



MINISTRY OF EDUCATION
TE TĀHUHU O TE MĀTAURANGA

How does New Zealand's education system compare?

OECD's Education at a Glance 2013



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INTRODUCTION

Every year, the Organisation for Economic Cooperation and Development (OECD) publishes *Education at a Glance*, a set of indicators that compares the education systems of its 34 member countries, and eight other participating partner and G20 countries. These indicators give us a good opportunity to view the characteristics and performance of our system against the systems of other countries. Despite some limitations, the Education at a Glance indicators are considered to "reflect a consensus among professionals on how to measure the current state of education internationally", and probably give us the most reliable and most complete basis for comparison currently available.

This is the 21st edition of *Education at a Glance*. This year's report reflects 2011 data for most non-financial indicators, and 2010 data for financial indicators. It includes 170 country comparisons tables covering 25 education system indicators including:

- Educational attainment in the population
- Participation and achievement
- Expenditure on education
- Employment and earnings by education level, and returns on educational investments
- Social outcomes of education
- Transitions from school to work
- Students travelling outside of their country to study
- Staffing: teacher-student ratios, salaries, and demographics
- Vocational attainment - size and labour market outcomes
- Student financial support, and tertiary tuition fees
- How early childhood systems differ around the world

New this year is an indicator on how smoking and obesity are associated with education.

This summary presents high-level highlights in relation to New Zealand. Readers are encouraged to check out the full report. The report and all tables and graphs are available online. Some tables are only available online. www.oecd.org/edu/eag2013

EAG 2013 uses the *International Standard Classification of Education* (or ISCED 97) as a common basis for classifying and comparing educational levels.

Under ISCED 97, pre-primary relates to those aged 3 and over in centre-based education, and so under-represents ECE as it is structured in New Zealand, as it excludes home-based ECE and ECE for those aged two and under. Under ISCED, "upper secondary" refers to those with at least a year 12-equivalent school qualification. Those with a year 11-equivalent qualification, such as NCEA 1 or school certificate, are counted as "below upper secondary". "Upper secondary" also includes Level 1-3 post-secondary education. Both these points have a reasonable impact on how results for "upper secondary" can be interpreted. The term "tertiary-educated" in EAG relates just to diploma level and above. Level 1-3 certificates are classified with "upper secondary" and level 4 certificates are classified as a separate "post-secondary non-tertiary" group.

NEW ZEALAND'S EDUCATION SYSTEM AT A GLANCE

New Zealand performing well on ECE Indicators

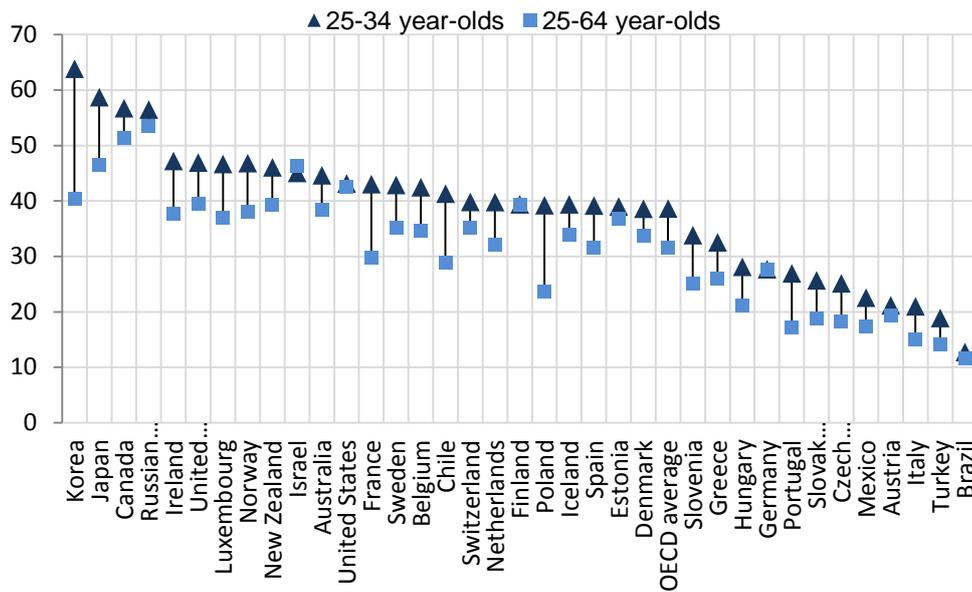
- Participation at pre-school ages in the education system in New Zealand is in the top third of OECD countries¹. Around 85% of 3 year-olds and 95% of 4 year-olds in New Zealand were enrolled in ECE in 2011. This was above the OECD average of 67% and 84% for 3 and 4 year-olds respectively. NZ's participation rates for 3 and 4 year-olds were less than UK, Ireland (where over 30% of 4 year-olds have also already begun in school level education), and also less than France, Germany and most Nordic countries, but ahead of Australia, US and Canada. Currently five countries (France, Spain, Mexico, Netherlands and Denmark) have a rate that is at, or above, the 98% figure that has been set as a government 'Better Public Services' target for New Zealand by 2016.
- New Zealand had the fourth lowest ratio of full-time equivalent children to ECE teachers at 7.2, and the second highest combined public and private expenditure per full-time equivalent child in ECE. Both these measures are influenced by differences in what countries consider a full-time equivalent child to be. However, even under standardised definitions, NZ would likely continue to rank well on these measures.
- NZ ranked in the top seven countries in terms of the percentage of public expenditure allocated to ECE (at 1.5%), and public expenditure on ECE as a proportion of GDP is above the OECD average.
- New Zealand has the highest level of privately-owned ECE provision at 98%, although all receive government funding. Overall, 85% of expenditure was from public sources, which was above the OECD average of 82% in 2010.

