_R) = \frac{\sigma_{yp}}{\bar{p}},$$

where  $\sigma_{yp}$  is the covariance between the outcome variable and response propensity, and  $\bar{p}$  is the mean response propensity. Based on this model, NRB is present if missingness is related to competency, as measured in PIAAC.

The following sections provide insights into the effects of nonresponse on U.S. PIAAC. Unweighted response rates are indicators of the success of the data collection effort. Since weighted response rates are more appropriate in examining the potential effect of nonresponse on population parameters, these are provided in addition to bivariate and multivariate analyses of the potential for nonresponse bias.

Data from respondents were collected through a Screener, a Background Questionnaire (BQ), and an assessment. In the nonresponse follow-up strategies, efforts were made to reduce the potential for nonresponse bias by targeting interviewer resources in areas with low response rates. To identify target areas, a multivariate analysis was conducted using the classification software package Search<sup>28</sup> for the initial nonresponse bias analyses at both the Screener and BQ levels. The resulting classification tree revealed the domains, as defined by combinations of variables, with the most differential response rates, thereby leading to domains with a high potential for nonresponse bias. Overall, the results of the analysis showed acceptable response rates for most of the cells identified by the program. The analysis, which was conducted for both the Screener and the combined BQ/assessment response rates, identified the primary sampling units (PSUs) that included the domains with less than a 70 percent response rate. Field activities and resources were focused on these PSUs in the remaining weeks of the data collection.

After data had been collected and weights produced, an analysis was conducted to examine the impact of bias owing to the remaining nonresponding dwelling units and persons in the household sample. This analysis used weights created at varying stages of the weighting process. Screener and person-level base weights were used for the calculation of response rates; unknown-eligibility-adjusted weights were used for the other analyses. The analysis is divided into three pieces: first is a discussion of the weighted response rates for the Screener and the BQ, followed by the results of the basic nonresponse bias analyses and, lastly, a summary of the potential for nonresponse bias prior to the weighting adjustments. As

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<sup>28</sup> Details on the history and development of the software and also some references to early evaluations may be found at <http://www.isr.umich.edu/src/smp/search/>. Details of some computations in Search are provided in Sonquist, J., Baker, E., and Morgan, J. (1974), *Searching for Structure* (Rev. ed.), Ann Arbor. Michigan Institute for Social Research.



mentioned in section 7.2.1, the BQ LRNR cases are excluded from the basic analyses mentioned in section 7.2.2 since the focus is on analyzing nonrespondents and respondents whom we assume would score at the same level.

## **7.2.1 Response Rates**

U.S. PIAAC had two stages of data collection where appreciable unit nonresponse occurred: the Screener and the BQ. Weighted response rates were computed for each stage. Screener base weights were used in the Screener response rate calculations, and BQ base weights were used for the BQ calculations.

Response rates were calculated following PIAAC Consortium guidelines found in appendix I in the Technical Standards and Guidelines (TS&Gs).

Table F-1 contains response rates for the Screener and the BQ, conditional and unconditional on Screener response. The results clearly show differential response rates by subgroups. The regional and metropolitan response rates for PIAAC follow the usual patterns found in U.S. surveys. Lower response rates were experienced in the very urban areas that are more prevalent in the Northeastern and Western regions of the country. Areas with fewer people born outside the country and/or areas with fewer linguistically isolated people are likely rural areas that typically have higher response rates. Additionally, areas with higher education attainment had lower response rates. The younger population (under age 36) is more available, as are females, since higher proportions of these groups do not work outside the home.

Following the completion of the assessment, a monetary incentive of \$50 was paid to each respondent. The incentive was also paid to those adults who attempted to complete an assessment but were legitimately not able to complete it for reasons of language barriers or physical or mental disabilities. Respondents who refused to continue with the assessment were not compensated. Given this incentive, groups with lower income and lower education attainment according to the most recent Census were more likely to respond. This includes the Hispanic population, as they are more likely to live in poverty, according to the U.S. Census.<sup>29</sup>

## **7.2.2 Nonresponse Bias Analysis**

In order to determine the set of variables for the nonresponse bias analysis, a regression tree and regression model were created, using data from the U.S. PIAAC field test. Standardized logit scores (similar to proficiency scores) were used as the dependent variable. The predictors were extracted from the following data sources: 2000 Census, American Community Survey 2005-2009 (ACS) tract-level<sup>30</sup> data, and the Screener (for BQ-level analysis only). The continuous variables from the ACS were recoded into categories of approximately equal sample size. Data from the 2003 National Assessment of Adult Literacy (NAAL) and 2003 Adult Literacy and Lifeskills (ALL) survey were also reviewed to identify characteristics related to literacy.

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<sup>29</sup> U.S. Census Bureau, Income, Poverty, and Health Insurance Coverage in the United States: 2009, Current Population Reports, P60-238, and Historical tables—table 3, September 2010. See also <<http://www.census.gov/hhes/www/poverty/poverty.html>> and <<http://www.census.gov/hhes/www/poverty/data/historical/people.html>>.

<sup>30</sup> Blocks are very fine partitions of the United States, formed using visible semi-permanent features such as roads, railroad tracks, mountain ridges, bodies of water, and power lines. The only invisible boundaries used are county, state, and national boundaries. Minor civil division boundaries and property lines are ignored. A block group is a small group of contiguous blocks. A tract is a collection of contiguous block groups all within the same county.

The variables that were closely related to literacy are listed below. The following characteristics extracted from the 2000 Census were available on the PIAAC PSU sampling frame. It is noted if the characteristic was not used during the BQ weighting stage:

- census region; and
- indicator of whether the PSU is part of a Metropolitan Statistical Area Region (not used during the BQ weighting stage).

Estimated quartiles of tract-level data from the American Community Survey 2005-2009 were computed for the following:

- percentage of housing units occupied by owner;
- percentage of the population age 25 and older with at least a high school education;
- percentage of the population that is Hispanic or Non-Hispanic Black;
- percentage of the population that is Hispanic (not used during the BQ weighting stage);
- percentage of the population age 18-64 that is unemployed;
- percentage of the population below 150 percent of poverty (not used during the BQ weighting stage);
- percentage of the population that is foreign born;
- percentage of households that are linguistically isolated;
- percentage of the population age 18-64 that is employed;
- percentage of the population age 25 and older with a high school education;
- percentage of the population age 25 and older with some college education; and
- categorized average household size.

The following characteristics were available from the Screener:

- age category (after imputation);<sup>31</sup>
- gender;
- race/ethnicity (after imputation);<sup>5</sup>
- language used at screening (not used during the BQ weighting stage); and
- indicator for children under age 16 in household.

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<sup>31</sup> Age was imputed for some 0.2 percent of respondents and race/ethnicity for 2.1 percent.

The basic nonresponse bias analysis for both the Screener, and the BQ is presented in the sections that follow.

### **7.2.2.1 *Evaluating Bias Due to Screener Nonresponse***

A comparison of Screener respondents and nonrespondents using variables known for both groups provides some indication of the potential for nonresponse bias in survey estimates in the absence of weighting adjustments. A discussion of the chi-square tests that may detect a significant relationship between the response indicator and the analysis variable of interest is found in section 7.2.2.2. It also includes calculations of bias used in estimating the distribution of analysis variables. Section 7.2.2.3 provides a multivariate analysis of the relationship between the response indicator and analysis variables that may reveal the areas with the greatest potential for bias before weighting adjustments occurred.

### **7.2.2.2 *Screener Bivariate Analysis***

The distribution of Screener respondents was compared with the distribution of all eligible sampled dwelling units for the variables from the PSU sampling frame and the ACS. Weighted percentages and standard errors (SEs) were calculated using the WesVar software (Westat 2007) and full-sample and replicated Screener unknown eligibility adjusted base weights. To test the significance of the relationship between response status and each of the variables, a Rao-Scott chi-square (RS3) test of independence (Rao and Scott 1984) was performed (some detail is provided in appendix I).

The results of the Rao-Scott chi-square analysis are shown in table F-2. These analyses confirm what was seen in the response rate analysis above. Seven of the variables in the Screener analysis were significant at the  $\alpha = 0.05$  level: region; percentage of the population age 25 and older with at least a high school education; percentage of the population that is Hispanic; percentage of the population below 150 percent of poverty; percentage of the population that is foreign born; percentage of households; that are linguistically isolated; and percentage of the population age 25 and older with a high school education.

The difference between “percentage of the population age 25 and older with at least a high school education” and “percentage of the population age 25 and older with a high school education” is that the latter (high school and no more) is the percentage of a subset of the former. They are obviously strongly related but are different measures.

### **7.2.2.3 *Screener Multivariate Analysis***

The bivariate analysis described above is useful in explaining each variable individually. A multivariate analysis is useful in showing relationships among a number of variables. One approach is to provide a classification tree, which divides a sample into subgroups that best explain differential response rates.

The classification software package, Search, which employs a hierarchical tree algorithm, was used for the initial nonresponse bias analyses at both the Screener and BQ levels. Cell sizes were limited to 30 or more cases in each analysis. (The Search software is a freeware product developed and maintained by the University of Michigan.) The chi algorithm in Search, one of four algorithms available, is the original AID, AID3, and THAID (ancestor of CHAID) algorithm. The resulting classification tree reveals the domains, as defined by combinations of variables, with the most differential response rates, thereby leading to domains with the highest potential for nonresponse bias.

Search was run with Screener response status as the dependent variable and the variables from the PSU sampling frame and the ACS as the independent variables. The resulting tree is summarized in table F-3. Twenty-three cells were formed with weighted response rates ranging from 75.7 percent to 97.0 percent. The lowest response rate was for the group within urban segments that had each of the following characteristics:

- less than 10.3 percent of the population at or below 150 percent of the poverty level;
- more than 13.2 percent of the population being Hispanic;
- more than 2.6 percent of the population being foreign born;
- more than 0.3 percent of the population linguistically isolated; and
- more than 21.5 percent of the population age 25 and older having some amount of college education.

The highest response rate was for areas with the following characteristics:

- Northeastern segments;
- more than 2.6 percent of the population being foreign born;
- the percentage of the population linguistically isolated ranging from 0.3 percent to 1.7 percent;
- unemployment exceeding 4.8 percent; and
- less than 31.2 percent of the population having some college education.

The percentage of foreign born in the segment was the dominant variable in distinguishing response rate groups.

Although the classification tree is useful for dissecting the sample into fine groups of dwelling units with response patterns as different as possible, it should be used with caution because Search does not take into account the complex design of the sample, since the software only incorporates the full-sample weights, and not replicated weights, in the analysis. Consequently, the significance level of the test may be lower than the  $\alpha = 0.05$  level indicated. If the appropriate significance level could be used, then the tree might have fewer significant response cells. Thus, the tree summarized in table F-3 is a conservative picture because any indication of nonresponse bias shown by the Search results may be overstated.

Logistic regression models are also useful in identifying significant effects on response propensity. Screener response status was used as the binary dependent variable, and the PSU sampling frame and ACS variables were used as the predictors, weighted using the Screener base weights adjusted for unknown-eligibility, according to PIAAC guidelines. The main effects model was processed using WesVar and is described in appendix I. An F test was performed on each variable to determine whether it was significantly related to response propensity.

The results of the logistic regression analysis are presented in table F-4. Only the percentage of the population below 150 percent of the poverty level was significant. This confirms the earlier results indicating that there are fewer nonrespondents in the higher poverty levels.

#### **7.2.2.4 *Evaluating Bias Owing to Nonresponse to the BQ***

A comparison of BQ respondents and nonrespondents, using variables known for both groups, provides some indication of the potential for nonresponse bias prior to the weighting adjustments. Section 7.2.2.5 describes chi-square tests that may detect a significant relationship between response indicator and the analysis variable of interest. It also includes calculations of bias used in estimating the distribution of analysis variables. In section 7.2.2.6, we provide a multivariate analysis of the relationship between response indicator and analysis variables that may reveal the areas with the greatest potential for bias before weighting adjustments.

#### **7.2.2.5 *BQ Bivariate Nonresponse Bias Analysis***

The distribution of BQ respondents was compared with the distribution of all eligible sampled persons for the variables from the PSU sampling frame, the ACS, and the Screener. Weighted percents and standard errors (SEs) were calculated using the WesVar software and using replicated BQ base weights. To test the significance of the relationship between the response status and each of the variables, a Rao-Scott chi-square (RS3) test of independence was performed. The analysis used the person-level base weights which had undergone adjustment for unknown eligibility at the Screener level.

The results of the Rao-Scott chi-square analysis are shown in table F-5. These analyses confirm what was seen in the response rate analysis above. Seven of the variables in the analysis were significant at the  $\alpha=0.05$  level: region; percentage of the population age 25 and older with at least a high school education; percentage of the population below 150 percent of poverty; percentage of the population age 18-64 that is employed; age category; indicator for children under age 16 in household; and gender”

The difference between “percentage of the population age 25 and older with at least a high school education” and “percentage of the population age 25 and older with a high school education” is that the latter (high school and no more) is the percentage of a subset of the former. They are obviously strongly related but are different measures.

#### **7.2.2.6 *BQ Multivariate Nonresponse Bias Analysis***

As was done for the Screener analysis, a multivariate analysis was performed to investigate the relationship among a number of variables using the person-level base weights adjusted for unknown eligibility at the Screener level. The classification software package, Search (described earlier) was run with BQ response status as the dependent variable, and the variables from the PSU sampling frame, the ACS, and the Screener as the independent variables. The resulting tree is summarized in table F-6. Twenty-three cells were formed, with weighted response rates ranging from 58.5 percent to 93.1 percent. The lowest response rate was for the following characteristics:

- Hispanics age 26 and older;
- with no children in the household;
- not living in the Northeastern United States;
- living in segments with unemployment exceeding 4.8 percent; and
- less than 5.1 percent of the population being linguistically isolated.

The highest response rate was for the following:

- persons age 25 and younger;
- without children living in the household;
- not living in the Northeastern United States; and
- living in segments in which less than 2.6 percent of the population is foreign born.

The presence of children in the household was the dominant variable in distinguishing response rate groups.

As discussed earlier (section 7.2.2.3), the tree summarized in table F-6 is a conservative picture, because any indication of nonresponse bias shown by the Search results may be overstated since the software does not take into account the complex design of the sample.

To further investigate the multivariate relationships between the variables and the response propensity, a logistic regression model was also fit using BQ response status as the binary dependent variable, and the PSU sampling frame, ACS, and Screener variables as the predictors. The results of the logistic regression analysis are presented in table F-7. Only the age and gender of the respondent and whether there is a person age 16 or younger in the household were found significant at the  $\alpha=0.05$  level. This again confirms what was found in the earlier analyses: younger persons are more available to participate in an in-person household survey, as are those with children ages 16 and younger, and women.

### **7.2.3 Potential for Nonresponse Bias Remaining After Weighting Procedures**

As noted earlier, weighting procedures were implemented to reduce the potential for nonresponse bias by creating nonresponse adjustment classes for which the respondents' literacy-related characteristics are similar to those of nonrespondents. The extent of the reduction in nonresponse bias depends on the correlation of the weighting class variables with literacy scores. Since all significant variables in both the Screener and BQ analyses were used in the respective weighting adjustments, the potential for nonresponse bias should be reduced by those adjustments. Again, a more extensive NRBA focused on evaluating the potential for bias remaining after weighting adjustments were conducted using the outcome statistic (proficiency scores) following the NCES standards, and the results are presented in section 7.3.

## **7.3 Extended NRBA Analysis**

Section 7.2 presents an initial assessment of nonresponse bias (NRB) that is essential in identifying effective variables for the weighting process. However, the basic descriptive analysis has its limitations since it does not reflect the effect of weighting adjustments on NRB and the extent of bias remaining after nonresponse adjustments are conducted. Brief descriptions of these types of extended analyses are provided below. To gain further insights into the potential for NRB, the first plausible value for literacy scores is used in some of the extended analyses. Note that multiple analyses to assess NRB are necessary because each analysis has its own limitations. Together, they provide an insight into the patterns and potential for bias. Results are summarized at the end of the section. Key subgroups used in the analysis

were discussed at the beginning of section 7.2. In general, unless noted otherwise, the procedures followed are described more fully in appendix I.

### **7.3.1 Comparison of Estimates Before and After Weight Adjustments**

The basic analysis described in section 7.2 compared the base-weighted estimates for respondents to the base-weighted full sample estimates. That analysis was extended to include a third stage – the respondent estimates, using weights adjusted for nonresponse and calibrated to control totals. In other words, estimates based on the full sample can be compared to estimates based on the respondents before and after weighting adjustments. If the full sample estimates are closer to the final estimates than the base weighted estimates, this indicates that bias in the auxiliary variables was reduced through the weighting process.

Table G-1 provides estimated percentages and standard errors for subgroups after each stage in weighting. As mentioned in section 7.1.2, some analyses will include the literacy-related nonrespondents (LRNR) to the background questionnaire (BQ), for whom age and gender were collected from a household representative, and others will not. In general, such cases are excluded when the analysis involves literacy scores, since literacy scores were not generated for BQ LRNR cases. In this analysis, the BQ LRNR cases are included. The main comparison is between the nonresponse-adjusted (NRA) sample with the base-weighted full (BWF) sample. Because of the substantial overlap between these two groups and the impact on covariances and statistical tests, it was decided to take another approach. In general, the statistical *t* test procedure has shown significant differences when the absolute difference was very small. The general procedure used to determine if there was an important indication of bias was to first determine if the subgroup percentage for the NRA sample moved by more than two standard errors from the BWF sample, where the standard error was computed from the NRA sample. The “number of standard errors moved” is represented by the relative difference column in table G-1. This approach revealed no subgroups with estimated percentages that moved two standard errors away from the BWF sample. This indicates the potential for bias is at a low level, and it is important to note that the result also holds for the variables cited in section 7.2 that were not used during the BQ weighting process. Similarly, there were no important differences found when comparing the final estimates (after nonresponse adjustment and calibration) with those for the BWF sample.

### **7.3.2 Comparison of Weighted Estimates to External Totals**

Another extended analysis compares estimates from PIAAC to estimates from an external source different from that used in the weighting process. The PIAAC estimates were produced using the final weights adjusted for nonresponse and calibrated to control totals from the 2010 American Community Survey 1-year Public Use Micro Sample (PUMS) data. Care was taken to choose external source estimates that measured the same characteristic for a similar time period. As an alternate external source of estimates, totals were generated from the Current Population Survey’s 2012 Annual Social and Economic Supplement. Some differences in the estimates were expected to be found because of the 2-year difference in the external sources of the totals. The external source estimates were subject to error, and the variance of these estimates was taken into account when making this comparison. Standard errors for the CPS estimates were derived from the generalized variance function formula using the parameters in table I-1 of Employment and Earnings, Bureau of Labor Statistics, February 2006.

The results are shown in table G-2. A 95 percent confidence bound around the PIAAC estimate was used to detect a difference from the CPS estimate. If the CPS point estimate falls within the PIAAC confidence interval,<sup>32</sup> the PIAAC estimate is considered to be the same as the CPS estimates. In the case of the age variable, the PIAAC confidence interval includes all CPS estimates except for the 36-40 and 56-65 age groups, which are both significantly different. For the 56-65 group, the standard error is estimated to be equal to zero since it is a controlled estimate due to its use as a weighting group during weight calibration. The absolute difference is 0.7 percentage points, which is a small but statistically significant difference. For gender, the estimates are not significantly different. For race/ethnicity, there were statistically significant differences between the PIAAC and CPS estimates; however, the absolute difference is minimal (0.3 percentage points for Hispanic, 0.0 percentage points for Non-Hispanic Black, and 0.2 percentage points for Non-Hispanic Other). These differences are likely due to differences in the 2010 ACS (used in weight calibration) and the 2012 CPS. For Census region, the estimates for the Midwest region show a significant difference; however, the absolute difference is 0.4 percentage points. Other variables were unavailable due to the BQ LRNR cases not having BQ data. In general, the comparison with alternate external data yields no important indications of potential bias due to nonresponse.

### **7.3.3 Correlations Between Weighting Adjustment Variables and Competency Measures**

The analyses described thus far rely on auxiliary variables and do not directly measure bias in the competency estimates. As mentioned earlier, potential bias found in the auxiliary variables is indicative of bias in the competency estimates to the extent that the auxiliary variables and competency estimates are correlated. Thus, correlations between the auxiliary variables and competency data can be computed to evaluate this relationship. For variables used in the weighting adjustments, a low correlation with literacy implies that using the variable in the weighting adjustments did little to reduce NRB. On the other hand, a high correlation with literacy implies a potentially high reduction in NRB. For variables not used in the weighting adjustments, a high correlation with literacy may indicate potential bias in the literacy estimates, unless they are highly correlated with other variables used in weighting, or have no correlation with response status.

The disadvantage of using correlations to evaluate NRB is that the correlations are based on respondents only, and the relationship between competency and the auxiliary variables might be different for nonrespondents. However, this is not as much of a concern if the relationship can be confirmed using outside sources.

Table G-3 provides the correlations between literacy score and key variables. The BQ LRNR are excluded from this analysis since literacy score is not available. The correlations ( $r$ ) were computed as the square root of the R2 values from a weighted analysis of variance. The categorized percent of population below 150 percent of poverty ( $r = 0.31$ ) was used in the Screener adjustment, but was not used in the formation of the nonresponse adjustment cells for the BQ weighting stage. The formation of nonresponse adjustment cells was conducted through segmentation analysis (as discussed in section 1.6). The segmentation analysis began with variables found to be correlated with literacy, and was based on the variables relationship to response propensity (i.e., the ability to explain the variation among differential response rates among subgroups). Employment status ( $r = 0.16$ ) was not used during the weighting

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<sup>32</sup> In order to determine if estimates differ, the standard error shown for the PIAAC estimate must be adjusted to a 95 percent confidence interval by multiplying it by a factor of 1.96. That result is then added and subtracted from the point estimate to determine the 95 percent confidence interval (estimated percentage +/- 1.96 multiplied by the standard error).



process, since it was unknown for nonrespondents, and there was a lack of consistent external data that matched the PIAAC employment variable. Lastly, metropolitan statistical region ( $r = 0.05$ ) also was not used in weighting, but does not have an important association with literacy proficiency. Among the variables used in weighting, those with the highest correlation with literacy proficiency are education attainment ( $r = 0.52$ ), Race/Ethnicity ( $r = 0.40$ ), and percentage of the population with at least a high school education ( $r = 0.36$ ). Collectively, the BQ nonresponse adjustment cells had a correlation of  $r = 0.28$ . The correlations across the seven raking dimensions ranged from  $r = 0.29$  to  $0.57$ . When also considering the BQ nonresponse adjustment cells with the seven raking dimensions, the correlations range from  $r = 0.38$  to  $0.59$ .

### **7.3.4 Comparison of Estimates Using Alternative Weighting Adjustments**

For this evaluation, an auxiliary variable is re-calibrated to known totals, and estimates of the key statistics are compared before and after the re-weighting. Re-weighting can be useful as an evaluation tool when:

- the variable was not used in weighting (because it was of a low quality);
- the variable had broad categories and perhaps more detailed variables would have been beneficial;
- the variable is correlated with the outcome measure; and
- the variable is correlated with response propensity.

Any differences between estimates using the official survey weights and the re-weighted weights reflect NRB, but if there is not a large change in the estimates, it is further confirmation that NRB may not be a concern, especially if the alternative external totals do not share the same level of quality on the timing of those used in the original weighting process.

For this analysis, the final weights were re-calibrated to 2012 CPS totals with more detailed age categories. The age categories used in the analysis were 16-18, 19-25, 26-30, 31-35, 36-40, 41-45, 46-50, 51-55, 56-65. The categories used in the PIAAC weighting process were 16-25, 26-35, 36-45, 46-55, 56-65. Table G-4 provides the estimates and standard errors from the final weights and from the re-calibrated weights for key subgroups. Comparison of the estimates, by the weighting approach, does not show any statistically significant differences.

### **7.3.5 Analysis of Variables Collected During Data Collection – Disposition Codes**

Disposition codes contain information on reasons for nonresponse. For this analysis, distributions of sampled persons with known characteristics related to outcome (i.e., the literacy-related cases) were examined. Distributions of the BQ LRNR cases across key subgroups were compared to respondents in table G-5. The statistical tests provide clear evidence to declare significant differences between distributions across all key subgroups, with the exceptions of metropolitan statistical region, percent of the population unemployed, and age and gender. Since the weighting steps separated the LRNR cases from the remaining sample, the final set of weights accounted for the differences appropriately.

### 7.3.6 Analysis of Variables Collected During Data Collection – Non-Interview Report

The non-interview report (NIR) forms identify observable information and reasons for nonresponse that are not captured in the disposition codes. The NIR forms can potentially indicate whether the reasons for nonresponse are related to competency estimates and suggest ways to improve response rates for future surveys. There were two interesting variables to analyze. The first variable provides a classification made by the interviewer, by observation as to whether the respondent belongs to one of four income-related subgroups (high, medium, low, very low), or could not make such a determination. This income-related variable was available for 327 BQ nonrespondents. This income-related variable was also collected by interviewer observation for 4,814 respondents. Table G-6 shows a significant difference between the distribution of the income-related variable among the nonrespondents and the respondents, notably a higher percentage of low income among the respondents. Using Taylor Series Linearization,<sup>33</sup> Rao-Scott second-order correction, the  $p$  values are computed with a Satterthwaite approximation to the distribution and with denominator degrees of freedom as recommended by Thomas and Rao (1990). The NIR income-related variable is available for 30 percent of the nonrespondents.

Table G-7 shows the weighted distribution of the reason for refusing or not completing the BQ or assessment NIR. While listing multiple reasons, among the 373 nonrespondents for which we have NIR data, 35 percent were too busy, 30 percent were not interested in the study, 30 percent did not want to be bothered, 10 percent said it was too long, 7 percent do not trust surveys, and 5 percent do not want to answer exercises. All of the remaining reasons were under 5 percent.

### 7.3.7 Comparison of Late or “Hard-To-Contact” Respondents to Early Respondents

This analysis is helpful in evaluating the potential for NRB for differences that cannot be captured through adjusting for known demographics. Significant differences between the competency levels of early and late respondents imply that the bias could have been potentially reduced through focused efforts to obtain cooperation from the late respondents. However, to the extent that differences between early and late respondents reflect differences between respondents and nonrespondents, the findings indicate that some level of NRB might still be present (depending on the magnitude of the nonresponse rate). The validity of this assumption, that late respondents are similar to nonrespondents, depends largely on the strategies used in the late data collection effort. For many surveys, this may not be a valid assumption, but it seems reasonable for a household survey such as PIAAC, where multiple contacts are usually required to gain cooperation.

Table G-8 provides a comparison of the cases that completed the interview in the first 6 months and the cases that completed in the last 2 months. The BQ LRNR cases were excluded from this analysis due to the lack of scores. A chi-square test for independence was conducted on the timing of completion for each of the key subgroups in terms of estimated percent distribution of the population. There is not enough evidence to claim any significant dependency of the estimated percent distribution of the population between the timing of completion and the key subgroups. For each subgroup,  $t$  tests were conducted under the hypothesis that the average literacy scores for the first 6 months were the same as for the last 2 months. Of all the subgroups, females (scored higher in the last 2 months) and those with a professional degree (scored lower in the last 2 months) scored differently.

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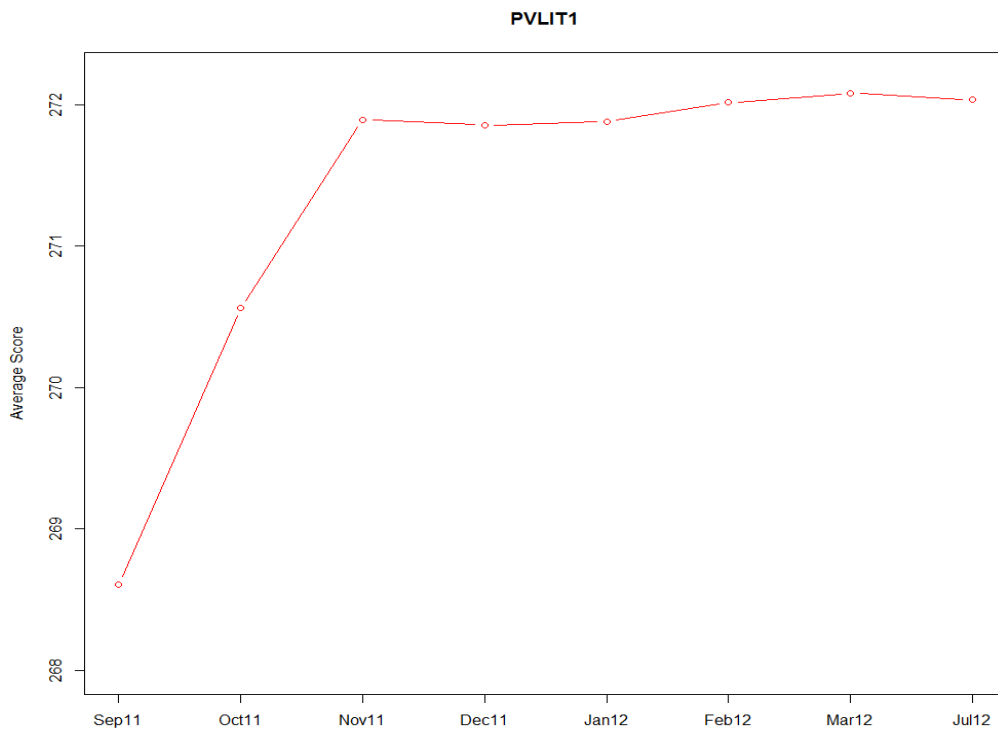
<sup>33</sup> There are two commonly used approaches for estimating variances for complex surveys: replication and Taylor Series Linearization (Wolter (2007)).

To examine this relationship in a different light, figure 7-3 shows the average literacy for month 1 completes, and then, cumulatively, through month 2, month 3, etc. The graph shows that average literacy scores were much lower in the first couple of months, and then rose considerably in latter months. One possible conclusion from the plot is that perhaps the easiest respondents to find at home during the first couple of months scored lower, and that the more difficult to locate, the more different the cases became. It would be interesting and potentially informative to extend this analysis to show lines in the plot for the problem-solving scores, or for subgroups. The results overall look good; however, subgroups, such as age groups, may show differences.

### 7.3.8 Calculation of the Range of Potential Bias<sup>34</sup>

The purpose of the range of bias analysis is to evaluate the potential for bias before weighting adjustments and the potential bias remaining after weighting, based on assumptions of how different nonrespondents are from respondents within the weighting classes. The range of potential bias can be evaluated using a deterministic NRB formula that calculates how different respondent and nonrespondent competency estimates need to be to bias the overall competency estimate by varying degrees. Using this formula one can show, for example, that for a response rate of 70 percent ( $W_R = 0.7$ ), the mean of respondents and nonrespondents would have to differ by 50 points ( $Y_R - Y_{NR} = 50$ ) to bias the overall estimate by 15 points ( $\text{Bias}(y_R) = 15$ ).

Figure 7-3. Average literacy score by cumulative month of data collection



SOURCE: U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).

<sup>34</sup> Much of the description of the approach in this section is taken from the PIAAC Consortium Range of Bias Toolkit.

The following paragraphs describe the computation. Let the weighted percentage of literacy-related cases that completed the screener be,

$$p^{SCR} = \frac{\sum_{i \in L^{BQ, L^{MAIN}}} HHUEWT0_i}{\sum_{i \in L} HHUEWT0_i},$$

where  $L^{BQ}$  corresponds to BQ LRNR,  $L^{MAIN}$  corresponds to assessment LRNR, and  $L$  corresponds to LRNR from the Screener, BQ and assessment. HHUEWT0 is the household base weight adjusted for unknown eligibility status. This value is 53.1 percent.

Let the weighted percentage of eligible non-literacy-related cases that completed the screener be,

$$p^{SCR} = \frac{\sum_{i \in R^{SCR}} HHUEWT0_i}{\sum_{i \notin L, I} HHUEWT0_i}$$

where  $R^{SCR}$  corresponds to cases with households that completed the Screener with a selected person resulting, and  $i$  corresponds to ineligible Screener cases (vacants and other housing units without eligible persons). This value is 89.4 percent.

The following computations are done within cells for weighting adjustments, with literacy-related nonrespondents as one of the subgroups. The weighted percentage of the eligible sampled persons that is part of the subgroup ( $S$ ):

$$\frac{\sum_{i \in S} THEOR\_PBWT_i}{\sum_i THEOR\_PBWT_i}$$

The sum over all the subgroups should equal 100 percent. THEOR\_PBWT is the theoretical person base weight (inverse of overall selection probability).

Let the weighted percentage of BQ respondents ( $R$ ) among the eligible sampled persons within the subgroup ( $S$ ) be,

$$p_{R,S}^{BQ} = \frac{\sum_{i \in S, R} THEOR\_PBWT_i}{\sum_{i \in S} THEOR\_PBWT_i}$$

The mean ( $\bar{Y}_{R,S}$ ), 10th percentile, and 90th percentile, were computed, respectively, of the respondents' scores in the subgroup, where the statistics were calculated using THEOR\_PBWT. For the Extended NRBA, the score is the first plausible value for literacy score.

Based on this information, the potential range of nonresponse bias before weighting adjustments is calculated by subgroup and overall using the following deterministic nonresponse bias formula,

$$Bias_{NR,S} = (1 - p^{SCR} p_{R,S}^{BQ})(\bar{Y}_{R,S} - \bar{Y}_{NR,S}),$$

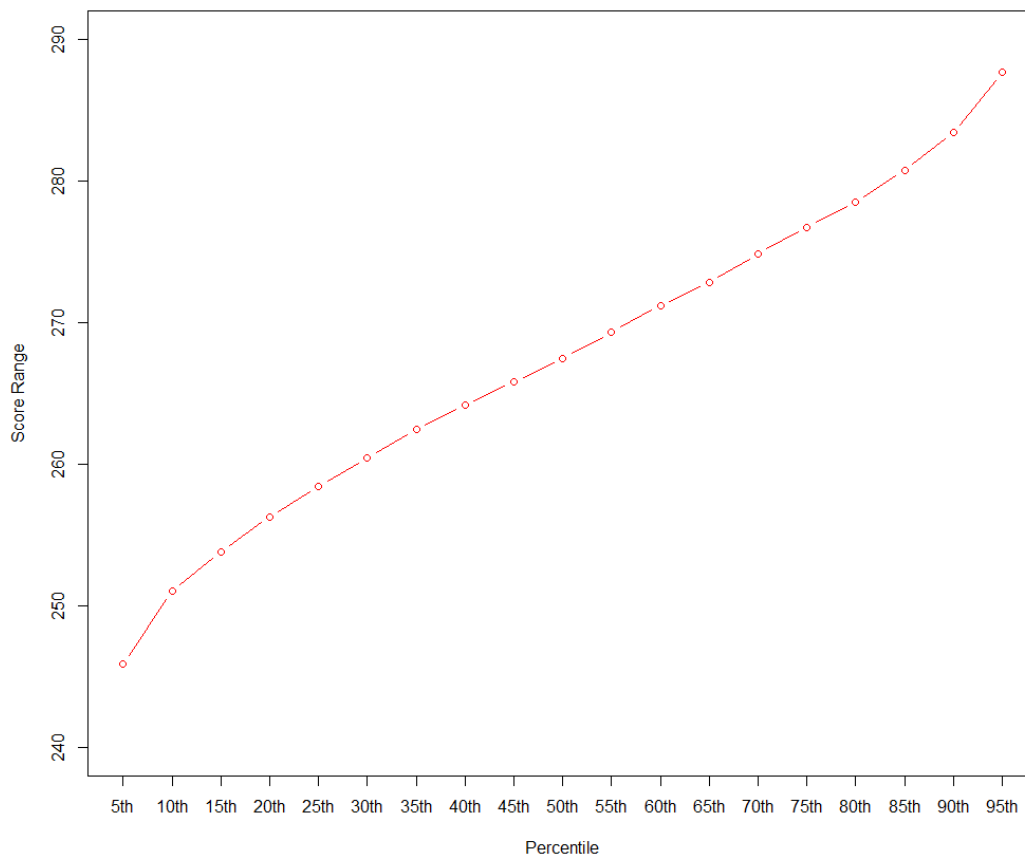
where the mean score of nonrespondents within the subgroup ( $\bar{Y}_{NR,S}$ ) is assumed to be high (i.e., equal to the 90th percentile) or assumed to be low (i.e., equal to the 10th percentile).

To estimate the bias after weighting adjustments, based on the above assumptions, the mean score calculated using final weights is computed ( $\bar{Y}_{FINAL}$ ). The bias after weighting adjustments is then

estimated as  $\bar{Y}_{FINAL} - (\bar{Y}_R - Bias_{NR})$ . For technical correctness, a negligible amount of bias due to undercoverage (0.08 percent) was incorporated into the computation as well.

Figure 7-4 provides the resulting scores under assumptions of nonrespondents scoring at the 5th, 10th, 15th, ... 45th, 50th, 55th, 60th, ... 90th, and 95th percentiles. For example, if all nonrespondents within each weighting cell scored at the 10th percentile, then the resulting overall score would be 251. However, at the other extreme, if all nonrespondents within each weighting cell scored at the 90th percentile, then the resulting overall score would be 283. Therefore, under this extreme assumption of all nonrespondents scoring low, or all nonrespondents scoring high, the score could range from 251 to 283. The range of scores becomes narrower when it is assumed that nonrespondents score at a similar level as respondents. For example, if all nonrespondents within each weighting cell scored at the 45th percentile, then the resulting overall score would be 266. However, if all nonrespondents within each weighting cell scored at the 55th percentile, then the resulting overall score would be 269. Therefore, under this extreme assumption of all nonrespondents scoring low, or all nonrespondents scoring high, the score could range from 266 to 269. When discussing the literacy levels, the bias is reduced further due to the likelihood of the biased score remaining in the same level as the true level.

Figure 7-4. Range of scores if all nonrespondents scored at the percentile within weighting class



SOURCE: U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).

### 7.3.9 Conclusion

The extended NRBA investigated the impact of weighting adjustments, and used the resulting literacy score to gain insights into potential bias through a variety of analyses. The conclusions from the extended NRBA are:

- An examination of the impact of weighting adjustments indicates the potential for bias is at a low level. It is important to note that this result also holds for the variables cited in section 7.2 that were not used during the BQ weighting process.
- The comparison with alternate external data yields no important indications of potential bias in outcome statistics due to nonresponse.
- Collectively, the BQ nonresponse adjustment cells had a correlation of  $r = 0.28$  with the first plausible value for literacy. The correlations across the seven raking dimensions ranged from  $r = 0.29$  to  $0.57$ . When also considering the BQ nonresponse adjustment cells with the seven raking dimensions, the correlations range from  $r = 0.38$  to  $0.59$ . This indicates that the weighting variables were moderately correlated with the survey's outcome and likely were effective in reducing bias due to nonresponse.
- When more finely detailed age groupings were used to re-calibrate the weights (using the same external data source for the control totals as during the formal weighting process), no statistically significant differences were found between the final-weighted estimates and the re-weighted estimates.
- Statistically significant differences were found between BQ literacy-related nonrespondents (LRNR) and respondent distributions across all key subgroups except metropolitan statistical region, percent of the population unemployed, and age and gender. Since the weighting steps separated the LRNR cases from the remaining sample, the final set of weights accounted appropriately for the differences.
- The examination of the Non-interview Report (NIR) data provided some interesting results that will be useful in suggesting ways to improve response rates for future surveys.
- Further analysis shows that early respondents (cooperated during the first couple of months) scored lower, and that the late respondents (more difficult to locate and/or to respond) scored higher. One plausible assumption is that nonrespondents would score at about the same level as late respondents. The extra efforts conducted during the latter months of the data collection period provided different proportions of certain characteristics of respondents.
- Under extreme assumptions of all nonrespondents scoring low, or all nonrespondents scoring high, the estimated average score could vary by 32 points. However, the range of scores becomes much narrower when it is assumed that nonrespondents score at a similar level as respondents. For example, if all nonrespondents within each weighting cell scored at the 45th percentile, and all nonrespondents within each weighting cell scored at the 55th percentile, then the range is just 3 points.

## 7.4 Item Nonresponse

### 7.4.1 Standards on Item Nonresponse Bias

As part of the National Survey Design and Planning Report process for the field test and the main study, countries were required to document their planned response rate computations and outline a strategy for assessing nonresponse bias. Also, during the data collection period, countries submitted periodic quality control monitoring forms showing the number of completed cases, the number of cases worked, response rates, and expected yield. The report was reviewed by the Consortium and any concerns were addressed.

After data collection, countries conducted the nonresponse bias analysis, and the results were reviewed by the Consortium and reported to the country and OECD.

PIAAC Standard 4.7.7 states that: Countries will be required to compute item response rates and conduct an item nonresponse bias analysis for any background questionnaire items with response rates below 85 percent. It is followed by Recommendation 4.7.7, as follows: Respondents and nonrespondents to the item can be compared on other background questionnaire items that were completed by all or almost all (99.9 percent or more) respondents to the survey.

Similarly, NCES Standard 2.2.4 states that a nonresponse bias analysis is required at any stage of a data collection with a unit response rate less than 85 percent. If the item response rate is below 85 percent for any items used in a report, a nonresponse bias analysis is also required for each of those items (excluding individual test items). The extent of the analysis must reflect the magnitude of the nonresponse.

### 7.4.2 Weighted Item Response Rate Computation

Countries need to compute response rates for all Background Questionnaire (BQ) items. For BQ items with less than 85 percent response rates, countries will be required to conduct an item nonresponse bias analysis per Standard 4.7.7 in the PIAAC Technical Standards and Guidelines. This section provides guidance on the computation of weighted BQ item response rates.

The unweighted item response rates are computed by dividing the number of respondents to an item by the total number of unit respondents, excluding those with a valid skip for that item. The weighted item response rates account for the selection probabilities of sampled persons and weighting adjustments (i.e., unknown eligibility adjustment, nonresponse adjustment, and benchmarking). The final weights (*SPFWT0*) were used to compute weighted BQ item response rates. The weighted item response rates were calculated by dividing the number of sampled persons who responded to an item by the number of sampled persons who were eligible to answer the item, adjusting by the final weights. The weighted item response rate can be expressed as:

$$WR_{(item)} = \frac{\sum_{i=1}^{NI} FW_i}{\sum_{i=1}^N FW_i}$$

where

$WR(item)$	=	weighted item response rate,
$FW_i$	=	final weight for respondent $i$ ,
$NI$	=	total number of persons with a valid response to the item, and
$N$	=	total number of persons for which a response to the item is required.

The numerator is the sum of the final weights for all sampled respondents for which a valid response to an item is obtained. Items with responses of “Refused (RF)” should be considered as nonresponse. The appropriate treatment of “Don’t Know” (DK) responses depends on the particular BQ item. In some cases DK is a response that is more informative than just a missing value. If DK responses are of analytic interest, they should be treated as responses.

Two sets of weighted item response rates were computed, one treating DK as nonresponse and the other treating DK as valid response. Item NRB analysis is warranted if both weighted response rates fall below 85 percent for a BQ item. Countries were asked to check with the Consortium to determine whether item NRB analysis was necessary for BQ items that had less than an 85 percent weighted response rate when treating DK as nonresponse.

The denominator is the sum of the final weights for all sampled persons for which a response to an item is required. The denominator included completed BQ cases (i.e., DISP\_CIBQ (01)), excluding those with a valid skip for the item. Literacy-related nonrespondents were excluded from the computation as the percentage of literacy-related nonrespondents is reported as a separate statistic. In defining a valid skip, sampled persons who failed to provide a valid answer to a skip-controlling question (i.e., an item that determines the skip pattern) were excluded in item response rate calculations for the remaining questions in that skip. Suppose Q3 is a skip-controlling question for Q4 and Q5. If a sampled person failed to provide a valid response to Q3 (and therefore was not asked Q4 and Q5), then that sampled person should be excluded when computing item response rates for Q4 and Q5. Another example for defining a valid skip is when a valid response to Q3 signifies that Q4 and Q5 be skipped. Such cases were removed from the denominator for Q4 and Q5 item response rates.

### 7.4.3 Response Rates for all Background Questionnaire Items

The response rates for all Background Questionnaire (BQ) items are found in Appendix H. Two sets of weighted item response rates are presented: the first treats “Don’t Know” as nonresponse; the second treats DK as a valid response. Twenty-two of the BQ items have response rates below 85 percent, but 13 of these items have sample sizes below 60 and will be disregarded for NRBA analysis (consistent with PIAAC Consortium guidelines). Eight of the items have adequate sample size and report a low response, but this fact reflects an error in coding, which disregarded the use of specific variables used in routing to the specific item. When adjusted, each of the items had a response rate greater than 85 percent. One item was found with a response rate of 57 percent when DK was not considered a valid response, but the rate rose to 97 percent when DKs were included as valid.

According to PIAAC standards, an NRBA is to be conducted for any BQ items with a response rate lower than 85 percent. NCES standards require an item NRBA if there is high nonresponse, which was considered to be 15 percent or more for this report. Since all items had greater than an 85 percent response rate, the potential for bias due to item nonresponse was considered negligible.



## 7.5 Summary of NRBA Results

The basic NRBA for the BQ found seven variables that were significant at the  $\alpha = 0.05$  level: region; percentage of the population age 25 and older with at least a high school education; percentage of the population below 150 percent of poverty; percentage of the population age 18-64 that is employed; age category; indicator for children under age 16 in household; and gender. As shown in table F-6, the multivariate analysis identified the lowest response rate for the following characteristics:

- Hispanics age 26 and older;
- with no children in the household;
- not living in the Northeastern United States;
- living in segments with unemployment exceeding 4.8 percent; and
- living in areas (census tracts) with less than 5.1 percent of the population being linguistically isolated.

The presence of children in the household was the dominant variable in distinguishing response rate groups. In general, younger persons were found to be more available to participate in an in-person household survey, as were those with children ages 16 and younger, and women.

The conclusions from the extended NRBA are:

- An examination of the impact of weighting adjustments indicates the potential for bias is at a low level. It is important to note that this result also holds for the variables cited in section 7.2 that were not used during the BQ weighting process.
- The comparison with alternate external data yields no important indications of potential bias in outcome statistics due to nonresponse.
- Collectively, the BQ nonresponse adjustment cells had a correlation of  $r = 0.28$  with the first plausible value for literacy. The correlations across the seven raking dimensions ranged from  $r = 0.29$  to  $0.57$ . When also considering the BQ nonresponse adjustment cells with the seven raking dimensions, the correlations range from  $r = 0.38$  to  $0.59$ . This indicates that the weighting variables were moderately correlated with the survey's outcome and likely were effective in reducing bias due to nonresponse.
- When more finely detailed age groupings were used to re-calibrate the weights (using the same external data source for the control totals as during the formal weighting process), no statistically significant differences were found between the final-weighted estimates and the re-weighted estimates.
- Statistically significant differences were found between BQ literacy-related nonrespondents (LRNR) and respondent distributions across all key subgroups except metropolitan statistical region, percent of the population unemployed, and age and gender. Since the weighting steps separated the LRNR cases from the remaining sample, the final set of weights accounted appropriately for the differences.

- The examination of the Non-interview Report (NIR) data provided some interesting results that will be useful in suggesting ways to improve response rates for future surveys.
- Further analysis shows that early respondents (cooperated during the first couple of months) scored lower, and that the late respondents (more difficult to locate and/or to respond) scored higher. One plausible assumption is that nonrespondents would score at about the same level as late respondents. The extra efforts conducted during the latter months of the data collection period provided different proportions of certain characteristics of respondents.
- Under extreme assumptions of all nonrespondents scoring low, or all nonrespondents scoring high, the estimated average score could vary by 32 points. However, the range of scores becomes much narrower when it is assumed that nonrespondents score at a similar level as respondents. For example, if all nonrespondents within each weighting cell scored at the 45th percentile, and all nonrespondents within each weighting cell scored at the 55th percentile, then the range is just 3 points.

According to PIAAC standards, an NRBA is to be conducted for any BQ items with a response rate lower than 85 percent. Similarly, NCES standards require an item NRBA if there is high nonresponse, which was considered to be 15 percent or more for this report. Since all items had greater than an 85 percent response rate, the potential for bias due to item nonresponse was considered negligible.

Finally, the overall conclusion from the PIAAC study on nonresponse bias is that some minimal potential for nonresponse bias exists in the PIAAC estimates, however, the analysis shows that the bias is negligible.

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## 8. WEIGHTING AND VARIANCE ESTIMATION

The PIAAC Consortium was responsible for deriving sampling weights for the Main Study for all participating countries. However, some countries, such as the United States, were permitted to create their own sampling weights provided that they submit weighting and nonresponse bias analysis plans several months before data collection for Consortium approval and that they adhere to particular standards and guidelines specified in the Technical Standards and Guidelines (TS&Gs). These include several quality control measures described earlier in chapter 2.

Sample weights for the U.S. Main Study were produced for all sample persons who completed the Background Questionnaire as well as those who did not complete the Background Questionnaire owing to language problems or mental disabilities. The main purpose of calculating sample weights was to permit inferences from sample persons to the population from which they were drawn. In addition, the sample weighting process was designed to accomplish the following objectives:

1. Permit unbiased estimates, taking into account the fact that all persons in the population did not have the same probability of selection.
2. Minimize the potential bias arising from differences between respondents and nonrespondents.
3. Use auxiliary data on known population characteristics in such a way as to reduce sampling errors and to bring data up to the dimensions of the population totals.
4. Reduce the variation of the weights and prevent a small number of observations from dominating domain estimates.
5. Facilitate sampling error estimation under complex sample designs.

Objective 1 was accomplished by computing base weights for the households selected for screening and, subsequently, for persons selected for the Background Questionnaire and assessment from the eligible participating households. The details of the base weight calculations for the Screener and the Background Questionnaire are presented in sections 8.2.1 and 8.3.1, respectively.

Objective 2 was accomplished through nonresponse weighting adjustments that accounted for Screener nonresponse and Background Questionnaire nonresponse. Sections 8.1.2.2 and 8.1.3.2 discuss the nonresponse adjustments for the Screener and Background Questionnaire, respectively. Some reduction in potential bias was also achieved while meeting Objective 3 by calibrating the weights. This was accomplished by using weighting variables that were not used for nonresponse adjustment because data were available only for respondents.

To meet Objective 3, the weights were calibrated to known totals from the 2010 American Community Survey (ACS).<sup>35</sup> The weights were calibrated using a raking procedure (i.e., iterative poststratification) so that numerous totals calculated with the resulting full-sample weights would agree with the ACS totals. The calibration procedure is described in section 8.3.3.

Objective 4 was addressed by trimming the weights. A small number of weights were reduced using an inspection approach (referred to as the  $k$  x median rule) as required by PIAAC weighting guidelines. After

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<sup>35</sup> The American Community Survey (ACS) is conducted every year as a supplement to the U.S. decennial census, which provides an official count of the entire U.S. population to Congress.

the trimming procedure, the weights were again calibrated to ACS totals. The trimming procedures are also described in section 8.3.3.

Finally, Objective 5 was accomplished by creating 45 replicate weights using the stratified jackknife method. Full-sample and replicate weights were calculated for each record to facilitate the computation of unbiased estimates and their standard errors. The weighting procedures were repeated for 45 strategically constructed subsets of the sample to create a set of replicate weights for variance estimation using the jackknife method. The replication scheme was designed to produce stable estimates of standard errors. The replication design and the significance of the number of replicates are discussed further in section 8.4.

There were several steps completed prior to the weighting process. These preliminary steps are discussed in section 8.1. Section 8.2 describes the Screener weighting process, and section 8.3 describes the Background Questionnaire weighting process. Finally, section 8.4 provides a description of the formation and adjustment of the replicate weights necessary for variance estimation.

## **8.1 Preliminary Steps in Weighting**

Prior to weighting, the variables considered for the weighting adjustments were evaluated. Only variables of high quality, available for all eligible units, and related to literacy and response propensity were considered for the nonresponse adjustment. These included some variables created for sampling or collected through PIAAC survey instruments: an indicator of whether the primary sampling unit (PSU) is part of a Metropolitan Statistical Area, census region, age category, race/ethnicity, language used at screening, and whether anyone younger than 16 resides in the household. For the calibration adjustment, variables were required to be reliable control totals available from an external source for which respondents have less than 5 percent missing data. Again, these included variables created for sampling or collected through the survey instruments: Census region, age category, race/ethnicity, gender, level of education, and country of birth.

Although age, race/ethnicity, and gender were collected in both the Screener and the Background Questionnaire, the Background Questionnaire measure was preferred for all items as these demographic data were self-reported in all cases. For the few cases in which the Background Questionnaire measure was missing, the Screener value was used as a direct substitute. After this procedure, there were no missing values for gender. Missing values of age category (10 cases) were imputed using the broad age range collected in the Screener. Race/ethnicity for cases missing this item (125 cases) was created by imputing ethnicity (Hispanic/not Hispanic) first, and then race. To obtain values for ethnicity, cells were formed by PSU, segment, and language spoken at the Screener. Then the most frequent value in the cell was given to the missing case (i.e., modal within cell hotdeck<sup>36</sup>). To obtain values for race, cells were formed by PSU and segment and values imputed using the hotdeck procedure.

For level of education and country of birth, which were not collected through the Screener, a limited amount of imputation was performed to fill in the data for respondents so that the variables could be used in the raking process. Since the raking variables were needed for all cases receiving final weights, i.e., Background Questionnaire respondents and literacy-related nonrespondents, missing values of country of birth and education were imputed using separate procedures.

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<sup>36</sup> Hotdeck is an imputation procedure that uses data from the same sample survey.

Background Questionnaire respondents missing values of country of birth and education were imputed using the same hotdeck procedure. To impute the one missing value of country of birth, cells were formed by PSU and segment. To impute the three cases missing education category, cells were formed by age category (16–18, 19–24, 25–29, and 30+), PSU, and imputed race/ethnicity.

For persons who were unable to complete the Background Questionnaire due to a language barrier, country of birth was imputed as “non-U.S.” Education was imputed by taking a random draw from the 2008–2010 ACS education distribution for those who speak English not at all plus a portion of those who do not speak English well, in the appropriate age group. For persons who were unable to complete the Background Questionnaire due to a learning or mental disability, country of birth was assigned as “U.S.” with a probability of 0.904 and “non-U.S.” otherwise. The probability of 0.904 is based on the percentage of persons with disabilities who were born in the United States according to the 2008–2010 ACS. Education was imputed by taking a random draw from the education distribution for the appropriate age group, where the education distribution is based on the 2008–2010 ACS distribution for persons with disabilities adjusted by the proportion of the disabled population within each education level that had a mental disability according to the 2007–2010 ACS.

In the sections that follow, the weighting process will refer to nonliteracy-related adjustments and literacy-related adjustments. Particular attention was given to classify nonresponse into literacy-related and nonliteracy-related nonresponse categories. All nonliteracy-related nonrespondents were considered to be similar to respondents with respect to literacy scores; however, the literacy-related nonrespondents were not considered to be similar to the respondents since they likely would have scored lower than average if they attempted the assessment. For the Screener, literacy-related nonresponse occurred if the household representative could not speak the language of the interview. For the Background Questionnaire, literacy-related nonresponse occurred if the sample person could not speak the language of the interview, or could not complete the interview due to reading or writing difficulty or mental disability. For the assessment, literacy-related nonresponse occurred if the sample person could not speak the language of the assessment or could not complete the assessment due to reading or writing difficulty or mental disability.

### **8.1.1 Selection of Nonresponse Adjustment Variables**

The weighting nonresponse adjustments can be effective in reducing nonresponse bias in the PIAAC estimates if the variables used in the adjustments are both related to the survey outcome (literacy) and to response propensity (Little 1986). In accordance with the PIAAC TS&Gs, an initial nonresponse bias analysis was conducted to evaluate the relationship between the potential nonresponse adjustment variables and response propensity.

The classification software package Search, which employs a hierarchical tree algorithm, was used for the initial nonresponse bias analyses at both the Screener and Background Questionnaire levels. The software identifies the auxiliary variables that best define subgroups with differential response rates. The analyses were performed using base weights (equal to the inverse of the selection probability at each stage) to reflect any differential sampling rates. To the extent that the auxiliary variables are related to literacy, the differential response rates among the subgroups (or differences in the distributions of respondents and nonrespondents) may indicate potential nonresponse bias in the unadjusted PIAAC estimates. Using these variables in the weighting adjustments should help alleviate this bias.

### 8.1.1.1 *Screener Analysis*

A Screener-level nonliteracy-related nonresponse status variable was created and used as the dependent variable for the analysis. Because very little was known about the households that did not respond to the Screener, information used to form weighting classes had to come from a different source. The frame contained only aggregate demographic information, such as census region and Metropolitan Statistical Area (MeSA) status. However, because the sampling was performed using census geography, the sampled segments were merged to the ACS 2005–2009 tract-level<sup>37</sup> data files to create approximate segment-level weighting variables. All the characteristics related to literacy considered as predictors are shown below:

From the PSU sampling frame:

- indicator of whether the PSU is part of a Metropolitan Statistical Area; and
- census region.

Estimated quartiles of tract-level data from the American Community Survey 2005–2009:

- percentage of housing units occupied by owner;
- percentage of the population age 25 and older with at least a high school education;
- percentage of the population that is Hispanic or non-Hispanic Black;
- percentage of the population that is Hispanic;
- percentage of the population age 18–64 that is unemployed;
- percentage of the population below 150 percent of poverty;
- percentage of the population that is foreign born;
- percentage of households that are linguistically isolated;
- percentage of the population age 18–64 that is employed;
- percentage of the population age 25 and older with a high school education;
- percentage of the population age 25 and older with some college education; and
- categorized average household size.

All items, with the exclusion of the percentage of the population age 18–64 that is employed and the percentage of the population age 25 and older with at least a high school education, were found to be significant predictors of Screener response and were used to form the Screener nonresponse adjustment cells. Twenty-six final cells were formed using these variables. These cells were used for both the Screener-level nonliteracy-related nonresponse adjustment and the unknown eligibility adjustment.

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<sup>37</sup>Blocks are very fine partitions of the United States, formed using visible semi-permanent features such as roads, railroad tracks, mountain ridges, bodies of water, and power lines. The only invisible boundaries used are county, state, and national boundaries. Minor civil division boundaries and property lines are ignored. A block group is a small group of contiguous blocks. A tract is a collection of contiguous block groups all within the same county.

### **8.1.1.2     *Background Questionnaire Analysis***

A Background Questionnaire-level nonliteracy-related nonresponse status variable was created and used as the dependent variable for the analysis. In addition to the items used for the Screener analysis, characteristics from the Screener were also considered as predictors and are shown below:

From the Screener enumeration:

- indicator for children under age 16 in household.

From the Screener:

- age category (after imputation);
- gender;
- race/ethnicity (after imputation); and
- language used at screening.

The following items were found to be the most significant predictors of nonliteracy-related response to the Background Questionnaire and were used to form the adjustment cells:

- census region;
- percentage of housing units occupied by owner;
- percentage of the population age 25 and older with at least a high school education;
- percentage of the population that is Hispanic or non-Hispanic Black;
- percentage of the population age 18–64 that is unemployed;
- percentage of the population that is foreign born;
- percentage of households that are linguistically isolated;
- percentage of the population age 18–64 that is employed;
- percentage of the population age 25 and older with a high school education;
- percentage of the population age 25 and older with some college education;
- categorized average household size;
- indicator for children under age 16 in household;
- age category (after imputation);



- gender; and
- race/ethnicity (after imputation).

Twenty-six final cells were formed using these variables; these cells were then used for the Background Questionnaire-level nonliteracy-related nonresponse adjustment.

### **8.1.2 Selection of Calibration Adjustment Variables**

The PIAAC Consortium stipulated that at minimum the weights must be benchmarked to control totals for age and gender. Other key variables of interest are race/ethnicity, educational attainment, country of birth, and census region. Two-way crossing of these variables was done to form seven raking dimensions, as shown in table 8-1.

The 2010 ACS 1-year Public Use Micro Sample (PUMS) data were used to construct control totals for the raking step in the weighting process. The 2010 PUMS data contains 3,017,445 person records from households. Even though data from the ACS are subject to sampling error, the ACS is the largest survey other than the decennial census that the Census Bureau administers and, as such, results in more accurate estimates of the raking dimensions than is possible with the smaller PIAAC sample.

The ACS totals include residents in military barracks that are not part of the PIAAC target population. Therefore, a reduction to the ACS weights was required in order to remove the non-institutionalized population in military barracks from the ACS control totals. To estimate the percentages of members living in military barracks, data were obtained from the Census 2010 Summary File 1. Information on group quarters population by gender, age, group quarters type, and census region from this file were used to calculate the adjustment.

## **8.2 Screener Weighting Adjustments**

The weighting process began with the creation of household-level base weights. The household-level weights reflect the household selection probability (section 8.2.1) and were adjusted for nonresponse to the Screener (section 8.2.2).

### **8.2.1 Screener Base Weights**

The Screener base weight was assigned to all sampled households and is equal to the reciprocal of the household selection probability. Since PIAAC has a multistage design, with households selected within primary and secondary sampling units (PSUs and segments), the selection probability is equal the product of the conditional selection probabilities at each stage:

$$W_k = \frac{1}{P_k} = \frac{1}{P_i P_{j|i} P_{k|j}},$$

Table 8-1. Variables involved in the calibration process

Topic:	Education <sup>1</sup>	Race/ethnicity <sup>2</sup>	Age	Gender	Country of birth	Region
Categories:	4 levels: < HS, HS, Some college, College degree +	3 levels: Hispanic, Non-Hispanic Black, Other	5 levels: 16-25, 26-35, 36-45, 46-55, 56-65	2 levels: Male, Female	2 levels: U.S., not U.S.	4 levels: Northeast, Midwest, South, West
Raking Dimension						
1 (12 levels)	✓	✓				
2 (20 levels)	✓		✓			
3 (8 levels)	✓			✓		
4 (15 levels)		✓	✓			
5 (6 levels)		✓		✓		
6 (10 levels)			✓		✓	
7 (8 levels)					✓	✓

<sup>1</sup><HS: Less than high school; HS: High school diploma or equivalent; Some college: Some college, no degree received; College degree +: A college degree or higher.

<sup>2</sup>All adults of Hispanic origin are classified as Hispanic regardless of race. Those classified as Black are non-Hispanic Black only. Those classified as other include non-Hispanics of all other races, including multiracial.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).

where  $P_i$  is the probability of selecting PSU  $i$ ,  $P_{j|i}$  is the conditional probability of selecting segment  $j$  within PSU  $i$ , and  $P_{k|j}$  is the conditional probability of selecting household  $k$  within segment  $j$ . The selection probability also reflects any changes to the subsampling procedures. Since the total number of dwelling units (DUs) selected included a reserve sample, this selection probability also includes the proportion of the larger sample that was released to the field. Since PIAAC has an equal probability design,  $W_k$  is equal to 13,483, the inverse of the sampling rate, for all cases initially. However, there were two DUs originally listed erroneously as multifamily structures, with seven units each on the DU sampling frame. The actual household selection probability for these two DUs is seven times that for other DUs on the frame, requiring a further adjustment to their Screener base weights.

## 8.2.2 Screener Weighting Adjustments

The next step in the weighting process was to adjust the base weights to reduce potential bias as a result of nonresponse to the Screener. Sampled dwelling units were classified into one of the following categories: Screener respondent, Screener literacy-related nonrespondent, Screener nonliteracy-related nonrespondent, ineligible unit, and unit with unknown eligibility. The adjustment for units with unknown eligibility is described in section 8.2.2.1. The treatment of literacy-related nonrespondents is addressed in section 8.2.2.2, and the nonresponse adjustment is described in section 8.2.2.3. All eligible households that responded to the Screener were assigned a non-zero adjusted Screener weight.

### 8.2.2.1 Unknown Eligibility

Before any nonresponse adjustment is processed, an adjustment for unknown eligibility was performed. In this step, a portion of the weights of the households with unknown eligibility status (i.e., whether they contain a person age 16 to 65) were distributed to the ineligible cases. The down-weighted unknown eligibility cases were then treated as eligible nonrespondents.

The adjustment was done within the weighting cells defined for the nonresponse adjustment (see section 8.1.1). Weighting classes were combined if a cell size was less than 30 or an adjustment factor for the unknown eligibility cases was less than 0.55. Within each weighting cell, the Screener unknown eligibility adjustment factor is computed as follows:

$$F_{1k} = \begin{cases} \frac{S_L + S_R + S_{NR} + S_I + S_U}{S_L + S_R + S_{NR} + S_I} & \text{if } k \in I \\ \frac{S_L + S_R + S_{NR}}{S_L + S_R + S_{NR} + S_I} & \text{if } k \in U \\ 1 & \text{if } k \in L, R, NR, \end{cases}$$

where  $S$  represents the sum of the Screener base weights over records in the same adjustment cell as household  $k$ . The factors and weights shown here are for a household  $k$  and households are classified as R: respondent, L: literacy-related nonrespondent, NR: nonliteracy-related nonrespondent, I: ineligible, or U: unknown eligibility. The resulting factors for the unknown eligibility cases ranged from 0.56 to 0.78. The factors for the eligible cases were set to 1.00. The Screener unknown eligibility adjusted weight is calculated as  $W_k F_{1k}$ .

### 8.2.2.2 *Treatment of Literacy-Related Nonresponse*

As mentioned above, for the Screener nonresponse adjustment, the nonrespondents were divided into two categories. The first consisted of cases involving nonliteracy-related nonresponse. Nonliteracy-related nonrespondents were considered to be similar to respondents with respect to literacy scores. The second consisted of cases involving literacy-related nonresponse. Language problems were the only type of literacy-related nonresponse at the Screener level. Households with this type of nonresponse were presumed to differ from responding households with respect to literacy. Therefore, the weighting procedures adjusted the weights of the respondents to represent the nonliteracy-related nonresponse only. The weights of the literacy-related nonresponse cases were not adjusted during the Screener-level nonresponse adjustment because their literacy was expected to differ from that of respondents. The contribution of the Screener-level literacy-related nonresponse to the total population is accounted for by the literacy-related nonresponse adjustment carried out for the Background Questionnaire sample (refer to section 8.3.2).

### 8.2.2.3 *Nonresponse Adjustment*

An adjustment was made to distribute the Screener base weights of the nonliteracy-related nonrespondents to the Screener respondents. The nonresponse adjustment was performed within cells that were defined based on the analysis described in section 8.1.1. The cells were required to adhere to certain criteria. First, since it is generally preferable to redistribute the weights of nonrespondents over a relatively large pool of cases, the minimum cell size allowed was 30 cases. Second, variation in nonresponse adjustment factors typically increases the variation in the weights, which generally increases the variance of the survey estimates. Since the amount of variation in the nonresponse adjustment factors is a concern, the maximum allowable nonresponse adjustment factor was 2.0.

Within each weighting cell, the nonliteracy-related Screener nonresponse adjustment factor is computed as follows:

$$F_{2k} = \begin{cases} 1 & \text{if } k \in L, I \\ \frac{S_R + S_{NR} + S_U}{S_R} & \text{if } k \in R \\ 0 & \text{if } k \in NR, U, \end{cases}$$

where  $S$  represents the sum of the unknown eligibility-adjusted Screener weights over records in the same adjustment cell as household  $k$ . The factors and weights shown here are for a household  $k$  and households are classified as R: respondent, L: literacy-related nonrespondent, NR: nonliteracy-related nonrespondent, I: ineligible, or U: unknown eligibility. The resulting factors ranged from 1.04 to 1.33 with the average adjustment factor being 1.14. The Screener nonresponse adjusted weight is calculated as  $W_k F_{1k} F_{2k}$ .

## 8.3 **Background Questionnaire Weighting Adjustments**

The person-level weights reflect the nonresponse to the Screener and the within-household selection probabilities (section 8.3.1) and were adjusted for nonresponse to the Background Questionnaire

(section 8.3.2). The nonresponse adjusted weights were then trimmed to reduce the impact of extreme weights and calibrated to control totals (section 8.3.3).

### **8.3.1 Background Questionnaire Base Weights**

The derivation of base weights was necessary to prevent potentially serious biases in the outcome statistics. The study specifications called for the selection of one person in households with fewer than four eligible members and two persons in households with four or more eligible members. Therefore, the probabilities of selection varied by the number of eligible persons in the household. For example, members of households with only one eligible member had twice the chance of selection as those in households with two (or four) eligible members. To produce unbiased estimates, different weights had to be used to account for the within-household selection rate.

The Background Questionnaire base weights account for both nonresponse to the Screener and different within-household selection rates. The Background Questionnaire base weights were computed as the product of the Screener nonresponse-adjusted weight and the reciprocal of the within-household probability of selection for person  $l$  within household  $k$  of PSU  $i$  and segment  $j$ :

$$W_l = W_k F_{1k} F_{2k} \frac{1}{P_{l|k}}.$$

The within-household person selection probability,  $P_{l|k}$ , is equal to the number of persons selected in the household divided by the total number of eligible persons in the household.

### **8.3.2 Background Questionnaire Nonresponse Adjustments**

The Background Questionnaire base weights were then adjusted for nonresponse using the same procedure as described in section 8.2.2.3 but with an additional step. Before the Background Questionnaire weights were calibrated, the weights of the literacy-related respondents to the Background Questionnaire and assessment were adjusted to account for the literacy-related Screener nonrespondents. This adjustment was necessary primarily to allow the literacy-related respondents to represent the literacy-related Screener nonrespondents in the calibration procedure. This adjustment assumes that the literacy-related nonrespondents to the Screener, Background Questionnaire, and the assessment are similar in literacy.

#### **8.3.2.1 *Nonliteracy-Related Nonresponse Adjustment***

An adjustment was made to distribute the Background Questionnaire base weights of the nonliteracy-related nonrespondents to the nonliteracy-related respondents. The nonresponse adjustment was performed within cells that were defined based on the analysis described in section 8.1.1. Again, the cells were required to contain at least 30 cases and to have nonresponse adjustment factors no larger than 2.0.

Within each weighting cell, the nonliteracy-related Background Questionnaire nonresponse adjustment factor is computed as follows:

$$F_{3l} = \begin{cases} 1 & \text{if } l \in L, I \\ \frac{S_R + S_{NR}}{S_R} & \text{if } l \in R \\ 0 & \text{if } l \in NR, \end{cases}$$

where  $S$  represents the sum of the BQ base weights over records in the same adjustment cell as person  $l$ . The persons are classified as R: respondent, L: literacy-related nonrespondent, NR: nonliteracy-related nonrespondent, or I: ineligible. The resulting factors ranged from 1.07 to 1.69, with the average adjustment factor being 1.23. The Background Questionnaire nonliteracy-related nonresponse adjusted weight is calculated as  $W_l F_{3l}$ .

### 8.3.2.2 Literacy-Related Nonresponse Adjustment

The next step was to distribute the weights of the 106 Screener cases that did not respond due to language problems to the 120 literacy-related Background Questionnaire and assessment respondents (those with language problems or learning or mental disabilities that prevented them from fully completing the questionnaire or assessment). The weights of both the Background Questionnaire and assessment literacy-related respondents were adjusted to account for the Screener literacy-related respondents. The Screener weights associated with the cases with literacy-related nonresponse received a Screener nonresponse adjustment factor equal to one (see section 8.2.2.3) under the presumption that the Screener literacy-related respondents were unlike other respondents and, therefore, were excluded from the Screener nonresponse adjustment process.

The literacy-related nonresponse adjustment at the Background Questionnaire stage is necessary to allow the Screener literacy-related respondents to be accounted for in the raking procedure as part of the total population. To do so, we will allow the Background Questionnaire and assessment literacy-related respondents to represent the Screener literacy-related nonrespondents. We will assume that the literacy-related nonrespondents to the Screener, the Background Questionnaire, and the assessment are similar in literacy.

Within each weighting cell, the adjustment is the following:

$$F_{4l} = \begin{cases} 1 & \text{if } l \notin L \\ \frac{S_L^{screener} + S_L^{BQ} + S_L^{assessment}}{S_L^{BQ} + S_L^{assessment}} & \text{if } l \in L, \end{cases}$$

where

$S_L^{Screener}$  = sum of Screener base weights for DUs with a Screener disposition of a literacy-related nonresponse category;

$S_L^{BQ}$  = sum of Screener base weights for DUs with a BQ disposition of a literacy-related nonresponse; and  
 $S_L^{assessment}$  = sum of Screener base weights for DUs with an assessment disposition of a literacy-related nonresponse.

The Consortium recommended using the literacy-related disposition codes (language problem or learning or mental disability) as weighting classes for this step. However, given the small number of learning or mental disability cases, only one weighting class was used for all literacy-related cases. The adjustment factor was equal to 1.88 for all the literacy-related Background Questionnaire and assessment respondents. The final Background Questionnaire nonresponse adjusted weight (adjusted for literacy and non-literacy nonresponse) is calculated as  $W_1F_{31}F_{41}$ .

### 8.3.3 Background Questionnaire Weight Trimming and Calibration

After the nonresponse adjustments, steps relating to trimming of extreme weights and calibration to external population controls were performed. It is better to avoid extreme weights by careful planning of the sample design rather than having to resort to weight reduction procedures. However, even a carefully designed sample cannot fully prevent the need for reducing extreme weights. The use of nonresponse and calibration adjustments also introduces variation in sampling weights.

In general, trimming procedures introduce some bias into the sampling weights (Lee 1995). However, as Lee discusses, the trimming adjustment in most cases will reduce the sampling error component of the overall mean square error more than it increases the bias when the adjustment is applied to only a very small number of weights. To limit the number of weights affected by this adjustment across the international PIAAC sample, the PIAAC Consortium developed a trimming threshold that incorporates the variation of the weights so that the amount of bias is not only limited but also kept uniform across the participating country samples. This threshold and details of the trimming adjustment are presented in section 8.3.3.2.

Undercoverage of the target population is a common problem in surveys. Undercoverage occurs when some population units are not included in the sampling frame and have no chance of being selected into the sample. Almost all surveys are subject to some amount of undercoverage, and PIAAC is no exception. Calibration is commonly used in sample surveys to reduce the mean square error of estimates and to create consistency with statistics from other studies. Respondents who completed the Background Questionnaire were included in the calibration. Literacy-related nonrespondents were also included because they are part of the target population from which the control totals were derived and will be part of the analysis file. Variables critical to the weighting were recoded and imputed, as necessary, before the calculation of base weights as described in section 8.1.

A raking procedure (i.e., iterative poststratification) was used for the calibration. In raking, categories are formed from certain variables, and the weights are calibrated to control totals for each category. In some instances, such cross-tabulations may contain sparse cells, or population distributions may be known for the marginal but not the joint distributions for variables used to define the weighting classes. Typically, raking is conducted when the control totals for interior cells of a cross-tabulation are unknown or sample sizes in some cells are too small for efficient estimation. Raking is related to poststratification in that it poststratifies (or calibrates) to marginal population totals of several variables (or raking dimensions) in an iterative manner. Oh and Scheuren (1987) provide a concise description of the raking procedure and its properties.

Raking and trimming were performed in an iterative process. Raking brings weights into alignment with independent control totals by adjusting the weights in an iterative process to each dimension's set of control totals. In this raking process, some of these weights may become especially distorted as each raking iteration readjusts the weights to meet the control constraints. Combining raking with trimming reduces the larger weights generated in the raking process. After trimming, though, the trimmed weights no longer match the control constraints, and another raking process may be necessary. The resultant weights meet the control constraints (add to the control totals) and at the same time no weights exceed bounds.

### 8.3.3.1 *Pre-Trimming Calibration*

A pre-trimming raked weight was calculated for each respondent as follows. Let  $N_\gamma$  denote the population count in the raking dimension category  $\gamma$  as obtained from the 2010 ACS as discussed in section 8.1.2. Let  $\hat{N}_{1\gamma}$  be the corresponding survey estimate obtained by using the survey weights prior to raking (as calculated below):

$$\hat{N}_{1\gamma} = \sum_{i=L,R(\gamma)} W_l F_{3l} F_{4l},$$

where

- $W_l F_{3l} F_{4l}$  = the sample weight for person  $l$ , reflecting all weighting adjustments prior to raking or trimming; and
- $L,R(\gamma)$  = the set of literacy-related BQ nonrespondents and BQ respondents in raking dimension category  $\gamma$ .

The initial adjustment factor for raking dimension category  $\gamma$  is given by  $F_{5\gamma} = N_\gamma / \hat{N}_{1\gamma}$ . The same process is applied for each raking dimension, each time using the adjusted weights from the previous dimension. This is done iteratively until the sums of the adjusted weights equal all control totals. The raking processes all converged in fewer than 15 iterations.

For simplicity, the raking factor can be denoted as  $F_{5\gamma}$ , where  $\gamma$  can denote each of the interior cells defined by the raking dimensions shown in table 8-1. The resulting factors ranged from 0.50 to 3.23. The initial calibrated Background Questionnaire weight is calculated as  $W_l F_{3l} F_{4l} F_{5\gamma}$ .



### 8.3.3.2 *Trimming*

The TS&Gs included a guideline permitting the trimming of extreme weights. The U.S. PIAAC sample design had only one sampling domain, adults age 16–65, so the trimming procedure was conducted over the entire set of Background Questionnaire respondents and literacy-related Background Questionnaire nonrespondents.

The trimming method implemented and recommended by Consortium statisticians is to trim weights that are over 3.5 times the median weight within a sampling domain. The Consortium further recommended that the trimming threshold incorporate the variation of the weights so that the amount of trimming conducted across the international sample is limited. The impact of a weight trimming process is an increase to bias due to trimming weights, and a decrease to the variation in the weights. As such, after the initial calibration, the trimming threshold was calculated as follows in order to result in a limited number of cases trimmed and a comparable increase to bias across countries:

$$3.5\sqrt{1 + CV(W_l F_{3l} F_{4l} F_{5\gamma})^2},$$

where the CV is the coefficient of variation. The resulting value for the threshold is 3.95. The cutoff value was then calculated as 3.95 multiplied by the median weight (the 50th percentile of the weights), or 146,425.91. The trimming factor was calculated as:

$$F_{6l} = \begin{cases} 1 & \text{if } W_l F_{3l} F_{4l} F_{5\gamma} \leq 146,425.91 \\ \frac{146,425.91}{W_l F_{3l} F_{4l} F_{5\gamma}} & \text{if } W_l F_{3l} F_{4l} F_{5\gamma} > 146,425.91. \end{cases}$$

Fifteen cases were trimmed, with their trimming factors ranging from 0.60 to 0.98. The trimmed Background Questionnaire weight is calculated as  $W_l F_{3l} F_{4l} F_{5\gamma} F_{6l}$ .

### 8.3.3.3 *Post-Trimming Calibration*

After trimming, the survey estimate obtained by using the trimmed survey weights was calculated as:

$$\hat{N}_{2\gamma} = \sum_{i=L,R(\gamma)} W_l F_{3l} F_{4l} F_{5\gamma} F_{6l},$$

where

$W_l F_{3l} F_{4l} F_{5\gamma} F_{6l}$  = the sample weight for person  $l$ , reflecting all weighting adjustments prior to the second iteration of raking; and

$L,R(\gamma)$  = the set of BQ respondents and literacy-related BQ nonrespondents in raking dimension category  $\gamma$ .

The initial adjustment factor for raking dimension category  $\gamma$  is then given by  $F_{7\gamma} = N_{\gamma}/\hat{N}_{2\gamma}$ . The same process is applied for each raking dimension, each time using the adjusted weights from the previous dimension. This is done iteratively until the sums of the adjusted weights equal all control totals. The raking processes all converged in fewer than 15 iterations.

For simplicity, the raking factor can be denoted as  $F_{7\gamma}$ , where  $\gamma$  can denote each of the interior cells defined by the raking dimensions shown in table 8-1. The resulting factors ranged from .98 to 1.10. The final Background Questionnaire weight is calculated as  $W_l F_{3l} F_{4l} F_{5\gamma} F_{6l} F_{7\gamma}$ .

## 8.4 Replicate Weights

The usual estimation and testing procedures are not appropriate with PIAAC data since the sample design includes departures from assumptions that are made in standard statistical textbooks. Even if unbiased weights are used to compensate for unequal probabilities of selection, inferences will not be valid unless the corresponding variance estimators appropriately reflect all of the complex features of the sample design, such as stratification and clustering.

Another procedure that affects the variances, which is not captured by standard estimation approaches, is estimation through Item Response Theory (IRT) models (Birnbaum 1968; Lord 1980). Because different respondents take different sets of items that could be different in level of difficulty, it would be inappropriate to base the competency estimates simply on the number of correct answers obtained. Therefore, large-scale assessments using matrix sampling rely on IRT models. The IRT model uses the item responses for each individual and regards the latent literacy score as random. Several predicted values, referred to as plausible values, are generated from the IRT model and the variation among them captures the measurement error.

Given these complexities, the Consortium specified standards in the TS&Gs regarding the creation of special weights to facilitate the computation of sampling error estimates for PIAAC.

### 8.4.1 Replication Approach

There are two commonly used approaches for estimating variances for complex surveys: replication and Taylor Series Linearization. The replication approach is required for PIAAC because only this approach accommodates the complexities described above without requiring specialized software in addition to the PIAAC Data Explorer used for the international analyses of PIAAC data.

The approach captures the variation due to the complex sampling and estimation approaches, including

- sample design;
- selection;
- weighting adjustments; and
- measurement error through the processing of plausible values.

The PIAAC Data Explorer is the primary tool for the analysis of PIAAC data. It has been adapted for handling the following four different replication schemes:

- delete-one jackknife;
- paired jackknife;
- balanced repeated replication; or
- Fay’s method.

Replication methods are applied to surveys by dividing the sample into specially designed replicate subsamples that mirror the design of the full sample. To form the replicate subsamples, variance strata and variance units are defined. Each subsample is re-weighted to account for the subsampling that occurred. An estimate is then calculated for the full sample and each of the replicate subsamples. The variance of the full sample estimate is computed as the sum of squared deviations between each replicate subsample estimate and the full sample estimate.

Given the sample design for PIAAC, in which the non-self-representing PSUs were stratified and selected with systematic sampling from a sorted list, the paired jackknife approach (commonly referred to as JK2) with two variance units per stratum is appropriate. The variance estimator with this approach takes the following form:

$$Var(\hat{\theta}) = \sum_i (\hat{\theta}_i - \hat{\theta}_0)^2,$$

where

- $\hat{\theta}_0$  = full sample estimate; and
- $\hat{\theta}_i$  = estimate for replicate  $i$ .

#### **8.4.2 Creation of Replicate Weights**

Since PSUs selected with certainty are self-representing, variance strata and units are formed differently for these PSUs than for the non-self-representing PSUs. Each self-representing PSU forms its own variance stratum. To increase the degrees of freedom, each large self-representing PSU was split into two or more variance strata to reflect its measure of size. The number of variance strata formed by each PSU was based on the size of the PSU relative to the other PSUs on the sampling frame, or the number of times the PSU was “hit” during sample selection. As a result, one PSU comprises three variance strata, another comprises two, and the two remaining self-representing PSUs comprise only one variance stratum each.

For the self-representing PSUs comprising more than one variance stratum, segments were paired in the order in which they were selected and assigned alternately to the assigned variance strata. Within the variance strata assigned to the self-representing PSUs, variance units are the segments. Segments were assigned to variance units 1 and 2 alternately according to their selection order within each variance

stratum. The remaining 76 PSUs (non-self-representing) were assigned to variance strata by pairing the PSUs according to the nested stratification scheme to form 38 variance strata, for a total of 45.

Once the variance strata and variance units were assigned, the replicate weights were created. With JK2, one variance unit is dropped from each stratum to form each replicate. That is, the first set of replicate weights is formed by taking the Screener base weights and setting all the weights in a randomly selected variance unit (1 or 2) of variance stratum 1 to zero, doubling the weights of the cases in the other variance unit in the variance stratum and keeping all other weights unchanged. For PIAAC, this process continued over the 45 variance strata for a total of 45 replicate weights.

Subsequently, all weight adjustments conducted for the full sample were also conducted on each replicate weight to capture the variation created, or reduced, by the weight adjustments. Since the PIAAC Data Explorer requires 80 replicate weights, the remaining 35 replicates were created by simply setting each to the set of full-sample weights.

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## **9. DATA PREPARATION AND PROCESSING**

### **9.1 Introduction**

The Consortium required that data preparation and processing be performed in a uniform way within and across countries and with an acceptable quality level. Key data preparation tasks ensured this uniformity and were composed of manual data entry of scoring sheets, generation and review of edits on computer generated data files, management of coding, scoring of related files, validation of the structural consistency of the database, and delivery of the national database to the Consortium.

As outlined in chapter 2, sections 2.8 and 2.9, the Consortium-provided Data Management Expert (DME) software was used to perform many of these data preparation and processing activities. The Consortium provided each country with the DME software, which was used to assemble, manage, verify, and edit each country's national database. The national DME database consisted of two parts: (1) data collected by the virtual machine's processing of the Background Questionnaire and the computer-based assessment items or tests administered on the interviewer laptops, and (2) scoring data entered manually and generated as the result of scoring the paper-based assessment booklets.

### **9.2 Overview of Data Preparation and Processing Activities**

The initial phase of PIAAC data preparation in the U.S. included the customization of the DME software to accommodate the Consortium-approved U.S. adaptations that were made to the international Background Questionnaire. Each country was required to map its national data set into a highly structured, standardized record layout required by the Consortium to facilitate comparability during data analysis. The international record layout specified the position, format, and length of each field, and included a description of each variable, indicating the valid response categories and ranges to be collected for the variable.

Once the adaptations to the DME were completed and approved by the Consortium, the U.S. version of the DME software was deployed to a separate computer loaded with the DME software and secured in a separate, locked area. Files transmitted from the interviewers were processed by the DME software and added to the DME database each morning, using the TAO data import capabilities. Edit reports contained within the DME were run on a regular basis and issues were reviewed and resolved throughout the data collection period.

Coding of the appropriate verbatim fields was accomplished following the PIAAC Technical Standards and Guidelines (TS&Gs) throughout the data collection period, and coded responses were imported into the DME on a regular basis as coding and verification was completed.

After the completion of the data collection period, hard-copy assessment and reading component booklets were scored by Pearson. The results of the scoring activities were entered into the scoring part of the DME software. The DME scoring database was used by Pearson to generate inter-rater reliability reports during the paper assessment scoring period and to deliver these reports along with the scoring data to Westat for inclusion in the final U.S. DME database. The DME scoring database was imported into the DME database at Westat after all scoring was completed.

Finally, DME edit reports were run and reconciled and frequencies of the deliverable data sets were run and reviewed to ensure accuracy and completeness of the required delivery products.

### 9.3 Reconciliation of Demographic Information with Screener

Demographic information collected from the household respondent during the Screener was confirmed and updated by the sample person at the start of the Background Questionnaire. As completed interviews were received, comparison edits between the demographic information obtained in the Background Questionnaire and demographic information obtained during screening were conducted. In cases where the age varied by more than 5 years or there was gender disagreement, the field supervisor validated the case and provided an explanation or clarification of what had occurred. When it was determined that a mistake had been made by the respondent or interviewer (e.g., a keying error), the Background Questionnaire was updated with the correct date of birth or gender and subsequent fields that would have been affected were also reviewed and updated as appropriate. Edits were performed in accordance with the Consortium requirements and were discussed and agreed upon prior to their implementation. All updates to the Background Questionnaire data were documented in an issue tracking system and related documentation was delivered to the Consortium as part of the final delivery of data.

### 9.4 Coding Operations of Required Fields

Throughout the data collection period and continuing until approximately 2 weeks after the end of data collection, selected Background Questionnaire variables were coded following the coding schemes specified by the Consortium. Experienced Westat coding staff were trained to understand the selected international coding schemes' principles and the required coding structure. Training consisted of an item-focused training session, which included written materials and training exercises for each required coding scheme. All coding was 100 percent verified or double coded to ensure accuracy and consistency across coding staff. Coding reports were generated weekly, and error rates exceeding 6 percent triggered review by the coding supervisor and retraining if necessary. As coding was completed for a group of cases, verified codes were imported to the PIAAC DME for delivery to the Consortium along with the other study data.

Coding schemes followed for U.S. PIAAC included the following:

- 1997 International Standard Classification of Education (ISCED), allowing for non-formal education and excluding foreign certification, was used to code the level of education variables for foreign degrees obtained by the respondent;
- CIP 2010<sup>38</sup> coding scheme, at the four-digit level when possible, was used to code the U.S. adaptations added to capture the area of study for each of the education question series;
- ISO 639-2 alpha-3<sup>39</sup> was the coding scheme used for languages; and
- UN M.49<sup>40</sup> coding scheme was used to code the country of earned education and the country of birth.

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<sup>38</sup> The Classification of Instructional Programs (CIP) provides a taxonomic scheme that supports the accurate tracking and reporting of fields of study and program completions activity. To see the CIP codes, go to: <http://nces.ed.gov/ipeds/cipcode/Default.aspx?y=55>.

<sup>39</sup> The ISO 639-2 alpha-3 provides a three-digit alphabetic coding scheme that supports the consistent reporting of languages. To see the ISO 639-2 alpha-3 codes, go to: <http://www.loc.gov/standards/iso639-2/langhome.html>.

- 2008 International Standard Classification of Occupations (ISCO-08) was used to code occupations reported in the Background Questionnaire. Occupational coding was done to the four-digit level when enough information was available. Note that the Consortium analysis will be completed at the three-digit level.
- International Standard Industrial Classification of All Economic Activities (ISIC), Revision 4 was followed to assign industry codes. Industry coding was done to the four-digit level when enough information was available. Note that the Consortium analysis will be completed at the three-digit level.

A list of the coded variables and their definitions is presented below:

- ISCED\_H (Level of highest qualification – Respondent, only coded for the foreign degree level)
- ISCO08\_C (Current job – Respondent)
- ISCO08\_L (Last job – Respondent)
- ISIC4\_C (Industry of current job – Respondent)
- ISIC4\_L (Industry of last job – Respondent)
- LNG\_L1 (First language learned at home in childhood, still understood)
- LNG\_L2 (Second language learned at home in childhood, still understood)
- LNG\_HOME (Language most often spoken at home – Respondent)
- CNT\_H (Country in which highest qualification was gained – Respondent)
- CNT\_BIRTH (Country of birth – Respondent)
- USCIP\_H (Broad field of highest qualification, CIP codes – Respondent)
- USCIP\_C (Broad field of currently studied for qualification, CIP codes – Respondent)
- USCIP\_L (Broad field of last year qualification, CIP codes – Respondent)
- ISCO08\_US (Apprentice – Respondent)
- REGION\_US (U.S. Census region of the respondent’s residence belongs)

Table 9-1 presents a crosswalk for each of the coded variables listed above and identifies the variable or variables within the Background Questionnaire and the coding scheme used.

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<sup>40</sup> The UN M.49 coding scheme is a standard for area codes used for statistical purposes. The scheme is developed and maintained by the United Nations Statistics Division. To see the UN M.49 codes, go to <http://unstats.un.org/unsd/methods/m49/m49alpha.htm>.



Table 9-1. Coded variables, input variables from Background Questionnaire, and coding scheme used

Coded variables	Variables from Background Questionnaire	Coding scheme used
ISCED_H	B_Q01aUS, B_S01a1, B_Q01a3US	ISCED 1997 (1-14, incl non-formal, excl foreign)
ISCO08_C	D_Q01a, D_Q01b, D_Q08a, D_Q04	ISCO 2008
ISCO08_L	E_Q01a, E_Q01b, E_Q04	ISCO 2008
ISIC4_C	D_Q02a, D_Q02b, D_Q03US	ISIC Rev 4
ISIC4_L	E_Q02a, E_Q02b, E_Q03US	ISIC Rev 4
LNG_L1	J_Q05a1US, J_S05a1	ISO 639-2 alpha-3
LNG_L2	J_Q05a2US, J_S05a2	ISO 639-2 alpha-3
LNG_HOME	J_Q05bUS, J_S05b	ISO 639-2 alpha-3
CNT_H	B_Q01a2US, B_S01a2	UN M.49
CNT_BIRTH	J_Q04a, J_Q04bUS, J_S04b	UN M.49
USCIP_H	B_Q01bUSX, B_S01a1	CIP 2010
USCIP_C	B_Q02cUSX, B_S02b1	CIP 2010
USCIP_L	B_Q05bUSX, B_S05a1	CIP 2010
ISCO08_US	B_Q29bUSX	ISCO 2008
REGION_US	SDIF	U.S. Census regions

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).

