



MINISTRY OF EDUCATION

*Te Tāhuhu o te Mātauranga*

# How does New Zealand's education system compare?

*OECD's Education at a Glance 2010*



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# How does New Zealand's education system compare? OECD's Education at a Glance 2010

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## AT A GLANCE

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The OECD publication *Education at a Glance 2010* (EAG 2010) compares education systems across the OECD for the year 2008. When compared with other OECD countries:

- New Zealand's investment in education is below the OECD average in per student terms, yet forms an above average share of GDP. Our relative wealth and demographic structure lie behind these apparently differing results. When compared to GDP per capita, expenditure per student it is closer to, though below average. Of government expenditure, a relatively high proportion is devoted to education. Government education spending represents an above average percentage of GDP, particularly at tertiary level where it includes a high proportion of student support.
- Base teacher salaries compare favourably with those of OECD counterparts in benchmarks OECD uses, though are below OECD averages in absolute terms. New Zealand student to teacher ratios compare favourably with OECD average levels at pre-primary and upper secondary levels, but are higher at other levels of education.
- More of our under fives are in early childhood education, and more of our adults are in post-secondary education, than in other OECD countries, but fewer of our 15 to 19 year-olds are enrolled beyond the first year of upper secondary.
- While more of our 15 to 19 year-olds leave school with less than year 12 qualifications, they are more likely to be working or enrolling in post-secondary study. New Zealand, however, still has one of the higher proportions of 15 to 19 year-olds neither in employment nor education. Many of this group will enrol in post-secondary study later.
- New Zealand has a high percentage of its population that enters tertiary study, particularly at older ages. The entry rate to diploma level study, especially, is one of the highest in the OECD. While entry is high, New Zealand also has one of the highest rates of part-time study. While those studying full-time are as likely to complete their qualification as full-timers in other OECD countries, fewer part-timers complete their qualification. When full-time and part-time students are combined, the rate of qualification completion is low when compared to other countries where full-time study is more common. When adjusted for international and older graduates, the rate at which the country produces tertiary-qualified graduates is about average. By age 29, New Zealanders have spent about as much time in education as the OECD average.
- Overall, New Zealand has a high proportion of tertiary qualified adults – in particular, a very high proportion with vocational qualifications. Although not included in EAG, this is aided by a high proportion of recent immigrants with tertiary qualifications. Despite high levels of tertiary qualified adults, one in five adults aged 25 to 34 years does not have a year 12-equivalent school qualification or higher, a rate which is about the OECD average, but higher than some countries we might normally compare with.
- 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 employment or earnings between adults with school and adults with tertiary qualifications, in particular diplomas. Private and public returns for investing in a tertiary education are also lower, as are labour costs. New Zealand is in a group of countries, including Scandinavian countries and Australia, which have higher levels of tertiary qualified adults, and lower returns.
- Health status and interest in politics in New Zealand increase with level of education as in other OECD countries. New Zealand has one of the highest levels of self-reported health status across any level of education, and the smallest difference between least and most educated. We also have a more uniform interest in politics; New Zealanders with low qualifications have more interest in politics than similarly-educated adults in other countries, while tertiary educated adults have less; and overall, we are about average.
- New Zealand is a net importer of tertiary students; many more come to NZ for tertiary study than leave NZ for tertiary study overseas. While numbers declined at diploma and degree level between 2005 and 2008, they increased at postgraduate levels – dramatically so at doctorate level. In 2008, we had the fifth highest proportion of our tertiary student body that came from overseas and we were the 12th largest market in absolute market share terms. Fewer than 5,000 NZ citizens were recorded as studying overseas – nearly half of these in Australia, and nearly 90% when the United States, United Kingdom and Canada are added.

# 1 INTRODUCTION

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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 31 member countries, and eight participating partner countries. These indicators give us a good opportunity to view the characteristics and performance of our system by comparing against the systems of other countries. Despite some limitations, the Education at a Glance indicators "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.

*Education at a Glance 2010* (EAG 2010) covers 26 indicators and comprises over 150 country comparison tables. While traditional indicators on levels of population attainment, participation, spending and post-study employment and earnings are included, this year's edition includes new indicators covering labour costs and adults in non-formal learning, and new information for New Zealand on youth transitions and social outcomes of education. It also includes trend data on attainment, employment, earnings and returns, using re-based data from New Zealand's Household Labour Force Survey.

Most of these indicators are based on data for the year 2008. For New Zealand, this reflects a period before the effects of the current economic recession had largely begun to be felt in terms of reduced employment and earnings and increased demand for education. These effects are likely to be felt sooner and more significantly by those with lower qualifications, and by younger adults. A special section in EAG 2010 (pages 342-3) discusses the impact of the recession on youth.

EAG uses the *International Standard Classification of Education* (or ISCED 97) as a common basis for classifying and comparing educational levels. Readers should note that under ISCED, "upper-secondary-educated" or "adults with an upper-secondary education" 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" in these OECD comparisons. Obtaining a qualification after one year of upper secondary is less common in other OECD countries.

Readers should also note that when OECD uses the term "tertiary-educated", under ISCED this refers to those with a diploma or higher. In some tables, these are categorised further into "Type B", "Type A" and "advanced research programmes", which are equivalent to doctorates. However, this report tends to use New Zealand-used terms when referring to these levels in preference to those used in EAG. Therefore "diploma" is used in place of ISCED level 5B, or Type B education, and "degree" is used in place of ISECD 5A or Type A education. These terms may not be relevant or equivalent in other countries.