New Zealand has a high proportion of tertiary qualified adults

- New Zealand has a high proportion of tertiary qualified adults – in particular, a very high proportion with diploma qualifications. With 39% of 25 to 64 year-olds with a diploma or higher, we were ranked in the top 10 in the OECD in 2011. At 16%, we had the fourth highest proportion of adults whose highest qualification is a diploma, and when this is combined with level 4 certificates we had the second highest level of attainment after Canada, for these types of qualifications.
- Around 47% of 25 to 34 year-olds in 2011 had a diploma or higher. This ranked NZ in the top 10 OECD countries, in a group including Canada, US, UK, Australia, Japan, Korea and some Nordic countries. While this excludes level 4 attainment and so is not directly comparable, this is the closest EAG indicator to the current government 'Better Public Services' target of having 55% of 25 to 34-year-olds with a qualification at level 4 or above by 2017.

¹ Under OECD reporting definitions, these figures exclude ECE in home-based settings, so will understate the full rate of ECE participation in New Zealand.

Percentage of population that has attained tertiary education (2011)



EAG 2013 Chart A1.1

- With 24% of adults aged 25 to 64 with a degree or higher, NZ ranks in the middle of the OECD, just above the OECD average, and behind Australia, UK, Canada and the US. For ages 25 to 34, NZ similarly ranks about average (with 31% with a degree of higher compared with 30% for the OECD average).

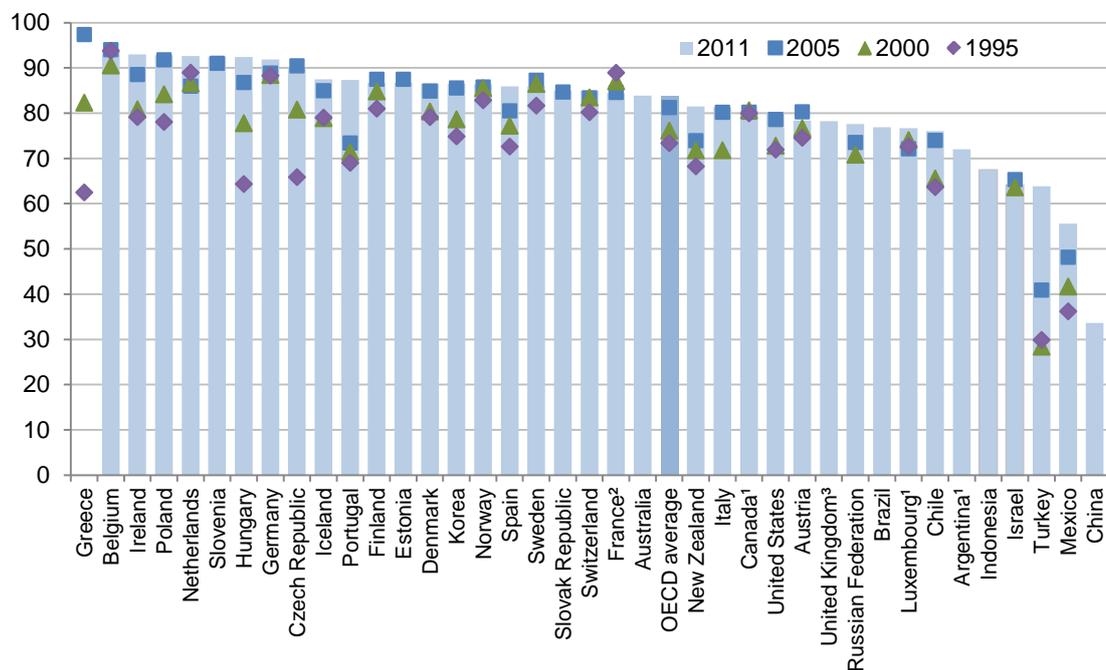
However, we have higher than average levels of young adults with less than a year-12-equivalent qualification