## 9.5 Delivery of Assessment Booklets to Pearson

A U.S. PIAAC field room was established on Westat’s premises to manage supplies and hard-copy materials. This room had restricted access and was the area designated for receiving, logging, and storing materials securely for in-house data coding and for shipment of booklets to Pearson for scoring. After booklets had been scored, they were returned to Westat’s PIAAC field room for storage.

The Study Management System (SMS) included a function to track the status and location of booklets as well as the status of the interview modules themselves. Field interviewers were able to update the status of the booklets to indicate that they were completed and shipped to the home office. When FedEx shipments arrived at the home office, field room staff examined the shipment for booklets received. To check in booklets, field room staff logged into the SMS to electronically create receipts for the booklets

and update their status as “Received at Home Office.” Issues with “receipting” the hard-copy booklets were discussed and resolved among the home office and field staff as needed.

Receipted booklets were stored in a locked storage unit until they were ready for shipment to Pearson. Monthly reports were generated to identify the booklets available for the scoring and data capture process; the field room staff packaged and shipped these booklets along with a transmittal sheet to Pearson via FedEx.

Pearson verified receipt of shipments containing the expected booklets. The booklets were maintained in a secure environment throughout their scoring and processing. At the end of the data capture, the booklets and all associated scoring material were returned to Westat’s PIAAC field room, where a final reconciliation between the SMS, the physical booklets, and the DME was completed.

## **9.6 Processing and Scoring of Hard-Copy Assessment Materials**

Approximately 15 percent of the sample persons completed one or more paper test booklets during their assessment. Pearson, the scoring subcontractor used successfully for the PIAAC Field Test, also scored the paper assessment materials for the Main Study. As noted in section 9.5, these hard-copy assessment materials were securely maintained at Westat and shipped to Pearson for data capture of the responses in the reading component booklets and scoring of the Core, Literacy, and Numeracy items in the exercise booklets. Pearson used the DME software provided by the Consortium for data capture following the scoring guidelines outlined in the PIAAC Technical Standards and Guidelines.

Westat shipped exercise booklets to Pearson on a monthly basis. Nine shipments in total were sent during the data collection period, with the final shipment arriving on April 11, 2012. Upon receipt of each shipment at Pearson’s Iowa City, Iowa, location, Pearson inventoried the received booklets and verified that expected booklets listed on the transmittal sheet were received. Pearson notified Westat that the shipment was received and noted any discrepancies, if found. Pearson treated the assessment booklets as confidential material and stored these in a secured location at all times.

The reading component booklets were handled separately from exercise booklets containing the Core, Literacy, and Numeracy items. Reading component booklets did not require scoring but rather accurate data capture of selected answers. Pearson completed the data capture activities at their Iowa City location each month upon receipt of the reading component booklets. An approved deviation from the Consortium scoring procedures was the training and scoring of the reading component booklets before the training and scoring of the exercise booklets. Following the approved PIAAC reconciliation procedures, the data-entry function of the DME was used. After data entry, Pearson used the DME software to verify that 100 percent double-data entry was performed and used the DME to identify any inconsistencies between the two sets of data. DME reports facilitated the lookup of original scoring sheets and the correction of values. Pearson returned electronic files of these data monthly to Westat.

Scoring of the three exercise booklet types was not completed until the end of the data collection period so that all booklets could be scored together. Pearson inventoried and stored the completed exercise booklets received each month until they were ready to score the booklets. In preparation for scoring, all exercise booklets were shipped to Pearson’s Virginia Beach, Virginia, location, which was used for the Main Study scoring since Pearson closed its Iowa City scoring site, which had been used during the PIAAC Field Test. Pearson trained the scoring staff to score items in one domain (Core, Literacy, and Numeracy) at a time and then scored the items for that domain immediately following the training. Based on their experience during the Field Test, Pearson felt this method resulted in higher scoring efficiency

and quality. Scoring of the Core, Literacy, and Numeracy items occurred during the first 2 weeks of April 2012.

After careful review of the PIAAC standards Pearson decided to use the default three-scoring design as outlined in the PIAAC TS&Gs. Pearson felt the three-scoring design would result in greater efficiencies during the scoring process. Also for the Main Study, the U.S. decided to continue to check the consistency of scoring by having a second scorer rescore 100 percent of the items even though this was above and beyond the Consortium requirement. It was determined that because of the small number of exercise booklets to be scored it was more efficient to second score 100 percent than to implement the complicated random selection process required by the Consortium if less than 100 percent of the booklets had a second scorer.

Pearson completed the scoring process in April 2012 and delivered the scoring data and reports to Westat on April 20, 2012. The six delivered reports were generated by the DME software, which consisted of two reports for each exercise booklet type (Core, Literacy, and Numeracy). For each exercise booklet type there was an inter-rater log and an inter-rater results report.

The overall inter-rater reliability for each of the three PIAAC exercise booklet types was as follows:

- Core – Total for all items = 99.3 percent.
- Literacy – Total for all items = 99.4 percent.
- Numeracy – Total for all items = 98.9 percent.

The number of booklets that Pearson scored and delivered data to Westat was as follows:

- Reading Components = 789.
- Core = 759.
- Literacy = 321.
- Numeracy = 289.

Note that one problem area for general case reconciliation occurred with paper exercise booklets. Because administering the booklets required human handling, some mistakes (approximately 2 percent of the total number of booklets administered) were made regarding which booklets were administered. The approach followed for scoring was to score all completed booklets and to then delete erroneous data from the DME before delivery. Also, a few of the falsified cases also had booklets linked to them, so these booklets too were scored and then removed from the scoring data prior to delivery to NCES.

At the end of the scoring process all booklets were returned to Westat's PIAAC field room for secure storage and archival. Final scoring data files were delivered to Westat and were imported into consolidated DME database. Frequencies were created and reviewed as a final quality control of these data.

## **9.7 Reconciliation with Data Management Expert (DME)**

Once all data processing, coding, and scoring activities were completed, the data from the individual processes were combined to create the final DME database. During each step of this process, rows were matched and reconciled to ensure consistency between each step. The final database included all data from the virtual machine (Background Questionnaire and automated assessment), coding, and scoring. To ensure that the delivered data were free of errors, the consolidated DME database was verified and edited. Examples of completed checks were to ensure that no variables or case records were dropped during the loading process, look for data that were loaded into the wrong variable, and ensure that scoring data was received for every case in which a paper assessment booklet was completed.

Aggregated data cases were reconciled with the SMS (see section 9.8). The reconciled state of the end of each case was compared to the data available for each case and, if needed, editing adjustments were made. Some technical problem cases were discovered by recognizing disparity between the reconciled disposition and the lack of or incompleteness of the available data (see section 5.3.4 for discussion of causes for technical problems). As a result, cases with missing data were reviewed closely and in some cases this review yielded the recovery of the missing data.

The first step in the verification process was to run the consistency edit checks provided by the DME and to review reported errors. Next, additional edits not provided by the DME software were run, including a reconciliation of case statuses and a general frequency review. The SMS reconciliation matched SMS case status codes with the DME status codes by case ID to ensure that all completed cases in the SMS were loaded into the DME. Basic frequencies were generated and reviewed to ensure that reported values fit defined variable ranges or specified response categories for each variable.

In some instances, the review required a manual comparison of the original source data with the data contained in the DME database to guarantee that the data were loaded accurately. In other instances, groups of data were reviewed to ensure that the loading process correctly imported whole blocks of data. If needed, audit trails of individual interviews were checked to determine how the discrepancies might have been generated. Data contained within the SMS, including the electronic records of calls and case comments, were reviewed for additional information to help resolve questions.

Throughout the process, possible errors were investigated, documented, and resolved prior to the delivery of the final data set to NCES for their delivery to the Consortium. Remaining discrepancies were documented in the final delivery notes that were delivered along with the final data files.

## **9.8 Reconciliation With Study Management System (SMS)**

At the end of the data collection period, cases still being worked were reviewed and finalized, or closed by the supervisor. Finalization included a review of the case history and the assignment of a final status code for each incomplete task. Generally, the SMS was the best source for final case statuses, and these results were merged back into the aggregated data in the DME repository.

As noted in section 9.7 above, reconciliation of the SMS data with the aggregated DME database was conducted to ensure that all completed cases were loaded accurately. The SMS case history and comments were thoroughly reviewed for problem cases in order to understand the operational circumstances and arrive at a resolution and to set the final status within the DME. For example, a case in which the Background Questionnaire was completed but the assessment was never completed listed the

case as “incomplete” in the virtual machine operational data, but the SMS would reflect the final disposition assigned by the supervisor (for example, Language Problem or Refusal). Due to the complexity of Consortium-implemented workflow and the number of disposition codes available for the various paths of the assessment, accurate reconciliation was complex and required careful scrutiny during the review.

For most completed cases, reconciliation amounted to ensuring that all data were present in the data set. However, for exceptions, partial cases, or sample persons identified in screening but not interviewed, a more detailed comparison was performed to ensure that the delivered data accurately reflected the final status. The reconciled, finalized status was compared to the data available for each case. Potential problem cases were discovered by recognizing disparity between dispositions and the incomplete data within the DME. When possible, some or all data for problem cases were retrieved from backup files. The data for 16 cases were successfully retrieved from backups during this process, and there were another 33 cases that were reviewed but could not be retrieved and were coded as technical problems (see section 5.3.4).

## **9.9 Delivery of Data to the Consortium**

Following the end of the field period, a single, complete, and validated database reflecting the U.S. national DME layout was submitted to the Consortium, along with supplemental documentation and log data. Delivery of data files was in accordance with the expected format required for processing and analysis at the international level.

Before delivery of the final data set, a confidentiality operation was performed to assign replacement randomized identifiers for each delivered case. Since operational case and person identifiers contained some substantively identifying information, these were overwritten with entirely random identifiers for delivery. This confounds revealing any substantive meaning for cases and prevents any matching-back to any lingering operations information. Westat securely retains a cross-walk of this identifier replacement should a legitimate need arise later.

In addition, a few other techniques were implemented to ensure confidentiality within the delivered U.S. data set beyond those discussed in sections 6.3 and 6.4. Data items that directly identify sample persons (e.g., name, address, and phone number) were suppressed. Also, Background Questionnaire log data (DME BQL table) was not delivered because these raw data files contain literal recording of all values, including confidential data that cannot be suppressed. Given the care put into microdata confidentiality, forwarding this raw streamed form would nullify that effort. As the Consortium supplied no solution for data value suppression within the Background Questionnaire log data format and since Background Questionnaire log data are not fundamental to international data handling nor analysis, Westat excluded these files from the international delivery with prior Consortium notice and agreement.

The U.S. DME delivery included 6,100 bulk rows (cases); of these, 4,896 were Background Questionnaire completes, 4,037 computer-based assessment completes, 744 paper assessment completes, and 762 reading component completes, yielding 4,802 global completes. (Note that these are raw record counts, only including actual 01 module dispositions, not adjusted further as reported by statistical reports.)

The products aggregated for the delivery included the following:

- a single integrated, verified, confidentialized, and exported database in the DME's format and using the adapted national codebooks;
- a single zip archive including all raw TAO XML output files for the computer-based exercise;
- a free-format documentation on "Other" questions in the Background Questionnaire, summarizing the National Project Manager's review of the response made to the open-ended questions in the Background Questionnaire that do not require formalized coding;
- a comprehensive and detailed free-format documentation of implemented confidentiality edits, if any;
- a comprehensive and detailed free-format documentation of any other issues or notes that require attention by the Consortium during data processing and analysis; and
- a free-format documentation with double-coding reliability evidence and explanations for Quality Control purposes. This includes both documentation of the achieved double-coding accuracy at the four-digit level for ISCO and ISIC instances and tables in which the PIAAC data is compared to the most recent Labor Force Survey on the distributions of highest level of education, labor force status, current occupation, and current industry.

All data products were posted on the NCES secure FTP site by Westat staff on May 29 or 30, 2012. These were forwarded by NCES staff to the Consortium via the IEA secure server on May 31, 2012, and IEA issued an official receipt of all U.S. national data products on June 4, 2012.

An initial communication was received from IEA on June 21, 2012, that detailed a few case issues or questions and these items were clarified in a response which was sent on June 22, 2012.

During its further review, IEA identified a Background Questionnaire flow variation among U.S. adaptations/extensions. A U.S.-adapted data path caused the U.S. Background Questionnaire to collect more responses in the B section (education) than the international Background Questionnaire flow intended. After reviewing these issues with NCES, it was concluded that the desirable U.S. path was implemented in the Background Questionnaire. IEA removed the extra data points to standardize the U.S. data set with the international version and Westat delivered a supplemental national delivery file to NCES that provided these data points for analysis.

As no further data delivery communication was received from IEA through the end of July 2012, Westat concluded that the original national delivery was accepted without any needed changes or redelivery.

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## Appendix A

### Background Questionnaire Adaptations for the Main Study

## Appendix A

### Differences between the PIAAC 2011 questionnaires used in the Field Test (FT) and those submitted for the Main Study (OMB # 1850-0870)

To aid OMB's review, this memo outlines differences between the Program for the International Assessment of Adult Competencies (PIAAC) materials approved under field test (FT) 2010 clearance on May 23, 2010 (OMB# 1850-0870) and those included in the current regular submission package for the main study 2011 data collection.

Except for a few changes to the questions added as U.S. national options, all deletions or changes to questions were made by the international organizers. Note that international item numbers are listed below and may vary slightly in the U.S. BQ specification documents.

#### **Revisions to Section B – Education and Training**

**Modified:** B\_Q01a – Looking at this card, what is the highest level of education you have completed?— Eliminated the response category “Foreign Qualification”.

**Modified:** B\_Q01a3 – Can you indicate which level in our national education system corresponds most closely with the level of this degree or certification? – Eliminated the response category “Foreign Qualification”.

**Modified:** B\_Q02b - What type of degree or certificate are you currently studying for? - The response category “Foreign Qualification” was deleted. Due to this change the related follow-up items (listed below) were also deleted.

#### **Deleted follow-up set:**

- × B\_S02b1 - What is the name of this qualification?
- × B\_Q02b2 - In which country are you studying for this qualification?
- × B\_S02b2 - What country was that?
- × B\_Q02b3 - Can you indicate which level in our national education system corresponds most closely with the level of this qualification?
- × B\_Q03b2 - In which country did you start studying for this qualification?
- × B\_S03b2 - What country was that?
- × B\_Q03b3 - Can you indicate which level in our national education system corresponds most closely with the level of this qualification?

**Modified:** B\_Q05a - What type of degree or certificate was this? - The response category “Foreign Qualification” was deleted. Due to this change the related follow-up items were also deleted.

**Deleted follow-up set:**

- ✘ B\_S05a1 - What is the name of this qualification?
- ✘ B\_Q05a2 - In which country did you gain this qualification?
- ✘ B\_S05a2 - What country was that?
- ✘ B\_Q05a3 - Can you indicate which level in our national education system corresponds most closely with the level of this qualification?

**Deleted:**

- ✘ B\_Q06 – What is the easiest way to describe the total time you spent in studying for this qualification in the past 12 months: would that be in weeks, in days or in hours? Exclude time spent on homework and travel.
- ✘ B\_Q07a – From ^MonthYear until now, how many weeks did you spend studying for this qualification?
- ✘ B\_Q07b – On average, how many hours per week was that? Exclude time spent on homework or travel.
- ✘ B\_Q08a – From ^MonthYear until now, how many days did you spend studying for this qualification?
- ✘ B\_Q08B – On average, how many hours per day was that? Exclude time spent on homework or travel.
- ✘ B\_Q09a – From ^MonthYear until now, how many hours did you spend studying for this qualification? Exclude time spent on homework or travel.
- ✘ B\_Q09b – How much of this time was spent on homework?
- ✘ B\_Q10d - Compared to your employer at the time, how useful do you think your studies for this qualification would be if you were working for a different employer? Would you say they were...
- ✘ B\_S14b - Could you please specify this reason? (This was a follow-up probe to B\_Q14b.)
- ✘ B\_Q15d – Compared to your employer at the time, how useful do you think this training would be if you were working for a different employer? Would you say it was ...

**Modified:** B\_Q17-B\_Q20a - These questions were changed to refer to time spent in all non-formal training activities in past year. Modified questions are:

- ✘ B\_Q17- Now let's look at the total amount of time you have spent in the past 12 months on all types of courses, training, private lessons, seminars or workshops. What is the easiest way to describe the total time you spent on all these activities: would that be in weeks, in days or in hours? Exclude time spent on homework or travel.
- ✘ B\_Q18a – From ^MonthYear until now, how many weeks did you spend in these activities?
- ✘ B\_Q18b – On average, how many hours per week was that? Exclude hours spent travelling to and from the places at which these activities took place.
- ✘ B\_Q19a – From ^MonthYear until now, how many days did you spend in these activities?
- ✘ B\_Q19b – On average, how many hours per day was that? Exclude hours spent travelling to and from the places at which these activities took place.
- ✘ B\_Q20a – From ^MonthYear until now, how many hours did you spend in these activities? Exclude hours spent travelling to and from the places at which these activities took place.

**Added:** B\_Q20b - About how much of this time was spent on activities that were job-related?

**Deleted:** B\_Q21-B\_Q25b – Deleted all items related to the second learning activity (such as types of courses, training, private lessons, seminars or workshops). Specific questions deleted are:

- ✘ B\_Q21 - What kind of activity was this? Was it ...
- ✘ B\_Q22 - What is the easiest way to describe the total time you spent in this activity: in weeks, in days or in hours? Include time spent on homework.
- ✘ B\_Q23a - From ^MonthYear until now, how many weeks did you spend in this activity?
- ✘ B\_Q23b - On average, how many hours per week was that? Include hours spent on homework, but exclude hours spent travelling to and from the place at which the activity took place.
- ✘ B\_Q24a - From ^MonthYear until now, how many days did you spend in this activity?
- ✘ B\_Q24b - On average, how many hours per day was that? Include hours spent on homework, but exclude hours spent travelling to and from the place at which the activity took place.
- ✘ B\_Q25a - From ^MonthYear until now, how many hours did you spend in this activity? Include hours spent on homework, but exclude hours spent travelling to and from the place at which the activity took place.
- ✘ B\_Q25b - How much of this time was spent on homework?

**Modified:** B\_Q26a

- ✘ Deleted the introductory text to this question which stated, “In the last few questions we talked about learning activities you may have undertaken in the last 12 months. First we talked about formal qualifications you may have studied for, and then we talked about other organized learning activities you may have participated in.”
- ✘ New question is, “ In the last 12 months, were there ^MoreAny learning activities you wanted to participate in but did not? Include both learning activities that lead to formal degrees and other organized learning activities.”

**Modified:** B\_Q26b - Which of the following reasons prevented you from participating in education and training? Please indicate the most important reason. – Eliminated the following response categories.

- ✘ Education or training conflicted with my work schedule;
- ✘ There was no such education or training offered within a reachable distance;
- ✘ I was not confident with the idea of going back to something that is like school;
- ✘ A temporary illness or injury prevented me;
- ✘ A chronic health problem or age prevented me; and
- ✘ The expected benefit of education or training was too low.

**Deleted:** B\_S26b - Could you please specify this reason? – Deleted this probe which was a follow-up to B\_Q26b.

### **Revisions to Section C – Current status and Work history**

**Modified:** C\_S03 - How many months in total have/had you been looking for paid work? – Deleted the additional statement within this question which was “Could you please specify this reason?”

**Deleted:** C\_S07 - Could you please specify how you would describe your current situation? – Deleted this probe which was a follow-up to C\_Q07.

**Deleted:**

- ✘ C\_Q10b - In the last 5 years, have you ever been out of work for a continuous period of 3 months or longer? Exclude any time in which you were studying full-time for a formal qualification. Do not include paid leave, like maternity leave or sick leave
- ✘ C\_Q10c - In the last 5 years, what is the total amount of time you have been out of work? Would that be...
- ✘ C\_Q11 - Looking at the total time you were out of work in the last five years, how much of this time were you available for work? By ‘available for work’ we mean that you were actively trying to find work, and would have been able to start within a few weeks if work had been offered to you.

### **Revisions to Section D – Current Work**

#### **Deleted:**

- ✘ D\_Q15a - In the last 12 months, did you receive any additional payment (for example a bonus) based on your performance?
- ✘ D\_Q15b - In the last 12 months, did you discuss a personal career or training plan with your supervisor?
- ✘ D\_Q15c - In the last 12 months, did you have a formal performance evaluation?
- ✘ D\_Q15d - In the last 12 months, did you get regular feedback on an informal basis from your supervisor?

### **Revisions to Section F – Last Job**

#### **Deleted:**

- ✘ F\_Q01- In your ^JobLastjob what proportion of your time ^DoDid you usually spend... listening carefully to co-workers? Co-workers are people working for the same firm or employer. Include any listening activity you consider part of your ^JobLastjob, even if it concerns personal matters.

### **Revisions to Section G – Skill Use Literacy, Numeracy and ICT at work**

#### **Deleted:**

- ✘ G\_Q03a – In your ^JobLastjob, how often ^DoDid you usually ... measure or estimate sizes, weights, distances, etc.?
- ✘ G\_Q03e – In your ^JobLastjob, how often ^DoDid you usually ...interpret charts, graphs or tables?
- ✘ G\_Q05b – In your ^JobLastjob, how often ^DoDid you usually ... use the internet to retrieve specific information like a street address, information on a product or bus or train schedules?

### **Revisions to Section H – Skill Use Literacy, Numeracy and ICT in everyday life**

#### **Deleted:**

- ✘ H\_Q03a – ^Ineverydaylife, how often do you usually ...measure or estimate sizes, weights, distances, etc.?
- ✘ H\_Q03e – ^Ineverydaylife, how often do you usually ...interpret charts, graphs, or tables?
- ✘ H\_Q05b – ^Ineverydaylife, how often do you usually ... use the internet to retrieve specific information like a street address, information on a product or bus or train schedules?

## **Revisions to Section I – About Yourself**

### **Deleted:**

- ✱ I\_Q01a Series – To what extent do the following statements apply to you?
  - I\_Q01a – I am a hard worker
  - I\_Q01b – I get enthusiastic about ideas for a short time but later lose interest
  - I\_Q01c – I am self-disciplined
  - I\_Q01d – I can cope with setbacks
  - I\_Q01e – New projects sometimes distract me from previous ones
  - I\_Q01f – I am good at resisting temptation
  - I\_Q01g – I finish whatever I begin
  - I\_Q01h – I have difficulty maintaining focus on projects or tasks that take more than a few months to complete
  - I\_Q01i – I have trouble concentrating
- ✱ I\_Q02 Series – To what extent do the following statements apply to you?
  - I\_Q02a – I like taking responsibility
  - I\_Q02b – I find it best to make decisions myself, rather than to rely on fate
  - I\_Q02c – When I encounter problems or opposition, I usually find ways and means to overcome them
  - I\_Q02d – Success often depends more on luck than on effort
  - I\_Q02e – I often have the feeling that I have little influence over what happens to me
  - I\_Q02f – When I make important decisions, I often look at what others have done

### **Deleted:**

- ✱ I\_Q03a - I would now like to ask you some questions about how you think about the future. To what extent do the following statements apply to you?
  - I\_Q03b - I'm only concerned about the present
  - I\_Q03c - I would prefer benefits now to somewhat larger benefits in the future
  - I\_Q03d - I will accept getting less today so that I will get more tomorrow



**Deleted:**

- ✘ I\_Q04 Series– I would now like to ask you some questions about how you deal with problems and tasks you encounter. To what extent do the following statements apply to you?
  - I\_Q04a – I prefer to follow well-tried methods for tackling problems or tasks
  - I\_Q04c – I prefer to split complex problems into parts, and work these out one at a time
  - I\_Q04e – I prefer tasks that are clearly structured
  - I\_Q04f – If I am puzzled by a problem or task, I use my imagination to look for a solution
  - I\_Q04g – I like to know what is expected of me
  - I\_Q04i – When I start a task, I first figure out all the details of what I need to do
  - I\_Q04k – I find it difficult to switch between different tasks
  
- ✘ I\_R05 - I would now like to ask you some questions about things you may do in your spare time. I will mention different activities and I want you to tell me how often you engage in these activities.
  
- ✘ I\_Q05a - In the last 12 months, how often did you ... engage in a cultural activity, for example going to a classical concert, the theater, or a museum?
  - I\_Q05b - go to the movies, a night club or a pop concert?
  - I\_Q05c - participate in sports?
  - I\_Q05d - visit a library or a bookshop?
  - I\_Q05e - spend time with friends or relatives?
  - I\_Q05h - attend a church service or religious event?

**Modified:** I\_Q05f and I\_Q05g – These two items were combined into one item I\_Q05f which is now, “In the last 12 months, how often, if at all, did you do voluntary work, including unpaid work for a charity, political party, trade union or other non-profit organization?”

**Deleted:**

- ✘ I\_Q06 Series– To what extent do you agree or disagree with the following statements?
  - I\_Q06b – The average citizen has considerable influence on politics
  - I\_Q06c – I feel that I have a pretty good understanding of the important political issues facing our country
  - I\_Q06d – I think most people are better informed about politics and government than I am

**Deleted:**

- ✘ I\_Q07 Series– To what extent do you agree or disagree with the following statements?
  - I\_Q07c – Most of the time you can be sure that other people want the best for you
  - I\_Q07d – I am willing to accept personal costs to help someone who helped me in the past
- ✘ I\_Q09a - Approximately how many days in the last 12 months were you unable to go to work because of a temporary illness or chronic health problem?
- ✘ I\_Q09b - Approximately how many days in the last 12 months were you unable to perform your usual activities because of a temporary illness or chronic health problem?
- ✘ I\_Q10a – Do you have any longstanding illness or longstanding health problem? By longstanding we mean illnesses or health problems which have lasted, or are expected to last, for 6 months or more.
- ✘ I\_Q10b – To what extent have you been limited because of this health problem in activities people usually do? Would you say you have been severely limited, limited but not severely, or not limited at all?

**Revisions to Section J – Background Information**

**Deleted:**

- ✘ J\_Q02b - What is the highest level of education your spouse or partner has ever completed?
- ✘ J\_Q06c – ^DidDoes your mother or female guardian hold a paying job ^When?
- ✘ J\_Q06d – What ^WasIs your mother’s or female guardian’s main job ^When? Please provide the job title and indicate whether she was self-employed or not.
- ✘ J\_Q06e – What ^DidiDoes your mother or female guardian do in her main job? Please describe the kind of work she ^DidiDoes in that job.
- ✘ J\_Q07c – ^DidDoes your father or male guardian hold a paying job ^When?
- ✘ J\_Q07d – What ^WasIs your father’s or male guardian’s main job ^When? Please provide the job title and indicate whether he was self-employed or not.
- ✘ J\_Q07e – What ^DidiDoes your father or male guardian do in his main job? Please describe the kind of work he ^DidiDoes in that job.
- ✘ J\_R09 - The following questions are about different types of income resources you may have received in the past 12 months.
- ✘ J\_Q09a - In the last 12 months, that is since ^MonthYear, did you receive...
  - J\_Q09b - disability benefits?
  - J\_Q09c - sickness benefits?
  - J\_Q09d - early retirement benefits?
  - J\_Q09e - retirement benefits?

## Appendix B

### Data Collection Reports

# PIAAC MAIN STUDY

## DATA COLLECTION

### SURVEY OPERATIONS QUALITY CONTROL FORM

#### Instructions

- Enter and edit information on the form using Adobe Acrobat Reader.
- To prevent losing entries, use the "save" feature regularly.
- It is important that the filename incorporates the name of your country, the title of the form, as well as the date the form was filled out.
- Do not use the "comment" function in Adobe Acrobat to add details. Additional space to do so is provided on the last page of this form. If your comments refer to a specific question, please write the question number.
- Answer all applicable questions on the form.
- Please do not submit your country's quality control forms via email.

Country: United States Date: 14 / 1 / 2012  
(DD/MM/YYYY)

Is this a revised submission?  Yes **[PLEASE UPDATE DATE]** \_\_\_\_\_ ↑  
 No

Completed by: Lillian Diaz-Hoffmann Title: Study Manager  
 Completed by: \_\_\_\_\_ Title: \_\_\_\_\_  
 Completed by: \_\_\_\_\_ Title: \_\_\_\_\_

#### **TML Timeline**

TML1. On what date will/did data collection begin?  
 (First day interviewers are authorised to make contact attempts/conduct interviews.) 25 / 8 / 2011  
(DD/MM/YYYY)

TML2. On what date will/did data collection end?  
 (Last day interviewers are authorised to make contact attempts/conduct interviews.) 31 / 3 / 2011  
(DD/MM/YYYY)

TML3. On what date will/did interviewer training begin?  
 (Date of first day of first training session held.) 18 / 08 / 2011  
(DD/MM/YYYY)

TML4. On what date will/did interviewer training end?  
 (Date of last day of last training session held.) 23 / 8 / 2011  
(DD/MM/YYYY)

**STF Staff Hiring and Management**

STF1. What recruitment sources will your country use/has your country used to find interviewers? (S 8.4.1)

[SELECT ALL THAT APPLY]

- Files of people currently working for the survey institute
- Files of people who previously worked for the survey institute
- Job posting on the survey institute's website
- Recommendations from experienced supervisory staff employed by the survey institute
- Local organisations such as community/senior centres and libraries
- Newspaper advertisements
- Other (specify)

Employment website, state and local employment offices.

STF2. Complete the table below with information about the status of your country's staff. Fill out each box. Enter 'n/a' if not applicable. Enter 'dk' if not currently known. (S 8.3.3)

Staff	Interviewers	Supervisors (or equivalent)	Field Managers (or equivalent)	Field Director (or equivalent)
Target number to recruit/hire/assign to PIAAC	191.00	11.00	2.00	1.00
Total number ever recruited/hired/assigned to PIAAC	195.00	11.00	2.00	1.00

STF3. Is interviewer attrition taken into account in the target number of interviewers reported in question STF2? (S 8.3.1)

- Yes [**SKIP TO STF5**]
- No

STF4. By how much does your country plan to overhire/did your country overhire to compensate for interviewer attrition? Please select the appropriate box to indicate whether a number or percent was entered. Enter a '0' if there is no plan to overhire. (S 8.3.1)

ENTER NUMBER OR PERCENT 30.00

- Number
- Percent

STF5. How many hours per week will interviewers work/have interviewers been working on PIAAC?

ENTER NUMBER \_\_\_\_\_

**OR**

ENTER RANGE 25.00 to 40.00

STF6. How many interviewers will be assigned/were assigned to each supervisor? (S 8.1.1)

ENTER NUMBER \_\_\_\_\_

**OR**

ENTER RANGE 16.00 to 20.00

STF7. How many supervisors will be assigned/were assigned to each field manager? (S.8.1.1)

ENTER NUMBER 5.00

**OR**

ENTER RANGE \_\_\_\_\_ to \_\_\_\_\_

STF8. How many cases will be assigned/were assigned to each interviewer for their initial assignment? (S 8.3.4)

ENTER NUMBER \_\_\_\_\_

**OR**

ENTER RANGE 10.00 to 20.00

STF9. How will interviewers be/have interviewers been paid? (S 8.3.5)

Piece rate

Hourly wage

Salary

Other (specify)

STF10. Will a bonus be/has a bonus been offered to interviewers who reach a certain threshold of productivity?

Yes

No **[SKIP TO STF12]**

STF11. Briefly describe the nature of this bonus.

Incentive bonus plan based on the number of completes. Interviewers who complete a minimum number of interviews are eligible. The more completes an interviewer gets, the higher the bonus amount paid per complete to that interviewer. Also lottery with cash prizes.

STF12. Which methods will your country use/has your country used for communication between the home office and field staff, including field managers, supervisors, and interviewers? (S 8.1.2/8.2.1)

[SELECT ALL THAT APPLY]

- Email
- Telephone
- In-person meetings
- Paper or electronic newsletters
- Other (specify)

STF13. How often will your country have/has your country had scheduled communications between interviewers and supervisors? (S 8.1.2/8.2.1)

[SELECT ALL THAT APPLY]

- As needed
- Bi-weekly
- Weekly
- Monthly
- Never
- Other (specify)

**[SKIP TO FDW1 IF DATA COLLECTION HAS NOT STARTED]**

STF14. Complete the table below with information about the status of your country's interviewing staff. (S 8.3.3)

Interviewing Staff	Number
Total number ever recruited/hired/assigned to PIAAC (from STF2)	195.00
Total number of interviewers who attended training	195.00
Total number of interviewers who received assignments	192.00
↳ Number of interviewers currently working on the study	79.00
↳ Number of interviewers no longer working on the study	116.00

STF15. According to the information provided in question STF14, the percentage of interviewer attrition to date in your country is 60.416666%. (S 8.3.3) In order to be routed to the next relevant question, please check the appropriate answer:

- Attrition is equal to '0' **[SKIP TO STF17]**
- Attrition is greater than '0'

STF16. What are some of the causes of interviewer attrition on PIAAC? (S 8.3.1)

[SELECT ALL THAT APPLY]

- Quit
- Laid off
- Fired because of poor production
- Fired because of quality control issues
- Other (specify)

STF17. Has your country trained additional interviewers as a result of interviewer attrition or insufficient initial staffing? (S 9.8.1)

- Yes
- No [**SKIP TO STF20**]

STF18. Has your country submitted an Interviewer Training Form for the additional interviewer training session(s) held?

- Yes, for each additional sessions
- Yes, for some sessions only
- No

STF19. How many interviewers were trained at the additional interviewer training session(s)? (S 9.8.1)

*Note: Please make sure you report these interviewers in questions STF2 and STF14 as well.*

ENTER NUMBER 9.00

STF20. Have there been any geographical areas without local interviewers due to attrition? (S 8.3.1)

- Yes
- No [**SKIP TO FDW1**]

STF21. What measures has your country taken to cover unstaffed geographical areas due to attrition? (S 8.3.1)

[SELECT ALL THAT APPLY]

- Reassigned interviewers from nearby geographical areas
- Trained additional interviewers
- Hired additional interviewers
- Other (specify)

Traveled interviewers.



**FDW FIELDWORK**

FDW1. Which outreach materials will your country use/has your country used? (S 10.2.1)

[SELECT ALL THAT APPLY]

- Introductory letter
- Brochure
- Endorsement letters
- Newspaper articles
- Television advertising
- Radio advertising
- Press release
- Other (specify)

Refrigerator magnet, tailored flyers, pens

FDW2. Will/does your country have its own study-specific website or webpage? (S 10.2.1)

- Yes
- No

FDW3. Will/does your country have a study toll-free respondent help line? (S 10.2.1)

- Yes
- No [**SKIP TO FDW6**]

FDW4. What will be/what are the hours of operation of the help line? (S 10.2.1)

9:00 to 17:00 Monday through Friday.

FDW5. How many calls have been received by the toll-free respondent help line? (S 10.2.1)

ENTER NUMBER 164.00

FDW6. Will your country/has your country obtained endorsement letters for the study? (S.10.2.1)

- Yes
- No [**SKIP TO FDW8**]

FDW7. Please list the organisations or individuals from whom your country has obtained endorsement letters. (S 10.2.1)

Tom Brokaw, former television news anchor, and leaders in education.

FDW8. Will a respondent incentive be used/has a respondent incentive been used?  
(S 4.8.1/10.5.1)

- Yes  
 No **[SKIP TO FDW10]**

FDW9. What type of respondent incentive will be used/has been used? (S 4.8.1/10.5.1)

[SELECT ALL THAT APPLY]

- Monetary (Amount 50 USD)  
 Nonmonetary (Description refrigerator magnet, pen)

FDW10. Will your country conduct/has your country conducted initial contact with households/  
respondents in-person? (S 10.3.1)

- Yes  
 No

FDW11. Will your country conduct/has your country conducted initial contact with households/  
respondents via telephone? (S 10.3.1)

- Yes  
 No

FDW12. What is the minimum number of subsequent in-person contact attempts interviewers will  
be/are/were required to make before a case is coded a non-contact? (S 10.3.2)

4.00

FDW13. What is the minimum number of subsequent telephone contact attempts interviewers will  
be/are/were required to make before a case is coded a non-contact? (S 10.3.3)

0.00

FDW14. Which of the following data items will/does/did your country collect for each contact  
attempt? (S 10.3.6)

[SELECT ALL THAT APPLY]

- Day  
 Date  
 Time  
 Contact mode  
 Outcome  
 Comments  
 Other (specify)

Interviewer ID

FDW15. Will/has the contact information be/been collected in a paper format, through an automated component of the field management system or both? (S 10.3.6)

- Paper format
- Automated component of field management system
- Both

FDW16. What information will/does/did your country collect on non-interview/nonresponse cases? (S 10.3.7)

[SELECT ALL THAT APPLY]

- Demographic data on person who refused
- Strength of refusal
- Problems encountered
- Likelihood of conversion
- Comments
- Other (specify)

Name and phone number of a contact person

FDW17. Will/has the non-interview information be/been collected in a paper format, through an automated component of the field management system, or both? (S 10.3.7)

- Paper format
- Automated component of field management system
- Both

FDW18. What strategies will your country use/has your country used for dealing with nonresponse and maximising response rates? (S 10.5.2/10.5.3)

[SELECT ALL THAT APPLY]

- Reassignment to other local interviewer(s)
- Follow-up by senior interviewers (or equivalent)
- Follow-up by supervisors (or equivalent)
- Reassignment to experienced/specially trained travelling interviewers
- Tailored letters (apartment managers, locked buildings, refusal conversion, refusals, unco-operative respondent)
- Refusal conversion letters mailed to households via priority or registered mail
- Refusal conversion letters mailed to households via regular mail
- Other (specify)

Tailored flyers, mail-in screener forms sent to sampled households yet to be screened

**[SKIP TO SMS1 IF DATA COLLECTION HAS NOT STARTED]**

FDW19. What have been the three most common reasons for refusals to the BQ? (S 10.3.7)

[SELECT UP TO THREE]

- Not interested in the study or in surveys
- Too busy
- Too long
- Don't want to be bothered or involved
- Waste of time and money
- Dislike government
- Don't trust surveys
- Other (specify)

FDW20. What have been the three most common reasons for refusals to the Core/Exercise? (S 10.3.7)

[SELECT UP TO THREE]

- Not interested in the study or in surveys
- Too busy
- Too long
- Don't want to be bothered or involved
- Waste of time and money
- Dislike government
- Don't trust surveys
- Don't want to answer exercises
- Too complicated
- Other (specify)

## **SMS Survey Field Management System**

SMS1. Indicate which functionality the field management system will be/is able to support. (S 10.6.2)

[SELECT ALL THAT APPLY]

- Case assignment to interviewers
- Case transfer/reassignment among interviewers
- Case reset to prior state
- Removal of data from the laptop computer
- Production of management reports
- Documentation of contact attempts
- Tracking interviewers' time and expense data
- Other (specify)

SMS2. Indicate the information contained in the field management system. (S 10.6.3)

[SELECT ALL THAT APPLY]

- Case ID
- Geographic area
- Dwelling unit address
- Case-level status and disposition code
- Task-level status and disposition code
- Date the interview was finalised or status date
- Task type (interview component)
- Interviewer name/ID
- Validation status
- Language of administration
- Assignment date and type (original vs. transfer)
- Date and time of inbound and outbound data transmissions
- ID number of paper direct assessment booklets
- Status of paper direct assessment booklets
- Date the paper materials were returned to the survey institute
- Other (specify)

SMS3. Has the survey control file been developed? (S 10.6.5)

- Yes
- No

**[SKIP TO QCF1 IF DATA COLLECTION HAS NOT STARTED]**

## **PRD Production and Response Rates**

The following questions ask about the number of finalised (closed out) cases recorded for each disposition code in each module. Please report these numbers conditionally so that the total number of cases for each module sums up to the number of cases that have completed the previous module.

PRD1. If applicable, indicate the number of finalised Screeners to date for each of the disposition codes below. (*S 10.7.1*)

<b>Description</b>	<b>Code</b>	<b>Number of Screeners</b>
Complete – 1 sample person selected	01	4,672.00
Complete – 2 sample persons selected	02	388.00
Partial complete/break-off	03	0.00
Refusal – household member	04	693.00
Refusal – gatekeeper	05	18.00
Language problem	07	87.00
Learning/mental disability	09	7.00
Hearing impairment	12	0.00
Blindness/visual impairment	13	0.00
Speech impairment	14	0.00
Physical disability	15	0.00
Other disability	16	0.00
Other (unspecified), such as sickness or unusual circumstances	17	20.00
Complete – no eligible sample persons	19	1,134.00
Unable to locate dwelling unit	20	40.00
Maximum number of calls	21	25.00
Dwelling unit under construction	22	17.00
Temporarily absent/unavailable during field period	24	39.00
Vacant dwelling unit	26	955.00
Duplication – already interviewed	27	0.00
Address not a dwelling unit	28	180.00
<b>Total</b>		<b>8,275.00</b>

PRD2. Indicate the number of finalised Case Initialisations (CI) to date for each of the disposition codes below. (S 10.7.1)

Description	Code	Number of CIs
Complete	01	4,388.00
Partial complete/break-off	03	3.00
Refusal – sample person	04	254.00
Refusal – other	05	22.00
Language problem	07	48.00
Reading and writing difficulty	08	0.00
Learning/mental disability	09	28.00
Hearing impairment	12	1.00
Blindness/visual impairment	13	1.00
Speech impairment	14	0.00
Physical disability	15	1.00
Other disability	16	3.00
Other (unspecified), such as sickness or unusual circumstances	17	29.00
Death	18	0.00
Maximum number of calls	21	7.00
Temporarily absent/unavailable during field period	24	64.00
Ineligible (specify)	25	1.00
Duplication – already interviewed	27	0.00
Technical Problem	90	10.00
<b>Total</b>		<b>4,860.00</b>

PRD3. Indicate the number of finalised Background Questionnaires (BQ) to date for each of the disposition codes below. (S 10.7.1)

Description	Code	Number of BQs
Complete	01	4,388.00
Partial complete/break-off	03	3.00
Refusal – sample person	04	254.00
Refusal – other	05	22.00
Language problem	07	48.00
Reading and writing difficulty	08	0.00
Learning/mental disability	09	28.00
Hearing impairment	12	1.00
Blindness/visual impairment	13	1.00
Speech impairment	14	0.00
Physical disability	15	1.00
Other disability	16	3.00
Other (unspecified), such as sickness or unusual circumstances	17	29.00
Death	18	0.00
Maximum number of calls	21	7.00
Temporarily absent/unavailable during field period	24	64.00
Ineligible (specify)	25	1.00
Duplication – already interviewed	27	0.00
Technical Problem	90	10.00
<b>Total</b>		<b>4,860.00</b>

PRD4. Indicate the number of finalised Exercises to date for each of the disposition codes below. (S 10.7.1)

Description	Code	Number of Exercises
Complete	01	4,120.00
Partial complete/break-off	03	13.00
Refusal – sample person	04	30.00
Refusal – other	05	0.00
Language problem	07	30.00
Reading and writing difficulty	08	1.00
Learning/mental disability	09	6.00
Hearing impairment	12	0.00
Blindness/visual impairment	13	1.00
Speech impairment	14	0.00
Physical disability	15	1.00
Other disability	16	0.00
Other (unspecified), such as sickness or unusual circumstances	17	26.00
Death	18	0.00
Maximum number of calls	21	1.00
Temporarily absent/unavailable during field period	24	0.00
Duplication – already interviewed	27	0.00
Technical Problem	90	10.00
Missing Paper Booklet	91	0.00
<b>Total</b>		<b>4,239.00</b>

PRD5. Enter the information on the target response rates and number of completes. (S 4.7.1)

*Note: A toolkit is available on the SharePoint site to compute the Actual Weighted Response Rates. You may use the simplified or standard response rate formula. The 'Target' columns refer to your "best estimate," not the theoretical maximum that could be reached. (e.g., 100% for RR)*

Component	Weighted Response Rates (%)		Number of Completes	
	Actual	Target	Actual	Target
Screener (if applicable)	73.40	86.70	6,194.00	6,010.00
CI & BQ (combined)	82.30	80.00	4,388.00	5,097.00
Exercise	99.10	98.10	4,120.00	5,000.00

PRD6. What is the minimum, maximum, and mean number of completed interviews per interviewer to date? (S 8.3.4)

Minimum: 1.00      Maximum: 98.00      Mean: 23.20

## **QCF Quality Control of Fieldwork**

QCF1. Will interviews be/have interviews been monitored? (S 10.9.2)

- Yes  
 No [**SKIP TO QCF4**]



QCF2. What methods will be used/have been used to monitor interviews? (S 10.9.2)

[SELECT ALL THAT APPLY]

- Audio recording of full interviews  
 Audio recording of parts/snippets of interviews  
 In-person observation  
 Other (specify)

--

QCF3. Indicate for how many cases your country has completed the following interview monitoring procedures. (S 10.9.2)

	Number of Cases
Audio recorded full interviews	295.00
Audio recorded parts/snippets of interviews	
In-person observation	
Other (specify)	

QCF4. Will the work of interviewers be/has the work of interviewers been validated through back-checks? (S 10.9.2)

- Yes  
 No **[SKIP TO QCF15]**

QCF5. Indicate which types of cases will be/have been validated and the mode used. (S 10.9.3)

[CHECK ALL APPROPRIATE BOXES]

Dispositions	In-person	Telephone	Mail
Completes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Refusals	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ineligibles	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Non-contacts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

QCF6. Will validation cases be/have validation cases been selected at random? (S 10.9.3A)

- Yes, all cases  
 Yes, most cases  
 Yes, some cases  
 No

QCF7. Will your country use/has your country used the validation form proposed by the Consortium?

- Yes, it was used as-is
- Yes, it was used with adaptations
- No

QCF8. Who will be conducting/has conducted the validations? (S 10.9.2/10.9.3)

[SELECT ALL THAT APPLY]

- Supervisors (or equivalent)
- Field managers (or equivalent)
- Senior interviewers (or equivalent)
- Project staff
- Other (specify)

Survey Institute Telephone Center staff.

**[SKIP TO QCF15 IF DATA COLLECTION HAS NOT STARTED]**

QCF9. Has the 10 percent validation threshold been reached for each interviewer who received assignments?

- Yes **[SKIP TO QCF12]**
- No

QCF10. Among interviewers who received assignments, how many have had ...

... at least 10% of their finalised cases validated?      ENTER NUMBER \_\_\_\_\_

... at least 7% of their finalised cases validated?      ENTER NUMBER \_\_\_\_\_

QCF11. Briefly describe why your country has not validated 10 percent of each interviewer’s cases finalised to date. (S 10.9.3)

QCF12. Indicate for how many cases your country has conducted validation. (S 10.9.2)

	<b>Number of Cases</b>
Validation in person	101.00
Validation by telephone	1,278.00
Validation by mail	49.00
Other (specify)	

QCF13. Has your country detected any falsification? (*S 10.9.4*)

- Yes  
 No [**SKIP TO QCF15**]

QCF14. Please explain the falsification found and indicate the number of interviewers and the percent/number of cases impacted. Please also indicate what was done/will be done with the falsified case(s). (*S 10.9.4*)

Three instances of falsification have been found since the previous report. A total of ten falsifiers have been found since the start of data collection.

Of the most recent three, the first interviewer conducted an interview at an address other than the sampled address. The second conducted interviews with households that were not sampled on multiple occasions and underreported the age of a respondent to make her eligible to complete the interview. The last used public databases to complete screeners without actually visiting the sampled households.

Information on the previous falsifiers can be found on the last page of this form.

QCF15. Will your country develop/has your country developed management reports to detect falsification? (*S 10.9.6*)

- Yes  
 No [**SKIP TO QCF17**]

QCF16. Indicate which management reports will be used/have been used to detect falsification. (*S 10.9.6*)

[SELECT ALL THAT APPLY]

- Overall interview administration length  
 Individual instrument administration length  
 Amount of time between interviews  
 Interviews conducted very early in the morning or late in the evening  
 Number of interviews conducted per day  
 Other (specify)

QCF17. What procedures will be used/have been used for reviewing electronic survey data?  
(S 10.9.9)

[SELECT ALL THAT APPLY]

- Review of data frequencies
- Review and suppression of edits
- Review of "other-specify" responses
- Review of open ended responses
- Review of missing data rates (i.e., refusals, don't knows)
- Other (specify)

QCF18. Who will review/has reviewed completed paper case materials? (S 10.9.8)

[SELECT ALL THAT APPLY]

- Interviewers
- Supervisors
- Home office staff upon receipt
- Other (specify)

### **ETH Ethics/Confidentiality**

ETH1. Did your country submit its research plan to the appropriate institutional review board(s) and/or ethics committee(s) for approval? (S 2.1)

- Yes
- No **[SKIP TO ETH3]**
- Not required in our country **[SKIP TO ETH3]**

ETH2. Has approval been granted by the appropriate institutional review board(s) and/or ethics committee(s) on the research plan? (S 2.1)

- Yes
- No

ETH3. Will all of your country's staff be trained/was all of your country's staff trained on the importance of ethics and scientific rigour in research involving human subjects? (S 2.1)

- Yes
- No

ETH4. Which confidentiality forms will all of your country's study staff sign/did all of your country's study staff sign? (S 2.2)

[SELECT ALL THAT APPLY]

- PIAAC confidentiality form
- Country-specific form
- Other (specify)

ETH5. What measures will your country use/has your country been using to maintain the security of the data stored in interviewers' laptop computer? (S 2.2)

[SELECT ALL THAT APPLY]

- Data encryption
- Password protection
- Keeping all password lists in a separate location from the laptop computer
- Securely storing the laptop computer when not in use
- Other (specify)

Interviewers are not authorized to use their laptop for anything other than PIAAC-related work.

**[SKIP TO END IF DATA COLLECTION HAS NOT STARTED]**

ETH6. Have there been any problems with data confidentiality? (S 2.2)

- Yes
- No **[SKIP TO ETH8]**

ETH7. Please explain problems with data confidentiality. (S 2.2)

ETH8. Have any interviewer laptops been lost or stolen? (S 2.2)

- Yes
- No **[SKIP TO END]**

ETH9. How many laptops have been lost or stolen? (S 2.2)

\_\_\_\_\_

ETH10. What measures were taken when a laptop was lost or stolen? (S 2.2)

[SELECT ALL THAT APPLY]

- Reported incident to the Consortium
- Filed a report with the local authorities
- Instructed supervisors to thoroughly investigate the matter
- Other (specify)

**END OF FORM**

## **Comments**

(continued from question 14)

Of the falsification previously reported, one interviewer routinely underreported the number of household members to make sure that the person she wanted to be selected for the interview would be. We removed the cases where the interview was conducted with an SP who should not have been selected from the data.

Another interviewer completed a BQ over the telephone. The case was removed from the data.

Another interviewer made up data for a number of households, discovered due to abnormally short BQ administration times. She also seems to have completed the Exercise herself on occasion, according to SPs who were called for validation. Cases were reset and reassigned.

Another interviewer conducted screeners at the wrong address on at least two occasions, those cases were cleared out and re-fielded.

Another interviewer closed out two cases as vacant when they were occupied, the cases were transferred to another interviewer.

Two interviewers intentionally conducted the Exercise with someone other than the SP selected by the screener.

Information on this form is as of 14/12/2011.

# PIAAC MAIN STUDY

## DATA COLLECTION

### SURVEY OPERATIONS QUALITY CONTROL FORM

#### Instructions

- Enter and edit information on the form using Adobe Acrobat Reader.
- To prevent losing entries, use the "save" feature regularly.
- It is important that the filename incorporates the name of your country, the title of the form, as well as the date the form was filled out.
- Do not use the "comment" function in Adobe Acrobat to add details. Additional space to do so is provided on the last page of this form. If your comments refer to a specific question, please write the question number.
- Answer all applicable questions on the form.
- Please do not submit your country's quality control forms via email.

Country: United States Date: 14 / 2 / 2012  
(DD/MM/YYYY)

Is this a revised submission?  Yes **[PLEASE UPDATE DATE]** \_\_\_\_\_ ↑  
 No

Completed by: Lillian Diaz-Hoffmann Title: Study Manager  
 Completed by: \_\_\_\_\_ Title: \_\_\_\_\_  
 Completed by: \_\_\_\_\_ Title: \_\_\_\_\_

#### **TML Timeline**

TML1. On what date will/did data collection begin?  
 (First day interviewers are authorised to make contact attempts/conduct interviews.) 25 / 8 / 2011  
(DD/MM/YYYY)

TML2. On what date will/did data collection end?  
 (Last day interviewers are authorised to make contact attempts/conduct interviews.) 31 / 3 / 2011  
(DD/MM/YYYY)

TML3. On what date will/did interviewer training begin?  
 (Date of first day of first training session held.) 18 / 08 / 2011  
(DD/MM/YYYY)

TML4. On what date will/did interviewer training end?  
 (Date of last day of last training session held.) 23 / 8 / 2011  
(DD/MM/YYYY)



**STF Staff Hiring and Management**

STF1. What recruitment sources will your country use/has your country used to find interviewers? (S 8.4.1)

[SELECT ALL THAT APPLY]

- Files of people currently working for the survey institute
- Files of people who previously worked for the survey institute
- Job posting on the survey institute's website
- Recommendations from experienced supervisory staff employed by the survey institute
- Local organisations such as community/senior centres and libraries
- Newspaper advertisements
- Other (specify)

Employment website, state and local employment offices.

STF2. Complete the table below with information about the status of your country's staff. Fill out each box. Enter 'n/a' if not applicable. Enter 'dk' if not currently known. (S 8.3.3)

Staff	Interviewers	Supervisors (or equivalent)	Field Managers (or equivalent)	Field Director (or equivalent)
Target number to recruit/hire/assign to PIAAC	191.00	11.00	2.00	1.00
Total number ever recruited/hired/assigned to PIAAC	195.00	11.00	2.00	1.00

STF3. Is interviewer attrition taken into account in the target number of interviewers reported in question STF2? (S 8.3.1)

- Yes [**SKIP TO STF5**]
- No

STF4. By how much does your country plan to overhire/did your country overhire to compensate for interviewer attrition? Please select the appropriate box to indicate whether a number or percent was entered. Enter a '0' if there is no plan to overhire. (S 8.3.1)

ENTER NUMBER OR PERCENT 30.00

- Number
- Percent

STF5. How many hours per week will interviewers work/have interviewers been working on PIAAC?

ENTER NUMBER \_\_\_\_\_

**OR**

ENTER RANGE 25.00 to 40.00

STF6. How many interviewers will be assigned/were assigned to each supervisor? (S 8.1.1)

ENTER NUMBER \_\_\_\_\_

**OR**

ENTER RANGE 16.00 to 20.00

STF7. How many supervisors will be assigned/were assigned to each field manager? (S.8.1.1)

ENTER NUMBER 5.00

**OR**

ENTER RANGE \_\_\_\_\_ to \_\_\_\_\_

STF8. How many cases will be assigned/were assigned to each interviewer for their initial assignment? (S 8.3.4)

ENTER NUMBER \_\_\_\_\_

**OR**

ENTER RANGE 10.00 to 20.00

STF9. How will interviewers be/have interviewers been paid? (S 8.3.5)

Piece rate

Hourly wage

Salary

Other (specify)

STF10. Will a bonus be/has a bonus been offered to interviewers who reach a certain threshold of productivity?

Yes

No **[SKIP TO STF12]**

STF11. Briefly describe the nature of this bonus.

Incentive bonus plan based on the number of completes. Interviewers who complete a minimum number of interviews are eligible. The more completes an interviewer gets, the higher the bonus amount paid per complete to that interviewer. Also lottery with cash prizes.

STF12. Which methods will your country use/has your country used for communication between the home office and field staff, including field managers, supervisors, and interviewers? (S 8.1.2/8.2.1)

[SELECT ALL THAT APPLY]

- Email
- Telephone
- In-person meetings
- Paper or electronic newsletters
- Other (specify)

STF13. How often will your country have/has your country had scheduled communications between interviewers and supervisors? (S 8.1.2/8.2.1)

[SELECT ALL THAT APPLY]

- As needed
- Bi-weekly
- Weekly
- Monthly
- Never
- Other (specify)

**[SKIP TO FDW1 IF DATA COLLECTION HAS NOT STARTED]**

STF14. Complete the table below with information about the status of your country's interviewing staff. (S 8.3.3)

Interviewing Staff	Number
Total number ever recruited/hired/assigned to PIAAC (from STF2)	195.00
Total number of interviewers who attended training	195.00
Total number of interviewers who received assignments	192.00
↳ Number of interviewers currently working on the study	65.00
↳ Number of interviewers no longer working on the study	127.00

STF15. According to the information provided in question STF14, the percentage of interviewer attrition to date in your country is 66.145833%. (S 8.3.3) In order to be routed to the next relevant question, please check the appropriate answer:

- Attrition is equal to '0' **[SKIP TO STF17]**
- Attrition is greater than '0'

STF16. What are some of the causes of interviewer attrition on PIAAC? (S 8.3.1)

[SELECT ALL THAT APPLY]

- Quit
- Laid off
- Fired because of poor production
- Fired because of quality control issues
- Other (specify)

STF17. Has your country trained additional interviewers as a result of interviewer attrition or insufficient initial staffing? (S 9.8.1)

- Yes
- No [**SKIP TO STF20**]

STF18. Has your country submitted an Interviewer Training Form for the additional interviewer training session(s) held?

- Yes, for each additional sessions
- Yes, for some sessions only
- No

STF19. How many interviewers were trained at the additional interviewer training session(s)? (S 9.8.1)

*Note: Please make sure you report these interviewers in questions STF2 and STF14 as well.*

ENTER NUMBER 9.00

STF20. Have there been any geographical areas without local interviewers due to attrition? (S 8.3.1)

- Yes
- No [**SKIP TO FDW1**]

STF21. What measures has your country taken to cover unstaffed geographical areas due to attrition? (S 8.3.1)

[SELECT ALL THAT APPLY]

- Reassigned interviewers from nearby geographical areas
- Trained additional interviewers
- Hired additional interviewers
- Other (specify)

**FDW FIELDWORK**

FDW1. Which outreach materials will your country use/has your country used? (S 10.2.1)

[SELECT ALL THAT APPLY]

- Introductory letter
- Brochure
- Endorsement letters
- Newspaper articles
- Television advertising
- Radio advertising
- Press release
- Other (specify)

Refrigerator magnet, tailored flyers, pens

FDW2. Will/does your country have its own study-specific website or webpage? (S 10.2.1)

- Yes
- No

FDW3. Will/does your country have a study toll-free respondent help line? (S 10.2.1)

- Yes
- No **[SKIP TO FDW6]**

FDW4. What will be/what are the hours of operation of the help line? (S 10.2.1)

9:00 to 17:00 Monday through Friday.

FDW5. How many calls have been received by the toll-free respondent help line? (S 10.2.1)

ENTER NUMBER 180.00

FDW6. Will your country/has your country obtained endorsement letters for the study? (S.10.2.1)

- Yes
- No **[SKIP TO FDW8]**

FDW7. Please list the organisations or individuals from whom your country has obtained endorsement letters. (S 10.2.1)

Tom Brokaw, former television news anchor, and leaders in education.

FDW8. Will a respondent incentive be used/has a respondent incentive been used?  
(S 4.8.1/10.5.1)

- Yes  
 No **[SKIP TO FDW10]**

FDW9. What type of respondent incentive will be used/has been used? (S 4.8.1/10.5.1)

[SELECT ALL THAT APPLY]

- Monetary (Amount 50 USD)  
 Nonmonetary (Description refrigerator magnet, pen)

FDW10. Will your country conduct/has your country conducted initial contact with households/ respondents in-person? (S 10.3.1)

- Yes  
 No

FDW11. Will your country conduct/has your country conducted initial contact with households/ respondents via telephone? (S 10.3.1)

- Yes  
 No

FDW12. What is the minimum number of subsequent in-person contact attempts interviewers will be/are/were required to make before a case is coded a non-contact? (S 10.3.2)

4.00

FDW13. What is the minimum number of subsequent telephone contact attempts interviewers will be/are/were required to make before a case is coded a non-contact? (S 10.3.3)

0.00

FDW14. Which of the following data items will/does/did your country collect for each contact attempt? (S 10.3.6)

[SELECT ALL THAT APPLY]

- Day  
 Date  
 Time  
 Contact mode  
 Outcome  
 Comments  
 Other (specify)

Interviewer ID

FDW15. Will/has the contact information be/been collected in a paper format, through an automated component of the field management system or both? (S 10.3.6)

- Paper format
- Automated component of field management system
- Both

FDW16. What information will/does/did your country collect on non-interview/nonresponse cases? (S 10.3.7)

[SELECT ALL THAT APPLY]

- Demographic data on person who refused
- Strength of refusal
- Problems encountered
- Likelihood of conversion
- Comments
- Other (specify)

Name and phone number of a contact person

FDW17. Will/has the non-interview information be/been collected in a paper format, through an automated component of the field management system, or both? (S 10.3.7)

- Paper format
- Automated component of field management system
- Both

FDW18. What strategies will your country use/has your country used for dealing with nonresponse and maximising response rates? (S 10.5.2/10.5.3)

[SELECT ALL THAT APPLY]

- Reassignment to other local interviewer(s)
- Follow-up by senior interviewers (or equivalent)
- Follow-up by supervisors (or equivalent)
- Reassignment to experienced/specially trained travelling interviewers
- Tailored letters (apartment managers, locked buildings, refusal conversion, refusals, unco-operative respondent)
- Refusal conversion letters mailed to households via priority or registered mail
- Refusal conversion letters mailed to households via regular mail
- Other (specify)

Tailored flyers, mail-in screener forms sent to sampled households yet to be screened

**[SKIP TO SMS1 IF DATA COLLECTION HAS NOT STARTED]**

FDW19. What have been the three most common reasons for refusals to the BQ? (S 10.3.7)

[SELECT UP TO THREE]

- Not interested in the study or in surveys
- Too busy
- Too long
- Don't want to be bothered or involved
- Waste of time and money
- Dislike government
- Don't trust surveys
- Other (specify)

FDW20. What have been the three most common reasons for refusals to the Core/Exercise? (S 10.3.7)

[SELECT UP TO THREE]

- Not interested in the study or in surveys
- Too busy
- Too long
- Don't want to be bothered or involved
- Waste of time and money
- Dislike government
- Don't trust surveys
- Don't want to answer exercises
- Too complicated
- Other (specify)

## **SMS Survey Field Management System**

SMS1. Indicate which functionality the field management system will be/is able to support. (S 10.6.2)

[SELECT ALL THAT APPLY]

- Case assignment to interviewers
- Case transfer/reassignment among interviewers
- Case reset to prior state
- Removal of data from the laptop computer
- Production of management reports
- Documentation of contact attempts
- Tracking interviewers' time and expense data
- Other (specify)



SMS2. Indicate the information contained in the field management system. (S 10.6.3)

[SELECT ALL THAT APPLY]

- Case ID
- Geographic area
- Dwelling unit address
- Case-level status and disposition code
- Task-level status and disposition code
- Date the interview was finalised or status date
- Task type (interview component)
- Interviewer name/ID
- Validation status
- Language of administration
- Assignment date and type (original vs. transfer)
- Date and time of inbound and outbound data transmissions
- ID number of paper direct assessment booklets
- Status of paper direct assessment booklets
- Date the paper materials were returned to the survey institute
- Other (specify)

SMS3. Has the survey control file been developed? (S 10.6.5)

- Yes
- No

**[SKIP TO QCF1 IF DATA COLLECTION HAS NOT STARTED]**

## **PRD Production and Response Rates**

The following questions ask about the number of finalised (closed out) cases recorded for each disposition code in each module. Please report these numbers conditionally so that the total number of cases for each module sums up to the number of cases that have completed the previous module.

PRD1. If applicable, indicate the number of finalised Screeners to date for each of the disposition codes below. (*S 10.7.1*)

<b>Description</b>	<b>Code</b>	<b>Number of Screeners</b>
Complete – 1 sample person selected	01	4,880.00
Complete – 2 sample persons selected	02	399.00
Partial complete/break-off	03	0.00
Refusal – household member	04	728.00
Refusal – gatekeeper	05	15.00
Language problem	07	95.00
Learning/mental disability	09	8.00
Hearing impairment	12	0.00
Blindness/visual impairment	13	0.00
Speech impairment	14	0.00
Physical disability	15	0.00
Other disability	16	0.00
Other (unspecified), such as sickness or unusual circumstances	17	22.00
Complete – no eligible sample persons	19	1,192.00
Unable to locate dwelling unit	20	44.00
Maximum number of calls	21	22.00
Dwelling unit under construction	22	18.00
Temporarily absent/unavailable during field period	24	12.00
Vacant dwelling unit	26	1,043.00
Duplication – already interviewed	27	0.00
Address not a dwelling unit	28	177.00
<b>Total</b>		<b>8,655.00</b>

PRD2. Indicate the number of finalised Case Initialisations (CI) to date for each of the disposition codes below. (S 10.7.1)

Description	Code	Number of CIs
Complete	01	4,621.00
Partial complete/break-off	03	3.00
Refusal – sample person	04	334.00
Refusal – other	05	32.00
Language problem	07	51.00
Reading and writing difficulty	08	0.00
Learning/mental disability	09	30.00
Hearing impairment	12	1.00
Blindness/visual impairment	13	1.00
Speech impairment	14	0.00
Physical disability	15	3.00
Other disability	16	3.00
Other (unspecified), such as sickness or unusual circumstances	17	29.00
Death	18	0.00
Maximum number of calls	21	8.00
Temporarily absent/unavailable during field period	24	71.00
Ineligible (specify)	25	2.00
Duplication – already interviewed	27	0.00
Technical Problem	90	12.00
<b>Total</b>		<b>5,201.00</b>

PRD3. Indicate the number of finalised Background Questionnaires (BQ) to date for each of the disposition codes below. (S 10.7.1)

Description	Code	Number of BQs
Complete	01	4,621.00
Partial complete/break-off	03	3.00
Refusal – sample person	04	334.00
Refusal – other	05	32.00
Language problem	07	51.00
Reading and writing difficulty	08	0.00
Learning/mental disability	09	30.00
Hearing impairment	12	1.00
Blindness/visual impairment	13	1.00
Speech impairment	14	0.00
Physical disability	15	3.00
Other disability	16	3.00
Other (unspecified), such as sickness or unusual circumstances	17	29.00
Death	18	0.00
Maximum number of calls	21	8.00
Temporarily absent/unavailable during field period	24	71.00
Ineligible (specify)	25	2.00
Duplication – already interviewed	27	0.00
Technical Problem	90	12.00
<b>Total</b>		<b>5,201.00</b>

PRD4. Indicate the number of finalised Exercises to date for each of the disposition codes below. (S 10.7.1)

Description	Code	Number of Exercises
Complete	01	4,347.00
Partial complete/break-off	03	15.00
Refusal – sample person	04	28.00
Refusal – other	05	0.00
Language problem	07	28.00
Reading and writing difficulty	08	1.00
Learning/mental disability	09	6.00
Hearing impairment	12	0.00
Blindness/visual impairment	13	2.00
Speech impairment	14	0.00
Physical disability	15	1.00
Other disability	16	0.00
Other (unspecified), such as sickness or unusual circumstances	17	20.00
Death	18	0.00
Maximum number of calls	21	1.00
Temporarily absent/unavailable during field period	24	0.00
Duplication – already interviewed	27	0.00
Technical Problem	90	6.00
Missing Paper Booklet	91	0.00
<b>Total</b>		<b>4,455.00</b>

PRD5. Enter the information on the target response rates and number of completes. (S 4.7.1)

*Note: A toolkit is available on the SharePoint site to compute the Actual Weighted Response Rates. You may use the simplified or standard response rate formula. The 'Target' columns refer to your "best estimate," not the theoretical maximum that could be reached. (e.g., 100% for RR)*

Component	Weighted Response Rates (%)		Number of Completes	
	Actual	Target	Actual	Target
Screener (if applicable)	81.60	86.70	5,279.00	6,010.00
CI & BQ (combined)	83.30	80.00	4,621.00	5,097.00
Exercise	99.00	98.10	4,347.00	5,000.00

PRD6. What is the minimum, maximum, and mean number of completed interviews per interviewer to date? (S 8.3.4)

Minimum: 1.00      Maximum: 112.00      Mean: 24.30

## **QCF Quality Control of Fieldwork**

QCF1. Will interviews be/have interviews been monitored? (S 10.9.2)

- Yes  
 No [**SKIP TO QCF4**]

QCF2. What methods will be used/have been used to monitor interviews? (S 10.9.2)

[SELECT ALL THAT APPLY]

- Audio recording of full interviews  
 Audio recording of parts/snippets of interviews  
 In-person observation  
 Other (specify)

--

QCF3. Indicate for how many cases your country has completed the following interview monitoring procedures. (S 10.9.2)

	Number of Cases
Audio recorded full interviews	298.00
Audio recorded parts/snippets of interviews	
In-person observation	
Other (specify)	

QCF4. Will the work of interviewers be/has the work of interviewers been validated through back-checks? (S 10.9.2)

- Yes  
 No **[SKIP TO QCF15]**

QCF5. Indicate which types of cases will be/have been validated and the mode used. (S 10.9.3)

[CHECK ALL APPROPRIATE BOXES]

Dispositions	In-person	Telephone	Mail
Completes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Refusals	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ineligibles	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Non-contacts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

QCF6. Will validation cases be/have validation cases been selected at random? (S 10.9.3A)

- Yes, all cases  
 Yes, most cases  
 Yes, some cases  
 No

QCF7. Will your country use/has your country used the validation form proposed by the Consortium?

- Yes, it was used as-is  
 Yes, it was used with adaptations  
 No

QCF8. Who will be conducting/has conducted the validations? (*S 10.9.2/10.9.3*)

[SELECT ALL THAT APPLY]

- Supervisors (or equivalent)  
 Field managers (or equivalent)  
 Senior interviewers (or equivalent)  
 Project staff  
 Other (specify)

Survey Institute Telephone Center staff.

**[SKIP TO QCF15 IF DATA COLLECTION HAS NOT STARTED]**

QCF9. Has the 10 percent validation threshold been reached for each interviewer who received assignments?

- Yes **[SKIP TO QCF12]**  
 No

QCF10. Among interviewers who received assignments, how many have had ...

... at least 10% of their finalised cases validated? ENTER NUMBER \_\_\_\_\_

... at least 7% of their finalised cases validated? ENTER NUMBER \_\_\_\_\_

QCF11. Briefly describe why your country has not validated 10 percent of each interviewer's cases finalised to date. (*S 10.9.3*)

--

QCF12. Indicate for how many cases your country has conducted validation. (*S 10.9.2*)

	<b>Number of Cases</b>
Validation in person	200.00
Validation by telephone	1,387.00
Validation by mail	51.00
Other (specify)	

QCF13. Has your country detected any falsification? (*S 10.9.4*)

- Yes  
 No [**SKIP TO QCF15**]

QCF14. Please explain the falsification found and indicate the number of interviewers and the percent/number of cases impacted. Please also indicate what was done/will be done with the falsified case(s). (*S 10.9.4*)

One instance of falsification has been found since the previous report. A total of 11 falsifiers have been found since the start of data collection.

The most recent falsifier intentionally underreported the number of household members so that the screener would select SP she wanted to interview. Any cases where the interview was conducted with someone who would not have been chosen if the screener had been administered correctly will be removed from the data and the cases will not be reworked.

Information on the previous falsifiers can be found on the last page of this form.

QCF15. Will your country develop/has your country developed management reports to detect falsification? (*S 10.9.6*)

- Yes  
 No [**SKIP TO QCF17**]

QCF16. Indicate which management reports will be used/have been used to detect falsification. (*S 10.9.6*)

[SELECT ALL THAT APPLY]

- Overall interview administration length  
 Individual instrument administration length  
 Amount of time between interviews  
 Interviews conducted very early in the morning or late in the evening  
 Number of interviews conducted per day  
 Other (specify)

QCF17. What procedures will be used/have been used for reviewing electronic survey data?  
(S 10.9.9)

[SELECT ALL THAT APPLY]

- Review of data frequencies
- Review and suppression of edits
- Review of "other-specify" responses
- Review of open ended responses
- Review of missing data rates (i.e., refusals, don't knows)
- Other (specify)

QCF18. Who will review/has reviewed completed paper case materials? (S 10.9.8)

[SELECT ALL THAT APPLY]

- Interviewers
- Supervisors
- Home office staff upon receipt
- Other (specify)

## **ETH Ethics/Confidentiality**

ETH1. Did your country submit its research plan to the appropriate institutional review board(s) and/or ethics committee(s) for approval? (S 2.1)

- Yes
- No **[SKIP TO ETH3]**
- Not required in our country **[SKIP TO ETH3]**

ETH2. Has approval been granted by the appropriate institutional review board(s) and/or ethics committee(s) on the research plan? (S 2.1)

- Yes
- No

ETH3. Will all of your country's staff be trained/was all of your country's staff trained on the importance of ethics and scientific rigour in research involving human subjects? (S 2.1)

- Yes
- No



ETH4. Which confidentiality forms will all of your country's study staff sign/did all of your country's study staff sign? (S 2.2)

[SELECT ALL THAT APPLY]

- PIAAC confidentiality form
- Country-specific form
- Other (specify)

ETH5. What measures will your country use/has your country been using to maintain the security of the data stored in interviewers' laptop computer? (S 2.2)

[SELECT ALL THAT APPLY]

- Data encryption
- Password protection
- Keeping all password lists in a separate location from the laptop computer
- Securely storing the laptop computer when not in use
- Other (specify)

Interviewers are not authorized to use their laptop for anything other than PIAAC-related work.

**[SKIP TO END IF DATA COLLECTION HAS NOT STARTED]**

ETH6. Have there been any problems with data confidentiality? (S 2.2)

- Yes
- No **[SKIP TO ETH8]**

ETH7. Please explain problems with data confidentiality. (S 2.2)

ETH8. Have any interviewer laptops been lost or stolen? (S 2.2)

- Yes
- No **[SKIP TO END]**

ETH9. How many laptops have been lost or stolen? (S 2.2)

\_\_\_\_\_

ETH10. What measures were taken when a laptop was lost or stolen? (S 2.2)

[SELECT ALL THAT APPLY]

- Reported incident to the Consortium
- Filed a report with the local authorities
- Instructed supervisors to thoroughly investigate the matter
- Other (specify)

**END OF FORM**

## **Comments**

(continued from question 14)

Of the falsification previously reported, one interviewer routinely underreported the number of household members to make sure that the person she wanted to be selected for the interview would be. We removed the cases where the interview was conducted with an SP who should not have been selected from the data.

Another interviewer completed a BQ over the telephone. The case was removed from the data.

Another interviewer made up data for a number of households, discovered due to abnormally short BQ administration times. She also seems to have completed the Exercise herself on occasion, according to SPs who were called for validation. Cases were reset and reassigned.

Another interviewer conducted screeners at the wrong address on at least two occasions, those cases were cleared out and re-fielded.

Another interviewer closed out two cases as vacant when they were occupied, the cases were transferred to another interviewer.

Two interviewers intentionally conducted the Exercise with someone other than the SP selected by the screener.

Another interviewer conducted an interview at an address other than the sampled address. The case was reset and re-fielded.

Another interviewer underreported the age of a screener respondent to make her eligible for the BQ. The case was removed from the data and will not be re-fielded.

Finally, an interviewer completed a number of screeners using public databases, instead of visiting the sampled households. These cases were reset and re-fielded.

Information on this form is as of 14/02/2012.

# PIAAC MAIN STUDY

## DATA COLLECTION

### SURVEY OPERATIONS QUALITY CONTROL FORM

#### Instructions

- Enter and edit information on the form using Adobe Acrobat Reader.
- To prevent losing entries, use the "save" feature regularly.
- It is important that the filename incorporates the name of your country, the title of the form, as well as the date the form was filled out.
- Do not use the "comment" function in Adobe Acrobat to add details. Additional space to do so is provided on the last page of this form. If your comments refer to a specific question, please write the question number.
- Answer all applicable questions on the form.
- Please do not submit your country's quality control forms via email.

Country: United States Date: 14 / 3 / 2012  
(DD/MM/YYYY)

Is this a revised submission?  Yes **[PLEASE UPDATE DATE]** \_\_\_\_\_ ↑  
 No

Completed by: Lillian Diaz-Hoffmann Title: Study Manager  
 Completed by: \_\_\_\_\_ Title: \_\_\_\_\_  
 Completed by: \_\_\_\_\_ Title: \_\_\_\_\_

#### **TML Timeline**

TML1. On what date will/did data collection begin?  
 (First day interviewers are authorised to make contact attempts/conduct interviews.) 25 / 8 / 2011  
(DD/MM/YYYY)

TML2. On what date will/did data collection end?  
 (Last day interviewers are authorised to make contact attempts/conduct interviews.) 3 / 4 / 2011  
(DD/MM/YYYY)

TML3. On what date will/did interviewer training begin?  
 (Date of first day of first training session held.) 18 / 08 / 2011  
(DD/MM/YYYY)

TML4. On what date will/did interviewer training end?  
 (Date of last day of last training session held.) 23 / 8 / 2011  
(DD/MM/YYYY)

**STF Staff Hiring and Management**

STF1. What recruitment sources will your country use/has your country used to find interviewers? (S 8.4.1)

[SELECT ALL THAT APPLY]

- Files of people currently working for the survey institute
- Files of people who previously worked for the survey institute
- Job posting on the survey institute's website
- Recommendations from experienced supervisory staff employed by the survey institute
- Local organisations such as community/senior centres and libraries
- Newspaper advertisements
- Other (specify)

Employment website, state and local employment offices.

STF2. Complete the table below with information about the status of your country's staff. Fill out each box. Enter 'n/a' if not applicable. Enter 'dk' if not currently known. (S 8.3.3)

Staff	Interviewers	Supervisors (or equivalent)	Field Managers (or equivalent)	Field Director (or equivalent)
Target number to recruit/hire/assign to PIAAC	191.00	11.00	2.00	1.00
Total number ever recruited/hired/assigned to PIAAC	195.00	11.00	2.00	1.00

STF3. Is interviewer attrition taken into account in the target number of interviewers reported in question STF2? (S 8.3.1)

- Yes [**SKIP TO STF5**]
- No

STF4. By how much does your country plan to overhire/did your country overhire to compensate for interviewer attrition? Please select the appropriate box to indicate whether a number or percent was entered. Enter a '0' if there is no plan to overhire. (S 8.3.1)

ENTER NUMBER OR PERCENT 30.00

- Number
- Percent

STF5. How many hours per week will interviewers work/have interviewers been working on PIAAC?

ENTER NUMBER \_\_\_\_\_

**OR**

ENTER RANGE 25.00 to 40.00

STF6. How many interviewers will be assigned/were assigned to each supervisor? (S 8.1.1)

ENTER NUMBER \_\_\_\_\_

**OR**

ENTER RANGE 16.00 to 20.00

STF7. How many supervisors will be assigned/were assigned to each field manager? (S.8.1.1)

ENTER NUMBER 5.00

**OR**

ENTER RANGE \_\_\_\_\_ to \_\_\_\_\_

STF8. How many cases will be assigned/were assigned to each interviewer for their initial assignment? (S 8.3.4)

ENTER NUMBER \_\_\_\_\_

**OR**

ENTER RANGE 10.00 to 20.00

STF9. How will interviewers be/have interviewers been paid? (S 8.3.5)

Piece rate

Hourly wage

Salary

Other (specify)

STF10. Will a bonus be/has a bonus been offered to interviewers who reach a certain threshold of productivity?

Yes

No **[SKIP TO STF12]**

STF11. Briefly describe the nature of this bonus.

Incentive bonus plan based on the number of completes. Interviewers who complete a minimum number of interviews are eligible. The more completes an interviewer gets, the higher the bonus amount paid per complete to that interviewer. Also lottery with cash prizes.

STF12. Which methods will your country use/has your country used for communication between the home office and field staff, including field managers, supervisors, and interviewers? (S 8.1.2/8.2.1)

[SELECT ALL THAT APPLY]

- Email
- Telephone
- In-person meetings
- Paper or electronic newsletters
- Other (specify)

STF13. How often will your country have/has your country had scheduled communications between interviewers and supervisors? (S 8.1.2/8.2.1)

[SELECT ALL THAT APPLY]

- As needed
- Bi-weekly
- Weekly
- Monthly
- Never
- Other (specify)

**[SKIP TO FDW1 IF DATA COLLECTION HAS NOT STARTED]**

STF14. Complete the table below with information about the status of your country's interviewing staff. (S 8.3.3)

Interviewing Staff	Number
Total number ever recruited/hired/assigned to PIAAC (from STF2)	195.00
Total number of interviewers who attended training	195.00
Total number of interviewers who received assignments	192.00
↳ Number of interviewers currently working on the study	50.00
↳ Number of interviewers no longer working on the study	142.00

STF15. According to the information provided in question STF14, the percentage of interviewer attrition to date in your country is 73.958333%. (S 8.3.3) In order to be routed to the next relevant question, please check the appropriate answer:

- Attrition is equal to '0' **[SKIP TO STF17]**
- Attrition is greater than '0'

STF16. What are some of the causes of interviewer attrition on PIAAC? (S 8.3.1)

[SELECT ALL THAT APPLY]

- Quit
- Laid off
- Fired because of poor production
- Fired because of quality control issues
- Other (specify)

STF17. Has your country trained additional interviewers as a result of interviewer attrition or insufficient initial staffing? (S 9.8.1)

- Yes
- No [**SKIP TO STF20**]

STF18. Has your country submitted an Interviewer Training Form for the additional interviewer training session(s) held?

- Yes, for each additional sessions
- Yes, for some sessions only
- No

STF19. How many interviewers were trained at the additional interviewer training session(s)? (S 9.8.1)

*Note: Please make sure you report these interviewers in questions STF2 and STF14 as well.*

ENTER NUMBER 9.00

STF20. Have there been any geographical areas without local interviewers due to attrition? (S 8.3.1)

- Yes
- No [**SKIP TO FDW1**]

STF21. What measures has your country taken to cover unstaffed geographical areas due to attrition? (S 8.3.1)

[SELECT ALL THAT APPLY]

- Reassigned interviewers from nearby geographical areas
- Trained additional interviewers
- Hired additional interviewers
- Other (specify)

Traveled interviewers.



**FDW FIELDWORK**

FDW1. Which outreach materials will your country use/has your country used? (*S 10.2.1*)

[SELECT ALL THAT APPLY]

- Introductory letter
- Brochure
- Endorsement letters
- Newspaper articles
- Television advertising
- Radio advertising
- Press release
- Other (specify)

Refrigerator magnet, tailored flyers, pens

FDW2. Will/does your country have its own study-specific website or webpage? (*S 10.2.1*)

- Yes
- No

FDW3. Will/does your country have a study toll-free respondent help line? (*S 10.2.1*)

- Yes
- No [**SKIP TO FDW6**]

FDW4. What will be/what are the hours of operation of the help line? (*S 10.2.1*)

9:00 to 17:00 Monday through Friday.

FDW5. How many calls have been received by the toll-free respondent help line? (*S 10.2.1*)

ENTER NUMBER 183.00

FDW6. Will your country/has your country obtained endorsement letters for the study? (*S.10.2.1*)

- Yes
- No [**SKIP TO FDW8**]

FDW7. Please list the organisations or individuals from whom your country has obtained endorsement letters. (*S 10.2.1*)

Tom Brokaw, former television news anchor, and leaders in education.

FDW8. Will a respondent incentive be used/has a respondent incentive been used?  
(S 4.8.1/10.5.1)

- Yes  
 No **[SKIP TO FDW10]**

FDW9. What type of respondent incentive will be used/has been used? (S 4.8.1/10.5.1)

[SELECT ALL THAT APPLY]

- Monetary (Amount 50 USD)  
 Nonmonetary (Description refrigerator magnet, pen)

FDW10. Will your country conduct/has your country conducted initial contact with households/ respondents in-person? (S 10.3.1)

- Yes  
 No

FDW11. Will your country conduct/has your country conducted initial contact with households/ respondents via telephone? (S 10.3.1)

- Yes  
 No

FDW12. What is the minimum number of subsequent in-person contact attempts interviewers will be/are/were required to make before a case is coded a non-contact? (S 10.3.2)

4.00

FDW13. What is the minimum number of subsequent telephone contact attempts interviewers will be/are/were required to make before a case is coded a non-contact? (S 10.3.3)

0.00

FDW14. Which of the following data items will/does/did your country collect for each contact attempt? (S 10.3.6)

[SELECT ALL THAT APPLY]

- Day  
 Date  
 Time  
 Contact mode  
 Outcome  
 Comments  
 Other (specify)

Interviewer ID

FDW15. Will/has the contact information be/been collected in a paper format, through an automated component of the field management system or both? (S 10.3.6)

- Paper format
- Automated component of field management system
- Both

FDW16. What information will/does/did your country collect on non-interview/nonresponse cases? (S 10.3.7)

[SELECT ALL THAT APPLY]

- Demographic data on person who refused
- Strength of refusal
- Problems encountered
- Likelihood of conversion
- Comments
- Other (specify)

Name and phone number of a contact person

FDW17. Will/has the non-interview information be/been collected in a paper format, through an automated component of the field management system, or both? (S 10.3.7)

- Paper format
- Automated component of field management system
- Both

FDW18. What strategies will your country use/has your country used for dealing with nonresponse and maximising response rates? (S 10.5.2/10.5.3)

[SELECT ALL THAT APPLY]

- Reassignment to other local interviewer(s)
- Follow-up by senior interviewers (or equivalent)
- Follow-up by supervisors (or equivalent)
- Reassignment to experienced/specially trained travelling interviewers
- Tailored letters (apartment managers, locked buildings, refusal conversion, refusals, unco-operative respondent)
- Refusal conversion letters mailed to households via priority or registered mail
- Refusal conversion letters mailed to households via regular mail
- Other (specify)

Tailored flyers, mail-in screener forms sent to sampled households yet to be screened

**[SKIP TO SMS1 IF DATA COLLECTION HAS NOT STARTED]**

FDW19. What have been the three most common reasons for refusals to the BQ? (S 10.3.7)

[SELECT UP TO THREE]

- Not interested in the study or in surveys
- Too busy
- Too long
- Don't want to be bothered or involved
- Waste of time and money
- Dislike government
- Don't trust surveys
- Other (specify)

FDW20. What have been the three most common reasons for refusals to the Core/Exercise? (S 10.3.7)

[SELECT UP TO THREE]

- Not interested in the study or in surveys
- Too busy
- Too long
- Don't want to be bothered or involved
- Waste of time and money
- Dislike government
- Don't trust surveys
- Don't want to answer exercises
- Too complicated
- Other (specify)

## **SMS Survey Field Management System**

SMS1. Indicate which functionality the field management system will be/is able to support. (S 10.6.2)

[SELECT ALL THAT APPLY]

- Case assignment to interviewers
- Case transfer/reassignment among interviewers
- Case reset to prior state
- Removal of data from the laptop computer
- Production of management reports
- Documentation of contact attempts
- Tracking interviewers' time and expense data
- Other (specify)

SMS2. Indicate the information contained in the field management system. (S 10.6.3)

[SELECT ALL THAT APPLY]

- Case ID
- Geographic area
- Dwelling unit address
- Case-level status and disposition code
- Task-level status and disposition code
- Date the interview was finalised or status date
- Task type (interview component)
- Interviewer name/ID
- Validation status
- Language of administration
- Assignment date and type (original vs. transfer)
- Date and time of inbound and outbound data transmissions
- ID number of paper direct assessment booklets
- Status of paper direct assessment booklets
- Date the paper materials were returned to the survey institute
- Other (specify)

SMS3. Has the survey control file been developed? (S 10.6.5)

- Yes
- No

**[SKIP TO QCF1 IF DATA COLLECTION HAS NOT STARTED]**

## **PRD Production and Response Rates**

The following questions ask about the number of finalised (closed out) cases recorded for each disposition code in each module. Please report these numbers conditionally so that the total number of cases for each module sums up to the number of cases that have completed the previous module.

PRD1. If applicable, indicate the number of finalised Screeners to date for each of the disposition codes below. (*S 10.7.1*)

<b>Description</b>	<b>Code</b>	<b>Number of Screeners</b>
Complete – 1 sample person selected	01	5,098.00
Complete – 2 sample persons selected	02	409.00
Partial complete/break-off	03	0.00
Refusal – household member	04	565.00
Refusal – gatekeeper	05	18.00
Language problem	07	99.00
Learning/mental disability	09	8.00
Hearing impairment	12	0.00
Blindness/visual impairment	13	0.00
Speech impairment	14	0.00
Physical disability	15	0.00
Other disability	16	0.00
Other (unspecified), such as sickness or unusual circumstances	17	25.00
Complete – no eligible sample persons	19	1,234.00
Unable to locate dwelling unit	20	48.00
Maximum number of calls	21	19.00
Dwelling unit under construction	22	18.00
Temporarily absent/unavailable during field period	24	9.00
Vacant dwelling unit	26	1,066.00
Duplication – already interviewed	27	0.00
Address not a dwelling unit	28	178.00
<b>Total</b>		<b>8,794.00</b>

PRD2. Indicate the number of finalised Case Initialisations (CI) to date for each of the disposition codes below. (S 10.7.1)

Description	Code	Number of CIs
Complete	01	4,804.00
Partial complete/break-off	03	2.00
Refusal – sample person	04	388.00
Refusal – other	05	28.00
Language problem	07	57.00
Reading and writing difficulty	08	0.00
Learning/mental disability	09	30.00
Hearing impairment	12	1.00
Blindness/visual impairment	13	2.00
Speech impairment	14	0.00
Physical disability	15	10.00
Other disability	16	3.00
Other (unspecified), such as sickness or unusual circumstances	17	34.00
Death	18	0.00
Maximum number of calls	21	8.00
Temporarily absent/unavailable during field period	24	93.00
Ineligible (specify)	25	2.00
Duplication – already interviewed	27	0.00
Technical Problem	90	12.00
<b>Total</b>		<b>5,474.00</b>

PRD3. Indicate the number of finalised Background Questionnaires (BQ) to date for each of the disposition codes below. (S 10.7.1)

Description	Code	Number of BQs
Complete	01	4,804.00
Partial complete/break-off	03	2.00
Refusal – sample person	04	388.00
Refusal – other	05	28.00
Language problem	07	57.00
Reading and writing difficulty	08	0.00
Learning/mental disability	09	30.00
Hearing impairment	12	1.00
Blindness/visual impairment	13	2.00
Speech impairment	14	0.00
Physical disability	15	10.00
Other disability	16	3.00
Other (unspecified), such as sickness or unusual circumstances	17	34.00
Death	18	0.00
Maximum number of calls	21	8.00
Temporarily absent/unavailable during field period	24	93.00
Ineligible (specify)	25	2.00
Duplication – already interviewed	27	0.00
Technical Problem	90	12.00
<b>Total</b>		<b>5,474.00</b>

PRD4. Indicate the number of finalised Exercises to date for each of the disposition codes below. (S 10.7.1)

Description	Code	Number of Exercises
Complete	01	4,525.00
Partial complete/break-off	03	16.00
Refusal – sample person	04	29.00
Refusal – other	05	0.00
Language problem	07	28.00
Reading and writing difficulty	08	1.00
Learning/mental disability	09	6.00
Hearing impairment	12	0.00
Blindness/visual impairment	13	3.00
Speech impairment	14	0.00
Physical disability	15	1.00
Other disability	16	0.00
Other (unspecified), such as sickness or unusual circumstances	17	22.00
Death	18	0.00
Maximum number of calls	21	1.00
Temporarily absent/unavailable during field period	24	0.00
Duplication – already interviewed	27	0.00
Technical Problem	90	6.00
Missing Paper Booklet	91	0.00
<b>Total</b>		<b>4,638.00</b>

PRD5. Enter the information on the target response rates and number of completes. (S 4.7.1)

*Note: A toolkit is available on the SharePoint site to compute the Actual Weighted Response Rates. You may use the simplified or standard response rate formula. The 'Target' columns refer to your "best estimate," not the theoretical maximum that could be reached. (e.g., 100% for RR)*

Component	Weighted Response Rates (%)		Number of Completes	
	Actual	Target	Actual	Target
Screener (if applicable)	81.80	86.70	5,507.00	6,010.00
CI & BQ (combined)	82.50	80.00	4,804.00	5,097.00
Exercise	99.10	98.10	4,525.00	5,000.00

PRD6. What is the minimum, maximum, and mean number of completed interviews per interviewer to date? (S 8.3.4)

Minimum: 1.00      Maximum: 123.00      Mean: 25.10

## **QCF Quality Control of Fieldwork**

QCF1. Will interviews be/have interviews been monitored? (S 10.9.2)

- Yes  
 No **[SKIP TO QCF4]**



QCF2. What methods will be used/have been used to monitor interviews? (S 10.9.2)

[SELECT ALL THAT APPLY]

- Audio recording of full interviews  
 Audio recording of parts/snippets of interviews  
 In-person observation  
 Other (specify)

--

QCF3. Indicate for how many cases your country has completed the following interview monitoring procedures. (S 10.9.2)

	Number of Cases
Audio recorded full interviews	298.00
Audio recorded parts/snippets of interviews	
In-person observation	
Other (specify)	

QCF4. Will the work of interviewers be/has the work of interviewers been validated through back-checks? (S 10.9.2)

- Yes  
 No **[SKIP TO QCF15]**

QCF5. Indicate which types of cases will be/have been validated and the mode used. (S 10.9.3)

[CHECK ALL APPROPRIATE BOXES]

Dispositions	In-person	Telephone	Mail
Completes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Refusals	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ineligibles	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Non-contacts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

QCF6. Will validation cases be/have validation cases been selected at random? (S 10.9.3A)

- Yes, all cases  
 Yes, most cases  
 Yes, some cases  
 No

QCF7. Will your country use/has your country used the validation form proposed by the Consortium?