- Despite high levels of tertiary-qualified adults, 20% of adults aged 25 to 34 had below "upper secondary" attainment, that is, less than a year 12-equivalent school qualification or higher. The OECD average in 2011 was 18%. While not directly comparable, this is the EAG indicator that is closest to the current government 'Better Public Services' target of having 85% of 18 year-olds having gained a year-12 or equivalent qualification by 2017.
- Over all ages 25 to 64, 74% of New Zealanders in 2011 had an upper secondary qualification or higher. While the proportion of New Zealanders attaining an upper secondary level of education has increased over the past four years, it remains just below the OECD average of 75%.
- "Upper secondary" indicators are impacted by international definitions in two ways: the minimum requirement to have a 2 year qualification, which excludes those with NCEA 1 or school certificate; and the inclusion of level 1-3 post-secondary qualifications. These affect the interpretation of results, both in terms of policy implications for school-based initial education, and in terms of assessing NZ's relative performance against countries with more traditional upper secondary systems (ie school-based initial education and no one-year upper secondary qualification pathway).

Upper secondary retention has improved noticeably in recent years, but is still below OECD average

- Around 81% of 15 to 19 year-olds were enrolled in study in 2011. NZ ranked 23rd out of 38 OECD countries in this indicator. The OECD average was 84% in 2011, and the EU average was 88%. However, the percentage of 15 to 19 year-olds in education has risen noticeably since 2008 where NZ ranked fourth lowest in the OECD at 74%. Over the same period average OECD enrolment rates increased from 81% to 84%. New Zealand's rate is now around the same level or above UK, US and Canada, but still remains lower than Australia and most European countries.

Enrolment rates for 15-19 year-olds (1995, 2000, 2005 and 2011)