- Yes, it was used as-is
- Yes, it was used with adaptations
- No

QCF8. Who will be conducting/has conducted the validations? (S 10.9.2/10.9.3)

[SELECT ALL THAT APPLY]

- Supervisors (or equivalent)
- Field managers (or equivalent)
- Senior interviewers (or equivalent)
- Project staff
- Other (specify)

Survey Institute Telephone Center staff.

**[SKIP TO QCF15 IF DATA COLLECTION HAS NOT STARTED]**

QCF9. Has the 10 percent validation threshold been reached for each interviewer who received assignments?

- Yes **[SKIP TO QCF12]**
- No

QCF10. Among interviewers who received assignments, how many have had ...

... at least 10% of their finalised cases validated?      ENTER NUMBER \_\_\_\_\_

... at least 7% of their finalised cases validated?      ENTER NUMBER \_\_\_\_\_

QCF11. Briefly describe why your country has not validated 10 percent of each interviewer’s cases finalised to date. (S 10.9.3)

QCF12. Indicate for how many cases your country has conducted validation. (S 10.9.2)

	<b>Number of Cases</b>
Validation in person	228.00
Validation by telephone	1,452.00
Validation by mail	54.00
Other (specify)	

QCF13. Has your country detected any falsification? (*S 10.9.4*)

- Yes  
 No [**SKIP TO QCF15**]

QCF14. Please explain the falsification found and indicate the number of interviewers and the percent/number of cases impacted. Please also indicate what was done/will be done with the falsified case(s). (*S 10.9.4*)

A total of 11 falsifiers have been found since the start of data collection. None have been found since the last report. All of the instances are detailed on the last page of this form.

QCF15. Will your country develop/has your country developed management reports to detect falsification? (*S 10.9.6*)

- Yes  
 No [**SKIP TO QCF17**]

QCF16. Indicate which management reports will be used/have been used to detect falsification. (*S 10.9.6*)

[SELECT ALL THAT APPLY]

- Overall interview administration length  
 Individual instrument administration length  
 Amount of time between interviews  
 Interviews conducted very early in the morning or late in the evening  
 Number of interviews conducted per day  
 Other (specify)

QCF17. What procedures will be used/have been used for reviewing electronic survey data?  
(S 10.9.9)

[SELECT ALL THAT APPLY]

- Review of data frequencies
- Review and suppression of edits
- Review of "other-specify" responses
- Review of open ended responses
- Review of missing data rates (i.e., refusals, don't knows)
- Other (specify)

QCF18. Who will review/has reviewed completed paper case materials? (S 10.9.8)

[SELECT ALL THAT APPLY]

- Interviewers
- Supervisors
- Home office staff upon receipt
- Other (specify)

### **ETH Ethics/Confidentiality**

ETH1. Did your country submit its research plan to the appropriate institutional review board(s) and/or ethics committee(s) for approval? (S 2.1)

- Yes
- No **[SKIP TO ETH3]**
- Not required in our country **[SKIP TO ETH3]**

ETH2. Has approval been granted by the appropriate institutional review board(s) and/or ethics committee(s) on the research plan? (S 2.1)

- Yes
- No

ETH3. Will all of your country's staff be trained/was all of your country's staff trained on the importance of ethics and scientific rigour in research involving human subjects? (S 2.1)

- Yes
- No

ETH4. Which confidentiality forms will all of your country's study staff sign/did all of your country's study staff sign? (S 2.2)

[SELECT ALL THAT APPLY]

- PIAAC confidentiality form
- Country-specific form
- Other (specify)

ETH5. What measures will your country use/has your country been using to maintain the security of the data stored in interviewers' laptop computer? (S 2.2)

[SELECT ALL THAT APPLY]

- Data encryption
- Password protection
- Keeping all password lists in a separate location from the laptop computer
- Securely storing the laptop computer when not in use
- Other (specify)

Interviewers are not authorized to use their laptop for anything other than PIAAC-related work.

**[SKIP TO END IF DATA COLLECTION HAS NOT STARTED]**

ETH6. Have there been any problems with data confidentiality? (S 2.2)

- Yes
- No **[SKIP TO ETH8]**

ETH7. Please explain problems with data confidentiality. (S 2.2)

ETH8. Have any interviewer laptops been lost or stolen? (S 2.2)

- Yes
- No **[SKIP TO END]**

ETH9. How many laptops have been lost or stolen? (S 2.2)

\_\_\_\_\_

ETH10. What measures were taken when a laptop was lost or stolen? (S 2.2)

[SELECT ALL THAT APPLY]

- Reported incident to the Consortium
- Filed a report with the local authorities
- Instructed supervisors to thoroughly investigate the matter
- Other (specify)

**END OF FORM**

## Comments

(continued from question 14)

The most recent falsifier intentionally underreported the number of household members so that the screener would select SP she wanted to interview. Any cases where the interview was conducted with someone who would not have been chosen if the screener had been administered correctly will be removed from the data and the cases will not be reworked.

Of the falsification previously reported, one interviewer routinely underreported the number of household members to make sure that the person she wanted to be selected for the interview would be. We removed the cases where the interview was conducted with an SP who should not have been selected from the data.

Another interviewer completed a BQ over the telephone. The case was removed from the data.

Another interviewer made up data for a number of households, discovered due to abnormally short BQ administration times. She also seems to have completed the Exercise herself on occasion, according to SPs who were called for validation. Cases were reset and reassigned.

Another interviewer conducted screeners at the wrong address on at least two occasions, those cases were cleared out and re-fielded.

Another interviewer closed out two cases as vacant when they were occupied, the cases were transferred to another interviewer.

Two interviewers intentionally conducted the Exercise with someone other than the SP selected by the screener.

Another interviewer conducted an interview at an address other than the sampled address. The case was reset and re-fielded.

Another interviewer underreported the age of a screener respondent to make her eligible for the BQ. The case was removed from the data and will not be re-fielded.

Finally, an interviewer completed a number of screeners using public databases, instead of visiting the sampled households. These cases were reset and re-fielded.

Information on this form is as of 14/03/2012.

# PIAAC MAIN STUDY

## DATA COLLECTION

### SURVEY OPERATIONS QUALITY CONTROL FORM

#### Instructions

- Enter and edit information on the form using Adobe Acrobat Reader.
- To prevent losing entries, use the "save" feature regularly.
- It is important that the filename incorporates the name of your country, the title of the form, as well as the date the form was filled out.
- Do not use the "comment" function in Adobe Acrobat to add details. Additional space to do so is provided on the last page of this form. If your comments refer to a specific question, please write the question number.
- Answer all applicable questions on the form.
- Please do not submit your country's quality control forms via email.

Country: United States Date: 14 / 6 / 2012  
(DD/MM/YYYY)

Is this a revised submission?  Yes **[PLEASE UPDATE DATE]** \_\_\_\_\_ ↑  
 No

Completed by: Michael Lemay Title: \_\_\_\_\_  
 Completed by: \_\_\_\_\_ Title: \_\_\_\_\_  
 Completed by: \_\_\_\_\_ Title: \_\_\_\_\_

#### **TML Timeline**

TML1. On what date will/did data collection begin?  
 (First day interviewers are authorised to make contact attempts/conduct interviews.) 25 / 8 / 2011  
(DD/MM/YYYY)

TML2. On what date will/did data collection end?  
 (Last day interviewers are authorised to make contact attempts/conduct interviews.) 3 / 4 / 2011  
(DD/MM/YYYY)

TML3. On what date will/did interviewer training begin?  
 (Date of first day of first training session held.) 18 / 08 / 2011  
(DD/MM/YYYY)

TML4. On what date will/did interviewer training end?  
 (Date of last day of last training session held.) 23 / 8 / 2011  
(DD/MM/YYYY)



**STF Staff Hiring and Management**

STF1. What recruitment sources will your country use/has your country used to find interviewers? (S 8.4.1)

[SELECT ALL THAT APPLY]

- Files of people currently working for the survey institute
- Files of people who previously worked for the survey institute
- Job posting on the survey institute's website
- Recommendations from experienced supervisory staff employed by the survey institute
- Local organisations such as community/senior centres and libraries
- Newspaper advertisements
- Other (specify)

Employment website, state and local employment offices.

STF2. Complete the table below with information about the status of your country's staff. Fill out each box. Enter 'n/a' if not applicable. Enter 'dk' if not currently known. (S 8.3.3)

Staff	Interviewers	Supervisors (or equivalent)	Field Managers (or equivalent)	Field Director (or equivalent)
Target number to recruit/hire/assign to PIAAC	191.00	11.00	2.00	1.00
Total number ever recruited/hired/assigned to PIAAC	195.00	11.00	2.00	1.00

STF3. Is interviewer attrition taken into account in the target number of interviewers reported in question STF2? (S 8.3.1)

- Yes [**SKIP TO STF5**]
- No

STF4. By how much does your country plan to overhire/did your country overhire to compensate for interviewer attrition? Please select the appropriate box to indicate whether a number or percent was entered. Enter a '0' if there is no plan to overhire. (S 8.3.1)

ENTER NUMBER OR PERCENT 30.00

- Number
- Percent

STF5. How many hours per week will interviewers work/have interviewers been working on PIAAC?

ENTER NUMBER \_\_\_\_\_

**OR**

ENTER RANGE 25.00 to 40.00

STF6. How many interviewers will be assigned/were assigned to each supervisor? (S 8.1.1)

ENTER NUMBER \_\_\_\_\_

**OR**

ENTER RANGE 16.00 to 20.00

STF7. How many supervisors will be assigned/were assigned to each field manager? (S.8.1.1)

ENTER NUMBER 5.00

**OR**

ENTER RANGE \_\_\_\_\_ to \_\_\_\_\_

STF8. How many cases will be assigned/were assigned to each interviewer for their initial assignment? (S 8.3.4)

ENTER NUMBER \_\_\_\_\_

**OR**

ENTER RANGE 10.00 to 20.00

STF9. How will interviewers be/have interviewers been paid? (S 8.3.5)

Piece rate

Hourly wage

Salary

Other (specify)

STF10. Will a bonus be/has a bonus been offered to interviewers who reach a certain threshold of productivity?

Yes

No **[SKIP TO STF12]**

STF11. Briefly describe the nature of this bonus.

Incentive bonus plan based on the number of completes. Interviewers who complete a minimum number of interviews are eligible. The more completes an interviewer gets, the higher the bonus amount paid per complete to that interviewer. Also lottery with cash prizes.

STF12. Which methods will your country use/has your country used for communication between the home office and field staff, including field managers, supervisors, and interviewers? (S 8.1.2/8.2.1)

[SELECT ALL THAT APPLY]

- Email
- Telephone
- In-person meetings
- Paper or electronic newsletters
- Other (specify)

STF13. How often will your country have/has your country had scheduled communications between interviewers and supervisors? (S 8.1.2/8.2.1)

[SELECT ALL THAT APPLY]

- As needed
- Bi-weekly
- Weekly
- Monthly
- Never
- Other (specify)

**[SKIP TO FDW1 IF DATA COLLECTION HAS NOT STARTED]**

STF14. Complete the table below with information about the status of your country's interviewing staff. (S 8.3.3)

Interviewing Staff	Number
Total number ever recruited/hired/assigned to PIAAC (from STF2)	195.00
Total number of interviewers who attended training	195.00
Total number of interviewers who received assignments	192.00
↳ Number of interviewers currently working on the study	0.00
↳ Number of interviewers no longer working on the study	192.00

STF15. According to the information provided in question STF14, the percentage of interviewer attrition to date in your country is 100%. (S 8.3.3) In order to be routed to the next relevant question, please check the appropriate answer:

- Attrition is equal to '0' **[SKIP TO STF17]**
- Attrition is greater than '0'

STF16. What are some of the causes of interviewer attrition on PIAAC? (S 8.3.1)

[SELECT ALL THAT APPLY]

- Quit
- Laid off
- Fired because of poor production
- Fired because of quality control issues
- Other (specify)

STF17. Has your country trained additional interviewers as a result of interviewer attrition or insufficient initial staffing? (S 9.8.1)

- Yes
- No [**SKIP TO STF20**]

STF18. Has your country submitted an Interviewer Training Form for the additional interviewer training session(s) held?

- Yes, for each additional sessions
- Yes, for some sessions only
- No

STF19. How many interviewers were trained at the additional interviewer training session(s)? (S 9.8.1)

*Note: Please make sure you report these interviewers in questions STF2 and STF14 as well.*

ENTER NUMBER 9.00

STF20. Have there been any geographical areas without local interviewers due to attrition? (S 8.3.1)

- Yes
- No [**SKIP TO FDW1**]

STF21. What measures has your country taken to cover unstaffed geographical areas due to attrition? (S 8.3.1)

[SELECT ALL THAT APPLY]

- Reassigned interviewers from nearby geographical areas
- Trained additional interviewers
- Hired additional interviewers
- Other (specify)

Traveled interviewers.

**FDW FIELDWORK**

FDW1. Which outreach materials will your country use/has your country used? (S 10.2.1)

[SELECT ALL THAT APPLY]

- Introductory letter
- Brochure
- Endorsement letters
- Newspaper articles
- Television advertising
- Radio advertising
- Press release
- Other (specify)

Refrigerator magnet, tailored flyers, pens

FDW2. Will/does your country have its own study-specific website or webpage? (S 10.2.1)

- Yes
- No

FDW3. Will/does your country have a study toll-free respondent help line? (S 10.2.1)

- Yes
- No [**SKIP TO FDW6**]

FDW4. What will be/what are the hours of operation of the help line? (S 10.2.1)

9:00 to 17:00 Monday through Friday.

FDW5. How many calls have been received by the toll-free respondent help line? (S 10.2.1)

ENTER NUMBER 183.00

FDW6. Will your country/has your country obtained endorsement letters for the study? (S.10.2.1)

- Yes
- No [**SKIP TO FDW8**]

FDW7. Please list the organisations or individuals from whom your country has obtained endorsement letters. (S 10.2.1)

Tom Brokaw, former television news anchor, and leaders in education.

FDW8. Will a respondent incentive be used/has a respondent incentive been used?  
(S 4.8.1/10.5.1)

- Yes  
 No **[SKIP TO FDW10]**

FDW9. What type of respondent incentive will be used/has been used? (S 4.8.1/10.5.1)

[SELECT ALL THAT APPLY]

- Monetary (Amount 50 USD)  
 Nonmonetary (Description refrigerator magnet, pen)

FDW10. Will your country conduct/has your country conducted initial contact with households/  
respondents in-person? (S 10.3.1)

- Yes  
 No

FDW11. Will your country conduct/has your country conducted initial contact with households/  
respondents via telephone? (S 10.3.1)

- Yes  
 No

FDW12. What is the minimum number of subsequent in-person contact attempts interviewers will  
be/are/were required to make before a case is coded a non-contact? (S 10.3.2)

4.00

FDW13. What is the minimum number of subsequent telephone contact attempts interviewers will  
be/are/were required to make before a case is coded a non-contact? (S 10.3.3)

0.00

FDW14. Which of the following data items will/does/did your country collect for each contact  
attempt? (S 10.3.6)

[SELECT ALL THAT APPLY]

- Day  
 Date  
 Time  
 Contact mode  
 Outcome  
 Comments  
 Other (specify)

Interviewer ID

FDW15. Will/has the contact information be/been collected in a paper format, through an automated component of the field management system or both? (S 10.3.6)

- Paper format
- Automated component of field management system
- Both

FDW16. What information will/does/did your country collect on non-interview/nonresponse cases? (S 10.3.7)

[SELECT ALL THAT APPLY]

- Demographic data on person who refused
- Strength of refusal
- Problems encountered
- Likelihood of conversion
- Comments
- Other (specify)

Name and phone number of a contact person

FDW17. Will/has the non-interview information be/been collected in a paper format, through an automated component of the field management system, or both? (S 10.3.7)

- Paper format
- Automated component of field management system
- Both

FDW18. What strategies will your country use/has your country used for dealing with nonresponse and maximising response rates? (S 10.5.2/10.5.3)

[SELECT ALL THAT APPLY]

- Reassignment to other local interviewer(s)
- Follow-up by senior interviewers (or equivalent)
- Follow-up by supervisors (or equivalent)
- Reassignment to experienced/specially trained travelling interviewers
- Tailored letters (apartment managers, locked buildings, refusal conversion, refusals, unco-operative respondent)
- Refusal conversion letters mailed to households via priority or registered mail
- Refusal conversion letters mailed to households via regular mail
- Other (specify)

Tailored flyers, mail-in screener forms sent to sampled households yet to be screened

**[SKIP TO SMS1 IF DATA COLLECTION HAS NOT STARTED]**

FDW19. What have been the three most common reasons for refusals to the BQ? (S 10.3.7)

[SELECT UP TO THREE]

- Not interested in the study or in surveys
- Too busy
- Too long
- Don't want to be bothered or involved
- Waste of time and money
- Dislike government
- Don't trust surveys
- Other (specify)

FDW20. What have been the three most common reasons for refusals to the Core/Exercise? (S 10.3.7)

[SELECT UP TO THREE]

- Not interested in the study or in surveys
- Too busy
- Too long
- Don't want to be bothered or involved
- Waste of time and money
- Dislike government
- Don't trust surveys
- Don't want to answer exercises
- Too complicated
- Other (specify)

## **SMS Survey Field Management System**

SMS1. Indicate which functionality the field management system will be/is able to support. (S 10.6.2)

[SELECT ALL THAT APPLY]

- Case assignment to interviewers
- Case transfer/reassignment among interviewers
- Case reset to prior state
- Removal of data from the laptop computer
- Production of management reports
- Documentation of contact attempts
- Tracking interviewers' time and expense data
- Other (specify)



SMS2. Indicate the information contained in the field management system. (S 10.6.3)

[SELECT ALL THAT APPLY]

- Case ID
- Geographic area
- Dwelling unit address
- Case-level status and disposition code
- Task-level status and disposition code
- Date the interview was finalised or status date
- Task type (interview component)
- Interviewer name/ID
- Validation status
- Language of administration
- Assignment date and type (original vs. transfer)
- Date and time of inbound and outbound data transmissions
- ID number of paper direct assessment booklets
- Status of paper direct assessment booklets
- Date the paper materials were returned to the survey institute
- Other (specify)

SMS3. Has the survey control file been developed? (S 10.6.5)

- Yes
- No

**[SKIP TO QCF1 IF DATA COLLECTION HAS NOT STARTED]**

## **PRD Production and Response Rates**

The following questions ask about the number of finalised (closed out) cases recorded for each disposition code in each module. Please report these numbers conditionally so that the total number of cases for each module sums up to the number of cases that have completed the previous module.

PRD1. If applicable, indicate the number of finalised Screeners to date for each of the disposition codes below. (*S 10.7.1*)

<b>Description</b>	<b>Code</b>	<b>Number of Screeners</b>
Complete – 1 sample person selected	01	5,272.00
Complete – 2 sample persons selected	02	414.00
Partial complete/break-off	03	0.00
Refusal – household member	04	848.00
Refusal – gatekeeper	05	23.00
Language problem	07	106.00
Learning/mental disability	09	9.00
Hearing impairment	12	0.00
Blindness/visual impairment	13	0.00
Speech impairment	14	0.00
Physical disability	15	1.00
Other disability	16	0.00
Other (unspecified), such as sickness or unusual circumstances	17	26.00
Complete – no eligible sample persons	19	1,267.00
Unable to locate dwelling unit	20	49.00
Maximum number of calls	21	121.00
Dwelling unit under construction	22	18.00
Temporarily absent/unavailable during field period	24	47.00
Vacant dwelling unit	26	1,089.00
Duplication – already interviewed	27	0.00
Address not a dwelling unit	28	178.00
<b>Total</b>		<b>9,468.00</b>

PRD2. Indicate the number of finalised Case Initialisations (CI) to date for each of the disposition codes below. (S 10.7.1)

Description	Code	Number of CIs
Complete	01	4,896.00
Partial complete/break-off	03	1.00
Refusal – sample person	04	686.00
Refusal – other	05	78.00
Language problem	07	81.00
Reading and writing difficulty	08	0.00
Learning/mental disability	09	31.00
Hearing impairment	12	1.00
Blindness/visual impairment	13	2.00
Speech impairment	14	0.00
Physical disability	15	11.00
Other disability	16	5.00
Other (unspecified), such as sickness or unusual circumstances	17	32.00
Death	18	0.00
Maximum number of calls	21	68.00
Temporarily absent/unavailable during field period	24	183.00
Ineligible (specify)	25	4.00
Duplication – already interviewed	27	0.00
Technical Problem	90	21.00
<b>Total</b>		<b>6,100.00</b>

PRD3. Indicate the number of finalised Background Questionnaires (BQ) to date for each of the disposition codes below. (S 10.7.1)

Description	Code	Number of BQs
Complete	01	4,896.00
Partial complete/break-off	03	1.00
Refusal – sample person	04	686.00
Refusal – other	05	78.00
Language problem	07	81.00
Reading and writing difficulty	08	0.00
Learning/mental disability	09	31.00
Hearing impairment	12	1.00
Blindness/visual impairment	13	2.00
Speech impairment	14	0.00
Physical disability	15	11.00
Other disability	16	5.00
Other (unspecified), such as sickness or unusual circumstances	17	32.00
Death	18	0.00
Maximum number of calls	21	68.00
Temporarily absent/unavailable during field period	24	183.00
Ineligible (specify)	25	4.00
Duplication – already interviewed	27	0.00
Technical Problem	90	21.00
<b>Total</b>		<b>6,100.00</b>

PRD4. Indicate the number of finalised Exercises to date for each of the disposition codes below. (S 10.7.1)

Description	Code	Number of Exercises
Complete	01	4,799.00
Partial complete/break-off	03	13.00
Refusal – sample person	04	4.00
Refusal – other	05	0.00
Language problem	07	28.00
Reading and writing difficulty	08	1.00
Learning/mental disability	09	5.00
Hearing impairment	12	0.00
Blindness/visual impairment	13	3.00
Speech impairment	14	0.00
Physical disability	15	2.00
Other disability	16	0.00
Other (unspecified), such as sickness or unusual circumstances	17	20.00
Death	18	0.00
Maximum number of calls	21	1.00
Temporarily absent/unavailable during field period	24	1.00
Duplication – already interviewed	27	0.00
Technical Problem	90	13.00
Missing Paper Booklet	91	6.00
<b>Total</b>		<b>4,896.00</b>

PRD5. Enter the information on the target response rates and number of completes. (S 4.7.1)

*Note: A toolkit is available on the SharePoint site to compute the Actual Weighted Response Rates. You may use the simplified or standard response rate formula. The 'Target' columns refer to your "best estimate," not the theoretical maximum that could be reached. (e.g., 100% for RR)*

Component	Weighted Response Rates (%)		Number of Completes	
	Actual	Target	Actual	Target
Screener (if applicable)	86.50	86.70	5,686.00	6,010.00
CI & BQ (combined)	82.50	80.00	5,029.00	5,097.00
Exercise	99.10	98.10	5,010.00	5,000.00

PRD6. What is the minimum, maximum, and mean number of completed interviews per interviewer to date? (S 8.3.4)

Minimum: 1.00      Maximum: 123.00      Mean: 25.10

## **QCF Quality Control of Fieldwork**

QCF1. Will interviews be/have interviews been monitored? (S 10.9.2)

- Yes  
 No [**SKIP TO QCF4**]

QCF2. What methods will be used/have been used to monitor interviews? (S 10.9.2)

[SELECT ALL THAT APPLY]

- Audio recording of full interviews  
 Audio recording of parts/snippets of interviews  
 In-person observation  
 Other (specify)

--

QCF3. Indicate for how many cases your country has completed the following interview monitoring procedures. (S 10.9.2)

	Number of Cases
Audio recorded full interviews	298.00
Audio recorded parts/snippets of interviews	
In-person observation	
Other (specify)	

QCF4. Will the work of interviewers be/has the work of interviewers been validated through back-checks? (S 10.9.2)

- Yes  
 No **[SKIP TO QCF15]**

QCF5. Indicate which types of cases will be/have been validated and the mode used. (S 10.9.3)

[CHECK ALL APPROPRIATE BOXES]

Dispositions	In-person	Telephone	Mail
Completes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Refusals	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ineligibles	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Non-contacts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

QCF6. Will validation cases be/have validation cases been selected at random? (S 10.9.3A)

- Yes, all cases  
 Yes, most cases  
 Yes, some cases  
 No

QCF7. Will your country use/has your country used the validation form proposed by the Consortium?

- Yes, it was used as-is
- Yes, it was used with adaptations
- No

QCF8. Who will be conducting/has conducted the validations? (S 10.9.2/10.9.3)

[SELECT ALL THAT APPLY]

- Supervisors (or equivalent)
- Field managers (or equivalent)
- Senior interviewers (or equivalent)
- Project staff
- Other (specify)

Survey Institute Telephone Center staff.

**[SKIP TO QCF15 IF DATA COLLECTION HAS NOT STARTED]**

QCF9. Has the 10 percent validation threshold been reached for each interviewer who received assignments?

- Yes **[SKIP TO QCF12]**
- No

QCF10. Among interviewers who received assignments, how many have had ...

... at least 10% of their finalised cases validated?      ENTER NUMBER 192.00

... at least 7% of their finalised cases validated?      ENTER NUMBER \_\_\_\_\_

QCF11. Briefly describe why your country has not validated 10 percent of each interviewer’s cases finalised to date. (S 10.9.3)

QCF12. Indicate for how many cases your country has conducted validation. (S 10.9.2)

	<b>Number of Cases</b>
Validation in person	228.00
Validation by telephone	1,611.00
Validation by mail	54.00
Other (specify)	

QCF13. Has your country detected any falsification? (*S 10.9.4*)

- Yes  
 No [**SKIP TO QCF15**]

QCF14. Please explain the falsification found and indicate the number of interviewers and the percent/number of cases impacted. Please also indicate what was done/will be done with the falsified case(s). (*S 10.9.4*)

A total of 11 falsifiers were found during data collection. All instances are detailed on the last page of this form.

QCF15. Will your country develop/has your country developed management reports to detect falsification? (*S 10.9.6*)

- Yes  
 No [**SKIP TO QCF17**]

QCF16. Indicate which management reports will be used/have been used to detect falsification. (*S 10.9.6*)

[SELECT ALL THAT APPLY]

- Overall interview administration length  
 Individual instrument administration length  
 Amount of time between interviews  
 Interviews conducted very early in the morning or late in the evening  
 Number of interviews conducted per day  
 Other (specify)

QCF17. What procedures will be used/have been used for reviewing electronic survey data?  
(S 10.9.9)

[SELECT ALL THAT APPLY]

- Review of data frequencies
- Review and suppression of edits
- Review of "other-specify" responses
- Review of open ended responses
- Review of missing data rates (i.e., refusals, don't knows)
- Other (specify)

QCF18. Who will review/has reviewed completed paper case materials? (S 10.9.8)

[SELECT ALL THAT APPLY]

- Interviewers
- Supervisors
- Home office staff upon receipt
- Other (specify)

### **ETH Ethics/Confidentiality**

ETH1. Did your country submit its research plan to the appropriate institutional review board(s) and/or ethics committee(s) for approval? (S 2.1)

- Yes
- No **[SKIP TO ETH3]**
- Not required in our country **[SKIP TO ETH3]**

ETH2. Has approval been granted by the appropriate institutional review board(s) and/or ethics committee(s) on the research plan? (S 2.1)

- Yes
- No

ETH3. Will all of your country's staff be trained/was all of your country's staff trained on the importance of ethics and scientific rigour in research involving human subjects? (S 2.1)

- Yes
- No



ETH4. Which confidentiality forms will all of your country's study staff sign/did all of your country's study staff sign? (S 2.2)

[SELECT ALL THAT APPLY]

- PIAAC confidentiality form
- Country-specific form
- Other (specify)

ETH5. What measures will your country use/has your country been using to maintain the security of the data stored in interviewers' laptop computer? (S 2.2)

[SELECT ALL THAT APPLY]

- Data encryption
- Password protection
- Keeping all password lists in a separate location from the laptop computer
- Securely storing the laptop computer when not in use
- Other (specify)

Interviewers are not authorized to use their laptop for anything other than PIAAC-related work.

**[SKIP TO END IF DATA COLLECTION HAS NOT STARTED]**

ETH6. Have there been any problems with data confidentiality? (S 2.2)

- Yes
- No **[SKIP TO ETH8]**

ETH7. Please explain problems with data confidentiality. (S 2.2)

ETH8. Have any interviewer laptops been lost or stolen? (S 2.2)

- Yes
- No **[SKIP TO END]**

ETH9. How many laptops have been lost or stolen? (S 2.2)

\_\_\_\_\_

ETH10. What measures were taken when a laptop was lost or stolen? (S 2.2)

[SELECT ALL THAT APPLY]

- Reported incident to the Consortium
- Filed a report with the local authorities
- Instructed supervisors to thoroughly investigate the matter
- Other (specify)

**END OF FORM**

## **Comments**

(continued from question 14)

One interviewer detected intentionally underreported the number of household members so that the screener would select SP she wanted to interview. Any cases where the interview was conducted with someone who would not have been chosen if the screener had been administered correctly were removed from the data and the cases were not reworked.

One interviewer routinely underreported the number of household members to make sure that the person she wanted to be selected for the interview would be. We removed the cases where the interview was conducted with an SP who should not have been selected from the data.

Another interviewer completed a BQ over the telephone. The case was removed from the data.

Another interviewer made up data for a number of households, discovered due to abnormally short BQ administration times. She also seems to have completed the Exercise herself on occasion, according to SPs who were called for validation. Cases were reset and reassigned.

Another interviewer conducted screeners at the wrong address on at least two occasions, those cases were cleared out and re-fielded.

Another interviewer closed out two cases as vacant when they were occupied, the cases were transferred to another interviewer.

Two interviewers intentionally conducted the Exercise with someone other than the SP selected by the screener.

Another interviewer conducted an interview at an address other than the sampled address. The case was reset and re-fielded.

Another interviewer underreported the age of a screener respondent to make her eligible for the BQ. The case was removed from the data and will not be re-fielded.

Finally, an interviewer completed a number of screeners using public databases, instead of visiting the sampled households. These cases were reset and re-fielded.

# PIAAC MAIN STUDY

## DATA COLLECTION

### SURVEY OPERATIONS QUALITY CONTROL FORM

#### Instructions

- Enter and edit information on the form using Adobe Acrobat Reader.
- To prevent losing entries, use the "save" feature regularly.
- It is important that the filename incorporates the name of your country, the title of the form, as well as the date the form was filled out.
- Do not use the "comment" function in Adobe Acrobat to add details. Additional space to do so is provided on the last page of this form. If your comments refer to a specific question, please write the question number.
- Answer all applicable questions on the form.
- Please do not submit your country's quality control forms via email.

Country: United States Date: 14 / 9 / 2011  
(DD/MM/YYYY)

Is this a revised submission?  Yes **[PLEASE UPDATE DATE]** \_\_\_\_\_ ↑  
 No

Completed by: Lillian Diaz-Hoffmann Title: Study Manager  
 Completed by: \_\_\_\_\_ Title: \_\_\_\_\_  
 Completed by: \_\_\_\_\_ Title: \_\_\_\_\_

#### **TML Timeline**

TML1. On what date will/did data collection begin?  
 (First day interviewers are authorised to make contact attempts/conduct interviews.) 25 / 8 / 2011  
(DD/MM/YYYY)

TML2. On what date will/did data collection end?  
 (Last day interviewers are authorised to make contact attempts/conduct interviews.) 31 / 3 / 2011  
(DD/MM/YYYY)

TML3. On what date will/did interviewer training begin?  
 (Date of first day of first training session held.) 18 / 08 / 2011  
(DD/MM/YYYY)

TML4. On what date will/did interviewer training end?  
 (Date of last day of last training session held.) 23 / 8 / 2011  
(DD/MM/YYYY)

**STF Staff Hiring and Management**

STF1. What recruitment sources will your country use/has your country used to find interviewers? (S 8.4.1)

[SELECT ALL THAT APPLY]

- Files of people currently working for the survey institute
- Files of people who previously worked for the survey institute
- Job posting on the survey institute's website
- Recommendations from experienced supervisory staff employed by the survey institute
- Local organisations such as community/senior centres and libraries
- Newspaper advertisements
- Other (specify)

Employment website, state and local employment offices.

STF2. Complete the table below with information about the status of your country's staff. Fill out each box. Enter 'n/a' if not applicable. Enter 'dk' if not currently known. (S 8.3.3)

Staff	Interviewers	Supervisors (or equivalent)	Field Managers (or equivalent)	Field Director (or equivalent)
Target number to recruit/hire/assign to PIAAC	191.00	11.00	2.00	1.00
Total number ever recruited/hired/assigned to PIAAC	186.00	11.00	2.00	1.00

STF3. Is interviewer attrition taken into account in the target number of interviewers reported in question STF2? (S 8.3.1)

- Yes [**SKIP TO STF5**]
- No

STF4. By how much does your country plan to overhire/did your country overhire to compensate for interviewer attrition? Please select the appropriate box to indicate whether a number or percent was entered. Enter a '0' if there is no plan to overhire. (S 8.3.1)

ENTER NUMBER OR PERCENT 30.00

- Number
- Percent

STF5. How many hours per week will interviewers work/have interviewers been working on PIAAC?

ENTER NUMBER \_\_\_\_\_

**OR**

ENTER RANGE 25.00 to 40.00

STF6. How many interviewers will be assigned/were assigned to each supervisor? (S 8.1.1)

ENTER NUMBER \_\_\_\_\_

**OR**

ENTER RANGE 16.00 to 20.00

STF7. How many supervisors will be assigned/were assigned to each field manager? (S.8.1.1)

ENTER NUMBER 5.00

**OR**

ENTER RANGE \_\_\_\_\_ to \_\_\_\_\_

STF8. How many cases will be assigned/were assigned to each interviewer for their initial assignment? (S 8.3.4)

ENTER NUMBER \_\_\_\_\_

**OR**

ENTER RANGE 10.00 to 20.00

STF9. How will interviewers be/have interviewers been paid? (S 8.3.5)

- Piece rate
- Hourly wage
- Salary
- Other (specify)

STF10. Will a bonus be/has a bonus been offered to interviewers who reach a certain threshold of productivity?

- Yes
- No **[SKIP TO STF12]**

STF11. Briefly describe the nature of this bonus.

Incentive bonus plan based on the number of completes. Interviewers who complete a minimum number of interviews are eligible. The more completes an interviewer gets, the higher the bonus amount paid per complete to that interviewer. Also lottery with cash prizes.

STF12. Which methods will your country use/has your country used for communication between the home office and field staff, including field managers, supervisors, and interviewers? (S 8.1.2/8.2.1)

[SELECT ALL THAT APPLY]

- Email
- Telephone
- In-person meetings
- Paper or electronic newsletters
- Other (specify)

STF13. How often will your country have/has your country had scheduled communications between interviewers and supervisors? (S 8.1.2/8.2.1)

[SELECT ALL THAT APPLY]

- As needed
- Bi-weekly
- Weekly
- Monthly
- Never
- Other (specify)

**[SKIP TO FDW1 IF DATA COLLECTION HAS NOT STARTED]**

STF14. Complete the table below with information about the status of your country's interviewing staff. (S 8.3.3)

Interviewing Staff	Number
Total number ever recruited/hired/assigned to PIAAC (from STF2)	186.00
Total number of interviewers who attended training	186.00
Total number of interviewers who received assignments	183.00
↳ Number of interviewers currently working on the study	172.00
↳ Number of interviewers no longer working on the study	14.00

STF15. According to the information provided in question STF14, the percentage of interviewer attrition to date in your country is 7.6502732%. (S 8.3.3) In order to be routed to the next relevant question, please check the appropriate answer:

- Attrition is equal to '0' **[SKIP TO STF17]**
- Attrition is greater than '0'

STF16. What are some of the causes of interviewer attrition on PIAAC? (S 8.3.1)

[SELECT ALL THAT APPLY]

- Quit
- Laid off
- Fired because of poor production
- Fired because of quality control issues
- Other (specify)

STF17. Has your country trained additional interviewers as a result of interviewer attrition or insufficient initial staffing? (S 9.8.1)

- Yes
- No **[SKIP TO STF20]**

STF18. Has your country submitted an Interviewer Training Form for the additional interviewer training session(s) held?

- Yes, for each additional sessions
- Yes, for some sessions only
- No

STF19. How many interviewers were trained at the additional interviewer training session(s)? (S 9.8.1)

*Note: Please make sure you report these interviewers in questions STF2 and STF14 as well.*

ENTER NUMBER \_\_\_\_\_

STF20. Have there been any geographical areas without local interviewers due to attrition? (S 8.3.1)

- Yes
- No **[SKIP TO FDW1]**

STF21. What measures has your country taken to cover unstaffed geographical areas due to attrition? (S 8.3.1)

[SELECT ALL THAT APPLY]

- Reassigned interviewers from nearby geographical areas
- Trained additional interviewers
- Hired additional interviewers
- Other (specify)



**FDW FIELDWORK**

FDW1. Which outreach materials will your country use/has your country used? (*S 10.2.1*)

[SELECT ALL THAT APPLY]

- Introductory letter
- Brochure
- Endorsement letters
- Newspaper articles
- Television advertising
- Radio advertising
- Press release
- Other (specify)

Refrigerator magnet, tailored flyers, pens

FDW2. Will/does your country have its own study-specific website or webpage? (*S 10.2.1*)

- Yes
- No

FDW3. Will/does your country have a study toll-free respondent help line? (*S 10.2.1*)

- Yes
- No [**SKIP TO FDW6**]

FDW4. What will be/what are the hours of operation of the help line? (*S 10.2.1*)

9:00 to 17:00 Monday through Friday.

FDW5. How many calls have been received by the toll-free respondent help line? (*S 10.2.1*)

ENTER NUMBER 34.00

FDW6. Will your country/has your country obtained endorsement letters for the study? (*S.10.2.1*)

- Yes
- No [**SKIP TO FDW8**]

FDW7. Please list the organisations or individuals from whom your country has obtained endorsement letters. (*S 10.2.1*)

Tom Brokaw, former television news anchor.

FDW8. Will a respondent incentive be used/has a respondent incentive been used? (S 4.8.1/10.5.1)

- Yes  
 No **[SKIP TO FDW10]**

FDW9. What type of respondent incentive will be used/has been used? (S 4.8.1/10.5.1)

[SELECT ALL THAT APPLY]

- Monetary (Amount 50 USD)  
 Nonmonetary (Description refrigerator magnet, pen)

FDW10. Will your country conduct/has your country conducted initial contact with households/respondents in-person? (S 10.3.1)

- Yes  
 No

FDW11. Will your country conduct/has your country conducted initial contact with households/respondents via telephone? (S 10.3.1)

- Yes  
 No

FDW12. What is the minimum number of subsequent in-person contact attempts interviewers will be/are/were required to make before a case is coded a non-contact? (S 10.3.2)

4.00

FDW13. What is the minimum number of subsequent telephone contact attempts interviewers will be/are/were required to make before a case is coded a non-contact? (S 10.3.3)

0.00

FDW14. Which of the following data items will/does/did your country collect for each contact attempt? (S 10.3.6)

[SELECT ALL THAT APPLY]

- Day  
 Date  
 Time  
 Contact mode  
 Outcome  
 Comments  
 Other (specify)

Interviewer ID

FDW15. Will/has the contact information be/been collected in a paper format, through an automated component of the field management system or both? (S 10.3.6)

- Paper format
- Automated component of field management system
- Both

FDW16. What information will/does/did your country collect on non-interview/nonresponse cases? (S 10.3.7)

[SELECT ALL THAT APPLY]

- Demographic data on person who refused
- Strength of refusal
- Problems encountered
- Likelihood of conversion
- Comments
- Other (specify)

Name and phone number of a contact person

FDW17. Will/has the non-interview information be/been collected in a paper format, through an automated component of the field management system, or both? (S 10.3.7)

- Paper format
- Automated component of field management system
- Both

FDW18. What strategies will your country use/has your country used for dealing with nonresponse and maximising response rates? (S 10.5.2/10.5.3)

[SELECT ALL THAT APPLY]

- Reassignment to other local interviewer(s)
- Follow-up by senior interviewers (or equivalent)
- Follow-up by supervisors (or equivalent)
- Reassignment to experienced/specially trained travelling interviewers
- Tailored letters (apartment managers, locked buildings, refusal conversion, refusals, unco-operative respondent)
- Refusal conversion letters mailed to households via priority or registered mail
- Refusal conversion letters mailed to households via regular mail
- Other (specify)

Tailored flyers

**[SKIP TO SMS1 IF DATA COLLECTION HAS NOT STARTED]**

FDW19. What have been the three most common reasons for refusals to the BQ? (S 10.3.7)

[SELECT UP TO THREE]

- Not interested in the study or in surveys
- Too busy
- Too long
- Don't want to be bothered or involved
- Waste of time and money
- Dislike government
- Don't trust surveys
- Other (specify)

FDW20. What have been the three most common reasons for refusals to the Core/Exercise? (S 10.3.7)

[SELECT UP TO THREE]

- Not interested in the study or in surveys
- Too busy
- Too long
- Don't want to be bothered or involved
- Waste of time and money
- Dislike government
- Don't trust surveys
- Don't want to answer exercises
- Too complicated
- Other (specify)

## **SMS Survey Field Management System**

SMS1. Indicate which functionality the field management system will be/is able to support. (S 10.6.2)

[SELECT ALL THAT APPLY]

- Case assignment to interviewers
- Case transfer/reassignment among interviewers
- Case reset to prior state
- Removal of data from the laptop computer
- Production of management reports
- Documentation of contact attempts
- Tracking interviewers' time and expense data
- Other (specify)

SMS2. Indicate the information contained in the field management system. (S 10.6.3)

[SELECT ALL THAT APPLY]

- Case ID
- Geographic area
- Dwelling unit address
- Case-level status and disposition code
- Task-level status and disposition code
- Date the interview was finalised or status date
- Task type (interview component)
- Interviewer name/ID
- Validation status
- Language of administration
- Assignment date and type (original vs. transfer)
- Date and time of inbound and outbound data transmissions
- ID number of paper direct assessment booklets
- Status of paper direct assessment booklets
- Date the paper materials were returned to the survey institute
- Other (specify)

SMS3. Has the survey control file been developed? (S 10.6.5)

- Yes
- No

**[SKIP TO QCF1 IF DATA COLLECTION HAS NOT STARTED]**

## **PRD Production and Response Rates**

The following questions ask about the number of finalised (closed out) cases recorded for each disposition code in each module. Please report these numbers conditionally so that the total number of cases for each module sums up to the number of cases that have completed the previous module.

PRD1. If applicable, indicate the number of finalised Screeners to date for each of the disposition codes below. (*S 10.7.1*)

<b>Description</b>	<b>Code</b>	<b>Number of Screeners</b>
Complete – 1 sample person selected	01	1,368.00
Complete – 2 sample persons selected	02	136.00
Partial complete/break-off	03	0.00
Refusal – household member	04	12.00
Refusal – gatekeeper	05	2.00
Language problem	07	7.00
Learning/mental disability	09	1.00
Hearing impairment	12	0.00
Blindness/visual impairment	13	0.00
Speech impairment	14	0.00
Physical disability	15	0.00
Other disability	16	0.00
Other (unspecified), such as sickness or unusual circumstances	17	3.00
Complete – no eligible sample persons	19	391.00
Unable to locate dwelling unit	20	7.00
Maximum number of calls	21	1.00
Dwelling unit under construction	22	7.00
Temporarily absent/unavailable during field period	24	3.00
Vacant dwelling unit	26	253.00
Duplication – already interviewed	27	0.00
Address not a dwelling unit	28	58.00
<b>Total</b>		<b>2,249.00</b>

PRD2. Indicate the number of finalised Case Initialisations (CI) to date for each of the disposition codes below. (S 10.7.1)

Description	Code	Number of CIs
Complete	01	1,068.00
Partial complete/break-off	03	0.00
Refusal – sample person	04	0.00
Refusal – other	05	0.00
Language problem	07	2.00
Reading and writing difficulty	08	0.00
Learning/mental disability	09	2.00
Hearing impairment	12	0.00
Blindness/visual impairment	13	0.00
Speech impairment	14	0.00
Physical disability	15	1.00
Other disability	16	1.00
Other (unspecified), such as sickness or unusual circumstances	17	1.00
Death	18	0.00
Maximum number of calls	21	0.00
Temporarily absent/unavailable during field period	24	1.00
Ineligible (specify)	25	0.00
Duplication – already interviewed	27	0.00
Technical Problem	90	22.00
<b>Total</b>		<b>1,098.00</b>

PRD3. Indicate the number of finalised Background Questionnaires (BQ) to date for each of the disposition codes below. (S 10.7.1)

Description	Code	Number of BQs
Complete	01	1,068.00
Partial complete/break-off	03	0.00
Refusal – sample person	04	0.00
Refusal – other	05	0.00
Language problem	07	2.00
Reading and writing difficulty	08	0.00
Learning/mental disability	09	2.00
Hearing impairment	12	0.00
Blindness/visual impairment	13	0.00
Speech impairment	14	0.00
Physical disability	15	1.00
Other disability	16	1.00
Other (unspecified), such as sickness or unusual circumstances	17	1.00
Death	18	0.00
Maximum number of calls	21	0.00
Temporarily absent/unavailable during field period	24	1.00
Ineligible (specify)	25	0.00
Duplication – already interviewed	27	0.00
Technical Problem	90	22.00
<b>Total</b>		<b>1,098.00</b>

PRD4. Indicate the number of finalised Exercises to date for each of the disposition codes below. (S 10.7.1)

Description	Code	Number of Exercises
Complete	01	977.00
Partial complete/break-off	03	0.00
Refusal – sample person	04	0.00
Refusal – other	05	0.00
Language problem	07	4.00
Reading and writing difficulty	08	1.00
Learning/mental disability	09	3.00
Hearing impairment	12	0.00
Blindness/visual impairment	13	0.00
Speech impairment	14	0.00
Physical disability	15	2.00
Other disability	16	0.00
Other (unspecified), such as sickness or unusual circumstances	17	0.00
Death	18	0.00
Maximum number of calls	21	0.00
Temporarily absent/unavailable during field period	24	0.00
Duplication – already interviewed	27	0.00
Technical Problem	90	22.00
Missing Paper Booklet	91	0.00
<b>Total</b>		<b>1,009.00</b>

PRD5. Enter the information on the target response rates and number of completes. (S 4.7.1)

*Note: A toolkit is available on the SharePoint site to compute the Actual Weighted Response Rates. You may use the simplified or standard response rate formula. The 'Target' columns refer to your "best estimate," not the theoretical maximum that could be reached. (e.g., 100% for RR)*

Component	Weighted Response Rates (%)		Number of Completes	
	Actual	Target	Actual	Target
Screener (if applicable)	21.09	86.70	1,504.00	6,010.00
CI & BQ (combined)	64.39	80.00	1,068.00	5,097.00
Exercise	96.16	98.10	977.00	5,000.00

PRD6. What is the minimum, maximum, and mean number of completed interviews per interviewer to date? (S 8.3.4)

Minimum: 1.00      Maximum: 17.00      Mean: 6.12

## **QCF Quality Control of Fieldwork**

QCF1. Will interviews be/have interviews been monitored? (S 10.9.2)

- Yes  
 No [**SKIP TO QCF4**]



QCF2. What methods will be used/have been used to monitor interviews? (S 10.9.2)

[SELECT ALL THAT APPLY]

- Audio recording of full interviews  
 Audio recording of parts/snippets of interviews  
 In-person observation  
 Other (specify)

--

QCF3. Indicate for how many cases your country has completed the following interview monitoring procedures. (S 10.9.2)

	Number of Cases
Audio recorded full interviews	73.00
Audio recorded parts/snippets of interviews	
In-person observation	
Other (specify)	

QCF4. Will the work of interviewers be/has the work of interviewers been validated through back-checks? (S 10.9.2)

- Yes  
 No **[SKIP TO QCF15]**

QCF5. Indicate which types of cases will be/have been validated and the mode used. (S 10.9.3)

[CHECK ALL APPROPRIATE BOXES]

Dispositions	In-person	Telephone	Mail
Completes	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Refusals	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ineligibles	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Non-contacts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

QCF6. Will validation cases be/have validation cases been selected at random? (S 10.9.3A)

- Yes, all cases  
 Yes, most cases  
 Yes, some cases  
 No

QCF7. Will your country use/has your country used the validation form proposed by the Consortium?

- Yes, it was used as-is
- Yes, it was used with adaptations
- No

QCF8. Who will be conducting/has conducted the validations? (S 10.9.2/10.9.3)

[SELECT ALL THAT APPLY]

- Supervisors (or equivalent)
- Field managers (or equivalent)
- Senior interviewers (or equivalent)
- Project staff
- Other (specify)

Survey Institute Telephone Center staff.

**[SKIP TO QCF15 IF DATA COLLECTION HAS NOT STARTED]**

QCF9. Has the 10 percent validation threshold been reached for each interviewer who received assignments?

- Yes **[SKIP TO QCF12]**
- No

QCF10. Among interviewers who received assignments, how many have had ...

... at least 10% of their finalised cases validated?      ENTER NUMBER 143.00

... at least 7% of their finalised cases validated?      ENTER NUMBER 151.00

QCF11. Briefly describe why your country has not validated 10 percent of each interviewer’s cases finalised to date. (S 10.9.3)

Some households selected for validation had not been reached. Some interviewers had not finalized enough cases to date that could be validated over the telephone.

QCF12. Indicate for how many cases your country has conducted validation. (S 10.9.2)

	Number of Cases
Validation in person	
Validation by telephone	301.00
Validation by mail	
Other (specify)	

QCF13. Has your country detected any falsification? (*S 10.9.4*)

- Yes  
 No [**SKIP TO QCF15**]

QCF14. Please explain the falsification found and indicate the number of interviewers and the percent/number of cases impacted. Please also indicate what was done/will be done with the falsified case(s). (*S 10.9.4*)

QCF15. Will your country develop/has your country developed management reports to detect falsification? (*S 10.9.6*)

- Yes  
 No [**SKIP TO QCF17**]

QCF16. Indicate which management reports will be used/have been used to detect falsification. (*S 10.9.6*)

[SELECT ALL THAT APPLY]

- Overall interview administration length  
 Individual instrument administration length  
 Amount of time between interviews  
 Interviews conducted very early in the morning or late in the evening  
 Number of interviews conducted per day  
 Other (specify)

QCF17. What procedures will be used/have been used for reviewing electronic survey data? (S 10.9.9)

[SELECT ALL THAT APPLY]

- Review of data frequencies
- Review and suppression of edits
- Review of "other-specify" responses
- Review of open ended responses
- Review of missing data rates (i.e., refusals, don't knows)
- Other (specify)

QCF18. Who will review/has reviewed completed paper case materials? (S 10.9.8)

[SELECT ALL THAT APPLY]

- Interviewers
- Supervisors
- Home office staff upon receipt
- Other (specify)

### **ETH Ethics/Confidentiality**

ETH1. Did your country submit its research plan to the appropriate institutional review board(s) and/or ethics committee(s) for approval? (S 2.1)

- Yes
- No **[SKIP TO ETH3]**
- Not required in our country **[SKIP TO ETH3]**

ETH2. Has approval been granted by the appropriate institutional review board(s) and/or ethics committee(s) on the research plan? (S 2.1)

- Yes
- No

ETH3. Will all of your country's staff be trained/was all of your country's staff trained on the importance of ethics and scientific rigour in research involving human subjects? (S 2.1)

- Yes
- No

ETH4. Which confidentiality forms will all of your country's study staff sign/did all of your country's study staff sign? (S 2.2)

[SELECT ALL THAT APPLY]

- PIAAC confidentiality form
- Country-specific form
- Other (specify)

ETH5. What measures will your country use/has your country been using to maintain the security of the data stored in interviewers' laptop computer? (S 2.2)

[SELECT ALL THAT APPLY]

- Data encryption
- Password protection
- Keeping all password lists in a separate location from the laptop computer
- Securely storing the laptop computer when not in use
- Other (specify)

Interviewers are not authorized to use their laptop for anything other than PIAAC-related work.

**[SKIP TO END IF DATA COLLECTION HAS NOT STARTED]**

ETH6. Have there been any problems with data confidentiality? (S 2.2)

- Yes
- No **[SKIP TO ETH8]**

ETH7. Please explain problems with data confidentiality. (S 2.2)

ETH8. Have any interviewer laptops been lost or stolen? (S 2.2)

- Yes
- No **[SKIP TO END]**

ETH9. How many laptops have been lost or stolen? (S 2.2)

\_\_\_\_\_

ETH10. What measures were taken when a laptop was lost or stolen? (S 2.2)

[SELECT ALL THAT APPLY]

- Reported incident to the Consortium
- Filed a report with the local authorities
- Instructed supervisors to thoroughly investigate the matter
- Other (specify)

**END OF FORM**

**Comments**

We arrived at training with 11 supervisors. One was dismissed during the course of training due to unsatisfactory performance, so we currently have ten supervisors.

Information on this form is as of 14/9/2011.

# PIAAC MAIN STUDY

## DATA COLLECTION

### SURVEY OPERATIONS QUALITY CONTROL FORM

#### Instructions

- Enter and edit information on the form using Adobe Acrobat Reader.
- To prevent losing entries, use the "save" feature regularly.
- It is important that the filename incorporates the name of your country, the title of the form, as well as the date the form was filled out.
- Do not use the "comment" function in Adobe Acrobat to add details. Additional space to do so is provided on the last page of this form. If your comments refer to a specific question, please write the question number.
- Answer all applicable questions on the form.
- Please do not submit your country's quality control forms via email.

Country: United States Date: 14 / 10 / 2011  
(DD/MM/YYYY)

Is this a revised submission?  Yes **[PLEASE UPDATE DATE]** \_\_\_\_\_ ↑  
 No

Completed by: Lillian Diaz-Hoffmann Title: Study Manager  
 Completed by: \_\_\_\_\_ Title: \_\_\_\_\_  
 Completed by: \_\_\_\_\_ Title: \_\_\_\_\_

#### **TML Timeline**

TML1. On what date will/did data collection begin?  
 (First day interviewers are authorised to make contact attempts/conduct interviews.) 25 / 8 / 2011  
(DD/MM/YYYY)

TML2. On what date will/did data collection end?  
 (Last day interviewers are authorised to make contact attempts/conduct interviews.) 31 / 3 / 2011  
(DD/MM/YYYY)

TML3. On what date will/did interviewer training begin?  
 (Date of first day of first training session held.) 18 / 08 / 2011  
(DD/MM/YYYY)

TML4. On what date will/did interviewer training end?  
 (Date of last day of last training session held.) 23 / 8 / 2011  
(DD/MM/YYYY)



**STF Staff Hiring and Management**

STF1. What recruitment sources will your country use/has your country used to find interviewers? (S 8.4.1)

[SELECT ALL THAT APPLY]

- Files of people currently working for the survey institute
- Files of people who previously worked for the survey institute
- Job posting on the survey institute's website
- Recommendations from experienced supervisory staff employed by the survey institute
- Local organisations such as community/senior centres and libraries
- Newspaper advertisements
- Other (specify)

Employment website, state and local employment offices.

STF2. Complete the table below with information about the status of your country's staff. Fill out each box. Enter 'n/a' if not applicable. Enter 'dk' if not currently known. (S 8.3.3)

Staff	Interviewers	Supervisors (or equivalent)	Field Managers (or equivalent)	Field Director (or equivalent)
Target number to recruit/hire/assign to PIAAC	191.00	11.00	2.00	1.00
Total number ever recruited/hired/assigned to PIAAC	186.00	11.00	2.00	1.00

STF3. Is interviewer attrition taken into account in the target number of interviewers reported in question STF2? (S 8.3.1)

- Yes [**SKIP TO STF5**]
- No

STF4. By how much does your country plan to overhire/did your country overhire to compensate for interviewer attrition? Please select the appropriate box to indicate whether a number or percent was entered. Enter a '0' if there is no plan to overhire. (S 8.3.1)

ENTER NUMBER OR PERCENT 30.00

- Number
- Percent

STF5. How many hours per week will interviewers work/have interviewers been working on PIAAC?

ENTER NUMBER \_\_\_\_\_

**OR**

ENTER RANGE 25.00 to 40.00

STF6. How many interviewers will be assigned/were assigned to each supervisor? (S 8.1.1)

ENTER NUMBER \_\_\_\_\_

**OR**

ENTER RANGE 16.00 to 20.00

STF7. How many supervisors will be assigned/were assigned to each field manager? (S.8.1.1)

ENTER NUMBER 5.00

**OR**

ENTER RANGE \_\_\_\_\_ to \_\_\_\_\_

STF8. How many cases will be assigned/were assigned to each interviewer for their initial assignment? (S 8.3.4)

ENTER NUMBER \_\_\_\_\_

**OR**

ENTER RANGE 10.00 to 20.00

STF9. How will interviewers be/have interviewers been paid? (S 8.3.5)

Piece rate

Hourly wage

Salary

Other (specify)

STF10. Will a bonus be/has a bonus been offered to interviewers who reach a certain threshold of productivity?

Yes

No **[SKIP TO STF12]**

STF11. Briefly describe the nature of this bonus.

Incentive bonus plan based on the number of completes. Interviewers who complete a minimum number of interviews are eligible. The more completes an interviewer gets, the higher the bonus amount paid per complete to that interviewer. Also lottery with cash prizes.

STF12. Which methods will your country use/has your country used for communication between the home office and field staff, including field managers, supervisors, and interviewers? (S 8.1.2/8.2.1)

[SELECT ALL THAT APPLY]

- Email
- Telephone
- In-person meetings
- Paper or electronic newsletters
- Other (specify)

STF13. How often will your country have/has your country had scheduled communications between interviewers and supervisors? (S 8.1.2/8.2.1)

[SELECT ALL THAT APPLY]

- As needed
- Bi-weekly
- Weekly
- Monthly
- Never
- Other (specify)

**[SKIP TO FDW1 IF DATA COLLECTION HAS NOT STARTED]**

STF14. Complete the table below with information about the status of your country's interviewing staff. (S 8.3.3)

Interviewing Staff	Number
Total number ever recruited/hired/assigned to PIAAC (from STF2)	186.00
Total number of interviewers who attended training	186.00
Total number of interviewers who received assignments	183.00
↳ Number of interviewers currently working on the study	146.00
↳ Number of interviewers no longer working on the study	40.00

STF15. According to the information provided in question STF14, the percentage of interviewer attrition to date in your country is 21.857923%. (S 8.3.3) In order to be routed to the next relevant question, please check the appropriate answer:

- Attrition is equal to '0' **[SKIP TO STF17]**
- Attrition is greater than '0'

STF16. What are some of the causes of interviewer attrition on PIAAC? (S 8.3.1)

[SELECT ALL THAT APPLY]

- Quit
- Laid off
- Fired because of poor production
- Fired because of quality control issues
- Other (specify)

STF17. Has your country trained additional interviewers as a result of interviewer attrition or insufficient initial staffing? (S 9.8.1)

- Yes
- No **[SKIP TO STF20]**

STF18. Has your country submitted an Interviewer Training Form for the additional interviewer training session(s) held?

- Yes, for each additional sessions
- Yes, for some sessions only
- No

STF19. How many interviewers were trained at the additional interviewer training session(s)? (S 9.8.1)

*Note: Please make sure you report these interviewers in questions STF2 and STF14 as well.*

ENTER NUMBER \_\_\_\_\_

STF20. Have there been any geographical areas without local interviewers due to attrition? (S 8.3.1)

- Yes
- No **[SKIP TO FDW1]**

STF21. What measures has your country taken to cover unstaffed geographical areas due to attrition? (S 8.3.1)

[SELECT ALL THAT APPLY]

- Reassigned interviewers from nearby geographical areas
- Trained additional interviewers
- Hired additional interviewers
- Other (specify)

Traveled interviewers.

**FDW FIELDWORK**

FDW1. Which outreach materials will your country use/has your country used? (S 10.2.1)

[SELECT ALL THAT APPLY]

- Introductory letter
- Brochure
- Endorsement letters
- Newspaper articles
- Television advertising
- Radio advertising
- Press release
- Other (specify)

Refrigerator magnet, tailored flyers, pens

FDW2. Will/does your country have its own study-specific website or webpage? (S 10.2.1)

- Yes
- No

FDW3. Will/does your country have a study toll-free respondent help line? (S 10.2.1)

- Yes
- No [**SKIP TO FDW6**]

FDW4. What will be/what are the hours of operation of the help line? (S 10.2.1)

9:00 to 17:00 Monday through Friday.

FDW5. How many calls have been received by the toll-free respondent help line? (S 10.2.1)

ENTER NUMBER 68.00

FDW6. Will your country/has your country obtained endorsement letters for the study? (S.10.2.1)

- Yes
- No [**SKIP TO FDW8**]

FDW7. Please list the organisations or individuals from whom your country has obtained endorsement letters. (S 10.2.1)

Tom Brokaw, former television news anchor, and leaders in education.

FDW8. Will a respondent incentive be used/has a respondent incentive been used?  
(S 4.8.1/10.5.1)

- Yes  
 No **[SKIP TO FDW10]**

FDW9. What type of respondent incentive will be used/has been used? (S 4.8.1/10.5.1)

[SELECT ALL THAT APPLY]

- Monetary (Amount 50 USD)  
 Nonmonetary (Description refrigerator magnet, pen)

FDW10. Will your country conduct/has your country conducted initial contact with households/  
respondents in-person? (S 10.3.1)

- Yes  
 No

FDW11. Will your country conduct/has your country conducted initial contact with households/  
respondents via telephone? (S 10.3.1)

- Yes  
 No

FDW12. What is the minimum number of subsequent in-person contact attempts interviewers will  
be/are/were required to make before a case is coded a non-contact? (S 10.3.2)

4.00

FDW13. What is the minimum number of subsequent telephone contact attempts interviewers will  
be/are/were required to make before a case is coded a non-contact? (S 10.3.3)

0.00

FDW14. Which of the following data items will/does/did your country collect for each contact  
attempt? (S 10.3.6)

[SELECT ALL THAT APPLY]

- Day  
 Date  
 Time  
 Contact mode  
 Outcome  
 Comments  
 Other (specify)

Interviewer ID

FDW15. Will/has the contact information be/been collected in a paper format, through an automated component of the field management system or both? (S 10.3.6)

- Paper format
- Automated component of field management system
- Both

FDW16. What information will/does/did your country collect on non-interview/nonresponse cases? (S 10.3.7)

[SELECT ALL THAT APPLY]

- Demographic data on person who refused
- Strength of refusal
- Problems encountered
- Likelihood of conversion
- Comments
- Other (specify)

Name and phone number of a contact person

FDW17. Will/has the non-interview information be/been collected in a paper format, through an automated component of the field management system, or both? (S 10.3.7)

- Paper format
- Automated component of field management system
- Both

FDW18. What strategies will your country use/has your country used for dealing with nonresponse and maximising response rates? (S 10.5.2/10.5.3)

[SELECT ALL THAT APPLY]

- Reassignment to other local interviewer(s)
- Follow-up by senior interviewers (or equivalent)
- Follow-up by supervisors (or equivalent)
- Reassignment to experienced/specially trained travelling interviewers
- Tailored letters (apartment managers, locked buildings, refusal conversion, refusals, unco-operative respondent)
- Refusal conversion letters mailed to households via priority or registered mail
- Refusal conversion letters mailed to households via regular mail
- Other (specify)

Tailored flyers

**[SKIP TO SMS1 IF DATA COLLECTION HAS NOT STARTED]**

FDW19. What have been the three most common reasons for refusals to the BQ? (S 10.3.7)

[SELECT UP TO THREE]

- Not interested in the study or in surveys
- Too busy
- Too long
- Don't want to be bothered or involved
- Waste of time and money
- Dislike government
- Don't trust surveys
- Other (specify)

FDW20. What have been the three most common reasons for refusals to the Core/Exercise? (S 10.3.7)

[SELECT UP TO THREE]

- Not interested in the study or in surveys
- Too busy
- Too long
- Don't want to be bothered or involved
- Waste of time and money
- Dislike government
- Don't trust surveys
- Don't want to answer exercises
- Too complicated
- Other (specify)

## **SMS Survey Field Management System**

SMS1. Indicate which functionality the field management system will be/is able to support. (S 10.6.2)

[SELECT ALL THAT APPLY]

- Case assignment to interviewers
- Case transfer/reassignment among interviewers
- Case reset to prior state
- Removal of data from the laptop computer
- Production of management reports
- Documentation of contact attempts
- Tracking interviewers' time and expense data
- Other (specify)



SMS2. Indicate the information contained in the field management system. (S 10.6.3)

[SELECT ALL THAT APPLY]

- Case ID
- Geographic area
- Dwelling unit address
- Case-level status and disposition code
- Task-level status and disposition code
- Date the interview was finalised or status date
- Task type (interview component)
- Interviewer name/ID
- Validation status
- Language of administration
- Assignment date and type (original vs. transfer)
- Date and time of inbound and outbound data transmissions
- ID number of paper direct assessment booklets
- Status of paper direct assessment booklets
- Date the paper materials were returned to the survey institute
- Other (specify)

SMS3. Has the survey control file been developed? (S 10.6.5)

- Yes
- No

**[SKIP TO QCF1 IF DATA COLLECTION HAS NOT STARTED]**

## **PRD Production and Response Rates**

The following questions ask about the number of finalised (closed out) cases recorded for each disposition code in each module. Please report these numbers conditionally so that the total number of cases for each module sums up to the number of cases that have completed the previous module.

PRD1. If applicable, indicate the number of finalised Screeners to date for each of the disposition codes below. (*S 10.7.1*)

<b>Description</b>	<b>Code</b>	<b>Number of Screeners</b>
Complete – 1 sample person selected	01	2,960.00
Complete – 2 sample persons selected	02	274.00
Partial complete/break-off	03	0.00
Refusal – household member	04	152.00
Refusal – gatekeeper	05	9.00
Language problem	07	23.00
Learning/mental disability	09	5.00
Hearing impairment	12	0.00
Blindness/visual impairment	13	0.00
Speech impairment	14	0.00
Physical disability	15	0.00
Other disability	16	0.00
Other (unspecified), such as sickness or unusual circumstances	17	18.00
Complete – no eligible sample persons	19	747.00
Unable to locate dwelling unit	20	16.00
Maximum number of calls	21	7.00
Dwelling unit under construction	22	10.00
Temporarily absent/unavailable during field period	24	12.00
Vacant dwelling unit	26	559.00
Duplication – already interviewed	27	0.00
Address not a dwelling unit	28	113.00
<b>Total</b>		<b>4,905.00</b>

PRD2. Indicate the number of finalised Case Initialisations (CI) to date for each of the disposition codes below. (S 10.7.1)

Description	Code	Number of CIs
Complete	01	2,524.00
Partial complete/break-off	03	0.00
Refusal – sample person	04	23.00
Refusal – other	05	2.00
Language problem	07	4.00
Reading and writing difficulty	08	0.00
Learning/mental disability	09	11.00
Hearing impairment	12	1.00
Blindness/visual impairment	13	0.00
Speech impairment	14	0.00
Physical disability	15	1.00
Other disability	16	0.00
Other (unspecified), such as sickness or unusual circumstances	17	23.00
Death	18	0.00
Maximum number of calls	21	0.00
Temporarily absent/unavailable during field period	24	11.00
Ineligible (specify)	25	1.00
Duplication – already interviewed	27	0.00
Technical Problem	90	41.00
<b>Total</b>		<b>2,642.00</b>

PRD3. Indicate the number of finalised Background Questionnaires (BQ) to date for each of the disposition codes below. (S 10.7.1)

Description	Code	Number of BQs
Complete	01	2,524.00
Partial complete/break-off	03	0.00
Refusal – sample person	04	23.00
Refusal – other	05	2.00
Language problem	07	4.00
Reading and writing difficulty	08	0.00
Learning/mental disability	09	11.00
Hearing impairment	12	1.00
Blindness/visual impairment	13	0.00
Speech impairment	14	0.00
Physical disability	15	1.00
Other disability	16	0.00
Other (unspecified), such as sickness or unusual circumstances	17	23.00
Death	18	0.00
Maximum number of calls	21	0.00
Temporarily absent/unavailable during field period	24	11.00
Ineligible (specify)	25	1.00
Duplication – already interviewed	27	0.00
Technical Problem	90	41.00
<b>Total</b>		<b>2,642.00</b>

PRD4. Indicate the number of finalised Exercises to date for each of the disposition codes below. (S 10.7.1)

Description	Code	Number of Exercises
Complete	01	2,459.00
Partial complete/break-off	03	2.00
Refusal – sample person	04	2.00
Refusal – other	05	1.00
Language problem	07	21.00
Reading and writing difficulty	08	1.00
Learning/mental disability	09	5.00
Hearing impairment	12	0.00
Blindness/visual impairment	13	1.00
Speech impairment	14	0.00
Physical disability	15	1.00
Other disability	16	0.00
Other (unspecified), such as sickness or unusual circumstances	17	16.00
Death	18	0.00
Maximum number of calls	21	0.00
Temporarily absent/unavailable during field period	24	2.00
Duplication – already interviewed	27	0.00
Technical Problem	90	41.00
Missing Paper Booklet	91	0.00
<b>Total</b>		<b>2,552.00</b>

PRD5. Enter the information on the target response rates and number of completes. (S 4.7.1)

*Note: A toolkit is available on the SharePoint site to compute the Actual Weighted Response Rates. You may use the simplified or standard response rate formula. The 'Target' columns refer to your "best estimate," not the theoretical maximum that could be reached. (e.g., 100% for RR)*

Component	Weighted Response Rates (%)		Number of Completes	
	Actual	Target	Actual	Target
Screener (if applicable)	44.50	86.70	3,981.00	6,010.00
CI & BQ (combined)	72.90	80.00	2,524.00	5,097.00
Exercise	98.40	98.10	2,459.00	5,000.00

PRD6. What is the minimum, maximum, and mean number of completed interviews per interviewer to date? (S 8.3.4)

Minimum: 1.00      Maximum: 43.00      Mean: 14.80

## **QCF Quality Control of Fieldwork**

QCF1. Will interviews be/have interviews been monitored? (S 10.9.2)

- Yes  
 No [**SKIP TO QCF4**]

QCF2. What methods will be used/have been used to monitor interviews? (S 10.9.2)

[SELECT ALL THAT APPLY]

- Audio recording of full interviews  
 Audio recording of parts/snippets of interviews  
 In-person observation  
 Other (specify)

--

QCF3. Indicate for how many cases your country has completed the following interview monitoring procedures. (S 10.9.2)

	Number of Cases
Audio recorded full interviews	242.00
Audio recorded parts/snippets of interviews	
In-person observation	
Other (specify)	

QCF4. Will the work of interviewers be/has the work of interviewers been validated through back-checks? (S 10.9.2)

- Yes  
 No **[SKIP TO QCF15]**

QCF5. Indicate which types of cases will be/have been validated and the mode used. (S 10.9.3)

[CHECK ALL APPROPRIATE BOXES]

Dispositions	In-person	Telephone	Mail
Completes	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Refusals	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ineligibles	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Non-contacts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

QCF6. Will validation cases be/have validation cases been selected at random? (S 10.9.3A)

- Yes, all cases  
 Yes, most cases  
 Yes, some cases  
 No

QCF7. Will your country use/has your country used the validation form proposed by the Consortium?

- Yes, it was used as-is
- Yes, it was used with adaptations
- No

QCF8. Who will be conducting/has conducted the validations? (S 10.9.2/10.9.3)

[SELECT ALL THAT APPLY]

- Supervisors (or equivalent)
- Field managers (or equivalent)
- Senior interviewers (or equivalent)
- Project staff
- Other (specify)

Survey Institute Telephone Center staff.

**[SKIP TO QCF15 IF DATA COLLECTION HAS NOT STARTED]**

QCF9. Has the 10 percent validation threshold been reached for each interviewer who received assignments?

- Yes **[SKIP TO QCF12]**
- No

QCF10. Among interviewers who received assignments, how many have had ...

... at least 10% of their finalised cases validated?      ENTER NUMBER 126.00

... at least 7% of their finalised cases validated?      ENTER NUMBER 151.00

QCF11. Briefly describe why your country has not validated 10 percent of each interviewer’s cases finalised to date. (S 10.9.3)

Some households selected for validation had not been reached. Some interviewers had not finalized enough cases to date that could be validated over the telephone.

QCF12. Indicate for how many cases your country has conducted validation. (S 10.9.2)

	Number of Cases
Validation in person	
Validation by telephone	539.00
Validation by mail	
Other (specify)	

QCF13. Has your country detected any falsification? (*S 10.9.4*)

- Yes  
 No [**SKIP TO QCF15**]

QCF14. Please explain the falsification found and indicate the number of interviewers and the percent/number of cases impacted. Please also indicate what was done/will be done with the falsified case(s). (*S 10.9.4*)

One interviewer was found to have interviewed the wrong person in a household, that is she conducted the interview with a person in the household who was not selected by the screener. After being confronted with the information, she claimed it was an accident. While validating the case, it became clear that she intentionally interviewed the wrong person. The case will be removed from the data. All of her other cases validated acceptably and will be left intact.

QCF15. Will your country develop/has your country developed management reports to detect falsification? (*S 10.9.6*)

- Yes  
 No [**SKIP TO QCF17**]

QCF16. Indicate which management reports will be used/have been used to detect falsification. (*S 10.9.6*)

[SELECT ALL THAT APPLY]

- Overall interview administration length  
 Individual instrument administration length  
 Amount of time between interviews  
 Interviews conducted very early in the morning or late in the evening  
 Number of interviews conducted per day  
 Other (specify)

QCF17. What procedures will be used/have been used for reviewing electronic survey data? (S 10.9.9)

[SELECT ALL THAT APPLY]

- Review of data frequencies
- Review and suppression of edits
- Review of "other-specify" responses
- Review of open ended responses
- Review of missing data rates (i.e., refusals, don't knows)
- Other (specify)

QCF18. Who will review/has reviewed completed paper case materials? (S 10.9.8)

[SELECT ALL THAT APPLY]

- Interviewers
- Supervisors
- Home office staff upon receipt
- Other (specify)

### **ETH Ethics/Confidentiality**

ETH1. Did your country submit its research plan to the appropriate institutional review board(s) and/or ethics committee(s) for approval? (S 2.1)

- Yes
- No **[SKIP TO ETH3]**
- Not required in our country **[SKIP TO ETH3]**

ETH2. Has approval been granted by the appropriate institutional review board(s) and/or ethics committee(s) on the research plan? (S 2.1)

- Yes
- No

ETH3. Will all of your country's staff be trained/was all of your country's staff trained on the importance of ethics and scientific rigour in research involving human subjects? (S 2.1)

- Yes
- No



ETH4. Which confidentiality forms will all of your country's study staff sign/did all of your country's study staff sign? (S 2.2)

[SELECT ALL THAT APPLY]

- PIAAC confidentiality form
- Country-specific form
- Other (specify)

ETH5. What measures will your country use/has your country been using to maintain the security of the data stored in interviewers' laptop computer? (S 2.2)

[SELECT ALL THAT APPLY]

- Data encryption
- Password protection
- Keeping all password lists in a separate location from the laptop computer
- Securely storing the laptop computer when not in use
- Other (specify)

Interviewers are not authorized to use their laptop for anything other than PIAAC-related work.

**[SKIP TO END IF DATA COLLECTION HAS NOT STARTED]**

ETH6. Have there been any problems with data confidentiality? (S 2.2)

- Yes
- No **[SKIP TO ETH8]**

ETH7. Please explain problems with data confidentiality. (S 2.2)

ETH8. Have any interviewer laptops been lost or stolen? (S 2.2)

- Yes
- No **[SKIP TO END]**

ETH9. How many laptops have been lost or stolen? (S 2.2)

\_\_\_\_\_

ETH10. What measures were taken when a laptop was lost or stolen? (S 2.2)

[SELECT ALL THAT APPLY]

- Reported incident to the Consortium
- Filed a report with the local authorities
- Instructed supervisors to thoroughly investigate the matter
- Other (specify)

**END OF FORM**

**Comments**

We arrived at training with 11 supervisors. One was dismissed during the course of training due to unsatisfactory performance and other left the study to deal with medical issues, so we currently have nine supervisors. The work was distributed among the remaining supervisors.

Information on this form is as of 14/10/2011.

# PIAAC MAIN STUDY

## DATA COLLECTION

### SURVEY OPERATIONS QUALITY CONTROL FORM

#### Instructions

- Enter and edit information on the form using Adobe Acrobat Reader.
- To prevent losing entries, use the "save" feature regularly.
- It is important that the filename incorporates the name of your country, the title of the form, as well as the date the form was filled out.
- Do not use the "comment" function in Adobe Acrobat to add details. Additional space to do so is provided on the last page of this form. If your comments refer to a specific question, please write the question number.
- Answer all applicable questions on the form.
- Please do not submit your country's quality control forms via email.

Country: United States Date: 14 / 11 / 2011  
(DD/MM/YYYY)

Is this a revised submission?  Yes **[PLEASE UPDATE DATE]** \_\_\_\_\_ ↑  
 No

Completed by: Lillian Diaz-Hoffmann Title: Study Manager  
 Completed by: \_\_\_\_\_ Title: \_\_\_\_\_  
 Completed by: \_\_\_\_\_ Title: \_\_\_\_\_

#### **TML Timeline**

TML1. On what date will/did data collection begin?  
 (First day interviewers are authorised to make contact attempts/conduct interviews.) 25 / 8 / 2011  
(DD/MM/YYYY)

TML2. On what date will/did data collection end?  
 (Last day interviewers are authorised to make contact attempts/conduct interviews.) 31 / 3 / 2011  
(DD/MM/YYYY)

TML3. On what date will/did interviewer training begin?  
 (Date of first day of first training session held.) 18 / 08 / 2011  
(DD/MM/YYYY)

TML4. On what date will/did interviewer training end?  
 (Date of last day of last training session held.) 23 / 8 / 2011  
(DD/MM/YYYY)

**STF Staff Hiring and Management**

STF1. What recruitment sources will your country use/has your country used to find interviewers? (S 8.4.1)

[SELECT ALL THAT APPLY]

- Files of people currently working for the survey institute
- Files of people who previously worked for the survey institute
- Job posting on the survey institute's website
- Recommendations from experienced supervisory staff employed by the survey institute
- Local organisations such as community/senior centres and libraries
- Newspaper advertisements
- Other (specify)

Employment website, state and local employment offices.

STF2. Complete the table below with information about the status of your country's staff. Fill out each box. Enter 'n/a' if not applicable. Enter 'dk' if not currently known. (S 8.3.3)

Staff	Interviewers	Supervisors (or equivalent)	Field Managers (or equivalent)	Field Director (or equivalent)
Target number to recruit/hire/assign to PIAAC	191.00	11.00	2.00	1.00
Total number ever recruited/hired/assigned to PIAAC	186.00	11.00	2.00	1.00

STF3. Is interviewer attrition taken into account in the target number of interviewers reported in question STF2? (S 8.3.1)

- Yes [**SKIP TO STF5**]
- No

STF4. By how much does your country plan to overhire/did your country overhire to compensate for interviewer attrition? Please select the appropriate box to indicate whether a number or percent was entered. Enter a '0' if there is no plan to overhire. (S 8.3.1)

ENTER NUMBER OR PERCENT 30.00

- Number
- Percent

STF5. How many hours per week will interviewers work/have interviewers been working on PIAAC?

ENTER NUMBER \_\_\_\_\_

**OR**

ENTER RANGE 25.00 to 40.00

STF6. How many interviewers will be assigned/were assigned to each supervisor? (S 8.1.1)

ENTER NUMBER \_\_\_\_\_

**OR**

ENTER RANGE 16.00 to 20.00

STF7. How many supervisors will be assigned/were assigned to each field manager? (S.8.1.1)

ENTER NUMBER 5.00

**OR**

ENTER RANGE \_\_\_\_\_ to \_\_\_\_\_

STF8. How many cases will be assigned/were assigned to each interviewer for their initial assignment? (S 8.3.4)

ENTER NUMBER \_\_\_\_\_

**OR**

ENTER RANGE 10.00 to 20.00

STF9. How will interviewers be/have interviewers been paid? (S 8.3.5)

Piece rate

Hourly wage

Salary

Other (specify)

STF10. Will a bonus be/has a bonus been offered to interviewers who reach a certain threshold of productivity?

Yes

No **[SKIP TO STF12]**

STF11. Briefly describe the nature of this bonus.

Incentive bonus plan based on the number of completes. Interviewers who complete a minimum number of interviews are eligible. The more completes an interviewer gets, the higher the bonus amount paid per complete to that interviewer. Also lottery with cash prizes.

STF12. Which methods will your country use/has your country used for communication between the home office and field staff, including field managers, supervisors, and interviewers? (S 8.1.2/8.2.1)

[SELECT ALL THAT APPLY]

- Email
- Telephone
- In-person meetings
- Paper or electronic newsletters
- Other (specify)

STF13. How often will your country have/has your country had scheduled communications between interviewers and supervisors? (S 8.1.2/8.2.1)

[SELECT ALL THAT APPLY]

- As needed
- Bi-weekly
- Weekly
- Monthly
- Never
- Other (specify)

**[SKIP TO FDW1 IF DATA COLLECTION HAS NOT STARTED]**

STF14. Complete the table below with information about the status of your country's interviewing staff. (S 8.3.3)

Interviewing Staff	Number
Total number ever recruited/hired/assigned to PIAAC (from STF2)	186.00
Total number of interviewers who attended training	186.00
Total number of interviewers who received assignments	183.00
↳ Number of interviewers currently working on the study	109.00
↳ Number of interviewers no longer working on the study	77.00

STF15. According to the information provided in question STF14, the percentage of interviewer attrition to date in your country is 42.076502%. (S 8.3.3) In order to be routed to the next relevant question, please check the appropriate answer:

- Attrition is equal to '0' **[SKIP TO STF17]**
- Attrition is greater than '0'

STF16. What are some of the causes of interviewer attrition on PIAAC? (S 8.3.1)

[SELECT ALL THAT APPLY]

- Quit
- Laid off
- Fired because of poor production
- Fired because of quality control issues
- Other (specify)

STF17. Has your country trained additional interviewers as a result of interviewer attrition or insufficient initial staffing? (S 9.8.1)

- Yes
- No **[SKIP TO STF20]**

STF18. Has your country submitted an Interviewer Training Form for the additional interviewer training session(s) held?

- Yes, for each additional sessions
- Yes, for some sessions only
- No

STF19. How many interviewers were trained at the additional interviewer training session(s)? (S 9.8.1)

*Note: Please make sure you report these interviewers in questions STF2 and STF14 as well.*

ENTER NUMBER \_\_\_\_\_

STF20. Have there been any geographical areas without local interviewers due to attrition? (S 8.3.1)

- Yes
- No **[SKIP TO FDW1]**

STF21. What measures has your country taken to cover unstaffed geographical areas due to attrition? (S 8.3.1)

[SELECT ALL THAT APPLY]

- Reassigned interviewers from nearby geographical areas
- Trained additional interviewers
- Hired additional interviewers
- Other (specify)

Traveled interviewers.



**FDW FIELDWORK**

FDW1. Which outreach materials will your country use/has your country used? (*S 10.2.1*)

[SELECT ALL THAT APPLY]

- Introductory letter
- Brochure
- Endorsement letters
- Newspaper articles
- Television advertising
- Radio advertising
- Press release
- Other (specify)

Refrigerator magnet, tailored flyers, pens

FDW2. Will/does your country have its own study-specific website or webpage? (*S 10.2.1*)

- Yes
- No

FDW3. Will/does your country have a study toll-free respondent help line? (*S 10.2.1*)

- Yes
- No [**SKIP TO FDW6**]

FDW4. What will be/what are the hours of operation of the help line? (*S 10.2.1*)

9:00 to 17:00 Monday through Friday.

FDW5. How many calls have been received by the toll-free respondent help line? (*S 10.2.1*)

ENTER NUMBER 114.00

FDW6. Will your country/has your country obtained endorsement letters for the study? (*S.10.2.1*)

- Yes
- No [**SKIP TO FDW8**]

FDW7. Please list the organisations or individuals from whom your country has obtained endorsement letters. (*S 10.2.1*)

Tom Brokaw, former television news anchor, and leaders in education.

FDW8. Will a respondent incentive be used/has a respondent incentive been used? (S 4.8.1/10.5.1)

- Yes  
 No **[SKIP TO FDW10]**

FDW9. What type of respondent incentive will be used/has been used? (S 4.8.1/10.5.1)

[SELECT ALL THAT APPLY]

- Monetary (Amount 50 USD)  
 Nonmonetary (Description refrigerator magnet, pen)

FDW10. Will your country conduct/has your country conducted initial contact with households/respondents in-person? (S 10.3.1)

- Yes  
 No

FDW11. Will your country conduct/has your country conducted initial contact with households/respondents via telephone? (S 10.3.1)

- Yes  
 No

FDW12. What is the minimum number of subsequent in-person contact attempts interviewers will be/are/were required to make before a case is coded a non-contact? (S 10.3.2)

4.00

FDW13. What is the minimum number of subsequent telephone contact attempts interviewers will be/are/were required to make before a case is coded a non-contact? (S 10.3.3)

0.00

FDW14. Which of the following data items will/does/did your country collect for each contact attempt? (S 10.3.6)

[SELECT ALL THAT APPLY]

- Day  
 Date  
 Time  
 Contact mode  
 Outcome  
 Comments  
 Other (specify)

Interviewer ID

FDW15. Will/has the contact information be/been collected in a paper format, through an automated component of the field management system or both? (S 10.3.6)

- Paper format
- Automated component of field management system
- Both

FDW16. What information will/does/did your country collect on non-interview/nonresponse cases? (S 10.3.7)

[SELECT ALL THAT APPLY]

- Demographic data on person who refused
- Strength of refusal
- Problems encountered
- Likelihood of conversion
- Comments
- Other (specify)

Name and phone number of a contact person

FDW17. Will/has the non-interview information be/been collected in a paper format, through an automated component of the field management system, or both? (S 10.3.7)

- Paper format
- Automated component of field management system
- Both

FDW18. What strategies will your country use/has your country used for dealing with nonresponse and maximising response rates? (S 10.5.2/10.5.3)

[SELECT ALL THAT APPLY]

- Reassignment to other local interviewer(s)
- Follow-up by senior interviewers (or equivalent)
- Follow-up by supervisors (or equivalent)
- Reassignment to experienced/specially trained travelling interviewers
- Tailored letters (apartment managers, locked buildings, refusal conversion, refusals, unco-operative respondent)
- Refusal conversion letters mailed to households via priority or registered mail
- Refusal conversion letters mailed to households via regular mail
- Other (specify)

Tailored flyers

**[SKIP TO SMS1 IF DATA COLLECTION HAS NOT STARTED]**

FDW19. What have been the three most common reasons for refusals to the BQ? (S 10.3.7)

[SELECT UP TO THREE]

- Not interested in the study or in surveys
- Too busy
- Too long
- Don't want to be bothered or involved
- Waste of time and money
- Dislike government
- Don't trust surveys
- Other (specify)

FDW20. What have been the three most common reasons for refusals to the Core/Exercise? (S 10.3.7)

[SELECT UP TO THREE]

- Not interested in the study or in surveys
- Too busy
- Too long
- Don't want to be bothered or involved
- Waste of time and money
- Dislike government
- Don't trust surveys
- Don't want to answer exercises
- Too complicated
- Other (specify)

## **SMS Survey Field Management System**

SMS1. Indicate which functionality the field management system will be/is able to support. (S 10.6.2)

[SELECT ALL THAT APPLY]

- Case assignment to interviewers
- Case transfer/reassignment among interviewers
- Case reset to prior state
- Removal of data from the laptop computer
- Production of management reports
- Documentation of contact attempts
- Tracking interviewers' time and expense data
- Other (specify)

SMS2. Indicate the information contained in the field management system. (S 10.6.3)

[SELECT ALL THAT APPLY]

- Case ID
- Geographic area
- Dwelling unit address
- Case-level status and disposition code
- Task-level status and disposition code
- Date the interview was finalised or status date
- Task type (interview component)
- Interviewer name/ID
- Validation status
- Language of administration
- Assignment date and type (original vs. transfer)
- Date and time of inbound and outbound data transmissions
- ID number of paper direct assessment booklets
- Status of paper direct assessment booklets
- Date the paper materials were returned to the survey institute
- Other (specify)

SMS3. Has the survey control file been developed? (S 10.6.5)

- Yes
- No

**[SKIP TO QCF1 IF DATA COLLECTION HAS NOT STARTED]**

## **PRD Production and Response Rates**

The following questions ask about the number of finalised (closed out) cases recorded for each disposition code in each module. Please report these numbers conditionally so that the total number of cases for each module sums up to the number of cases that have completed the previous module.

PRD1. If applicable, indicate the number of finalised Screeners to date for each of the disposition codes below. (*S 10.7.1*)

<b>Description</b>	<b>Code</b>	<b>Number of Screeners</b>
Complete – 1 sample person selected	01	4,008.00
Complete – 2 sample persons selected	02	350.00
Partial complete/break-off	03	0.00
Refusal – household member	04	234.00
Refusal – gatekeeper	05	9.00
Language problem	07	39.00
Learning/mental disability	09	6.00
Hearing impairment	12	0.00
Blindness/visual impairment	13	0.00
Speech impairment	14	0.00
Physical disability	15	0.00
Other disability	16	0.00
Other (unspecified), such as sickness or unusual circumstances	17	29.00
Complete – no eligible sample persons	19	1,002.00
Unable to locate dwelling unit	20	24.00
Maximum number of calls	21	7.00
Dwelling unit under construction	22	13.00
Temporarily absent/unavailable during field period	24	19.00
Vacant dwelling unit	26	766.00
Duplication – already interviewed	27	0.00
Address not a dwelling unit	28	159.00
<b>Total</b>		<b>6,665.00</b>

PRD2. Indicate the number of finalised Case Initialisations (CI) to date for each of the disposition codes below. (S 10.7.1)

Description	Code	Number of CIs
Complete	01	3,602.00
Partial complete/break-off	03	1.00
Refusal – sample person	04	50.00
Refusal – other	05	3.00
Language problem	07	15.00
Reading and writing difficulty	08	0.00
Learning/mental disability	09	19.00
Hearing impairment	12	1.00
Blindness/visual impairment	13	0.00
Speech impairment	14	0.00
Physical disability	15	1.00
Other disability	16	2.00
Other (unspecified), such as sickness or unusual circumstances	17	31.00
Death	18	0.00
Maximum number of calls	21	0.00
Temporarily absent/unavailable during field period	24	22.00
Ineligible (specify)	25	1.00
Duplication – already interviewed	27	0.00
Technical Problem	90	56.00
<b>Total</b>		<b>3,804.00</b>

PRD3. Indicate the number of finalised Background Questionnaires (BQ) to date for each of the disposition codes below. (S 10.7.1)

Description	Code	Number of BQs
Complete	01	3,602.00
Partial complete/break-off	03	1.00
Refusal – sample person	04	50.00
Refusal – other	05	3.00
Language problem	07	15.00
Reading and writing difficulty	08	0.00
Learning/mental disability	09	19.00
Hearing impairment	12	1.00
Blindness/visual impairment	13	0.00
Speech impairment	14	0.00
Physical disability	15	1.00
Other disability	16	2.00
Other (unspecified), such as sickness or unusual circumstances	17	31.00
Death	18	0.00
Maximum number of calls	21	0.00
Temporarily absent/unavailable during field period	24	22.00
Ineligible (specify)	25	1.00
Duplication – already interviewed	27	0.00
Technical Problem	90	56.00
<b>Total</b>		<b>3,804.00</b>

PRD4. Indicate the number of finalised Exercises to date for each of the disposition codes below. (S 10.7.1)

Description	Code	Number of Exercises
Complete	01	3,372.00
Partial complete/break-off	03	5.00
Refusal – sample person	04	5.00
Refusal – other	05	1.00
Language problem	07	26.00
Reading and writing difficulty	08	2.00
Learning/mental disability	09	0.00
Hearing impairment	12	0.00
Blindness/visual impairment	13	1.00
Speech impairment	14	0.00
Physical disability	15	1.00
Other disability	16	0.00
Other (unspecified), such as sickness or unusual circumstances	17	27.00
Death	18	0.00
Maximum number of calls	21	0.00
Temporarily absent/unavailable during field period	24	3.00
Duplication – already interviewed	27	0.00
Technical Problem	90	56.00
Missing Paper Booklet	91	0.00
<b>Total</b>		<b>3,499.00</b>

PRD5. Enter the information on the target response rates and number of completes. (S 4.7.1)

*Note: A toolkit is available on the SharePoint site to compute the Actual Weighted Response Rates. You may use the simplified or standard response rate formula. The 'Target' columns refer to your "best estimate," not the theoretical maximum that could be reached. (e.g., 100% for RR)*

Component	Weighted Response Rates (%)		Number of Completes	
	Actual	Target	Actual	Target
Screener (if applicable)	58.90	86.70	5,360.00	6,010.00
CI & BQ (combined)	77.50	80.00	3,602.00	5,097.00
Exercise	98.90	98.10	3,372.00	5,000.00

PRD6. What is the minimum, maximum, and mean number of completed interviews per interviewer to date? (S 8.3.4)

Minimum: 1.00      Maximum: 62.00      Mean: 20.40

## **QCF Quality Control of Fieldwork**

QCF1. Will interviews be/have interviews been monitored? (S 10.9.2)

- Yes  
 No [**SKIP TO QCF4**]



QCF2. What methods will be used/have been used to monitor interviews? (S 10.9.2)

[SELECT ALL THAT APPLY]

- Audio recording of full interviews  
 Audio recording of parts/snippets of interviews  
 In-person observation  
 Other (specify)

--

QCF3. Indicate for how many cases your country has completed the following interview monitoring procedures. (S 10.9.2)

	Number of Cases
Audio recorded full interviews	295.00
Audio recorded parts/snippets of interviews	
In-person observation	
Other (specify)	

QCF4. Will the work of interviewers be/has the work of interviewers been validated through back-checks? (S 10.9.2)

- Yes  
 No **[SKIP TO QCF15]**

QCF5. Indicate which types of cases will be/have been validated and the mode used. (S 10.9.3)

[CHECK ALL APPROPRIATE BOXES]

Dispositions	In-person	Telephone	Mail
Completes	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Refusals	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ineligibles	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Non-contacts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

QCF6. Will validation cases be/have validation cases been selected at random? (S 10.9.3A)

- Yes, all cases  
 Yes, most cases  
 Yes, some cases  
 No

QCF7. Will your country use/has your country used the validation form proposed by the Consortium?

- Yes, it was used as-is  
 Yes, it was used with adaptations  
 No

QCF8. Who will be conducting/has conducted the validations? (*S 10.9.2/10.9.3*)

[SELECT ALL THAT APPLY]

- Supervisors (or equivalent)  
 Field managers (or equivalent)  
 Senior interviewers (or equivalent)  
 Project staff  
 Other (specify)

Survey Institute Telephone Center staff.

**[SKIP TO QCF15 IF DATA COLLECTION HAS NOT STARTED]**

QCF9. Has the 10 percent validation threshold been reached for each interviewer who received assignments?

- Yes **[SKIP TO QCF12]**  
 No

QCF10. Among interviewers who received assignments, how many have had ...

... at least 10% of their finalised cases validated?      ENTER NUMBER 158.00  
 ... at least 7% of their finalised cases validated?      ENTER NUMBER 173.00

QCF11. Briefly describe why your country has not validated 10 percent of each interviewer's cases finalised to date. (*S 10.9.3*)

Some households selected for validation had not been reached. Some interviewers had not finalized enough cases to date that could be validated over the telephone.

QCF12. Indicate for how many cases your country has conducted validation. (*S 10.9.2*)

	Number of Cases
Validation in person	
Validation by telephone	877.00
Validation by mail	30.00
Other (specify)	

QCF13. Has your country detected any falsification? (S 10.9.4)

- Yes  
 No **[SKIP TO QCF15]**

QCF14. Please explain the falsification found and indicate the number of interviewers and the percent/number of cases impacted. Please also indicate what was done/will be done with the falsified case(s). (S 10.9.4)

Four instances of falsification have been found since the previous report. A total of five falsifiers have been found since the start of data collection.

The first interviewer routinely underreported the number of household members to make sure that the person she wanted to be selected for the interview would be. We will remove the cases where the interview was conducted with an SP who should not have been selected from the data.

The second interviewer completed a BQ over the telephone. The case was removed from the data.

We found evidence that another interviewer simply made up data for a number of households. We discovered this falsification when we noticed that she had abnormally short BQ administration times. She also seems to have completed the Exercise herself on occasion, according to SPs who were called for validation. In the cases where she made up data, we will reset them and send an interviewer to the household to conduct the interview.

The most recent case involves an interviewer who intentionally conducted the Exercise with someone other than the SP selected by the screener. It will be removed from the data.

QCF15. Will your country develop/has your country developed management reports to detect falsification? (S 10.9.6)

- Yes  
 No **[SKIP TO QCF17]**

QCF16. Indicate which management reports will be used/have been used to detect falsification. (S 10.9.6)

[SELECT ALL THAT APPLY]

- Overall interview administration length  
 Individual instrument administration length  
 Amount of time between interviews  
 Interviews conducted very early in the morning or late in the evening  
 Number of interviews conducted per day  
 Other (specify)

QCF17. What procedures will be used/have been used for reviewing electronic survey data? (S 10.9.9)

[SELECT ALL THAT APPLY]

- Review of data frequencies
- Review and suppression of edits
- Review of "other-specify" responses
- Review of open ended responses
- Review of missing data rates (i.e., refusals, don't knows)
- Other (specify)

QCF18. Who will review/has reviewed completed paper case materials? (S 10.9.8)

[SELECT ALL THAT APPLY]

- Interviewers
- Supervisors
- Home office staff upon receipt
- Other (specify)

### **ETH Ethics/Confidentiality**

ETH1. Did your country submit its research plan to the appropriate institutional review board(s) and/or ethics committee(s) for approval? (S 2.1)

- Yes
- No **[SKIP TO ETH3]**
- Not required in our country **[SKIP TO ETH3]**

ETH2. Has approval been granted by the appropriate institutional review board(s) and/or ethics committee(s) on the research plan? (S 2.1)

- Yes
- No

ETH3. Will all of your country's staff be trained/was all of your country's staff trained on the importance of ethics and scientific rigour in research involving human subjects? (S 2.1)

- Yes
- No

ETH4. Which confidentiality forms will all of your country's study staff sign/did all of your country's study staff sign? (S 2.2)

[SELECT ALL THAT APPLY]

- PIAAC confidentiality form
- Country-specific form
- Other (specify)

ETH5. What measures will your country use/has your country been using to maintain the security of the data stored in interviewers' laptop computer? (S 2.2)

[SELECT ALL THAT APPLY]

- Data encryption
- Password protection
- Keeping all password lists in a separate location from the laptop computer
- Securely storing the laptop computer when not in use
- Other (specify)

Interviewers are not authorized to use their laptop for anything other than PIAAC-related work.

**[SKIP TO END IF DATA COLLECTION HAS NOT STARTED]**

ETH6. Have there been any problems with data confidentiality? (S 2.2)

- Yes
- No **[SKIP TO ETH8]**

ETH7. Please explain problems with data confidentiality. (S 2.2)

ETH8. Have any interviewer laptops been lost or stolen? (S 2.2)

- Yes
- No **[SKIP TO END]**

ETH9. How many laptops have been lost or stolen? (S 2.2)

\_\_\_\_\_

ETH10. What measures were taken when a laptop was lost or stolen? (S 2.2)

[SELECT ALL THAT APPLY]

- Reported incident to the Consortium
- Filed a report with the local authorities
- Instructed supervisors to thoroughly investigate the matter
- Other (specify)

--

**END OF FORM**

**Comments**

We arrived at training with 11 supervisors. One was dismissed during the course of training due to unsatisfactory performance, another left the study to deal with medical issues, and three were recently released due to consolidation, so we currently have six supervisors. The interviewers from the downsized regions were distributed among the remaining supervisors.

Information on this form is as of 14/11/2011.

# PIAAC MAIN STUDY

## DATA COLLECTION

### SURVEY OPERATIONS QUALITY CONTROL FORM

#### Instructions

- Enter and edit information on the form using Adobe Acrobat Reader.
- To prevent losing entries, use the "save" feature regularly.
- It is important that the filename incorporates the name of your country, the title of the form, as well as the date the form was filled out.
- Do not use the "comment" function in Adobe Acrobat to add details. Additional space to do so is provided on the last page of this form. If your comments refer to a specific question, please write the question number.
- Answer all applicable questions on the form.
- Please do not submit your country's quality control forms via email.

Country: United States Date: 14 / 12 / 2011  
(DD/MM/YYYY)

Is this a revised submission?  Yes **[PLEASE UPDATE DATE]** \_\_\_\_\_ ↑  
 No

Completed by: Lillian Diaz-Hoffmann Title: Study Manager  
 Completed by: \_\_\_\_\_ Title: \_\_\_\_\_  
 Completed by: \_\_\_\_\_ Title: \_\_\_\_\_

#### **TML Timeline**

TML1. On what date will/did data collection begin?  
 (First day interviewers are authorised to make contact attempts/conduct interviews.) 25 / 8 / 2011  
(DD/MM/YYYY)

TML2. On what date will/did data collection end?  
 (Last day interviewers are authorised to make contact attempts/conduct interviews.) 31 / 3 / 2011  
(DD/MM/YYYY)

TML3. On what date will/did interviewer training begin?  
 (Date of first day of first training session held.) 18 / 08 / 2011  
(DD/MM/YYYY)

TML4. On what date will/did interviewer training end?  
 (Date of last day of last training session held.) 23 / 8 / 2011  
(DD/MM/YYYY)



**STF Staff Hiring and Management**

STF1. What recruitment sources will your country use/has your country used to find interviewers? (S 8.4.1)

[SELECT ALL THAT APPLY]

- Files of people currently working for the survey institute
- Files of people who previously worked for the survey institute
- Job posting on the survey institute's website
- Recommendations from experienced supervisory staff employed by the survey institute
- Local organisations such as community/senior centres and libraries
- Newspaper advertisements
- Other (specify)

Employment website, state and local employment offices.

STF2. Complete the table below with information about the status of your country's staff. Fill out each box. Enter 'n/a' if not applicable. Enter 'dk' if not currently known. (S 8.3.3)

Staff	Interviewers	Supervisors (or equivalent)	Field Managers (or equivalent)	Field Director (or equivalent)
Target number to recruit/hire/assign to PIAAC	191.00	11.00	2.00	1.00
Total number ever recruited/hired/assigned to PIAAC	192.00	11.00	2.00	1.00

STF3. Is interviewer attrition taken into account in the target number of interviewers reported in question STF2? (S 8.3.1)

- Yes [**SKIP TO STF5**]
- No

STF4. By how much does your country plan to overhire/did your country overhire to compensate for interviewer attrition? Please select the appropriate box to indicate whether a number or percent was entered. Enter a '0' if there is no plan to overhire. (S 8.3.1)

ENTER NUMBER OR PERCENT 30.00

- Number
- Percent

STF5. How many hours per week will interviewers work/have interviewers been working on PIAAC?

ENTER NUMBER \_\_\_\_\_

**OR**

ENTER RANGE 25.00 to 40.00

STF6. How many interviewers will be assigned/were assigned to each supervisor? (S 8.1.1)

ENTER NUMBER \_\_\_\_\_

**OR**

ENTER RANGE 16.00 to 20.00

STF7. How many supervisors will be assigned/were assigned to each field manager? (S.8.1.1)

ENTER NUMBER 5.00

**OR**

ENTER RANGE \_\_\_\_\_ to \_\_\_\_\_

STF8. How many cases will be assigned/were assigned to each interviewer for their initial assignment? (S 8.3.4)

ENTER NUMBER \_\_\_\_\_

**OR**

ENTER RANGE 10.00 to 20.00

STF9. How will interviewers be/have interviewers been paid? (S 8.3.5)

Piece rate

Hourly wage

Salary

Other (specify)

STF10. Will a bonus be/has a bonus been offered to interviewers who reach a certain threshold of productivity?

Yes

No **[SKIP TO STF12]**

STF11. Briefly describe the nature of this bonus.

Incentive bonus plan based on the number of completes. Interviewers who complete a minimum number of interviews are eligible. The more completes an interviewer gets, the higher the bonus amount paid per complete to that interviewer. Also lottery with cash prizes.

STF12. Which methods will your country use/has your country used for communication between the home office and field staff, including field managers, supervisors, and interviewers? (S 8.1.2/8.2.1)

[SELECT ALL THAT APPLY]

- Email
- Telephone
- In-person meetings
- Paper or electronic newsletters
- Other (specify)

STF13. How often will your country have/has your country had scheduled communications between interviewers and supervisors? (S 8.1.2/8.2.1)

[SELECT ALL THAT APPLY]

- As needed
- Bi-weekly
- Weekly
- Monthly
- Never
- Other (specify)

**[SKIP TO FDW1 IF DATA COLLECTION HAS NOT STARTED]**

STF14. Complete the table below with information about the status of your country's interviewing staff. (S 8.3.3)

Interviewing Staff	Number
Total number ever recruited/hired/assigned to PIAAC (from STF2)	192.00
Total number of interviewers who attended training	192.00
Total number of interviewers who received assignments	189.00
↳ Number of interviewers currently working on the study	95.00
↳ Number of interviewers no longer working on the study	94.00

STF15. According to the information provided in question STF14, the percentage of interviewer attrition to date in your country is 49.735449%. (S 8.3.3) In order to be routed to the next relevant question, please check the appropriate answer:

- Attrition is equal to '0' **[SKIP TO STF17]**
- Attrition is greater than '0'

STF16. What are some of the causes of interviewer attrition on PIAAC? (S 8.3.1)

[SELECT ALL THAT APPLY]

- Quit
- Laid off
- Fired because of poor production
- Fired because of quality control issues
- Other (specify)

STF17. Has your country trained additional interviewers as a result of interviewer attrition or insufficient initial staffing? (S 9.8.1)

- Yes
- No [**SKIP TO STF20**]

STF18. Has your country submitted an Interviewer Training Form for the additional interviewer training session(s) held?

- Yes, for each additional sessions
- Yes, for some sessions only
- No

STF19. How many interviewers were trained at the additional interviewer training session(s)? (S 9.8.1)

*Note: Please make sure you report these interviewers in questions STF2 and STF14 as well.*

ENTER NUMBER 6.00

STF20. Have there been any geographical areas without local interviewers due to attrition? (S 8.3.1)

- Yes
- No [**SKIP TO FDW1**]

STF21. What measures has your country taken to cover unstaffed geographical areas due to attrition? (S 8.3.1)

[SELECT ALL THAT APPLY]

- Reassigned interviewers from nearby geographical areas
- Trained additional interviewers
- Hired additional interviewers
- Other (specify)

Traveled interviewers.

**FDW FIELDWORK**

FDW1. Which outreach materials will your country use/has your country used? (S 10.2.1)

[SELECT ALL THAT APPLY]

- Introductory letter
- Brochure
- Endorsement letters
- Newspaper articles
- Television advertising
- Radio advertising
- Press release
- Other (specify)

Refrigerator magnet, tailored flyers, pens

FDW2. Will/does your country have its own study-specific website or webpage? (S 10.2.1)

- Yes
- No

FDW3. Will/does your country have a study toll-free respondent help line? (S 10.2.1)

- Yes
- No **[SKIP TO FDW6]**

FDW4. What will be/what are the hours of operation of the help line? (S 10.2.1)

9:00 to 17:00 Monday through Friday.

FDW5. How many calls have been received by the toll-free respondent help line? (S 10.2.1)

ENTER NUMBER 146.00

FDW6. Will your country/has your country obtained endorsement letters for the study? (S.10.2.1)

- Yes
- No **[SKIP TO FDW8]**

FDW7. Please list the organisations or individuals from whom your country has obtained endorsement letters. (S 10.2.1)

Tom Brokaw, former television news anchor, and leaders in education.

FDW8. Will a respondent incentive be used/has a respondent incentive been used?  
(S 4.8.1/10.5.1)

- Yes  
 No **[SKIP TO FDW10]**

FDW9. What type of respondent incentive will be used/has been used? (S 4.8.1/10.5.1)

[SELECT ALL THAT APPLY]

- Monetary (Amount 50 USD)  
 Nonmonetary (Description refrigerator magnet, pen)

FDW10. Will your country conduct/has your country conducted initial contact with households/ respondents in-person? (S 10.3.1)

- Yes  
 No

FDW11. Will your country conduct/has your country conducted initial contact with households/ respondents via telephone? (S 10.3.1)

- Yes  
 No

FDW12. What is the minimum number of subsequent in-person contact attempts interviewers will be/are/were required to make before a case is coded a non-contact? (S 10.3.2)

4.00

FDW13. What is the minimum number of subsequent telephone contact attempts interviewers will be/are/were required to make before a case is coded a non-contact? (S 10.3.3)

0.00

FDW14. Which of the following data items will/does/did your country collect for each contact attempt? (S 10.3.6)

[SELECT ALL THAT APPLY]

- Day  
 Date  
 Time  
 Contact mode  
 Outcome  
 Comments  
 Other (specify)

Interviewer ID

FDW15. Will/has the contact information be/been collected in a paper format, through an automated component of the field management system or both? (S 10.3.6)

- Paper format
- Automated component of field management system
- Both

FDW16. What information will/does/did your country collect on non-interview/nonresponse cases? (S 10.3.7)

[SELECT ALL THAT APPLY]

- Demographic data on person who refused
- Strength of refusal
- Problems encountered
- Likelihood of conversion
- Comments
- Other (specify)

Name and phone number of a contact person

FDW17. Will/has the non-interview information be/been collected in a paper format, through an automated component of the field management system, or both? (S 10.3.7)

- Paper format
- Automated component of field management system
- Both

FDW18. What strategies will your country use/has your country used for dealing with nonresponse and maximising response rates? (S 10.5.2/10.5.3)

[SELECT ALL THAT APPLY]

- Reassignment to other local interviewer(s)
- Follow-up by senior interviewers (or equivalent)
- Follow-up by supervisors (or equivalent)
- Reassignment to experienced/specially trained travelling interviewers
- Tailored letters (apartment managers, locked buildings, refusal conversion, refusals, unco-operative respondent)
- Refusal conversion letters mailed to households via priority or registered mail
- Refusal conversion letters mailed to households via regular mail
- Other (specify)

Tailored flyers

**[SKIP TO SMS1 IF DATA COLLECTION HAS NOT STARTED]**

FDW19. What have been the three most common reasons for refusals to the BQ? (S 10.3.7)

[SELECT UP TO THREE]

- Not interested in the study or in surveys
- Too busy
- Too long
- Don't want to be bothered or involved
- Waste of time and money
- Dislike government
- Don't trust surveys
- Other (specify)

FDW20. What have been the three most common reasons for refusals to the Core/Exercise? (S 10.3.7)

[SELECT UP TO THREE]

- Not interested in the study or in surveys
- Too busy
- Too long
- Don't want to be bothered or involved
- Waste of time and money
- Dislike government
- Don't trust surveys
- Don't want to answer exercises
- Too complicated
- Other (specify)

## **SMS Survey Field Management System**

SMS1. Indicate which functionality the field management system will be/is able to support. (S 10.6.2)

[SELECT ALL THAT APPLY]

- Case assignment to interviewers
- Case transfer/reassignment among interviewers
- Case reset to prior state
- Removal of data from the laptop computer
- Production of management reports
- Documentation of contact attempts
- Tracking interviewers' time and expense data
- Other (specify)



SMS2. Indicate the information contained in the field management system. (S 10.6.3)

[SELECT ALL THAT APPLY]

- Case ID
- Geographic area
- Dwelling unit address
- Case-level status and disposition code
- Task-level status and disposition code
- Date the interview was finalised or status date
- Task type (interview component)
- Interviewer name/ID
- Validation status
- Language of administration
- Assignment date and type (original vs. transfer)
- Date and time of inbound and outbound data transmissions
- ID number of paper direct assessment booklets
- Status of paper direct assessment booklets
- Date the paper materials were returned to the survey institute
- Other (specify)

SMS3. Has the survey control file been developed? (S 10.6.5)

- Yes
- No

**[SKIP TO QCF1 IF DATA COLLECTION HAS NOT STARTED]**

## **PRD Production and Response Rates**

The following questions ask about the number of finalised (closed out) cases recorded for each disposition code in each module. Please report these numbers conditionally so that the total number of cases for each module sums up to the number of cases that have completed the previous module.

PRD1. If applicable, indicate the number of finalised Screeners to date for each of the disposition codes below. (*S 10.7.1*)

<b>Description</b>	<b>Code</b>	<b>Number of Screeners</b>
Complete – 1 sample person selected	01	4,468.00
Complete – 2 sample persons selected	02	376.00
Partial complete/break-off	03	0.00
Refusal – household member	04	491.00
Refusal – gatekeeper	05	18.00
Language problem	07	82.00
Learning/mental disability	09	6.00
Hearing impairment	12	0.00
Blindness/visual impairment	13	0.00
Speech impairment	14	0.00
Physical disability	15	0.00
Other disability	16	0.00
Other (unspecified), such as sickness or unusual circumstances	17	21.00
Complete – no eligible sample persons	19	1,076.00
Unable to locate dwelling unit	20	40.00
Maximum number of calls	21	13.00
Dwelling unit under construction	22	15.00
Temporarily absent/unavailable during field period	24	28.00
Vacant dwelling unit	26	915.00
Duplication – already interviewed	27	0.00
Address not a dwelling unit	28	174.00
<b>Total</b>		<b>7,723.00</b>

PRD2. Indicate the number of finalised Case Initialisations (CI) to date for each of the disposition codes below. (S 10.7.1)

Description	Code	Number of CIs
Complete	01	4,122.00
Partial complete/break-off	03	1.00
Refusal – sample person	04	158.00
Refusal – other	05	7.00
Language problem	07	43.00
Reading and writing difficulty	08	0.00
Learning/mental disability	09	28.00
Hearing impairment	12	1.00
Blindness/visual impairment	13	1.00
Speech impairment	14	0.00
Physical disability	15	1.00
Other disability	16	3.00
Other (unspecified), such as sickness or unusual circumstances	17	26.00
Death	18	0.00
Maximum number of calls	21	1.00
Temporarily absent/unavailable during field period	24	44.00
Ineligible (specify)	25	1.00
Duplication – already interviewed	27	0.00
Technical Problem	90	40.00
<b>Total</b>		<b>4,477.00</b>

PRD3. Indicate the number of finalised Background Questionnaires (BQ) to date for each of the disposition codes below. (S 10.7.1)

Description	Code	Number of BQs
Complete	01	4,122.00
Partial complete/break-off	03	1.00
Refusal – sample person	04	158.00
Refusal – other	05	7.00
Language problem	07	43.00
Reading and writing difficulty	08	0.00
Learning/mental disability	09	28.00
Hearing impairment	12	1.00
Blindness/visual impairment	13	1.00
Speech impairment	14	0.00
Physical disability	15	1.00
Other disability	16	3.00
Other (unspecified), such as sickness or unusual circumstances	17	26.00
Death	18	0.00
Maximum number of calls	21	1.00
Temporarily absent/unavailable during field period	24	44.00
Ineligible (specify)	25	1.00
Duplication – already interviewed	27	0.00
Technical Problem	90	40.00
<b>Total</b>		<b>4,477.00</b>

PRD4. Indicate the number of finalised Exercises to date for each of the disposition codes below. (S 10.7.1)

Description	Code	Number of Exercises
Complete	01	3,877.00
Partial complete/break-off	03	9.00
Refusal – sample person	04	29.00
Refusal – other	05	0.00
Language problem	07	29.00
Reading and writing difficulty	08	0.00
Learning/mental disability	09	5.00
Hearing impairment	12	0.00
Blindness/visual impairment	13	1.00
Speech impairment	14	0.00
Physical disability	15	1.00
Other disability	16	0.00
Other (unspecified), such as sickness or unusual circumstances	17	24.00
Death	18	0.00
Maximum number of calls	21	1.00
Temporarily absent/unavailable during field period	24	5.00
Duplication – already interviewed	27	0.00
Technical Problem	90	40.00
Missing Paper Booklet	91	0.00
<b>Total</b>		<b>4,021.00</b>

PRD5. Enter the information on the target response rates and number of completes. (S 4.7.1)

*Note: A toolkit is available on the SharePoint site to compute the Actual Weighted Response Rates. You may use the simplified or standard response rate formula. The 'Target' columns refer to your "best estimate," not the theoretical maximum that could be reached. (e.g., 100% for RR)*

Component	Weighted Response Rates (%)		Number of Completes	
	Actual	Target	Actual	Target
Screener (if applicable)	68.20	86.70	5,920.00	6,010.00
CI & BQ (combined)	80.50	80.00	4,122.00	5,097.00
Exercise	99.00	98.10	3,877.00	5,000.00

PRD6. What is the minimum, maximum, and mean number of completed interviews per interviewer to date? (S 8.3.4)

Minimum: 1.00      Maximum: 82.00      Mean: 23.10

## **QCF Quality Control of Fieldwork**

QCF1. Will interviews be/have interviews been monitored? (S 10.9.2)

- Yes  
 No [**SKIP TO QCF4**]

QCF2. What methods will be used/have been used to monitor interviews? (S 10.9.2)

[SELECT ALL THAT APPLY]

- Audio recording of full interviews  
 Audio recording of parts/snippets of interviews  
 In-person observation  
 Other (specify)

--

QCF3. Indicate for how many cases your country has completed the following interview monitoring procedures. (S 10.9.2)

	Number of Cases
Audio recorded full interviews	295.00
Audio recorded parts/snippets of interviews	
In-person observation	
Other (specify)	

QCF4. Will the work of interviewers be/has the work of interviewers been validated through back-checks? (S 10.9.2)

- Yes  
 No **[SKIP TO QCF15]**

QCF5. Indicate which types of cases will be/have been validated and the mode used. (S 10.9.3)

[CHECK ALL APPROPRIATE BOXES]

Dispositions	In-person	Telephone	Mail
Completes	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Refusals	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ineligibles	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Non-contacts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

QCF6. Will validation cases be/have validation cases been selected at random? (S 10.9.3A)

- Yes, all cases  
 Yes, most cases  
 Yes, some cases  
 No

QCF7. Will your country use/has your country used the validation form proposed by the Consortium?

- Yes, it was used as-is
- Yes, it was used with adaptations
- No

QCF8. Who will be conducting/has conducted the validations? (S 10.9.2/10.9.3)

[SELECT ALL THAT APPLY]

- Supervisors (or equivalent)
- Field managers (or equivalent)
- Senior interviewers (or equivalent)
- Project staff
- Other (specify)

Survey Institute Telephone Center staff.

**[SKIP TO QCF15 IF DATA COLLECTION HAS NOT STARTED]**

QCF9. Has the 10 percent validation threshold been reached for each interviewer who received assignments?

- Yes **[SKIP TO QCF12]**
- No

QCF10. Among interviewers who received assignments, how many have had ...

... at least 10% of their finalised cases validated?      ENTER NUMBER \_\_\_\_\_

... at least 7% of their finalised cases validated?      ENTER NUMBER \_\_\_\_\_

QCF11. Briefly describe why your country has not validated 10 percent of each interviewer’s cases finalised to date. (S 10.9.3)

QCF12. Indicate for how many cases your country has conducted validation. (S 10.9.2)

	<b>Number of Cases</b>
Validation in person	71.00
Validation by telephone	1,110.00
Validation by mail	44.00
Other (specify)	

QCF13. Has your country detected any falsification? (S 10.9.4)

- Yes  
 No **[SKIP TO QCF15]**

QCF14. Please explain the falsification found and indicate the number of interviewers and the percent/number of cases impacted. Please also indicate what was done/will be done with the falsified case(s). (S 10.9.4)

Two instances of falsification have been found since the previous report. A total of seven falsifiers have been found since the start of data collection.

Of the most recent two, the first interviewer closed out two cases as vacant when they were occupied, the cases were transferred to another interviewer. The second interviewer conducted screeners at the wrong address on at least two occasions, those cases were cleared out and re-fielded.

Of the falsification previously reported, one interviewer routinely underreported the number of household members to make sure that the person she wanted to be selected for the interview would be. We removed the cases where the interview was conducted with an SP who should not have been selected from the data.

Another interviewer completed a BQ over the telephone. The case was removed from the data.

Another interviewer made up data for a number of households, discovered due to abnormally short BQ administration times. She also seems to have completed the Exercise herself on occasion, according to SPs who were called for validation. Cases were reset and reassigned.

Two interviewers intentionally conducted the Exercise with someone other than the SP selected by the screener.

QCF15. Will your country develop/has your country developed management reports to detect falsification? (S 10.9.6)

- Yes  
 No **[SKIP TO QCF17]**

QCF16. Indicate which management reports will be used/have been used to detect falsification. (S 10.9.6)

[SELECT ALL THAT APPLY]

- Overall interview administration length  
 Individual instrument administration length  
 Amount of time between interviews  
 Interviews conducted very early in the morning or late in the evening  
 Number of interviews conducted per day  
 Other (specify)

QCF17. What procedures will be used/have been used for reviewing electronic survey data?  
(S 10.9.9)

[SELECT ALL THAT APPLY]

- Review of data frequencies
- Review and suppression of edits
- Review of "other-specify" responses
- Review of open ended responses
- Review of missing data rates (i.e., refusals, don't knows)
- Other (specify)

QCF18. Who will review/has reviewed completed paper case materials? (S 10.9.8)

[SELECT ALL THAT APPLY]

- Interviewers
- Supervisors
- Home office staff upon receipt
- Other (specify)

### **ETH Ethics/Confidentiality**

ETH1. Did your country submit its research plan to the appropriate institutional review board(s) and/or ethics committee(s) for approval? (S 2.1)

- Yes
- No **[SKIP TO ETH3]**
- Not required in our country **[SKIP TO ETH3]**

ETH2. Has approval been granted by the appropriate institutional review board(s) and/or ethics committee(s) on the research plan? (S 2.1)

- Yes
- No

ETH3. Will all of your country's staff be trained/was all of your country's staff trained on the importance of ethics and scientific rigour in research involving human subjects? (S 2.1)

- Yes
- No



ETH4. Which confidentiality forms will all of your country's study staff sign/did all of your country's study staff sign? (S 2.2)

[SELECT ALL THAT APPLY]

- PIAAC confidentiality form
- Country-specific form
- Other (specify)

ETH5. What measures will your country use/has your country been using to maintain the security of the data stored in interviewers' laptop computer? (S 2.2)

[SELECT ALL THAT APPLY]

- Data encryption
- Password protection
- Keeping all password lists in a separate location from the laptop computer
- Securely storing the laptop computer when not in use
- Other (specify)

Interviewers are not authorized to use their laptop for anything other than PIAAC-related work.

**[SKIP TO END IF DATA COLLECTION HAS NOT STARTED]**

ETH6. Have there been any problems with data confidentiality? (S 2.2)

- Yes
- No **[SKIP TO ETH8]**

ETH7. Please explain problems with data confidentiality. (S 2.2)

ETH8. Have any interviewer laptops been lost or stolen? (S 2.2)

- Yes
- No **[SKIP TO END]**

ETH9. How many laptops have been lost or stolen? (S 2.2)

\_\_\_\_\_

ETH10. What measures were taken when a laptop was lost or stolen? (S 2.2)

[SELECT ALL THAT APPLY]

- Reported incident to the Consortium
- Filed a report with the local authorities
- Instructed supervisors to thoroughly investigate the matter
- Other (specify)

--

**END OF FORM**

**Comments**

Information on this form is as of 14/12/2011.

# PIAAC MAIN STUDY

## DATA COLLECTION

### SURVEY OPERATIONS QUALITY CONTROL FORM

#### Instructions

- Enter and edit information on the form using Adobe Acrobat Reader.
- To prevent losing entries, use the "save" feature regularly.
- It is important that the filename incorporates the name of your country, the title of the form, as well as the date the form was filled out.
- Do not use the "comment" function in Adobe Acrobat to add details. Additional space to do so is provided on the last page of this form. If your comments refer to a specific question, please write the question number.
- Answer all applicable questions on the form.
- Please do not submit your country's quality control forms via email.

Country: United States Date: 21 / 7 / 2011  
(DD/MM/YYYY)

Is this a revised submission?  Yes **[PLEASE UPDATE DATE]** \_\_\_\_\_ ↑  
 No

Completed by: Lillian Diaz-Hoffmann Title: Study Manager  
 Completed by: \_\_\_\_\_ Title: \_\_\_\_\_  
 Completed by: \_\_\_\_\_ Title: \_\_\_\_\_

#### **TML Timeline**

TML1. On what date will/did data collection begin?  
 (First day interviewers are authorised to make contact attempts/conduct interviews.) 25 / 8 / 2011  
(DD/MM/YYYY)

TML2. On what date will/did data collection end?  
 (Last day interviewers are authorised to make contact attempts/conduct interviews.) 31 / 3 / 2011  
(DD/MM/YYYY)

TML3. On what date will/did interviewer training begin?  
 (Date of first day of first training session held.) 18 / 08 / 2011  
(DD/MM/YYYY)

TML4. On what date will/did interviewer training end?  
 (Date of last day of last training session held.) 23 / 8 / 2011  
(DD/MM/YYYY)

**STF Staff Hiring and Management**

STF1. What recruitment sources will your country use/has your country used to find interviewers? (S 8.4.1)

[SELECT ALL THAT APPLY]

- Files of people currently working for the survey institute
- Files of people who previously worked for the survey institute
- Job posting on the survey institute's website
- Recommendations from experienced supervisory staff employed by the survey institute
- Local organisations such as community/senior centres and libraries
- Newspaper advertisements
- Other (specify)

Employment website, state and local employment offices.

STF2. Complete the table below with information about the status of your country's staff. Fill out each box. Enter 'n/a' if not applicable. Enter 'dk' if not currently known. (S 8.3.3)

Staff	Interviewers	Supervisors (or equivalent)	Field Managers (or equivalent)	Field Director (or equivalent)
Target number to recruit/hire/assign to PIAAC	191.00	11.00	2.00	1.00
Total number ever recruited/hired/assigned to PIAAC	184.00	11.00	2.00	1.00

STF3. Is interviewer attrition taken into account in the target number of interviewers reported in question STF2? (S 8.3.1)

- Yes [**SKIP TO STF5**]
- No

STF4. By how much does your country plan to overhire/did your country overhire to compensate for interviewer attrition? Please select the appropriate box to indicate whether a number or percent was entered. Enter a '0' if there is no plan to overhire. (S 8.3.1)

ENTER NUMBER OR PERCENT 30.00

- Number
- Percent

STF5. How many hours per week will interviewers work/have interviewers been working on PIAAC?

ENTER NUMBER \_\_\_\_\_

**OR**

ENTER RANGE 25.00 to 40.00

STF6. How many interviewers will be assigned/were assigned to each supervisor? (S 8.1.1)

ENTER NUMBER \_\_\_\_\_

**OR**

ENTER RANGE 16.00 to 19.00

STF7. How many supervisors will be assigned/were assigned to each field manager? (S.8.1.1)

ENTER NUMBER \_\_\_\_\_

**OR**

ENTER RANGE 5.00 to 6.00

STF8. How many cases will be assigned/were assigned to each interviewer for their initial assignment? (S 8.3.4)

ENTER NUMBER \_\_\_\_\_

**OR**

ENTER RANGE 10.00 to 20.00

STF9. How will interviewers be/have interviewers been paid? (S 8.3.5)

Piece rate

Hourly wage

Salary

Other (specify)

STF10. Will a bonus be/has a bonus been offered to interviewers who reach a certain threshold of productivity?

Yes

No **[SKIP TO STF12]**

STF11. Briefly describe the nature of this bonus.

Incentive bonus plan based on the number of completes. Interviewers who complete a minimum number of interviews are eligible. The more completes an interviewer gets, the higher the bonus amount paid per complete to that interviewer. Also lottery with cash prizes.

STF12. Which methods will your country use/has your country used for communication between the home office and field staff, including field managers, supervisors, and interviewers? (S 8.1.2/8.2.1)

[SELECT ALL THAT APPLY]

- Email
- Telephone
- In-person meetings
- Paper or electronic newsletters
- Other (specify)

STF13. How often will your country have/has your country had scheduled communications between interviewers and supervisors? (S 8.1.2/8.2.1)

[SELECT ALL THAT APPLY]

- As needed
- Bi-weekly
- Weekly
- Monthly
- Never
- Other (specify)

**[SKIP TO FDW1 IF DATA COLLECTION HAS NOT STARTED]**

STF14. Complete the table below with information about the status of your country’s interviewing staff. (S 8.3.3)

Interviewing Staff	Number
Total number ever recruited/hired/assigned to PIAAC (from STF2)	184.00
Total number of interviewers who attended training	
Total number of interviewers who received assignments	
↳ Number of interviewers currently working on the study	
↳ Number of interviewers no longer working on the study	

STF15. According to the information provided in question STF14, the percentage of interviewer attrition to date in your country is NaN%. (S 8.3.3) In order to be routed to the next relevant question, please check the appropriate answer:

- Attrition is equal to '0' **[SKIP TO STF17]**
- Attrition is greater than '0'

STF16. What are some of the causes of interviewer attrition on PIAAC? (S 8.3.1)

[SELECT ALL THAT APPLY]

- Quit
- Laid off
- Fired because of poor production
- Fired because of quality control issues
- Other (specify)

STF17. Has your country trained additional interviewers as a result of interviewer attrition or insufficient initial staffing? (S 9.8.1)

- Yes
- No [**SKIP TO STF20**]

STF18. Has your country submitted an Interviewer Training Form for the additional interviewer training session(s) held?

- Yes, for each additional sessions
- Yes, for some sessions only
- No

STF19. How many interviewers were trained at the additional interviewer training session(s)? (S 9.8.1)

*Note: Please make sure you report these interviewers in questions STF2 and STF14 as well.*

ENTER NUMBER \_\_\_\_\_

STF20. Have there been any geographical areas without local interviewers due to attrition? (S 8.3.1)

- Yes
- No [**SKIP TO FDW1**]

STF21. What measures has your country taken to cover unstaffed geographical areas due to attrition? (S 8.3.1)

[SELECT ALL THAT APPLY]

- Reassigned interviewers from nearby geographical areas
- Trained additional interviewers
- Hired additional interviewers
- Other (specify)



**FDW FIELDWORK**

FDW1. Which outreach materials will your country use/has your country used? (*S 10.2.1*)

[SELECT ALL THAT APPLY]

- Introductory letter
- Brochure
- Endorsement letters
- Newspaper articles
- Television advertising
- Radio advertising
- Press release
- Other (specify)

Refrigerator magnet, tailored flyers, pens

FDW2. Will/does your country have its own study-specific website or webpage? (*S 10.2.1*)

- Yes
- No

FDW3. Will/does your country have a study toll-free respondent help line? (*S 10.2.1*)

- Yes
- No [**SKIP TO FDW6**]

FDW4. What will be/what are the hours of operation of the help line? (*S 10.2.1*)

9:00 to 22:00 Monday through Friday.  
14:00 to 20:00 Saturday and Sunday.

FDW5. How many calls have been received by the toll-free respondent help line? (*S 10.2.1*)

ENTER NUMBER \_\_\_\_\_

FDW6. Will your country/has your country obtained endorsement letters for the study? (*S.10.2.1*)

- Yes
- No [**SKIP TO FDW8**]

FDW7. Please list the organisations or individuals from whom your country has obtained endorsement letters. (*S 10.2.1*)

Not finalized at this time.

FDW8. Will a respondent incentive be used/has a respondent incentive been used?  
(S 4.8.1/10.5.1)

- Yes  
 No **[SKIP TO FDW10]**

FDW9. What type of respondent incentive will be used/has been used? (S 4.8.1/10.5.1)

[SELECT ALL THAT APPLY]

- Monetary (Amount 50 USD)  
 Nonmonetary (Description refrigerator magnet, pen)

FDW10. Will your country conduct/has your country conducted initial contact with households/ respondents in-person? (S 10.3.1)

- Yes  
 No

FDW11. Will your country conduct/has your country conducted initial contact with households/ respondents via telephone? (S 10.3.1)

- Yes  
 No

FDW12. What is the minimum number of subsequent in-person contact attempts interviewers will be/are/were required to make before a case is coded a non-contact? (S 10.3.2)

4.00

FDW13. What is the minimum number of subsequent telephone contact attempts interviewers will be/are/were required to make before a case is coded a non-contact? (S 10.3.3)

0.00

FDW14. Which of the following data items will/does/did your country collect for each contact attempt? (S 10.3.6)

[SELECT ALL THAT APPLY]

- Day  
 Date  
 Time  
 Contact mode  
 Outcome  
 Comments  
 Other (specify)

Interviewer ID

FDW15. Will/has the contact information be/been collected in a paper format, through an automated component of the field management system or both? (S 10.3.6)

- Paper format
- Automated component of field management system
- Both

FDW16. What information will/does/did your country collect on non-interview/nonresponse cases? (S 10.3.7)

[SELECT ALL THAT APPLY]

- Demographic data on person who refused
- Strength of refusal
- Problems encountered
- Likelihood of conversion
- Comments
- Other (specify)

Name and phone number of a contact person

FDW17. Will/has the non-interview information be/been collected in a paper format, through an automated component of the field management system, or both? (S 10.3.7)

- Paper format
- Automated component of field management system
- Both

FDW18. What strategies will your country use/has your country used for dealing with nonresponse and maximising response rates? (S 10.5.2/10.5.3)

[SELECT ALL THAT APPLY]

- Reassignment to other local interviewer(s)
- Follow-up by senior interviewers (or equivalent)
- Follow-up by supervisors (or equivalent)
- Reassignment to experienced/specially trained travelling interviewers
- Tailored letters (apartment managers, locked buildings, refusal conversion, refusals, unco-operative respondent)
- Refusal conversion letters mailed to households via priority or registered mail
- Refusal conversion letters mailed to households via regular mail
- Other (specify)

Tailored flyers

**[SKIP TO SMS1 IF DATA COLLECTION HAS NOT STARTED]**

FDW19. What have been the three most common reasons for refusals to the BQ? (S 10.3.7)

[SELECT UP TO THREE]

- Not interested in the study or in surveys
- Too busy
- Too long
- Don't want to be bothered or involved
- Waste of time and money
- Dislike government
- Don't trust surveys
- Other (specify)

FDW20. What have been the three most common reasons for refusals to the Core/Exercise? (S 10.3.7)

[SELECT UP TO THREE]

- Not interested in the study or in surveys
- Too busy
- Too long
- Don't want to be bothered or involved
- Waste of time and money
- Dislike government
- Don't trust surveys
- Don't want to answer exercises
- Too complicated
- Other (specify)

## **SMS Survey Field Management System**

SMS1. Indicate which functionality the field management system will be/is able to support. (S 10.6.2)

[SELECT ALL THAT APPLY]

- Case assignment to interviewers
- Case transfer/reassignment among interviewers
- Case reset to prior state
- Removal of data from the laptop computer
- Production of management reports
- Documentation of contact attempts
- Tracking interviewers' time and expense data
- Other (specify)

SMS2. Indicate the information contained in the field management system. (S 10.6.3)

[SELECT ALL THAT APPLY]

- Case ID
- Geographic area
- Dwelling unit address
- Case-level status and disposition code
- Task-level status and disposition code
- Date the interview was finalised or status date
- Task type (interview component)
- Interviewer name/ID
- Validation status
- Language of administration
- Assignment date and type (original vs. transfer)
- Date and time of inbound and outbound data transmissions
- ID number of paper direct assessment booklets
- Status of paper direct assessment booklets
- Date the paper materials were returned to the survey institute
- Other (specify)

SMS3. Has the survey control file been developed? (S 10.6.5)

- Yes
- No

**[SKIP TO QCF1 IF DATA COLLECTION HAS NOT STARTED]**

## **PRD Production and Response Rates**

The following questions ask about the number of finalised (closed out) cases recorded for each disposition code in each module. Please report these numbers conditionally so that the total number of cases for each module sums up to the number of cases that have completed the previous module.

PRD1. If applicable, indicate the number of finalised Screeners to date for each of the disposition codes below. (*S 10.7.1*)

<b>Description</b>	<b>Code</b>	<b>Number of Screeners</b>
Complete – 1 sample person selected	01	
Complete – 2 sample persons selected	02	
Partial complete/break-off	03	
Refusal – household member	04	
Refusal – gatekeeper	05	
Language problem	07	
Learning/mental disability	09	
Hearing impairment	12	
Blindness/visual impairment	13	
Speech impairment	14	
Physical disability	15	
Other disability	16	
Other (unspecified), such as sickness or unusual circumstances	17	
Complete – no eligible sample persons	19	
Unable to locate dwelling unit	20	
Maximum number of calls	21	
Dwelling unit under construction	22	
Temporarily absent/unavailable during field period	24	
Vacant dwelling unit	26	
Duplication – already interviewed	27	
Address not a dwelling unit	28	
<b>Total</b>		<b>0.00</b>

PRD2. Indicate the number of finalised Case Initialisations (CI) to date for each of the disposition codes below. (S 10.7.1)

Description	Code	Number of CIs
Complete	01	
Partial complete/break-off	03	
Refusal – sample person	04	
Refusal – other	05	
Language problem	07	
Reading and writing difficulty	08	
Learning/mental disability	09	
Hearing impairment	12	
Blindness/visual impairment	13	
Speech impairment	14	
Physical disability	15	
Other disability	16	
Other (unspecified), such as sickness or unusual circumstances	17	
Death	18	
Maximum number of calls	21	
Temporarily absent/unavailable during field period	24	
Ineligible (specify)	25	
Duplication – already interviewed	27	
Technical Problem	90	
<b>Total</b>		<b>0.00</b>

PRD3. Indicate the number of finalised Background Questionnaires (BQ) to date for each of the disposition codes below. (S 10.7.1)

Description	Code	Number of BQs
Complete	01	
Partial complete/break-off	03	
Refusal – sample person	04	
Refusal – other	05	
Language problem	07	
Reading and writing difficulty	08	
Learning/mental disability	09	
Hearing impairment	12	
Blindness/visual impairment	13	
Speech impairment	14	
Physical disability	15	
Other disability	16	
Other (unspecified), such as sickness or unusual circumstances	17	
Death	18	
Maximum number of calls	21	
Temporarily absent/unavailable during field period	24	
Ineligible (specify)	25	
Duplication – already interviewed	27	
Technical Problem	90	
<b>Total</b>		<b>0.00</b>

PRD4. Indicate the number of finalised Exercises to date for each of the disposition codes below. (S 10.7.1)

Description	Code	Number of Exercises
Complete	01	
Partial complete/break-off	03	
Refusal – sample person	04	
Refusal – other	05	
Language problem	07	
Reading and writing difficulty	08	
Learning/mental disability	09	
Hearing impairment	12	
Blindness/visual impairment	13	
Speech impairment	14	
Physical disability	15	
Other disability	16	
Other (unspecified), such as sickness or unusual circumstances	17	
Death	18	
Maximum number of calls	21	
Temporarily absent/unavailable during field period	24	
Duplication – already interviewed	27	
Technical Problem	90	
Missing Paper Booklet	91	
<b>Total</b>		0.00

PRD5. Enter the information on the target response rates and number of completes. (S 4.7.1)

*Note: A toolkit is available on the SharePoint site to compute the Actual Weighted Response Rates. You may use the simplified or standard response rate formula. The 'Target' columns refer to your "best estimate," not the theoretical maximum that could be reached. (e.g., 100% for RR)*

Component	Weighted Response Rates (%)		Number of Completes	
	Actual	Target	Actual	Target
Screener (if applicable)				
CI & BQ (combined)				
Exercise				

PRD6. What is the minimum, maximum, and mean number of completed interviews per interviewer to date? (S 8.3.4)

Minimum: \_\_\_\_\_ Maximum: \_\_\_\_\_ Mean: \_\_\_\_\_

### **QCF Quality Control of Fieldwork**

QCF1. Will interviews be/have interviews been monitored? (S 10.9.2)

- Yes  
 No [**SKIP TO QCF4**]



QCF2. What methods will be used/have been used to monitor interviews? (S 10.9.2)

[SELECT ALL THAT APPLY]

- Audio recording of full interviews  
 Audio recording of parts/snippets of interviews  
 In-person observation  
 Other (specify)

--

QCF3. Indicate for how many cases your country has completed the following interview monitoring procedures. (S 10.9.2)

	Number of Cases
Audio recorded full interviews	
Audio recorded parts/snippets of interviews	
In-person observation	
Other (specify)	

QCF4. Will the work of interviewers be/has the work of interviewers been validated through back-checks? (S 10.9.2)

- Yes  
 No **[SKIP TO QCF15]**

QCF5. Indicate which types of cases will be/have been validated and the mode used. (S 10.9.3)

[CHECK ALL APPROPRIATE BOXES]

Dispositions	In-person	Telephone	Mail
Completes	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Refusals	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ineligibles	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Non-contacts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

QCF6. Will validation cases be/have validation cases been selected at random? (S 10.9.3A)

- Yes, all cases  
 Yes, most cases  
 Yes, some cases  
 No

QCF7. Will your country use/has your country used the validation form proposed by the Consortium?

- Yes, it was used as-is
- Yes, it was used with adaptations
- No

QCF8. Who will be conducting/has conducted the validations? (S 10.9.2/10.9.3)

[SELECT ALL THAT APPLY]

- Supervisors (or equivalent)
- Field managers (or equivalent)
- Senior interviewers (or equivalent)
- Project staff
- Other (specify)

Survey Institute Telephone Center staff.

**[SKIP TO QCF15 IF DATA COLLECTION HAS NOT STARTED]**

QCF9. Has the 10 percent validation threshold been reached for each interviewer who received assignments?

- Yes **[SKIP TO QCF12]**
- No

QCF10. Among interviewers who received assignments, how many have had ...

... at least 10% of their finalised cases validated?      ENTER NUMBER \_\_\_\_\_

... at least 7% of their finalised cases validated?      ENTER NUMBER \_\_\_\_\_

QCF11. Briefly describe why your country has not validated 10 percent of each interviewer’s cases finalised to date. (S 10.9.3)

QCF12. Indicate for how many cases your country has conducted validation. (S 10.9.2)

	Number of Cases
Validation in person	
Validation by telephone	
Validation by mail	
Other (specify)	

QCF13. Has your country detected any falsification? (*S 10.9.4*)

- Yes  
 No [**SKIP TO QCF15**]

QCF14. Please explain the falsification found and indicate the number of interviewers and the percent/number of cases impacted. Please also indicate what was done/will be done with the falsified case(s). (*S 10.9.4*)

QCF15. Will your country develop/has your country developed management reports to detect falsification? (*S 10.9.6*)

- Yes  
 No [**SKIP TO QCF17**]

QCF16. Indicate which management reports will be used/have been used to detect falsification. (*S 10.9.6*)

[SELECT ALL THAT APPLY]

- Overall interview administration length  
 Individual instrument administration length  
 Amount of time between interviews  
 Interviews conducted very early in the morning or late in the evening  
 Number of interviews conducted per day  
 Other (specify)

QCF17. What procedures will be used/have been used for reviewing electronic survey data?  
(S 10.9.9)

[SELECT ALL THAT APPLY]

- Review of data frequencies
- Review and suppression of edits
- Review of "other-specify" responses
- Review of open ended responses
- Review of missing data rates (i.e., refusals, don't knows)
- Other (specify)

QCF18. Who will review/has reviewed completed paper case materials? (S 10.9.8)

[SELECT ALL THAT APPLY]

- Interviewers
- Supervisors
- Home office staff upon receipt
- Other (specify)

### **ETH Ethics/Confidentiality**

ETH1. Did your country submit its research plan to the appropriate institutional review board(s) and/or ethics committee(s) for approval? (S 2.1)

- Yes
- No **[SKIP TO ETH3]**
- Not required in our country **[SKIP TO ETH3]**

ETH2. Has approval been granted by the appropriate institutional review board(s) and/or ethics committee(s) on the research plan? (S 2.1)

- Yes
- No

ETH3. Will all of your country's staff be trained/was all of your country's staff trained on the importance of ethics and scientific rigour in research involving human subjects? (S 2.1)

- Yes
- No

ETH4. Which confidentiality forms will all of your country's study staff sign/did all of your country's study staff sign? (S 2.2)

[SELECT ALL THAT APPLY]

- PIAAC confidentiality form
- Country-specific form
- Other (specify)

ETH5. What measures will your country use/has your country been using to maintain the security of the data stored in interviewers' laptop computer? (S 2.2)

[SELECT ALL THAT APPLY]

- Data encryption
- Password protection
- Keeping all password lists in a separate location from the laptop computer
- Securely storing the laptop computer when not in use
- Other (specify)

Interviewers are not authorized to use their laptop for anything other than PIAAC-related work.

**[SKIP TO END IF DATA COLLECTION HAS NOT STARTED]**

ETH6. Have there been any problems with data confidentiality? (S 2.2)

- Yes
- No **[SKIP TO ETH8]**

ETH7. Please explain problems with data confidentiality. (S 2.2)

ETH8. Have any interviewer laptops been lost or stolen? (S 2.2)

- Yes
- No **[SKIP TO END]**

ETH9. How many laptops have been lost or stolen? (S 2.2)

\_\_\_\_\_

ETH10. What measures were taken when a laptop was lost or stolen? (S 2.2)

[SELECT ALL THAT APPLY]

- Reported incident to the Consortium
- Filed a report with the local authorities
- Instructed supervisors to thoroughly investigate the matter
- Other (specify)

**END OF FORM**

**Comments**

[Empty rectangular box for comments]

# PIAAC MAIN STUDY

## DATA COLLECTION

### SURVEY OPERATIONS QUALITY CONTROL FORM

#### Instructions

- Enter and edit information on the form using Adobe Acrobat Reader.
- To prevent losing entries, use the "save" feature regularly.
- It is important that the filename incorporates the name of your country, the title of the form, as well as the date the form was filled out.
- Do not use the "comment" function in Adobe Acrobat to add details. Additional space to do so is provided on the last page of this form. If your comments refer to a specific question, please write the question number.
- Answer all applicable questions on the form.
- Please do not submit your country's quality control forms via email.

Country: United States Date: 24 / 4 / 2012  
(DD/MM/YYYY)

Is this a revised submission?  Yes **[PLEASE UPDATE DATE]** \_\_\_\_\_ ↑  
 No

Completed by: Lillian Diaz-Hoffmann Title: Study Manager  
 Completed by: \_\_\_\_\_ Title: \_\_\_\_\_  
 Completed by: \_\_\_\_\_ Title: \_\_\_\_\_

#### **TML Timeline**

TML1. On what date will/did data collection begin?  
 (First day interviewers are authorised to make contact attempts/conduct interviews.) 25 / 8 / 2011  
(DD/MM/YYYY)

TML2. On what date will/did data collection end?  
 (Last day interviewers are authorised to make contact attempts/conduct interviews.) 3 / 4 / 2011  
(DD/MM/YYYY)

TML3. On what date will/did interviewer training begin?  
 (Date of first day of first training session held.) 18 / 08 / 2011  
(DD/MM/YYYY)

TML4. On what date will/did interviewer training end?  
 (Date of last day of last training session held.) 23 / 8 / 2011  
(DD/MM/YYYY)



**STF Staff Hiring and Management**

STF1. What recruitment sources will your country use/has your country used to find interviewers? (S 8.4.1)

[SELECT ALL THAT APPLY]

- Files of people currently working for the survey institute
- Files of people who previously worked for the survey institute
- Job posting on the survey institute's website
- Recommendations from experienced supervisory staff employed by the survey institute
- Local organisations such as community/senior centres and libraries
- Newspaper advertisements
- Other (specify)

Employment website, state and local employment offices.

STF2. Complete the table below with information about the status of your country's staff. Fill out each box. Enter 'n/a' if not applicable. Enter 'dk' if not currently known. (S 8.3.3)

Staff	Interviewers	Supervisors (or equivalent)	Field Managers (or equivalent)	Field Director (or equivalent)
Target number to recruit/hire/assign to PIAAC	191.00	11.00	2.00	1.00
Total number ever recruited/hired/assigned to PIAAC	195.00	11.00	2.00	1.00

STF3. Is interviewer attrition taken into account in the target number of interviewers reported in question STF2? (S 8.3.1)

- Yes [**SKIP TO STF5**]
- No

STF4. By how much does your country plan to overhire/did your country overhire to compensate for interviewer attrition? Please select the appropriate box to indicate whether a number or percent was entered. Enter a '0' if there is no plan to overhire. (S 8.3.1)

ENTER NUMBER OR PERCENT 30.00

- Number
- Percent

STF5. How many hours per week will interviewers work/have interviewers been working on PIAAC?

ENTER NUMBER \_\_\_\_\_

**OR**

ENTER RANGE 25.00 to 40.00

STF6. How many interviewers will be assigned/were assigned to each supervisor? (S 8.1.1)

ENTER NUMBER \_\_\_\_\_

**OR**

ENTER RANGE 16.00 to 20.00

STF7. How many supervisors will be assigned/were assigned to each field manager? (S.8.1.1)

ENTER NUMBER 5.00

**OR**

ENTER RANGE \_\_\_\_\_ to \_\_\_\_\_

STF8. How many cases will be assigned/were assigned to each interviewer for their initial assignment? (S 8.3.4)

ENTER NUMBER \_\_\_\_\_

**OR**

ENTER RANGE 10.00 to 20.00

STF9. How will interviewers be/have interviewers been paid? (S 8.3.5)

Piece rate

Hourly wage

Salary

Other (specify)

STF10. Will a bonus be/has a bonus been offered to interviewers who reach a certain threshold of productivity?

Yes

No **[SKIP TO STF12]**

STF11. Briefly describe the nature of this bonus.

Incentive bonus plan based on the number of completes. Interviewers who complete a minimum number of interviews are eligible. The more completes an interviewer gets, the higher the bonus amount paid per complete to that interviewer. Also lottery with cash prizes.

STF12. Which methods will your country use/has your country used for communication between the home office and field staff, including field managers, supervisors, and interviewers? (S 8.1.2/8.2.1)

[SELECT ALL THAT APPLY]

- Email
- Telephone
- In-person meetings
- Paper or electronic newsletters
- Other (specify)

STF13. How often will your country have/has your country had scheduled communications between interviewers and supervisors? (S 8.1.2/8.2.1)

[SELECT ALL THAT APPLY]

- As needed
- Bi-weekly
- Weekly
- Monthly
- Never
- Other (specify)

**[SKIP TO FDW1 IF DATA COLLECTION HAS NOT STARTED]**

STF14. Complete the table below with information about the status of your country's interviewing staff. (S 8.3.3)

Interviewing Staff	Number
Total number ever recruited/hired/assigned to PIAAC (from STF2)	195.00
Total number of interviewers who attended training	195.00
Total number of interviewers who received assignments	192.00
↳ Number of interviewers currently working on the study	0.00
↳ Number of interviewers no longer working on the study	195.00

STF15. According to the information provided in question STF14, the percentage of interviewer attrition to date in your country is 101.5625%. (S 8.3.3) In order to be routed to the next relevant question, please check the appropriate answer:

- Attrition is equal to '0' **[SKIP TO STF17]**
- Attrition is greater than '0'

STF16. What are some of the causes of interviewer attrition on PIAAC? (S 8.3.1)

[SELECT ALL THAT APPLY]

- Quit
- Laid off
- Fired because of poor production
- Fired because of quality control issues
- Other (specify)

STF17. Has your country trained additional interviewers as a result of interviewer attrition or insufficient initial staffing? (S 9.8.1)

- Yes
- No [**SKIP TO STF20**]

STF18. Has your country submitted an Interviewer Training Form for the additional interviewer training session(s) held?

- Yes, for each additional sessions
- Yes, for some sessions only
- No

STF19. How many interviewers were trained at the additional interviewer training session(s)? (S 9.8.1)

*Note: Please make sure you report these interviewers in questions STF2 and STF14 as well.*

ENTER NUMBER 9.00

STF20. Have there been any geographical areas without local interviewers due to attrition? (S 8.3.1)

- Yes
- No [**SKIP TO FDW1**]

STF21. What measures has your country taken to cover unstaffed geographical areas due to attrition? (S 8.3.1)

[SELECT ALL THAT APPLY]

- Reassigned interviewers from nearby geographical areas
- Trained additional interviewers
- Hired additional interviewers
- Other (specify)

**FDW FIELDWORK**

FDW1. Which outreach materials will your country use/has your country used? (S 10.2.1)

[SELECT ALL THAT APPLY]

- Introductory letter
- Brochure
- Endorsement letters
- Newspaper articles
- Television advertising
- Radio advertising
- Press release
- Other (specify)

Refrigerator magnet, tailored flyers, pens

FDW2. Will/does your country have its own study-specific website or webpage? (S 10.2.1)

- Yes
- No

FDW3. Will/does your country have a study toll-free respondent help line? (S 10.2.1)

- Yes
- No [**SKIP TO FDW6**]

FDW4. What will be/what are the hours of operation of the help line? (S 10.2.1)

9:00 to 17:00 Monday through Friday.

FDW5. How many calls have been received by the toll-free respondent help line? (S 10.2.1)

ENTER NUMBER 183.00

FDW6. Will your country/has your country obtained endorsement letters for the study? (S.10.2.1)

- Yes
- No [**SKIP TO FDW8**]

FDW7. Please list the organisations or individuals from whom your country has obtained endorsement letters. (S 10.2.1)

Tom Brokaw, former television news anchor, and leaders in education.

FDW8. Will a respondent incentive be used/has a respondent incentive been used?  
(S 4.8.1/10.5.1)

- Yes  
 No **[SKIP TO FDW10]**

FDW9. What type of respondent incentive will be used/has been used? (S 4.8.1/10.5.1)

[SELECT ALL THAT APPLY]

- Monetary (Amount 50 USD)  
 Nonmonetary (Description refrigerator magnet, pen)

FDW10. Will your country conduct/has your country conducted initial contact with households/ respondents in-person? (S 10.3.1)

- Yes  
 No

FDW11. Will your country conduct/has your country conducted initial contact with households/ respondents via telephone? (S 10.3.1)

- Yes  
 No

FDW12. What is the minimum number of subsequent in-person contact attempts interviewers will be/are/were required to make before a case is coded a non-contact? (S 10.3.2)

4.00

FDW13. What is the minimum number of subsequent telephone contact attempts interviewers will be/are/were required to make before a case is coded a non-contact? (S 10.3.3)

0.00

FDW14. Which of the following data items will/does/did your country collect for each contact attempt? (S 10.3.6)

[SELECT ALL THAT APPLY]

- Day  
 Date  
 Time  
 Contact mode  
 Outcome  
 Comments  
 Other (specify)

Interviewer ID

FDW15. Will/has the contact information be/been collected in a paper format, through an automated component of the field management system or both? (S 10.3.6)

- Paper format
- Automated component of field management system
- Both

FDW16. What information will/does/did your country collect on non-interview/nonresponse cases? (S 10.3.7)

[SELECT ALL THAT APPLY]

- Demographic data on person who refused
- Strength of refusal
- Problems encountered
- Likelihood of conversion
- Comments
- Other (specify)

Name and phone number of a contact person

FDW17. Will/has the non-interview information be/been collected in a paper format, through an automated component of the field management system, or both? (S 10.3.7)

- Paper format
- Automated component of field management system
- Both

FDW18. What strategies will your country use/has your country used for dealing with nonresponse and maximising response rates? (S 10.5.2/10.5.3)

[SELECT ALL THAT APPLY]

- Reassignment to other local interviewer(s)
- Follow-up by senior interviewers (or equivalent)
- Follow-up by supervisors (or equivalent)
- Reassignment to experienced/specially trained travelling interviewers
- Tailored letters (apartment managers, locked buildings, refusal conversion, refusals, unco-operative respondent)
- Refusal conversion letters mailed to households via priority or registered mail
- Refusal conversion letters mailed to households via regular mail
- Other (specify)

Tailored flyers, mail-in screener forms sent to sampled households yet to be screened

**[SKIP TO SMS1 IF DATA COLLECTION HAS NOT STARTED]**

FDW19. What have been the three most common reasons for refusals to the BQ? (S 10.3.7)

[SELECT UP TO THREE]

- Not interested in the study or in surveys
- Too busy
- Too long
- Don't want to be bothered or involved
- Waste of time and money
- Dislike government
- Don't trust surveys
- Other (specify)

FDW20. What have been the three most common reasons for refusals to the Core/Exercise? (S 10.3.7)

[SELECT UP TO THREE]

- Not interested in the study or in surveys
- Too busy
- Too long
- Don't want to be bothered or involved
- Waste of time and money
- Dislike government
- Don't trust surveys
- Don't want to answer exercises
- Too complicated
- Other (specify)

## **SMS Survey Field Management System**

SMS1. Indicate which functionality the field management system will be/is able to support. (S 10.6.2)

[SELECT ALL THAT APPLY]

- Case assignment to interviewers
- Case transfer/reassignment among interviewers
- Case reset to prior state
- Removal of data from the laptop computer
- Production of management reports
- Documentation of contact attempts
- Tracking interviewers' time and expense data
- Other (specify)



SMS2. Indicate the information contained in the field management system. (S 10.6.3)

[SELECT ALL THAT APPLY]

- Case ID
- Geographic area
- Dwelling unit address
- Case-level status and disposition code
- Task-level status and disposition code
- Date the interview was finalised or status date
- Task type (interview component)
- Interviewer name/ID
- Validation status
- Language of administration
- Assignment date and type (original vs. transfer)
- Date and time of inbound and outbound data transmissions
- ID number of paper direct assessment booklets
- Status of paper direct assessment booklets
- Date the paper materials were returned to the survey institute
- Other (specify)

SMS3. Has the survey control file been developed? (S 10.6.5)

- Yes
- No

**[SKIP TO QCF1 IF DATA COLLECTION HAS NOT STARTED]**

## **PRD Production and Response Rates**

The following questions ask about the number of finalised (closed out) cases recorded for each disposition code in each module. Please report these numbers conditionally so that the total number of cases for each module sums up to the number of cases that have completed the previous module.

PRD1. If applicable, indicate the number of finalised Screeners to date for each of the disposition codes below. (*S 10.7.1*)

<b>Description</b>	<b>Code</b>	<b>Number of Screeners</b>
Complete – 1 sample person selected	01	5,272.00
Complete – 2 sample persons selected	02	414.00
Partial complete/break-off	03	0.00
Refusal – household member	04	848.00
Refusal – gatekeeper	05	23.00
Language problem	07	106.00
Learning/mental disability	09	9.00
Hearing impairment	12	0.00
Blindness/visual impairment	13	0.00
Speech impairment	14	0.00
Physical disability	15	1.00
Other disability	16	0.00
Other (unspecified), such as sickness or unusual circumstances	17	25.00
Complete – no eligible sample persons	19	1,267.00
Unable to locate dwelling unit	20	49.00
Maximum number of calls	21	121.00
Dwelling unit under construction	22	18.00
Temporarily absent/unavailable during field period	24	47.00
Vacant dwelling unit	26	1,089.00
Duplication – already interviewed	27	0.00
Address not a dwelling unit	28	178.00
<b>Total</b>		<b>9,467.00</b>

PRD2. Indicate the number of finalised Case Initialisations (CI) to date for each of the disposition codes below. (S 10.7.1)

Description	Code	Number of CIs
Complete	01	4,896.00
Partial complete/break-off	03	1.00
Refusal – sample person	04	686.00
Refusal – other	05	78.00
Language problem	07	81.00
Reading and writing difficulty	08	0.00
Learning/mental disability	09	31.00
Hearing impairment	12	1.00
Blindness/visual impairment	13	2.00
Speech impairment	14	0.00
Physical disability	15	11.00
Other disability	16	5.00
Other (unspecified), such as sickness or unusual circumstances	17	32.00
Death	18	0.00
Maximum number of calls	21	68.00
Temporarily absent/unavailable during field period	24	183.00
Ineligible (specify)	25	4.00
Duplication – already interviewed	27	0.00
Technical Problem	90	21.00
<b>Total</b>		<b>6,100.00</b>

PRD3. Indicate the number of finalised Background Questionnaires (BQ) to date for each of the disposition codes below. (S 10.7.1)

Description	Code	Number of BQs
Complete	01	4,896.00
Partial complete/break-off	03	1.00
Refusal – sample person	04	686.00
Refusal – other	05	78.00
Language problem	07	81.00
Reading and writing difficulty	08	0.00
Learning/mental disability	09	31.00
Hearing impairment	12	1.00
Blindness/visual impairment	13	2.00
Speech impairment	14	0.00
Physical disability	15	11.00
Other disability	16	5.00
Other (unspecified), such as sickness or unusual circumstances	17	32.00
Death	18	0.00
Maximum number of calls	21	68.00
Temporarily absent/unavailable during field period	24	183.00
Ineligible (specify)	25	4.00
Duplication – already interviewed	27	0.00
Technical Problem	90	21.00
<b>Total</b>		<b>6,100.00</b>

PRD4. Indicate the number of finalised Exercises to date for each of the disposition codes below. (S 10.7.1)

Description	Code	Number of Exercises
Complete	01	4,836.00
Partial complete/break-off	03	9.00
Refusal – sample person	04	5.00
Refusal – other	05	0.00
Language problem	07	19.00
Reading and writing difficulty	08	1.00
Learning/mental disability	09	3.00
Hearing impairment	12	0.00
Blindness/visual impairment	13	3.00
Speech impairment	14	0.00
Physical disability	15	2.00
Other disability	16	0.00
Other (unspecified), such as sickness or unusual circumstances	17	8.00
Death	18	0.00
Maximum number of calls	21	1.00
Temporarily absent/unavailable during field period	24	1.00
Duplication – already interviewed	27	0.00
Technical Problem	90	13.00
Missing Paper Booklet	91	0.00
<b>Total</b>		<b>4,901.00</b>

PRD5. Enter the information on the target response rates and number of completes. (S 4.7.1)

*Note: A toolkit is available on the SharePoint site to compute the Actual Weighted Response Rates. You may use the simplified or standard response rate formula. The 'Target' columns refer to your "best estimate," not the theoretical maximum that could be reached. (e.g., 100% for RR)*

Component	Weighted Response Rates (%)		Number of Completes	
	Actual	Target	Actual	Target
Screeners (if applicable)	86.50	86.70	5,686.00	6,010.00
CI & BQ (combined)	82.50	80.00	5,029.00	5,097.00
Exercise	99.10	98.10	5,010.00	5,000.00

PRD6. What is the minimum, maximum, and mean number of completed interviews per interviewer to date? (S 8.3.4)

Minimum: 1.00 Maximum: 123.00 Mean: 25.10

## **QCF Quality Control of Fieldwork**

QCF1. Will interviews be/have interviews been monitored? (S 10.9.2)

- Yes  
 No [**SKIP TO QCF4**]

QCF2. What methods will be used/have been used to monitor interviews? (S 10.9.2)

[SELECT ALL THAT APPLY]

- Audio recording of full interviews  
 Audio recording of parts/snippets of interviews  
 In-person observation  
 Other (specify)

--

QCF3. Indicate for how many cases your country has completed the following interview monitoring procedures. (S 10.9.2)

	Number of Cases
Audio recorded full interviews	298.00
Audio recorded parts/snippets of interviews	
In-person observation	
Other (specify)	

QCF4. Will the work of interviewers be/has the work of interviewers been validated through back-checks? (S 10.9.2)

- Yes  
 No **[SKIP TO QCF15]**

QCF5. Indicate which types of cases will be/have been validated and the mode used. (S 10.9.3)

[CHECK ALL APPROPRIATE BOXES]

Dispositions	In-person	Telephone	Mail
Completes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Refusals	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ineligibles	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Non-contacts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

QCF6. Will validation cases be/have validation cases been selected at random? (S 10.9.3A)

- Yes, all cases  
 Yes, most cases  
 Yes, some cases  
 No

QCF7. Will your country use/has your country used the validation form proposed by the Consortium?

- Yes, it was used as-is  
 Yes, it was used with adaptations  
 No

QCF8. Who will be conducting/has conducted the validations? (*S 10.9.2/10.9.3*)

[SELECT ALL THAT APPLY]

- Supervisors (or equivalent)  
 Field managers (or equivalent)  
 Senior interviewers (or equivalent)  
 Project staff  
 Other (specify)

Survey Institute Telephone Center staff.

**[SKIP TO QCF15 IF DATA COLLECTION HAS NOT STARTED]**

QCF9. Has the 10 percent validation threshold been reached for each interviewer who received assignments?

- Yes **[SKIP TO QCF12]**  
 No

QCF10. Among interviewers who received assignments, how many have had ...

... at least 10% of their finalised cases validated? ENTER NUMBER 192.00

... at least 7% of their finalised cases validated? ENTER NUMBER \_\_\_\_\_

QCF11. Briefly describe why your country has not validated 10 percent of each interviewer's cases finalised to date. (*S 10.9.3*)

--

QCF12. Indicate for how many cases your country has conducted validation. (*S 10.9.2*)

	Number of Cases
Validation in person	228.00
Validation by telephone	1,611.00
Validation by mail	54.00
Other (specify)	

QCF13. Has your country detected any falsification? (*S 10.9.4*)

- Yes  
 No [**SKIP TO QCF15**]

QCF14. Please explain the falsification found and indicate the number of interviewers and the percent/number of cases impacted. Please also indicate what was done/will be done with the falsified case(s). (*S 10.9.4*)

A total of 11 falsifiers were found during data collection. All instances are detailed on the last page of this form.

QCF15. Will your country develop/has your country developed management reports to detect falsification? (*S 10.9.6*)

- Yes  
 No [**SKIP TO QCF17**]

QCF16. Indicate which management reports will be used/have been used to detect falsification. (*S 10.9.6*)

[SELECT ALL THAT APPLY]

- Overall interview administration length  
 Individual instrument administration length  
 Amount of time between interviews  
 Interviews conducted very early in the morning or late in the evening  
 Number of interviews conducted per day  
 Other (specify)

QCF17. What procedures will be used/have been used for reviewing electronic survey data? (S 10.9.9)

[SELECT ALL THAT APPLY]

- Review of data frequencies
- Review and suppression of edits
- Review of "other-specify" responses
- Review of open ended responses
- Review of missing data rates (i.e., refusals, don't knows)
- Other (specify)

QCF18. Who will review/has reviewed completed paper case materials? (S 10.9.8)

[SELECT ALL THAT APPLY]

- Interviewers
- Supervisors
- Home office staff upon receipt
- Other (specify)

### **ETH Ethics/Confidentiality**

ETH1. Did your country submit its research plan to the appropriate institutional review board(s) and/or ethics committee(s) for approval? (S 2.1)

- Yes
- No **[SKIP TO ETH3]**
- Not required in our country **[SKIP TO ETH3]**

ETH2. Has approval been granted by the appropriate institutional review board(s) and/or ethics committee(s) on the research plan? (S 2.1)

- Yes
- No

ETH3. Will all of your country's staff be trained/was all of your country's staff trained on the importance of ethics and scientific rigour in research involving human subjects? (S 2.1)

- Yes
- No



ETH4. Which confidentiality forms will all of your country's study staff sign/did all of your country's study staff sign? (S 2.2)

[SELECT ALL THAT APPLY]

- PIAAC confidentiality form
- Country-specific form
- Other (specify)

ETH5. What measures will your country use/has your country been using to maintain the security of the data stored in interviewers' laptop computer? (S 2.2)

[SELECT ALL THAT APPLY]

- Data encryption
- Password protection
- Keeping all password lists in a separate location from the laptop computer
- Securely storing the laptop computer when not in use
- Other (specify)

Interviewers are not authorized to use their laptop for anything other than PIAAC-related work.

**[SKIP TO END IF DATA COLLECTION HAS NOT STARTED]**

ETH6. Have there been any problems with data confidentiality? (S 2.2)

- Yes
- No **[SKIP TO ETH8]**

ETH7. Please explain problems with data confidentiality. (S 2.2)

ETH8. Have any interviewer laptops been lost or stolen? (S 2.2)

- Yes
- No **[SKIP TO END]**

ETH9. How many laptops have been lost or stolen? (S 2.2)

\_\_\_\_\_

ETH10. What measures were taken when a laptop was lost or stolen? (S 2.2)

[SELECT ALL THAT APPLY]

- Reported incident to the Consortium
- Filed a report with the local authorities
- Instructed supervisors to thoroughly investigate the matter
- Other (specify)

**END OF FORM**

## **Comments**

(continued from question 14)

One interviewer detected intentionally underreported the number of household members so that the screener would select SP she wanted to interview. Any cases where the interview was conducted with someone who would not have been chosen if the screener had been administered correctly were removed from the data and the cases were not reworked.

One interviewer routinely underreported the number of household members to make sure that the person she wanted to be selected for the interview would be. We removed the cases where the interview was conducted with an SP who should not have been selected from the data.

Another interviewer completed a BQ over the telephone. The case was removed from the data.

Another interviewer made up data for a number of households, discovered due to abnormally short BQ administration times. She also seems to have completed the Exercise herself on occasion, according to SPs who were called for validation. Cases were reset and reassigned.

Another interviewer conducted screeners at the wrong address on at least two occasions, those cases were cleared out and re-fielded.

Another interviewer closed out two cases as vacant when they were occupied, the cases were transferred to another interviewer.

Two interviewers intentionally conducted the Exercise with someone other than the SP selected by the screener.

Another interviewer conducted an interview at an address other than the sampled address. The case was reset and re-fielded.

Another interviewer underreported the age of a screener respondent to make her eligible for the BQ. The case was removed from the data and will not be re-fielded.

Finally, an interviewer completed a number of screeners using public databases, instead of visiting the sampled households. These cases were reset and re-fielded.

# PIAAC MAIN STUDY

## DATA COLLECTION

### SURVEY OPERATIONS QUALITY CONTROL FORM

#### Instructions

- Enter and edit information on the form using Adobe Acrobat Reader.
- To prevent losing entries, use the "save" feature regularly.
- It is important that the filename incorporates the name of your country, the title of the form, as well as the date the form was filled out.
- Do not use the "comment" function in Adobe Acrobat to add details. Additional space to do so is provided on the last page of this form. If your comments refer to a specific question, please write the question number.
- Answer all applicable questions on the form.
- Please do not submit your country's quality control forms via email.

Country: United States Date: 24 / 8 / 2011  
(DD/MM/YYYY)

Is this a revised submission?  Yes **[PLEASE UPDATE DATE]** \_\_\_\_\_ ↑  
 No

Completed by: Lillian Diaz-Hoffmann Title: Study Manager  
 Completed by: \_\_\_\_\_ Title: \_\_\_\_\_  
 Completed by: \_\_\_\_\_ Title: \_\_\_\_\_

#### **TML Timeline**

TML1. On what date will/did data collection begin?  
 (First day interviewers are authorised to make contact attempts/conduct interviews.) 25 / 8 / 2011  
(DD/MM/YYYY)

TML2. On what date will/did data collection end?  
 (Last day interviewers are authorised to make contact attempts/conduct interviews.) 31 / 3 / 2011  
(DD/MM/YYYY)

TML3. On what date will/did interviewer training begin?  
 (Date of first day of first training session held.) 18 / 08 / 2011  
(DD/MM/YYYY)

TML4. On what date will/did interviewer training end?  
 (Date of last day of last training session held.) 23 / 8 / 2011  
(DD/MM/YYYY)

**STF Staff Hiring and Management**

STF1. What recruitment sources will your country use/has your country used to find interviewers? (S 8.4.1)

[SELECT ALL THAT APPLY]

- Files of people currently working for the survey institute
- Files of people who previously worked for the survey institute
- Job posting on the survey institute's website
- Recommendations from experienced supervisory staff employed by the survey institute
- Local organisations such as community/senior centres and libraries
- Newspaper advertisements
- Other (specify)

Employment website, state and local employment offices.

STF2. Complete the table below with information about the status of your country's staff. Fill out each box. Enter 'n/a' if not applicable. Enter 'dk' if not currently known. (S 8.3.3)

Staff	Interviewers	Supervisors (or equivalent)	Field Managers (or equivalent)	Field Director (or equivalent)
Target number to recruit/hire/assign to PIAAC	191.00	11.00	2.00	1.00
Total number ever recruited/hired/assigned to PIAAC	185.00	11.00	2.00	1.00

STF3. Is interviewer attrition taken into account in the target number of interviewers reported in question STF2? (S 8.3.1)

- Yes [**SKIP TO STF5**]
- No

STF4. By how much does your country plan to overhire/did your country overhire to compensate for interviewer attrition? Please select the appropriate box to indicate whether a number or percent was entered. Enter a '0' if there is no plan to overhire. (S 8.3.1)

ENTER NUMBER OR PERCENT 30.00

- Number
- Percent

STF5. How many hours per week will interviewers work/have interviewers been working on PIAAC?

ENTER NUMBER \_\_\_\_\_

**OR**

ENTER RANGE 25.00 to 40.00

STF6. How many interviewers will be assigned/were assigned to each supervisor? (S 8.1.1)

ENTER NUMBER \_\_\_\_\_

**OR**

ENTER RANGE 16.00 to 20.00

STF7. How many supervisors will be assigned/were assigned to each field manager? (S.8.1.1)

ENTER NUMBER 5.00

**OR**

ENTER RANGE \_\_\_\_\_ to \_\_\_\_\_

STF8. How many cases will be assigned/were assigned to each interviewer for their initial assignment? (S 8.3.4)

ENTER NUMBER \_\_\_\_\_

**OR**

ENTER RANGE 10.00 to 20.00

STF9. How will interviewers be/have interviewers been paid? (S 8.3.5)

Piece rate

Hourly wage

Salary

Other (specify)

STF10. Will a bonus be/has a bonus been offered to interviewers who reach a certain threshold of productivity?

Yes

No **[SKIP TO STF12]**

STF11. Briefly describe the nature of this bonus.

Incentive bonus plan based on the number of completes. Interviewers who complete a minimum number of interviews are eligible. The more completes an interviewer gets, the higher the bonus amount paid per complete to that interviewer. Also lottery with cash prizes.

STF12. Which methods will your country use/has your country used for communication between the home office and field staff, including field managers, supervisors, and interviewers? (S 8.1.2/8.2.1)

[SELECT ALL THAT APPLY]

- Email
- Telephone
- In-person meetings
- Paper or electronic newsletters
- Other (specify)

STF13. How often will your country have/has your country had scheduled communications between interviewers and supervisors? (S 8.1.2/8.2.1)

[SELECT ALL THAT APPLY]

- As needed
- Bi-weekly
- Weekly
- Monthly
- Never
- Other (specify)

**[SKIP TO FDW1 IF DATA COLLECTION HAS NOT STARTED]**

STF14. Complete the table below with information about the status of your country's interviewing staff. (S 8.3.3)

Interviewing Staff	Number
Total number ever recruited/hired/assigned to PIAAC (from STF2)	185.00
Total number of interviewers who attended training	185.00
Total number of interviewers who received assignments	183.00
↳ Number of interviewers currently working on the study	183.00
↳ Number of interviewers no longer working on the study	2.00

STF15. According to the information provided in question STF14, the percentage of interviewer attrition to date in your country is 1.0928961%. (S 8.3.3) In order to be routed to the next relevant question, please check the appropriate answer:

- Attrition is equal to '0' **[SKIP TO STF17]**
- Attrition is greater than '0'

STF16. What are some of the causes of interviewer attrition on PIAAC? (S 8.3.1)

[SELECT ALL THAT APPLY]

- Quit
- Laid off
- Fired because of poor production
- Fired because of quality control issues
- Other (specify)

STF17. Has your country trained additional interviewers as a result of interviewer attrition or insufficient initial staffing? (S 9.8.1)

- Yes
- No [**SKIP TO STF20**]

STF18. Has your country submitted an Interviewer Training Form for the additional interviewer training session(s) held?

- Yes, for each additional sessions
- Yes, for some sessions only
- No

STF19. How many interviewers were trained at the additional interviewer training session(s)? (S 9.8.1)

*Note: Please make sure you report these interviewers in questions STF2 and STF14 as well.*

ENTER NUMBER \_\_\_\_\_

STF20. Have there been any geographical areas without local interviewers due to attrition? (S 8.3.1)

- Yes
- No [**SKIP TO FDW1**]

STF21. What measures has your country taken to cover unstaffed geographical areas due to attrition? (S 8.3.1)

[SELECT ALL THAT APPLY]

- Reassigned interviewers from nearby geographical areas
- Trained additional interviewers
- Hired additional interviewers
- Other (specify)



**FDW FIELDWORK**

FDW1. Which outreach materials will your country use/has your country used? (S 10.2.1)

[SELECT ALL THAT APPLY]

- Introductory letter
- Brochure
- Endorsement letters
- Newspaper articles
- Television advertising
- Radio advertising
- Press release
- Other (specify)

Refrigerator magnet, tailored flyers, pens

FDW2. Will/does your country have its own study-specific website or webpage? (S 10.2.1)

- Yes
- No

FDW3. Will/does your country have a study toll-free respondent help line? (S 10.2.1)

- Yes
- No **[SKIP TO FDW6]**

FDW4. What will be/what are the hours of operation of the help line? (S 10.2.1)

9:00 to 17:00 Monday through Friday.

FDW5. How many calls have been received by the toll-free respondent help line? (S 10.2.1)

ENTER NUMBER 34.00

FDW6. Will your country/has your country obtained endorsement letters for the study? (S.10.2.1)

- Yes
- No **[SKIP TO FDW8]**

FDW7. Please list the organisations or individuals from whom your country has obtained endorsement letters. (S 10.2.1)

Tom Brokaw, former television news anchor.

FDW8. Will a respondent incentive be used/has a respondent incentive been used?  
(S 4.8.1/10.5.1)

- Yes  
 No **[SKIP TO FDW10]**

FDW9. What type of respondent incentive will be used/has been used? (S 4.8.1/10.5.1)

[SELECT ALL THAT APPLY]

- Monetary (Amount 50 USD)  
 Nonmonetary (Description refrigerator magnet, pen)

FDW10. Will your country conduct/has your country conducted initial contact with households/ respondents in-person? (S 10.3.1)

- Yes  
 No

FDW11. Will your country conduct/has your country conducted initial contact with households/ respondents via telephone? (S 10.3.1)

- Yes  
 No

FDW12. What is the minimum number of subsequent in-person contact attempts interviewers will be/are/were required to make before a case is coded a non-contact? (S 10.3.2)

4.00

FDW13. What is the minimum number of subsequent telephone contact attempts interviewers will be/are/were required to make before a case is coded a non-contact? (S 10.3.3)

0.00

FDW14. Which of the following data items will/does/did your country collect for each contact attempt? (S 10.3.6)

[SELECT ALL THAT APPLY]

- Day  
 Date  
 Time  
 Contact mode  
 Outcome  
 Comments  
 Other (specify)

Interviewer ID

FDW15. Will/has the contact information be/been collected in a paper format, through an automated component of the field management system or both? (S 10.3.6)

- Paper format
- Automated component of field management system
- Both

FDW16. What information will/does/did your country collect on non-interview/nonresponse cases? (S 10.3.7)

[SELECT ALL THAT APPLY]

- Demographic data on person who refused
- Strength of refusal
- Problems encountered
- Likelihood of conversion
- Comments
- Other (specify)

Name and phone number of a contact person

FDW17. Will/has the non-interview information be/been collected in a paper format, through an automated component of the field management system, or both? (S 10.3.7)

- Paper format
- Automated component of field management system
- Both

FDW18. What strategies will your country use/has your country used for dealing with nonresponse and maximising response rates? (S 10.5.2/10.5.3)

[SELECT ALL THAT APPLY]

- Reassignment to other local interviewer(s)
- Follow-up by senior interviewers (or equivalent)
- Follow-up by supervisors (or equivalent)
- Reassignment to experienced/specially trained travelling interviewers
- Tailored letters (apartment managers, locked buildings, refusal conversion, refusals, unco-operative respondent)
- Refusal conversion letters mailed to households via priority or registered mail
- Refusal conversion letters mailed to households via regular mail
- Other (specify)

Tailored flyers

**[SKIP TO SMS1 IF DATA COLLECTION HAS NOT STARTED]**

FDW19. What have been the three most common reasons for refusals to the BQ? (S 10.3.7)

[SELECT UP TO THREE]

- Not interested in the study or in surveys
- Too busy
- Too long
- Don't want to be bothered or involved
- Waste of time and money
- Dislike government
- Don't trust surveys
- Other (specify)

FDW20. What have been the three most common reasons for refusals to the Core/Exercise? (S 10.3.7)

[SELECT UP TO THREE]

- Not interested in the study or in surveys
- Too busy
- Too long
- Don't want to be bothered or involved
- Waste of time and money
- Dislike government
- Don't trust surveys
- Don't want to answer exercises
- Too complicated
- Other (specify)

## **SMS Survey Field Management System**

SMS1. Indicate which functionality the field management system will be/is able to support. (S 10.6.2)

[SELECT ALL THAT APPLY]

- Case assignment to interviewers
- Case transfer/reassignment among interviewers
- Case reset to prior state
- Removal of data from the laptop computer
- Production of management reports
- Documentation of contact attempts
- Tracking interviewers' time and expense data
- Other (specify)

SMS2. Indicate the information contained in the field management system. (S 10.6.3)

[SELECT ALL THAT APPLY]

- Case ID
- Geographic area
- Dwelling unit address
- Case-level status and disposition code
- Task-level status and disposition code
- Date the interview was finalised or status date
- Task type (interview component)
- Interviewer name/ID
- Validation status
- Language of administration
- Assignment date and type (original vs. transfer)
- Date and time of inbound and outbound data transmissions
- ID number of paper direct assessment booklets
- Status of paper direct assessment booklets
- Date the paper materials were returned to the survey institute
- Other (specify)

SMS3. Has the survey control file been developed? (S 10.6.5)

- Yes
- No

**[SKIP TO QCF1 IF DATA COLLECTION HAS NOT STARTED]**

## **PRD Production and Response Rates**

The following questions ask about the number of finalised (closed out) cases recorded for each disposition code in each module. Please report these numbers conditionally so that the total number of cases for each module sums up to the number of cases that have completed the previous module.