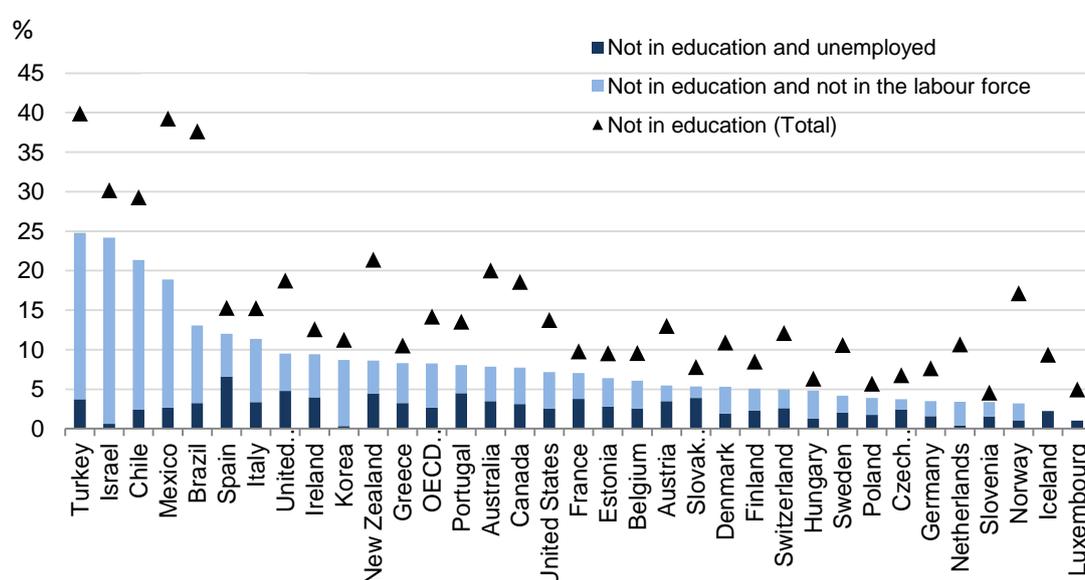
EAG 2013 Chart C1.2

- The OECD calculates enrolment rates by looking at the proportion of the population undertaking education at any level or in any sector – including school and post-school settings, and provided the student is enrolled for more than one semester. The rate of enrolment of NZ's 15 to 19 year-olds in 2011 was 81%. This comprised 55% in enrolled in schools, and 26% enrolled in post-school institutions. Between 2008 and 2011, the overall rate of enrolment by 15-19 year olds increased from 74% to 81%. The proportion of 15 to 19 year olds enrolled in schools rose from 51% to 55%, while enrolments in post-school institutions rose from 23% to 26%.
- Part of the improvement in participation is being supported by recent government targets and policy aimed at keeping youth in education and achieving at year 12 or higher, and an increased focus on young people achieving level 4 qualifications or higher. In part, the changes also reflect improvements to reporting for youth in low-level post-secondary education.

The global recession continues to be felt in 2011; while more young people stay in school, more are also unemployed and NEET rates remain high but are improving

- Despite one of the highest levels of youth employment in the OECD, NZ has a relatively high proportion of 15 to 19 year-olds neither in employment nor education (NEET).
- The effects of the recession continue to be felt particularly for this age group. At 8.6% in 2011, the NEET rate was similar to that in 2010, and better than in 2009, but is still higher than the rate of 7.0% in 2008. NZ's NEET rate for 15 to 19 year-olds in 2011 was the 11th highest rate in the OECD, just above the OECD average of 8.3%. However, this represents a definite improvement in our relative position for this age group from the previous two years.

Percentage of 15-19 year-olds not in education and unemployed or not in the labour force (2011)



Based on EAG 2013 Chart C5.2

- NEET rates for both 20 to 24 year-olds and 25 to 29 year-olds groups improved in 2011, but both groups remained above 2008 levels. However, unlike the 15 to 19 age group, NEET rates for these groups are lower than the OECD average. In part, this reflects NZ's relatively high entry rates into post school vocational study at these ages.

Compared with other countries, young New Zealanders are more likely to leave school sooner, and work, and to go on to, or back to post secondary study later.

- Around 11% of those entering year 11 leave with a one-year qualification (usually NCEA 1). NZ has one of the highest proportions of adults whose highest attainment is a one-year upper secondary qualification (at 7%). One-year upper secondary qualifications are relatively uncommon in OECD countries, with only UK and

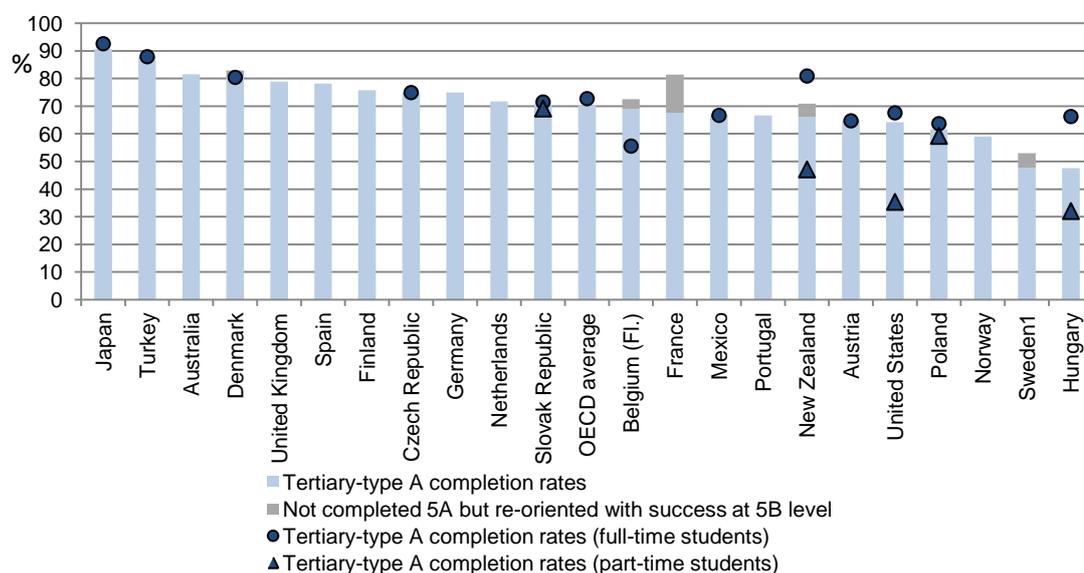
Luxembourg reporting levels near or above NZ's level in 2011. They do not count as "upper secondary" attainment under international definitions.