PRD1. If applicable, indicate the number of finalised Screeners to date for each of the disposition codes below. (*S 10.7.1*)

<b>Description</b>	<b>Code</b>	<b>Number of Screeners</b>
Complete – 1 sample person selected	01	
Complete – 2 sample persons selected	02	
Partial complete/break-off	03	
Refusal – household member	04	
Refusal – gatekeeper	05	
Language problem	07	
Learning/mental disability	09	
Hearing impairment	12	
Blindness/visual impairment	13	
Speech impairment	14	
Physical disability	15	
Other disability	16	
Other (unspecified), such as sickness or unusual circumstances	17	
Complete – no eligible sample persons	19	
Unable to locate dwelling unit	20	
Maximum number of calls	21	
Dwelling unit under construction	22	
Temporarily absent/unavailable during field period	24	
Vacant dwelling unit	26	
Duplication – already interviewed	27	
Address not a dwelling unit	28	
<b>Total</b>		<b>0.00</b>

PRD2. Indicate the number of finalised Case Initialisations (CI) to date for each of the disposition codes below. (S 10.7.1)

Description	Code	Number of CIs
Complete	01	
Partial complete/break-off	03	
Refusal – sample person	04	
Refusal – other	05	
Language problem	07	
Reading and writing difficulty	08	
Learning/mental disability	09	
Hearing impairment	12	
Blindness/visual impairment	13	
Speech impairment	14	
Physical disability	15	
Other disability	16	
Other (unspecified), such as sickness or unusual circumstances	17	
Death	18	
Maximum number of calls	21	
Temporarily absent/unavailable during field period	24	
Ineligible (specify)	25	
Duplication – already interviewed	27	
Technical Problem	90	
<b>Total</b>		<b>0.00</b>

PRD3. Indicate the number of finalised Background Questionnaires (BQ) to date for each of the disposition codes below. (S 10.7.1)

Description	Code	Number of BQs
Complete	01	
Partial complete/break-off	03	
Refusal – sample person	04	
Refusal – other	05	
Language problem	07	
Reading and writing difficulty	08	
Learning/mental disability	09	
Hearing impairment	12	
Blindness/visual impairment	13	
Speech impairment	14	
Physical disability	15	
Other disability	16	
Other (unspecified), such as sickness or unusual circumstances	17	
Death	18	
Maximum number of calls	21	
Temporarily absent/unavailable during field period	24	
Ineligible (specify)	25	
Duplication – already interviewed	27	
Technical Problem	90	
<b>Total</b>		<b>0.00</b>

PRD4. Indicate the number of finalised Exercises to date for each of the disposition codes below. (S 10.7.1)

Description	Code	Number of Exercises
Complete	01	
Partial complete/break-off	03	
Refusal – sample person	04	
Refusal – other	05	
Language problem	07	
Reading and writing difficulty	08	
Learning/mental disability	09	
Hearing impairment	12	
Blindness/visual impairment	13	
Speech impairment	14	
Physical disability	15	
Other disability	16	
Other (unspecified), such as sickness or unusual circumstances	17	
Death	18	
Maximum number of calls	21	
Temporarily absent/unavailable during field period	24	
Duplication – already interviewed	27	
Technical Problem	90	
Missing Paper Booklet	91	
<b>Total</b>		0.00

PRD5. Enter the information on the target response rates and number of completes. (S 4.7.1)

*Note: A toolkit is available on the SharePoint site to compute the Actual Weighted Response Rates. You may use the simplified or standard response rate formula. The 'Target' columns refer to your "best estimate," not the theoretical maximum that could be reached. (e.g., 100% for RR)*

Component	Weighted Response Rates (%)		Number of Completes	
	Actual	Target	Actual	Target
Screener (if applicable)				
CI & BQ (combined)				
Exercise				

PRD6. What is the minimum, maximum, and mean number of completed interviews per interviewer to date? (S 8.3.4)

Minimum: \_\_\_\_\_ Maximum: \_\_\_\_\_ Mean: \_\_\_\_\_

### **QCF Quality Control of Fieldwork**

QCF1. Will interviews be/have interviews been monitored? (S 10.9.2)

- Yes  
 No **[SKIP TO QCF4]**



QCF2. What methods will be used/have been used to monitor interviews? (S 10.9.2)

[SELECT ALL THAT APPLY]

- Audio recording of full interviews  
 Audio recording of parts/snippets of interviews  
 In-person observation  
 Other (specify)

--

QCF3. Indicate for how many cases your country has completed the following interview monitoring procedures. (S 10.9.2)

	Number of Cases
Audio recorded full interviews	
Audio recorded parts/snippets of interviews	
In-person observation	
Other (specify)	

QCF4. Will the work of interviewers be/has the work of interviewers been validated through back-checks? (S 10.9.2)

- Yes  
 No **[SKIP TO QCF15]**

QCF5. Indicate which types of cases will be/have been validated and the mode used. (S 10.9.3)

[CHECK ALL APPROPRIATE BOXES]

Dispositions	In-person	Telephone	Mail
Completes	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Refusals	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ineligibles	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Non-contacts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

QCF6. Will validation cases be/have validation cases been selected at random? (S 10.9.3A)

- Yes, all cases  
 Yes, most cases  
 Yes, some cases  
 No

QCF7. Will your country use/has your country used the validation form proposed by the Consortium?

- Yes, it was used as-is
- Yes, it was used with adaptations
- No

QCF8. Who will be conducting/has conducted the validations? (S 10.9.2/10.9.3)

[SELECT ALL THAT APPLY]

- Supervisors (or equivalent)
- Field managers (or equivalent)
- Senior interviewers (or equivalent)
- Project staff
- Other (specify)

Survey Institute Telephone Center staff.

**[SKIP TO QCF15 IF DATA COLLECTION HAS NOT STARTED]**

QCF9. Has the 10 percent validation threshold been reached for each interviewer who received assignments?

- Yes **[SKIP TO QCF12]**
- No

QCF10. Among interviewers who received assignments, how many have had ...

... at least 10% of their finalised cases validated?      ENTER NUMBER \_\_\_\_\_

... at least 7% of their finalised cases validated?      ENTER NUMBER \_\_\_\_\_

QCF11. Briefly describe why your country has not validated 10 percent of each interviewer’s cases finalised to date. (S 10.9.3)

QCF12. Indicate for how many cases your country has conducted validation. (S 10.9.2)

	Number of Cases
Validation in person	
Validation by telephone	
Validation by mail	
Other (specify)	

QCF13. Has your country detected any falsification? (*S 10.9.4*)

- Yes  
 No [**SKIP TO QCF15**]

QCF14. Please explain the falsification found and indicate the number of interviewers and the percent/number of cases impacted. Please also indicate what was done/will be done with the falsified case(s). (*S 10.9.4*)

QCF15. Will your country develop/has your country developed management reports to detect falsification? (*S 10.9.6*)

- Yes  
 No [**SKIP TO QCF17**]

QCF16. Indicate which management reports will be used/have been used to detect falsification. (*S 10.9.6*)

[SELECT ALL THAT APPLY]

- Overall interview administration length  
 Individual instrument administration length  
 Amount of time between interviews  
 Interviews conducted very early in the morning or late in the evening  
 Number of interviews conducted per day  
 Other (specify)

QCF17. What procedures will be used/have been used for reviewing electronic survey data? (S 10.9.9)

[SELECT ALL THAT APPLY]

- Review of data frequencies
- Review and suppression of edits
- Review of "other-specify" responses
- Review of open ended responses
- Review of missing data rates (i.e., refusals, don't knows)
- Other (specify)

QCF18. Who will review/has reviewed completed paper case materials? (S 10.9.8)

[SELECT ALL THAT APPLY]

- Interviewers
- Supervisors
- Home office staff upon receipt
- Other (specify)

## **ETH Ethics/Confidentiality**

ETH1. Did your country submit its research plan to the appropriate institutional review board(s) and/or ethics committee(s) for approval? (S 2.1)

- Yes
- No **[SKIP TO ETH3]**
- Not required in our country **[SKIP TO ETH3]**

ETH2. Has approval been granted by the appropriate institutional review board(s) and/or ethics committee(s) on the research plan? (S 2.1)

- Yes
- No

ETH3. Will all of your country's staff be trained/was all of your country's staff trained on the importance of ethics and scientific rigour in research involving human subjects? (S 2.1)

- Yes
- No

ETH4. Which confidentiality forms will all of your country's study staff sign/did all of your country's study staff sign? (S 2.2)

[SELECT ALL THAT APPLY]

- PIAAC confidentiality form
- Country-specific form
- Other (specify)

ETH5. What measures will your country use/has your country been using to maintain the security of the data stored in interviewers' laptop computer? (S 2.2)

[SELECT ALL THAT APPLY]

- Data encryption
- Password protection
- Keeping all password lists in a separate location from the laptop computer
- Securely storing the laptop computer when not in use
- Other (specify)

Interviewers are not authorized to use their laptop for anything other than PIAAC-related work.

**[SKIP TO END IF DATA COLLECTION HAS NOT STARTED]**

ETH6. Have there been any problems with data confidentiality? (S 2.2)

- Yes
- No **[SKIP TO ETH8]**

ETH7. Please explain problems with data confidentiality. (S 2.2)

ETH8. Have any interviewer laptops been lost or stolen? (S 2.2)

- Yes
- No **[SKIP TO END]**

ETH9. How many laptops have been lost or stolen? (S 2.2)

\_\_\_\_\_

ETH10. What measures were taken when a laptop was lost or stolen? (S 2.2)

[SELECT ALL THAT APPLY]

- Reported incident to the Consortium
- Filed a report with the local authorities
- Instructed supervisors to thoroughly investigate the matter
- Other (specify)

**END OF FORM**

**Comments**

We arrived at training with 11 supervisors. One was dismissed during the course of training due to unsatisfactory performance, so we currently have ten supervisors.

# PIAAC MAIN STUDY

## DATA COLLECTION

### SURVEY OPERATIONS QUALITY CONTROL FORM

#### Instructions

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- It is important that the filename incorporates the name of your country, the title of the form, as well as the date the form was filled out.
- Do not use the "comment" function in Adobe Acrobat to add details. Additional space to do so is provided on the last page of this form. If your comments refer to a specific question, please write the question number.
- Answer all applicable questions on the form.
- Please do not submit your country's quality control forms via email.

Country: United States Date: 29 / 6 / 2011  
(DD/MM/YYYY)

Is this a revised submission?  Yes **[PLEASE UPDATE DATE]** \_\_\_\_\_ ↑  
 No

Completed by: Lillian Diaz-Hoffmann Title: Study Manager  
 Completed by: \_\_\_\_\_ Title: \_\_\_\_\_  
 Completed by: \_\_\_\_\_ Title: \_\_\_\_\_

#### **TML Timeline**

TML1. On what date will/did data collection begin?  
 (First day interviewers are authorised to make contact attempts/conduct interviews.) 25 / 8 / 2011  
(DD/MM/YYYY)

TML2. On what date will/did data collection end?  
 (Last day interviewers are authorised to make contact attempts/conduct interviews.) 31 / 3 / 2011  
(DD/MM/YYYY)

TML3. On what date will/did interviewer training begin?  
 (Date of first day of first training session held.) 18 / 08 / 2011  
(DD/MM/YYYY)

TML4. On what date will/did interviewer training end?  
 (Date of last day of last training session held.) 23 / 8 / 2011  
(DD/MM/YYYY)



**STF Staff Hiring and Management**

STF1. What recruitment sources will your country use/has your country used to find interviewers? (S 8.4.1)

[SELECT ALL THAT APPLY]

- Files of people currently working for the survey institute
- Files of people who previously worked for the survey institute
- Job posting on the survey institute's website
- Recommendations from experienced supervisory staff employed by the survey institute
- Local organisations such as community/senior centres and libraries
- Newspaper advertisements
- Other (specify)

Employment website, state and local employment offices.

STF2. Complete the table below with information about the status of your country's staff. Fill out each box. Enter 'n/a' if not applicable. Enter 'dk' if not currently known. (S 8.3.3)

Staff	Interviewers	Supervisors (or equivalent)	Field Managers (or equivalent)	Field Director (or equivalent)
Target number to recruit/hire/assign to PIAAC	191.00	11.00	2.00	1.00
Total number ever recruited/hired/assigned to PIAAC	150.00	11.00	2.00	1.00

STF3. Is interviewer attrition taken into account in the target number of interviewers reported in question STF2? (S 8.3.1)

- Yes [**SKIP TO STF5**]
- No

STF4. By how much does your country plan to overhire/did your country overhire to compensate for interviewer attrition? Please select the appropriate box to indicate whether a number or percent was entered. Enter a '0' if there is no plan to overhire. (S 8.3.1)

ENTER NUMBER OR PERCENT 30.00

- Number
- Percent

STF5. How many hours per week will interviewers work/have interviewers been working on PIAAC?

ENTER NUMBER \_\_\_\_\_

**OR**

ENTER RANGE 25.00 to 40.00

STF6. How many interviewers will be assigned/were assigned to each supervisor? (S 8.1.1)

ENTER NUMBER \_\_\_\_\_

**OR**

ENTER RANGE 16.00 to 19.00

STF7. How many supervisors will be assigned/were assigned to each field manager? (S.8.1.1)

ENTER NUMBER \_\_\_\_\_

**OR**

ENTER RANGE 5.00 to 6.00

STF8. How many cases will be assigned/were assigned to each interviewer for their initial assignment? (S 8.3.4)

ENTER NUMBER \_\_\_\_\_

**OR**

ENTER RANGE 10.00 to 20.00

STF9. How will interviewers be/have interviewers been paid? (S 8.3.5)

Piece rate

Hourly wage

Salary

Other (specify)

STF10. Will a bonus be/has a bonus been offered to interviewers who reach a certain threshold of productivity?

Yes

No **[SKIP TO STF12]**

STF11. Briefly describe the nature of this bonus.

Incentive bonus plan based on the number of completes. Interviewers who complete a minimum number of interviews are eligible. The more completes an interviewer gets, the higher the bonus amount paid per complete to that interviewer. Also lottery with cash prizes.

STF12. Which methods will your country use/has your country used for communication between the home office and field staff, including field managers, supervisors, and interviewers? (S 8.1.2/8.2.1)

[SELECT ALL THAT APPLY]

- Email
- Telephone
- In-person meetings
- Paper or electronic newsletters
- Other (specify)

STF13. How often will your country have/has your country had scheduled communications between interviewers and supervisors? (S 8.1.2/8.2.1)

[SELECT ALL THAT APPLY]

- As needed
- Bi-weekly
- Weekly
- Monthly
- Never
- Other (specify)

**[SKIP TO FDW1 IF DATA COLLECTION HAS NOT STARTED]**

STF14. Complete the table below with information about the status of your country's interviewing staff. (S 8.3.3)

Interviewing Staff	Number
Total number ever recruited/hired/assigned to PIAAC (from STF2)	150.00
Total number of interviewers who attended training	
Total number of interviewers who received assignments	
↳ Number of interviewers currently working on the study	
↳ Number of interviewers no longer working on the study	

STF15. According to the information provided in question STF14, the percentage of interviewer attrition to date in your country is NaN%. (S 8.3.3) In order to be routed to the next relevant question, please check the appropriate answer:

- Attrition is equal to '0' **[SKIP TO STF17]**
- Attrition is greater than '0'

STF16. What are some of the causes of interviewer attrition on PIAAC? (S 8.3.1)

[SELECT ALL THAT APPLY]

- Quit
- Laid off
- Fired because of poor production
- Fired because of quality control issues
- Other (specify)

STF17. Has your country trained additional interviewers as a result of interviewer attrition or insufficient initial staffing? (S 9.8.1)

- Yes
- No [**SKIP TO STF20**]

STF18. Has your country submitted an Interviewer Training Form for the additional interviewer training session(s) held?

- Yes, for each additional sessions
- Yes, for some sessions only
- No

STF19. How many interviewers were trained at the additional interviewer training session(s)? (S 9.8.1)

*Note: Please make sure you report these interviewers in questions STF2 and STF14 as well.*

ENTER NUMBER \_\_\_\_\_

STF20. Have there been any geographical areas without local interviewers due to attrition? (S 8.3.1)

- Yes
- No [**SKIP TO FDW1**]

STF21. What measures has your country taken to cover unstaffed geographical areas due to attrition? (S 8.3.1)

[SELECT ALL THAT APPLY]

- Reassigned interviewers from nearby geographical areas
- Trained additional interviewers
- Hired additional interviewers
- Other (specify)

**FDW FIELDWORK**

FDW1. Which outreach materials will your country use/has your country used? (*S 10.2.1*)

[SELECT ALL THAT APPLY]

- Introductory letter
- Brochure
- Endorsement letters
- Newspaper articles
- Television advertising
- Radio advertising
- Press release
- Other (specify)

Refrigerator magnet, tailored flyers, pens

FDW2. Will/does your country have its own study-specific website or webpage? (*S 10.2.1*)

- Yes
- No

FDW3. Will/does your country have a study toll-free respondent help line? (*S 10.2.1*)

- Yes
- No [**SKIP TO FDW6**]

FDW4. What will be/what are the hours of operation of the help line? (*S 10.2.1*)

9:00 to 22:00 Monday through Friday.  
14:00 to 20:00 Saturday and Sunday.

FDW5. How many calls have been received by the toll-free respondent help line? (*S 10.2.1*)

ENTER NUMBER \_\_\_\_\_

FDW6. Will your country/has your country obtained endorsement letters for the study? (*S.10.2.1*)

- Yes
- No [**SKIP TO FDW8**]

FDW7. Please list the organisations or individuals from whom your country has obtained endorsement letters. (*S 10.2.1*)

Not finalized at this time.

FDW8. Will a respondent incentive be used/has a respondent incentive been used?  
(S 4.8.1/10.5.1)

- Yes  
 No **[SKIP TO FDW10]**

FDW9. What type of respondent incentive will be used/has been used? (S 4.8.1/10.5.1)

[SELECT ALL THAT APPLY]

- Monetary (Amount 50 USD)  
 Nonmonetary (Description refrigerator magnet, pen)

FDW10. Will your country conduct/has your country conducted initial contact with households/ respondents in-person? (S 10.3.1)

- Yes  
 No

FDW11. Will your country conduct/has your country conducted initial contact with households/ respondents via telephone? (S 10.3.1)

- Yes  
 No

FDW12. What is the minimum number of subsequent in-person contact attempts interviewers will be/are/were required to make before a case is coded a non-contact? (S 10.3.2)

4.00

FDW13. What is the minimum number of subsequent telephone contact attempts interviewers will be/are/were required to make before a case is coded a non-contact? (S 10.3.3)

0.00

FDW14. Which of the following data items will/does/did your country collect for each contact attempt? (S 10.3.6)

[SELECT ALL THAT APPLY]

- Day  
 Date  
 Time  
 Contact mode  
 Outcome  
 Comments  
 Other (specify)

Interviewer ID

FDW15. Will/has the contact information be/been collected in a paper format, through an automated component of the field management system or both? (S 10.3.6)

- Paper format
- Automated component of field management system
- Both

FDW16. What information will/does/did your country collect on non-interview/nonresponse cases? (S 10.3.7)

[SELECT ALL THAT APPLY]

- Demographic data on person who refused
- Strength of refusal
- Problems encountered
- Likelihood of conversion
- Comments
- Other (specify)

Name and phone number of a contact person

FDW17. Will/has the non-interview information be/been collected in a paper format, through an automated component of the field management system, or both? (S 10.3.7)

- Paper format
- Automated component of field management system
- Both

FDW18. What strategies will your country use/has your country used for dealing with nonresponse and maximising response rates? (S 10.5.2/10.5.3)

[SELECT ALL THAT APPLY]

- Reassignment to other local interviewer(s)
- Follow-up by senior interviewers (or equivalent)
- Follow-up by supervisors (or equivalent)
- Reassignment to experienced/specially trained travelling interviewers
- Tailored letters (apartment managers, locked buildings, refusal conversion, refusals, unco-operative respondent)
- Refusal conversion letters mailed to households via priority or registered mail
- Refusal conversion letters mailed to households via regular mail
- Other (specify)

Tailored flyers

**[SKIP TO SMS1 IF DATA COLLECTION HAS NOT STARTED]**

FDW19. What have been the three most common reasons for refusals to the BQ? (S 10.3.7)

[SELECT UP TO THREE]

- Not interested in the study or in surveys
- Too busy
- Too long
- Don't want to be bothered or involved
- Waste of time and money
- Dislike government
- Don't trust surveys
- Other (specify)

FDW20. What have been the three most common reasons for refusals to the Core/Exercise? (S 10.3.7)

[SELECT UP TO THREE]

- Not interested in the study or in surveys
- Too busy
- Too long
- Don't want to be bothered or involved
- Waste of time and money
- Dislike government
- Don't trust surveys
- Don't want to answer exercises
- Too complicated
- Other (specify)

## **SMS Survey Field Management System**

SMS1. Indicate which functionality the field management system will be/is able to support. (S 10.6.2)

[SELECT ALL THAT APPLY]

- Case assignment to interviewers
- Case transfer/reassignment among interviewers
- Case reset to prior state
- Removal of data from the laptop computer
- Production of management reports
- Documentation of contact attempts
- Tracking interviewers' time and expense data
- Other (specify)



SMS2. Indicate the information contained in the field management system. (S 10.6.3)

[SELECT ALL THAT APPLY]

- Case ID
- Geographic area
- Dwelling unit address
- Case-level status and disposition code
- Task-level status and disposition code
- Date the interview was finalised or status date
- Task type (interview component)
- Interviewer name/ID
- Validation status
- Language of administration
- Assignment date and type (original vs. transfer)
- Date and time of inbound and outbound data transmissions
- ID number of paper direct assessment booklets
- Status of paper direct assessment booklets
- Date the paper materials were returned to the survey institute
- Other (specify)

SMS3. Has the survey control file been developed? (S 10.6.5)

- Yes
- No

**[SKIP TO QCF1 IF DATA COLLECTION HAS NOT STARTED]**

## **PRD Production and Response Rates**

The following questions ask about the number of finalised (closed out) cases recorded for each disposition code in each module. Please report these numbers conditionally so that the total number of cases for each module sums up to the number of cases that have completed the previous module.

PRD1. If applicable, indicate the number of finalised Screeners to date for each of the disposition codes below. (*S 10.7.1*)

<b>Description</b>	<b>Code</b>	<b>Number of Screeners</b>
Complete – 1 sample person selected	01	
Complete – 2 sample persons selected	02	
Partial complete/break-off	03	
Refusal – household member	04	
Refusal – gatekeeper	05	
Language problem	07	
Learning/mental disability	09	
Hearing impairment	12	
Blindness/visual impairment	13	
Speech impairment	14	
Physical disability	15	
Other disability	16	
Other (unspecified), such as sickness or unusual circumstances	17	
Complete – no eligible sample persons	19	
Unable to locate dwelling unit	20	
Maximum number of calls	21	
Dwelling unit under construction	22	
Temporarily absent/unavailable during field period	24	
Vacant dwelling unit	26	
Duplication – already interviewed	27	
Address not a dwelling unit	28	
<b>Total</b>		<b>0.00</b>

PRD2. Indicate the number of finalised Case Initialisations (CI) to date for each of the disposition codes below. (S 10.7.1)

Description	Code	Number of CIs
Complete	01	
Partial complete/break-off	03	
Refusal – sample person	04	
Refusal – other	05	
Language problem	07	
Reading and writing difficulty	08	
Learning/mental disability	09	
Hearing impairment	12	
Blindness/visual impairment	13	
Speech impairment	14	
Physical disability	15	
Other disability	16	
Other (unspecified), such as sickness or unusual circumstances	17	
Death	18	
Maximum number of calls	21	
Temporarily absent/unavailable during field period	24	
Ineligible (specify)	25	
Duplication – already interviewed	27	
Technical Problem	90	
<b>Total</b>		<b>0.00</b>

PRD3. Indicate the number of finalised Background Questionnaires (BQ) to date for each of the disposition codes below. (S 10.7.1)

Description	Code	Number of BQs
Complete	01	
Partial complete/break-off	03	
Refusal – sample person	04	
Refusal – other	05	
Language problem	07	
Reading and writing difficulty	08	
Learning/mental disability	09	
Hearing impairment	12	
Blindness/visual impairment	13	
Speech impairment	14	
Physical disability	15	
Other disability	16	
Other (unspecified), such as sickness or unusual circumstances	17	
Death	18	
Maximum number of calls	21	
Temporarily absent/unavailable during field period	24	
Ineligible (specify)	25	
Duplication – already interviewed	27	
Technical Problem	90	
<b>Total</b>		<b>0.00</b>

PRD4. Indicate the number of finalised Exercises to date for each of the disposition codes below. (S 10.7.1)

Description	Code	Number of Exercises
Complete	01	
Partial complete/break-off	03	
Refusal – sample person	04	
Refusal – other	05	
Language problem	07	
Reading and writing difficulty	08	
Learning/mental disability	09	
Hearing impairment	12	
Blindness/visual impairment	13	
Speech impairment	14	
Physical disability	15	
Other disability	16	
Other (unspecified), such as sickness or unusual circumstances	17	
Death	18	
Maximum number of calls	21	
Temporarily absent/unavailable during field period	24	
Duplication – already interviewed	27	
Technical Problem	90	
Missing Paper Booklet	91	
<b>Total</b>		<b>0.00</b>

PRD5. Enter the information on the target response rates and number of completes. (S 4.7.1)

*Note: A toolkit is available on the SharePoint site to compute the Actual Weighted Response Rates. You may use the simplified or standard response rate formula. The `Target` columns refer to your "best estimate," not the theoretical maximum that could be reached. (e.g., 100% for RR)*

Component	Weighted Response Rates (%)		Number of Completes	
	Actual	Target	Actual	Target
Screener (if applicable)				
CI & BQ (combined)				
Exercise				

PRD6. What is the minimum, maximum, and mean number of completed interviews per interviewer to date? (S 8.3.4)

Minimum: \_\_\_\_\_ Maximum: \_\_\_\_\_ Mean: \_\_\_\_\_

### **QCF Quality Control of Fieldwork**

QCF1. Will interviews be/have interviews been monitored? (S 10.9.2)

- Yes  
 No **[SKIP TO QCF4]**

QCF2. What methods will be used/have been used to monitor interviews? (S 10.9.2)

[SELECT ALL THAT APPLY]

- Audio recording of full interviews  
 Audio recording of parts/snippets of interviews  
 In-person observation  
 Other (specify)

--

QCF3. Indicate for how many cases your country has completed the following interview monitoring procedures. (S 10.9.2)

	Number of Cases
Audio recorded full interviews	
Audio recorded parts/snippets of interviews	
In-person observation	
Other (specify)	

QCF4. Will the work of interviewers be/has the work of interviewers been validated through back-checks? (S 10.9.2)

- Yes  
 No **[SKIP TO QCF15]**

QCF5. Indicate which types of cases will be/have been validated and the mode used. (S 10.9.3)

[CHECK ALL APPROPRIATE BOXES]

Dispositions	In-person	Telephone	Mail
Completes	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Refusals	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ineligibles	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Non-contacts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

QCF6. Will validation cases be/have validation cases been selected at random? (S 10.9.3A)

- Yes, all cases  
 Yes, most cases  
 Yes, some cases  
 No

QCF7. Will your country use/has your country used the validation form proposed by the Consortium?

- Yes, it was used as-is
- Yes, it was used with adaptations
- No

QCF8. Who will be conducting/has conducted the validations? (S 10.9.2/10.9.3)

[SELECT ALL THAT APPLY]

- Supervisors (or equivalent)
- Field managers (or equivalent)
- Senior interviewers (or equivalent)
- Project staff
- Other (specify)

Survey Institute Telephone Center staff.

**[SKIP TO QCF15 IF DATA COLLECTION HAS NOT STARTED]**

QCF9. Has the 10 percent validation threshold been reached for each interviewer who received assignments?

- Yes **[SKIP TO QCF12]**
- No

QCF10. Among interviewers who received assignments, how many have had ...

... at least 10% of their finalised cases validated?      ENTER NUMBER \_\_\_\_\_

... at least 7% of their finalised cases validated?      ENTER NUMBER \_\_\_\_\_

QCF11. Briefly describe why your country has not validated 10 percent of each interviewer’s cases finalised to date. (S 10.9.3)

QCF12. Indicate for how many cases your country has conducted validation. (S 10.9.2)

	Number of Cases
Validation in person	
Validation by telephone	
Validation by mail	
Other (specify)	

QCF13. Has your country detected any falsification? (*S 10.9.4*)

- Yes  
 No [**SKIP TO QCF15**]

QCF14. Please explain the falsification found and indicate the number of interviewers and the percent/number of cases impacted. Please also indicate what was done/will be done with the falsified case(s). (*S 10.9.4*)

QCF15. Will your country develop/has your country developed management reports to detect falsification? (*S 10.9.6*)

- Yes  
 No [**SKIP TO QCF17**]

QCF16. Indicate which management reports will be used/have been used to detect falsification. (*S 10.9.6*)

[SELECT ALL THAT APPLY]

- Overall interview administration length  
 Individual instrument administration length  
 Amount of time between interviews  
 Interviews conducted very early in the morning or late in the evening  
 Number of interviews conducted per day  
 Other (specify)

QCF17. What procedures will be used/have been used for reviewing electronic survey data?  
(S 10.9.9)

[SELECT ALL THAT APPLY]

- Review of data frequencies
- Review and suppression of edits
- Review of "other-specify" responses
- Review of open ended responses
- Review of missing data rates (i.e., refusals, don't knows)
- Other (specify)

QCF18. Who will review/has reviewed completed paper case materials? (S 10.9.8)

[SELECT ALL THAT APPLY]

- Interviewers
- Supervisors
- Home office staff upon receipt
- Other (specify)

### **ETH Ethics/Confidentiality**

ETH1. Did your country submit its research plan to the appropriate institutional review board(s) and/or ethics committee(s) for approval? (S 2.1)

- Yes
- No **[SKIP TO ETH3]**
- Not required in our country **[SKIP TO ETH3]**

ETH2. Has approval been granted by the appropriate institutional review board(s) and/or ethics committee(s) on the research plan? (S 2.1)

- Yes
- No

ETH3. Will all of your country's staff be trained/was all of your country's staff trained on the importance of ethics and scientific rigour in research involving human subjects? (S 2.1)

- Yes
- No



ETH4. Which confidentiality forms will all of your country's study staff sign/did all of your country's study staff sign? (S 2.2)

[SELECT ALL THAT APPLY]

- PIAAC confidentiality form
- Country-specific form
- Other (specify)

ETH5. What measures will your country use/has your country been using to maintain the security of the data stored in interviewers' laptop computer? (S 2.2)

[SELECT ALL THAT APPLY]

- Data encryption
- Password protection
- Keeping all password lists in a separate location from the laptop computer
- Securely storing the laptop computer when not in use
- Other (specify)

Interviewers are not authorized to use their laptop for anything other than PIAAC-related work.

**[SKIP TO END IF DATA COLLECTION HAS NOT STARTED]**

ETH6. Have there been any problems with data confidentiality? (S 2.2)

- Yes
- No **[SKIP TO ETH8]**

ETH7. Please explain problems with data confidentiality. (S 2.2)

ETH8. Have any interviewer laptops been lost or stolen? (S 2.2)

- Yes
- No **[SKIP TO END]**

ETH9. How many laptops have been lost or stolen? (S 2.2)

\_\_\_\_\_

ETH10. What measures were taken when a laptop was lost or stolen? (S 2.2)

[SELECT ALL THAT APPLY]

- Reported incident to the Consortium
- Filed a report with the local authorities
- Instructed supervisors to thoroughly investigate the matter
- Other (specify)

**END OF FORM**

**Comments**

## Appendix C

### Interviewer Training Reports

# PIAAC MAIN STUDY **INTERVIEWER TRAINING** **SURVEY OPERATIONS QUALITY CONTROL FORM**

## **Instructions**

- Enter and edit information on the form using Adobe Acrobat Reader.
- To prevent losing entries, use the "save" feature regularly.
- It is important that the filename incorporates the name of your country, the title of the form, and a brief training session descriptor.
- Please complete one form for each training session (i.e. classroom or group).
- Ideally, the form should be completed by a staff member physically present at training.
- Do not complete a form for the train-the-trainer session(s).
- Do not use the "comment" function in Adobe Acrobat to add details. Additional space to do so is provided on the last page of this form. If your comments refer to a specific question, please write the question number.
- Answer all applicable questions on the form.
- Please do not submit your country's quality control forms via email.

Country: United States Date: 15 / 9 / 2011  
(DD/MM/YYYY)

Is this a revised submission?  Yes [**PLEASE UPDATE DATE**]    
 No

Completed by: Lillian Diaz-Hoffmann Title: Study Manager  
Completed by: \_\_\_\_\_ Title: \_\_\_\_\_  
Completed by: \_\_\_\_\_ Title: \_\_\_\_\_

Unique descriptor for the session: Los Angeles  
(e.g., city, regional office name, session number, etc.)

## **LTC Logistics**

LTC1. What were the beginning and end dates of this training session? (S 9.4.2)

**From:** 18 / 8 / 2011 **To:** 23 / 8 / 2011  
(DD/MM/YYYY) (DD/MM/YYYY)

LTC2. How many days did this training session last? Include partial days. (S 9.4.2)

ENTER NUMBER 6.00

LTC3. In which type of facility was the training session held? (S 9.2.1)

- Survey Institute  
 Hotel  
 Conference centre  
 Community centre or other public facility  
 Other (specify)

LTC4. Indicate the number of training staff that attended this training session.

*Note: Prorate if necessary; e.g. a technical support staff responsible for two training rooms should be entered as 0.5. (S 9.2.2)*

Training Staff	Number
Number of lead trainers	11.00
Number of assistant trainers	11.00
Number of technical support staff	14.00
Other, specify <span style="color: red;">Home Office Operations staff</span>	5.00

LTC5. Was part of the training session held in break-out rooms? (S 9.2.1A)

- Yes  
 No **[SKIP TO PRF1]**

LTC6. How many break-out rooms did you have? (S 9.2.1A)

ENTER NUMBER   11.00  

## **PRF Trainees Profile**

PRF1. How many interviewers ... (S 9.6.1)

Trainees	Number
... began the training session?	186.00
... remained until the conclusion of the training session?	184.00
... were dismissed for poor performance prior to the end of the training session?	1.00
... were dismissed for any other reason prior to the end of the training session?	1.00
... quit prior to the end of the training session?	0.00

PRF2. Among interviewers who began the training session, how many ... (S 8.4.2)

Trainees	Number
... participated in the PIAAC FT and received favourable reviews?	10.00
... participated in the PIAAC FT but received less than favourable reviews?	0.00
... have had extensive experience on surveys other than PIAAC?	113.00
... have had some experience on surveys other than PIAAC?	53.00
... have had no prior interviewing experience?	20.00

PRF3. Among interviewers who began this training session, how many have had prior experience with the survey institute employing them? (S 8.4.2)

ENTER NUMBER 95.00

PRF4. Among interviewers who remained until the conclusion of this training session, how many were offered post-training remedial work? (S 9.6.1)

ENTER NUMBER 0.00

**GIT General Interviewing Techniques Training**

GIT1. Is it in the policy of the survey institute to offer mandatory general interviewing techniques training to newly hired interviewers?

- Yes
- No [**SKIP TO PST1**]

GIT2. What are the topics covered in the general interviewing techniques training offered to newly hired interviewers?

General Interviewing Techniques Training Topic	Hours of At-Home Training	Hours of In-Person Training
Asking questions and recording answers		1.50
Gaining respondent co-operation		2.25
CAPI training		
Case management system		
Locating households/respondents		
Screener administration		
Disposition codes		
Quality control		
Administrative procedures		
Other, specify		
Other, specify		
Other, specify		
Other, specify		
<b>Total number of hours</b>	0.00	3.75

GIT3. How many interviewers in this session have received the general interviewing techniques training since they were hired?

ENTER NUMBER 186.00

GIT4. Is it in the policy of the survey institute to require interviewers to attend a refresher general interviewing techniques training at regular intervals?

Yes

No [**SKIP TO PST1**]

GIT5. How many interviewers in this session have attended a refresher general interviewing techniques training in the past 12 months?

ENTER NUMBER \_\_\_\_\_



**PST PIAAC-Specific Training**

PST1. First, (1) indicate whether the following training components were primarily developed by the Consortium or your country. Then, indicate the number of hours of training allotted both for (2) at-home and (3) in-person interviewer training for each component. (S 9.4.2/9.4.4/9.4.5)

Note: Consortium-developed materials are any materials that were primarily translated or adapted from training materials provided by the Consortium. Country-developed materials are materials that you developed mostly or entirely on your own.

Interviewer Training Topic	Developed by:		Hours of At-Home Training	Hours of In-Person Training
	Consort.	Country		
General Interviewing Techniques – Asking questions and recording answers	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1.00	1.50
General Interviewing Techniques – Gaining respondent co-operation	<input type="checkbox"/>	<input checked="" type="checkbox"/>		2.25
Introduction to PIAAC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.25	0.50
Survey overview	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.25	0.25
Survey demonstration	<input type="checkbox"/>	<input type="checkbox"/>		
Preparing for the field	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		1.00
CAPI training	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		1.50
Locating households/respondents	<input type="checkbox"/>	<input checked="" type="checkbox"/>		0.75
Case management system	<input type="checkbox"/>	<input checked="" type="checkbox"/>		0.75
Screeners interactive #1 (if applicable)	<input type="checkbox"/>	<input checked="" type="checkbox"/>		3.00
Screeners interactive #2 (if applicable)	<input type="checkbox"/>	<input checked="" type="checkbox"/>		2.25
Introduction to CI/BQ administration	<input checked="" type="checkbox"/>	<input type="checkbox"/>		0.25
BQ interactive #1	<input type="checkbox"/>	<input checked="" type="checkbox"/>		2.00
BQ interactive #2	<input type="checkbox"/>	<input checked="" type="checkbox"/>		1.75
BQ exercises	<input checked="" type="checkbox"/>	<input type="checkbox"/>		0.75
Disposition codes	<input checked="" type="checkbox"/>	<input type="checkbox"/>		0.75
Introduction to Direct Assessment	<input checked="" type="checkbox"/>	<input type="checkbox"/>		0.75
Direct Assessment interactive #1	<input type="checkbox"/>	<input checked="" type="checkbox"/>		2.00
Direct Assessment interactive #2	<input type="checkbox"/>	<input checked="" type="checkbox"/>		2.00
Core scoring	<input checked="" type="checkbox"/>	<input type="checkbox"/>		0.50
Quality control	<input checked="" type="checkbox"/>	<input type="checkbox"/>		0.50
Administrative procedures	<input type="checkbox"/>	<input checked="" type="checkbox"/>		2.00
Gaining respondent co-operation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		1.50
Gaining respondent co-operation roundtable	<input checked="" type="checkbox"/>	<input type="checkbox"/>		1.75
Practice interview (role play) #1	<input type="checkbox"/>	<input checked="" type="checkbox"/>		2.25
Practice interview (role play) #2	<input type="checkbox"/>	<input checked="" type="checkbox"/>		3.00
Live respondent practice	<input type="checkbox"/>	<input type="checkbox"/>		2.75
<b>Total number of hours</b>			<b>8.50</b>	<b>38.25</b>

PST2. Which PIAAC training materials did your country not use? (S 9.5.1)

SELECT ALL THAT APPLY

- Interviewer training agenda
- Case folder
- Advance materials (letters, brochures, endorsement letters, etc.)
- Gaining Respondent Co-operation exercises and answer key
- BQ exercises and answer key
- Core scoring exercises and answer key
- Other (specify)

PST3. In addition to the PIAAC training materials, which of the following training materials did your country develop? (S 9.5.2)

SELECT ALL THAT APPLY

- Supervisor Manual
- Supervisor Training Guide
- Other (specify)

PST4. Did your country provide supplemental evening review (lab) sessions for interviewers who wanted additional practice or were identified as needing additional practice with study components? (S 9.4.2)

- Yes
- No [**SKIP TO PST8**]

PST5. How many supplemental evening review (lab) sessions were held? (S 9.4.2)

2.00

PST6. How many trainees attended the supplemental evening review (lab) sessions? (S 9.4.2)

24.00

PST7. Who led the supplemental evening review (lab) sessions? (S 9.4.2)

SELECT ALL THAT APPLY

- Lead Trainer
- Assistant Trainer
- Field Supervisor (or equivalent)
- Field Manager (or equivalent)
- Field Director (or equivalent)
- Other (specify)

PST8. Did training staff hold nightly debriefing sessions to do any or all of the following: discuss the progress of training, perform trainee evaluations, or discuss any issues or questions that arose during the training day? (S 9.4.2)

- Yes
- No

PST9. Did interviewers conduct at least one complete unscripted practice interview with a respondent unfamiliar with the PIAAC study during the interviewer training? (S 9.4.2)

- Yes
- No

**LNG Additional Language Training**

LNG1. Was the interviewer training conducted in more than one language? (S 9.4.3)

- Yes
- No **[SKIP TO END]**

LNG2. Which method was used for training in more than one language? (S 9.4.3)

SELECT ONE

- Full interviewer training session(s) were conducted in each administration language **[SKIP TO END]**
- Abbreviated training and practice interviews in the secondary language for applicable interviewing staff only
- Other (specify)

LNG3. What components were included in the second language interviewer training? (S 9.4.3)

SELECT ALL THAT APPLY

- Gaining respondent co-operation
- Avoiding refusals and converting refusals
- BQ interactives
- Practice interviews (role plays)
- Other (specify)

LNG4. What methods did you use to evaluate the trainees during training? (S 9.6.1)

SELECT ALL THAT APPLY

- Completed a role-play or paid respondent interview, observed and evaluated by a member of the training staff
- Completed exercises from GIT training
- Completed exercises from project-specific training
- Language certification (if appropriate)
- Other (specify)

Daily written evaluations and documentation of technical/behavioral issues.

**END OF FORM**

**Comments**

Conducted an additional Direct Assessment Interactive featuring the paper path. Trainees completed a third role play for the paper path of the Assessment.

We released a field supervisor during training. Her training room was dissolved and trainees were reassigned to other regions and training rooms. Therefore we ended training with 10 training rooms, 10 lead trainers and 10 assistant trainers.

Trainees were evaluated daily in writing by lead trainers and assistant trainers. Detailed documentation was kept for trainees displaying difficulties with the computer hardware or software and/or interviewing skills. Behavioral problems such as tardiness or failure to follow directions were also documented.

# PIAAC MAIN STUDY

## INTERVIEWER TRAINING

### SURVEY OPERATIONS QUALITY CONTROL FORM

#### Instructions

- Enter and edit information on the form using Adobe Acrobat Reader.
- To prevent losing entries, use the "save" feature regularly.
- It is important that the filename incorporates the name of your country, the title of the form, and a brief training session descriptor.
- Please complete one form for each training session (i.e. classroom or group).
- Ideally, the form should be completed by a staff member physically present at training.
- Do not complete a form for the train-the-trainer session(s).
- Do not use the "comment" function in Adobe Acrobat to add details. Additional space to do so is provided on the last page of this form. If your comments refer to a specific question, please write the question number.
- Answer all applicable questions on the form.
- Please do not submit your country's quality control forms via email.

Country: United States Date: 4 / 1 / 2012  
(DD/MM/YYYY)

Is this a revised submission?  Yes **[PLEASE UPDATE DATE]** ↑  
 No

Completed by: Lillian Diaz-Hoffmann Title: Study Manager  
 Completed by: \_\_\_\_\_ Title: \_\_\_\_\_  
 Completed by: \_\_\_\_\_ Title: \_\_\_\_\_

Unique descriptor for the session: Rockville 1  
(e.g., city, regional office name, session number, etc.)

#### **LTC Logistics**

LTC1. What were the beginning and end dates of this training session? (S 9.4.2)

**From:** 6 / 12 / 2011 **To:** 9 / 12 / 2011  
(DD/MM/YYYY) (DD/MM/YYYY)

LTC2. How many days did this training session last? Include partial days. (S 9.4.2)

ENTER NUMBER 4.00

LTC3. In which type of facility was the training session held? (S 9.2.1)

- Survey Institute  
 Hotel  
 Conference centre  
 Community centre or other public facility  
 Other (specify)

LTC4. Indicate the number of training staff that attended this training session.

*Note: Prorate if necessary; e.g. a technical support staff responsible for two training rooms should be entered as 0.5. (S 9.2.2)*

Training Staff	Number
Number of lead trainers	1.00
Number of assistant trainers	1.00
Number of technical support staff	1.00
Other, specify Home Office Operations staff	2.00

LTC5. Was part of the training session held in break-out rooms? (S 9.2.1A)

- Yes  
 No **[SKIP TO PRF1]**

LTC6. How many break-out rooms did you have? (S 9.2.1A)

ENTER NUMBER \_\_\_\_\_

## **PRF Trainees Profile**

PRF1. How many interviewers ... (S 9.6.1)

Trainees	Number
... began the training session?	5.00
... remained until the conclusion of the training session?	5.00
... were dismissed for poor performance prior to the end of the training session?	0.00
... were dismissed for any other reason prior to the end of the training session?	0.00
... quit prior to the end of the training session?	0.00

PRF2. Among interviewers who began the training session, how many ... (S 8.4.2)

Trainees	Number
... participated in the PIAAC FT and received favourable reviews?	1.00
... participated in the PIAAC FT but received less than favourable reviews?	0.00
... have had extensive experience on surveys other than PIAAC?	4.00
... have had some experience on surveys other than PIAAC?	0.00
... have had no prior interviewing experience?	0.00

PRF3. Among interviewers who began this training session, how many have had prior experience with the survey institute employing them? (S 8.4.2)

ENTER NUMBER 5.00

PRF4. Among interviewers who remained until the conclusion of this training session, how many were offered post-training remedial work? (S 9.6.1)

ENTER NUMBER 0.00

## **GIT General Interviewing Techniques Training**

GIT1. Is it in the policy of the survey institute to offer mandatory general interviewing techniques training to newly hired interviewers?

- Yes  
 No [**SKIP TO PST1**]

GIT2. What are the topics covered in the general interviewing techniques training offered to newly hired interviewers?

General Interviewing Techniques Training Topic	Hours of At-Home Training	Hours of In-Person Training
Asking questions and recording answers		1.00
Gaining respondent co-operation		
CAPI training		
Case management system		
Locating households/respondents		
Screener administration		
Disposition codes		
Quality control		
Administrative procedures		
Other, specify		
Other, specify		
Other, specify		
Other, specify		
<b>Total number of hours</b>	0.00	1.00



GIT3. How many interviewers in this session have received the general interviewing techniques training since they were hired?

ENTER NUMBER 5.00

GIT4. Is it in the policy of the survey institute to require interviewers to attend a refresher general interviewing techniques training at regular intervals?

Yes

No [**SKIP TO PST1**]

GIT5. How many interviewers in this session have attended a refresher general interviewing techniques training in the past 12 months?

ENTER NUMBER \_\_\_\_\_

**PST PIAAC-Specific Training**

PST1. First, (1) indicate whether the following training components were primarily developed by the Consortium or your country. Then, indicate the number of hours of training allotted both for (2) at-home and (3) in-person interviewer training for each component. (S 9.4.2/9.4.4/9.4.5)

Note: Consortium-developed materials are any materials that were primarily translated or adapted from training materials provided by the Consortium. Country-developed materials are materials that you developed mostly or entirely on your own.

Interviewer Training Topic	Developed by:		Hours of At-Home Training	Hours of In-Person Training
	Consort.	Country		
General Interviewing Techniques – Asking questions and recording answers	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1.00	1.00
General Interviewing Techniques – Gaining respondent co-operation	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Introduction to PIAAC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.25	0.25
Survey overview	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.25	0.25
Survey demonstration	<input type="checkbox"/>	<input type="checkbox"/>		
Preparing for the field	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		1.00
CAPI training	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		0.50
Locating households/respondents	<input type="checkbox"/>	<input checked="" type="checkbox"/>		0.50
Case management system	<input type="checkbox"/>	<input checked="" type="checkbox"/>		0.50
Screeners interactive #1 (if applicable)	<input type="checkbox"/>	<input checked="" type="checkbox"/>		3.00
Screeners interactive #2 (if applicable)	<input type="checkbox"/>	<input checked="" type="checkbox"/>		2.25
Introduction to CI/BQ administration	<input checked="" type="checkbox"/>	<input type="checkbox"/>		0.25
BQ interactive #1	<input type="checkbox"/>	<input checked="" type="checkbox"/>		2.00
BQ interactive #2	<input type="checkbox"/>	<input checked="" type="checkbox"/>		1.75
BQ exercises	<input checked="" type="checkbox"/>	<input type="checkbox"/>		0.50
Disposition codes	<input checked="" type="checkbox"/>	<input type="checkbox"/>		0.75
Introduction to Direct Assessment	<input checked="" type="checkbox"/>	<input type="checkbox"/>		0.50
Direct Assessment interactive #1	<input type="checkbox"/>	<input checked="" type="checkbox"/>		2.00
Direct Assessment interactive #2	<input type="checkbox"/>	<input checked="" type="checkbox"/>		2.00
Core scoring	<input checked="" type="checkbox"/>	<input type="checkbox"/>		0.50
Quality control	<input checked="" type="checkbox"/>	<input type="checkbox"/>		0.50
Administrative procedures	<input type="checkbox"/>	<input checked="" type="checkbox"/>		1.50
Gaining respondent co-operation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		1.00
Gaining respondent co-operation roundtable	<input checked="" type="checkbox"/>	<input type="checkbox"/>		1.50
Practice interview (role play) #1	<input type="checkbox"/>	<input checked="" type="checkbox"/>		2.25
Practice interview (role play) #2	<input type="checkbox"/>	<input checked="" type="checkbox"/>		3.00
Live respondent practice	<input type="checkbox"/>	<input type="checkbox"/>		2.50
<b>Total number of hours</b>			<b>8.25</b>	<b>31.75</b>

PST2. Which PIAAC training materials did your country not use? (S 9.5.1)

SELECT ALL THAT APPLY

- Interviewer training agenda
- Case folder
- Advance materials (letters, brochures, endorsement letters, etc.)
- Gaining Respondent Co-operation exercises and answer key
- BQ exercises and answer key
- Core scoring exercises and answer key
- Other (specify)

PST3. In addition to the PIAAC training materials, which of the following training materials did your country develop? (S 9.5.2)

SELECT ALL THAT APPLY

- Supervisor Manual
- Supervisor Training Guide
- Other (specify)

PST4. Did your country provide supplemental evening review (lab) sessions for interviewers who wanted additional practice or were identified as needing additional practice with study components? (S 9.4.2)

- Yes
- No [**SKIP TO PST8**]

PST5. How many supplemental evening review (lab) sessions were held? (S 9.4.2)

\_\_\_\_\_

PST6. How many trainees attended the supplemental evening review (lab) sessions? (S 9.4.2)

\_\_\_\_\_

PST7. Who led the supplemental evening review (lab) sessions? (S 9.4.2)

SELECT ALL THAT APPLY

- Lead Trainer
- Assistant Trainer
- Field Supervisor (or equivalent)
- Field Manager (or equivalent)
- Field Director (or equivalent)
- Other (specify)

PST8. Did training staff hold nightly debriefing sessions to do any or all of the following: discuss the progress of training, perform trainee evaluations, or discuss any issues or questions that arose during the training day? (S 9.4.2)

- Yes
- No

PST9. Did interviewers conduct at least one complete unscripted practice interview with a respondent unfamiliar with the PIAAC study during the interviewer training? (S 9.4.2)

- Yes
- No

**LNG Additional Language Training**

LNG1. Was the interviewer training conducted in more than one language? (S 9.4.3)

- Yes
- No **[SKIP TO END]**

LNG2. Which method was used for training in more than one language? (S 9.4.3)

SELECT ONE

- Full interviewer training session(s) were conducted in each administration language **[SKIP TO END]**
- Abbreviated training and practice interviews in the secondary language for applicable interviewing staff only
- Other (specify)

LNG3. What components were included in the second language interviewer training? (S 9.4.3)

SELECT ALL THAT APPLY

- Gaining respondent co-operation
- Avoiding refusals and converting refusals
- BQ interactives
- Practice interviews (role plays)
- Other (specify)

LNG4. What methods did you use to evaluate the trainees during training? (S 9.6.1)

SELECT ALL THAT APPLY

- Completed a role-play or paid respondent interview, observed and evaluated by a member of the training staff
- Completed exercises from GIT training
- Completed exercises from project-specific training
- Language certification (if appropriate)
- Other (specify)

**END OF FORM**

**Comments**

Conducted an additional Direct Assessment Interactive featuring the paper path. Trainees completed a third role play for the paper path of the Assessment.

# PIAAC MAIN STUDY

## INTERVIEWER TRAINING

### SURVEY OPERATIONS QUALITY CONTROL FORM

#### Instructions

- Enter and edit information on the form using Adobe Acrobat Reader.
- To prevent losing entries, use the "save" feature regularly.
- It is important that the filename incorporates the name of your country, the title of the form, and a brief training session descriptor.
- Please complete one form for each training session (i.e. classroom or group).
- Ideally, the form should be completed by a staff member physically present at training.
- Do not complete a form for the train-the-trainer session(s).
- Do not use the "comment" function in Adobe Acrobat to add details. Additional space to do so is provided on the last page of this form. If your comments refer to a specific question, please write the question number.
- Answer all applicable questions on the form.
- Please do not submit your country's quality control forms via email.

Country: United States Date: 4 / 1 / 2012  
(DD/MM/YYYY)

Is this a revised submission?  Yes **[PLEASE UPDATE DATE]** ↑  
 No

Completed by: Lillian Diaz-Hoffmann Title: Study Manager  
 Completed by: \_\_\_\_\_ Title: \_\_\_\_\_  
 Completed by: \_\_\_\_\_ Title: \_\_\_\_\_

Unique descriptor for the session: Rockville 2  
(e.g., city, regional office name, session number, etc.)

#### **LTC Logistics**

LTC1. What were the beginning and end dates of this training session? (S 9.4.2)

**From:** 12 / 12 / 2011 **To:** 15 / 12 / 2011  
(DD/MM/YYYY) (DD/MM/YYYY)

LTC2. How many days did this training session last? Include partial days. (S 9.4.2)

ENTER NUMBER 4.00

LTC3. In which type of facility was the training session held? (S 9.2.1)

- Survey Institute  
 Hotel  
 Conference centre  
 Community centre or other public facility  
 Other (specify)

LTC4. Indicate the number of training staff that attended this training session.

*Note: Prorate if necessary; e.g. a technical support staff responsible for two training rooms should be entered as 0.5. (S 9.2.2)*

Training Staff	Number
Number of lead trainers	2.00
Number of assistant trainers	0.00
Number of technical support staff	1.00
Other, specify	0.00

LTC5. Was part of the training session held in break-out rooms? (S 9.2.1A)

- Yes  
 No **[SKIP TO PRF1]**

LTC6. How many break-out rooms did you have? (S 9.2.1A)

ENTER NUMBER \_\_\_\_\_

## **PRF Trainees Profile**

PRF1. How many interviewers ... (S 9.6.1)

Trainees	Number
... began the training session?	1.00
... remained until the conclusion of the training session?	1.00
... were dismissed for poor performance prior to the end of the training session?	0.00
... were dismissed for any other reason prior to the end of the training session?	0.00
... quit prior to the end of the training session?	0.00



PRF2. Among interviewers who began the training session, how many ... (S 8.4.2)

Trainees	Number
... participated in the PIAAC FT and received favourable reviews?	0.00
... participated in the PIAAC FT but received less than favourable reviews?	0.00
... have had extensive experience on surveys other than PIAAC?	1.00
... have had some experience on surveys other than PIAAC?	0.00
... have had no prior interviewing experience?	0.00

PRF3. Among interviewers who began this training session, how many have had prior experience with the survey institute employing them? (S 8.4.2)

ENTER NUMBER 1.00

PRF4. Among interviewers who remained until the conclusion of this training session, how many were offered post-training remedial work? (S 9.6.1)

ENTER NUMBER 0.00

## **GIT General Interviewing Techniques Training**

GIT1. Is it in the policy of the survey institute to offer mandatory general interviewing techniques training to newly hired interviewers?

- Yes  
 No [**SKIP TO PST1**]

GIT2. What are the topics covered in the general interviewing techniques training offered to newly hired interviewers?

General Interviewing Techniques Training Topic	Hours of At-Home Training	Hours of In-Person Training
Asking questions and recording answers		1.00
Gaining respondent co-operation		
CAPI training		
Case management system		
Locating households/respondents		
Screener administration		
Disposition codes		
Quality control		
Administrative procedures		
Other, specify		
Other, specify		
Other, specify		
Other, specify		
<b>Total number of hours</b>	0.00	1.00

GIT3. How many interviewers in this session have received the general interviewing techniques training since they were hired?

ENTER NUMBER   1.00  

GIT4. Is it in the policy of the survey institute to require interviewers to attend a refresher general interviewing techniques training at regular intervals?

Yes

No [**SKIP TO PST1**]

GIT5. How many interviewers in this session have attended a refresher general interviewing techniques training in the past 12 months?

ENTER NUMBER \_\_\_\_\_

**PST PIAAC-Specific Training**

PST1. First, (1) indicate whether the following training components were primarily developed by the Consortium or your country. Then, indicate the number of hours of training allotted both for (2) at-home and (3) in-person interviewer training for each component. (S 9.4.2/9.4.4/9.4.5)

Note: Consortium-developed materials are any materials that were primarily translated or adapted from training materials provided by the Consortium. Country-developed materials are materials that you developed mostly or entirely on your own.

Interviewer Training Topic	Developed by:		Hours of At-Home Training	Hours of In-Person Training
	Consort.	Country		
General Interviewing Techniques – Asking questions and recording answers	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1.00	1.00
General Interviewing Techniques – Gaining respondent co-operation	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Introduction to PIAAC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.25	0.25
Survey overview	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.25	0.25
Survey demonstration	<input type="checkbox"/>	<input type="checkbox"/>		
Preparing for the field	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		1.00
CAPI training	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		0.50
Locating households/respondents	<input type="checkbox"/>	<input checked="" type="checkbox"/>		0.50
Case management system	<input type="checkbox"/>	<input checked="" type="checkbox"/>		0.50
Screeners interactive #1 (if applicable)	<input type="checkbox"/>	<input checked="" type="checkbox"/>		3.00
Screeners interactive #2 (if applicable)	<input type="checkbox"/>	<input checked="" type="checkbox"/>		2.25
Introduction to CI/BQ administration	<input checked="" type="checkbox"/>	<input type="checkbox"/>		0.25
BQ interactive #1	<input type="checkbox"/>	<input checked="" type="checkbox"/>		2.00
BQ interactive #2	<input type="checkbox"/>	<input checked="" type="checkbox"/>		1.75
BQ exercises	<input checked="" type="checkbox"/>	<input type="checkbox"/>		0.50
Disposition codes	<input checked="" type="checkbox"/>	<input type="checkbox"/>		0.75
Introduction to Direct Assessment	<input checked="" type="checkbox"/>	<input type="checkbox"/>		0.50
Direct Assessment interactive #1	<input type="checkbox"/>	<input checked="" type="checkbox"/>		2.00
Direct Assessment interactive #2	<input type="checkbox"/>	<input checked="" type="checkbox"/>		2.00
Core scoring	<input checked="" type="checkbox"/>	<input type="checkbox"/>		0.50
Quality control	<input checked="" type="checkbox"/>	<input type="checkbox"/>		0.50
Administrative procedures	<input type="checkbox"/>	<input checked="" type="checkbox"/>		1.50
Gaining respondent co-operation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		1.00
Gaining respondent co-operation roundtable	<input checked="" type="checkbox"/>	<input type="checkbox"/>		1.50
Practice interview (role play) #1	<input type="checkbox"/>	<input checked="" type="checkbox"/>		2.25
Practice interview (role play) #2	<input type="checkbox"/>	<input checked="" type="checkbox"/>		3.00
Live respondent practice	<input type="checkbox"/>	<input type="checkbox"/>		2.50
<b>Total number of hours</b>			<b>8.25</b>	<b>31.75</b>

PST2. Which PIAAC training materials did your country not use? (S 9.5.1)

SELECT ALL THAT APPLY

- Interviewer training agenda
- Case folder
- Advance materials (letters, brochures, endorsement letters, etc.)
- Gaining Respondent Co-operation exercises and answer key
- BQ exercises and answer key
- Core scoring exercises and answer key
- Other (specify)

PST3. In addition to the PIAAC training materials, which of the following training materials did your country develop? (S 9.5.2)

SELECT ALL THAT APPLY

- Supervisor Manual
- Supervisor Training Guide
- Other (specify)

PST4. Did your country provide supplemental evening review (lab) sessions for interviewers who wanted additional practice or were identified as needing additional practice with study components? (S 9.4.2)

- Yes
- No [**SKIP TO PST8**]

PST5. How many supplemental evening review (lab) sessions were held? (S 9.4.2)

\_\_\_\_\_

PST6. How many trainees attended the supplemental evening review (lab) sessions? (S 9.4.2)

\_\_\_\_\_

PST7. Who led the supplemental evening review (lab) sessions? (S 9.4.2)

SELECT ALL THAT APPLY

- Lead Trainer
- Assistant Trainer
- Field Supervisor (or equivalent)
- Field Manager (or equivalent)
- Field Director (or equivalent)
- Other (specify)

PST8. Did training staff hold nightly debriefing sessions to do any or all of the following: discuss the progress of training, perform trainee evaluations, or discuss any issues or questions that arose during the training day? (S 9.4.2)

- Yes  
 No

PST9. Did interviewers conduct at least one complete unscripted practice interview with a respondent unfamiliar with the PIAAC study during the interviewer training? (S 9.4.2)

- Yes  
 No

### **LNG Additional Language Training**

LNG1. Was the interviewer training conducted in more than one language? (S 9.4.3)

- Yes  
 No **[SKIP TO END]**

LNG2. Which method was used for training in more than one language? (S 9.4.3)

SELECT ONE

- Full interviewer training session(s) were conducted in each administration language **[SKIP TO END]**  
 Abbreviated training and practice interviews in the secondary language for applicable interviewing staff only  
 Other (specify)

LNG3. What components were included in the second language interviewer training? (S 9.4.3)

SELECT ALL THAT APPLY

- Gaining respondent co-operation  
 Avoiding refusals and converting refusals  
 BQ interactives  
 Practice interviews (role plays)  
 Other (specify)

LNG4. What methods did you use to evaluate the trainees during training? (S 9.6.1)

SELECT ALL THAT APPLY

- Completed a role-play or paid respondent interview, observed and evaluated by a member of the training staff
- Completed exercises from GIT training
- Completed exercises from project-specific training
- Language certification (if appropriate)
- Other (specify)

**END OF FORM**

**Comments**

Conducted an additional Direct Assessment Interactive featuring the paper path.

# PIAAC MAIN STUDY

## INTERVIEWER TRAINING

### SURVEY OPERATIONS QUALITY CONTROL FORM

#### Instructions

- Enter and edit information on the form using Adobe Acrobat Reader.
- To prevent losing entries, use the "save" feature regularly.
- It is important that the filename incorporates the name of your country, the title of the form, and a brief training session descriptor.
- Please complete one form for each training session (i.e. classroom or group).
- Ideally, the form should be completed by a staff member physically present at training.
- Do not complete a form for the train-the-trainer session(s).
- Do not use the "comment" function in Adobe Acrobat to add details. Additional space to do so is provided on the last page of this form. If your comments refer to a specific question, please write the question number.
- Answer all applicable questions on the form.
- Please do not submit your country's quality control forms via email.

Country: United States Date: 19 / 1 / 2012  
(DD/MM/YYYY)

Is this a revised submission?  Yes **[PLEASE UPDATE DATE]** ↑  
 No

Completed by: Lillian Diaz-Hoffmann Title: Study Manager  
 Completed by: \_\_\_\_\_ Title: \_\_\_\_\_  
 Completed by: \_\_\_\_\_ Title: \_\_\_\_\_

Unique descriptor for the session: Rockville 3  
(e.g., city, regional office name, session number, etc.)

#### **LTC Logistics**

LTC1. What were the beginning and end dates of this training session? (S 9.4.2)

**From:** 10 / 1 / 2012 **To:** 13 / 1 / 2012  
(DD/MM/YYYY) (DD/MM/YYYY)

LTC2. How many days did this training session last? Include partial days. (S 9.4.2)

ENTER NUMBER 4.00



LTC3. In which type of facility was the training session held? (S 9.2.1)

- Survey Institute  
 Hotel  
 Conference centre  
 Community centre or other public facility  
 Other (specify)

LTC4. Indicate the number of training staff that attended this training session.

*Note: Prorate if necessary; e.g. a technical support staff responsible for two training rooms should be entered as 0.5. (S 9.2.2)*

Training Staff	Number
Number of lead trainers	1.00
Number of assistant trainers	1.00
Number of technical support staff	1.00
Other, specify <span style="color: red;">Home Office Operations staff</span>	2.00

LTC5. Was part of the training session held in break-out rooms? (S 9.2.1A)

- Yes  
 No **[SKIP TO PRF1]**

LTC6. How many break-out rooms did you have? (S 9.2.1A)

ENTER NUMBER \_\_\_\_\_

## **PRF Trainees Profile**

PRF1. How many interviewers ... (S 9.6.1)

Trainees	Number
... began the training session?	3.00
... remained until the conclusion of the training session?	2.00
... were dismissed for poor performance prior to the end of the training session?	1.00
... were dismissed for any other reason prior to the end of the training session?	0.00
... quit prior to the end of the training session?	0.00

PRF2. Among interviewers who began the training session, how many ... (S 8.4.2)

Trainees	Number
... participated in the PIAAC FT and received favourable reviews?	0.00
... participated in the PIAAC FT but received less than favourable reviews?	0.00
... have had extensive experience on surveys other than PIAAC?	3.00
... have had some experience on surveys other than PIAAC?	0.00
... have had no prior interviewing experience?	0.00

PRF3. Among interviewers who began this training session, how many have had prior experience with the survey institute employing them? (S 8.4.2)

ENTER NUMBER 1.00

PRF4. Among interviewers who remained until the conclusion of this training session, how many were offered post-training remedial work? (S 9.6.1)

ENTER NUMBER 0.00

## **GIT General Interviewing Techniques Training**

GIT1. Is it in the policy of the survey institute to offer mandatory general interviewing techniques training to newly hired interviewers?

- Yes  
 No [**SKIP TO PST1**]

GIT2. What are the topics covered in the general interviewing techniques training offered to newly hired interviewers?

General Interviewing Techniques Training Topic	Hours of At-Home Training	Hours of In-Person Training
Asking questions and recording answers		1.00
Gaining respondent co-operation		2.00
CAPI training		
Case management system		
Locating households/respondents		
Screener administration		
Disposition codes		
Quality control		
Administrative procedures		
Other, specify		
Other, specify		
Other, specify		
Other, specify		
<b>Total number of hours</b>	0.00	3.00

GIT3. How many interviewers in this session have received the general interviewing techniques training since they were hired?

ENTER NUMBER   3.00  

GIT4. Is it in the policy of the survey institute to require interviewers to attend a refresher general interviewing techniques training at regular intervals?

Yes

No [**SKIP TO PST1**]

GIT5. How many interviewers in this session have attended a refresher general interviewing techniques training in the past 12 months?

ENTER NUMBER \_\_\_\_\_

## **PST PIAAC-Specific Training**

PST1. First, (1) indicate whether the following training components were primarily developed by the Consortium or your country. Then, indicate the number of hours of training allotted both for (2) at-home and (3) in-person interviewer training for each component. (S 9.4.2/9.4.4/9.4.5)

*Note: Consortium-developed materials are any materials that were primarily translated or adapted from training materials provided by the Consortium. Country-developed materials are materials that you developed mostly or entirely on your own.*

Interviewer Training Topic	Developed by:		Hours of At-Home Training	Hours of In-Person Training
	Consort.	Country		
General Interviewing Techniques – Asking questions and recording answers	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1.00	1.00
General Interviewing Techniques – Gaining respondent co-operation	<input type="checkbox"/>	<input checked="" type="checkbox"/>		2.00
Introduction to PIAAC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.25	0.25
Survey overview	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.25	0.25
Survey demonstration	<input type="checkbox"/>	<input type="checkbox"/>		
Preparing for the field	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		0.75
CAPI training	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		0.50
Locating households/respondents	<input type="checkbox"/>	<input checked="" type="checkbox"/>		0.50
Case management system	<input type="checkbox"/>	<input checked="" type="checkbox"/>		0.50
Screeners interactive #1 (if applicable)	<input type="checkbox"/>	<input checked="" type="checkbox"/>		3.00
Screeners interactive #2 (if applicable)	<input type="checkbox"/>	<input checked="" type="checkbox"/>		2.00
Introduction to CI/BQ administration	<input checked="" type="checkbox"/>	<input type="checkbox"/>		0.25
BQ interactive #1	<input type="checkbox"/>	<input checked="" type="checkbox"/>		2.00
BQ interactive #2	<input type="checkbox"/>	<input checked="" type="checkbox"/>		1.50
BQ exercises	<input checked="" type="checkbox"/>	<input type="checkbox"/>		0.50
Disposition codes	<input checked="" type="checkbox"/>	<input type="checkbox"/>		0.75
Introduction to Direct Assessment	<input checked="" type="checkbox"/>	<input type="checkbox"/>		0.50
Direct Assessment interactive #1	<input type="checkbox"/>	<input checked="" type="checkbox"/>		2.00
Direct Assessment interactive #2	<input type="checkbox"/>	<input checked="" type="checkbox"/>		1.50
Core scoring	<input checked="" type="checkbox"/>	<input type="checkbox"/>		0.50
Quality control	<input checked="" type="checkbox"/>	<input type="checkbox"/>		0.50
Administrative procedures	<input type="checkbox"/>	<input checked="" type="checkbox"/>		1.50
Gaining respondent co-operation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		1.00
Gaining respondent co-operation roundtable	<input checked="" type="checkbox"/>	<input type="checkbox"/>		1.00
Practice interview (role play) #1	<input type="checkbox"/>	<input checked="" type="checkbox"/>		2.25
Practice interview (role play) #2	<input type="checkbox"/>	<input checked="" type="checkbox"/>		3.00
Live respondent practice	<input type="checkbox"/>	<input type="checkbox"/>		2.50
<b>Total number of hours</b>			<b>7.75</b>	<b>32.00</b>

PST2. Which PIAAC training materials did your country not use? (S 9.5.1)

SELECT ALL THAT APPLY

- Interviewer training agenda
- Case folder
- Advance materials (letters, brochures, endorsement letters, etc.)
- Gaining Respondent Co-operation exercises and answer key
- BQ exercises and answer key
- Core scoring exercises and answer key
- Other (specify)

PST3. In addition to the PIAAC training materials, which of the following training materials did your country develop? (S 9.5.2)

SELECT ALL THAT APPLY

- Supervisor Manual
- Supervisor Training Guide
- Other (specify)

PST4. Did your country provide supplemental evening review (lab) sessions for interviewers who wanted additional practice or were identified as needing additional practice with study components? (S 9.4.2)

- Yes
- No [**SKIP TO PST8**]

PST5. How many supplemental evening review (lab) sessions were held? (S 9.4.2)

\_\_\_\_\_

PST6. How many trainees attended the supplemental evening review (lab) sessions? (S 9.4.2)

\_\_\_\_\_

PST7. Who led the supplemental evening review (lab) sessions? (S 9.4.2)

SELECT ALL THAT APPLY

- Lead Trainer
- Assistant Trainer
- Field Supervisor (or equivalent)
- Field Manager (or equivalent)
- Field Director (or equivalent)
- Other (specify)

PST8. Did training staff hold nightly debriefing sessions to do any or all of the following: discuss the progress of training, perform trainee evaluations, or discuss any issues or questions that arose during the training day? (S 9.4.2)

- Yes
- No

PST9. Did interviewers conduct at least one complete unscripted practice interview with a respondent unfamiliar with the PIAAC study during the interviewer training? (S 9.4.2)

- Yes
- No

**LNG Additional Language Training**

LNG1. Was the interviewer training conducted in more than one language? (S 9.4.3)

- Yes
- No **[SKIP TO END]**

LNG2. Which method was used for training in more than one language? (S 9.4.3)

SELECT ONE

- Full interviewer training session(s) were conducted in each administration language **[SKIP TO END]**
- Abbreviated training and practice interviews in the secondary language for applicable interviewing staff only
- Other (specify)

LNG3. What components were included in the second language interviewer training? (S 9.4.3)

SELECT ALL THAT APPLY

- Gaining respondent co-operation
- Avoiding refusals and converting refusals
- BQ interactives
- Practice interviews (role plays)
- Other (specify)

LNG4. What methods did you use to evaluate the trainees during training? (S 9.6.1)

SELECT ALL THAT APPLY

- Completed a role-play or paid respondent interview, observed and evaluated by a member of the training staff
- Completed exercises from GIT training
- Completed exercises from project-specific training
- Language certification (if appropriate)
- Other (specify)

**END OF FORM**

**Comments**

Conducted an additional Direct Assessment Interactive featuring the paper path.



Appendix D  
Outreach Materials

## Key Figures Speak Out About ISAS

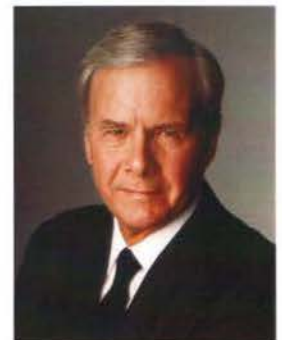
Key figures in the United States have spoken out to increase understanding and support for the International Survey of Adult Skills (ISAS). Among those are:

- **Bob Wise** – former West Virginia Governor
- **William Brock** – former U.S. Secretary of Labor and U.S. Trade Representative
- **Thomas Friedman** – award-winning author and *New York Times* columnist
- **Mike McCurry** – former Presidential Press Secretary
- **Tom Brokaw** – NBC News Special Correspondent

In a recent interview, Mr. Brokaw demonstrated both his knowledge of the overriding issues and his support for the international research effort now underway, noting *“Today we require an entirely different skill set, not just in our workforce population, but also in our citizen population. ISAS is an important first step in the right direction.”*

Reflecting on his more than 4 decades of reporting, including 22 years as anchor and editor of *NBC Nightly News* and his current work on special news broadcasts and documentaries, Brokaw went on to say:

*“I hope that what ISAS is doing in terms of assessing worker skills will be a kind of template for how we approach problems in the United States and around the world because understanding what is going on is key to dealing with it.”*



Tom Brokaw  
NBC News Special Correspondent

*Thank you for supporting this important study.*



## ISAS STUDY LETTERHEAD

[date]

Dear [RESPONDENT NAME, SIR OR MADAM],

Recently one of our field representatives contacted you about representing the United States in the international study called Program for the International Assessment of Adult Competencies, which is being conducted by the U.S. Department of Education's National Center for Education Statistics. You were reluctant to begin the study, so I am writing to give you more information and ask for your help.

This study is designed to tell us what skills adults in the United States have and how those skills relate to their employment and education. This information will help us develop educational and training programs to prepare our workforce to meet the challenges of the 21<sup>st</sup> century.

Contacting every adult in the United States is very expensive and difficult. Therefore, we have used statistical methods to randomly select several thousand adults who can represent the entire nation. If you do not participate, adults like you across the country will not be accurately represented in this study.

I understand that you are very busy and that time can be hard to come by. Your participation is entirely voluntary. But I would not ask you for your time if it were not so important to include every selected adult in the study. **If you complete the study, you will receive \$50.00 as a thank you for your time and participation.**

The National Center for Education Statistics is authorized to conduct this study under the Education Sciences Reform Act of 2002 (Public Law 107-279, Section 153). Under that law, the data provided by you may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (Public Law 107-279, Section 183). Individuals are never identified in any reports. All reported statistics refer to the United States as a whole or to national subgroups.

If you have additional questions, our field representative will be glad to answer them. You may also call the study's toll free number (1-888-xxx-xxxx), or visit the study's website at <http://xxxxx>.

Thank you very much for your cooperation and your contribution to this important study.

Sincerely,

[SUPERVISOR'S NAME]  
Field Supervisor  
International Survey of Adult Skills

ISAS STUDY LETTERHEAD

[INSERT DATE]

Dear [RESPONDENT NAME],

I am writing to ask for your time in participating in the International Survey of Adult Skills, which is being conducted by the U.S. Department of Education. You should have recently received a letter about the study from the U.S. Department of Education along with a magnet.

This survey has been designed to find out what activities adults do in their daily lives, such as reading, finding information, and using computers and technology, and to learn about their education and work experience.

This survey will provide valuable information to educators, policymakers and educational researchers on the current skills and experiences of the United States' adults. This information will help get a clear picture of the challenges we face as a country to develop a more skilled work force in the 21st century. Thousands of adults like you will be asked to participate.

This information will be used to develop programs to improve the skills adults in this country need in order to participate most successfully in the economy and society of the 21st century.

To date, a field representative has been unable to contact you in person. In order to accomplish the goals of ISAS, we need to speak with you. Your participation is important because you were scientifically selected to represent thousands of other similar individuals and we cannot replace you with anyone else.

Please be so kind as to call [FIELD SUPERVISOR] toll-free at 1-888-321-0338 to arrange a time to meet with our field representative and complete this important interview.

**All of your answers will be kept in strict confidence as required by law, and you will receive [INSERT INCENTIVE AMOUNT] when the interview is completed.** Many people we have interviewed have told us how much they enjoyed the experience, and how much they appreciated being part of such a worthwhile study.

Thank you in advance for your cooperation and for your contribution to this important study.

Sincerely,

[SUPERVISOR'S NAME]  
Field Supervisor  
International Survey of Adult Skills

ISAS STUDY LETTERHEAD

[INSERT DATE]

Dear [RESPONDENT NAME],

Recently, one of our field representatives contacted you about participating in the International Survey of Adult Skills, which is being conducted by the U.S. Department of Education.

It is understandable that you may have suspicions these days when a stranger knocks on the door. Therefore, I want to assure you that this is a legitimate nationwide study conducted by the U.S. Department of Education. We are NOT advertising or selling anything, and at no time will we attempt to collect money from you.

This survey has been designed to find out what activities adults do in their daily lives, such as reading, finding information, and using computers and technology, and to learn about their education and work experience. This information will help get a clear picture of the challenges we face as a country to develop a more skilled work force in the 21st century. Thousands of adults like you will be asked to participate.

This survey will provide valuable information to educators, policymakers and educational researchers on the current skills and experiences of the United States' adults. This information will be used to develop programs to improve the skills adults in this country need in order to participate most successfully in the economy and society of the 21st century.

We cannot interview every adult in the United States, so we take a sample of adults in different areas of the country. Your participation is important because you were scientifically selected to represent thousands of other similar individuals. If you do not participate, others like you will not be represented in this study.

Our field representative will contact you again shortly to schedule your interview. The interviewer will be wearing a photo ID badge, will provide you with a brochure describing the study and will address any concerns or questions you may have.

**All of your answers will be kept in strict confidence as required by law, and you will receive [INSERT INCENTIVE AMOUNT] when the interview is completed.** Many people we have interviewed have told us how much they enjoyed the experience, and how much they appreciated being part of such a worthwhile study.

Thank you in advance for your cooperation and for your contribution to this important study.

Sincerely,

[SUPERVISOR'S NAME]  
Field Supervisor  
International Survey of Adult Skills

ISAS STUDY LETTERHEAD

[INSERT DATE]

Dear [RESPONDENT NAME],

Recently, one of our field representatives contacted you about participating in the International Survey of Adult Skills, which is being conducted by the U.S. Department of Education. I am writing to tell you a little more about why this study is so important to your community and the nation, and to older persons in particular.

This survey has been designed to find out what activities adults do in their daily lives, such as reading, finding information, and using computers and technology, and to learn about their education and work experience. This information will help get a clear picture of the challenges we face as a country to develop a more skilled work force in the 21st century. Thousands of adults like you will be asked to participate.

It is very important that all age groups are represented. If we only included younger persons in the study, we would have no way of addressing the concerns of more mature adults, whose needs are often very different from other groups of people. Your participation in this study will benefit older persons by providing valuable information to educators, policymakers and educational researchers on the current skills and experiences of the United States' adults. This information will be used to develop programs to improve the skills adults in this country need in order to participate most successfully in the economy and society of the 21st century.

We cannot interview every adult in the United States, so we take a sample of adults in different areas of the country. Your participation is important because you were scientifically selected to represent thousands of other similar individuals. If you do not participate, others like you will not be represented in this study. It is important that policymakers have input from those who are in your age group. That is why I am writing to ask for your help.

I have taken the liberty of asking our field representative to contact you again to see it will be possible for you to participate. The interviewer will be wearing a photo ID badge and will provide you with a brochure describing the study. If it will make you more comfortable, a family member or friend may be present during the interview. **All of your answers will be kept in strict confidence as required by law, and you will receive [INSERT INCENTIVE AMOUNT] when the interview is completed.** Many people we have interviewed have told us how much they enjoyed the experience, and how much they appreciated being part of such a worthwhile study.

Thank you in advance for your cooperation and for your contribution to this important study.

Sincerely,

[SUPERVISOR'S NAME]  
Field Supervisor  
International Survey of Adult Skills

ISAS STUDY LETTERHEAD

[INSERT DATE]

Dear [RESPONDENT NAME],

Recently, one of our field representatives contacted you about participating in the International Survey of Adult Skills, which is being conducted by the U.S. Department of Education. I am writing to tell you a little more about why we contacted you and why this study is so important to the public.

This survey has been designed to find out what activities adults do in their daily lives, such as reading, finding information, and using computers and technology, and to learn about their education and work experience. This information will help get a clear picture of the challenges we face as a country to develop a more skilled work force in the 21st century. Thousands of adults like you will be asked to participate.

This survey will provide valuable information to educators, policymakers and educational researchers on the current skills and experiences of the United States' adults. This information will be used to develop programs to improve the skills adults in this country need in order to participate most successfully in the economy and society of the 21st century.

We understand that time is a precious commodity in today's day and age, but we would appreciate it very much if you would share some of yours with us. Your participation is very important because you were scientifically selected to represent thousands of other similar individuals. If you do not participate, others like you will not be represented in this study. I understand how busy you are, and I would not be asking for your time if it was not so important to talk to every adult who was selected.

I have taken the liberty of asking our field representative to contact you again to see if it will be possible for you to participate. The interviewer will be wearing a photo ID badge and will provide you with a brochure describing the study. **All of your answers will be kept in strict confidence as required by law, and you will receive [INSERT INCENTIVE AMOUNT] when the interview is completed.** Many people we have interviewed have told us how much they enjoyed the experience, and how much they appreciated being part of such a worthwhile study.

Thank you in advance for your cooperation and for your contribution to this important study.

Sincerely,

[SUPERVISOR'S NAME]  
Field Supervisor  
International Survey of Adult Skills

**U.S. Department of Education**  
Institute of Education Sciences  
National Center for Education Statistics  
Washington, D.C. 20006-5574

**Don't miss out!**



**Don't miss out on the chance to participate in  
the International Survey of Adult Skills!**

Your household has been scientifically selected to be interviewed as part of a representative sample of the U.S. adult population so that we can learn about our country's adult skills.

**Over 100,000 people across the world have participated!  
Only 500 more people in the U.S. can participate!**

All information will be kept confidential, and participation is voluntary.

**If someone in your household is selected to participate and they  
complete the interview, they will receive \$50!**

Please contact us at 1-888-XXX-XXXX  
to schedule an appointment today.

Find more information at  
<http://nces.ed.gov/surveys/isas/>.





**U.S. Department of Education**  
Institute of Education Sciences  
National Center for Education Statistics  
Washington, D.C. 20006-5574

**Don't miss out!**



**Don't miss out on the chance to participate in  
the International Survey of Adult Skills!**

You have been scientifically selected to be interviewed as part of a representative sample of the U.S. adult population so that we can learn about our country's adult skills.

***Over 100,000 people across the world have participated!  
Only 500 more people in the U.S. can participate! Be one of them!***

All information will be kept confidential, and participation is voluntary.

**If you complete the interview, you will receive \$50!**

Please contact us at **1-888-XXX-XXXX**  
to schedule an appointment today.

Find more information at  
<http://nces.ed.gov/surveys/isas/>.



Appendix E  
Interviewer Debriefing Report



International Survey of Adult Skills  
*United States Survey*

# INTERVIEWER DEBRIEFING REPORT

## **SECTION 1: IN-PERSON TRAINING**

- 1. In general, how well did the ISAS training prepare you for your work in the field?**

CIRCLE ONE

**VERY WELL** ..... 1  
QUITE WELL ..... 2  
SOMEWHAT WELL ..... 3  
NOT AT ALL WELL ..... 4

- 2. How well did the Home Study Exercise prepare you for the first day of in-person training?**

CIRCLE ONE

**VERY WELL** ..... 1 **(GO TO Q4)**  
QUITE WELL ..... 2 **(GO TO Q4)**  
SOMEWHAT WELL ..... 3  
NOT AT ALL WELL ..... 4

- 3. Do you have any suggestions for improving the Home Study Exercise (e.g. additional materials/instructions that should have been included)?**

1. Materials were covered adequately, exercises were good practice.
2. Include section on being culturally sensitive when writing EROCs.
3. Practice filling out NIRFs and HHFs.
4. Have specific examples from BQ and Exercise.
5. Ask this question at midpoint of data collection, it's been too long since training.

**4. How well did the in-person training prepare you for:**

CIRCLE ONE PER ROW

	<u>VERY WELL</u>	<u>QUITE WELL</u>	<u>SOMEWHAT WELL</u>	<u>NOT AT ALL WELL</u>	<u>Not applicable</u>
A. administering the Screener? .....	<b>1</b>	2	3	4	9
B. administering the BQ? .....	<b>1</b>	2	3	4	9
C. administering the Core.....	<b>1</b>	<b>2</b>	3	4	9
D. administering the computer-based Exercise? .....	<b>1</b>	2	3	4	9
E. administering the paper Exercise? .....	<b>1</b>	2	3	4	9
F. using the field management system? .....	1	<b>2</b>	3	4	9
G. locating households/respondents? ..	<b>1</b>	<b>2</b>	3	4	9
H. gaining respondent cooperation? ....	1	<b>2</b>	3	4	9
I. avoiding refusals? .....	1	<b>2</b>	3	4	9
J. conducting administrative tasks? ....	1	<b>2</b>	3	4	9

**5. What do you think we should have spent more time on in training?**

1. Administrative tasks such as timesheets, shipments, T&E for travellers, data transmission.
2. Refusal conversion, not accepting “no”, how to convince respondents to spend two hours on the study, using charisma.
3. HHF documentation, better record-keeping of details of HH visits.
4. Provide refresher training on administering the paper exercise midway through data collection.
5. How to understand the area where one is working.
6. More live respondent training, and role playing (especially refusals).
7. Software functioning and troubleshooting.
8. More practice, less lecture.

**6. What do you think we should have spent less time on in training?**

1. Videos and dress code lectures.
2. Locating households (most FIs have GPS).
3. What flyers to hand out.
4. Round robin reading of scenarios for screeners and BQs.
5. Basic computer skills.

## **SECTION 2: ADMINISTERING THE BQ**

### **7. In general, how easy was it for you to administer the BQ?**

CIRCLE ONE

- VERY EASY** ..... 1
- QUITE EASY ..... 2
- SOMEWHAT EASY..... 3
- NOT AT ALL EASY..... 4

### **8. Please describe any problems you or the respondents had in completing Section A: General Information and any suggestions you may have. This section asked about the respondent's date of birth and gender.**

1. Age is asked twice, this is unnecessary.

### **9. Please describe any problems you or the respondents had in completing Section B: Educational Background and Training and any suggestions you may have. This section asked about the respondent's formal education as well as formal and informal training.**

1. Too long, with many redundant questions.
2. Education categories did not clearly fit for all respondents leading to confusion.
3. Difference between GED and High School diploma not readily apparent to some respondents.
4. Apprenticeship/journeyman question is irrelevant.
5. Questions about 'Open or distance education' and 'informal training questions' led to confusion due to varied interpretation.
6. Confusing for student interns who work and study.
7. If there was overlap in types of training or the respondent conducted the seminar/workshop, then answers did not fit categories.
8. Handout cards should appear in order of use to allow smooth progression through the questionnaire. Option number 6 on one of the showcards was missing which confused the respondents.

- 10. Please describe any problems you or the respondents had in completing Section C: Current Status and Work History and any suggestions you may have. This section asked about the respondent's current employment status and work history.**
1. Too long.
  2. If respondent had multiple part-time jobs, questions became confusing.
  3. Why must you have a reason not to work?
  4. Distinction between public and private companies not clear to many respondents.
  5. Confusion between part-time and full-time work questions.
  6. Questions were awkward for respondents who were waiting to start a new job.
- 11. Please describe any problems you or the respondents had in completing Section D: Current Work and any suggestions you may have. This section asked about the respondent's current job.**
1. This section frequently required probing, income questions are awkward.
  2. Simplify the questions that ask about gross pay, too wordy.
  3. If multiple jobs were worked, hard to pick one as a main job.
- 12. Please describe any problems you or the respondents had in completing Section E: Last job and any suggestions you may have. This section asked about the respondent's last job.**
1. Information collected is unreliable when too much time has lapsed between respondent's former and current job.
- 13. Please describe any problems you or the respondents had in completing Section F: Skills Used at Work and any suggestions you may have. This section asked about activities of the respondent at work.**
1. Too many repetitive questions in this section.
  2. Required probing for clarity and detail, respondents could not elaborate on activities.
  3. Having a checklist of tasks would be helpful, so respondents could pick out those that were applicable.
  4. 'Using skill or accuracy with hands or fingers' is a confusing question; ask about typing or keyboarding skills instead.
- 14. Please describe any problems you or the respondents had in completing Section G: Literacy, Numeracy, and ICT Skills Used at Work and any suggestions you may have. This section asked about reading, numeracy and use of communication technologies at work.**
1. Respondents got bored with the repetitive nature of this section.
  2. 'Reading books at work' was confusing, as most respondents interpreted reading books as a leisure-time activity.

**15. Please describe any problems you or the respondents had in completing Section H: Literacy, Numeracy, and ICT Skills used in Everyday Life and any suggestions you may have. This section asked about reading, numeracy and use of communication technologies in daily life.**

1. Inconsistency of questions addressing computer skills.
2. Respondents got restless with the repetitive questions.
3. No appropriate category to fit tasks that are done bi-weekly or three times a year.
4. Respondents queried whether reading newspapers online counted as newspaper reading.

**16. Please describe any problems you or the respondents had in completing Section I: About Yourself and any suggestions you may have. This section asked about the respondent’s approach to problem-solving, leisure time activities and health.**

1. Respondents remained engaged and interested for this section.
2. Poor question –“How much information about current events do you get from books”. Is it possible to get current events information from books?

**17. Please describe any problems you or the respondents had in completing Section J: Background Information and any suggestions you may have. This section asked about the respondent’s household and languages spoken.**

1. If respondent has not mentioned second language, then questions should not be prefaced with “In regard to English”.

**18. Do you have any additional comments and suggestions about the BQ?**

1. Too long, redundancy of questions.
2. Showcard instructions should be highlighted as the first line of text, so as to avoid reading question text and belatedly offering showcard.

### **SECTION 3: ADMINISTERING THE CORE**

**19. In general, how easy was it for you to administer the Core that preceded the computer-based Exercise?**

CIRCLE ONE

- |                        |   |                    |
|------------------------|---|--------------------|
| <b>VERY EASY</b> ..... | 1 | <b>(GO TO Q21)</b> |
| QUITE EASY .....       | 2 | <b>(GO TO Q21)</b> |
| SOMEWHAT EASY.....     | 3 |                    |
| NOT AT ALL EASY.....   | 4 |                    |

**20. Explain the difficulty you experienced and share your thoughts on a possible solution:**

1. Computer freezes.

**21. What comments, if any, did respondents offer on the Core?**

1. Too long, some Core exercises were repetitive.
2. There was a lag time before highlighting appeared on the screen.
3. Some respondents who failed the Core were discouraged when they were routed to paper exercise.

#### **SECTION 4: ADMINISTERING THE COMPUTER-BASED EXERCISE**

**22. In general, how easy was it for you to administer the Exercise on the computer?**

CIRCLE ONE

- VERY EASY** ..... 1  
QUITE EASY ..... 2  
SOMEWHAT EASY..... 3  
NOT AT ALL EASY..... 4

**23. Did you experience any problems with the computer-based Exercise (computer freezing, losing data, etc.)?**

CIRCLE ONE

- YES**..... 1  
NO ..... 2 **(GO TO Q25)**

**24. Describe the problem(s) you experienced and any successful methods you used to solve the problem.**

1. Laptop freezes, called HelpDesk. Occasionally able to successfully resolve the issue using Task Manager.
2. Hitting 'Ctrl'-'Alt'-'Del' after a freeze sometimes restored the Exercise.
3. Frustrating to encounter frequent freezes.
4. Instrument was too vulnerable to power outages (if the connection to the outlet was loose or if someone turned off the switch to the outlet, etc). Could not restore the VM in these cases which was frustrating for willing respondents.
5. Too slow, hard to see, too long.
6. Screen would go dark sometimes and had to wait up to half-hour for the instrument to be restored.



7. Computer would hang up at the last screen of the interview and then be in suspend mode without returning to IMS.
8. Software updates took too long.
9. Break-offs resulting in data loss, system should have auto-save function.

**25. How often did respondents have difficulty understanding the instructions for completing the Exercise on the computer?**

CIRCLE ONE

- VERY OFTEN ..... 1
- QUITE OFTEN ..... 2
- SOMETIMES ..... 3
- RARELY** ..... 4
- NEVER ..... 5 **(GO TO Q27)**

**26. What suggestions, if any, do you have for making the instructions easier to understand?**

1. Instructions were hard for respondents with lower education levels.
2. Need more Spanish materials/instructions.
3. Need instructions for measuring the photo.
4. Bigger font size. Bold font?
5. Questions looked like examples in some instances.

**27. How often did respondents have difficulty reading the text on the computer screen during the computer-based Exercise?**

CIRCLE ONE

- VERY OFTEN ..... 1
- QUITE OFTEN ..... 2
- SOMETIMES ..... 3
- RARELY** ..... 4
- NEVER** ..... 5 **(GO TO Q29)**

**28. What was the reason for the difficulty?**

CIRCLE ALL THAT APPLY

- FONT SIZE TOO SMALL ..... 1
- FONT WAS HARD TO READ(NOT DUE TO SIZE)..... 2
- GLARE ON THE MONITOR ..... 3
- SCREEN TOO DIM ..... 4
- RESPONDENT NEEDED THEIR  
GLASSES/CONTACT LENSES ..... 5
- OTHER (SPECIFY) ..... 6

Font size too small reported as the most frequent problem.

**29. How often did respondents make comments about the computer-based Exercise being too long?**

CIRCLE ONE

- VERY OFTEN ..... 1
- QUITE OFTEN ..... 2
- SOMETIMES ..... 3
- RARELY ..... 4
- NEVER ..... 5

**30. Were there any Exercise items that respondents had a lot of difficulty with?**

CIRCLE ONE

- YES ..... 1
- NO ..... 2 (GO TO Q32)

**31. Which Exercise items did respondents have a lot of difficulty with?**

1. Spreadsheets
2. Math calculations (e.g. amoeba, calculating weight loss as a percentage)
3. Email exercises
4. International phone number, call to Portugal
5. Highlighting, drag and drop
6. Scheduling meeting room
7. Distance between cities
8. Lamp return
9. Football tickets reservation
10. Reading comprehension on the computer

**32. Do you have any additional comments or suggestions about the Exercise?**

1. Too repetitive and too long – make it shorter.
2. Older respondents got tired with the length of the exercise.
3. Sometimes highly educated respondents would rush through the exercise just to get through it, therefore not an accurate gauge of their skills.

**SECTION 5: ADMINISTERING THE PAPER EXERCISE**

**33. In general, how easy was it for you to administer the Exercise via paper booklet?**

CIRCLE ONE

- VERY EASY** ..... 1  
QUITE EASY ..... 2  
SOMEWHAT EASY..... 3  
NOT AT ALL EASY..... 4

**34. How often did respondents have any difficulty understanding the instructions for completing the paper Exercise?**

CIRCLE ONE

- VERY OFTEN ..... 1  
QUITE OFTEN ..... 2  
SOMETIMES ..... 3  
RARELY..... 4  
**NEVER** ..... 5 **(GO TO Q36)**

**35. What suggestions, if any, do you have for making the instructions easier to understand?**

1. Limit the verbiage and be more explicit.
2. Illustrate with examples.
3. Scoring was tricky.
4. Could have used more practice with the timer.
5. The reading component booklet was demeaning to respondents who had failed the core but were literate. Some respondents were embarrassed to be circling items (picture depictions of words).
6. Many Spanish-only speakers were able to get through the reading Component booklet, therefore do not make assumptions about the literacy of the respondent. There were, however, many Spanish-only speakers who could not get through the booklets.

**36. How often did respondents make comments about the paper Exercise being too long?**

CIRCLE ONE

- VERY OFTEN ..... 1
- QUITE OFTEN ..... 2
- SOMETIMES ..... 3
- RARELY** ..... 4
- NEVER ..... 5

**37. Were there any paper Exercise items that respondents had a lot of difficulty with?**

CIRCLE ONE

- YES ..... 1
- NO** ..... 2 **(GO TO Q39)**

**38. Which paper Exercise items did respondents have a lot of difficulty with?**

- 1. International calls
- 2. National orchestra
- 3. Math questions
- 4. Airline timetable

**39. Do you have any additional comments or suggestions about the paper Exercise?**

- 1. Booklet 1 & 2 - font not big enough.
- 2. Need a refresher sometime after data collection is well underway.
- 3. Timer is hard to use when the respondent does not acknowledge start and stop points for sections completed.
- 4. Too much difference in the difficulty level between the literacy/numeracy booklets and the reading component booklets.

**SECTION 6: HELP DESK**

**40. Did you ever call the Help Desk number?**

CIRCLE ONE

- YES..... 1
- NO..... 2 (GO TO Q42)

**41. Generally, when you called the Help Desk with a problem or question, how often:**

CIRCLE ONE PER ROW

	<u>ALWAYS</u>	<u>SOMETIMES</u>	<u>RARELY</u>	<u>NEVER</u>
A. were you able to reach someone? .....	<b>1</b>	2	3	4
B. were the staff able to assist you? .....	<b>1</b>	2	3	4
C. were the staff professional? .....	<b>1</b>	2	3	4

**SECTION 7: COMMENTS ABOUT THE OVERALL INTERVIEW**

**42. How often did respondents comment that the entire interview was too long?**

CIRCLE ONE

- VERY OFTEN ..... 1
- QUITE OFTEN ..... 2
- SOMETIMES** ..... 3
- RARELY ..... 4
- NEVER ..... 5

**43. Please comment on anything else that might have helped you in your work or provide feedback that might help other interviewers as they learn how to administer the ISAS interview.**

1. Offer respondents the option of conducting the study at a public location, early in the interview process.
2. Do not ask for the complete name (with middle initial) on the receipt, it counters all reassurances that we provide as to the confidentiality of respondents.
3. Do not ask for second telephone number, getting the first one is hard enough.

4. Simplify the process of making EROC entries, too many unnecessary steps like clicking on calendar etc.
5. Use a handheld smaller computer for the screener, this would be less cumbersome and less intimidating to DU members.
6. Spend time reading and understanding the impact of this study. FIs that can communicate the study purposes articulately are likely to have more willing participants.
7. Shorten the interview and the exercise.
8. Consider giving FIs business cards.

**44. Please comment on any procedures not covered in this questionnaire that we should consider changing.**

1. Limit the number of visits especially after multiple refusals.

**45. Please comment on the ID badge that you were issued for ISAS. Did you find the larger size badge was helpful?**

CIRCLE ONE

- VERY HELPFUL ..... 1
- SOMEWHAT HELPFUL** ..... 2
- DID NOT MAKE A DIFFERENCE..... 3
- NOT HELPFUL ..... 4

In general, the interviewers felt that the badge size was too large, and was sometimes a distraction. It may have even helped DU members avoid FIs as they could be readily identified by the badge.

**46. Please comment on the usefulness of the following study materials:**

CIRCLE ONE PER ROW

	<u>VERY USEFUL</u>	<u>SOMEWHAT USEFUL</u>	<u>NOT VERY USEFUL</u>	<u>NOT AT ALL USEFUL</u>
A. Introductory letter.....	<b>1</b>	2	3	4
B. Study brochure .....	<b>1</b>	2	3	4
C. Community authorization letter.....	1	<b>2</b>	<b>3</b>	4
D. Blue/gold/green flyers .....	1	<b>2</b>	3	4
E. Leaders in Education letter.....	1	<b>2</b>	3	4
F. Tom Brokaw letter.....	1	<b>2</b>	3	4
G. SIMY cards .....	1	<b>2</b>	3	4
H. Magnets.....	<b>1</b>	2	3	4
I. Pens.....	<b>1</b>	2	3	4

**47. Please note any additional comments you may have about this study in the space provided below.**

1. In general, the interview took too long to complete.
2. Study title is too vague.
3. Administration tasks took too long.
4. FIs should fill out a trainer evaluation after the training.
5. Consider a smaller incentive for HHs that screenout due to age, this might facilitate more willingness to participate.
6. Consider giftcards as incentive, this would protect confidentiality.
7. Letters from the home office were sent out in a timely way, this helped with the interview process and gaining cooperation.
8. Many more screeners would have been completed if allowed to fill out paper screener and then transfer information to computer.
9. Recurring problem of 'lack of trust' in government sponsored studies.

Appendix F  
Basic Analysis Tables



## APPENDIX F BASIC ANALYSIS TABLES

Table F-1. PIAAC weighted screener and Background Questionnaire response rates

Analysis variable	Weighted screener response rate (SCR) (percent)	Weighted BQ response rate (BQ) (percent)	Weighted cumulative response rate (SCR x BQ) (percent)
Overall	86.5	82.1	71.0
Region			
Northeast	83.7	77.7	65.1
Midwest	89.0	84.3	75.1
South	87.6	82.9	72.6
West	83.8	82.9	69.5
Indicator of whether the PSU is part of a Metropolitan Statistical Area			
Non-metro. area	90.7	85.1	77.2
Metro. area	85.6	81.6	69.8
Categorized average household size			
2.296 or less	87.9	82.0	72.1
2.297 – 2.554	88.3	83.2	73.4
2.555 – 2.8218	86.1	80.9	69.6
2.8219 or more	83.5	82.6	68.9
Percentage of the population below 150 percent of poverty			
10.280 or less	83.1	78.1	64.9
10.290 – 19.390	86.4	81.0	70.0
19.391 – 31.050	89.2	84.2	75.1
31.060 or more	86.8	85.4	74.1
Percentage of the population that is foreign born			
2.620 or less	92.0	85.2	78.4
2.630 – 7.270	87.3	80.6	70.3
7.271 – 17.740	83.3	80.1	66.8
17.750 or more	82.2	82.3	67.7
Percentage of the population age 25 and older with at least a high school education			
77.80 or less	87.0	85.7	74.6
77.81 – 87.42	89.0	83.4	74.0
87.43 – 93.45	84.4	80.0	67.5
93.46 or more	85.4	79.7	67.8
Percentage of households that are linguistically isolated			
0.260 or less	90.2	84.2	75.9
0.270 – 1.690	87.9	80.3	70.5
1.700 – 5.103	85.6	80.1	68.6
5.104 or more	81.8	84.1	68.7

See notes at end of table.

Table F-1. PIAAC weighted screener and Background Questionnaire response rates—Continued

Analysis variable	Weighted screener response rate (SCR) (percent)	Weighted BQ response rate (BQ) (percent)	Weighted cumulative response rate (SCR x BQ) (percent)
Percentage of housing units occupied by owner			
52.33 or less	84.2	82.4	69.3
52.34 – 71.71	87.5	82.9	72.6
71.72 – 83.50	87.7	83.8	73.5
83.60 or more	86.1	79.7	68.6
Percentage of the population age 18-64 that is unemployed			
3.0900 or less	86.5	81.9	70.9
3.1000 – 4.7780	85.8	81.7	70.1
4.7790 – 6.6652	88.0	82.7	72.8
6.6653 or more	85.6	82.3	70.4
Race/ethnicity (after imputation)			
Hispanic	-	84.5	-
Non-Hispanic Black	-	82.3	-
Other	-	81.7	-
Age category (after imputation)			
16–25	-	85.8	-
26–35	-	83.9	-
36–45	-	80.2	-
46–55	-	80.8	-
56–65	-	79.9	-
Gender			
Male	-	80.6	-
Female	-	83.6	-

NOTE: The - symbol means that the item was not available for both respondents and nonrespondents, and therefore the response rate could not be computed.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).

Table F-2. Results of screener bivariate analysis

Analysis variable	Respondents		Nonrespondents		Chi-square	
	Percent	Standard error	Percent	Standard error	Statistic	<i>p</i> value
Indicator of whether the PSU is part of a Metropolitan Statistical Area					2.7189	0.0992
Non-metro. area	15.6	1.50	11.1	2.37		
Metro. area	84.4	1.50	88.9	2.37		
Region					7.7991	0.0368
Northeast	20.6	3.67	25.5	4.84		
Midwest	22.2	2.89	18.5	2.87		
South	40.7	3.68	36.1	3.74		
West	16.5	3.08	20.0	3.90		
Percentage of housing units occupied by owner					2.5402	0.3808
52.33 or less	22.4	2.32	22.3	2.68		
52.34 – 71.71	25.1	1.74	23.5	2.10		
71.72 – 83.50	27.4	1.94	26.0	2.30		
83.60 or more	25.2	1.64	28.2	2.74		
Percentage of the population age 25 and older with at least a high school education					17.0706	0.0006
77.80 or less	24.8	2.57	19.1	2.57		
77.81 – 87.42	25.4	2.56	21.9	2.64		
87.43 – 93.45	25.2	2.21	30.4	2.60		
93.46 or more	24.5	2.76	28.6	3.16		
Percentage of the population that is Hispanic or Non-Hispanic Black					6.0971	0.0847
4.62 or less	27.1	2.47	21.1	2.78		
4.63 – 13.60	25.2	1.95	29.0	2.52		
13.61 – 37.20	24.7	2.32	26.4	2.98		
37.30 or more	23.1	2.06	23.6	2.68		
Percentage of the population that is Hispanic					10.4419	0.0112
1.5422 or less	25.0	2.47	18.7	2.23		
1.5423 – 4.4652	26.7	2.03	25.7	2.46		
4.4653 – 13.230	25.3	2.03	29.6	2.56		
13.240 or more	23.0	2.00	26.0	3.08		
Percentage of the population age 18-64 that is unemployed					4.9813	0.1312
3.0900 or less	24.9	1.73	27.6	2.71		
3.1000 – 4.7780	26.5	1.68	28.1	2.27		
4.7790 – 6.6652	25.7	1.43	22.4	1.80		
6.6653 or more	22.9	1.86	22.0	2.62		

See note at end of table.

Table F-2. Results of screener bivariate analysis—Continued

Analysis variable	Respondents		Nonrespondents		Chi-square	
	Percent	Standard error	Percent	Standard error	Statistic	<i>p</i> value
Percentage of the population below 150 percent of poverty					25.9633	<.0001
10.280 or less	23.7	2.60	32.7	3.43		
10.290 – 19.390	26.0	1.943	28.0	2.75		
19.391 – 31.050	25.8	2.21	20.1	2.47		
31.060 or more	24.5	2.13	19.2	2.87		
Percentage of the population that is foreign born					31.9742	<.0001
2.620 or less	27.9	3.32	17.0	2.38		
2.630 – 7.270	25.5	2.67	25.1	2.93		
7.271 – 17.740	24.2	2.45	31.5	2.83		
17.750 or more	22.3	2.52	26.5	2.88		
Percentage of households that are linguistically isolated					10.6839	0.0110
0.260 or less	26.4	2.41	20.7	1.72		
0.270 – 1.690	25.8	1.85	23.8	2.51		
1.700 – 5.103	24.7	2.11	28.6	2.80		
5.104 or more	23.2	2.09	27.0	3.23		
Categorized average household size					7.3363	0.0551
2.296 or less	22.3	2.37	21.9	2.60		
2.297 – 2.554	26.1	1.88	22.1	2.24		
2.555 – 2.8218	26.3	1.86	26.7	2.62		
2.8219 or more	25.4	2.51	29.3	3.07		
Percentage of the population age 18-64 that is employed					6.1197	0.0833
67.59 or less	24.7	2.48	20.3	2.93		
67.60 – 74.01	25.1	2.02	24.2	2.71		
74.02 – 78.48	24.8	1.50	26.9	2.49		
78.49 or more	25.4	2.97	28.6	3.64		
Percentage of the population age 25 and older with a high school education					28.1600	<.0001
20.20 or less	23.7	2.86	30.9	3.12		
20.30 – 28.94	23.9	1.79	25.5	2.42		
28.95 – 36.74	25.9	2.37	25.4	2.48		
36.75 or more	26.5	3.29	18.1	2.25		
Percentage of the population age 25 and older with some college education					5.7646	0.1131
21.53 or less	24.2	3.25	26.3	3.83		
21.54 – 26.22	24.1	1.91	19.6	2.34		
23.23 – 31.17	24.7	2.03	26.0	2.32		
31.18 or more	27.0	2.60	28.1	3.15		

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).

Table F-3. PIAAC multivariate analysis of Screener response indicators, by response cell: 2011

Response cell	Weighted response rate (percent)
Percentage of the population that is foreign born in 2nd, 3rd, and 4th quartiles & Percentage of the population below 150 percent of poverty in 1st and 2nd quartiles & Non-MSA	75.7
Percentage of the population that is foreign born in 2nd, 3rd, and 4th quartiles & Percentage of the population below 150 percent of poverty in 1st and 2nd quartiles & MSA & Percentage of the population age 18-64 that is unemployed in 4th quartile	80.1
Percentage of the population that is foreign born in 1st quartile & Categorized average household size in 4th quartile	86.0
Percentage of the population that is foreign born in 2nd, 3rd, and 4th quartiles & Percentage of the population below 150 percent of poverty in 3rd and 4th quartiles & Census Region West, Midwest, and Northeast & non-MSA	96.0
Percentage of the population that is foreign born in 2nd, 3rd, and 4th quartiles & Percentage of the population below 150 percent of poverty in 3rd and 4th quartiles & Census Region West, Midwest, and Northeast & MSA & Percentage of the population age 18-64 that is unemployed in 1st and 2nd quartiles	81.4
Percentage of the population that is foreign born in 2nd, 3rd, and 4th quartiles & MSA & Percentage of the population age 18-64 that is unemployed in 1st, 2nd, and 3rd quartiles & Percentage of the population below 150 percent of poverty in 2nd quartile & Census Region West	90.1
Percentage of the population that is foreign born in 2nd, 3rd, and 4th quartiles & MSA & Percentage of the population age 18-64 that is unemployed in 1st, 2nd, and 3rd quartiles & Percentage of the population below 150 percent of poverty in 1st quartile & Percentage of the population that is Hispanic in 3rd and 4th quartiles & Percentage of the population age 25 and older with some college education in 1st quartile	84.9
Percentage of the population that is foreign born in 2nd, 3rd, and 4th quartiles & Percentage of the population below 150 percent of poverty in 3rd and 4th quartiles & Census Region South & Percentage of the population that is Hispanic or Non-Hispanic Black in 1st, 2nd, and 3rd quartiles	93.6

See note at end of table.

Table F-3. PIAAC multivariate analysis of Screener response indicators, by response cell: 2011—  
Continued

Response cell	Weighted response rate (percent)
Percentage of the population that is foreign born in 2nd, 3rd, and 4th quartiles & MSA & Percentage of the population age 18-64 that is unemployed in 1st, 2nd, and 3rd quartiles & Percentage of the population below 150 percent of poverty in 2nd quartile & Census Region Northeast, Midwest, and South & Percentage of the population that is Hispanic or Non-Hispanic Black in 1st and 2nd quartiles	82.8
Percentage of the population that is foreign born in 2nd, 3rd, and 4th quartiles & MSA & Percentage of the population age 18-64 that is unemployed in 1st, 2nd, and 3rd quartiles & Percentage of the population below 150 percent of poverty in 2nd quartile & Census Region Northeast, Midwest, and South & Percentage of the population that is Hispanic or Non-Hispanic Black in 3rd and 4th quartiles	87.6
Percentage of the population that is foreign born in 2nd, 3rd, and 4th quartiles & MSA & Percentage of the population age 18-64 that is unemployed in 1st, 2nd, and 3rd quartiles & Percentage of the population below 150 percent of poverty in 1st quartile & Percentage of the population that is Hispanic in 1st and 2nd quartiles & Categorized average household size in 1st and 2nd quartiles	90.8
Percentage of the population that is foreign born in 2nd, 3rd, and 4th quartiles & Percentage of the population below 150 percent of poverty in 3rd and 4th quartiles & Census Region West, Midwest, and Northeast & MSA & Percentage of the population age 18-64 that is unemployed in 3rd and 4th quartiles & Percentage of the population age 25 and older with some college education in 4th quartile	83.7
Percentage of the population that is foreign born in 2nd, 3rd, and 4th quartiles & MSA & Percentage of the population age 18-64 that is unemployed in 1st, 2nd, and 3rd quartiles & Percentage of the population below 150 percent of poverty in 1st quartile & Percentage of the population that is Hispanic in 3rd and 4th quartiles & Percentage of the population age 25 and older with some college education in 2nd, 3rd, and 4th quartiles & Percentage of households that are linguistically isolated in 1st quartile	90.3

See note at end of table.

Table F-3. PIAAC multivariate analysis of Screener response indicators, by response cell: 2011—  
Continued

Response cell	Weighted response rate (percent)
Percentage of the population that is foreign born in 2nd, 3rd, and 4th quartiles & MSA & Percentage of the population age 18-64 that is unemployed in 1st, 2nd, and 3rd quartiles & Percentage of the population below 150 percent of poverty in 1st quartile & Percentage of the population age 25 and older with some college education in 2nd, 3rd, and 4th quartiles & Percentage of households that are linguistically isolated in 2nd, 3rd, and 4th quartiles & Percentage of the population that is Hispanic in 4th quartile	76.6
Percentage of the population that is foreign born in 1st quartile & Census Region South and Northeast & Categorized average household size in 1st and 2nd quartiles	93.2
Percentage of the population that is foreign born in 1st quartile & Census Region South and Northeast & Categorized average household size in 3rd quartile	88.5
Percentage of the population that is foreign born in 2nd, 3rd, and 4th quartiles & Percentage of the population below 150 percent of poverty in 3rd and 4th quartiles & Census Region South & Percentage of the population that is Hispanic or Non-Hispanic Black in 4th quartile & Percentage of the population age 25 and older with a high school education in 1st and 2nd quartiles	91.3
Percentage of the population that is foreign born in 2nd, 3rd, and 4th quartiles & Percentage of the population below 150 percent of poverty in 3rd and 4th quartiles & Census Region South & Percentage of the population that is Hispanic or Non-Hispanic Black in 4th quartile & Percentage of the population age 25 and older with a high school education in 3rd and 4th quartiles	86.9
Percentage of the population that is foreign born in 2nd, 3rd, and 4th quartiles & MSA & Percentage of the population age 18-64 that is unemployed in 1st, 2nd, and 3rd quartiles & Percentage of the population below 150 percent of poverty in 1st quartile & Percentage of the population that is Hispanic in 1st and 2nd quartiles & Categorized average household size in 3rd and 4th quartiles & Census Region South	89.1
Percentage of the population that is foreign born in 2nd, 3rd, and 4th quartiles & MSA & Percentage of the population age 18-64 that is unemployed in 1st, 2nd, and 3rd quartiles & Percentage of the population below 150 percent of poverty in 1st quartile & Percentage of the population that is Hispanic in 1st and 2nd quartiles & Categorized average household size in 3rd and 4th quartiles & Census Region West, Midwest, and Northeast	82.1

See note at end of table.

Table F-3. PIAAC multivariate analysis of Screener response indicators, by response cell: 2011—  
Continued

Response cell	Weighted response rate (percent)
Percentage of the population that is foreign born in 2nd, 3rd, and 4th quartiles & MSA & Percentage of the population age 18-64 that is unemployed in 1st, 2nd, and 3rd quartiles & Percentage of the population below 150 percent of poverty in 1st quartile & Percentage of the population age 25 and older with some college education in 2nd, 3rd, and 4th quartiles & Percentage of households that are linguistically isolated in 2nd, 3rd, and 4th quartiles & Percentage of the population that is Hispanic in 3rd quartile & Percentage of the population that is Hispanic or Non-Hispanic Black in 2nd quartile	77.8
Percentage of the population that is foreign born in 2nd, 3rd, and 4th quartiles & MSA & Percentage of the population age 18-64 that is unemployed in 1st, 2nd, and 3rd quartiles & Percentage of the population below 150 percent of poverty in 1st quartile & Percentage of the population age 25 and older with some college education in 2nd, 3rd, and 4th quartiles & Percentage of households that are linguistically isolated in 2nd, 3rd, and 4th quartiles & Percentage of the population that is Hispanic in 3rd quartile & Percentage of the population that is Hispanic or Non-Hispanic Black in 3rd and 4th quartiles	85.0
Percentage of the population that is foreign born in 1st quartile & Categorized average household size in 1st, 2nd, and 3rd quartiles & Census Region West and Midwest & Percentage of the population that is Hispanic in 1st and 2nd quartiles	94.7
Percentage of the population that is foreign born in 1st quartile & Categorized average household size in 1st, 2nd, and 3rd quartiles & Census Region West and Midwest & Percentage of the population that is Hispanic in 3rd quartile	82.1
Percentage of the population that is foreign born in 2nd, 3rd, and 4th quartiles & Percentage of the population below 150 percent of poverty in 3rd and 4th quartiles & Census Region West, Midwest, and Northeast & MSA & Percentage of the population age 18-64 that is unemployed in 3rd and 4th quartiles & Percentage of the population age 25 and older with some college education in 1st, 2nd, and 3rd quartiles & Percentage of households that are linguistically isolated in 2nd quartile	97.0

See note at end of table.



Table F-3. PIAAC multivariate analysis of Screener response indicators, by response cell: 2011—  
Continued

Response cell	Weighted response rate (percent)
Percentage of the population that is foreign born in 2nd, 3rd, and 4th quartiles & Percentage of the population below 150 percent of poverty in 3rd and 4th quartiles & Census Region West, Midwest, and Northeast & MSA &	88.6
Percentage of the population age 18-64 that is unemployed in 3rd and 4th quartiles & Percentage of the population age 25 and older with some college education in 1st, 2nd, and 3rd quartiles &	
Percentage of households that are linguistically isolated in 3rd and 4th quartiles	

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).

Table F-4. PIAAC multivariate analysis of Screener response indicators: 2011

Analysis variables	F statistic	Degrees of freedom		<i>p</i> value
		Numerator	Denominator	
Overall fit	2.705	16	30	0.009
Indicator of whether the PSU is part of a Metropolitan Statistical Area	0.054	1	45	0.818
Region	1.328	3	43	0.278
Categorized average household size		1	45	0.939
Percentage of the population below 150 percent of poverty	4.593	1	45	0.038
Percentage of the population age 18-64 that is unemployed	0.157	1	45	0.693
Percentage of the population that is foreign born	1.982	1	45	0.166
Percentage of the population age 25 and older with at least a high school education	0.690	1	45	0.411
Percentage of households that are linguistically isolated	0.396	1	45	0.532
Percentage of housing units occupied by owner	0.688	1	45	0.411
Percentage of the population that is Hispanic	0.493	1	45	0.486
Percentage of the population that is Hispanic or Non-Hispanic Black	1.245	1	45	0.270
Percentage of the population age 25 and older with some college education	0.271	1	45	0.605
Percentage of the population age 25 and older with a high school education	1.039	1	45	0.314
Percentage of the population age 18-64 that is unemployed	0.019	1	45	0.890

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).

Table F-5. PIAAC results of Background Questionnaire bivariate analysis: 2011

Analysis variable	Respondents		Nonrespondents		Chi-square	
	Percent	Standard error	Percent	Standard error	Statistic	<i>p</i> value
Indicator of whether the PSU is part of a Metropolitan Statistical Area					1.5453	0.2138
Non-metro. area	15.4	1.42	12.8	2.20		
Metro. area	84.6	1.42	87.2	2.20		
Region					8.9051	0.0259
Northeast	19.4	3.70	26.3	4.69		
Midwest	22.8	2.77	19.2	3.63		
South	39.8	3.81	37.3	3.76		
West	17.9	3.29	17.2	3.47		
Percentage of housing units occupied by owner					4.7618	0.1456
52.33 or less	20.9	2.17	20.9	2.63		
52.34 – 71.71	24.3	1.82	23.4	1.90		
71.72 – 83.50	27.9	1.96	24.9	2.28		
83.60 or more	26.9	1.87	30.8	2.56		
Percentage of the population age 25 and older with at least a high school education					11.9699	0.0055
77.80 or less	25.0	2.74	20.1	2.56		
77.81 – 87.42	25.6	2.49	23.0	3.12		
87.43 – 93.45	24.7	2.28	28.3	2.65		
93.46 or more	24.7	2.65	28.8	2.93		
Percentage of the population that is Hispanic or Non-Hispanic Black					5.8024	0.1082
4.62 or less	27.5	2.38	25.2	2.81		
4.63 – 13.60	25.1	2.01	27.8	2.45		
13.61 – 37.20	24.1	2.23	27.2	2.68		
37.30 or more	23.2	2.11	19.8	2.40		
Percentage of the population that is Hispanic					5.6801	0.1229
1.5422 or less	24.8	2.40	23.3	3.10		
1.5423 – 4.4652	26.4	2.01	25.4	2.97		
4.4653 – 13.230	25.2	2.08	30.4	2.77		
13.240 or more	23.6	2.27	20.9	2.08		
Percentage of the population age 18-64 that is unemployed					0.4485	0.9212
3.0900 or less	25.3	1.83	25.3	2.54		
3.1000 – 4.7780	26.9	1.83	27.7	2.39		
4.7790 – 6.6652	25.7	1.40	24.7	2.22		
6.6653 or more	22.1	1.82	22.3	2.20		

See note at end of table.

Table F-5. PIAAC results of Background Questionnaire bivariate analysis: 2011—Continued

Analysis variable	Respondents		Nonrespondents		Chi-square	
	Percent	Standard error	Percent	Standard error	Statistic	<i>p</i> value
Percentage of the population below 150 percent of poverty					13.5705	0.0027
10.280 or less	24.8	2.80	30.9	3.11		
10.290 – 19.390	25.8	2.10	27.5	2.27		
19.391 – 31.050	25.5	2.29	22.5	2.40		
31.060 or more	23.9	2.22	19.1	2.16		
Percentage of the population that is foreign born					7.4088	0.0556
2.620 or less	27.4	3.27	21.7	3.80		
2.630 – 7.270	26.0	2.79	28.3	3.39		
7.271 – 17.740	23.9	2.35	26.8	3.33		
17.750 or more	22.8	2.60	23.2	2.83		
Percentage of households that are linguistically isolated					7.0699	0.0660
0.260 or less	26.5	2.47	22.7	2.57		
0.270 – 1.690	25.5	1.84	28.5	2.81		
1.700 – 5.103	24.5	2.10	27.7	2.56		
5.104 or more	23.6	2.26	21.1	2.52		
Categorized average household size					0.7632	0.7765
2.296 or less	20.4	2.35	20.2	2.31		
2.297 – 2.554	25.1	1.91	24.0	2.51		
2.555 – 2.8218	26.5	1.87	28.3	2.45		
2.8219 or more	28.0	2.88	27.6	2.97		
Percentage of the population age 18-64 that is employed					7.4806	0.0448
67.59 or less	24.6	2.50	19.7	2.30		
67.60 – 74.01	25.2	2.08	26.1	2.67		
74.02 – 78.48	25.2	1.63	27.0	2.17		
78.49 or more	25.1	2.90	27.2	3.46		
Percentage of the population age 25 and older with a high school education					3.2291	0.3158
20.20 or less	23.9	2.87	27.7	3.21		
20.30 – 28.94	24.7	1.91	23.3	2.17		
28.95 – 36.74	25.6	2.43	25.0	2.87		
36.75 or more	25.8	3.24	24.0	3.63		
Percentage of the population age 25 and older with some college education					2.9739	0.3398
21.53 or less	23.4	3.16	24.7	3.67		
21.54 – 26.22	24.0	1.97	21.3	2.31		
23.23 – 31.17	24.3	2.17	27.0	2.48		
31.18 or more	28.3	2.68	27.1	3.27		

See note at end of table.

Table F-5. PIAAC results of Background Questionnaire bivariate analysis: 2011—Continued

Analysis variable	Respondents		Nonrespondents		Chi-square	
	Percent	Standard error	Percent	Standard error	Statistic	<i>p</i> value
Race/ethnicity (after imputation)					0.6561	0.6725
Hispanic	12.2	1.71	11.2	1.26		
Non-Hispanic Black	12.5	1.50	12.0	1.42		
Other	75.3	1.73	76.9	1.81		
Age category (after imputation)					19.8287	0.0003
16–25	21.5	0.94	16.3	1.47		
26–35	20.2	0.69	17.7	1.43		
36–45	19.7	0.62	22.1	1.14		
46–55	21.6	0.61	23.4	1.34		
56–65	17.0	0.67	20.6	1.53		
Language used at screening					1.4654	0.2261
English	97.6	0.71	98.4	0.52		
Spanish	2.4	0.71	1.6	0.52		
Indicator for children under age 16 in household					18.1768	<.0001
No	59.5	1.12	68.6	1.77		
Yes	40.5	1.12	31.4	1.77		
Gender					6.7792	0.0092
Male	47.0	0.70	52.2	1.75		
Female	53.0	0.70	47.8	1.75		

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).

Table F-6. PIAAC multivariate analysis of Background Questionnaire response indicators, by response cell: 2011

Response cell	Weighted response rate (percent)
No indicator for children under age 16 in household & Census Region West, South, and Midwest & Age categories (after imputation): 26-35, 36-45, 46-55, 56-65 & Race/ethnicity (after imputation): Non-Hispanic Black	74.2
Indicator for children under age 16 in household & Percentage of the population age 18-64 that is employed in 1st quartile	91.3
No indicator for children under age 16 in household & Census Region West, South, and Midwest & Age categories (after imputation): 26-35, 36-45, 46-55, 56-65 & Race/ethnicity (after imputation): Hispanic and Other & Percentage of households that are linguistically isolated in 4th quartile	84.5
No indicator for children under age 16 in household & Census Region Northeast & Percentage of households that are linguistically isolated in 1st quartile	83.2
No indicator for children under age 16 in household & Age categories (after imputation): 26-35, 36-45, 46-55, 56-65 & Race/ethnicity (after imputation): Hispanic and Other & Percentage of households that are linguistically isolated in 1st, 2nd, and 3rd quartiles & Percentage of the population age 18-64 that is unemployed in 1st and 2nd quartiles & Census Region West	74.0
Indicator for children under age 16 in household & Percentage of the population age 18-64 that is employed in 2nd, 3rd, and 4th quartiles & Male Gender & Age category (after imputation): 16-25	88.5
No indicator for children under age 16 in household & Census Region Northeast & Percentage of households that are linguistically isolated in 2nd, 3rd, and 4th quartiles & Race/ethnicity (after imputation): Non-Hispanic Black	81.1
Indicator for children under age 16 in household & Percentage of the population age 18-64 that is employed in 2nd, 3rd, and 4th quartiles & Female Gender & Categorized average household size in 1st and 2nd quartiles	88.4
No indicator for children under age 16 in household & Census Region Northeast & Percentage of households that are linguistically isolated in 2nd, 3rd, and 4th quartiles & Race/ethnicity (after imputation): Hispanic and Other & Percentage of the population that is Hispanic or Non-Hispanic Black in 3rd and 4th quartiles	63.7

See note at end of table.

Table F-6. PIAAC multivariate analysis of Background Questionnaire response indicators, by response cell: 2011—Continued

Response cell	Weighted response rate (percent)
No indicator for children under age 16 in household & Age categories (after imputation): 26-35, 36-45, 46-55, 56-65 & Race/ethnicity (after imputation): Hispanic and Other & Percentage of households that are linguistically isolated in 1st, 2nd, and 3rd quartiles & Percentage of the population age 18-64 that is unemployed in 1st and 2nd quartiles & Census Region South and Midwest & Percentage of the population age 18-64 that is employed in 1st, 2nd, and 3rd quartiles	79.5
No indicator for children under age 16 in household & Age categories (after imputation): 26-35, 36-45, 46-55, 56-65 & Race/ethnicity (after imputation): Hispanic and Other & Percentage of households that are linguistically isolated in 1st, 2nd, and 3rd quartiles & Percentage of the population age 18-64 that is unemployed in 1st and 2nd quartiles & Census Region South and Midwest & Percentage of the population age 18-64 that is employed in 4th quartile	86.5
No indicator for children under age 16 in household & Census Region West, South, and Midwest & Age categories (after imputation): 26-35, 36-45, 46-55, 56-65 & Percentage of households that are linguistically isolated in 1st, 2nd, and 3rd quartiles & Percentage of the population age 18-64 that is unemployed in 3rd and 4th quartiles & Race/ethnicity (after imputation): Hispanic	58.5
Indicator for children under age 16 in household & Percentage of the population age 18-64 that is employed in 2nd, 3rd, and 4th quartiles & Male Gender & Age categories (after imputation): 26-35, 36-45, 46-55, 56-65 & Percentage of the population that is Hispanic or Non-Hispanic Black in 1st quartile	81.7
No indicator for children under age 16 in household & Census Region West, South, and Midwest & Age categories (after imputation): 26-35, 36-45, 46-55, 56-65 & Percentage of households that are linguistically isolated in 1st, 2nd, and 3rd quartiles & Percentage of the population age 18-64 that is unemployed in 3rd and 4th quartiles & Race/ethnicity (after imputation): Other & Percentage of the population that is Hispanic or Non-Hispanic Black in 4th quartile	68.4
No indicator for children under age 16 in household & Census Region West, South, and Midwest & Age categories (after imputation): 26-35, 36-45, 46-55, 56-65 & Percentage of households that are linguistically isolated in 1st, 2nd, and 3rd quartiles & Percentage of the population age 18-64 that is unemployed in 3rd and 4th quartiles & Race/ethnicity (after imputation): Other & Percentage of the population that is Hispanic or Non-Hispanic Black in 1st, 2nd, and 3rd quartiles & Percentage of housing units occupied by owner in 1st, 2nd, and 3rd quartiles	81.3

See note at end of table.

Table F-6. PIAAC multivariate analysis of Background Questionnaire response indicators, by response cell: 2011—Continued

Response cell	Weighted response rate (percent)
No indicator for children under age 16 in household & Census Region West, South, and Midwest & Age categories (after imputation): 26-35, 36-45, 46-55, 56-65 & Percentage of households that are linguistically isolated in 1st, 2nd, and 3rd quartiles & Percentage of the population age 18-64 that is unemployed in 3rd and 4th quartiles & Race/ethnicity (after imputation): Other & Percentage of the population that is Hispanic or Non-Hispanic Black in 1st, 2nd, and 3rd quartiles & Percentage of housing units occupied by owner in 4th quartile	73.3
No indicator for children under age 16 in household & Census Region West, South, and Midwest & Age category (after imputation): 16-25 & Percentage of the population that is foreign born in 1st quartile	93.1
Indicator for children under age 16 in household & Percentage of the population age 18-64 that is employed in 2nd, 3rd, and 4th quartiles & Female Gender & Categorized average household size in 3rd and 4th quartiles & Percentage of the population age 25 and older with some college education in 1st quartile	91.2
Indicator for children under age 16 in household & Percentage of the population age 18-64 that is employed in 2nd, 3rd, and 4th quartiles & Female Gender & Categorized average household size in 3rd and 4th quartiles & Percentage of the population age 25 and older with some college education in 2nd, 3rd, and 4th quartiles	82.1
Indicator for children under age 16 in household & Percentage of the population age 18-64 that is employed in 2nd, 3rd, and 4th quartiles & Male Gender & Age categories (after imputation): 26-35, 36-45, 46-55, 56-65 & Percentage of the population that is Hispanic or Non-Hispanic Black in 2nd, 3rd, and 4th quartiles & Percentage of the population age 25 and older with at least a high school education in 1st, 2nd, and 3rd quartiles	77.8
Indicator for children under age 16 in household & Percentage of the population age 18-64 that is employed in 2nd, 3rd, and 4th quartiles & Male Gender & Age categories (after imputation): 26-35, 36-45, 46-55, 56-65 & Percentage of the population that is Hispanic or Non-Hispanic Black in 2nd, 3rd, and 4th quartiles & Percentage of the population age 25 and older with at least a high school education in 4th quartile	67.1

See note at end of table.



Table F-6. PIAAC multivariate analysis of Background Questionnaire response indicators, by response cell: 2011—Continued

Response cell	Weighted response rate (percent)
No indicator for children under age 16 in household & Census Region Northeast & Race/ethnicity (after imputation): Hispanic and Other & Percentage of the population that is Hispanic or Non-Hispanic Black in 1st and 2nd quartiles & Percentage of households that are linguistically isolated in 4th quartile	82.8
No indicator for children under age 16 in household & Census Region Northeast & Race/ethnicity (after imputation): Hispanic and Other & Percentage of the population that is Hispanic or Non-Hispanic Black in 1st and 2nd quartiles & Percentage of households that are linguistically isolated in 2nd and 3rd quartiles & Percentage of the population age 25 and older with at least a high school education in 1st, 2nd, and 3rd quartiles	67.5
No indicator for children under age 16 in household & Census Region Northeast & Race/ethnicity (after imputation): Hispanic and Other & Percentage of the population that is Hispanic or Non-Hispanic Black in 1st and 2nd quartiles & Percentage of households that are linguistically isolated in 2nd and 3rd quartiles & Percentage of the population age 25 and older with at least a high school education in 4th quartile	75.6
No indicator for children under age 16 in household & Age category (after imputation): 16-25 & Percentage of the population that is foreign born in 2nd, 3rd, and 4th quartiles & Census Region West	77.5
No indicator for children under age 16 in household & Age category (after imputation): 16-25 & Percentage of the population that is foreign born in 2nd, 3rd, and 4th quartiles & Census Region South and Midwest	84.1

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).

Table F-7. PIAAC results of multivariate analysis of Background Questionnaire response indicators

Analysis variables	F statistic	Degrees of freedom		<i>p</i> value
		Numerator	Denominator	
Overall fit	2.622	23	23	0.012
Age category (without imputation)	4.035	4	42	0.007
Indicator for children under age 16 in household	13.421	1	45	0.001
Language used at screening	0.890	1	45	0.350
Percentage of the population below 150 percent of poverty	3.557	1	45	0.066
Percentage of the population age 18-64 that is employed	0.001	1	45	0.970
Percentage of the population that is foreign born	0.641	1	45	0.428
Percentage of households that are linguistically isolated	0.258	1	45	0.614
Percentage of housing units occupied by owner	0.415	1	45	0.523
Percentage of the population that is Hispanic	0.041	1	45	0.841
Percentage of the population that is Hispanic or Non-Hispanic Black	0.100	1	45	0.753
Percentage of the population age 25 and older with a high school education	0.380	1	45	0.541
Percentage of the population age 25 and older with some college education	0.022	1	45	0.883
Indicator of whether the PSU is part of a Metropolitan Statistical Area	0.282	1	45	0.598
Region	1.346	3	43	0.272
Categorized household size	0.002	1	45	0.962
Gender	6.473	1	45	0.014
Race/ethnicity (after imputation)	0.268	2	44	0.766

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).

## Appendix G

### Extended Analysis Tables

## APPENDIX G EXTENDED ANALYSIS TABLES

Table G-1. Estimated percentages, standard errors, and relative differences for selected weighting steps, by subgroup

Subgroup	Base weights: eligible sample		Base weights: respondents			Nonresponse adjusted weights			Calibrated weights		
	Percent	Standard error	Percent	Standard error	<i>Relative difference</i>	Percent	Standard error	<i>Relative difference</i>	Percent	Standard error	<i>Relative difference</i>
Total	100.0	†	1.0	†	†	100.0	†	†	100.0	†	†
<b>Census Region</b>											
Northeast	20.8	3.78	19.5	3.70	-0.325	20.5	3.73	-0.074	18.2	0.04	-0.626
Midwest	22.0	2.79	22.6	2.71	0.226	22.1	2.67	0.021	21.6	0.04	-0.187
South	39.1	3.63	39.5	3.77	0.102	38.7	3.72	-0.118	36.8	0.06	-0.500
West	18.2	3.28	18.4	3.37	0.070	18.8	3.39	0.198	23.5	0.06	1.382
<b>Metropolitan statistical region</b>											
Non-metro. area	14.8	1.37	15.2	1.43	0.336	14.9	1.38	0.073	14.0	1.53	-0.615
Metro. area	85.2	1.37	84.8	1.43	-0.336	85.1	1.38	-0.073	86.0	1.53	0.615
<b>Categorized household size<sup>1</sup></b>											
1st quartile	20.3	2.24	20.3	2.35	0.004	20.3	2.32	0.009	19.8	2.17	-0.216
2nd quartile	24.7	1.94	24.9	1.90	0.108	24.7	1.86	-0.005	24.0	1.79	-0.350
3rd quartile	26.6	1.86	26.2	1.88	-0.215	26.1	1.84	-0.248	25.6	1.73	-0.293
4th quartile	28.5	2.76	28.7	2.87	0.065	28.9	2.79	0.163	30.6	2.58	0.609
<b>Percentage of the population below 150 percent of poverty<sup>1</sup></b>											
1st quartile	25.6	2.70	24.4	2.77	-0.442	24.7	2.72	-0.301	23.8	2.33	-0.357
2nd quartile	26.0	1.97	25.7	2.04	-0.183	25.7	2.00	-0.137	26.3	1.88	0.291
3rd quartile	24.8	2.19	25.4	2.28	0.260	25.1	2.24	0.132	25.2	2.05	0.022
4th quartile	23.6	2.11	24.6	2.25	0.464	24.4	2.19	0.374	24.7	1.89	0.155

See notes at end of table.

Table G-1. Estimated percentages, standard errors, and relative differences for selected weighting steps, by subgroup—Continued

Subgroup	Base weights: eligible sample		Base weights: respondents			Nonresponse adjusted weights			Calibrated weights		
	Percent	Standard error	Percent	Standard error	<i>Relative difference</i>	Percent	Standard error	<i>Relative difference</i>	Percent	Standard error	<i>Relative difference</i>
Percentage of the population that is foreign born <sup>1</sup>											
1st quartile	26.1	3.23	27.1	3.23	0.303	26.3	3.18	0.059	25.3	2.40	-0.302
2nd quartile	25.9	2.77	25.5	2.78	-0.174	25.3	2.73	-0.228	25.1	2.70	-0.081
3rd quartile	24.2	2.43	23.7	2.36	-0.234	24.0	2.33	-0.115	23.8	2.19	-0.077
4th quartile	23.8	2.57	23.8	2.67	0.019	24.5	2.56	0.272	25.8	1.95	0.535
Percentage of the population with at least a high school education <sup>1</sup>											
1st quartile	24.9	2.60	25.9	2.78	0.408	25.9	2.68	0.377	26.5	2.07	0.242
2nd quartile	24.8	2.50	25.2	2.46	0.168	24.9	2.43	0.028	24.9	2.21	-0.004
3rd quartile	25.3	2.24	24.6	2.29	-0.299	24.8	2.29	-0.241	24.9	2.31	0.066
4th quartile	25.0	2.66	24.2	2.70	-0.312	24.5	2.71	-0.195	23.7	2.16	-0.288
Percentage of the population that are linguistically isolated <sup>1</sup>											
1st quartile	25.4	2.36	26.0	2.45	0.267	25.2	2.38	-0.076	24.5	2.06	-0.302
2nd quartile	25.7	1.88	25.1	1.83	-0.314	25.2	1.84	-0.277	24.4	1.77	-0.423
3rd quartile	24.8	2.02	24.1	2.09	-0.322	24.5	2.07	-0.139	24.3	1.96	-0.082
4th quartile	24.1	2.23	24.7	2.33	0.274	25.1	2.23	0.435	26.7	1.64	0.751
Percentage of housing units occupied by owner <sup>1</sup>											
1st quartile	21.4	2.21	21.5	2.23	0.054	21.8	2.28	0.203	22.8	1.99	0.407
2nd quartile	24.4	1.70	24.6	1.81	0.100	24.7	1.80	0.147	24.9	1.78	0.139
3rd quartile	26.9	1.93	27.4	1.95	0.260	27.1	1.95	0.067	26.6	1.83	-0.241
4th quartile	27.3	1.83	26.5	1.85	-0.431	26.5	1.86	-0.453	25.7	1.67	-0.388

See notes at end of table.

Table G-1. Estimated percentages, standard errors, and relative differences for selected weighting steps, by subgroup—Continued

Subgroup	Base weights: eligible sample		Base weights: respondents			Nonresponse adjusted weights			Calibrated weights		
	Percent	Standard error	Percent	Standard error	Relative difference	Percent	Standard error	Relative difference	Percent	Standard error	Relative difference
Percentage of the population age 18-64 that is unemployed <sup>1</sup>											
1st quartile	25.1	1.85	25.1	1.80	-0.027	25.2	1.78	0.005	24.9	1.83	-0.157
2nd quartile	27.1	1.81	26.9	1.81	-0.072	26.9	1.82	-0.111	26.0	1.86	-0.474
3rd quartile	25.6	1.41	25.8	1.40	0.156	26.2	1.42	0.375	26.7	1.41	0.359
4th quartile	22.2	1.77	22.1	1.77	-0.017	21.8	1.74	-0.192	22.5	1.80	0.368
Race/ethnicity											
Hispanic	13.3	1.83	12.98	1.633	0.000	13.8	1.72	0.251	15.9	0.00	1.207
Non-Hispanic Black	12.2	1.48	12.14	1.391	0.000	12.1	1.41	-0.075	12.2	0.00	0.064
Other	74.5	1.81	74.88	1.618	0.000	74.1	1.72	-0.193	72.0	0.00	-1.254
Age (in years)											
16-25	23.6	0.98	20.57	0.868	0.000	22.8	0.92	-0.890	23.2	0.22	0.478
26-35	19.7	0.65	19.72	0.602	0.000	19.7	0.61	-0.015	19.2	0.25	-0.772
36-45	20.3	0.57	20.2	0.499	0.000	20.3	0.57	0.017	20.8	0.23	0.723
46-55	21.3	0.61	21.88	0.558	0.000	21.7	0.60	0.793	21.5	0.25	-0.366
56-65	15.1	0.67	17.63	0.717	0.000	15.5	0.67	0.586	15.3	0.19	-0.224
Gender											
Male	47.3	0.68	48.12	0.573	0.000	48.0	0.66	1.170	49.2	0.00	1.682
Female	52.8	0.68	51.88	0.573	0.000	52.0	0.66	-1.170	50.9	0.00	-1.682

<sup>†</sup> Not applicable.

<sup>1</sup> Quantiles among tract-level percentages. Cutpoint values are provided in table F-5.

NOTE: Relative differences are relative to the standard error of the eligible sample estimate.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).

Table G-2. Estimated percents and standard errors from PIAAC and Current Population Survey (CPS), by subgroup

Subgroup	PIAAC		CPS <sup>1</sup>	
	Percent	Standard error	Percent	Standard error
<b>Age (in years)</b>				
16-18	6.2	0.25	6.4	0.09
19-25	15.0	0.25	14.6	0.14
25-30	10.2	0.34	10.2	0.12
31-35	9.4	0.34	9.8	0.12
36-40	10.4	0.34	9.4	0.11
41-45	9.9	0.34	10.2	0.12
46-50	11.2	0.38	10.8	0.12
51-55	10.5	0.38	10.7	0.12
56-65	17.2	0.00	17.9	0.15
<b>Gender</b>				
Male	49.2	0.00	49.2	0.19
Female	50.9	0.00	50.8	0.18
<b>Race/Ethnicity</b>				
Hispanic	15.9	0.00	15.6	0.02
Non-Hispanic Black Alone	12.2	0.00	12.2	0.01
Non-Hispanic Other	72.0	0.00	72.2	0.03
<b>Region</b>				
Northeast	18.1	0.00	18.1	0.15
Midwest	21.6	0.00	21.2	0.16
South	36.9	0.00	37.1	0.19
West	23.4	0.00	23.6	0.16

<sup>1</sup> Standard errors for the CPS estimates were derived from the generalized variance function formula using the parameters in table I-1 of *Employment and Earnings*, Bureau of Labor Statistics, February 2006.

SOURCE: National Center for Education Statistics' PIAAC 2011 and the Bureau of Labor Statistics' Current Population Survey, Annual Social and Economic Supplement, 2012.

Table G-3. Correlations between literacy score and subgroup

Subgroup	Correlation
Census region	0.09
Metropolitan statistical region	0.05
Categorized household size	0.10
Percentage of the population below 150 percent of poverty <sup>1</sup>	0.31
Percentage of the population that is foreign born <sup>1</sup>	0.22
Percentage of the population with at least a high school education <sup>1</sup>	0.36
Percentage of the population that are linguistically isolated <sup>1</sup>	0.22
Percentage of housing units occupied by owner <sup>1</sup>	0.16
Percentage of the population age 18-64 that is unemployed <sup>1</sup>	0.16
Race/ethnicity	0.40
Age (in years)	0.08
Gender	0.00
Employment status (C_D05)	0.16
Education attainment (B_Q01aUS)	0.52
Nonresponse adjustment cells (NRA cells)	0.28
Calibration dimension (race/ethnicity by education attainment)	0.57
Calibration dimension (age by education attainment)	0.54
Calibration dimension (gender by education attainment)	0.50
Calibration dimension (age by race/ethnicity)	0.43
Calibration dimension (gender by race/ethnicity)	0.40
Calibration dimension (age by country of birth)	0.28
Calibration dimension (census region by country of birth)	0.29
Calibration dimension (race/ethnicity by education attainment) + NRA cells	0.59
Calibration dimension (age by education attainment) + NRA cells	0.57
Calibration dimension (gender by education attainment) + NRA cells	0.54
Calibration dimension (age by race/ethnicity) + NRA cells	0.45
Calibration dimension (gender by race/ethnicity) + NRA cells	0.42
Calibration dimension (age by country of birth) + NRA cells	0.38
Calibration dimension (census region by country of birth) + NRA cells	0.38

<sup>1</sup> Quantiles among tract-level percentages.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).



Table G-4. Mean literacy score (1st plausible value) and standard errors from the final weights and re-calibrated weights, by subgroup

Subgroup	Final weight		Re-weighted	
	Mean	Standard error	Mean	Standard error
<b>Gender</b>				
Male	270.1	1.16	270.0	1.17
Female	269.7	1.23	269.6	1.24
<b>Age (in years)</b>				
16-25	271.2	1.70	271.1	1.71
26-35	276.3	1.41	276.3	1.46
36-45	270.5	1.61	270.4	1.63
46-55	267.1	1.54	267.1	1.54
56-65	263.0	1.62	263.0	1.62
<b>Education attainment</b>				
1 Pre-primary or no schooling	209.5	14.25	209.5	14.34
2 Grades 1-6	191.6	5.70	191.7	5.79
3 Grades 7-9	236.0	2.34	236.4	2.29
4 High school diploma	254.1	1.54	254.0	1.54
5 Pre-associate education. Attended trade school, college, or university; no certificate or degree received	273.7	1.74	273.7	1.76
7 A certificate from a college or trade school for completion of a program prior to the associate/bachelor's degree	264.5	2.07	264.3	2.03
8 Associate degree	285.0	2.56	284.9	2.57
9 Bachelor's degree (e.g. BA, AB, BS)	298.5	1.46	298.4	1.51
10 Master's degree (e.g. MA, MS, MEng, MEd, MSW, MBA)	308.5	2.32	308.4	2.32
11 Professional degree (e.g. MD, DDS, DVM, LLB, JD)	316.9	3.53	316.8	3.54
12 Doctorate degree (e.g. PhD, EdD)	304.7	6.55	304.4	6.68
13 Foreign degree	277.5	11.54	276.8	11.56
<b>Employment status</b>				
1 Currently working	274.5	1.11	274.5	1.12
2 Finding a job	259.9	2.12	259.9	2.11
3 Not finding	256.2	1.91	256.2	1.90
4 Else	184.9	54.43	184.7	54.43

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).

Table G-5. Estimated percentages for literacy-related nonrespondents and respondents, by subgroup

Subgroup	Literacy-related percentage	Respondents percentage	Chi-square	<i>p</i> value
Total	100.0	100.0		
Census Region			9.1	0.023
Northeast	0.7	17.5		
Midwest	0.9	20.7		
South	1.0	35.8		
West	1.7	21.9		
Metropolitan statistical region			4.0	0.045
Non-metro. area	0.4	13.7		
Metro. area	3.9	82.1		
Categorized household size <sup>1</sup>			7.6	0.037
1st quartile	0.7	19.1		
2nd quartile	0.8	23.2		
3rd quartile	0.7	24.9		
4th quartile	2.0	28.6		
Percentage of the population below 150 percent of poverty <sup>1</sup>			11.2	0.004
1st quartile	0.4	23.4		
2nd quartile	1.0	25.4		
3rd quartile	1.0	24.2		
4th quartile	1.9	22.8		
Percentage of the population that is foreign born <sup>1</sup>			22.1	0.000
1st quartile	0.8	24.6		
2nd quartile	0.4	24.7		
3rd quartile	0.8	23.0		
4th quartile	2.4	23.5		
Percentage of the population with at least a high school education <sup>1</sup>			20.8	0.000
1st quartile	24.2	2.3		
2nd quartile	24.2	0.7		
3rd quartile	23.9	1.0		
4th quartile	23.4	0.3		

See notes at end of table.

Table G-5. Estimated percentages for literacy-related nonrespondents and respondents, by subgroup—  
Continued

Subgroup	Literacy-related percentage	Respondents percentage	Chi-square	<i>p</i> value
Total	100.0	100.0		
Percentage of the population that are linguistically isolated <sup>1</sup>			24.8	0.000
1st quartile	0.5	24.0		
2nd quartile	0.5	23.9		
3rd quartile	0.6	23.7		
4th quartile	2.6	24.2		
Percentage of housing units occupied by owner <sup>1</sup>			24.9	0.000
1st quartile	1.8	20.9		
2nd quartile	1.4	23.5		
3rd quartile	0.5	26.1		
4th quartile	0.5	25.3		
Percentage of the population age 18-64 that is unemployed <sup>1</sup>			1.5	0.661
1st quartile	0.8	24.0		
2nd quartile	1.2	24.9		
3rd quartile	1.4	25.3		
4th quartile	0.9	21.6		
Race/ethnicity			17.2	0.000
Hispanic	2.2	13.7		
Non-Hispanic Black	0.1	12.1		
Other	2.0	70.0		
Age (in years)			2.1	0.603
16-25	1.1	20.1		
26-35	0.8	18.8		
36-45	1.0	19.3		
46-55	0.8	20.9		
56-65	0.6	16.6		
Gender			2.2	0.136
Male	2.4	46.8		
Female	1.8	49.0		

<sup>1</sup> Quantiles among tract-level percentages. Cutpoint values are provided in table F-5.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).

Table G-6. Percentage of nonrespondents and respondents, by class

Domain	Estimate of population percentage		<i>p</i> value
	Nonrespondents (n=327)	Respondents (n=4814)	
Income-related observation			0.00121
High	19.0	13.0	
Medium	37.6	31.5	
Low	34.9	42.7	
Very low	5.2	11.3	
Could not determine	3.3	1.5	

SOURCE: National Center for Education Statistics' PIAAC 2011 non-interview report form for nonrespondents, interview observation module for respondents.

U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).

Table G-7. Percent distribution of the reasons for refusing to respond or complete the Background Questionnaire or assessment

Reasons	Base weighted percent
Total cases	100.0
1 Not interested in the study	30.2
2 Too busy	34.9
3 Too long	9.9
4 Don't want to be bothered	29.6
5 Waste of time and money	3.5
6 Dislike the government	4.2
7 Don't trust surveys	7.3
8 Don't want to answer exercises	5.4
9 Too complicated	1.4

NOTE: n = 373 cases.

SOURCE: PIAAC 2011 non-interview report form for nonrespondents, interview observation module for respondents.

U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).

Table G-8. Proportion of cases in the first 6 months and last 2 months of data collection, by subgroup

Subgroup	Estimate of population percentage			Average literacy score						
	Among 1st 6 months	Among last 2 months	p value	1st 6 months		Last 2 months		Estimated difference	Lower 95 percent	Upper 95 percent
				Mean	Standard error	Mean	Standard error			
Overall	1.0	1.0	†	†	†	†	†	†	†	†
Region			0.175							
Northeast	18.2	17.3		273.1	2.47	283.1	8.66	-10.0	-29.0	8.9
Midwest	21.5	25.4		275.4	2.78	265.2	9.43	10.2	-8.2	28.6
South	37.9	25.1		264.5	2.47	267.5	7.34	-2.9	-17.3	11.4
West	22.4	32.2		270.9	2.83	271.0	5.48	-0.1	-11.5	11.3
Age (in years)			0.082							
16-25	21.3	12.4		270.8	1.64	287.2	9.19	-16.4	-34.4	1.6
26-35	19.7	18.8		276.2	1.80	277.3	9.20	-1.1	-20.2	18.0
36-45	19.9	28.1		270.9	1.66	270.0	4.92	0.9	-10.0	11.9
46-55	21.8	23.9		267.4	1.48	266.7	9.52	0.7	-17.9	19.2
56-65	17.4	16.8		263.5	1.48	258.4	8.15	5.0	-11.9	22.0
Gender			0.968							
Male	48.8	48.7		270.4	1.18	261.4	5.24	9.1	-1.5	19.6
Female	51.2	51.3		269.3	1.27	279.6	4.35	-10.3	-19.2	-1.4
C D05 (Employment)			0.054							
1 currently working	73.1	80.2		274.7	1.13	271.4	4.26	3.3	-5.2	11.8
2 finding a job	7.9	9.2		259.6	2.16	265.2	7.66	-5.6	-21.2	10.0
3 not finding	19.0	10.5		255.8	1.96	273.9	10.40	-18.0	-39.5	3.4
4 else	0.0	0.0		184.9	54.43	0.0	.	.	.	.

See notes at end of table.

Table G-8. Proportion of cases in the first 6 months and last 2 months of data collection, by subgroup—Continued

Subgroup	Estimate of population percentage			Average literacy score						
	Among 1st 6 months	Among last 2 months	<i>p</i> value	1st 6 months		Last 2 months		Estimated difference	Lower 95 percent	Upper 95 percent
				Mean	Standard error	Mean	Standard error			
B_Q01aUS (Education)			0.751							
1 Pre-primary or no schooling	0.3	1.1		208.0	13.17	220.1	104.31	-12.1	-220.8	196.5
2 Grades 1-6	1.9	0.8		191.3	5.75	216.3	25.63	-25.0	-76.5	26.4
3 Grades 7-9	12.6	10.4		235.7	2.39	245.2	5.62	-9.4	-21.3	2.4
4 High school diploma	26.6	25.9		254.1	1.56	252.9	8.36	1.2	-15.7	18.1
5 Pre-associate education. Attended trade school, college, or university; no certificate or degree received	14.5	14.9		273.3	1.82	284.5	5.11	-11.2	-22.7	0.3
7 A certificate from a college or trade school for completion of a program prior to the associate/bachelor's degree	8.7	7.7		264.7	2.13	258.6	16.12	6.1	-26.5	38.7
8 Associate degree	8.9	10.5		285.1	2.65	281.0	13.66	4.1	-23.7	32.0
9 Bachelor's degree (e.g. BA, AB, BS)	16.0	19.6		298.8	1.50	291.8	7.14	6.9	-7.7	21.5

See notes at end of table.

Table G-8. Proportion of cases in the first six months and last 2 months of data collection, by subgroup—Continued

Subgroup	Estimate of population percentage			Average literacy score						
	Among 1st 6 months	Among last 2 months	<i>p</i> value	1st 6 months		Last 2 months		Estimated difference	Lower 95 percent	Upper 95 percent
				Mean	Standard error	Mean	Standard error			
10 Master's degree (e.g. MA, MS, MEng, MEd, MSW, MBA)	7.4	7.0		308.8	2.31	299.2	8.40	9.7	-6.7	26.0
11 Professional degree (e.g. MD, DDS, DVM, LLB, JD)	1.9	1.1		317.9	3.50	274.2	4.17	43.7	33.1	54.3
12 Doctorate degree (e.g. PhD, EdD)	1.2	0.6		303.9	6.55	349.8	22.86	-45.9	-96.8	5.1
13 Foreign degree	0.2	0.6		284.8	10.46	230.0	0.00	54.8	33.9	75.6

<sup>†</sup>Not applicable.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).

## Appendix H

### PIAAC 2011 Weighted Item Response Rates



## APPENDIX H

### PIAAC 2011 WEIGHTED ITEM RESPONSE RATES

Table H-1. PIAAC 2011 weighted item response rates (items with response rates below 85 percent asked of at least 30 sampled persons are highlighted)

Background Questionnaire item	Description	Item sample size	Item response rate (percent)	
			“Don’t Know” as nonresponse	“Don’t Know” as valid response
A_D01A1	General – Interview month (DERIVED BY CAPI)	4,898	100	100
A_D01A2	General – Year before interview (DERIVED BY CAPI)	4,898	100	100
A_D01A3	General – Interview year (DERIVED BY CAPI)	4,898	100	100
A_N01	General – Gender of respondent	4,898	100	100
A_Q01A	General – Year of birth	4,898	100	100
A_Q01B	General – Month of birth	4,898	100	100
BQLANG	Language for Background Questionnaire	4,898	100	100
B_D01D	Education – Highest qualification – Months elapsed since finished (DERIVED BY CAPI)	4,882	100	100
B_D03D	Education – Uncompleted qualification – Months elapsed since dropout (DERIVED BY CAPI)	4,029	100	100
B_D12H	Activities – Last year – Number of learning activities (DERIVED BY CAPI)	4,716	100	100
B_Q01A	Education – Highest qualification – Level	4,898	100	100
B_Q01A2US	Education – Highest qualification – Country of foreign qualification	10	90	90
B_Q01A3	Education – Highest qualification – Level of foreign qualification	11	81	81
B_Q01A3US	Education – Highest qualification – Level of foreign qualification	10	90	90
B_Q01AUS	Education – Highest qualification – Level	4,898	100	100
B_Q01B <sup>1</sup>	Education – Highest qualification – Area of study	4,266	69	69
B_Q01BUSX	Education – Highest qualification – Area of study verbatim	2,897	100	100
B_Q01C1	Education – Highest qualification – Age of finish	4,882	99	100
B_Q01C2	Education – Highest qualification – Year of finish	4,882	99	100
B_Q01D	Education – Highest qualification – Month of finish	478	99	100

See note at end of table.

Table H-1. PIAAC 2011 weighted item response rates (items with response rates below 85 percent asked of at least 30 sampled persons are highlighted)—Continued

Background Questionnaire item	Description	Item sample size	Item response rate (percent)	
			“Don’t Know” as nonresponse	“Don’t Know” as valid response
B_Q02A	Education – Current qualification	4,898	100	100
B_Q02B	Education – Current qualification – Level	871	99	100
B_Q02BUS	Education – Current qualification – Level	870	99	100
B_Q02C <sup>1</sup>	Education – Current qualification – Area of study	865	71	71
B_Q02CUSX	Education – Current Qualification – Area of Study Verbatim	657	100	100
B_Q03A	Education – Uncompleted qualification	4,029	100	100
B_Q03B	Education – Uncompleted qualification – Level	1,245	100	100
B_Q03BUS	Education – Uncompleted qualification – Level	1,245	100	100
B_Q03C1	Education – Uncompleted qualification – Age of dropout	1,245	99	100
B_Q03C2	Education – Uncompleted qualification – Year of dropout	1,245	100	100
B_Q03D	Education – Uncompleted qualification – Month of dropout	84	96	98
B_Q04A	Education – Formal qualification	3,881	100	100
B_Q04B	Education – Formal qualification – How many qualifications	153	99	99
B_Q05A	Education – Formal qualification – Level	153	92	99
B_Q05AUS	Education – Formal qualification – Level	152	93	99
B_Q05B	Education – Formal qualification – Area of study	175	93	93
B_Q05BUSX <sup>1</sup>	Education – Formal Qualification – Area of Study Verbatim	484	31	31
B_Q05C	Education – Formal qualification – Reason job related	988	99	99
B_Q05CUSX1	Education – Formal qualification – Degree personal interest	707	98	98
B_Q05CUSX2	Education – Formal qualification – Degree personal interest or work related	290	96	96
B_Q10A	Education – Formal qualification – Employed	988	98	98
B_Q10B	Education – Formal qualification – Employed – Working hours	737	99	100
B_Q10C	Education – Formal qualification – Employed – Useful for job	737	100	100

See note at end of table.

Table H-1. PIAAC 2011 weighted item response rates (items with response rates below 85 percent asked of at least 30 sampled persons are highlighted)—Continued

Background Questionnaire item	Description	Item sample size	Item response rate (percent)	
			“Don’t Know” as nonresponse	“Don’t Know” as valid response
B_Q11	Education – Formal qualification – Grant from employer	988	99	99
B_Q12A	Activities – Last year – Open or distance edu	4,716	100	100
B_Q12B	Activities – Last year – Open or distance edu – How many	792	100	100
B_Q12C	Activities – Last year – On the job training	4,716	100	100
B_Q12D	Activities – Last year – On the job training – How many	1,855	100	100
B_Q12E	Activities – Last year – Seminars or workshops	4,716	100	100
B_Q12F	Activities – Last year – Seminars or workshops – How many	1,439	100	100
B_Q12G	Activities – Last year – Private lessons	4,716	100	100
B_Q12H	Activities – Last year – Private lessons – How many	408	100	100
B_Q13	Activities – Last year – Activity specified	2,139	100	100
B_Q14A	Activities – Last year – Job related	1,366	100	100
B_Q14B <sup>1</sup>	Activities – Last year – Reason for participating	2,209	59	59
B_Q14BUSX1	Activities – Last year – Activity Participation for personal interest	929	100	100
B_Q14BUSX2	Activities – Last year – Activity Participation mainly personal reasons	439	100	100
B_Q15A	Activities – Last year – Employed	1,366	100	100
B_Q15B	Activities – Last year – During working hours	2,384	100	100
B_Q15C	Activities – Last year – Useful for job	2,384	100	100
B_Q16	Activities – Last year – Grant from employer	2,646	100	100
B_Q17	Activities – Last year – Time spend – Unit	2,646	100	100
B_Q18A	Activities – Last year – Time spend for activities – Weeks	607	100	100
B_Q19A	Activities – Last year – Time spend for activities – Days	752	100	100
B_Q20A	Activities – Last year – Time spend for activities – Hours	1,291	100	100
B_Q20B	Activities – Last year – Time spend for activities – Proportion of job-related hours	2,135	100	100

See note at end of table.

Table H-1. PIAAC 2011 weighted item response rates (items with response rates below 85 percent asked of at least 30 sampled persons are highlighted)—Continued

Background Questionnaire item	Description	Item sample size	Item response rate (percent)	
			“Don’t Know” as nonresponse	“Don’t Know” as valid response
B_Q26A	Activities – Last year – Wanted but didn't start	4,716	100	100
B_Q26B	Activities – Last year – Wanted but didn't start – Reason	1,746	100	100
B_Q27AUSX	Activities – Class – Class/tutor basic skills	1,298	100	100
B_Q27BUSX	Activities – Class – Class/tutor GED	1,298	100	100
B_Q27CUSX	Activities – Class – Class/tutor other equivalency	1,298	100	100
B_Q27DUSX	Activities – Class – Class/tutor main reason	149	97	99
B_Q27EUSXA	Activities – Class – Class attendance, amount	149	96	99
B_Q27EUSXB	Activities – Class – Class attendance, unit	149	97	99
B_Q29AUSX	Activities – Apprentice – Was apprentice	4,898	100	100
B_S01A1	Education – Highest qualification – Name of foreign qualification	11	81	81
B_S01A2	Education – Highest qualification – Country of foreign qualification (other)	11	32	32
B_S27EUSX	Activities – Class – Class attendance, other specify	3	51	100
C_D04	Current status/work history – Last month – Active steps to find job (DERIVED BY CAPI)	405	100	100
C_D05	Current status/work history – Employment status (DERIVED BY CAPI)	4,898	100	100
C_D06	Current status/work history – Current – Paid job or family business (DERIVED BY CAPI)	4,898	100	100
C_D08C	Current status/work history – Left work in past 5 years (DERIVED BY CAPI)	801	100	100
C_D09	Current status/work history – Work experience (DERIVED BY CAPI)	4,898	100	100
C_Q01A	Current status/work history – Last week – Paid work	4,898	100	100
C_Q01B	Current status/work history – Last week – Away from job but will return	1,580	100	100
C_Q01C	Current status/work history – Last week – Unpaid work for own business	1,419	100	100
C_Q02A	Current status/work history – Last month – Looking for paid work	1,338	100	100

See note at end of table.

Table H-1. PIAAC 2011 weighted item response rates (items with response rates below 85 percent asked of at least 30 sampled persons are highlighted)—Continued

Background Questionnaire item	Description	Item sample size	Item response rate (percent)	
			“Don’t Know” as nonresponse	“Don’t Know” as valid response
C_Q02B	Current status/work history – Last month – Waiting to start job	935	100	100
C_Q02C	Current status/work history – Last month – Waiting to start job – Next 3 months	10	78	78
C_Q03_01	Current status/work history – Last month – Reason not looking for work – Waiting for result of application	927	99	100
C_Q03_02	Current status/work history – Last month – Reason not looking for work – Being a student	927	99	100
C_Q03_03	Current status/work history – Last month – Reason not looking for work – Looking after the family	927	99	100
C_Q03_04	Current status/work history – Last month – Reason not looking for work – Temp sick	927	99	100
C_Q03_05	Current status/work history – Last month – Reason not looking for work – Long-term illness	927	99	100
C_Q03_06	Current status/work history – Last month – Reason not looking for work – Nothing available	927	99	100
C_Q03_07	Current status/work history – Last month – Reason not looking for work – Did not get around	927	99	100
C_Q03_08	Current status/work history – Last month – Reason not looking for work – No need	927	99	100
C_Q03_09	Current status/work history – Last month – Reason not looking for work – Retired	927	99	100
C_Q03_10	Current status/work history – Last month – Reason not looking for work – Other	927	99	100
C_Q04A	Current status/work history – Last month – Ways of looking for work – Contact public employment	405	100	100
C_Q04B	Current status/work history – Last month – Ways of looking for work – Contact private agency	405	100	100
C_Q04C	Current status/work history – Last month – Ways of looking for work – Apply to employers	405	100	100

See note at end of table.

Table H-1. PIAAC 2011 weighted item response rates (items with response rates below 85 percent asked of at least 30 sampled persons are highlighted)—Continued

Background Questionnaire item	Description	Item sample size	Item response rate (percent)	
			“Don’t Know” as nonresponse	“Don’t Know” as valid response
C_Q04D	Current status/work history – Last month – Ways of looking for work – Ask family/friends	405	100	100
C_Q04E	Current status/work history – Last month – Ways of looking for work – Place/answer advertisements	405	100	100
C_Q04F	Current status/work history – Last month – Ways of looking for work – Study advertisements	405	100	100
C_Q04G	Current status/work history – Last month – Ways of looking for work – Recruitment test	405	100	100
C_Q04H	Current status/work history – Last month – Ways of looking for work – Premises	405	100	100
C_Q04I	Current status/work history – Last month – Ways of looking for work – Licenses/financial resources	405	100	100
C_Q04J	Current status/work history – Last month – Ways of looking for work – Other	405	100	100
C_Q05	Current status/work history – Ability to start job within 2 weeks	413	99	100
C_Q06	Current status/work history – Last week – Number of jobs	3,481	100	100
C_Q07	Current status/work history – Subjective status	4,898	100	100
C_Q08A	Current status/work history – Ever paid work	1,419	100	100
C_Q08B	Current status/work history – Last year – Paid work	1,238	100	100
C_Q08C1	Current status/work history – Age when stopped working in last job	801	98	99
C_Q08C2	Current status/work history – Year when stopped working in last job	801	99	100
C_Q09	Current status/work history – Years of paid work during lifetime	4,717	100	100
C_Q10A	Current status/work history – Last 5 years – How many diff firms or organisations	4,384	100	100
C_S03	Current status/work history – Last month – Months looking for paid work	413	99	100

See note at end of table.

Table H-1. PIAAC 2011 weighted item response rates (items with response rates below 85 percent asked of at least 30 sampled persons are highlighted)—Continued

Background Questionnaire item	Description	Item response rate (percent)		
		Item sample size	“Don’t Know” as nonresponse	“Don’t Know” as valid response
C_S04J	Current status/work history – Last month – Ways of looking for work – Other specified	101	98	98
D_D16A	Current work – Earnings – Salary interval per hour (DERIVED BY CAPI)	2,941	100	100
D_Q01A	Current work – Job title	3,562	100	100
D_Q01B	Current work – Responsibilities	3,562	100	100
D_Q02A	Current work – Kind of business, industry or service	3,562	100	100
D_Q02B	Current work – Main product of firm or organisation	3,562	100	100
D_Q03	Current work – Economic sector	3,562	100	100
D_Q03US	Current work – Economic sector	3,562	100	100
D_Q04	Current work – Employee or self-employed	3,481	100	100
D_Q05A1	Current work – Start of work for employer – Age	3,086	100	100
D_Q05A2	Current work – Start of work for employer – Year	3,086	100	100
D_Q05A3	Current work – Start of work for employer – Month	755	99	100
D_Q05B1	Current work – Start of work for business – Age	478	99	100
D_Q05B2	Current work – Start of work for business – Year	478	99	99
D_Q05B3	Current work – Start of work for business – Month	66	97	97
D_Q06A	Current work – Amount of people working for employer	3,086	99	100
D_Q06B	Current work – Amount of people working for employer increased	3,086	99	100
D_Q06C	Current work – Part of a larger organization	3,086	100	100
D_Q07A	Current work – Employees working for you	478	100	100
D_Q07B	Current work – Employees working for you – Amount	164	98	98
D_Q08A	Current work – Managing other employees	3,086	100	100
D_Q08B	Current work – Managing other employees – Amount	1,009	100	100
D_Q09	Current work – Type of contract	3,005	100	100
D_Q10	Current work – Hours/week	3,562	99	100

See note at end of table.

Table H-1. PIAAC 2011 weighted item response rates (items with response rates below 85 percent asked of at least 30 sampled persons are highlighted)—Continued

Background Questionnaire item	Description	Item sample size	Item response rate (percent)	
			“Don’t Know” as nonresponse	“Don’t Know” as valid response
D_Q11A	Current work – Work flexibility – Sequence of tasks	3,562	100	100
D_Q11B	Current work – Work flexibility – How to do the work	3,562	100	100
D_Q11C	Current work – Work flexibility – Speed of work	3,562	100	100
D_Q11D	Current work – Work flexibility – Working hours	3,562	100	100
D_Q12A	Current work – Requirements – Education level	3,086	100	100
D_Q12AUS	Current work – Requirements – Education level	3,005	100	100
D_Q12B	Current work – Requirements – To do the job satisfactorily	2,962	100	100
D_Q12C	Current work – Requirements – Related work experience	3,086	100	100
D_Q13A	Current work – Learning – Learning from co-workers/supervisors	3,248	100	100
D_Q13B	Current work – Learning – Learning-by-doing	3,562	100	100
D_Q13C	Current work – Learning – Keeping up to date	3,562	100	100
D_Q14	Current work – Job satisfaction	3,562	100	100
D_Q16A	Current work – Earnings – Salary interval	3,005	98	98
D_Q16B	Current work – Earnings – Gross pay	2,941	94	95
D_Q16C	Current work – Earnings – Gross pay in broad categories	147	87	87
D_Q16D1	Current work – Earnings – Broad categories – Gross pay per hour	18	82	90
D_Q16D2	Current work – Earnings – Broad categories – Gross pay per day	3	32	32
D_Q16D3	Current work – Earnings – Broad categories – Gross pay per week	7	62	74
D_Q16D4	Current work – Earnings – Broad categories – Gross pay per 2 weeks	10	76	82
D_Q16D5	Current work – Earnings – Broad categories – Gross pay per month	8	80	80
D_Q16D6	Current work – Earnings – Broad categories – Gross pay per year	59	90	92

See note at end of table.



Table H-1. PIAAC 2011 weighted item response rates (items with response rates below 85 percent asked of at least 30 sampled persons are highlighted)—Continued

Background Questionnaire item	Description	Item sample size	Item response rate (percent)	
			“Don’t Know” as nonresponse	“Don’t Know” as valid response
D_Q17A	Current work – Earnings – Additional payments	2,941	99	100
D_Q17B	Current work – Earnings – Additional payments amount last year	1,232	89	96
D_Q17C	Current work – Earnings – Additional payments in broad categories	50	91	91
D_Q17D	Current work – Earnings – Additional payments – Broad – Last year	111	75	97
D_Q18A	Current work – Earnings – Total earnings last year	478	85	91
D_Q18B	Current work – Earnings – Total earnings broad categories	44	87	87
D_Q18C1	Current work – Earnings – Broad categories – Total earnings last month	2	.	–
D_Q18C2	Current work – Earnings – Broad categories – Total earnings last year	55	87	93
D_S09	Current work – Other type of contract specified	57	94	97
D_S16A	Current work – Earnings – Hours per piece	10	82	82
EDLEVEL3	Educational level of the respondent (DERIVED BY CAPI)	4,898	100	100
E_Q01A	Last job – Job title	824	100	100
E_Q01B	Last job – Responsibilities	824	100	100
E_Q02A	Last job – Kind of business, industry or service	824	100	100
E_Q02B	Last job – Main product of firm or organisation	824	99	100
E_Q03	Last job – Economic sector	824	99	100
E_Q03US	Last job – Economic sector	824	99	100
E_Q04	Last job – Employee or self-employed	824	100	100
E_Q05A1	Last job – Start of work for employer – Age	754	99	100
E_Q05A2	Last job – Start of work for employer – Year	754	99	100
E_Q05B1	Last job – Start of work for business – Age	72	95	96
E_Q05B2	Last job – Start of work for business – Year	72	96	97
E_Q06	Last job – Amount of people working for employer	754	99	100
E_Q07A	Last job – Employees working for you	72	97	97
E_Q07B	Last job – Employees working for you – Amount	10	81	81

See note at end of table.

Table H-1. PIAAC 2011 weighted item response rates (items with response rates below 85 percent asked of at least 30 sampled persons are highlighted)—Continued

Background Questionnaire item	Description	Item sample size	Item response rate (percent)	
			“Don’t Know” as nonresponse	“Don’t Know” as valid response
E_Q08	Last job – Type of contract	754	99	100
E_Q09	Last job – Hours/week	824	100	100
E_Q10	Last job – Reason for end of job	754	100	100
E_S08	Last job – Other type of contract specified	16	88	88
F_Q01B	Skill use work – Time cooperating with co-workers	3,609	100	100
F_Q02A	Skill use work – How often – Sharing work-related info	3,960	100	100
F_Q02B	Skill use work – How often – Teaching people	3,960	100	100
F_Q02C	Skill use work – How often – Presentations	3,960	100	100
F_Q02D	Skill use work – How often – Selling	3,960	100	100
F_Q02E	Skill use work – How often – Advising people	3,960	100	100
F_Q03A	Skill use work – How often – Planning own activities	3,960	100	100
F_Q03B	Skill use work – How often – Planning others activities	3,960	100	100
F_Q03C	Skill use work – How often – Organising own time	3,960	100	100
F_Q04A	Skill use work – How often – Influencing people	3,960	100	100
F_Q04B	Skill use work – How often – Negotiating with people	3,960	100	100
F_Q05A	Skill use work – Problem solving – Simple problems	3,960	100	100
F_Q05B	Skill use work – Problem solving – Complex problems	3,960	100	100
F_Q06B	Skill use work – How often – Working physically for long	3,960	100	100
F_Q06C	Skill use work – How often – Using hands or fingers	3,960	100	100
F_Q07A	Skill use work – Not challenged enough	3,562	100	100
F_Q07B	Skill use work – Need more training	3,562	100	100
G_Q01A	Skill use work – Literacy – Read directions or instructions	3,960	100	100
G_Q01B	Skill use work – Literacy – Read letters memos or mails	3,960	100	100

See note at end of table.

Table H-1. PIAAC 2011 weighted item response rates (items with response rates below 85 percent asked of at least 30 sampled persons are highlighted)—Continued

Background Questionnaire item	Description	Item sample size	Item response rate (percent)	
			“Don’t Know” as nonresponse	“Don’t Know” as valid response
G_Q01C	Skill use work – Literacy – Read newspapers or magazines	3,960	100	100
G_Q01D	Skill use work – Literacy – Read professional journals or publications	3,960	100	100
G_Q01E	Skill use work – Literacy – Read books	3,960	100	100
G_Q01F	Skill use work – Literacy – Read manuals or reference materials	3,960	100	100
G_Q01G	Skill use work – Literacy – Read financial statements	3,960	100	100
G_Q01H	Skill use work – Literacy – Read diagrams maps or schematics	3,960	100	100
G_Q02A	Skill use work – Literacy – Write letters memos or mails	3,960	100	100
G_Q02B	Skill use work – Literacy – Write articles	3,960	100	100
G_Q02C	Skill use work – Literacy – Write reports	3,960	100	100
G_Q02D	Skill use work – Literacy – Fill in forms	3,960	100	100
G_Q03B	Skill use work – Numeracy – How often – Calculating costs or budgets	3,960	100	100
G_Q03C	Skill use work – Numeracy – How often – Use or calculate fractions or percentages	3,960	100	100
G_Q03D	Skill use work – Numeracy – How often – Use a calculator	3,960	100	100
G_Q03F	Skill use work – Numeracy – How often – Prepare charts graphs or tables	3,960	100	100
G_Q03G	Skill use work – Numeracy – How often – Use simple algebra or formulas	3,960	100	100
G_Q03H	Skill use work – Numeracy – How often – Use advanced math or statistics	3,960	100	100
G_Q04	Skill use work – ICT – Experience with computer in job	3,960	100	100
G_Q05A	Skill use work – ICT – Internet – How often – For mail	2,988	100	100
G_Q05C	Skill use work – ICT – Internet – How often – Work related info	2,988	100	100
G_Q05D	Skill use work – ICT – Internet – How often – Conduct transactions	2,988	100	100
G_Q05E	Skill use work – ICT – Computer – How often – Spreadsheets	2,988	100	100

See note at end of table.

Table H-1. PIAAC 2011 weighted item response rates (items with response rates below 85 percent asked of at least 30 sampled persons are highlighted)—Continued

Background Questionnaire item	Description	Item sample size	Item response rate (percent)	
			“Don’t Know” as nonresponse	“Don’t Know” as valid response
G_Q05F	Skill use work – ICT – Computer – How often – Word	2,988	100	100
G_Q05G	Skill use work – ICT – Computer – How often – Programming language	2,988	100	100
G_Q05H	Skill use work – ICT – Computer – How often – Real-time discussions	2,988	100	100
G_Q06	Skill use work – ICT – Computer – Level of computer use	2,988	100	100
G_Q07	Skill use work – ICT – Computer – Got the skills needed	2,988	100	100
G_Q08	Skill use work – ICT – Computer – Lack of skills affect career	2,988	100	100
H_Q01A	Skill use everyday life – Literacy – Read directions or instructions	4,898	100	100
H_Q01B	Skill use everyday life – Literacy – Read letters memos or mails	4,898	100	100
H_Q01C	Skill use everyday life – Literacy – Read newspapers or magazines	4,898	100	100
H_Q01D	Skill use everyday life – Literacy – Read professional journals or publications	4,898	100	100
H_Q01E	Skill use everyday life – Literacy – Read books	4,898	100	100
H_Q01F	Skill use everyday life – Literacy – Read manuals or reference materials	4,898	100	100
H_Q01G	Skill use everyday life – Literacy – Read financial statements	4,898	100	100
H_Q01H	Skill use everyday life – Literacy – Read diagrams maps or schematics	4,898	100	100
H_Q02A	Skill use everyday life – Literacy – Write letters memos or mails	4,898	100	100
H_Q02B	Skill use everyday life – Literacy – Write articles	4,898	100	100
H_Q02C	Skill use everyday life – Literacy – Write reports	4,898	100	100
H_Q02D	Skill use everyday life – Literacy – Fill in forms	4,898	100	100
H_Q03B	Skill use everyday life – Numeracy – How often – Calculating costs or budgets	4,898	100	100

See note at end of table.

Table H-1. PIAAC 2011 weighted item response rates (items with response rates below 85 percent asked of at least 30 sampled persons are highlighted)—Continued

Background Questionnaire item	Description	Item sample size	Item response rate (percent)	
			“Don’t Know” as nonresponse	“Don’t Know” as valid response
H_Q03C	Skill use everyday life – Numeracy – How often – Use or calculate fractions or percentages	4,898	100	100
H_Q03D	Skill use everyday life – Numeracy – How often – Use a calculator	4,898	100	100
H_Q03F	Skill use everyday life – Numeracy – How often – Prepare charts graphs or tables	4,898	100	100
H_Q03G	Skill use everyday life – Numeracy – How often – Use simple algebra or formulas	4,898	100	100
H_Q03H	Skill use everyday life – Numeracy – How often – Use advanced math or statistics	4,898	100	100
H_Q04A	Skill use everyday life – ICT – Ever used computer	1,912	100	100
H_Q04B	Skill use everyday life – ICT – Experience with computer everyday life	4,648	100	100
H_Q05A	Skill use everyday life – ICT – Internet – How often – For mail	3,960	100	100
H_Q05C	Skill use everyday life – ICT – Internet – How often – In order to better understand various issues	3,960	100	100
H_Q05D	Skill use everyday life – ICT – Internet – How often – Conduct transactions	3,960	100	100
H_Q05E	Skill use everyday life – ICT – Computer – How often – Spreadsheets	3,960	100	100
H_Q05F	Skill use everyday life – ICT – Computer – How often – Word	3,960	100	100
H_Q05G	Skill use everyday life – ICT – Computer – How often – Programming language	3,960	100	100
H_Q05H	Skill use everyday life – ICT – Computer – How often – Real-time discussions	3,960	100	100
I_Q010BUSX1	About yourself – Health – Have medical insurance	4,898	100	100
I_Q04B	About yourself – Learning strategies – Relate new ideas into real life	4,898	100	100
I_Q04D	About yourself – Learning strategies – Like learning new things	4,898	100	100
I_Q04H	About yourself – Learning strategies – Attribute something new	4,898	100	100

See note at end of table.

Table H-1. PIAAC 2011 weighted item response rates (items with response rates below 85 percent asked of at least 30 sampled persons are highlighted)—Continued

Background Questionnaire item	Description	Item sample size	Item response rate (percent)	
			“Don’t Know” as nonresponse	“Don’t Know” as valid response
I_Q04J	About yourself – Learning strategies – Get to the bottom of difficult things	4,898	100	100
I_Q04L	About yourself – Learning strategies – Figure out how different ideas fit together	4,898	100	100
I_Q04M	About yourself – Learning strategies – Looking for additional info	4,898	100	100
I_Q05F	About yourself – Cultural engagement – Voluntary work for non-profit organisations	4,898	100	100
I_Q06A	About yourself – Political efficacy – No influence on the government	4,898	100	100
I_Q06DUSX1A	About yourself – Political efficacy – Information from newspapers	4,898	100	100
I_Q06DUSX1B	About yourself – Political efficacy – Information from magazines	4,898	100	100
I_Q06DUSX1C	About yourself – Political efficacy – Information from internet	4,898	100	100
I_Q06DUSX1D	About yourself – Political efficacy – Information from radio	4,898	100	100
I_Q06DUSX1E	About yourself – Political efficacy – Information from television	4,898	100	100
I_Q06DUSX1F	About yourself – Political efficacy – Information from books or brochures	4,898	100	100
I_Q06DUSX1G	About yourself – Political efficacy – Information from family members, friends, or co-workers	4,898	100	100
I_Q07A	About yourself – Social trust – Trust only few people	4,898	100	100
I_Q07B	About yourself – Social trust – Other people take advantage of you	4,898	100	100
I_Q08	About yourself – Health – State	4,898	100	100
I_Q08USX1	About yourself – Health – Difficulty seeing print	4,898	100	100
I_Q08USX2	About yourself – Health – Difficulty hearing conversation	4,898	100	100
I_Q08USX3	About yourself – Health – Diagnosed learning disabled	4,898	100	100
I_Q10BUSX2A	About yourself – Health – Health information from newspapers	4,898	100	100

See note at end of table.