- While more of our 15 to 19 year-olds leave school with less than a year 12 qualification, they are more likely to be working or enrolling in post-secondary study than their counterparts overseas. In 2011, NZ had one of the highest 15 to 19 year-old employment rates, behind Norway, Mexico and Turkey. Many of this group will enrol in post-secondary study later. NZ has one of the higher rates of entry to tertiary education at older ages.

NZ has high levels of adults participating in tertiary study

- Around 29% of New Zealanders aged 20 to 29 were enrolled in study in 2011, just above the OECD average at 28%. By age 30, New Zealanders have spent, on average, a little over 18 years in education; above the average of 17.4, less than Nordic countries, but about the same as Australia.
- However, New Zealand, along with Australia, is amongst the countries with the highest rates of enrolment in older age groups (11% for those aged 30 to 39, and 4% of those aged 40 and over).
- New Zealand has a high rate of entry into degree and diploma level programmes. We have one of the highest graduation rates for post-secondary non-tertiary qualification (level 4 certificates) and diplomas. The graduation rate is considerably higher for women than for men. However, international students and older students contribute significantly to this result. When international and older graduates are removed, the rate at which the country produces tertiary-qualified graduates is about average.
- NZ continues to have one of the highest rates of part-time study in tertiary education. At 39% of degree-level-and-above students, and 64% of diploma-level students, we ranked fourth and third highest respectively in 2011.
- New Zealand's tertiary completion rate was 81% for full-time students in degree programs, third highest, and well above the average of 73% for the 12 OECD countries reporting this in *EAG 2013*.
- Completion rates for part-time students were typically much lower than full-time rates. NZ's rate was 47% compared with 25% for the seven OECD countries able to report this in *EAG 2013*. When both full-time and part-time students are combined, NZ's very high level of part-time degree study acts to lower our apparent performance. NZ's completion rate for both full-time and part-time students combined was 66% compared with the OECD average of 69%, and we ranked 16th out of the 22 countries reporting this. Even with the distorting effect of our high rate of part-time study, NZ's relative performance on this indicator has improved noticeably from previous years.

Completion rates in tertiary-type A education, by status of enrolment (2011)