Table H-1. PIAAC 2011 weighted item response rates (items with response rates below 85 percent asked of at least 30 sampled persons are highlighted)—Continued

Background Questionnaire item	Description	Item sample size	Item response rate (percent)	
			“Don’t Know” as nonresponse	“Don’t Know” as valid response
I_Q10BUSX2B	About yourself – Health – Health information from magazines	4,898	100	100
I_Q10BUSX2C	About yourself – Health – Health information from internet	4,898	100	100
I_Q10BUSX2D	About yourself – Health – Health information from radio	4,898	100	100
I_Q10BUSX2E	About yourself – Health – Health information from television	4,898	100	100
I_Q10BUSX2F	About yourself – Health – Health information from books or brochures	4,898	100	100
I_Q10BUSX2G	About yourself – Health – Health information from family members, friends, or co-workers	4,898	100	100
I_Q10BUSX2H	About yourself – Health – Health information from health professional	4,898	100	100
I_Q10BUSX3A	About yourself – Health – Flu shot in past year	4,898	100	100
I_Q10BUSX3B	About yourself – Health – Mammogram in past year	1,415	99	99
I_Q10BUSX3C	About yourself – Health – Pap smear in past year	2,479	100	100
I_Q10BUSX3D	About yourself – Health – Screen for colon cancer in past year	1,591	99	99
I_Q10BUSX3E	About yourself – Health – Vision check in past year	4,898	100	100
I_Q10BUSX3F	About yourself – Health – Screen for prostate cancer in past year	721	99	99
I_Q10BUSX3G	About yourself – Health – Screen for osteoporosis in past year	83	86	86
I_Q10BUSX3H	About yourself – Health – Seen dentist in past year	4,898	100	100
J_N05A2	Background – More than one language mentioned	4,898	100	100
J_Q01	Background – People in household	4,898	100	100
J_Q02A	Background – Living with spouse or partner	3,929	100	100
J_Q02C	Background – Work situation of spouse or partner	2,559	100	100
J_Q03A	Background – Children	4,898	100	100
J_Q03B	Background – Number of children	3,155	100	100
J_Q03C	Background – Age of the child	768	100	100

See note at end of table.

Table H-1. PIAAC 2011 weighted item response rates (items with response rates below 85 percent asked of at least 30 sampled persons are highlighted)—Continued

Background Questionnaire item	Description	Item sample size	Item response rate (percent)	
			“Don’t Know” as nonresponse	“Don’t Know” as valid response
J_Q03D1	Background – Age of the youngest child	2,389	100	100
J_Q03D2	Background – Age of the oldest child	2,389	100	100
J_Q04A	Background – Born in country	4,898	100	100
J_Q04BUS	Background – Country of birth	646	100	100
J_Q04C1	Background – Age of immigration	646	99	100
J_Q04C2	Background – Year of immigration	646	100	100
J_Q04DUSX1A	Background – Hispanic	4,898	100	100
J_Q04DUSX1B_01	Background – Hispanic origin – Mexican	559	100	100
J_Q04DUSX1B_02	Background – Hispanic origin – Puerto Rican	559	100	100
J_Q04DUSX1B_03	Background – Hispanic origin – Cuban	559	100	100
J_Q04DUSX1B_04	Background – Hispanic origin – Central/South America	559	100	100
J_Q04DUSX1B_05	Background – Hispanic origin – Other	559	100	100
J_Q04DUSX2_01	Background – Race – White	4,898	99	99
J_Q04DUSX2_02	Background – Race – Black	4,898	99	99
J_Q04DUSX2_03	Background – Race – Asian	4,898	99	99
J_Q04DUSX2_04	Background – Race – American Indian	4,898	99	99
J_Q04DUSX2_05	Background – Race – Native Hawaiian	4,898	99	99
J_Q05A1US	Background – First learned language	4,898	100	100
J_Q05A2US	Background – Second learned language	197	99	99
J_Q05A2USX2	Background – Age learned English	791	99	100
J_Q05BUS	Background – Language spoken at home	791	100	100
J_Q05CUSX1	Background – Language spoken most	791	100	100
J_Q05CUSX2	Background – English outside home	791	100	100
J_Q05CUSX3A	Background – Ability to understand spoken English	4,898	100	100
J_Q05CUSX3B	Background – Ability to speak English	4,898	100	100
J_Q05CUSX3D	Background – Ability to read English	4,898	100	100
J_Q05CUSX3E	Background – Ability to write English	4,898	100	100
J_Q05CUSX4	Background – ESL class/tutor in past year	729	100	100
J_Q05CUSX5	Background – Reason for ESL class/tutor	47	96	96
J_Q05CUSX6	Background – Class/tutor learn English as adult	729	100	100
J_Q06A	Background – Mother/female guardian – Whether born in country	4,898	100	100
J_Q06B	Background – Mother/female guardian – Highest level of education	4,898	99	100

See note at end of table.



Table H-1. PIAAC 2011 weighted item response rates (items with response rates below 85 percent asked of at least 30 sampled persons are highlighted)—Continued

Background Questionnaire item	Description	Item sample size	Item response rate (percent)	
			“Don’t Know” as nonresponse	“Don’t Know” as valid response
J_Q06BUS	Background – Mother/female guardian – Highest level of education	4,898	99	100
J_Q07A	Background – Father/male guardian – Whether born in #countryname	4,898	99	100
J_Q07B	Background – Father/male guardian – Highest level of education	4,898	96	100
J_Q07BUS	Background – Father/male guardian – Highest level of education	4,898	96	100
J_Q08	Background – Number of books at home	4,898	100	100
J_S04B <sup>1</sup>	Background – Country of birth (other)	646	51	51
J_S05A1 <sup>1</sup>	Background – First learned language (other)	4,898	5	5
J_S05A2 <sup>1</sup>	Background – Second learned language (other)	197	13	13
J_S05B <sup>1</sup>	Background – Language spoken at home (other)—	4,898	3	3

<sup>1</sup>Response rate is below 85 since IEA did not code valid skips as such in the US-specific variable used for routing to this item.  
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).

# Appendix I

## NRBA Technical Notes

# APPENDIX I

## NRBA TECHNICAL NOTES

### I.1 Total Survey Error

There are two major components of total survey error: sampling error and nonsampling error. Sampling error is the error that occurs because population estimates are based on a sample rather than a census. Due to clustering effects typical of household surveys, the sample size can be misleading to users when judging the magnitude of sampling error. Therefore, precise measurement of sampling error is necessary and is facilitated in PIAAC through the replication method known as the stratified jackknife technique.

Nonsampling error contains all sources of error besides sampling error. According to Lessler and Kalsbeek (1992), there are three subcomponents of nonsampling error: (1) frame error, (2) nonresponse error, and (3) measurement error. This report is focused on the nonresponse error, which is the error arising from failure to obtain a response, whether it is unit nonresponse or item nonresponse. A key measure of the impact of nonresponse on total survey error is called nonresponse bias. Nonresponse bias can be substantial when two conditions hold: (1) when response rate is relatively low, and (2) when the difference between the characteristics of respondents and nonrespondents is relatively large. An estimate for nonresponse bias can be expressed as follows:

$$\text{Bias}(\bar{y}_R) = (1 - W_R)(\bar{Y}_R - \bar{Y}_N),$$

where  $W_R$  is the response rate and  $\bar{Y}_R$  and  $\bar{Y}_N$  are the mean values of the survey items estimated among the respondents and nonrespondents, respectively. Because survey values for nonrespondents are not available, nonresponse bias is not known and can only be estimated by using data available for both respondents and nonrespondents.

An alternative model of nonresponse assumes each sampled person has a certain propensity to respond, and NRB in a characteristic is a function of the covariance between the response propensity and the characteristic:

$$\text{Bias}(\bar{y}_R) \frac{\sigma_{yp}}{\bar{p}},$$

where  $\sigma_{yp}$  is the covariance between the outcome variable and response propensity, and  $\bar{p}$  is the mean response propensity.

### I.2 Response Rate Computations

The response rates were computed for the three components as given in the PIAAC Standards and shown in table I-1. The disposition codes referenced in table I-1 are given in table I-2 (Screener), table I-3 (BQ), and table I-4 (assessment).

### **I.3 U.S. PIAAC Sample Design And Data Collection**

U.S. PIAAC consists of a nationally representative sample of the noninstitutionalized population of U.S. adults who, at the time of the interview, were between the ages of 16 and 65 years, inclusive. The PIAAC main survey sample design involved four stages of sample selection:

- the selection of 80 primary sampling units (PSUs), consisting of counties or groups of counties, using the 2000 Census data to form, stratify, and select;
- the selection of 901 secondary sampling units (segments), consisting of census blocks or block groups (BGs), using the 2000 Census data to form and select;
- the listing and selection of 9,468 dwelling units (DUs) within segments; and
- the enumeration and selection of eligible individuals within DUs.

Table I-1. Actual response rates

Stage	Actual	Description
Screener	COMPLETE/ELIGIBLE	
	COMPLETE = $C^s$	Completed screeners
	ELIGIBLE = $HH^s - I^s - U^s * (I^s/K^s)$	All sampled households
	$C^s$ = DISP_SCR(01,02)	HHs known to be ineligible
	$HH^s$ = All sampled households <sup>1</sup>	HHs with unknown eligibility status
	$I^s$ = DISP_SCR(19,22,26,28)	HHs with known eligibility status
	$U^s$ = DISP_SCR(04,05,17,20,21,24)	
	$K^s$ = DISP_SCR(01,02,03,07,09,12-16,19,22,26,28)	
Background questionnaire	COMPLETE/ELIGIBLE	
	COMPLETE = $C^b + LR^b$	Completed BQ cases
	ELIGIBLE = $SP^b - D^b - I^b$	Literacy-related nonrespondents
	$C^b$ = DISP_CIBQ(01,90 <sup>2</sup> )	All sampled persons
	$LR^b$ = DISP_CIBQ(07,08,09) and QCFLAG_LR = 1	SPs with a disability
	$SP^b$ = All sampled persons <sup>3</sup>	SPs known to be ineligible
	$D^b$ = DISP_CIBQ(12,13,15,16)	
	$I^b$ = DISP_CIBQ(18,25)	
Assessment <sup>4</sup>	COMPLETE/ELIGIBLE	
	COMPLETE = $C^a + LR^a$	Completed assessments
	ELIGIBLE = $C^b - D^a - I^a$	Literacy-related nonrespondents
	$C^a$ = DISP_MAIN(01,90 <sup>10</sup> )	Completed BQ cases
	$LR^a$ = DISP_MAIN(07,08,09,14)	SPs with a disability
	$C^b$ = DISP_CIBQ(01,90 <sup>10</sup> )	SPs known to be ineligible
	$D^a$ = DISP_MAIN(12,13,15,16)	
	$I^a$ = DISP_MAIN(18)	

<sup>1</sup> Includes the original sample of dwelling units plus the reserve sample released as a random subset of the population.

<sup>2</sup> A code of 90 represents technical problems during the BQ or assessment. For the US, for US reports, technical problems are treated as nonrespondents. For PIAAC international reports, they are treated as completes to be consistent with the PIAAC Standards and Guidelines.

<sup>3</sup> Includes the original sample of persons plus the reserve sample released as a random subset of the population.

<sup>4</sup> The assessment response rate with reading components can be computed by replacing DISP\_MAIN with DISP\_MAINWRC. The reading components conditional response rate is the assessment response rate with reading components divided by the assessment response rate without reading components.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).

Table I-2. Disposition codes for PIAAC Screener

Description	Code
Complete – 1 sample person selected	01
Complete – 2 sample persons selected	02
Partial complete/break-off	03
Refusal – household member	04
Refusal – gatekeeper	05
Language problem	07
Learning/mental disability	09
Hearing impairment	12
Blindness/visual impairment	13
Speech impairment	14
Physical disability	15
Other disability	16
Other (unspecified), such as sickness, falsification or unusual circumstances	17
Complete – no eligible sample persons	19
Unable to locate dwelling unit	20
Maximum number of calls	21
Dwelling unit under construction	22
Temporarily absent/unavailable during field period	24
Vacant dwelling unit, e.g., holiday or temporary residence only (such as cabins on a lake)	26
Duplication – already interviewed	27
Address not a dwelling unit, e.g., non-residential units such as businesses, government offices, and other organizations and residential units such as institutions (e.g., prisons or sanitariums) and military barracks	28

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).

Table I-3. Disposition codes for PIAAC Background Questionnaire

Description	Code
Complete	01
Partial complete/break-off, e.g., a paused interview that eventually cannot be completed	03
Refusal – sample person, e.g., for refusal to participate due to time constraints or lack of interest	04
Refusal – other	05
Language problem	07
Reading and writing difficulty	08
Learning/mental disability	09
Hearing impairment	12
Blindness/visual impairment	13
Speech impairment	14
Physical disability	15
Other disability	16
Other (unspecified), e.g., sickness, falsification or unusual circumstances	17
Death	18
Maximum number of calls; e.g., respondent not successfully contacted	21
Temporarily absent/unavailable during field period, e.g., travelling and will not be back during the field period or moved within the same community but not successfully located by the interviewers	24
Ineligible, e.g., moved outside the country	25
Duplication – already interviewed	27
Technical problem	90

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).

Table I-4. Disposition codes for PIAAC direct assessments

Assessment	Description	Code
Main	Complete	01
Main	Partial complete/break-off, e.g., a paused interview that eventually cannot be terminated	03
Main	Refusal – sample person, e.g., for refusal to participate due to time constraints	04
Main	Refusal – other	05
Main	Language problem, e.g., do not speak the assessment language	07
Main	Reading and writing difficulty	08
Main	Learning/mental disability	09
Main	Hearing impairment	12
Main	Blindness/visual impairment	13
Main	Speech impairment	14
Main	Physical disability	15
Main	Other disability	16
Main	Other (unspecified), such as sickness, falsification or unusual circumstances	17
Main	Death	18
Main	Maximum number of calls; e.g., respondent not successfully contacted	21
Main	Temporarily absent/unavailable during field period	24
Main	Duplication – already interviewed	27
Main	Technical problem	90
Main	Missing paper booklet	91

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).



There were 5,011 completed BQs among the 6,100 sampled persons (SPs). Instruments in the study included a Screener, a Background Questionnaire, a Core Assessment booklet and a Main Assessment booklet. Both the Screener and the Background Questionnaire were administered via computer-assisted personal interviewing (CAPI) using a laptop computer. The Screener and Background Questionnaire were available in English or Spanish. The Core Assessment and Direct Assessments were only administered in English.

The Screener enumerated the household residents, obtained the data necessary for sampling, and selected the study participants. The Background Questionnaire collected demographic data, information on educational experiences, health and well-being, and the use of media and technology. The Background Questionnaire took an average of 37 minutes to administer.

The Direct Assessment included several sections. The first section was the Core, which was a self-administered series of tasks to determine whether the sample person (a) could use the computer to complete the assessment and (b) had sufficient literacy and numeracy skills to undertake either the computer or paper based assessment. The Core consisted of three components: the computer-based assessment (CBA) Core Stage 1, the CBA Core Stage 2, and the paper-based assessment (PBA) Core.

The CBA Core Stage 1<sup>1</sup> was designed to determine whether a sample person had the basic set of skills needed to complete the computer-based assessment. It was administered to all sample persons who were willing to take the assessment on the computer and took, on average, 7 minutes to complete. Those who refused to take the self-administered CBA Core Stage 1 were routed to the PBA Core which took 12 minutes on average to complete.

The CBA Core Stage 2 and the PBA Core both measured basic literacy and numeracy necessary to undertake the assessment. CBA Core Stage 2 consisted of six tasks and the PBA Core consisted of eight tasks and in both cases these tasks measured basic literacy and numeracy skills.

CBA Core Stage 2 questions were automatically scored by the computer, and sample persons who passed the CBA Core Stage 2 continued onto computer-based assessment which was self-administered and measured literacy, numeracy, and problem solving in technology-rich environments. The computer-based assessment averaged 47 minutes. Sample persons who did not pass the CBA Core Stage 2 were routed directly to the paper-based reading components portion of the assessment, which took, on average, a total of 69 minutes to complete all the components.

Following the completion of the assessment, a monetary incentive of \$50 was paid to each respondent.

## **I.4 PIAAC Weighting Procedures**

The purpose of calculating sample weights for PIAAC was to permit inferences from SPs to the populations from which they were drawn and to allow tabulations to reflect estimates of the population parameters. Sample weights were produced to accomplish the following four objectives:

- permit unbiased estimates, taking account of the fact that all persons in the population will not have the same probability of selection;

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<sup>1</sup> The CBA Core Stage 1 was referred to as the ICT Core in the PIAAC Field Test.

- minimize biases arising from differences between cooperating and noncooperating SPs;
- bring data up to the dimensions of the population totals; and
- use auxiliary data on known population characteristics in such a way as to reduce sampling errors.

The weighting process began with the creation of the Screener base weights for the sampled DUs, and continued with a weight adjustment to account for Screener nonresponse. Next, base weights were computed for SPs as the product of the Screener nonresponse adjusted weight and the reciprocal of the within-household selection probability. The SP base weights were adjusted for BQ nonresponse. Weights of BQ literacy-related nonrespondents (language, reading, writing difficulty, mental disability) were adjusted to account for Screener Literacy-related nonresponse. Subsequently, the BQ weights were adjusted through an initial raking procedure, so that their sums equal known totals from the 2010 American Community Survey (ACS).<sup>2</sup> The weights were calibrated using a raking procedure (i.e., iterative poststratification) so that numerous totals calculated with the resulting full-sample weights would agree with the ACS totals. Lastly, outlier weights were trimmed (or reduced) and then recalibrated through a final raking procedure. Refer to the PIAAC Technical Report for more details on the weighting steps.

## **I.5 PIAAC Variance Estimation**

The stratified jackknife method was implemented to estimate the variance (i.e., sampling error) for most statistics. Jackknifing estimates the sampling variability of any statistic as the sum of components of variability that may be attributed to individual pairs of first-stage sampling units (i.e., PSUs, or groups of sampled segments within certainty PSUs). The variance attributed to a particular pair is measured by estimating how much the value of the statistic would change if only one unit in the pair had been sampled. When using replication techniques such as jackknifing to calculate standard errors, it is necessary to establish a number of subsamples (or replicates) from the full sample, calculate the estimate from each subsample, and sum the squared difference of each replicated estimate from the full-sample estimate.

The stratified jackknife method requires three steps:

- forming the replicates;
- constructing the replicate weights; and
- computing estimates of variance for survey statistics.

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<sup>2</sup> The American Community Survey (ACS) is conducted every year as part of the U.S. decennial census to provide social and economic data on the population during the period between decennial censuses.

The estimate of the variance of a statistic  $Y$  is as follows:

$$v(Y) = \sum_{r=1}^G (Y_r - Y)^2,$$

where

$Y_r$  = the weighted estimate obtained using the  $r$ -th replicate weight, and  
 $Y$  = the weighted estimate obtained using the full-sample weight.

## I.6 Tests of Significance

Comparisons made in the text of this report have been tested for statistical significance. For example, when comparing results obtained from the full sample with those obtained only from the responding sample units, tests of statistical significance were used to establish whether or not the observed differences are statistically significant. The estimation of the standard errors that are required in order to undertake the tests of significance is complicated by the complex sample and assessment designs which both generate error variance. Together they mandate a set of statistically complex procedures in order to estimate the correct standard errors. As a consequence, the estimated standard errors contain a sampling variance component estimated by the stratified jackknife method. Details on the procedures used can be found in the WesVar 4.3 User's Guide (Westat 2007).

Two kinds of statistical tests are included in the report:  $t$  tests and chi-square tests.

## I.7 $T$ Tests

$t$  tests were used for testing for the hypothesis that no difference exists between the estimated percentages of variables for two groups. In particular, comparisons were made between the full sample and respondents and for the sample at various weighting stages. Suppose that  $\bar{x}_A$  and  $\bar{x}_B$  are the percentages for two groups that are being compared and  $se(\bar{x}_A - \bar{x}_B)$  is the standard error of the difference between the percentages which accounts for the complex survey design. Then the  $t$  test is defined as

$$t = \frac{|\bar{x}_A - \bar{x}_B|}{se(\bar{x}_A - \bar{x}_B)}$$

This statistic is then compared to the critical values of the appropriate Student  $t$ -distribution, to determine whether the difference is statistically significant. The appropriate number of degrees of freedom for the distribution is given by the number of primary sampling units in the design minus the number of sampling strata.

Note that this procedure took account of the fact that the two samples in question were not independent samples. The responding sample was a subsample of the full sample, and the sample at one stage of weighting overlapped with the sample at the previous stage. This effect was accounted for in calculating the standard error of the difference. Note also that, in those cases where both samples were weighted just using base weights the test is exactly equivalent to testing that the mean of the respondents was equal to the mean of the nonrespondents.

## I.8 Chi-Square Tests

Chi-square tests are used for testing whether two distributions of a given categorical variable are different, conducted in a way that reflects the impact of the complex sample design on sampling variance. In this instance one distribution is for the full sample, and one for the responding sample. Suppose that the categorical variable in question has  $c$  levels, cross-tabulated producing weighted proportions  $p$ . The Pearson chi-square statistic is calculated as

$$X^2 = n \sum_{i=1}^2 \sum_{j=1}^c (p_{ij} - p_{i \cdot} p_{\cdot j})^2 / p_{i \cdot} p_{\cdot j}$$

where  $j$  denotes the categories of the categorical variable, and  $i$  indexes the samples (full sample and respondents), and  $n$  indicates the overall sample size. This statistic is not suitable for use directly in a statistical test with these data, for two reasons. First, the fact that the respondents are a subset of the full sample violates the standard assumptions for a chi-square test of this kind. Second, this statistic does not account for the complex sample design used to collect the data.

Thus the Pearson Chi-square statistic is modified appropriately to account for the impact of these two features. The resulting test statistic is referred to as the Rao-Scott Adjusted chi-square statistic. It is sometimes also referred to as the Satterthwaite-adjusted chi-square statistic. The number of degrees of freedom for the chi-square test, normally given as  $(c - 1)$ , where  $c$  is the number of categories of the categorical variable for each distribution, is also modified on account of the complex design. The modified test statistic is then compared to the chi-square distribution with the appropriate number of degrees of freedom, to determine whether the difference in the two distributions is statistically significant. A detailed description of the technique is provided in the following paragraphs (also see Rao and Thomas 2003).

The first step in the calculation of the Satterthwaite-adjusted chi-square statistic is to form the following vector:

$$Y = \sqrt{n} \begin{pmatrix} p_{11} - p_{1 \cdot} p_{\cdot 1} \\ p_{12} - p_{1 \cdot} p_{\cdot 2} \\ \vdots \\ p_{rc} - p_{r \cdot} p_{\cdot c} \end{pmatrix} = \begin{pmatrix} y_1 \\ y_2 \\ \vdots \\ y_{rc} \end{pmatrix}$$

An  $rc \times 1$  vector made up of the products of the marginal proportions is defined as

$$p = \begin{pmatrix} p_{1 \cdot} p_{\cdot 1} \\ p_{1 \cdot} p_{\cdot 2} \\ \vdots \\ p_{r \cdot} p_{\cdot c} \end{pmatrix} = \begin{pmatrix} p_1 \\ p_2 \\ \vdots \\ p_{rc} \end{pmatrix}$$

For each replicate, an  $rc \times rc$  matrix is calculated whose  $ij$ -th element is made up of

$$(y_{ig} - y_i)(y_{jg} - y_j),$$

where  $y_{ig}$  and  $y_{jg}$  are the  $i$ -th and  $j$ -th elements of  $\mathbf{Y}$  calculated for the  $g$ -th replicate and  $y_i$  and  $y_j$  are the corresponding full-sample values. The  $ij$ -th element of the estimated covariance matrix for  $\mathbf{Y}$ ,  $\mathbf{B} = \text{cov}(\mathbf{Y})$ , is calculated using the following formula:

$$B_{ij} = \sum_{g=1}^G (y_{ig} - y_i)(y_{jg} - y_j),$$

The Satterthwaite's approximation to degrees of freedom for the chi-square statistic to be calculated is

$$v = \frac{(\sum_{i=1}^{rc} \frac{B_{ii}}{p_i})^2}{\sum_{i=1}^{rc} \sum_{j=1}^{rc} \frac{B_{ij}^2}{p_i p_j}}$$

Since  $v$  will generally not be an integer, interpolation in standard chi-square tables is required.

Finally, the adjusted chi-square statistic is defined as

$$RS3 = \frac{X^2}{\sum_{i=1}^{rc} \frac{B_{ii}}{p_i}}$$

## I.9 Logistic Regression Models

A linear model for investigating the relationship between binary (dichotomous) outcomes and a set of explanatory variables is referred to as a logistic regression model. The data are assumed to follow a binomial distribution, with probabilities that depend on the independent variables. In this instance the binary outcome of interest is whether or not the sampled unit completed the PIAAC Background Questionnaire.

Let  $p_i$  denote the probability that the  $i$ -th sampled person will participate. Under the logistic regression model, the log odds of response propensity (expressed in terms of the logarithm of  $p_i/(1 - p_i)$ ), is assumed to have the following linear form:

$$\log\left(\frac{p_i}{1 - p_i}\right) = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \dots + \beta_p X_{pi}$$

where  $X_{1i}, X_{2i}, \dots, X_{pi}$  are  $p$  auxiliary variables associated with the  $i$ -th sampled person, and  $\beta_0, \beta_1, \dots, \beta_p$  are coefficients to be estimated. Asymptotic assumptions are used to develop statistical tests to determine which, if any, of the coefficients are significantly different from zero. In the analyses in this report the standard procedures for carrying out logistic regression analyses have been modified both to incorporate the sampling weights in the estimation of the coefficients, and to reflect the effect of the complex sample design on the variance-covariance matrix of the coefficients.

The Newton-Raphson algorithm is used to iteratively solve for parameter solutions in the logistic regression. Let  $q(\boldsymbol{\beta}) = \partial L_n(\boldsymbol{\beta})/\partial \boldsymbol{\beta}$  be the vector of first partial derivatives of the sample log-likelihood with respect to  $\boldsymbol{\beta}$ . Let  $H(\boldsymbol{\beta})$  be the matrix of second partial derivatives (or Hessian) of the sample log-

likelihood having entries  $\frac{\partial^2 L}{\partial \beta_a \partial \beta_b}$ , where  $\beta_a$  and  $\beta_b$  are two separate components of  $\boldsymbol{\beta}$ . Denote by  $\mathbf{q}^t$  and  $\mathbf{H}^t$  the values of  $\mathbf{q}(\boldsymbol{\beta})$  and  $\mathbf{H}(\boldsymbol{\beta})$  evaluated at  $\mathbf{b}^t$ , the value of the estimate  $\mathbf{b}$  at step  $t$ .

The general approach is to approximate the sample log-likelihood at the desired estimate,  $L_n(\mathbf{b})$ , at step  $t$  in the iterative process near the point  $\mathbf{b}^t$  by a second-order Taylor series expansion:

$$L_n^t(\mathbf{b}) \cong L_n(\mathbf{b}^t) + \mathbf{q}^{t'}(\mathbf{b}^t) + \frac{1}{2}(\mathbf{b} - \mathbf{b}^t)' \mathbf{H}^t(\mathbf{b}^t)(\mathbf{b} - \mathbf{b}^t).$$

Solving  $\frac{\partial L^t}{\partial \mathbf{b}} = \mathbf{q}^t + \mathbf{H}^t(\mathbf{b} - \mathbf{b}^t) = 0$  for  $\mathbf{b}$  yields the iteration equations

$$\mathbf{b}^{t+1} = \mathbf{b}^t - [\mathbf{H}^t]^{-1} \mathbf{q}^t$$

assuming  $\mathbf{H}^t$  has an inverse. Given an initial value for  $t = 0$ , the set of iteration equations is solved for  $\mathbf{b}^1$ ,  $\mathbf{b}^1$  is used to solve for  $\mathbf{b}^2$ , and so on, until the convergence criterion is satisfied. The standard error of each estimated  $\beta$  coefficient is calculated using the stratified jackknife method and repeating the procedure for each replicate.

Appendix J  
Data User Guidance

## APPENDIX J

### Data User Guidance

This appendix provides information to help support analyses of the U.S. PIAAC data. U.S. PIAAC microdata are in the following forms:

- International public-use file (PUF);
- U.S. national PUF; and
- U.S. national restricted use file (RUF)

The international PUF contains variables that are common across all countries that participated in PIAAC. Some variables in the international PUF were suppressed for U.S. respondents due to confidentiality concerns. The international PUF is available on the OECD website.<sup>1</sup>

The variables on the international PUF are a subset of those on the U.S. national PUF. The U.S. national PUF contains additional variables to those contained in the international PUF. The additional variables were administered to U.S. respondents only. The U.S. national RUF contains more variables than the U.S. national PUF. In addition to the variables in the U.S. PUF, the RUF contains detailed versions of variables and additional data collected through U.S. specific questionnaire routing (see the section “RUF variables related to U.S. specific routing” below for more information). The RUF can be accessed through a restricted use license agreement with the National Center for Education Statistics. To review the National Center for Education Statistics (NCES) protocols for a restricted-use license arrangement, please see <http://nces.ed.gov/pubs96/96860rev.pdf> (accessed 10/8/2013). To apply for a restricted-use data (RUD) license granting access to the PIAAC RUF, follow the instructions at <https://nces.ed.gov/statprog/instruct.asp>.

The U.S. national PUF and RUF are in the format of ASCII, SPSS and SAS files, and have associated codebooks in text format. The SPSS files are fully labeled and considered self-documenting, and the SAS format scripts can be used to assign value labels. The codebook for the variables that reside on the PUF can be accessed at the following website: <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2014046>. (The codebook for the variables that reside only on the RUF is provided along with the RUF dataset.)

The PUF and RUF codebooks contain the following details for each variable in the file:

- NAME—displays the unique identifier for the variable in the data file;
- LABEL—displays a short description associated with the variable;
- QUESTION—displays the survey question wording associated with the variable;
- NUMBER—displays the order of the variable in the data file;
- TYPE—displays the variable type (integer, string/character, or numeric/floating point);

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<sup>1</sup> The OECD website is <http://www.oecd.org/site/piaac/publicdataandanalysis.htm> (accessed 10/8/2013).



- WIDTH/DECIMALS—displays the number of digits or characters in the variable and the number of digits to the right of the decimal point;
- LOCATION—the position of the variable within the data recorded, indicated with the start and end columns;
- COUNT—displays the number of records for each level of categorical variables;
- PERCENT—displays the percent of records for each level of categorical variables;
- VALUE—displays a list of the possible coded response options for categorical variables ;
- DESCRIPTION—displays a description of each coded response option for categorical variables;
- VALID N—displays the number of records with nonmissing values for continuous variables;
- MINIMUM—displays the minimum value for continuous variables;
- MAXIMUM—displays the maximum value for continuous variables;
- MEAN—displays the average value for continuous variables;
- STANDARD DEVIATION—displays the standard deviation for continuous variables;
- MISSING N—displays the number of records with missing values for continuous variables.

Each respondent is uniquely identified by the variable SEQID.

Most variables use a standard scheme for missing values. Codes are used to indicate item nonresponse and legitimate skips. The specific coded values for each item are detailed in the codebook. The coding scheme in table J-1 was used for the SAS and SPSS datasets.

Table J-1. Missing value codes in SAS and SPSS datasets

Missing value code description	SAS missing value code	SPSS missing value code <sup>1</sup>
Valid skip	.V for numeric variables, 9-fill ending with 6 (for e.g., 6, 96, 996, ...) for character variables	9-fill ending with 6 (for e.g., 6, 96, 996, ...)
Don't know	.D for numeric variables, 9-fill ending with 7 (for e.g., 7, 97, 997, ...) for character variables	9-fill ending with 7 (for e.g., 7, 97, 997, ...)
Refused	.R for numeric variables, 9-fill ending with 8 (for e.g., 8, 98, 998, ...) for character variables	9-fill ending with 8 (for e.g., 8, 98, 998, ...)

Missing value code description	SAS missing value code	SPSS missing value code <sup>1</sup>
Not stated or inferred	.N for numeric variables, 9-fill ending with 9 (for e.g., 9, 99, 999, ...) for character variables	9-fill ending with 9 (for e.g., 9, 99, 999, ...)
Don't Know/Refused	.M	9-fill ending with 8 (for e.g., 8, 98, 998, ...)
Unknown	.U	9-fill ending with 5 (for e.g., 5, 95, 995, ...)
<16 years old <sup>2</sup>	.A	93
>65 years old <sup>2</sup>	.B	94
Student in regular cycle of studies <sup>3</sup>	.A	4
Native born <sup>4</sup>	.A	94
Has not worked more than 5 years <sup>5</sup>	.A for numeric variables, 9995 for character variables	94 for numeric variables, 9995 for string variables.
Still in education <sup>6</sup>	.A	94
Citizen by birth <sup>7</sup>	.A	5
Adults older than 24 <sup>8</sup>	.A	4
Did not participate <sup>9</sup>	.A	9994, 9994.00

<sup>1</sup> The missing value code depends on the length of the field for each data item.

<sup>2</sup> This description is for variables: AGE5LFS and AGE10LFS.

<sup>3</sup> This description is for variables: FAET12, FAET12JR, and FAET12NJR.

<sup>4</sup> This description is for variables: IMYRS and IMYRS\_C.

<sup>5</sup> This description is for all industry or occupation related variables: ISCOSKIL4, ISCO1C, ISCO1L, ISCO2C, ISCO2L, ISIC1C, ISIC1L, ISIC2C, ISIC2L, ISIC4\_C, ISIC4\_L, ISIC4\_CUS\_C, and ISIC4\_LUS\_C.

<sup>6</sup> This description is for variables: LEAVEDU and LEAVEDUUS\_C.

<sup>7</sup> This description is for variable J\_Q04c2\_T.

<sup>8</sup> This description is for variable LEAVER1624.

<sup>9</sup> This description is for variables: NFEHRS, NFEHRSJR, and NFEHRSNJR.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).

The data item types in the U.S. national PUF and RUF include identification variables, background questionnaire item variables, weighting variables, and assessment item scores. Users can find more information on the background questionnaire item variables through the background questionnaire itself available on the NCES PIAAC website.<sup>2</sup> A list of all the variables in the data file can be found in the codebooks. A side-by-side list of the variables that are in the international PUF and in the U.S. versions of the PUF and RUF are given in table J-2. The majority of the data items were provided by OECD. The variable names for these items were generally maintained as provided by OECD. U.S.-specific variables were then added to the end of the data file, and these variables have “US” at or near the end of the names.

Coding of selected variables captured in the electronic Background Questionnaire used the coding schemes specified by the PIAAC Consortium. Detailed responses to questions regarding the respondent’s current and past employer, industry, occupation, and duties were used to assign industry and occupation codes. Occupational and industry coding was done to the full four digits when enough information for the four-digit level was available, although the final analysis was done on the three-digit level. Codes from the 2008 International Standard Classification of Occupations (ISCO-08) were used to code the occupation of the respondent. Industry codes were done using the International Standard Industrial

<sup>2</sup> <http://nces.ed.gov/surveys/piaac/questionnaire.asp>, accessed 10/8/2013

Classification of All Economic Activities (ISIC), Revision 4. The coded responses for industry and occupation included in the restricted use dataset are as follows:

**ISCO08\_C** Respondent’s current ISCO-08 occupation code;

**ISCO08\_L** Respondent’s last ISCO-08 occupation code;

**ISIC4\_C** Respondent’s ISIC rev4 code of industry of current job;

**ISIC4\_L** Respondent’s ISIC rev4 code of industry of last job; and

**ISCO08\_US** Respondent’s apprentice ISCO-08 occupation code.

Disclosure analyses and data masking were conducted to provide reasonable assurance that the data disseminated for PIAAC would not lead to the identification of individuals. Even though analysts will need to sign a license to use the restricted data for analysis purposes only, the data is masked to further protect the identities of individuals, and to provide consistency between results from both the RUF and PUF. The microdata were masked through techniques of data coarsening and data swapping so that one cannot be certain of the identity of individuals, nor that the data is attributable to the individual. The masking procedures were done in a manner that has a negligible impact on data analyses.

## **RUF Variables Related to U.S. Specific Routing**

The U.S. adaptation of the Background Questionnaire introduced a new routing path that caused collection of additional responses that would not occur in the international routing. This occurred after question B\_Q2bUS and routed high school graduates to follow-up questions about starting, but not finishing, an advanced degree and further down-path questions. This had the potential to route about 200 respondents through the group of questions B\_Q03a – B\_Q05b in variation of the international routing. Altogether 38 questions (B\_Q03a - B\_Q26b) were affected. In the PUF, the additional data collected through the U.S.-specific routing was removed to be consistent with the other countries. However, these data are included in the RUF and can be identified by the “USR” suffix in variable names.

## **Some Formulas for Weighted Estimates**

The sampling weights can be used to estimate several types of statistics, including means, totals, proportions, ratios of person characteristics, regression coefficients, and so forth. For instance, for person  $l$ , an estimate of the total number of persons in domain  $d$  is simply the sum of the weights ( $W$ ) in domain  $d$ :

$$\hat{N}_d = \sum_{l \in d} W_l.$$

To estimate the proportion of persons in domain  $d$ , compute the following:

$$\hat{P}_d = \frac{\sum_{l \in d} W_l}{\sum_l W_l}.$$

To estimate a weighted mean, compute the following:

$$\hat{Y} = \frac{\sum_l W_l y_l}{\sum_l W_l}$$

where  $y_l$  = reported value of survey item  $y$  for person  $l$ .

To estimate the weighted mean for literacy score from the  $M = 10$  plausible values (PVs), use the following formula:

$$\hat{Y}^* = \frac{\sum_m \hat{Y}_m}{M}$$

where

$$\hat{Y}_m = \frac{\sum_l W_l y_{lm}}{\sum_l W_l}; m = 1, \dots, M.$$

When estimating standard errors associated with PIAAC estimates, such as those computed using the above formulas, special approaches need to be used to capture the features of the PIAAC design. These features include effects related to sampling (e.g., stratification, systematic sampling from a sorted list, clustering, and effects of probability proportionate to size sampling); weighting (e.g., nonresponse adjustments, trimming, and raking); and multiple imputation of scores (plausible values). The variance of the estimated mean is computed to account for the imputation error variance component, due to the use of PVs, as follows:

$$v(\hat{Y}^*) = U^* + B \left(1 + \frac{1}{M}\right)$$

where the “within” variance component is computed as the average of the sampling variance for each of the  $M$  plausible values, computed as,

$$U^* = \left(\sum_{m=1}^M U_m\right)/M$$

where the sampling variance of the estimated mean  $\hat{Y}_m$  for plausible value  $m$  is  $U_m$ , and where the “between” component is calculated as

$$B = \left[\sum_{m=1}^M (\hat{Y}_m - \hat{Y}^*)^2\right]/(M - 1).$$

The standard error is computed as the square root of the total variance,  $\sqrt{v(\hat{Y}^*)}$ .

## Software Tools

There are a variety of specialized tools available to support valid analyses of the U.S. PIAAC data, such as the following:

- Web-based tools:
  - NCES International Data Explorer (IDE); and
  - OECD IDE.
- Statistical software tools:
  - International Database (IDB) Analyzer (used with SPSS);
  - SAS macro; and
  - Stata code.

Information on how to use the NCES IDE is available in the IDE PIAAC help guide: <http://nces.ed.gov/surveys/international/ide/>. Descriptions of the OECD IDE and statistical software tools and how to use them with PIAAC data can be found in the OECD website for public data and analysis.<sup>3</sup>

Both the NCES and OECD IDE allow the user to create statistical tables and charts to explore adults' (16–65 years of age) performance in literacy, numeracy, and problem solving in technology-rich environments. Data can be analyzed by country as well as in relation to demographic characteristics, social and linguistic background, education, use of skills, and employment status.

The IDB Analyzer is an application developed by the IEA Data Processing and Research Center (DPC) to facilitate the analysis of data from IEA's large-scale assessments. It creates SPSS code that can be used with SPSS to conduct statistical analyses, taking into account the complex sample structure of the databases.

More information on the SAS macro can be found in Denis (2013). Pokropek and Jakubowski (2013) discuss how to use PIAAC data with Stata. Among the statistical analysis tools mentioned above, each can compute descriptive statistics for multiple countries, although only the IDB Analyzer enables the user to conduct statistical hypothesis testing among groups in the population without having to write any programming code. In the OECD website for public data and analysis, users of the U.S. RUF and PUF are encouraged to review the technical descriptions of the analysis tools in Chapter 23 of the Technical Report for the Survey of Adult Skills.

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<sup>3</sup> Found in <http://www.oecd.org/site/piaac/publicdataandanalysis.htm>, accessed 10/8/2013.

## PUF Compendia

As described in the OECD website for public data and analysis, the international compendia are sets of tables that provide categorical percentages for both cognitive and background items. The purpose of the compendia is to support PUF users so that they can gain knowledge of the contents of the PUF, and can use the compendia results to be sure that they are performing PUF analyses correctly. Note that due to the design of the cognitive assessment, comparisons of the cognitive item statistics provided in the compendia across countries for reporting purposes may not be appropriate. A modified version of the international data compendia has been created. It reports percentage statistics for the variables in the U.S. National PUF. The modified compendia is available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?Pubid=2014046>.

## Using the IDB Analyzer with U.S. National PUF/RUF Data and with Data from Other Countries

If only variables and records contained in the U.S. National PUF are to be used, there are no additional or preparatory steps for the IDB Analyzer. Simply open the U.S. National PUF file with the IDB analyzer and proceed with your analysis.

If the intention is to conduct an analysis that makes use of variables in the international databases as well as those in the U.S. National PUF, it is necessary to combine these files in a two-step process. The international PUF files for countries that participated in PIAAC are located on the NCES PIAAC website.

The steps to be performed are as follows:

1. Download the international PUF SPSS files for all the countries from the NCES PIAAC website, including that for the United States.
2. Using SPSS and the IDB Analyzer, merge all international PUF SPSS files.
3. Using SPSS sort the newly created merged file by country ID (CNTRYID) and person ID (SEQID) and save the sorted, merged file. For the purpose of this example, call this "InternationalPUF.sav."
4. Using SPSS sort the U.S. National PUF by country ID (CNTRYID) and person ID (SEQID) and save the sorted U.S.-specific file. For the purpose of this example, call this "USPUF.sav."
5. Using SPSS, update the file "InternationalPUF.sav" with the contents from the "USPUF.sav." You can achieve this in two ways.

Using the SPSS menu options (DATA -> Merge Files -> Add Variables). When using this option, make sure you have checked the box indicating to "Match cases on key variables in sorted files," and as key variables include CNTRYID and SEQID. After the update is complete, save the updated file as "prgALLms\_PUF.sav."

Use SPSS syntax to carry out the update. You will achieve this by executing the following commands from the SPSS syntax window:

```
UPDATE FILE = "InternationalPUF.sav"
```

```
  / FILE = "USPUF.sav"
```

```
  / BY CNTRYID SEQID.
```

```
EXECUTE.
```

After the update is complete, save the updated file as "prgALLms\_PUF.sav." There should be 153,675 records and 1,436 variables in the file.

6. You can then proceed to use the IDB Analyzer to conduct analysis with the merged and updated file.

## IDB Analyzer Examples

Here are two IDB Analyzer examples that use the merged file created in the previous section. It is important to note that the IDB Analyzer performs all analyses in accordance with the technical guidelines for analyzing PIAAC data that are provided in the PIAAC Technical Report. The OECD PIAAC Technical Report is available from <http://www.oecd.org/site/piaac/>. The IDB Analyzer Help Manual is available by pressing F1 within the application, or clicking the help button on the interface.

Using as input the SPSS file (prgALLms\_PUF.sav) created in the previous section containing the merged U.S. PUF file and international PUF files, the following IDB Analyzer instructions produce specified cross-country comparisons. If interested in conducting *t* tests, appendix C of the IDB Analyzer Help Manual provides instructions.

**Example 1:** Produce an Excel table that contains cross-country results by gender (as defined by the variable GENDER\_R) for literacy scale means, percentages, and standard errors.

1. Open the IDB Analyzer and choose "Analysis Module."
2. Select the "prgALLms\_PUF.sav" data file from designated file path. If the file was not created using the IDB Analyzer, a dialog box will pop up asking for study type; choose "PIAAC."
3. Under "Analysis Type," choose "PIAAC (using final full sample weight)." Under "Statistic Type," choose "Percentages and Means." Under the "Plausible Value Option," choose "Use PVs." Change "Number of Decimals" to your preference.
4. Select the variable "GENDER\_R," and move it under the "Grouping Variables."
5. Under "Plausible Values," choose the Literacy Scale score.
6. Click "Define," choose a folder to store the output and a file name.
7. Click "Start SPSS" and run the SPSS code generated by the IDB Analyzer.

**Example 2:** Produce an Excel table that contains cross-country percentages and averages, along with their respective standard errors, for literacy scale levels within gender (using the variables GENDER\_R and PVLIT1-PVLIT10) for those respondents who were administered the literacy assessment.

1. Open the IDB Analyzer and choose “Analysis Module.”
2. Select the “prgALLms\_PUF.sav” data file from designated file path. If the file was not created using the IDB Analyzer, a dialog box will pop up asking for study type; choose “PIAAC.”
3. Under “Analysis Type,” choose “PIAAC (using final full sample weight).” Under “Statistic Type,” choose “Benchmarks.” Under “Benchmark Option,” choose “Discrete.” Change “Number of Decimals” to your preference.
4. Select the variable “GENDER\_R,” and move it under the “Grouping Variables.”
5. Under “Plausible Values,” choose the Literacy Scale score. If you want to include cases without PVs in your report, you will need to check “Report cases with no plausible values” next to the Plausible Values box.
6. Enter the cut points under “Achievement Benchmarks,” separated by spaces. The cut points for the level are in the appendix of the Help Manual of the IDB Analyzer, accessible by pressing the F1 key.
7. Click “Define”; choose a folder to store the output and a file name.
8. Click “Start SPSS”; run the SPSS code generated by the IDB Analyzer.

## **Output from the Two Examples Produced by the IDB Analyzer**

Tables J-3 and J-4 provide selected summary statistic results for the two examples presented above, respectively. Due to the size of the spreadsheet that is produced, only results for Literacy Level 1 (from 176 to Below 226) were extracted from the Example 2 spreadsheet.

## **References**

Denis, V. (2013). User’s Guide for a SAS Macro enabling the computation of design based standard errors in the Survey of Adult Skills (PIAAC). Organization for Economic Co-operation and Development (OECD), Version 1.1.  
<http://www.oecd.org/site/piaac/PIAAC%20SAS%20Macro%20User%20Guide.pdf>, accessed 10/8/2013.

Pokropek, A. and Jakubowski, M. (2013). PIAACTOOLS: Stata® programs for statistical computing using PIAAC data. Organization for Economic Co-operation and Development (OECD), <http://www.oecd.org/site/piaac/PIAAC%20STATA%20Macro%20User%20Guide.pdf>, accessed 10/8/2013.



Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
A_D01a1		x		General - Interview month (DERIVED BY CAPI)
A_D01a2		x		General - Year before interview (DERIVED BY CAPI)
A_D01a3		x		General - Interview year (DERIVED BY CAPI)
A_N01		x		General - Gender of respondent
A_N01_T	x	x	x	Gender (Trend-IALS/ALL)
A_Q01a		x		General - Year of birth
A_Q01b		x		General - Month of birth
ACTIVE_SECTION		x		Active section (final state on export)
AETPOP	x	x	x	Adult education/training population (AET) – excludes youths 16-24 in initial cycle of studies(derived)
AGE_LR				Person age as collected by QC check on literacy-related cases
AGE_R		x		Person resolved age from BQ and QC check (derived)
AGE_R_ORG		x		Person resolved age from BQ and QC check (derived, original before trimming)
AGEG10LFS	x	x	x	Age in 10 year bands (derived)
AGEG10LFS_T	x	x	x	Age in 10 year bands (Trend-IALS/ALL)
AGEG5LFS	x	x	x	Age groups in 5-year intervals based on LFS groupings (derived)
B_D01d		x		Education - Highest qualification - Months elapsed since finished (DERIVED BY CAPI)
B_D01d_C	x	x	x	Education - Time elapsed since finished highest qualification (categorised, 5 categories)
B_D03d		x		Education - Uncompleted qualification - Months elapsed since dropout (DERIVED BY CAPI)
B_D03d_C	x	x	x	Education - Derived Months elapsed since leaving education without completing program (categorized, 3 categories)
B_D03d_USR		x		Education - Uncompleted qualification - Months elapsed since dropout (DERIVED BY CAPI), corrected for U.S. routing
B_D12h	x	x	x	Activities - Last year - Number of learning activities (DERIVED BY CAPI)

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
B_D12h_USR		x		Activities - Last year - Number of learning activities (DERIVED BY CAPI), corrected for U.S. routing
B_Q01a	x	x	x	Education - Highest qualification - Level
B_Q01A_C	x	x		Education - Highest qualification – Level (3 categories) (derived from B_Q01A)
B_Q01a_T	x	x	x	Highest level of schooling (Trend-IALS/ALL)
B_Q01a2US		x		Education - Highest qualification - Country of foreign qualification
B_Q01a3		x		Education - Highest qualification - Level of foreign qualification
B_Q01a3_C		x		Education - Highest Qualification - Level of foreign qualification (collapsed, 14 categories)
B_Q01a3US		x		Education - Highest qualification - Level of foreign qualification
B_Q01aUS		x		Education - Highest qualification - Level
B_Q01AUS_C	x	x		Education - Highest qualification – Level (3 categories) (derived from B_Q01AUS)
B_Q01b	x	x	x	Education - Highest qualification - Area of study
B_Q01bUSX		x		Education - Highest qualification - Area of study verbatim
B_Q01c1		x		Education - Highest qualification - Age of finish
B_Q01c1_C	x	x	x	Education - Highest qualification - Age of finish (categorised, 6 categories)
B_Q01c1_T		x		Age at completion of highest level of schooling (Trend-IALS/ALL)
B_Q01c2		x		Education - Highest qualification - Year of finish
B_Q01d		x		Education - Highest qualification - Month of finish
B_Q02a	x	x	x	Education - Current qualification
B_Q02a_T1	x	x	x	Education or training in last 12 months (Trend-IALS/ALL)
B_Q02a_T2	x	x	x	Courses toward certificate, diploma, or degree in program of studies in last 12 months (Trend-IALS/ALL)
B_Q02b		x		Education - Current qualification - Level
B_Q02b_C		x		Education - Current Qualification (collapsed, 10 categories)
B_Q02bUS		x		Education - Current qualification - Level

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]				
Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
B_Q02bUS_C	x	x		Education - Current qualification - Level (6 categories) (derived from B_Q02b)
B_Q02c		x		Education - Current qualification - Area of study
B_Q02cUS_C	x	x		Education - Current qualification - Area of study (8 categories) (derived from B_Q02c)
B_Q02cUSX		x		Education - Current Qualification - Area of Study Verbatim
B_Q03a	x	x	x	Education - Uncompleted qualification
B_Q03a_USR		x		Education - Uncompleted qualification, corrected for U.S. routing
B_Q03b		x		Education - Uncompleted qualification - Level
B_Q03b_C		x		Education - Uncompleted qualification - Level (collapsed, 10 categories)
B_Q03b_USR		x		Education - Uncompleted qualification - Level, corrected for U.S. routing
B_Q03bUS		x		Education - Uncompleted qualification - Level
B_Q03bUS_C	x	x		Education - Uncompleted qualification - Level (6 categories) (derived from B_Q03b)
B_Q03c1		x		Education - Uncompleted qualification - Age of dropout
B_Q03c1_C	x	x	x	Education - Uncompleted qualification - Age of dropout (categorised, 6 categories)
B_Q03c1_USR		x		Education - Uncompleted qualification - Age of dropout, corrected for U.S. routing
B_Q03c2		x		Education - Uncompleted qualification - Year of dropout
B_Q03c2_USR		x		Education - Uncompleted qualification - Year of dropout, corrected for U.S. routing
B_Q03d		x		Education - Uncompleted qualification - Month of dropout
B_Q03d_USR		x		Education - Uncompleted qualification - Month of dropout, corrected for U.S. routing
B_Q04a	x	x	x	Education - Formal qualification
B_Q04a_USR		x		Education - Formal qualification, corrected for U.S. routing
B_Q04b		x		Education - Formal qualification - Count

See note at end of table

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
B_Q04b_C	x	x	x	Education - Formal qualification - Count (top-coded at 2)
B_Q04b_USR		x		Education - Formal qualification - Count, corrected for U.S. routing
B_Q05a		x		Education - Formal qualification - Level
B_Q05a_USR		x		Education - Formal qualification - Level, corrected for U.S. routing
B_Q05aUS		x		Education - Formal qualification - Level
B_Q05b		x		Education - Formal qualification - Area of study
B_Q05b_USR		x		Education - Formal qualification - Area of study, corrected for U.S. routing
B_Q05bUSX		x		Education - Formal Qualification - Area of Study Verbatim
B_Q05c	x	x	x	Education - Formal qualification - Reason job related
B_Q05c_T	x	x	x	Main reason for program of studies (Trend-IALS/ALL)
B_Q05c_USR		x		Education - Formal qualification - Reason job related, corrected for U.S. routing
B_Q05cUSX1	x	x		Education - Formal qualification - Degree personal interest
B_Q05cUSX2	x	x		Education - Formal qualification - Degree personal interest or work related
B_Q10a	x	x	x	Education - Formal qualification - Employed
B_Q10a_USR		x		Education - Formal qualification - Employed, corrected for U.S. routing
B_Q10b	x	x	x	Education - Formal qualification - Employed - Working hours
B_Q10b_USR		x		Education - Formal qualification - Employed - Working hours, corrected for U.S. routing
B_Q10c	x	x	x	Education - Formal qualification - Employed - Useful for job
B_Q10c_USR		x		Education - Formal qualification - Employed - Useful for job, corrected for U.S. routing
B_Q11	x	x	x	Education - Formal qualification - Grant from employer
B_Q11_USR		x		Education - Formal qualification - Grant from employer, corrected for U.S. routing
B_Q12a	x	x	x	Activities - Last year - Open or distance education

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
B_Q12a_T	x	x	x	Courses outside of program of studies in last 12 months (Trend-IALS/ALL)
B_Q12a_USR		x		Activities - Last year - Open or distance education, corrected for U.S. routing
B_Q12b		x		Activities - Last year - Open or distance education - Count
B_Q12b_USR		x		Activities - Last year - Open or distance education - Count, corrected for U.S. routing
B_Q12bUS_C	x	x		Activities - Last year - Open or distance edu - How many (topcode at 7) (derived from B_Q12b)
B_Q12c	x	x	x	Activities - Last year - On the job training
B_Q12c_USR		x		Activities - Last year - On the job training, corrected for U.S. routing
B_Q12d		x		Activities - Last year - On the job training - Count
B_Q12d_C	x	x	x	Activities - Last year - On the job training - Count (top-coded at 5)
B_Q12d_USR		x		Activities - Last year - On the job training - Count, corrected for U.S. routing
B_Q12e	x	x	x	Activities - Last year - Seminars or workshops
B_Q12e_USR		x		Activities - Last year - Seminars or workshops, corrected for U.S. routing
B_Q12f		x		Activities - Last year - Seminars or workshops - Count
B_Q12f_C	x	x	x	Activities - Last year - Seminars or workshops - Count (top-coded at 5)
B_Q12f_USR		x		Activities - Last year - Seminars or workshops - Count, corrected for U.S. routing
B_Q12g	x	x	x	Activities - Last year - Private lessons
B_Q12g_USR		x		Activities - Last year - Private lessons, corrected for U.S. routing
B_Q12h		x		Activities - Last year - Private lessons - Count
B_Q12h_C	x	x	x	Activities - Last year - Private lessons - Count (top-coded at 5)
B_Q12h_USR		x		Activities - Last year - Private lessons - Count, corrected for U.S. routing
B_Q13	x	x	x	Activities - Last year - Activity specified
B_Q13_USR		x		Activities - Last year - Activity specified, corrected for U.S. routing

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
B_Q14a	x	x	x	Activities - Last year - Job related
B_Q14a_USR		x		Activities - Last year - Job related, corrected for U.S. routing
B_Q14b	x	x	x	Activities - Last year - Reason for participating
B_Q14b_USR		x		Activities - Last year - Reason for participating, corrected for U.S. routing
B_Q14bUSX1	x	x		Activities - Last year - Activity Participation for personal interest
B_Q14bUSX2	x	x		Activities - Last year - Activity Participation mainly personal reasons
B_Q15a	x	x	x	Activities - Last year - Employed
B_Q15a_USR		x		Activities - Last year - Employed, corrected for U.S. routing
B_Q15b	x	x	x	Activities - Last year - During working hours
B_Q15b_USR		x		Activities - Last year - During working hours, corrected for U.S. routing
B_Q15c	x	x	x	Activities - Last year - Useful for job
B_Q15c_USR		x		Activities - Last year - Useful for job, corrected for U.S. routing
B_Q16	x	x	x	Activities - Last year - Grant from employer
B_Q16_USR		x		Activities - Last year - Grant from employer, corrected for U.S. routing
B_Q17	x	x	x	Activities - Last year - Time spend - Unit
B_Q17_USR		x		Activities - Last year - Time spend - Unit, corrected for U.S. routing
B_Q18a	x	x	x	Activities - Last year - Time spend for activities - Weeks
B_Q18a_USR		x		Activities - Last year - Time spend for activities - Weeks, corrected for U.S. routing
B_Q19a	x	x	x	Activities - Last year - Time spend for activities - Days
B_Q19a_USR		x		Activities - Last year - Time spend for activities - Days, corrected for U.S. routing
B_Q20a	x	x	x	Activities - Last year - Time spend for activities - Hours
B_Q20a_USR		x		Activities - Last year - Time spend for activities - Hours, corrected for U.S. routing

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
B_Q20b	x	x	x	Activities - Last year - Time spend for activities - Proportion of job-related hours
B_Q20b_USR		x		Activities - Last year - Time spend for activities - Proportion of job-related hours, corrected for U.S. routing
B_Q26a	x	x	x	Activities - Last year - Wanted but didn't start
B_Q26a_T	x	x	x	Training or education for career or job wanted but not taken in last 12 months (Trend-IALS/ALL)
B_Q26a_USR		x		Activities - Last year - Wanted but didn't start, corrected for U.S. routing
B_Q26b	x	x	x	Activities - Last year - Wanted but didn't start - Reason
B_Q26b_USR		x		Activities - Last year - Wanted but didn't start - Reason, corrected for U.S. routing
B_Q27aUSX	x	x		Activites - Class - Class/tutor basic skills
B_Q27bUSX	x	x		Activites - Class - Class/tutor GED
B_Q27cUSX	x	x		Activites - Class - Class/tutor other equivalency
B_Q27dUSX	x	x		Activites - Class - Class/tutor main reason
B_Q27eUSXa		x		Activites - Class - Class attendance, amount
B_Q27eUSXb		x		Activites - Class - Class attendance, unit
B_Q29aUSX	x	x		Activites - Apprentice - Was apprentice
B_Q29bUSX		x		Activites - Apprentice - Which trade or craft
B_S01a1		x		Education - Highest qualification - Name of foreign qualification
B_S01a2		x		Education - Highest qualification - Country of foreign qualification (other)
B_S27eUSX		x		Activites - Class - Class attendance, other specify
BIRTHRGN		x		Country of birth (9 regions - derived)
BIRTHRGNUS_C	x	x		Country of birth (9 regions) (3 categories) (derived from BIRTHRGN)
BORNLANG	x	x	x	Interactions between place of birth and language status (derived)
BQLANG		x		Language for background questionnaire
C_D04	x	x	x	Current status/work history - Last month - Active steps to find job (DERIVED BY CAPI)

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
C_D05	x	x	x	Current status/work history - Employment status (DERIVED BY CAPI)
C_D06	x	x	x	Current status/work history - Current - Paid job or family business (DERIVED BY CAPI)
C_D08c	x	x	x	Current status/work history - Left work in past 5 years (DERIVED BY CAPI)
C_D09	x	x	x	Current status/work history - Work experience (DERIVED BY CAPI)
C_D09_T	x	x	x	Worked at job or business in last 12 months (any number of hours) (TRENDS/ALL)
C_Q01a	x	x	x	Current status/work history - Last week - Paid work
C_Q01b	x	x	x	Current status/work history - Last week - Away from job but will return
C_Q01c	x	x	x	Current status/work history - Last week - Unpaid work for own business
C_Q02a	x	x	x	Current status/work history - Last month - Looking for paid work
C_Q02b	x	x	x	Current status/work history - Last month - Waiting to start job
C_Q02c		x		Current status/work history - Last month - Waiting to start job - Next 3 months
C_Q03_01	x	x	x	Current status/work history - Last month - Reason not looking for work - Waiting for result of application
C_Q03_02	x	x	x	Current status/work history - Last month - Reason not looking for work - Being a student
C_Q03_03	x	x	x	Current status/work history - Last month - Reason not looking for work - Looking after the family
C_Q03_04	x	x	x	Current status/work history - Last month - Reason not looking for work - Temp sick
C_Q03_05	x	x	x	Current status/work history - Last month - Reason not looking for work - Long-term illness
C_Q03_06	x	x	x	Current status/work history - Last month - Reason not looking for work - Nothing available

See note at end of table.



Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
C_Q03_07	x	x	x	Current status/work history - Last month - Reason not looking for work - Did not get around
C_Q03_08	x	x	x	Current status/work history - Last month - Reason not looking for work - No need
C_Q03_09	x	x	x	Current status/work history - Last month - Reason not looking for work - Retired
C_Q03_10	x	x	x	Current status/work history - Last month - Reason not looking for work - Other
C_Q04a	x	x	x	Current status/work history - Last month - Ways of looking for work - Contact public employment
C_Q04b	x	x	x	Current status/work history - Last month - Ways of looking for work - Contact private agency
C_Q04c	x	x	x	Current status/work history - Last month - Ways of looking for work - Apply to employers
C_Q04d	x	x	x	Current status/work history - Last month - Ways of looking for work - Ask family/friends
C_Q04e	x	x	x	Current status/work history - Last month - Ways of looking for work - Place/answer advertisements
C_Q04f	x	x	x	Current status/work history - Last month - Ways of looking for work - Study advertisements
C_Q04g	x	x	x	Current status/work history - Last month - Ways of looking for work - Recruitment test
C_Q04h	x	x	x	Current status/work history - Last month - Ways of looking for work - Premises
C_Q04i		x		Current status/work history - Last month - Ways of looking for work - Licenses/financial resources
C_Q04j	x	x	x	Current status/work history - Last month - Ways of looking for work - Other
C_Q05		x		Current status/work history - Ability to start job within 2 weeks
C_Q06	x	x	x	Current status/work history - Last week - Number of jobs
C_Q07	x	x	x	Current status/work history - Subjective status

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
C_Q07_T	x	x	x	Current work situation (Trend-IALS/ALL)
C_Q08a	x	x	x	Current status/work history - Ever paid work
C_Q08b	x	x	x	Current status/work history - Last year - Paid work
C_Q08c1		x		Current status/work history - Age when stopped working in last job
C_Q08c1_C	x	x	x	Current status/work history - Age when stopped working in last job (categorised, 10 categories)
C_Q08c2		x		Current status/work history - Year when stopped working in last job
C_Q08C2US_C	x	x		Current status/work history - Year when stopped working in last job (4 categories) (derived from C_Q08C2)
C_Q09		x		Current status/work history - Years of paid work during lifetime
C_Q09_C	x	x	x	Current status/work history - Years of paid work during lifetime (top-coded at 47)
C_Q10a		x		Current status/work history - Last 5 years - How many different firms or organisations
C_Q10a_C	x	x	x	Current status/work history - Last 5 years - How many different firms or organisations (top-coded at 7)
C_S03		x		Current status/work history - Last month - Months looking for paid work
C_S03US_C	x	x		Current status/work history - Last month - Months looking for paid work (topcode at 13) (derived from C_S03)
C_S04j		x		Current status/work history - Last month - Ways of looking for work - Other specified
C300C02A	x	x	x	CLC / 300 - Employment Advertisement (Number of Actions)
C300C02F	x	x	x	CLC / 300 - Employment Advertisement (Timing First Action)
C300C02S	x	x	x	CLC / 300 - Employment Advertisement (Scored Response)
C300C02T	x	x	x	CLC / 300 - Employment Advertisement (Timing)

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
C301C05A	x	x	x	CLC / 301 - SGIH (Number of Actions)
C301C05F	x	x	x	CLC / 301 - SGIH (Timing First Action)
C301C05S	x	x	x	CLC / 301 - SGIH (Scored Response)
C301C05T	x	x	x	CLC / 301 - SGIH (Timing)
C305215A	x	x	x	CL / 305 - TMN AntiTheft (Number of Actions)
C305215F	x	x	x	CL / 305 - TMN AntiTheft (Timing First Action)
C305215S	x	x	x	CL / 305 - TMN AntiTheft (Scored Response)
C305215T	x	x	x	CL / 305 - TMN AntiTheft (Timing)
C305218A	x	x	x	CL / 305 - TMN AntiTheft (Number of Actions)
C305218F	x	x	x	CL / 305 - TMN AntiTheft (Timing First Action)
C305218S	x	x	x	CL / 305 - TMN AntiTheft (Scored Response)
C305218T	x	x	x	CL / 305 - TMN AntiTheft (Timing)
C308116A	x	x	x	CL / 308 - Baltic Stock Market (Number of Actions)
C308116F	x	x	x	CL / 308 - Baltic Stock Market (Timing First Action)
C308116S	x	x	x	CL / 308 - Baltic Stock Market (Scored Response)
C308116T	x	x	x	CL / 308 - Baltic Stock Market (Timing)
C308117A	x	x	x	CL / 308 - Baltic Stock Market (Number of Actions)
C308117F	x	x	x	CL / 308 - Baltic Stock Market (Timing First Action)
C308117S	x	x	x	CL / 308 - Baltic Stock Market (Scored Response)
C308117T	x	x	x	CL / 308 - Baltic Stock Market (Timing)
C308118A	x	x	x	CL / 308 - Baltic Stock Market (Number of Actions)
C308118F	x	x	x	CL / 308 - Baltic Stock Market (Timing First Action)
C308118S	x	x	x	CL / 308 - Baltic Stock Market (Scored Response)
C308118T	x	x	x	CL / 308 - Baltic Stock Market (Timing)
C308119A	x	x	x	CL / 308 - Baltic Stock Market (Number of Actions)
C308119F	x	x	x	CL / 308 - Baltic Stock Market (Timing First Action)
C308119S	x	x	x	CL / 308 - Baltic Stock Market (Scored Response)

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
C308119T	x	x	x	CL / 308 - Baltic Stock Market (Timing)
C308120A	x	x	x	CL / 308 - Baltic Stock Market (Number of Actions)
C308120F	x	x	x	CL / 308 - Baltic Stock Market (Timing First Action)
C308120S	x	x	x	CL / 308 - Baltic Stock Market (Scored Response)
C308120T	x	x	x	CL / 308 - Baltic Stock Market (Timing)
C308121A	x	x	x	CL / 308 - Baltic Stock Market (Number of Actions)
C308121F	x	x	x	CL / 308 - Baltic Stock Market (Timing First Action)
C308121S	x	x	x	CL / 308 - Baltic Stock Market (Scored Response)
C308121T	x	x	x	CL / 308 - Baltic Stock Market (Timing)
C309319A	x	x	x	CL / 309 - Generic Medicines (Number of Actions)
C309319F	x	x	x	CL / 309 - Generic Medicines (Timing First Action)
C309319S	x	x	x	CL / 309 - Generic Medicines (Scored Response)
C309319T	x	x	x	CL / 309 - Generic Medicines (Timing)
C309320A	x	x	x	CL / 309 - Generic Medicines (Number of Actions)
C309320F	x	x	x	CL / 309 - Generic Medicines (Timing First Action)
C309320S	x	x	x	CL / 309 - Generic Medicines (Scored Response)
C309320T	x	x	x	CL / 309 - Generic Medicines (Timing)
C309321A	x	x	x	CL / 309 - Generic Medicines (Number of Actions)
C309321F	x	x	x	CL / 309 - Generic Medicines (Timing First Action)
C309321S	x	x	x	CL / 309 - Generic Medicines (Scored Response)
C309321T	x	x	x	CL / 309 - Generic Medicines (Timing)
C309322A	x	x	x	CL / 309 - Generic Medicines (Number of Actions)
C309322F	x	x	x	CL / 309 - Generic Medicines (Timing First Action)
C309322S	x	x	x	CL / 309 - Generic Medicines (Scored Response)
C309322T	x	x	x	CL / 309 - Generic Medicines (Timing)

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
C310406A	x	x	x	CL / 310 - Memory Training (Number of Actions)
C310406F	x	x	x	CL / 310 - Memory Training (Timing First Action)
C310406S	x	x	x	CL / 310 - Memory Training (Scored Response)
C310406T	x	x	x	CL / 310 - Memory Training (Timing)
C310407A	x	x	x	CL / 310 - Memory Training (Number of Actions)
C310407F	x	x	x	CL / 310 - Memory Training (Timing First Action)
C310407S	x	x	x	CL / 310 - Memory Training (Scored Response)
C310407T	x	x	x	CL / 310 - Memory Training (Timing)
C313410A	x	x	x	CL / 313 - International Calls (Number of Actions)
C313410F	x	x	x	CL / 313 - International Calls (Timing First Action)
C313410S	x	x	x	CL / 313 - International Calls (Scored Response)
C313410T	x	x	x	CL / 313 - International Calls (Timing)
C313411A	x	x	x	CL / 313 - International Calls (Number of Actions)
C313411F	x	x	x	CL / 313 - International Calls (Timing First Action)
C313411S	x	x	x	CL / 313 - International Calls (Scored Response)
C313411T	x	x	x	CL / 313 - International Calls (Timing)
C313412A	x	x	x	CL / 313 - International Calls (Number of Actions)
C313412F	x	x	x	CL / 313 - International Calls (Timing First Action)
C313412S	x	x	x	CL / 313 - International Calls (Scored Response)
C313412T	x	x	x	CL / 313 - International Calls (Timing)
C313413A	x	x	x	CL / 313 - International Calls (Number of Actions)
C313413F	x	x	x	CL / 313 - International Calls (Timing First Action)
C313413S	x	x	x	CL / 313 - International Calls (Scored Response)
C313413T	x	x	x	CL / 313 - International Calls (Timing)
C313414A	x	x	x	CL / 313 - International Calls (Number of Actions)

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
C313414F	x	x	x	CL / 313 - International Calls (Timing First Action)
C313414S	x	x	x	CL / 313 - International Calls (Scored Response)
C313414T	x	x	x	CL / 313 - International Calls (Timing)
C600C04A	x	x	x	CNC / 600 - Election results (Number of Actions)
C600C04F	x	x	x	CNC / 600 - Election results (Timing First Action)
C600C04S	x	x	x	CNC / 600 - Election results (Scored Response)
C600C04T	x	x	x	CNC / 600 - Election results (Timing)
C601C06A	x	x	x	CNC / 601 - Bottles (Number of Actions)
C601C06F	x	x	x	CNC / 601 - Bottles (Timing First Action)
C601C06S	x	x	x	CNC / 601 - Bottles (Scored Response)
C601C06T	x	x	x	CNC / 601 - Bottles (Timing)
C602501A	x	x	x	CN / 602 - Price Tags (Number of Actions)
C602501F	x	x	x	CN / 602 - Price Tags (Timing First Action)
C602501S	x	x	x	CN / 602 - Price Tags (Scored Response)
C602501T	x	x	x	CN / 602 - Price Tags (Timing)
C602502A	x	x	x	CN / 602 - Price Tags (Number of Actions)
C602502F	x	x	x	CN / 602 - Price Tags (Timing First Action)
C602502S	x	x	x	CN / 602 - Price Tags (Scored Response)
C602502T	x	x	x	CN / 602 - Price Tags (Timing)
C602503A	x	x	x	CN / 602 - Price Tags (Number of Actions)
C602503F	x	x	x	CN / 602 - Price Tags (Timing First Action)
C602503S	x	x	x	CN / 602 - Price Tags (Scored Response)
C602503T	x	x	x	CN / 602 - Price Tags (Timing)
C604505A	x	x	x	CN / 604 - Gas Gauge (Number of Actions)
C604505F	x	x	x	CN / 604 - Gas Gauge (Timing First Action)
C604505S	x	x	x	CN / 604 - Gas Gauge (Scored Response)
C604505T	x	x	x	CN / 604 - Gas Gauge (Timing)
C605506A	x	x	x	CN / 605 - Photo (Number of Actions)
C605506F	x	x	x	CN / 605 - Photo (Timing First Action)

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
C605506S	x	x	x	CN / 605 - Photo (Scored Response)
C605506T	x	x	x	CN / 605 - Photo (Timing)
C605507A	x	x	x	CN / 605 - Photo (Number of Actions)
C605507F	x	x	x	CN / 605 - Photo (Timing First Action)
C605507S	x	x	x	CN / 605 - Photo (Scored Response)
C605507T	x	x	x	CN / 605 - Photo (Timing)
C605508A	x	x	x	CN / 605 - Photo (Number of Actions)
C605508F	x	x	x	CN / 605 - Photo (Timing First Action)
C605508S	x	x	x	CN / 605 - Photo (Scored Response)
C605508T	x	x	x	CN / 605 - Photo (Timing)
C606509A	x	x	x	CN / 606 - Solution (Number of Actions)
C606509F	x	x	x	CN / 606 - Solution (Timing First Action)
C606509S	x	x	x	CN / 606 - Solution (Scored Response)
C606509T	x	x	x	CN / 606 - Solution (Timing)
C607510A	x	x	x	CN / 607 - TV (Number of Actions)
C607510F	x	x	x	CN / 607 - TV (Timing First Action)
C607510S	x	x	x	CN / 607 - TV (Scored Response)
C607510T	x	x	x	CN / 607 - TV (Timing)
C608513A	x	x	x	CN / 608 - Tree (Number of Actions)
C608513F	x	x	x	CN / 608 - Tree (Timing First Action)
C608513S	x	x	x	CN / 608 - Tree (Scored Response)
C608513T	x	x	x	CN / 608 - Tree (Timing)
C611516A	x	x	x	CN / 611 - Temp Scale (Number of Actions)
C611516F	x	x	x	CN / 611 - Temp Scale (Timing First Action)
C611516S	x	x	x	CN / 611 - Temp Scale (Scored Response)
C611516T	x	x	x	CN / 611 - Temp Scale (Timing)
C611517A	x	x	x	CN / 611 - Temp Scale (Number of Actions)
C611517F	x	x	x	CN / 611 - Temp Scale (Timing First Action)
C611517S	x	x	x	CN / 611 - Temp Scale (Scored Response)
C611517T	x	x	x	CN / 611 - Temp Scale (Timing)
C612518A	x	x	x	CN / 612 - Dioxin (Number of Actions)
C612518F	x	x	x	CN / 612 - Dioxin (Timing First Action)
C612518S	x	x	x	CN / 612 - Dioxin (Scored Response)
C612518T	x	x	x	CN / 612 - Dioxin (Timing)
C613520A	x	x	x	CN / 613 - Logbook (Number of Actions)
C613520F	x	x	x	CN / 613 - Logbook (Timing First Action)
C613520S	x	x	x	CN / 613 - Logbook (Scored Response)
C613520T	x	x	x	CN / 613 - Logbook (Timing)

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
C614601A	x	x	x	CN / 614 - Watch (Number of Actions)
C614601F	x	x	x	CN / 614 - Watch (Timing First Action)
C614601S	x	x	x	CN / 614 - Watch (Scored Response)
C614601T	x	x	x	CN / 614 - Watch (Timing)
C615602A	x	x	x	CN / 615 - Candles (Number of Actions)
C615602F	x	x	x	CN / 615 - Candles (Timing First Action)
C615602S	x	x	x	CN / 615 - Candles (Scored Response)
C615602T	x	x	x	CN / 615 - Candles (Timing)
C615603A	x	x	x	CN / 615 - Candles (Number of Actions)
C615603F	x	x	x	CN / 615 - Candles (Timing First Action)
C615603S	x	x	x	CN / 615 - Candles (Scored Response)
C615603T	x	x	x	CN / 615 - Candles (Timing)
C617605A	x	x	x	CN / 617 - Map (Number of Actions)
C617605F	x	x	x	CN / 617 - Map (Timing First Action)
C617605S	x	x	x	CN / 617 - Map (Scored Response)
C617605T	x	x	x	CN / 617 - Map (Timing)
C617606A	x	x	x	CN / 617 - Map (Number of Actions)
C617606F	x	x	x	CN / 617 - Map (Timing First Action)
C617606S	x	x	x	CN / 617 - Map (Scored Response)
C617606T	x	x	x	CN / 617 - Map (Timing)
C618607A	x	x	x	CN / 618 - Six Pack (Number of Actions)
C618607F	x	x	x	CN / 618 - Six Pack (Timing First Action)
C618607S	x	x	x	CN / 618 - Six Pack (Scored Response)
C618607T	x	x	x	CN / 618 - Six Pack (Timing)
C618608A	x	x	x	CN / 618 - Six Pack (Number of Actions)
C618608F	x	x	x	CN / 618 - Six Pack (Timing First Action)
C618608S	x	x	x	CN / 618 - Six Pack (Scored Response)
C618608T	x	x	x	CN / 618 - Six Pack (Timing)
C619609A	x	x	x	CN / 619 - Tiles (Number of Actions)
C619609F	x	x	x	CN / 619 - Tiles (Timing First Action)
C619609S	x	x	x	CN / 619 - Tiles (Scored Response)
C619609T	x	x	x	CN / 619 - Tiles (Timing)
C620610A	x	x	x	CN / 620 - Inflation (Number of Actions)
C620610F	x	x	x	CN / 620 - Inflation (Timing First Action)
C620610S	x	x	x	CN / 620 - Inflation (Scored Response)
C620610T	x	x	x	CN / 620 - Inflation (Timing)
C620612A	x	x	x	CN / 620 - Inflation (Number of Actions)
C620612F	x	x	x	CN / 620 - Inflation (Timing First Action)
C620612S	x	x	x	CN / 620 - Inflation (Scored Response)
C620612T	x	x	x	CN / 620 - Inflation (Timing)

See note at end of table.



Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
C622615A	x	x	x	CN / 622 - Classified (Number of Actions)
C622615F	x	x	x	CN / 622 - Classified (Timing First Action)
C622615S	x	x	x	CN / 622 - Classified (Scored Response)
C622615T	x	x	x	CN / 622 - Classified (Timing)
C623616A	x	x	x	CN / 623 - Wine (Number of Actions)
C623616F	x	x	x	CN / 623 - Wine (Timing First Action)
C623616S	x	x	x	CN / 623 - Wine (Scored Response)
C623616T	x	x	x	CN / 623 - Wine (Timing)
C623617A	x	x	x	CN / 623 - Wine (Number of Actions)
C623617F	x	x	x	CN / 623 - Wine (Timing First Action)
C623617S	x	x	x	CN / 623 - Wine (Scored Response)
C623617T	x	x	x	CN / 623 - Wine (Timing)
C624619A	x	x	x	CN / 624 - BMI (Number of Actions)
C624619F	x	x	x	CN / 624 - BMI (Timing First Action)
C624619S	x	x	x	CN / 624 - BMI (Scored Response)
C624619T	x	x	x	CN / 624 - BMI (Timing)
C624620A	x	x	x	CN / 624 - BMI (Number of Actions)
C624620F	x	x	x	CN / 624 - BMI (Timing First Action)
C624620S	x	x	x	CN / 624 - BMI (Scored Response)
C624620T	x	x	x	CN / 624 - BMI (Timing)
CASEID		x		Household operational ID
CBA_CORE_STAG E1_SCORE	x	x	x	CBA Core score for stage 1
CBA_CORE_STAG E2_SCORE	x	x	x	CBA Core score for stage 2
CBA_START	x	x	x	Computer-based exercise agreement
CBAMOD1	x	x	x	CBA module 1 branch (derived)
CBAMOD1STG1	x	x	x	CBA module 1, stage 1 branch (derived)
CBAMOD1STG2	x	x	x	CBA module 1, stage 2 branch (derived)
CBAMOD2	x	x	x	CBA module 2 branch (derived)
CBAMOD2ALT	x	x	x	CBA module 1 and 2 branch (derived)
CBAMOD2STG1	x	x	x	CBA module 2, stage 1 branch (derived)
CBAMOD2STG2	x	x	x	CBA module 2, stage 2 branch (derived)
CILANG	x	x	x	Language for exercise
CNT_BRTH		x		Country of birth - Respondent (UN M49 numerical) (coded)
CNT_BRTHUS_C	x	x		Country of birth - Respondent (UN M49 numerical) ( 2 categories) (derived from CNT_BRTH)
CNT_H		x		Country in which highest qualification was gained - Respondent (UN M49 numerical) (coded)

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
CNTRY	x	x	x	Country ID and sub-national entity sample code (string)
CNTRY_E	x	x	x	Participating country or sub-national entity code (string)
CNTRYID	x	x	x	Country ID (ISO 3166, numeric)
CNTRYID_E	x	x	x	Participating country or sub-national entity code (numeric)
COMPUTEREXPERIENCE	x	x	x	Respondent experience with computer (DERIVED BY CAPI)
CORESTAGE1_PASSES	x	x	x	Core Stage 1 pass status
CORESTAGE2_PASSES	x	x	x	Core Stage 2 pass status
CTRYQUAL		x		Country where highest qualification obtained (9 regions - derived)
CTRYRGN	x	x	x	Country region (9 regions)
D_D16a	x	x	x	Current work - Earnings - Salary interval per hour (DERIVED BY CAPI)
D_Q01a		x		Current work - Job title
D_Q01b		x		Current work - Responsibilities
D_Q02a		x		Current work - Kind of business, industry or service
D_Q02b		x		Current work - Main product of firm or organisation
D_Q03	x	x	x	Current work - Economic sector
D_Q03US	x	x		Current work - Economic sector
D_Q04	x	x	x	Current work - Employee or self-employed
D_Q04_T	x	x	x	Status at this job or business - six levels (Trend-IALS/ALL)
D_Q04_T1	x	x	x	Status at this job or business - four levels (Trend-IALS/ALL)
D_Q05a1		x		Current work - Start of work for employer - Age
D_Q05a1_C	x	x	x	Current work - Start of work for employer - Age (categorised, 9 categories)
D_Q05a2		x		Current work - Start of work for employer - Year
D_Q05A2US_C	x	x		Current work - Start of work for employer - Year (4 categories) (derived from D_Q05A2)
D_Q05a3		x		Current work - Start of work for employer - Month

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
D_Q05b1		x		Current work - Start of work for business - Age
D_Q05b1_C	x	x	x	Current work - Start of work for business - Age (categorised, 9 categories)
D_Q05b2		x		Current work - Start of work for business - Year
D_Q05B2US_C	x	x		Current work - Start of work for business - Year (4 categories) (derived from D_Q05B2)
D_Q05b3		x		Current work - Start of work for business - Month
D_Q06a	x	x	x	Current work - Amount of people working for employer
D_Q06b	x	x	x	Current work - Amount of people working for employer increased
D_Q06c	x	x	x	Current work - Part of a larger organisation
D_Q07a	x	x	x	Current work - Employees working for you
D_Q07b		x		Current work - Employees working for you - Count
D_Q07b_C	x	x	x	Current work - Employees working for you - Count (collapsed, 2 categories)
D_Q08a	x	x	x	Current work - Managing other employees
D_Q08b	x	x	x	Current work - Managing other employees - Count
D_Q09		x		Current work - Type of contract
D_Q09US_C	x	x		Current work - Type of contract (5 categories) (derived from D_Q09)
D_Q10	x	x	x	Current work - Hours/week
D_Q10_C	x	x	x	Current work - Hours/week (top-coded at 60)
D_Q10_T	x	x	x	Hours per week at this job or business - number of hours (top coded at 97, Trend-IALS/ALL)
D_Q10_T1	x	x	x	Hours per week at this job or business - range of hours (Trend-IALS/ALL)
D_Q11a	x	x	x	Current work - Work flexibility - Sequence of tasks
D_Q11b	x	x	x	Current work - Work flexibility - How to do the work
D_Q11c	x	x	x	Current work - Work flexibility - Speed of work

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
D_Q11d	x	x	x	Current work - Work flexibility - Working hours
D_Q12a	x	x	x	Current work - Requirements - Education level
D_Q12A_C	x	x		Current work - Requirements - Education level (3 categories) (derived from D_Q12A)
D_Q12aUS		x		Current work - Requirements - Education level
D_Q12AUS_C	x	x		Current work - Requirements - Education level (3 categories) (derived from D_Q12AUS)
D_Q12b	x	x	x	Current work - Requirements - To do the job satisfactorily
D_Q12c	x	x	x	Current work - Requirements - Related work experience
D_Q13a	x	x	x	Current work - Learning - Learning from co-workers/supervisors
D_Q13b	x	x	x	Current work - Learning - Learning-by-doing
D_Q13c	x	x	x	Current work - Learning - Keeping up to date
D_Q14	x	x	x	Current work - Job satisfaction
D_Q16a	x	x	x	Current work - Earnings - Salary interval
D_Q16b		x		Current work - Earnings - Gross pay
D_Q16b_T			x	Wage or salary [weekly/hourly] before taxes and deductions (Trend-IALS/ALL)
D_Q16bUS_C	x	x		Current work - Earnings - Gross pay (topcode at 120000) (derived from D_Q16b)
D_Q16c	x	x	x	Current work - Earnings - Gross pay in broad categories
D_Q16d1		x		Current work - Earnings - Broad categories - Gross pay per hour
D_Q16d2		x		Current work - Earnings - Broad categories - Gross pay per day
D_Q16d3		x		Current work - Earnings - Broad categories - Gross pay per week
D_Q16d4		x		Current work - Earnings - Broad categories - Gross pay per 2 weeks
D_Q16d5		x		Current work - Earnings - Broad categories - Gross pay per month
D_Q16d6		x		Current work - Earnings - Broad categories - Gross pay per year

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
D_Q17a	x	x	x	Current work - Earnings - Additional payments
D_Q17b		x		Current work - Earnings - Additional payments amount last year
D_Q17bUS_C	x	x		Current work - Earnings - Additional payments amount last year (11 categories) (derived from D_Q17b)
D_Q17c	x	x	x	Current work - Earnings - Additional payments in broad categories
D_Q17d		x		Current work - Earnings - Additional payments - Broad - Last year
D_Q18a		x		Current work - Earnings - Total earnings last year
D_Q18a_T	x	x	x	Annual net income before taxes and deductions (Trend-IALS/ALL)
D_Q18b	x	x	x	Current work - Earnings - Total earnings broad categories
D_Q18c1		x		Current work - Earnings - Broad categories - Total earnings last month
D_Q18c2		x		Current work - Earnings - Broad categories - Total earnings last year
D_S09		x		Current work - Other type of contract specified
D_S16a		x		Current work - Earnings - Hours per piece
D302C02A	x	x	x	CLC / 302 - Election Results (Number of Actions)
D302C02F	x	x	x	CLC / 302 - Election Results (Timing First Action)
D302C02S	x	x	x	CLC / 302 - Election Results (Scored Response)
D302C02T	x	x	x	CLC / 302 - Election Results (Timing)
D304710A	x	x	x	CL / 304 - Contact Employer (Number of Actions)
D304710F	x	x	x	CL / 304 - Contact Employer (Timing First Action)
D304710S	x	x	x	CL / 304 - Contact Employer (Scored Response)
D304710T	x	x	x	CL / 304 - Contact Employer (Timing)
D304711A	x	x	x	CL / 304 - Contact Employer (Number of Actions)
D304711F	x	x	x	CL / 304 - Contact Employer (Timing First Action)
D304711S	x	x	x	CL / 304 - Contact Employer (Scored Response)

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
D304711T	x	x	x	CL / 304 - Contact Employer (Timing)
D306110A	x	x	x	CL / 306 - Canco (Number of Actions)
D306110F	x	x	x	CL / 306 - Canco (Timing First Action)
D306110S	x	x	x	CL / 306 - Canco (Scored Response)
D306110T	x	x	x	CL / 306 - Canco (Timing)
D306111A	x	x	x	CL / 306 - Canco (Number of Actions)
D306111F	x	x	x	CL / 306 - Canco (Timing First Action)
D306111S	x	x	x	CL / 306 - Canco (Scored Response)
D306111T	x	x	x	CL / 306 - Canco (Timing)
D307401A	x	x	x	CL / 307 - MEDCO Aspirin (Number of Actions)
D307401F	x	x	x	CL / 307 - MEDCO Aspirin (Timing First Action)
D307401S	x	x	x	CL / 307 - MEDCO Aspirin (Scored Response)
D307401T	x	x	x	CL / 307 - MEDCO Aspirin (Timing)
D307402A	x	x	x	CL / 307 - MEDCO Aspirin (Number of Actions)
D307402F	x	x	x	CL / 307 - MEDCO Aspirin (Timing First Action)
D307402S	x	x	x	CL / 307 - MEDCO Aspirin (Scored Response)
D307402T	x	x	x	CL / 307 - MEDCO Aspirin (Timing)
D311701A	x	x	x	CL / 311 - Dutch Women (Number of Actions)
D311701F	x	x	x	CL / 311 - Dutch Women (Timing First Action)
D311701S	x	x	x	CL / 311 - Dutch Women (Scored Response)
D311701T	x	x	x	CL / 311 - Dutch Women (Timing)
D315512A	x	x	x	CL / 315 - Distances-Mexican Cities (Number of Actions)
D315512F	x	x	x	CL / 315 - Distances-Mexican Cities (Timing First Action)
D315512S	x	x	x	CL / 315 - Distances-Mexican Cities (Scored Response)
D315512T	x	x	x	CL / 315 - Distances-Mexican Cities (Timing)
DISP_BQ	x	x	x	Final disposition code for BQ/JRA
DISP_BQ_IN			x	Final disposition code for BQ/JRA - write-in reason for ineligibility
DISP_CIBQ	x	x	x	Final disposition code for person - combining CI and BQ/JRA (derived)
DOBMM		x		Date of birth (derived from BQ)

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
DOBYY		x		Date of birth year (derived from BQ)
E_Q01a		x		Last job - Job title
E_Q01b		x		Last job - Responsibilities
E_Q02a		x		Last job - Kind of business, industry or service
E_Q02b		x		Last job - Main product of firm or organisation
E_Q03	x	x	x	Last job - Economic sector
E_Q03US	x	x		Last job - Economic sector
E_Q04	x	x	x	Last job - Employee or self-employed
E_Q05a1		x		Last job - Start of work for employer - Age
E_Q05a1_C	x	x	x	Last job - Start of work for employer - Age (categorised, 9 categories)
E_Q05a2		x		Last job - Start of work for employer - Year
E_Q05A2US_C	x	x		Last job - Start of work for employer - Year (4 categories) (derived from E_Q05A2)
E_Q05b1		x		Last job - Start of work for business - Age
E_Q05b1_C	x	x	x	Last job - Start of work for business - Age (categorised, 9 categories)
E_Q05b2		x		Last job - Start of work for business - Year
E_Q05B2US_C	x	x		Last job - Start of work for business - Year (2 categories) (derived from E_Q05B2)
E_Q06	x	x	x	Last job - Amount of people working for employer
E_Q07a		x		Last job - Employees working for you
E_Q07b		x		Last job - Employees working for you - Count
E_Q08		x		Last job - Type of contract
E_Q08US_C	x	x		Last job - Type of contract (5 categories) (derived from E_Q08)
E_Q09	x	x	x	Last job - Hours/week
E_Q09_C	x	x	x	Last work - Hours/week (top-coded at 60)
E_Q10	x	x	x	Last job - Reason for end of job
E_S08		x		Last job - Other type of contract specified
E318001A	x	x	x	CL / 318 - Civil Engineering (Number of Actions)
E318001A	x	x	x	CL / 318 - Civil Engineering (Number of Actions)

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
x	x	x	x	CL / 318 - Civil Engineering (Timing First Action)
E318001S	x	x	x	CL / 318 - Civil Engineering (Scored Response)
E318001T	x	x	x	CL / 318 - Civil Engineering (Timing)
E318003A	x	x	x	CL / 318 - Civil Engineering (Number of Actions)
E318003F	x	x	x	CL / 318 - Civil Engineering (Timing First Action)
E318003S	x	x	x	CL / 318 - Civil Engineering (Scored Response)
E318003T	x	x	x	CL / 318 - Civil Engineering (Timing)
E320001A	x	x	x	CL / 320 - Discussion forum (Number of Actions)
E320001F	x	x	x	CL / 320 - Discussion forum (Timing First Action)
E320001S	x	x	x	CL / 320 - Discussion forum (Scored Response)
E320001T	x	x	x	CL / 320 - Discussion forum (Timing)
E320003A	x	x	x	CL / 320 - Discussion forum (Number of Actions)
E320003F	x	x	x	CL / 320 - Discussion forum (Timing First Action)
E320003S	x	x	x	CL / 320 - Discussion forum (Scored Response)
E320003T	x	x	x	CL / 320 - Discussion forum (Timing)
E320004A	x	x	x	CL / 320 - Discussion forum (Number of Actions)
E320004F	x	x	x	CL / 320 - Discussion forum (Timing First Action)
E320004S	x	x	x	CL / 320 - Discussion forum (Scored Response)
E320004T	x	x	x	CL / 320 - Discussion forum (Timing)
E321001A	x	x	x	CL / 321 - Internet Poll (Number of Actions)
E321001F	x	x	x	CL / 321 - Internet Poll (Timing First Action)
E321001S	x	x	x	CL / 321 - Internet Poll (Scored Response)
E321001T	x	x	x	CL / 321 - Internet Poll (Timing)
E321002A	x	x	x	CL / 321 - Internet Poll (Number of Actions)
E321002F	x	x	x	CL / 321 - Internet Poll (Timing First Action)

See note at end of table.



Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
E321002S	x	x	x	CL / 321 - Internet Poll (Scored Response)
E321002T	x	x	x	CL / 321 - Internet Poll (Timing)
E322001A	x	x	x	CL / 322 - Lakeside Fun Run (Number of Actions)
E322001F	x	x	x	CL / 322 - Lakeside Fun Run (Timing First Action)
E322001S	x	x	x	CL / 322 - Lakeside Fun Run (Scored Response)
E322001T	x	x	x	CL / 322 - Lakeside Fun Run (Timing)
E322002A	x	x	x	CL / 322 - Lakeside Fun Run (Number of Actions)
E322002F	x	x	x	CL / 322 - Lakeside Fun Run (Timing First Action)
E322002S	x	x	x	CL / 322 - Lakeside Fun Run (Scored Response)
E322002T	x	x	x	CL / 322 - Lakeside Fun Run (Timing)
E322003A	x	x	x	CL / 322 - Lakeside Fun Run (Number of Actions)
E322003F	x	x	x	CL / 322 - Lakeside Fun Run (Timing First Action)
E322003S	x	x	x	CL / 322 - Lakeside Fun Run (Scored Response)
E322003T	x	x	x	CL / 322 - Lakeside Fun Run (Timing)
E322004A	x	x	x	CL / 322 - Lakeside Fun Run (Number of Actions)
E322004F	x	x	x	CL / 322 - Lakeside Fun Run (Timing First Action)
E322004S	x	x	x	CL / 322 - Lakeside Fun Run (Scored Response)
E322004T	x	x	x	CL / 322 - Lakeside Fun Run (Timing)
E322005A	x	x	x	CL / 322 - Lakeside Fun Run (Number of Actions)
E322005F	x	x	x	CL / 322 - Lakeside Fun Run (Timing First Action)
E322005S	x	x	x	CL / 322 - Lakeside Fun Run (Scored Response)
E322005T	x	x	x	CL / 322 - Lakeside Fun Run (Timing)
E323002A	x	x	x	CL / 323 - Library Search (Number of Actions)
E323002F	x	x	x	CL / 323 - Library Search (Timing First Action)
E323002S	x	x	x	CL / 323 - Library Search (Scored Response)

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
E323002T	x	x	x	CL / 323 - Library Search (Timing)
E323003A	x	x	x	CL / 323 - Library Search (Number of Actions)
E323003F	x	x	x	CL / 323 - Library Search (Timing First Action)
E323003S	x	x	x	CL / 323 - Library Search (Scored Response)
E323003T	x	x	x	CL / 323 - Library Search (Timing)
E323004A	x	x	x	CL / 323 - Library Search (Number of Actions)
E323004F	x	x	x	CL / 323 - Library Search (Timing First Action)
E323004S	x	x	x	CL / 323 - Library Search (Scored Response)
E323004T	x	x	x	CL / 323 - Library Search (Timing)
E323005A	x	x	x	CL / 323 - Library Search (Number of Actions)
E323005F	x	x	x	CL / 323 - Library Search (Timing First Action)
E323005S	x	x	x	CL / 323 - Library Search (Scored Response)
E323005T	x	x	x	CL / 323 - Library Search (Timing)
E327001A	x	x	x	CL / 327 - Summer Streets (Number of Actions)
E327001F	x	x	x	CL / 327 - Summer Streets (Timing First Action)
E327001S	x	x	x	CL / 327 - Summer Streets (Scored Response)
E327001T	x	x	x	CL / 327 - Summer Streets (Timing)
E327002A	x	x	x	CL / 327 - Summer Streets (Number of Actions)
E327002F	x	x	x	CL / 327 - Summer Streets (Timing First Action)
E327002S	x	x	x	CL / 327 - Summer Streets (Scored Response)
E327002T	x	x	x	CL / 327 - Summer Streets (Timing)
E327003A	x	x	x	CL / 327 - Summer Streets (Number of Actions)
E327003F	x	x	x	CL / 327 - Summer Streets (Timing First Action)
E327003S	x	x	x	CL / 327 - Summer Streets (Scored Response)
E327003T	x	x	x	CL / 327 - Summer Streets (Timing)
E327004A	x	x	x	CL / 327 - Summer Streets (Number of Actions)

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
E327004F	x	x	x	CL / 327 - Summer Streets (Timing First Action)
E327004S	x	x	x	CL / 327 - Summer Streets (Scored Response)
E327004T	x	x	x	CL / 327 - Summer Streets (Timing)
E329002A	x	x	x	CL / 329 - Work-related Stress (Number of Actions)
E329002F	x	x	x	CL / 329 - Work-related Stress (Timing First Action)
E329002S	x	x	x	CL / 329 - Work-related Stress (Scored Response)
E329002T	x	x	x	CL / 329 - Work-related Stress (Timing)
E329003A	x	x	x	CL / 329 - Work-related Stress (Number of Actions)
E329003F	x	x	x	CL / 329 - Work-related Stress (Timing First Action)
E329003S	x	x	x	CL / 329 - Work-related Stress (Scored Response)
E329003T	x	x	x	CL / 329 - Work-related Stress (Timing)
E632001A	x	x	x	CN / 632 - Educational level (Number of Actions)
E632001F	x	x	x	CN / 632 - Educational level (Timing First Action)
E632001S	x	x	x	CN / 632 - Educational level (Scored Response)
E632001T	x	x	x	CN / 632 - Educational level (Timing)
E632002A	x	x	x	CN / 632 - Educational level (Number of Actions)
E632002F	x	x	x	CN / 632 - Educational level (Timing First Action)
E632002S	x	x	x	CN / 632 - Educational level (Scored Response)
E632002T	x	x	x	CN / 632 - Educational level (Timing)
E634001A	x	x	x	CN / 634 - Peanuts (Number of Actions)
E634001F	x	x	x	CN / 634 - Peanuts (Timing First Action)
E634001S	x	x	x	CN / 634 - Peanuts (Scored Response)
E634001T	x	x	x	CN / 634 - Peanuts (Timing)
E634002A	x	x	x	CN / 634 - Peanuts (Number of Actions)
E634002F	x	x	x	CN / 634 - Peanuts (Timing First Action)
E634002S	x	x	x	CN / 634 - Peanuts (Scored Response)
E634002T	x	x	x	CN / 634 - Peanuts (Timing)
E635001A	x	x	x	CN / 635 - Parking Map (Number of Actions)
E635001F	x	x	x	CN / 635 - Parking Map (Timing First Action)

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
E635001S	x	x	x	CN / 635 - Parking Map (Scored Response)
E635001T	x	x	x	CN / 635 - Parking Map (Timing)
E636001A	x	x	x	CN / 636 - Lab Report (Number of Actions)
E636001F	x	x	x	CN / 636 - Lab Report (Timing First Action)
E636001S	x	x	x	CN / 636 - Lab Report (Scored Response)
E636001T	x	x	x	CN / 636 - Lab Report (Timing)
E641001A	x	x	x	CN / 641 - Amoeba (Number of Actions)
E641001F	x	x	x	CN / 641 - Amoeba (Timing First Action)
E641001S	x	x	x	CN / 641 - Amoeba (Scored Response)
E641001T	x	x	x	CN / 641 - Amoeba (Timing)
E644002A	x	x	x	CN / 644 - NZExports (Number of Actions)
E644002F	x	x	x	CN / 644 - NZExports (Timing First Action)
E644002S	x	x	x	CN / 644 - NZExports (Scored Response)
E644002T	x	x	x	CN / 644 - NZExports (Timing)
E645001A	x	x	x	CNC / 645 - Airport Timetable (Number of Actions)
E645001F	x	x	x	CNC / 645 - Airport Timetable (Timing First Action)
E645001S	x	x	x	CNC / 645 - Airport Timetable (Scored Response)
E645001T	x	x	x	CNC / 645 - Airport Timetable (Timing)
E646002A	x	x	x	CN / 646 - Rug Production (Number of Actions)
E646002F	x	x	x	CN / 646 - Rug Production (Timing First Action)
E646002S	x	x	x	CN / 646 - Rug Production (Scored Response)
E646002T	x	x	x	CN / 646 - Rug Production (Timing)
E650001A	x	x	x	CN / 650 - Urban Population (Number of Actions)
E650001F	x	x	x	CN / 650 - Urban Population (Timing First Action)
E650001S	x	x	x	CN / 650 - Urban Population (Scored Response)
E650001T	x	x	x	CN / 650 - Urban Population (Timing)
E651002A	x	x	x	CN / 651 - Fertilizer (Number of Actions)
E651002F	x	x	x	CN / 651 - Fertilizer (Timing First Action)
E651002S	x	x	x	CN / 651 - Fertilizer (Scored Response)

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
E651002T	x	x	x	CN / 651 - Fertilizer (Timing)
E655001A	x	x	x	CN / 655 - Path (Number of Actions)
E655001F	x	x	x	CN / 655 - Path (Timing First Action)
E655001S	x	x	x	CN / 655 - Path (Scored Response)
E655001T	x	x	x	CN / 655 - Path (Timing)
E657001A	x	x	x	CN / 657 - Package (Number of Actions)
E657001F	x	x	x	CN / 657 - Package (Timing First Action)
E657001S	x	x	x	CN / 657 - Package (Scored Response)
E657001T	x	x	x	CN / 657 - Package (Timing)
E660003A	x	x	x	CN / 660 - Weight history (Number of Actions)
E660003F	x	x	x	CN / 660 - Weight history (Timing First Action)
E660003S	x	x	x	CN / 660 - Weight history (Scored Response)
E660003T	x	x	x	CN / 660 - Weight history (Timing)
E660004A	x	x	x	CN / 660 - Weight history (Number of Actions)
E660004F	x	x	x	CN / 660 - Weight history (Timing First Action)
E660004S	x	x	x	CN / 660 - Weight history (Scored Response)
E660004T	x	x	x	CN / 660 - Weight history (Timing)
E661001A	x	x	x	CN / 661 - Study fees (Number of Actions)
E661001F	x	x	x	CN / 661 - Study fees (Timing First Action)
E661001S	x	x	x	CN / 661 - Study fees (Scored Response)
E661001T	x	x	x	CN / 661 - Study fees (Timing)
E661002A	x	x	x	CN / 661 - Study fees (Number of Actions)
E661002F	x	x	x	CN / 661 - Study fees (Timing First Action)
E661002S	x	x	x	CN / 661 - Study fees (Scored Response)
E661002T	x	x	x	CN / 661 - Study fees (Timing)
E664001A	x	x	x	CN / 664 - Orchestra tickets (Number of Actions)
E664001F	x	x	x	CN / 664 - Orchestra tickets (Timing First Action)
E664001S	x	x	x	CN / 664 - Orchestra tickets (Scored Response)
E664001T	x	x	x	CN / 664 - Orchestra tickets (Timing)

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
E665001A	x	x	x	CN / 665 - Cooper test (Number of Actions)
E665001F	x	x	x	CN / 665 - Cooper test (Timing First Action)
E665001S	x	x	x	CN / 665 - Cooper test (Scored Response)
E665001T	x	x	x	CN / 665 - Cooper test (Timing)
E665002A	x	x	x	CN / 665 - Cooper test (Number of Actions)
E665002F	x	x	x	CN / 665 - Cooper test (Timing First Action)
E665002S	x	x	x	CN / 665 - Cooper test (Scored Response)
E665002T	x	x	x	CN / 665 - Cooper test (Timing)
EARNFLAG	x	x	x	Earnings including bonuses reporting method (derived)
EARNHR		x		Hourly earnings excluding bonuses for wage and salary earners (derived)
EARNHRBONUS		x		Hourly earnings including bonuses for wage and salary earners (derived)
EARNHRBONUSD CL	x	x	x	Hourly earnings including bonuses for wage and salary earners, in deciles (derived)
EARNHRBONUSPP P		x		Hourly earnings including bonuses for wage and salary earners, PPP corrected \$US (derived)
EARNHRBONUSPP PUS_C	x	x		Hourly earnings including bonuses for wage and salary earners, PPP corrected \$US (topcoded) (derived from EARNHRBONUSPPP)
EARNHRBONUSUS _C	x	x		Hourly earnings including bonuses for wage and salary earners (topcoded) (derived from EARNHRBONUS)
EARNHRDCL	x	x	x	Hourly earnings excluding bonuses for wage and salary earners, in deciles (derived)
EARNHRPPP		x		Hourly earnings excluding bonuses for wage and salary earners, PPP corrected \$US (derived)
EARNHRPPPUS_C	x	x		Hourly earnings excluding bonuses for wage and salary earners, PPP corrected \$US (topcoded) (derived from EARNHRPPP)

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
EARNHRUS_C	x	x		Hourly earnings excluding bonuses for wage and salary earners (topcoded) (derived from EARNHR)
EARNMTH		x		Monthly earnings excluding bonuses for wage and salary earners (derived)
EARNMTHALL		x		Monthly earnings including bonuses for wage and salary earners and self-employed (derived)
EARNMTHALLDCL	x	x	x	Monthly earnings including bonuses for wage and salary earners and self-employed, in deciles (derived)
EARNMTHALLPPP		x		Monthly earnings including bonuses for wage and salary earners and self-employed, PPP corrected \$US (derived)
EARNMTHALLPPPUS_C	x	x		Monthly earnings including bonuses for wage and salary earners and self-employed, PPP corrected \$US (topcoded) (derived from EARNMTHALLPPP)
EARNMTHALLUS_C	x	x		Monthly earnings including bonuses for wage and salary earners and self-employed (topcoded) (derived from EARNMTHALL)
EARNMTHBONUS		x		Monthly earnings including bonuses for wage and salary earners (derived)
EARNMTHBONUSPPP		x		Monthly earnings including bonuses for wage and salary earners, PPP corrected \$US (derived)
EARNMTHBONUSPPPUS_C	x	x		Monthly earnings including bonuses for wage and salary earners, PPP corrected \$US (topcoded) (derived from EARNMTHBONUSPPP)
EARNMTHBONUSUS_C	x	x		Monthly earnings including bonuses for wage and salary earners (topcoded) (derived from EARNMTHBONUS)
EARNMTHPPP		x		Monthly earnings excluding bonuses for wage and salary earners, PPP corrected \$US (derived)
EARNMTHPPPUS_C	x	x		Monthly earnings excluding bonuses for wage and salary earners, PPP corrected \$US (topcoded) (derived from EARNMTHPPP)

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
EARNMTHSELFP P		x		Monthly earnings for self-employed, PPP corrected \$US (derived)
EARNMTHSELFP PUS_C	x	x		Monthly earnings for self-employed, PPP corrected \$US (topcoded) (derived from EARNMTHSELFP)
EARNMTHUS_C	x	x		Monthly earnings excluding bonuses for wage and salary earners (topcoded) (derived from EARNMTH)
EDCAT6	x	x	x	Highest level of formal education obtained (6 categories - derived)
EDCAT7	x	x	x	Highest level of formal education obtained (7 categories - derived)
EDCAT8	x	x	x	Highest level of formal education obtained (8 categories - derived)
EDLEVEL3	x	x	x	Educational level of the respondent (DERIVED BY CAPI)
EDWORK	x	x	x	Interaction between adults' work and education status (derived)
EXCFLG				Exclusion flag
EXCFRM_PROP		x		Proportion in target population who are excluded from the sampling frame
F_Q01b	x	x	x	Skill use work - Time cooperating with co-workers
F_Q02a	x	x	x	Skill use work - How often - Sharing work-related info
F_Q02b	x	x	x	Skill use work - How often - Teaching people
F_Q02c	x	x	x	Skill use work - How often - Presentations
F_Q02d	x	x	x	Skill use work - How often - Selling
F_Q02e	x	x	x	Skill use work - How often - Advising people
F_Q03a	x	x	x	Skill use work - How often - Planning own activities
F_Q03b	x	x	x	Skill use work - How often - Planning others activities
F_Q03c	x	x	x	Skill use work - How often - Organising own time
F_Q04a	x	x	x	Skill use work - How often - Influencing people
F_Q04b	x	x	x	Skill use work - How often - Negotiating with people
F_Q05a	x	x	x	Skill use work - Problem solving - Simple problems

See note at end of table.



Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
F_Q05b	x	x	x	Skill use work - Problem solving - Complex problems
F_Q06b	x	x	x	Skill use work - How often - Working physically for long
F_Q06c	x	x	x	Skill use work - How often - Using hands or fingers
F_Q07a	x	x	x	Skill use work - Not challenged enough
F_Q07b	x	x	x	Skill use work - Need more training
FAET12	x	x	x	Participated in formal AET in 12 months preceding survey (see AETPOP - derived)
FAET12JR	x	x	x	Participated in formal AET for job-related reasons in 12 months preceding survey (see AETPOP - derived)
FAET12NJR	x	x	x	Participated in formal AET for non job-related reasons in 12 months preceding survey (see AETPOP - derived)
FE12	x	x	x	Participated in formal education in 12 months preceding survey (derived)
FIRLGRGN		x		Source region of first language learned at home in childhood and still understand (9 regions - derived)
FIRLGRGNUS_C	x	x		Source region of first language learned at home in childhood and still understand (9 regions) (2 categories) (derived from FIRLGRGN)
FNFAET12	x	x	x	Participated in formal or non-formal AET in 12 months preceding survey (see AETPOP - derived)
FNFAET12JR	x	x	x	Participated in formal or non-formal AET for job-related reasons in 12 months preceding survey (see AETPOP - derived)
FNFAET12NJR	x	x	x	Participated in formal or non-formal AET for non job-related reasons in 12 months preceding survey (see AETPOP - derived)
FNFE12JR	x	x	x	Participated in formal or non-formal education for job-related reasons in 12 months preceding the survey (derived)
FORBILANG	x	x	x	Has learned as a child and still understands at least two languages not including test language (derived)

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
FORBORNLANG	x	x	x	Interactions between foreign-born and language status (2 categories - derived)
G_Q01a	x	x	x	Skill use work - Literacy - Read directions or instructions
G_Q01a_T	x	x	x	As part of job, read or use directions or instructions (Trend-IALS/ALL)
G_Q01a_T1	x	x	x	As part of job, read or use directions or instructions - levels collapsed (Trend-IALS/ALL)
G_Q01b	x	x	x	Skill use work - Literacy - Read letters memos or mails
G_Q01b_T	x	x	x	As part of job, read or use letters, memos, e-mails (Trend-IALS/ALL)
G_Q01b_T1	x	x	x	As part of job, read or use letters, memos, e-mails - levels collapsed (Trend-IALS/ALL)
G_Q01c	x	x	x	Skill use work - Literacy - Read newspapers or magazines
G_Q01c_T	x	x	x	As part of job, read or use reports, articles, magazines, journals (Trend-IALS/ALL)
G_Q01c_T1	x	x	x	As part of job, read or use reports, articles, magazines, journals - levels collapsed (Trend-IALS/ALL)
G_Q01d	x	x	x	Skill use work - Literacy - Read professional journals or publications
G_Q01e	x	x	x	Skill use work - Literacy - Read books
G_Q01f	x	x	x	Skill use work - Literacy - Read manuals or reference materials
G_Q01f_T	x	x	x	As part of job, read or use manuals, reference books, catalogues (Trend-IALS/ALL)
G_Q01f_T1	x	x	x	As part of job, read or use manuals, reference books, catalogues - levels collapsed (Trend-IALS/ALL)
G_Q01g	x	x	x	Skill use work - Literacy - Read financial statements
G_Q01g_T	x	x	x	As part of job, read or use bills, invoices, spreadsheets, budget tables (Trend-IALS/ALL)
G_Q01g_T1	x	x	x	As part of job, read or use bills, invoices, spreadsheets, budget tables - levels collapsed (Trend-IALS/ALL)

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
G_Q01h	x	x	x	Skill use work - Literacy - Read diagrams maps or schematics
G_Q01h_T	x	x	x	As part of job, read or use diagrams or schematics (Trend-IALS/ALL)
G_Q01h_T1	x	x	x	As part of job, read or use diagrams or schematics - levels collapsed (Trend-IALS/ALL)
G_Q02a	x	x	x	Skill use work - Literacy - Write letters memos or mails
G_Q02b	x	x	x	Skill use work - Literacy - Write articles
G_Q02c	x	x	x	Skill use work - Literacy - Write reports
G_Q02d	x	x	x	Skill use work - Literacy - Fill in forms
G_Q03b	x	x	x	Skill use work - Numeracy - How often - Calculating costs or budgets
G_Q03c	x	x	x	Skill use work - Numeracy - How often - Use or calculate fractions or percentages
G_Q03d	x	x	x	Skill use work - Numeracy - How often - Use a calculator
G_Q03f	x	x	x	Skill use work - Numeracy - How often - Prepare charts graphs or tables
G_Q03g	x	x	x	Skill use work - Numeracy - How often - Use simple algebra or formulas
G_Q03h	x	x	x	Skill use work - Numeracy - How often - Use advanced math or statistics
G_Q04	x	x	x	Skill use work - ICT - Experience with computer in job
G_Q04_T	x	x	x	Ever used computer (Trend-IALS/ALL)
G_Q04USX				Skill Use Work - ICT - Computer last job
G_Q05a	x	x	x	Skill use work - ICT - Internet - How often - For mail
G_Q05c	x	x	x	Skill use work - ICT - Internet - How often - Work related info
G_Q05d	x	x	x	Skill use work - ICT - Internet - How often - Conduct transactions
G_Q05e	x	x	x	Skill use work - ICT - Computer - How often - Spreadsheets
G_Q05f	x	x	x	Skill use work - ICT - Computer - How often - Word
G_Q05g	x	x	x	Skill use work - ICT - Computer - How often - Programming language
G_Q05h	x	x	x	Skill use work - ICT - Computer - How often - Real-time discussions
G_Q06	x	x	x	Skill use work - ICT - Computer - Level of computer use

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
G_Q07	x	x	x	Skill use work - ICT - Computer - Got the skills needed
G_Q08	x	x	x	Skill use work - ICT - Computer - Lack of skills affect career
GENDER		x		Person gender (derived from BQ)
GENDER_LR				Person gender from QC check on literacy-related cases
GENDER_R	x	x	x	Person resolved gender from BQ and QC check (derived)
H_Q01a	x	x	x	Skill use everyday life - Literacy - Read directions or instructions
H_Q01b	x	x	x	Skill use everyday life - Literacy - Read letters memos or mails
H_Q01b_T	x	x	x	In daily life, read or use letters, notes, e-mails (Trend-IALS/ALL)
H_Q01c	x	x	x	Skill use everyday life - Literacy - Read newspapers or magazines
H_Q01c_T	x	x	x	In daily life, read or use newspapers, magazines, articles (Trend-IALS/ALL)
H_Q01d	x	x	x	Skill use everyday life - Literacy - Read professional journals or publications
H_Q01e	x	x	x	Skill use everyday life - Literacy - Read books
H_Q01e_T	x	x	x	In daily life, read or use books (fiction or nonfiction; not for job or school) (Trend-IALS/ALL)
H_Q01f	x	x	x	Skill use everyday life - Literacy - Read manuals or reference materials
H_Q01g	x	x	x	Skill use everyday life - Literacy - Read financial statements
H_Q01h	x	x	x	Skill use everyday life - Literacy - Read diagrams maps or schematics
H_Q02a	x	x	x	Skill use everyday life - Literacy - Write letters memos or mails
H_Q02b	x	x	x	Skill use everyday life - Literacy - Write articles
H_Q02c	x	x	x	Skill use everyday life - Literacy - Write reports
H_Q02d	x	x	x	Skill use everyday life - Literacy - Fill in forms
H_Q03b	x	x	x	Skill use everyday life - Numeracy - How often - Calculating costs or budgets

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
H_Q03c	x	x	x	Skill use everyday life - Numeracy - How often - Use or calculate fractions or percentages
H_Q03d	x	x	x	Skill use everyday life - Numeracy - How often - Use a calculator
H_Q03f	x	x	x	Skill use everyday life - Numeracy - How often - Prepare charts graphs or tables
H_Q03g	x	x	x	Skill use everyday life - Numeracy - How often - Use simple algebra or formulas
H_Q03h	x	x	x	Skill use everyday life - Numeracy - How often - Use advanced math or statistics
H_Q04a	x	x	x	Skill use everyday life - ICT - Ever used computer
H_Q04b	x	x	x	Skill use everyday life - ICT - Experience with computer everyday life
H_Q05a	x	x	x	Skill use everyday life - ICT - Internet - How often - For mail
H_Q05c	x	x	x	Skill use everyday life - ICT - Internet - How often - In order to better understand various issues
H_Q05d	x	x	x	Skill use everyday life - ICT - Internet - How often - Conduct transactions
H_Q05e	x	x	x	Skill use everyday life - ICT - Computer - How often - Spreadsheets
H_Q05f	x	x	x	Skill use everyday life - ICT - Computer - How often - Word
H_Q05g	x	x	x	Skill use everyday life - ICT - Computer - How often - Programming language
H_Q05h	x	x	x	Skill use everyday life - ICT - Computer - How often - Real-time discussions
HIDD_DU		x		Hidden dwelling unit (DU)
HOMLANG	x	x	x	Test language same as language spoken most often at home (derived)
HOMLGRGN		x		Source region of language spoken most often at home (9 regions - derived)
HOMLGRGNUS_C	x	x		Source region of language spoken most often at home (9 regions) (2 categories) (derived from HOMLGRGN)
I_Q010bUSX1	x	x		About yourself - Health - Have medical insurance
I_Q04b	x	x	x	About yourself - Learning strategies - Relate new ideas into real life
I_Q04d	x	x	x	About yourself - Learning strategies - Like learning new things

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
I_Q04h	x	x	x	About yourself - Learning strategies - Attribute something new
I_Q04j	x	x	x	About yourself - Learning strategies - Get to the bottom of difficult things
I_Q04l	x	x	x	About yourself - Learning strategies - Figure out how different ideas fit together
I_Q04m	x	x	x	About yourself - Learning strategies - Looking for additional info
I_Q05f	x	x	x	About yourself - Cultural engagement - Voluntary work for non-profit organisations
I_Q06a	x	x	x	About yourself - Political efficacy - No influence on the government
I_Q06dUSX1a	x	x		About yourself - Political efficacy - Information from newspapers
I_Q06dUSX1b	x	x		About yourself - Political efficacy - Information from magazines
I_Q06dUSX1c	x	x		About yourself - Political efficacy - Information from internet
I_Q06dUSX1d	x	x		About yourself - Political efficacy - Information from radio
I_Q06dUSX1e	x	x		About yourself - Political efficacy - Information from television
I_Q06dUSX1f	x	x		About yourself - Political efficacy - Information from books or brochures
I_Q06dUSX1g	x	x		About yourself - Political efficacy - Information from family members, friends, or co-workers
I_Q07a	x	x	x	About yourself - Social trust - Trust only few people
I_Q07b	x	x	x	About yourself - Social trust - Other people take advantage of you
I_Q08	x	x	x	About yourself - Health - State
I_Q08_T	x	x	x	General health (Trend-IALS/ALL)
I_Q08USX1	x	x		About yourself - Health - Difficulty seeing print
I_Q08USX2	x	x		About yourself - Health - Difficulty hearing conversation
I_Q08USX3	x	x		About yourself - Health - Diagnosed learning disabled
I_Q10bUSX2a	x	x		About yourself - Health - Health information from newspapers

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
I_Q10bUSX2b	x	x		About yourself - Health - Health information from magazines
I_Q10bUSX2c	x	x		About yourself - Health - Health information from internet
I_Q10bUSX2d	x	x		About yourself - Health - Health information from radio
I_Q10bUSX2e	x	x		About yourself - Health - Health information from television
I_Q10bUSX2f	x	x		About yourself - Health - Health information from books or brochures
I_Q10bUSX2g	x	x		About yourself - Health - Health information from family members, friends, or co-workers
I_Q10bUSX2h	x	x		About yourself - Health - Health information from health professional
I_Q10bUSX3a	x	x		About yourself - Health - Flu shot in past year
I_Q10bUSX3b	x	x		About yourself - Health - Mammogram in past year
I_Q10bUSX3c	x	x		About yourself - Health - Pap smear in past year
I_Q10bUSX3d	x	x		About yourself - Health - Screen for colon cancer in past year
I_Q10bUSX3e	x	x		About yourself - Health - Vision check in past year
I_Q10bUSX3f	x	x		About yourself - Health - Screen for prostate cancer in past year
I_Q10bUSX3g	x	x		About yourself - Health - Screen for osteoporosis in past year
I_Q10bUSX3h	x	x		About yourself - Health - Seen dentist in past year
ICTHOME	x	x	x	Index of use of ICT skills at home (derived)
ICTHOME_WLE_C A	x	x	x	Index of use of ICT skills at home, categorised WLE (derived)
ICTWORK	x	x	x	Index of use of ICT skills at work (derived)
ICTWORK_WLE_C A	x	x	x	Index of use of ICT skills at work, categorised WLE (derived)
ID_HH		x		Sampling ID: Household (HH) identification number
ID_MAJDES				Sampling ID: Major design stratum ID

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
ID_OTH		x		Sampling ID: Other unit identification number
ID_PSU		x		Sampling ID: Primary sampling unit (PSU) identification number
ID_SSU		x		Sampling ID: Second-stage sampling unit (SSU) identification number
IMGEN	x	x	x	First and second generation immigrants (derived)
IMPAR	x	x	x	Parents' immigration status (derived)
IMYRCAT	x	x	x	Years in country (2-category - derived)
IMYRS		x		Years in country (derived)
IMYRS_C	x	x	x	Years in country (categorised, 4 categories)
INFLUENCE	x	x	x	Index of use of influencing skills at work (derived)
INFLUENCE_WLE_CA	x	x	x	Index of use of influencing skills at work, categorised WLE (derived)
INTVID		x		Interviewer ID
ISCED_HF		x		Level of Highest Qualification (Foreign) - Respondent (ISCED) (coded)
ISCED_HF_C		x		Level of Highest Qualification (collapsed, 14 categories)
ISCO08_C		x		Current Job Occupation - Respondent (ISCO 2008) (coded)
ISCO08_CUS_C	x	x		Current Job Occupation - Respondent (ISCO 2008) (combined into 3-digit categories) (derived from ISCO08_C)
ISCO08_L		x		Last Job Occupation - Respondent (ISCO 2008) (coded)
ISCO08_LUS_C	x	x		Last Job Occupation - Respondent (ISCO 2008) (combined into 3-digit categories) (derived from ISCO08_L)
ISCO08_US		x		Trade or Craft - Respondent (ISCO 2008)
ISCO08_US_C	x	x		Trade or Craft – (ISCO 2008) (combined into 3-digit categories) (derived from ISCO08_US)
ISCO1C	x	x	x	Occupational classification of respondent's job at 1-digit level (ISCO 2008), current job (derived)
ISCO1L	x	x	x	Occupational classification of respondent's job at 1-digit level (ISCO 2008), last job (derived)

See note at end of table.



Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
ISCO2C	x	x	x	Occupational classification of respondent's job at 2-digit level (ISCO 2008), current job (derived)
ISCO2L	x	x	x	Occupational classification of respondent's job at 2-digit level (ISCO 2008), last job (derived)
ISCO88_C				Current Job Occupation - Respondent (ISCO 1988) (coded)
ISCO88_L				Last Job Occupation - Respondent (ISCO 1988) (coded)
ISCOSKIL4	x	x	x	Occupational classification of respondent's job (4 skill based categories), last or current (derived)
ISIC1C	x	x	x	Industry classification of respondent's job at 1-digit level (ISIC rev 4), current job (derived)
ISIC1L	x	x	x	Industry classification of respondent's job at 1-digit level (ISIC rev 4), last job (derived)
ISIC2C	x	x	x	Industry classification of respondent's job at 2-digit level (ISIC rev 4), current job (derived)
ISIC2L	x	x	x	Industry classification of respondent's job at 2-digit level (ISIC rev 4), last job (derived)
ISIC4_C		x		Current Job Industry - Respondent (ISIC rev 4) (coded)
ISIC4_CUS_C	x	x		Current Job Industry - Respondent (ISIC rev 4) (combined into 3-digit categories) (derived from ISIC4_C)
ISIC4_L		x		Last Job Industry - Respondent (ISIC rev 4) (coded)
ISIC4_LUS_C	x	x		Last Job Industry - Respondent (ISIC rev 4) (combined into 3-digit categories) (derived from ISIC4_L)
J_N05a2	x	x	x	Background - More than one language mentioned
J_Q01		x		Background - People in household
J_Q01_C	x	x	x	Background - People in household (top-coded at 6)
J_Q01_T		x		Number living in household (Trend-IALS/ALL)

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
J_Q01_T1	x	x	x	Number living in household (from 1 to 7) (Trend-IALS/ALL)
J_Q02a	x	x	x	Background - Living with spouse or partner
J_Q02c	x	x	x	Background - Work situation of spouse or partner
J_Q03a	x	x	x	Background - Children
J_Q03b		x		Background - Number of children
J_Q03b_C	x	x	x	Background - Number of children (top-coded at 4)
J_Q03c		x		Background - Age of the child
J_Q03c_C	x	x	x	Background - Age of the child (categorised, 4 categories)
J_Q03CUS_C	x	x		Background - Age of the child (5 categories) (derived from J_Q03C)
J_Q03d1		x		Background - Age of the youngest child
J_Q03d1_C	x	x	x	Background - Age of the youngest child (categorised, 4 categories)
J_Q03D1US_C	x	x		Background - Age of the youngest child (5 categories) (derived from J_Q03D1)
J_Q03d2		x		Background - Age of the oldest child
J_Q03d2_C	x	x	x	Background - Age of the oldest child (categorised, 4 categories)
J_Q03D2US_C	x	x		Background - Age of the oldest child (5 categories) (derived from J_Q03D2)
J_Q04a	x	x	x	Background - Born in country
J_Q04a_T	x	x	x	Born in country (Trend-IALS/ALL)
J_Q04bUS		x		Background - Country of birth
J_Q04c1		x		Background - Age of immigration
J_Q04c1_C	x	x	x	Background - Age of immigration (categorised, 9 categories)
J_Q04c2		x		Background - Year of immigration
J_Q04c2_T		x		Year of immigration to country (Trend-IALS/ALL)
J_Q04c2_T1	x	x	x	Year of immigration to country - range of years (Trend-IALS/ALL)
J_Q04C2US_C	x	x		Background - Year of immigration (4 categories) (derived from J_Q04C2)
J_Q04dUSX1a	x	x		Background - Hispanic
J_Q04dUSX1b_01		x		Background - Hispanic origin - Mexican
J_Q04dUSX1b_02		x		Background - Hispanic origin - Puerto Rican
J_Q04dUSX1b_03		x		Background - Hispanic origin - Cuban

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
J_Q04dUSX1b_04		x		Background - Hispanic origin - Central/South America
J_Q04dUSX1b_05		x		Background - Hispanic origin - Other
J_Q04dUSX2_01		x		Background - Race - White
J_Q04dUSX2_02		x		Background - Race - Black
J_Q04dUSX2_03		x		Background - Race - Asian
J_Q04dUSX2_04		x		Background - Race - American Indian
J_Q04dUSX2_05		x		Background - Race - Native Hawaiian
J_Q05a1US		x		Background - First learned language
J_Q05a2US		x		Background - Second learned language
J_Q05a2USX2	x	x		Background - Age learned English
J_Q05bUS		x		Background - Language spoken at home
J_Q05cUSX1		x		Background - Language spoken most
J_Q05cUSX2	x	x		Background - English outside home
J_Q05cUSX3a	x	x		Background - Ability to understand spoken English
J_Q05cUSX3b	x	x		Background - Ability to speak English
J_Q05cUSX3d	x	x		Background - Ability to read English
J_Q05cUSX3e	x	x		Background - Ability to write English
J_Q05cUSX4	x	x		Background - ESL class/tutor in past year
J_Q05cUSX5		x		Background - Reason for ESL class/tutor
J_Q05cUSX6	x	x		Background - Class/tutor learn English as adult
J_Q06a	x	x	x	Background - Mother/female guardian - Whether born in country
J_Q06a_T	x	x	x	Mother or female guardian born in country (Trend-IALS/ALL)
J_Q06b	x	x	x	Background - Mother/female guardian - Highest level of education
J_Q06b_T	x	x	x	Highest level of education - mother or female guardian (Trend-IALS/ALL)
J_Q06bUS	x	x		Background - Mother/female guardian - Highest level of education
J_Q07a	x	x	x	Background - Father/male guardian - Whether born in #countname
J_Q07a_T	x	x	x	Father or male guardian born in country (Trend-IALS/ALL)
J_Q07b	x	x	x	Background - Father/male guardian - Highest level of education
J_Q07b_T	x	x	x	Highest level of education - father or male guardian (Trend-IALS/ALL)
J_Q07bUS	x	x		Background - Father/male guardian - Highest level of education
J_Q08	x	x	x	Background - Number of books at home
J_S04b		x		Background - Country of birth (other)

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
J_S05a1		x		Background - First learned language (other)
J_S05a2		x		Background - Second learned language (other)
J_S05b		x		Background - Language spoken at home (other)
LANGUAGE	x	x		Background - English language status (derived)
LEARNATWORK	x	x	x	Index of learning at work (derived)
LEARNATWORK_WLE_CA	x	x	x	Index of learning at work, categorised WLE (derived)
LEAVEDU		x		Respondent's age when leaving formal education (derived)
LEAVEDUUS_C	x	x		Respondent's age when leaving formal education (10 categories) (derived from LEAVEDU)
LEAVER1624	x	x	x	Youth aged 16 to 24 who have left education without completing ISCED 3 or higher (derived)
LITSTATUS	x	x	x	Literacy - PV Status
LNG_BQ	x	x	x	Language for background questionnaire (derived, ISO 639-2/T)
LNG_CI	x	x	x	Language for exercise (derived, ISO 639-2/T)
LNG_HOME		x		Language most often spoken at home - Respondent (ISO 639-2/T) (coded)
LNG_HOMEUS_C	x	x		Language most often spoken at home - Respondent (ISO 639-2/T) (3 categories) (derived from LNG_HOME)
LNG_L1		x		First language learned at home in childhood and still understood - Respondent (ISO 639-2/T) (coded)
LNG_L1US_C	x	x		First language learned at home in childhood and still understood - Respondent (ISO 639-2/T) (3 categories) (derived from LNG_L1)
LNG_L2		x		Second language learned at home in childhood and still understood - Respondent (ISO 639-2/T) (coded)
LNG_L2US_C	x	x		Second language learned at home in childhood and still understood - Respondent (ISO 639-2/T) (3 categories) (derived from LNG_L2)

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
M300C02S	x	x	x	PLC / 300 - Q5 - Employment Advertisement - Employees (Scored Response)
M301C05S	x	x	x	PLC / 301 - Q1 - SGIH - Tel. number (Scored Response)
M305215S	x	x	x	PL / 305 - Q10 - TMN AntiTheft - Documents (Scored Response)
M305218S	x	x	x	PL / 305 - Q11 - TMN AntiTheft - Block/Unblock (Scored Response)
M309319S	x	x	x	PL / 309 - Q17- Generic Medicines - Limited Use (Scored Response)
M309320S	x	x	x	PL / 309 - Q18 - Generic Medicines - Market share (Scored Response)
M309321S	x	x	x	PL / 309 - Q19 - Generic Medicines - 10% or more (Scored Response)
M309322S	x	x	x	PL / 309 - Q20 - Generic Medicines - Reasons (Scored Response)
M310406S	x	x	x	PL / 310 - Q15 - Memory Training - Brain Part (Scored Response)
M310407S	x	x	x	PL / 310 - Q16 - Memory Training - Discovery (Scored Response)
M313410S	x	x	x	PL / 313 - Q3 - International Calls - Dial 098 (Scored Response)
M313411S	x	x	x	PL / 313 - Q4 - International Calls - Full number (Scored Response)
M313412S	x	x	x	PL / 313 - Q5 - International Calls - Country code (Scored Response)
M313413S	x	x	x	PL / 313 - Q6 - International Calls - Information (Scored Response)
M313414S	x	x	x	PL / 313 - Q7 - International Calls - Call Canada (Scored Response)
M600C04S	x	x	x	PNC / 600 - Q4 - Election results - Votes (Scored Response)
M602501S	x	x	x	PN / 602 - Q17 - Price Tag - Packed first (Scored Response)
M602502S	x	x	x	PN / 602 - Q18 - Price Tag - Change (Scored Response)
M602503S	x	x	x	PN / 602 - Q19 - Price Tag - Quarter (Scored Response)
M604505S	x	x	x	PN / 604 - Q14 - Gas Gauge - Gas remaining (Scored Response)
M610515S	x	x	x	PN / 610 - Q15 - Compound Interest - Invested (Scored Response)

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
M615602S	x	x	x	PN / 615 - Q1 - Candles - Layers (Scored Response)
M615603S	x	x	x	PN / 615 - Q2 - Candles - Total Weight (Scored Response)
M618607S	x	x	x	PN / 618 - Q12 - Six Pack - Price per can (Scored Response)
M618608S	x	x	x	PN / 618 - Q13 - Six Pack - Discount (Scored Response)
M620610S	x	x	x	PN / 620 - Q4 - Inflation - Prediction (Scored Response)
M620612S	x	x	x	PN / 620 - Q5 - Inflation - Actual rate (Scored Response)
M623616S	x	x	x	PN / 623 - Q7 - Wine - Bottles drink (Scored Response)
M623617S	x	x	x	PN / 623 - Q8 - Wine - Gallon (Scored Response)
M623618S	x	x	x	PN / 623 - Q9 - Wine - Spain / US (Scored Response)
M624619S	x	x	x	PN / 624 - Q10 - BMI - Weight zone (Scored Response)
M624620S	x	x	x	PN / 624 - Q11 - BMI - What is BMI (Scored Response)
MONTHLYINCPR	x	x	x	Monthly income percentile rank category (derived)
N302C02S	x	x	x	PLC / 302 - Q3 - Election Results - Candidate (Scored Response)
N306110S	x	x	x	PL / 306 - Q1 - CANCO - Information (Scored Response)
N306111S	x	x	x	PL / 306 - Q2 - CANCO - Two ways (Scored Response)
NATBILANG	x	x	x	Has learned as a child and still understands at least two languages including test language (derived)
NATIVELANG	x	x	x	Test language same as native language (derived)
NATIVESPEAKER	x	x	x	Respondent is a native speaker (DERIVED BY CAPI)
NEET	x	x	x	Adults not employed at time of survey and not in education or training in 12 months preceding the survey (derived)
NFE12	x	x	x	Participated in non-formal education in 12 months preceding survey (derived)

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
NFE12JR	x	x	x	Participated in non-formal education for job-related reasons in 12 months preceding survey (derived)
NFE12NJR	x	x	x	Participated in non-formal education for non job-related reasons in 12 months preceding survey (derived)
NFEHRS	x	x	x	Number of hours of participation in non-formal education (derived)
NFEHRSJR	x	x	x	Number of hours of participation in non-formal education for job-related reasons (derived)
NFEHRSNJR	x	x	x	Number of hours of participation in non-formal education for non-job-related reasons (derived)
NOPAIDWORKEVER	x	x	x	Adults who never had paid work including self-employment in past (derived)
NUM_ELG		x		Number of eligible persons in the household from screener
NUM_SEL		x		Number of selected persons in the household from screener
NUMHOME	x	x	x	Index of use of numeracy skills at home (basic and advanced - derived)
NUMHOME_WLE_CA	x	x	x	Index of use of numeracy skills at home (basic and advanced), categorised WLE (derived)
NUMSTATUS	x	x	x	Numeracy - PV Status
NUMWORK	x	x	x	Index of use of numeracy skills at work (basic and advanced - derived)
NUMWORK_WLE_CA	x	x	x	Index of use of numeracy skills at work (basic and advanced), categorised WLE (derived)
P317001S	x	x	x	PL / 317 - Q12 - Apples - Evidence (Scored Response)
P317002S	x	x	x	PL / 317 - Q13 - Apples - Composition (Scored Response)
P317003S	x	x	x	PL / 317 - Q14 - Apples - Occupation (Scored Response)
P324002S	x	x	x	PL / 324 - Q8 - Milk Label - Safe (Scored Response)
P324003S	x	x	x	PL / 324 - Q9 - Milk Label - Calcium (Scored Response)
P330001S	x	x	x	PLC / 330 - Q2 - Guadeloupe - Falls (Scored Response)

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
P601C06S	x	x	x	PNC / 601 - Q6 - Bottles - Bottles (Scored Response)
P614601S	x	x	x	PNC / 614 - Q7 - Watch - Price (Scored Response)
P640001S	x	x	x	PN / 640 - Q3 - Odometer - Trip Miles (Scored Response)
P645001S	x	x	x	PNC / 645 - Q8 - AirportTimetable - Departure (Scored Response)
P655001S	x	x	x	PN / 655 - Q20 - Path - Length (Scored Response)
P664001S	x	x	x	PN / 664 - Q16 - Orchestra tickets - Student ticket (Scored Response)
P666001S	x	x	x	PN / 666 - Q6 - Rope - Measure (Scored Response)
P901002R	x	x	x	PV Q1 square (Actual Response)
P901002S	x	x	x	PV Q1 square (Scored Response)
P901003R	x	x	x	PV Q3 hand (Actual Response)
P901003S	x	x	x	PV Q3 hand (Scored Response)
P901004R	x	x	x	PV Q7 moon (Actual Response)
P901004S	x	x	x	PV Q7 moon (Scored Response)
P901005R	x	x	x	PV Q4 baby (Actual Response)
P901005S	x	x	x	PV Q4 baby (Scored Response)
P901006R	x	x	x	PV Q6 bird (Actual Response)
P901006S	x	x	x	PV Q6 bird (Scored Response)
P901011R	x	x	x	PV Q13 piano (Actual Response)
P901011S	x	x	x	PV Q13 piano (Scored Response)
P901013R	x	x	x	PV Q8 bread (Actual Response)
P901013S	x	x	x	PV Q8 bread (Scored Response)
P901015R	x	x	x	PV Q33 wrist (Actual Response)
P901015S	x	x	x	PV Q33 wrist (Scored Response)
P901017R	x	x	x	PV Q15 elephant (Actual Response)
P901017S	x	x	x	PV Q15 elephant (Scored Response)
P901018R	x	x	x	PV Q16 saw (Actual Response)
P901018S	x	x	x	PV Q16 saw (Scored Response)
P901019R	x	x	x	PV Q17 bus (Actual Response)
P901019S	x	x	x	PV Q17 bus (Scored Response)
P901020R	x	x	x	PV Q14 computer (Actual Response)
P901020S	x	x	x	PV Q14 computer (Scored Response)
P901021R	x	x	x	PV Q22 zipper (Actual Response)
P901021S	x	x	x	PV Q22 zipper (Scored Response)
P901024R	x	x	x	PV Q26 candle (Actual Response)
P901024S	x	x	x	PV Q26 candle (Scored Response)
P901025R	x	x	x	PV Q27 fountain (Actual Response)

See note at end of table.



Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
P901025S	x	x	x	PV Q27 fountain (Scored Response)
P902014R	x	x	x	PV Q28 microscope (Actual Response)
P902014S	x	x	x	PV Q28 microscope (Scored Response)
P902021R	x	x	x	PV Q19 umbrella (Actual Response)
P902021S	x	x	x	PV Q19 umbrella (Scored Response)
P902022R	x	x	x	PV Q25 door (Actual Response)
P902022S	x	x	x	PV Q25 door (Scored Response)
P902024R	x	x	x	PV Q12 crown (Actual Response)
P902024S	x	x	x	PV Q12 crown (Scored Response)
P903007R	x	x	x	PV Q9 shovel (Actual Response)
P903007S	x	x	x	PV Q9 shovel (Scored Response)
P903012R	x	x	x	PV Q10 chess (Actual Response)
P903012S	x	x	x	PV Q10 chess (Scored Response)
P903017R	x	x	x	PV Q20 lion (Actual Response)
P903017S	x	x	x	PV Q20 lion (Scored Response)
P903021R	x	x	x	PV Q32 saddle (Actual Response)
P903021S	x	x	x	PV Q32 saddle (Scored Response)
P903024R	x	x	x	PV Q29 envelope (Actual Response)
P903024S	x	x	x	PV Q29 envelope (Scored Response)
P904009R	x	x	x	PV Q5 ruler (Actual Response)
P904009S	x	x	x	PV Q5 ruler (Scored Response)
P904010R	x	x	x	PV Q11 pants (Actual Response)
P904010S	x	x	x	PV Q11 pants (Scored Response)
P904012R	x	x	x	PV Q2 butterfly (Actual Response)
P904012S	x	x	x	PV Q2 butterfly (Scored Response)
P904014R	x	x	x	PV Q21 bottle (Actual Response)
P904014S	x	x	x	PV Q21 bottle (Scored Response)
P904015R	x	x	x	PV Q23 neck (Actual Response)
P904015S	x	x	x	PV Q23 neck (Scored Response)
P904020R	x	x	x	PV Q24 television (Actual Response)
P904020S	x	x	x	PV Q24 television (Scored Response)
P904021R	x	x	x	PV Q34 arrow (Actual Response)
P904021S	x	x	x	PV Q34 arrow (Scored Response)
P904022R	x	x	x	PV Q18 stool (Actual Response)
P904022S	x	x	x	PV Q18 stool (Scored Response)
P904024R	x	x	x	PV Q30 bell (Actual Response)
P904024S	x	x	x	PV Q30 bell (Scored Response)
P904025R	x	x	x	PV Q31 axe (Actual Response)
P904025S	x	x	x	PV Q31 axe (Scored Response)
P911001R	x	x	x	SP S1 (Actual Response)
P911001S	x	x	x	SP S1 (Scored Response)
P911003R	x	x	x	SP S3 (Actual Response)
P911003S	x	x	x	SP S3 (Scored Response)
P911004R	x	x	x	SP S4 (Actual Response)
P911004S	x	x	x	SP S4 (Scored Response)

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
P911005R	x	x	x	SP S5 (Actual Response)
P911005S	x	x	x	SP S5 (Scored Response)
P911006R	x	x	x	SP S6 (Actual Response)
P911006S	x	x	x	SP S6 (Scored Response)
P911007R	x	x	x	SP S7 (Actual Response)
P911007S	x	x	x	SP S7 (Scored Response)
P911008R	x	x	x	SP S8 (Actual Response)
P911008S	x	x	x	SP S8 (Scored Response)
P911009R	x	x	x	SP S9 (Actual Response)
P911009S	x	x	x	SP S9 (Scored Response)
P911010R	x	x	x	SP S10 (Actual Response)
P911010S	x	x	x	SP S10 (Scored Response)
P911014R	x	x	x	SP S15 (Actual Response)
P911014S	x	x	x	SP S15 (Scored Response)
P911017R	x	x	x	SP S19 (Actual Response)
P911017S	x	x	x	SP S19 (Scored Response)
P911020R	x	x	x	SP S22 (Actual Response)
P911020S	x	x	x	SP S22 (Scored Response)
P912002R	x	x	x	SP S2 (Actual Response)
P912002S	x	x	x	SP S2 (Scored Response)
P912011R	x	x	x	SP S12 (Actual Response)
P912011S	x	x	x	SP S12 (Scored Response)
P912013R	x	x	x	SP S14 (Actual Response)
P912013S	x	x	x	SP S14 (Scored Response)
P912019R	x	x	x	SP S21 (Actual Response)
P912019S	x	x	x	SP S21 (Scored Response)
P913013R	x	x	x	SP S11 (Actual Response)
P913013S	x	x	x	SP S11 (Scored Response)
P914012R	x	x	x	SP S13 (Actual Response)
P914012S	x	x	x	SP S13 (Scored Response)
P914015R	x	x	x	SP S16 (Actual Response)
P914015S	x	x	x	SP S16 (Scored Response)
P914016R	x	x	x	SP S18 (Actual Response)
P914016S	x	x	x	SP S18 (Scored Response)
P914018R	x	x	x	SP S20 (Actual Response)
P914018S	x	x	x	SP S20 (Scored Response)
P914019R	x	x	x	SP S17 (Actual Response)
P914019S	x	x	x	SP S17 (Scored Response)
P921002R	x	x	x	PC P1 S2 The Birthday Party (Actual Response)
P921002S	x	x	x	PC P1 S2 The Birthday Party (Scored Response)

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
P921003R	x	x	x	PC P1 S3 The Birthday Party (Actual Response)
P921003S	x	x	x	PC P1 S3 The Birthday Party (Scored Response)
P921004R	x	x	x	PC P1 S4 The Birthday Party (Actual Response)
P921004S	x	x	x	PC P1 S4 The Birthday Party (Scored Response)
P921005R	x	x	x	PC P1 S5 The Birthday Party (Actual Response)
P921005S	x	x	x	PC P1 S5 The Birthday Party (Scored Response)
P921007R	x	x	x	PC P1 S7 The Birthday Party (Actual Response)
P921007S	x	x	x	PC P1 S7 The Birthday Party (Scored Response)
P921008R	x	x	x	PC P1 S8 The Birthday Party (Actual Response)
P921008S	x	x	x	PC P1 S8 The Birthday Party (Scored Response)
P921009R	x	x	x	PC P1 S9 The Birthday Party (Actual Response)
P921009S	x	x	x	PC P1 S9 The Birthday Party (Scored Response)
P921010R	x	x	x	PC P1 S10 The Birthday Party (Actual Response)
P921010S	x	x	x	PC P1 S10 The Birthday Party (Scored Response)
P921011R	x	x	x	PC P1 S11 The Birthday Party (Actual Response)
P921011S	x	x	x	PC P1 S11 The Birthday Party (Scored Response)
P921013R	x	x	x	PC P1 S13 The Birthday Party (Actual Response)
P921013S	x	x	x	PC P1 S13 The Birthday Party (Scored Response)
P921014R	x	x	x	PC P1 S14 The Birthday Party (Actual Response)
P921014S	x	x	x	PC P1 S14 The Birthday Party (Scored Response)
P921015R	x	x	x	PC P1 S15 The Birthday Party (Actual Response)
P921015S	x	x	x	PC P1 S15 The Birthday Party (Scored Response)

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
P921016R	x	x	x	PC P1 S16 The Birthday Party (Actual Response)
P921016S	x	x	x	PC P1 S16 The Birthday Party (Scored Response)
P921017R	x	x	x	PC P1 S17 The Birthday Party (Actual Response)
P921017S	x	x	x	PC P1 S17 The Birthday Party (Scored Response)
P921018R	x	x	x	PC P1 S18 The Birthday Party (Actual Response)
P921018S	x	x	x	PC P1 S18 The Birthday Party (Scored Response)
P921019R	x	x	x	PC P1 S19 The Birthday Party (Actual Response)
P921019S	x	x	x	PC P1 S19 The Birthday Party (Scored Response)
P921020R	x	x	x	PC P1 S20 The Birthday Party (Actual Response)
P921020S	x	x	x	PC P1 S20 The Birthday Party (Scored Response)
P921021R	x	x	x	PC P1 S21 The Birthday Party (Actual Response)
P921021S	x	x	x	PC P1 S21 The Birthday Party (Scored Response)
P921035R	x	x	x	PC P3 S2 World Sports (Actual Response)
P921035S	x	x	x	PC P3 S2 World Sports (Scored Response)
P921036R	x	x	x	PC P3 S3 World Sports (Actual Response)
P921036S	x	x	x	PC P3 S3 World Sports (Scored Response)
P921037R	x	x	x	PC P3 S4 World Sports (Actual Response)
P921037S	x	x	x	PC P3 S4 World Sports (Scored Response)
P921038R	x	x	x	PC P3 S5 World Sports (Actual Response)
P921038S	x	x	x	PC P3 S5 World Sports (Scored Response)
P921040R	x	x	x	PC P3 S7 World Sports (Actual Response)
P921040S	x	x	x	PC P3 S7 World Sports (Scored Response)

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
P921041R	x	x	x	PC P3 S8 World Sports (Actual Response)
P921041S	x	x	x	PC P3 S8 World Sports (Scored Response)
P921042R	x	x	x	PC P3 S9 World Sports (Actual Response)
P921042S	x	x	x	PC P3 S9 World Sports (Scored Response)
P921043R	x	x	x	PC P3 S10 World Sports (Actual Response)
P921043S	x	x	x	PC P3 S10 World Sports (Scored Response)
P922023R	x	x	x	PC P2 S2 A Letter to the Editor - Clinic (Actual Response)
P922023S	x	x	x	PC P2 S2 A Letter to the Editor - Clinic (Scored Response)
P922024R	x	x	x	PC P2 S3 A Letter to the Editor - Clinic (Actual Response)
P922024S	x	x	x	PC P2 S3 A Letter to the Editor - Clinic (Scored Response)
P922025R	x	x	x	PC P2 S4 A Letter to the Editor - Clinic (Actual Response)
P922025S	x	x	x	PC P2 S4 A Letter to the Editor - Clinic (Scored Response)
P922026R	x	x	x	PC P2 S5 A Letter to the Editor - Clinic (Actual Response)
P922026S	x	x	x	PC P2 S5 A Letter to the Editor - Clinic (Scored Response)
P922027R	x	x	x	PC P2 S6 A Letter to the Editor - Clinic (Actual Response)
P922027S	x	x	x	PC P2 S6 A Letter to the Editor - Clinic (Scored Response)
P922028R	x	x	x	PC P2 S7 A Letter to the Editor - Clinic (Actual Response)
P922028S	x	x	x	PC P2 S7 A Letter to the Editor - Clinic (Scored Response)
P922030R	x	x	x	PC P2 S9 A Letter to the Editor - Clinic (Actual Response)
P922030S	x	x	x	PC P2 S9 A Letter to the Editor - Clinic (Scored Response)
P922031R	x	x	x	PC P2 S10 A Letter to the Editor - Clinic (Actual Response)
P922031S	x	x	x	PC P2 S10 A Letter to the Editor - Clinic (Scored Response)

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
P922032R	x	x	x	PC P2 S11 A Letter to the Editor - Clinic (Actual Response)
P922032S	x	x	x	PC P2 S11 A Letter to the Editor - Clinic (Scored Response)
P922033R	x	x	x	PC P2 S12 A Letter to the Editor - Clinic (Actual Response)
P922033S	x	x	x	PC P2 S12 A Letter to the Editor - Clinic (Scored Response)
P924035R	x	x	x	PC P4 S2 Going to the Movies (Actual Response)
P924035S	x	x	x	PC P4 S2 Going to the Movies (Scored Response)
P924036R	x	x	x	PC P4 S3 Going to the Movies (Actual Response)
P924036S	x	x	x	PC P4 S3 Going to the Movies (Scored Response)
P924037R	x	x	x	PC P4 S4 Going to the Movies (Actual Response)
P924037S	x	x	x	PC P4 S4 Going to the Movies (Scored Response)
P924038R	x	x	x	PC P4 S5 Going to the Movies (Actual Response)
P924038S	x	x	x	PC P4 S5 Going to the Movies (Scored Response)
P924040R	x	x	x	PC P4 S7 Going to the Movies (Actual Response)
P924040S	x	x	x	PC P4 S7 Going to the Movies (Scored Response)
P924041R	x	x	x	PC P4 S8 Going to the Movies (Actual Response)
P924041S	x	x	x	PC P4 S8 Going to the Movies (Scored Response)
P924042R	x	x	x	PC P4 S9 Going to the Movies (Actual Response)
P924042S	x	x	x	PC P4 S9 Going to the Movies (Scored Response)
P924043R	x	x	x	PC P4 S10 Going to the Movies (Actual Response)
P924043S	x	x	x	PC P4 S10 Going to the Movies (Scored Response)
PAIDWORK12	x	x	x	Adults who have had paid work during the 12 months preceding the survey (derived)
PAIDWORK5	x	x	x	Adults who have had paid work in last 5 years (derived)

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
PAPER	x	x	x	Paper branch (derived)
PARED	x	x	x	Highest of mother or father's level of education (derived)
PBROUTE	x	x	x	Paper-based routing code (derived)
PLANNING	x	x	x	Index of use of planning skills at work (derived)
PLANNING_WLE_CA	x	x	x	Index of use of planning skills at work, categorised WLE (derived)
PPC_SCORE	x	x	x	Final score for the paper core assessment
PRC_PC_SCR	x	x	x	Total Score for Reading Components Section - Passage Comprehension (derived)
PRC_PF_Q1	x	x	x	Sentence Timer for Passage Comprehension items - passage 1
PRC_PF_Q2	x	x	x	Sentence Timer for Passage Comprehension items - passage 2
PRC_PF_Q3	x	x	x	Sentence Timer for Passage Comprehension items - passage 3
PRC_PV_Q1	x	x	x	Sentence Timer for Print Vocabulary items
PRC_PV_SCR	x	x	x	Total Score for Reading Components Section - Print Vocabulary (derived)
PRC_SP_Q1	x	x	x	Sentence Timer for Sentence Processing items
PRC_SP_SCR	x	x	x	Total Score for Reading Components Section - Sentence Processing (derived)
PROB_HH		x		HH probability of selection (within prior-stage clusters, if applicable)
PROB_OTH		x		Other stage sampling unit probability of selection
PROB_OVERALL		x		Overall probability of selection of the sampled person or non-respondent HH
PROB_PERS		x		Person probability of selection (within HHs, if applicable)
PROB_PSU		x		First-stage sampling unit probability of selection
PROB_SSU		x		Second-stage sampling unit probability of selection (within prior-stage clusters, if applicable)
PSLSTATUS	x	x	x	Problem Solving - PV Status
PVLIT1	x	x	x	Literacy scale score - Plausible value 1
PVLIT10	x	x	x	Literacy scale score - Plausible value 10
PVLIT2	x	x	x	Literacy scale score - Plausible value 2
PVLIT3	x	x	x	Literacy scale score - Plausible value 3

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
PVLIT4	x	x	x	Literacy scale score - Plausible value 4
PVLIT5	x	x	x	Literacy scale score - Plausible value 5
PVLIT6	x	x	x	Literacy scale score - Plausible value 6
PVLIT7	x	x	x	Literacy scale score - Plausible value 7
PVLIT8	x	x	x	Literacy scale score - Plausible value 8
PVLIT9	x	x	x	Literacy scale score - Plausible value 9
PVNUM1	x	x	x	Numeracy scale score - Plausible value 1
PVNUM10	x	x	x	Numeracy scale score - Plausible value 10
PVNUM2	x	x	x	Numeracy scale score - Plausible value 2
PVNUM3	x	x	x	Numeracy scale score - Plausible value 3
PVNUM4	x	x	x	Numeracy scale score - Plausible value 4
PVNUM5	x	x	x	Numeracy scale score - Plausible value 5
PVNUM6	x	x	x	Numeracy scale score - Plausible value 6
PVNUM7	x	x	x	Numeracy scale score - Plausible value 7
PVNUM8	x	x	x	Numeracy scale score - Plausible value 8
PVNUM9	x	x	x	Numeracy scale score - Plausible value 9
PVPSL1	x	x	x	Problem-solving scale score - Plausible value 1
PVPSL10	x	x	x	Problem-solving scale score - Plausible value 10
PVPSL2	x	x	x	Problem-solving scale score - Plausible value 2
PVPSL3	x	x	x	Problem-solving scale score - Plausible value 3
PVPSL4	x	x	x	Problem-solving scale score - Plausible value 4
PVPSL5	x	x	x	Problem-solving scale score - Plausible value 5
PVPSL6	x	x	x	Problem-solving scale score - Plausible value 6
PVPSL7	x	x	x	Problem-solving scale score - Plausible value 7
PVPSL8	x	x	x	Problem-solving scale score - Plausible value 8
PVPSL9	x	x	x	Problem-solving scale score - Plausible value 9
RACETHN_4CAT	x	x		Background - Race/ethnicity (derived, 4 categories)
RACETHN_5CAT	x	x		Background - Race/ethnicity (derived, 5 categories)
RACETHN_6CAT		x		Background - Race/ethnicity (derived, 6 categories)

See note at end of table.



Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
READHOME	x	x	x	Index of use of reading skills at home (prose and document texts - derived)
READHOME_WLE_CA	x	x	x	Index of use of reading skills at home (prose and document texts), categorised WLE (derived)
READWORK	x	x	x	Index of use of reading skills at work (prose and document texts - derived)
READWORK_WLE_CA	x	x	x	Index of use of reading skills at work (prose and document texts), categorised WLE (derived)
READYTOLEARN	x	x	x	Index of readiness to learn (derived)
READYTOLEARN_WLE_CA	x	x	x	Index of readiness to learn, categorised WLE (derived)
REGFLG				Registry situation flag
REGION_US	x	x		Geographical region (1: Northeast, 2: Midwest, 3: South, 4: West) - Respondent
SAMPTYPE		x		Flag for oversample
SECLGRGN		x		Source region of second language learned at home in childhood and still understand (9 regions - derived)
SECLGRGNUS_C	x	x		Source region of second language learned at home in childhood and still understand (9 regions) (2 categories) (derived from SECLGRGN)
SEQID	x	x	x	Sequential ID (randomly derived)
SORT_HH		x		Sort order for HH selection
SORT_PSU		x		Sort order for PSU selection (or persons if one-stage design)
SORT_SSU		x		Sort order for SSU selection
SPFWT0	x	x	x	Final full sample weight
SPFWT1	x	x	x	Final replicate weight (1)
SPFWT10	x	x	x	Final replicate weight (10)
SPFWT11	x	x	x	Final replicate weight (11)
SPFWT12	x	x	x	Final replicate weight (12)
SPFWT13	x	x	x	Final replicate weight (13)
SPFWT14	x	x	x	Final replicate weight (14)
SPFWT15	x	x	x	Final replicate weight (15)
SPFWT16	x	x	x	Final replicate weight (16)
SPFWT17	x	x	x	Final replicate weight (17)
SPFWT18	x	x	x	Final replicate weight (18)
SPFWT19	x	x	x	Final replicate weight (19)
SPFWT2	x	x	x	Final replicate weight (2)
SPFWT20	x	x	x	Final replicate weight (20)
SPFWT21	x	x	x	Final replicate weight (21)

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
SPFWT22	x	x	x	Final replicate weight (22)
SPFWT23	x	x	x	Final replicate weight (23)
SPFWT24	x	x	x	Final replicate weight (24)
SPFWT25	x	x	x	Final replicate weight (25)
SPFWT26	x	x	x	Final replicate weight (26)
SPFWT27	x	x	x	Final replicate weight (27)
SPFWT28	x	x	x	Final replicate weight (28)
SPFWT29	x	x	x	Final replicate weight (29)
SPFWT3	x	x	x	Final replicate weight (3)
SPFWT30	x	x	x	Final replicate weight (30)
SPFWT31	x	x	x	Final replicate weight (31)
SPFWT32	x	x	x	Final replicate weight (32)
SPFWT33	x	x	x	Final replicate weight (33)
SPFWT34	x	x	x	Final replicate weight (34)
SPFWT35	x	x	x	Final replicate weight (35)
SPFWT36	x	x	x	Final replicate weight (36)
SPFWT37	x	x	x	Final replicate weight (37)
SPFWT38	x	x	x	Final replicate weight (38)
SPFWT39	x	x	x	Final replicate weight (39)
SPFWT4	x	x	x	Final replicate weight (4)
SPFWT40	x	x	x	Final replicate weight (40)
SPFWT41	x	x	x	Final replicate weight (41)
SPFWT42	x	x	x	Final replicate weight (42)
SPFWT43	x	x	x	Final replicate weight (43)
SPFWT44	x	x	x	Final replicate weight (44)
SPFWT45	x	x	x	Final replicate weight (45)
SPFWT46	x	x	x	Final replicate weight (46)
SPFWT47	x	x	x	Final replicate weight (47)
SPFWT48	x	x	x	Final replicate weight (48)
SPFWT49	x	x	x	Final replicate weight (49)
SPFWT5	x	x	x	Final replicate weight (5)
SPFWT50	x	x	x	Final replicate weight (50)
SPFWT51	x	x	x	Final replicate weight (51)
SPFWT52	x	x	x	Final replicate weight (52)
SPFWT53	x	x	x	Final replicate weight (53)
SPFWT54	x	x	x	Final replicate weight (54)
SPFWT55	x	x	x	Final replicate weight (55)
SPFWT56	x	x	x	Final replicate weight (56)
SPFWT57	x	x	x	Final replicate weight (57)
SPFWT58	x	x	x	Final replicate weight (58)
SPFWT59	x	x	x	Final replicate weight (59)
SPFWT6	x	x	x	Final replicate weight (6)
SPFWT60	x	x	x	Final replicate weight (60)
SPFWT61	x	x	x	Final replicate weight (61)

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
SPFWT62	x	x	x	Final replicate weight (62)
SPFWT63	x	x	x	Final replicate weight (63)
SPFWT64	x	x	x	Final replicate weight (64)
SPFWT65	x	x	x	Final replicate weight (65)
SPFWT66	x	x	x	Final replicate weight (66)
SPFWT67	x	x	x	Final replicate weight (67)
SPFWT68	x	x	x	Final replicate weight (68)
SPFWT69	x	x	x	Final replicate weight (69)
SPFWT7	x	x	x	Final replicate weight (7)
SPFWT70	x	x	x	Final replicate weight (70)
SPFWT71	x	x	x	Final replicate weight (71)
SPFWT72	x	x	x	Final replicate weight (72)
SPFWT73	x	x	x	Final replicate weight (73)
SPFWT74	x	x	x	Final replicate weight (74)
SPFWT75	x	x	x	Final replicate weight (75)
SPFWT76	x	x	x	Final replicate weight (76)
SPFWT77	x	x	x	Final replicate weight (77)
SPFWT78	x	x	x	Final replicate weight (78)
SPFWT79	x	x	x	Final replicate weight (79)
SPFWT8	x	x	x	Final replicate weight (8)
SPFWT80	x	x	x	Final replicate weight (80)
SPFWT9	x	x	x	Final replicate weight (9)
STRAT_HH		x		Explicit strata used for stratifying HHs
STRAT_PSU		x		Explicit strata used for stratifying PSUs (or persons if one-stage design)
STRAT_SSU		x		Explicit strata used for stratifying SSUs
SUBSAMP		x		Sub-sample flag
TASKDISC	x	x	x	Index of use of task discretion at work (derived)
TASKDISC_WLE_C A	x	x	x	Index of use of task discretion at work, categorised WLE (derived)
TECHPROB		x		Technical problem flag
THEOR_HBWT		x		Theoretical base weight for selected HH (inverse overall selection probability of HH)
THEOR_PBWT		x		Theoretical base weight for selected person (inverse overall selection probability of person - no NR adjustments)
U01a000A	x	x	x	Unit01a Number of Actions
U01a000F	x	x	x	Unit01a Time to First Action
U01a000S	x	x	x	Problem-solving Unit 01a (Polytomous scored response - derived)

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
U01a000T	x	x	x	Unit01a Total Time
U01b000A	x	x	x	Unit01b Number of Actions
U01b000F	x	x	x	Unit01b Time to First Action
U01b000S	x	x	x	Problem-solving Unit 01b (Dichotomous scored response - derived)
U01b000T	x	x	x	Unit01b Total Time
U02x000A	x	x	x	Unit02 Number of Actions
U02x000F	x	x	x	Unit02 Time to First Action
U02x000S	x	x	x	Problem-solving Unit 02x (Polytomous scored response - derived)
U02x000T	x	x	x	Unit02 Total Time
U03a000A	x	x	x	Unit03a Number of Actions
U03a000F	x	x	x	Unit03a Time to First Action
U03a000S	x	x	x	Problem-solving Unit 03a (Dichotomous scored response - derived)
U03a000T	x	x	x	Unit03a Total Time
U04a000A	x	x	x	Unit04a Number of Actions
U04a000F	x	x	x	Unit04a Time to First Action
U04a000S	x	x	x	Problem-solving Unit 04a (Polytomous scored response - derived)
U04a000T	x	x	x	Unit04a Total Time
U06a000A	x	x	x	Unit06a Number of Actions
U06a000F	x	x	x	Unit06a Time to First Action
U06a000S	x	x	x	Problem-solving Unit 06a (Dichotomous scored response - derived)
U06a000T	x	x	x	Unit06a Total Time
U06b000A	x	x	x	Unit06b Number of Actions
U06b000F	x	x	x	Unit06b Time to First Action
U06b000S	x	x	x	Problem-solving Unit 06b (Dichotomous scored response - derived)
U06b000T	x	x	x	Unit06b Total Time
U07x000A	x	x	x	Unit07 Number of Actions
U07x000F	x	x	x	Unit07 Time to First Action
U07x000S	x	x	x	Problem-solving Unit 07x (Dichotomous scored response - derived)
U07x000T	x	x	x	Unit07 Total Time
U11b000A	x	x	x	Unit11b Number of Actions
U11b000F	x	x	x	Unit11b Time to First Action
U11b000S	x	x	x	Problem-solving Unit 11b (Polytomous scored response - derived)
U11b000T	x	x	x	Unit11b Total Time
U16x000A	x	x	x	Unit16 Number of Actions
U16x000F	x	x	x	Unit16 Time to First Action

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
U16x000S	x	x	x	Problem-solving Unit 16x (Dichotomous scored response - derived)
U16x000T	x	x	x	Unit16 Total Time
U19a000A	x	x	x	Unit19a Number of Actions
U19a000F	x	x	x	Unit19a Time to First Action
U19a000S	x	x	x	Problem-solving Unit 19a (Dichotomous scored response - derived)
U19a000T	x	x	x	Unit19a Total Time
U19b000A	x	x	x	Unit19b Number of Actions
U19b000F	x	x	x	Unit19b Time to First Action
U19b000S	x	x	x	Problem-solving Unit 19b (Polytomous scored response - derived)
U19b000T	x	x	x	Unit19b Total Time
U21x000A	x	x	x	Unit21 Number of Actions
U21x000F	x	x	x	Unit21 Time to First Action
U21x000S	x	x	x	Problem-solving Unit 21x (Dichotomous scored response - derived)
U21x000T	x	x	x	Unit21 Total Time
U23x000A	x	x	x	Unit23 Number of Actions
U23x000F	x	x	x	Unit23 Time to First Action
U23x000S	x	x	x	Problem-solving Unit 23x (Polytomous scored response - derived)
U23x000T	x	x	x	Unit23 Total Time
USCIP_C		x		Education - Current Qualification - Area of Study (coded)
USCIP_C_C	x	x		Education - Current Qualification - Area of Study (combined into 4-digit categories) (derived from USCIP_C)
USCIP_H		x		Education - Highest qualification - Area of study (coded)
USCIP_H_C	x	x		Education - Highest qualification - Area of study (combined into 4-digit categories) (derived from USCIP_H)
USCIP_L		x		Education - Formal qualification in last 12 months- Area of study (coded)
USCIP_L_C	x	x		Education - Formal qualification in last 12 months- Area of study (combined into 4-digit categories) (derived from USCIP_L)
VARSTRAT	x	x	x	Variance stratum
VARUNIT	x	x	x	Variance unit
VEFAYFAC	x	x	x	Fay's K factor used in creating replicate weights (BRR only)

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
VEMETHOD	x	x	x	Replication approach (string)
VEMETHODN	x	x	x	Replication approach (numeric)
VENREPS	x	x	x	Number of replicate weights used
VET	x	x	x	Respondent's highest level of education obtained is vocationally oriented (derived, ISCED3 and 4 only)
WRITHOME	x	x	x	Index of use of writing skills at home (derived)
WRITHOME_WLE_CA	x	x	x	Index of use of writing skills at home, categorised WLE (derived)
WRITWORK	x	x	x	Index of use of writing skills at work (derived)
WRITWORK_WLE_CA	x	x	x	Index of use of writing skills at work, categorised WLE (derived)
YEARLYINCPR	x	x	x	Yearly income percentile rank category (derived)
YRSGET	x	x	x	Imputed years of formal education needed to get the job (self-reported - derived)
YRSQUAL	x	x	x	Highest level of education obtained imputed into years of education (derived)
YRSQUAL_T	x	x	x	Derived variable on total years of schooling during lifetime - top coded at 24 (Trend-IALS/ALL)
ZZ1a	x	x	x	Observation module: Presence of additional person
ZZ1b_01	x	x	x	Observation module: Assistance in background questionnaire
ZZ1b_02	x	x	x	Observation module: Assistance in skills assessment
ZZ1cUSX		x		Second SP present
ZZ2	x	x	x	Observation module: Respondent understood the questions
ZZ3	x	x	x	Observation module: Clarification necessary
ZZ4_01	x	x	x	Observation module: Respondent held a conversation with someone else
ZZ4_02	x	x	x	Observation module: Respondent answered a phone call, text message or e-mail
ZZ4_03	x	x	x	Observation module: Respondent was looking after children
ZZ4_04	x	x	x	Observation module: Respondent was undertaking domestic tasks

See note at end of table.

Table J-2. Side-by-side list of U.S public-use and restricted-use variables and international public-use variables—Continued

[x = included in file]

Name	U.S. public-use file	U.S. restricted-use file	International public-use file	Label
ZZ4_05	x	x	x	Observation module: Television, radio, game console or music player was in use in the vicinity of respondent
ZZ4_06	x	x	x	Observation module: Respondent was interrupted by some other activity, task or event
ZZ5	x	x	x	Observation module: Assessment taking too long
ZZ6	x	x	x	Observation module: Room of assessment
ZZ7USX		x		Observed income

**NOTE:** In addition to the missing value codes, system missing (blank values) still exist. The blank values are a result of the following: (1) literacy-related nonrespondents to the BQ, for which there is only age and gender information (see section 7.1.2 for more information); (2) variables (such as earnings) that were derived from multiple variables; (3) US specific BQ variables that have systematic missing values for valid skips; and (4) assessment variables designed to be tested on a subsample of people only, and thus have a lot of system missing.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).

Table J-3. Example 1: Means and percentages overall for PIAAC Literacy Scale, by country and gender

CNTRYID	GENDER	R	DVAR	N	SPFWT0	SUMW SE	PCTPCT SE	MNPV	MNPV SE	SDPV	SDPV SE	
Austria	Male		PVLIT	2,479.00	2,764,088.46	7,207.03	49.86	0.10	271.53	1.04	44.64	0.86
Austria	Female		PVLIT	2,546.00	2,780,051.37	6,922.30	50.14	0.10	267.39	0.93	43.17	0.75
Belgium	Male		PVLIT	2,467.00	1,984,965.42	6,758.70	50.58	0.13	278.09	0.97	47.91	0.86
Belgium	Female		PVLIT	2,517.00	1,939,810.58	7,650.74	49.42	0.13	272.81	1.08	46.07	0.89
Canada	Male		PVLIT	12,442.00	11,684,548.30	0.00	49.97	0.00	274.49	0.86	50.99	0.75
Canada	Female		PVLIT	14,241.00	11,696,518.54	0.00	50.03	0.00	272.19	0.78	49.84	0.64
Cyprus	Male		PVLIT	1,776.00	230,956.15	2,355.68	47.37	0.39	267.99	1.18	41.00	0.90
Cyprus	Female		PVLIT	2,616.00	256,555.11	2,061.65	52.63	0.39	269.60	0.97	39.58	0.78
Czech Republic	Male		PVLIT	2,756.00	3,706,815.34	9,665.44	50.44	0.10	275.68	1.26	40.83	1.06
Czech Republic	Female		PVLIT	3,325.00	3,642,379.54	10,916.46	49.56	0.10	272.32	1.30	40.67	1.10
Denmark	Male		PVLIT	3,590.00	1,819,081.82	2,144.36	50.32	0.04	270.58	1.03	49.70	0.81
Denmark	Female		PVLIT	3,696.00	1,796,079.90	1,167.73	49.68	0.04	271.00	0.80	45.63	0.86
Estonia	Male		PVLIT	3,432.00	427,035.49	419.81	47.83	0.03	275.06	1.09	45.44	0.68
Estonia	Female		PVLIT	4,154.00	465,698.67	339.19	52.17	0.03	276.64	0.81	43.42	0.63
Finland	Male		PVLIT	2,757.00	1,758,421.71	1,147.43	50.29	0.03	285.96	1.21	51.99	1.10
Finland	Female		PVLIT	2,707.00	1,738,487.29	1,147.43	49.71	0.03	289.15	0.99	49.25	1.19
France	Male		PVLIT	3,382.00	19,392,790.91	78,456.80	48.83	0.19	262.05	0.87	49.32	0.58
France	Female		PVLIT	3,525.00	20,318,410.94	77,142.10	51.17	0.19	262.23	0.69	48.73	0.64
Germany	Male		PVLIT	2,641.00	26,701,427.44	76,883.02	50.51	0.12	272.35	1.17	47.69	0.84
Germany	Female		PVLIT	2,738.00	26,163,761.05	79,086.02	49.49	0.12	267.21	1.19	46.96	0.87
Ireland	Male		PVLIT	2,728.00	1,458,047.52	4,775.05	48.92	0.14	267.71	1.17	49.17	1.05
Ireland	Female		PVLIT	3,235.00	1,522,255.80	4,108.07	51.08	0.14	265.43	1.10	45.19	1.07
Italy	Male		PVLIT	2,220.00	19,557,641.99	45,174.50	50.00	0.05	250.36	1.50	46.41	1.08
Italy	Female		PVLIT	2,369.00	19,555,182.14	31,803.85	50.00	0.05	250.61	1.32	42.90	0.87
Japan	Male		PVLIT	2,468.00	40,246,126.33	74,110.55	50.27	0.06	297.78	0.88	40.35	0.78
Japan	Female		PVLIT	2,705.00	39,811,288.52	57,228.06	49.73	0.06	294.69	1.01	38.99	0.80
Korea	Male		PVLIT	3,092.00	17,166,875.15	20,962.89	49.75	0.04	275.72	0.75	41.57	0.76
Korea	Female		PVLIT	3,559.00	17,342,502.71	16,397.74	50.25	0.04	269.43	0.87	41.56	0.65
Netherlands	Male		PVLIT	2,501.00	5,475,351.56	17,524.78	50.20	0.13	287.06	1.08	48.73	0.95
Netherlands	Female		PVLIT	2,581.00	5,431,153.00	16,173.16	49.80	0.13	280.92	0.94	47.85	0.88

See note at end of table.



Table J-3. Example 1: Means and percentages overall for PIAAC Literacy Scale, by country and gender—Continued

CNTRYID	GENDER	R	DVAR	N	SPFWT0	SUMW SE	PCT PCT SE	MNPV	MNPV SE	SDPV	SDPV SE
Norway	Male	PVLIT	2,557.00	1,639,476.09	3,792.47	51.09	0.08	280.34	0.97	47.76	0.80
Norway	Female	PVLIT	2,390.00	1,569,515.99	3,610.70	48.91	0.08	276.43	0.91	46.14	0.97
Poland	Male	PVLIT	4,733.00	13,229,030.39	3,849.71	49.47	0.01	263.66	0.97	49.62	0.90
Poland	Female	PVLIT	4,633.00	13,512,956.61	3,849.71	50.53	0.01	270.08	0.86	46.09	0.88
Russian Federation	Male	PVLIT	1,344.00	41,758,488.41	79,572.18	47.77	0.09	272.90	2.98	44.45	1.63
Russian Federation	Female	PVLIT	2,547.00	45,654,647.98	79,454.22	52.23	0.09	277.37	2.88	41.26	1.76
Slovak Republic	Male	PVLIT	2,697.00	1,929,712.55	1,800.22	49.99	0.03	273.47	0.86	40.58	0.73
Slovak Republic	Female	PVLIT	3,005.00	1,930,792.85	1,720.19	50.01	0.03	274.22	0.82	39.55	0.81
Spain	Male	PVLIT	2,929.00	15,500,659.30	24,189.68	50.24	0.05	254.11	1.00	49.94	0.80
Spain	Female	PVLIT	3,042.00	15,353,142.28	24,822.11	49.76	0.05	249.45	1.04	47.98	0.81
Sweden	Male	PVLIT	2,253.00	3,036,908.24	4,280.14	50.73	0.07	280.88	1.08	49.97	0.95
Sweden	Female	PVLIT	2,216.00	2,949,015.04	4,280.14	49.27	0.07	277.54	1.10	51.11	1.19
United Kingdom	Male	PVLIT	3,693.00	17,398,114.39	42,304.58	49.82	0.08	273.90	1.37	50.08	1.09
United Kingdom	Female	PVLIT	5,113.00	17,526,525.88	37,135.73	50.18	0.08	271.03	1.29	47.79	1.04
United States	Male	PVLIT	2,261.00	94,975,340.61	765,933.90	48.82	0.22	270.16	1.21	50.44	1.01
United States	Female	PVLIT	2,637.00	99,571,279.21	705,791.42	51.18	0.22	269.47	1.33	47.96	1.08

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).

Table J-4. Example 2: Means and percentages for PIAAC Literacy Scale levels, by country and gender

CNTRYID	GENDER R	DVAR	CUTVAR	N	SPFWT0	SUMW SE	PCT	PCT SE
Austria	Male	PVLIT	2.From 176 to Below 226	280	343,832	19,149.29	12.21	0.91
Austria	Female	PVLIT	2.From 176 to Below 226	309	381,141	20,959.84	13.46	0.88
Belgium	Male	PVLIT	2.From 176 to Below 226	268	215,033	12,155.43	10.29	0.82
Belgium	Female	PVLIT	2.From 176 to Below 226	321	251,672	13,090.15	12.29	0.79
Canada	Male	PVLIT	2.From 176 to Below 226	1,876	1,461,361	50,858.05	12.51	0.73
Canada	Female	PVLIT	2.From 176 to Below 226	2,076	1,514,212	52,726.25	12.95	0.51
Cyprus	Male	PVLIT	2.From 176 to Below 226	224	29,645	2,034.62	10.33	0.81
Cyprus	Female	PVLIT	2.From 176 to Below 226	313	31,340	1,862.64	10.27	0.74
Czech Republic	Male	PVLIT	2.From 176 to Below 226	261	372,413	32,143.73	9.99	1.21
Czech Republic	Female	PVLIT	2.From 176 to Below 226	331	386,481	30,192.62	10.54	1.12
Denmark	Male	PVLIT	2.From 176 to Below 226	481	233,769	11,564.94	12.78	0.75
Denmark	Female	PVLIT	2.From 176 to Below 226	469	197,711	9,055.62	10.98	0.79
Estonia	Male	PVLIT	2.From 176 to Below 226	389	48,079	2,522.24	11.20	0.72
Estonia	Female	PVLIT	2.From 176 to Below 226	446	50,543	2,247.91	10.83	0.61
Finland	Male	PVLIT	2.From 176 to Below 226	222	149,478	9,736.07	8.50	0.73
Finland	Female	PVLIT	2.From 176 to Below 226	189	128,607	9,101.90	7.40	0.66
France	Male	PVLIT	2.From 176 to Below 226	556	3,341,452	117,056.65	17.07	0.72
France	Female	PVLIT	2.From 176 to Below 226	517	3,158,453	122,995.29	15.43	0.72
Germany	Male	PVLIT	2.From 176 to Below 226	323	3,656,914	207,687.20	13.53	0.96
Germany	Female	PVLIT	2.From 176 to Below 226	369	3,983,781	223,233.71	14.96	0.96
Ireland	Male	PVLIT	2.From 176 to Below 226	343	191,149	11,593.09	13.00	1.01
Ireland	Female	PVLIT	2.From 176 to Below 226	426	202,840	11,307.94	13.31	1.01
Italy	Male	PVLIT	2.From 176 to Below 226	461	4,530,923	237,354.19	23.02	1.42
Italy	Female	PVLIT	2.From 176 to Below 226	463	4,193,733	211,468.10	21.30	1.29
Japan	Male	PVLIT	2.From 176 to Below 226	105	1,817,447	171,040.79	4.46	0.51
Japan	Female	PVLIT	2.From 176 to Below 226	105	1,671,113	175,194.87	4.15	0.57
Korea	Male	PVLIT	2.From 176 to Below 226	302	1,631,208	94,688.60	9.47	0.65
Korea	Female	PVLIT	2.From 176 to Below 226	433	2,051,018	101,640.48	11.80	0.76
Netherlands	Male	PVLIT	2.From 176 to Below 226	199	465,750	30,996.20	8.30	0.69
Netherlands	Female	PVLIT	2.From 176 to Below 226	240	551,576	31,279.67	9.94	0.73

See note at end of table.

Table J-4. Example 2: Means and percentages for PIAAC Literacy Scale levels, by country and gender—Continued

CNTRYID	GENDER	R	DVAR	CUTVAR	N	SPFWT0	SUMW	SE	PCT	PCT SE
Norway	Male		PVLIT	2.From 176 to Below 226	213	153,724	10,575.77		9.16	0.75
Norway	Female		PVLIT	2.From 176 to Below 226	203	150,812	9,906.67		9.40	0.83
Poland	Male		PVLIT	2.From 176 to Below 226	632	2,146,269	96,205.17		16.22	1.06
Poland	Female		PVLIT	2.From 176 to Below 226	488	1,819,016	90,733.62		13.46	0.83
Russian Federation	Male		PVLIT	2.From 176 to Below 226	140	5,570,977	609,345.91		13.34	1.60
Russian Federation	Female		PVLIT	2.From 176 to Below 226	226	4,466,872	583,546.07		9.78	1.43
Slovak Republic	Male		PVLIT	2.From 176 to Below 226	277	192,759	12,137.65		9.96	0.74
Slovak Republic	Female		PVLIT	2.From 176 to Below 226	299	184,352	10,526.06		9.52	0.75
Spain	Male		PVLIT	2.From 176 to Below 226	575	3,011,395	123,555.98		19.28	0.97
Spain	Female		PVLIT	2.From 176 to Below 226	650	3,294,139	127,392.55		21.29	1.12
Sweden	Male		PVLIT	2.From 176 to Below 226	181	284,544	20,287.50		9.37	0.85
Sweden	Female		PVLIT	2.From 176 to Below 226	179	289,186	20,005.78		9.81	0.79
United Kingdom	Male		PVLIT	2.From 176 to Below 226	521	2,371,682	139,995.53		13.43	1.05
United Kingdom	Female		PVLIT	2.From 176 to Below 226	710	2,280,218	122,995.98		12.84	0.88
United States	Male		PVLIT	2.From 176 to Below 226	329	14,321,132	792,086.35		14.34	1.00
United States	Female		PVLIT	2.From 176 to Below 226	338	13,240,810	722,996.98		12.82	0.87

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2011 Program for the International Assessment of Adult Competencies (PIAAC).