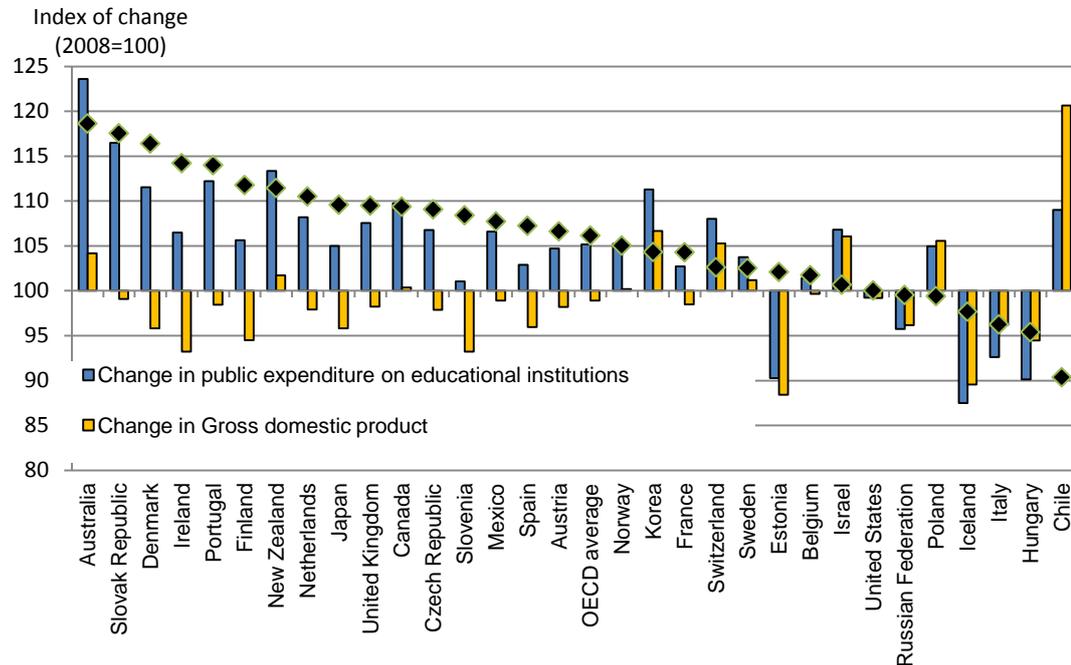
EAG 2013 Chart A4.2

NZ's investment in education²

- New Zealand's total (public and private) education expenditure per student is below the OECD average, at all levels except pre-primary and post-secondary non-tertiary (ie level 4 certificates). In equivalent US dollars, adjusted for purchasing power parity, we spent around 12% less per student, on average, across all levels from primary to tertiary than the OECD mean, and less than Australia, UK, Canada, US and Ireland.
- However, NZ devotes a relatively high share of its GDP to education. Public and private spending on education in 2010 was around 7.3% of GDP, 7th highest in the OECD, above an OECD average of 6.2%. This suggests that our spending reflects our national wealth – which is lower than many other OECD countries. It also reflects the fact that we have a relatively high proportion of our population in the core ages for education, and generally higher levels of participation rates across other levels. When compared to GDP per capita, expenditure per student is at the OECD average.
- In terms of public expenditure, New Zealand devotes a relatively high proportion of its expenditure to education. At 20%, it ranks second in the OECD after Mexico. Government education spending as a percentage of GDP is also high. At 7.2% of GDP, total government educational expenditure is the third highest in the OECD. Over the period of the economic recession, growth in this measure has been one of the highest in the OECD, driven by demographic increases, increasing rates of participation, as well as real increases in expenditure per student.

² Expenditure figures in EAG 2013 are presented for 2010, which for NZ is the 2010/11 financial year.

Impact of the economic crisis on public expenditure on education



EAG 2013 Chart B2.3

- Expenditure per student below tertiary level increased by 19% between 2005 and 2010, following a similar trend across nearly all OECD countries – the average increase in expenditure per student below tertiary education being 17%. All of the increase has been due to increased expenditure, as student levels have remained relatively constant. At tertiary level, expenditure has increased by 27% since 2005 while the number of students increased by 33%, significantly above average OECD changes. Expenditure per student at tertiary level correspondingly decreased by 4% for NZ, while the average for OECD increased by 8% between 2005 and 2010.
- At pre-primary level, NZ's combined public and private expenditure in 2010 per full-time equivalent child was the highest in the OECD. This result is influenced considerably by differences in what countries consider a full-time equivalent to be, but even under standardised definitions NZ is likely to continue to rank high on this measure. NZ ranked 5th in terms of the percentage of public expenditure allocated to ECE (at 1.5%), and 13th in terms of public expenditure on ECE as a proportion of GDP (at 0.5%).
- Around 27% of total public expenditure on educational institutions was at diploma level and above, higher than the average OECD level of 24%. Around 7% was spent at pre-primary levels, below the OECD average of 10%. However, these figures are distorted to some extent by OECD definitions which exclude spending on ECE for under 3 year-olds and in home-based settings.
- The split of tertiary education expenditure between funding for institutions and funding for student support has been controversial in the past. In *EAG 2013*, New Zealand is shown as second to the UK in the proportion of government tertiary

education spending that goes to students (47%, against 68% for the UK and an OECD mean of 22%). But if we adjust for the proportion of the student loan scheme lending that goes directly to institutions (as tuition fees), the proportion of spending directed to students in NZ figure reduces to 26% - similar to that which applies in zero fee countries like Sweden.

- Of 26 reporting countries, eight did not charge tuition fees for first degree tertiary programmes in public institutions in 2011. Of those that did, New Zealand had the 7th highest average, behind the US, Chile, Japan, Korea, Australia and Canada.
- For New Zealand, 89% of full-time students in first-degree programmes accessed student loan funding. Some 43% had access to grant (ie allowances) funding. Some 95% of full-time students in first-degree study accessed some form of financial support. This was one of the highest levels in the 21 countries that reported statistics for this indicator. Other countries featuring highly in terms of financial support were Sweden (95%), Australia (84%) and Netherlands (85%). However, the mix of support allocated as loans and grants was diverse across the reporting countries.
- Around 83% of all expenditure on education institutions in New Zealand in 2010 came from public sources, which was about the OECD average, above that of Australia (74%), US (69%) and UK (69%), but less than most Nordic countries. At tertiary level, around 66% of expenditure on institutions came from public sources, slightly less than the OECD average of 68%, but significantly ahead of the levels in UK (25%), US (36%), Australia (47%) and Canada (57%).
- New Zealand is the only country in the OECD where all public education expenditure is funded by central government.

Economic benefits of education

- EAG results this year show the continuing impacts of the global recession on employment with employment rates either the same or lower across most countries. However, educated New Zealanders maintained relatively higher rates of employment and lower unemployment than their counterparts in most countries. The employment rates of those with tertiary education were above the OECD mean, while employment of those with upper secondary education in NZ was among the highest in the OECD.
- As with all countries in the OECD, employment and earnings increase with level of education, but New Zealand has one of the smallest differences in earnings between adults with school and adults with tertiary qualifications, in particular diplomas. This reflects lower levels of income, high levels of graduate immigration and fairly compressed wage differentials in New Zealand, and leads to lower economic rates of return on investment in tertiary education.
- An economic analysis of NZ's compressed wage premiums for tertiary educated people commissioned by The Treasury in 2012 found that factors like...

- the mix of qualifications in NZ compared other countries – NZ has a low proportion of its population with a postgraduate qualification, and a higher proportion with a diploma, and this acts to lower relative earnings.
- tax differences between NZ and other countries – NZ has the highest rate of net income as a percentage of labour cost. While NZ is at the bottom end of gross earnings premiums, once these are adjusted for tax the differences reduce.
- the high proportion of migrants in the NZ labour market – a high proportion of our degree-educated was born and educated overseas and there is evidence that migrants don't have the same earnings as NZ educated graduates in the short/medium term.

... accounted for nearly half the difference between NZ and the OECD mean in the return on tertiary qualifications for men and more than half of the difference among women.

- The low rate of return also partly reflects supply. New Zealand is in a group of countries, including Scandinavian countries and Australia, which have higher levels of tertiary qualified adults, and consequently, lower returns.
- The rates of return indicator in EAG 2013 relate to the year 2009, and showed positive gains in return rates for both men and women, and in particular for women. These gains were ahead of average OECD gains. Average earnings (and hence returns) relative to those with no qualifications increased across all levels, in particular, for tertiary educated women. This relative increase reflects the full impacts of the recession being felt first and hardest for the less educated.
- New Zealand was among only six countries in which tertiary-educated women earn 75% or more of what tertiary-educated men earn. Tertiary-educated women aged 25-64 earned 78% of what tertiary-educated men earned, compared with the OECD average of 72%, third behind Belgium and Spain.

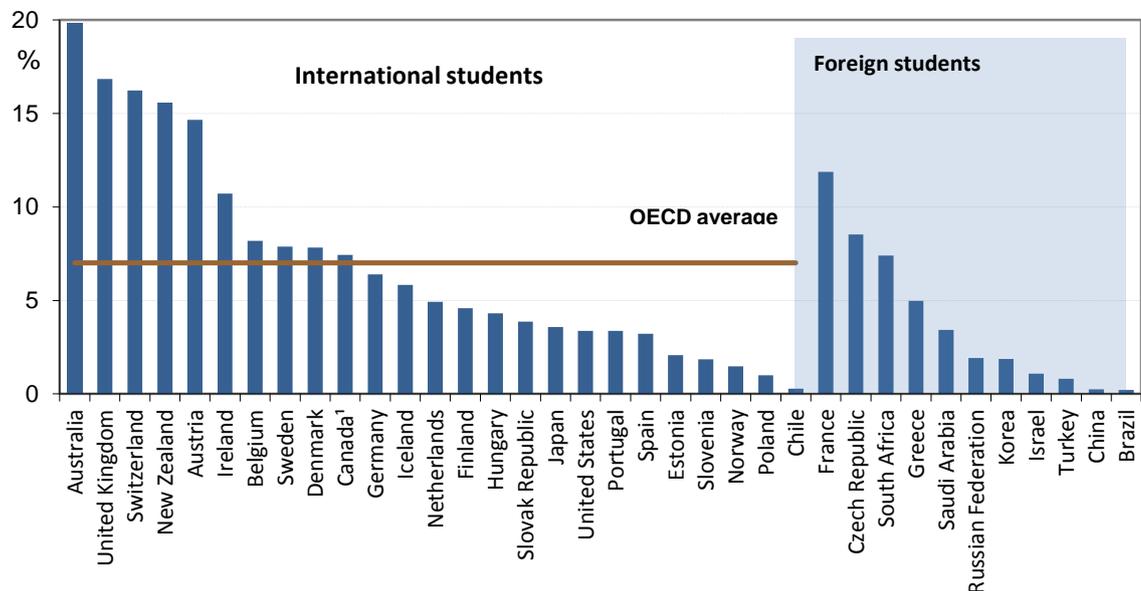
Social benefits of education

- This year's EAG presents two new indicators of the social benefits associated with education; obesity and smoking rates. Both rates had strong negative associated with education. New Zealand had above average rates of obesity especially among those with below upper secondary education. Around 24% of adults with a tertiary degree were obese, compared with 38% for those with below upper secondary education.
- Smoking rates showed a stronger education effect, with NZ rates for those with below upper secondary education at 37% compared with 12% for those with tertiary education. The rate of smoking for those with below upper secondary education was just below the OECD average, while the rate for those with upper secondary or tertiary education was much lower than the OECD average.

NZ'ers in tertiary study overseas & overseas tertiary students in NZ

- New Zealand remains a net importer of tertiary students. There are about seven times as many international students who come to NZ for tertiary study as domestic students who leave NZ for tertiary study overseas.
- NZ has the 11th largest market in absolute market share terms (at 1.7%), about the same as last year, but higher than its share in 2000 (0.4%).
- In 2011, NZ ranked fourth in terms of proportion of tertiary-level students who were international (16%). In particular, NZ had the highest proportion of diploma-level students who were international (at 21%), and the fifth highest (with 13%) at degree level. While numbers declined between 2005 and 2008, they have been increasing each year since then.

Percentage of international and foreign students in tertiary enrolments



EAG 2013 Chart C4.4. Foreign students are defined on the basis of their country of citizenship. These data are not comparable with data on international students and are therefore presented separately in the table.

- The level of international doctorate students has continued its significant rise since 2005 (since the introduction of domestic-fees status for such students). Nearly 40% of doctorate-level students were international in 2011 (the third highest level after UK and Switzerland).
- An estimated 2.7% of national tertiary students were enrolled abroad in 2011, above the OECD average of 2.0%. Nearly 6,100 New Zealanders were reported as studying in OECD countries in 2011. The most common study destinations remain as Australia (46%), United Kingdom (22%) and the United States (19%).

Education Staffing

- NZ has a slightly older profile of teachers in schooling, and an average proportion who are women.

- At 1 to 7.2, NZ had the third lowest teacher to child ratio at pre-primary level (for 3 and 4 year-olds), and compares with an OECD average of 12.2 in 2011. This indicator is measured using each country's own national definitions of full-time equivalent. At pre-primary level, differences across countries in these definitions can have a considerable impact on resulting ratios. However, even under standardised definitions, NZ is likely to remain high in this indicator.
- At other levels of education, student to teacher ratios for NZ in 2011 were a little higher OECD averages, except for upper secondary which was around the OECD average.

Level	NZ	Rank	OECD Average
Primary	16.3	16th	15.9
Upper Secondary	13.9	14th	14.0
Tertiary	17.7	18th	15.6

- Starting salaries for NZ school teachers in 2011 (presented in \$US and adjusted for purchasing pay parity (PPP)), were a little less than the OECD average. Teachers in New Zealand reach the top of the salary scale after 8 years only, one-third of the average across the OECD countries, where teachers need 24 years to reach the top of the scale. Salaries after 10 and 15 years of experience are higher than the OECD average, but then level off sooner. At the top of the scale, a teacher in New Zealand can expect to earn 50% more than new teachers entering the profession, which is less than the OECD average of 61%.
- Between 2000 and 2011, salaries for a NZ teacher with 15 years of experience rose 7% at primary level and 9% at upper secondary level. This compared with OECD averages of 20% and 17% respectively. Much of this increase across the OECD occurred between 2000 and 2005. Since 2005, teacher salaries in NZ have increased at a faster rate than average OECD increases (5% at primary and 8% at upper secondary compared with 4% and 2% respectively). As with other measures of expenditure, when related to GDP per capita or the earnings of the tertiary qualified population, New Zealand teachers fare better than their OECD counterparts.
- When compared with the earnings of other tertiary-educated, 25-64 year-old full-time workers, teachers' salaries in New Zealand are more competitive than in most OECD countries. At the primary, lower secondary and upper secondary levels teachers earn slightly more than other workers of a similar age and education level. This is in contrast with the average across OECD countries, where teachers earn between 18% and 11% less than their similarly educated counterparts, depending on the level of education they teach.