Post-secondary certificates at level 4 on the New Zealand Qualifications Framework are not counted as "tertiary education" under ISCED and are grouped under a level called "post-secondary non-tertiary". Post-secondary certificates below level 4 are grouped with "upper-secondary" level education.

All information in this report is sourced directly from EAG 2010. Reference to the specific chapters and tables used from EAG is included in each section. EAG 2010, as well as editions for previous years, can be freely downloaded from the OECD website [www.oecd.org/edu/eag2010](http://www.oecd.org/edu/eag2010). All tables and graphs in this year's edition of EAG, as well as for past editions, are also available online as Excel files, at the same address as the publication. All tables can also be accessed directly by entering the Statlink address listed at the bottom of each table in EAG.

## 2 NEW ZEALAND'S INVESTMENT IN EDUCATION

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Although spending per student is below average OECD levels at most levels of education, total education expenditure as a percentage of GDP is above the OECD average. If we relate the spending per student to our GDP per capita level, we find New Zealand's spending is a little below the OECD average.

The share of education expenditure met by the government is slightly below average. Nevertheless the government devotes a higher proportion of its spending to education than most OECD countries. Relative to GDP, government education spending is above average, particularly at tertiary level where it includes a relatively high proportion of student support.

### **Expenditure on educational institutions**

Although spending per student is below average OECD levels at most levels of education, total education expenditure as a percentage of GDP is above the OECD average. If we relate the spending per student to our GDP per capita level, we find New Zealand's spending is a little below the OECD average.

Education spending<sup>1</sup> per student in New Zealand is below the OECD average for all but ISCED 4<sup>2</sup> (post-secondary non-tertiary) level of education, where spending per student was more than 50% above the average. Over all levels of education from primary to tertiary, New Zealand's spending per student on education of US\$6226<sup>3</sup> is 24% below the OECD average. Spending too was further below that of other Anglophone countries such as Australia, Ireland and the United Kingdom, with which we sometimes compare ourselves. This largely reflects our lower economic resources: our GDP per capita in the reference year was 18% below the OECD mean and further below other Anglophone countries.

Apart from ISCED 4, New Zealand's spending comes closest to reaching the OECD mean in pre-primary education, where it is 5% below the mean. This figure relates to the 2007/08 year, the first year of 20 Hours ECE.

When we relate the same education expenditure to GDP, we find New Zealand spends an above average percentage. In 2007 (2007/08 is the base year for New Zealand), New Zealand's expenditure was 5.9%, above the OECD average of 5.7%. This level places it 10<sup>th</sup> highest among OECD countries.

A long time series of data is not available for total education expenditure for New Zealand. We can note though, across the OECD, education spending since 2000 has increased slightly faster than GDP. However, in the five years prior to 2000, it had grown slightly less. Some significant fluctuations have occurred in some countries. Underlying those results are the influence of demographics and the significance of the relative size of the population of compulsory schooling age. In the reference year, the share of population aged 5-14 in New Zealand was higher than all but Mexico, Turkey, Chile and Iceland. This is reflected in a slightly higher than average percentage of GDP being spent in New Zealand in primary and secondary education. At tertiary education level, our education expenditure<sup>4</sup> as a percentage of GDP is in line with the OECD average. At pre-primary level, our expenditure relative to GDP

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<sup>1</sup> Education expenditure measured here is spending on educational institutions. It thus excludes student support spending, which does not constitute expenditure from a national viewpoint and spending made by individuals to other parties, such as purchase of educational materials not through institutions.

<sup>2</sup> Broadly this covers advanced certificate education programmes. A relatively small proportion of education is delivered at this level.

<sup>3</sup> This is measured in US\$ purchasing power parity terms for the 2007/08 year.

<sup>4</sup> The measure presented here is based on expenditure on educational institutions, which approximates expenditure on educational inputs. It excludes transfer payments, such as student support payments. However, student support payments are included in most of the indicators relating to public expenditure.

is below average, though that reflects an earlier starting age of compulsory (primary) education in New Zealand than in many countries.

Education spending levels should be compared with demographic differences in mind. Demographic shifts over the past decade have been more marked in other countries than in New Zealand; further significant shifts are expected. EAG notes an expected decline in the population aged 5-14 over the period 2000-2020 in 27 out of 36 member and partner countries, yet significant increases in others. These changes are significant as the 5-14 age group covers compulsory schooling where participation and expenditure is most intense. EAG notes the differing challenges that these increases and decreases will bring.

For New Zealand, EAG reports a slight decline expected in the 5-14 age population between 2010 and 2020, but more recent projections by Statistics NZ point to a moderate increase of the order of 8%. Greater changes are expected in Australia, Sweden and the United Kingdom with increases over 10%, and in Japan, Korea and Mexico, where declines of more than 15% are expected.

In EAG OECD observes a correlation between spending per student on education institutions and GDP per capita. The correlation is stronger at primary and secondary levels than at tertiary. Taking the correlation into account, it appears that New Zealand spends closer to what might be expected relative to its ability to pay, but below OECD average levels.

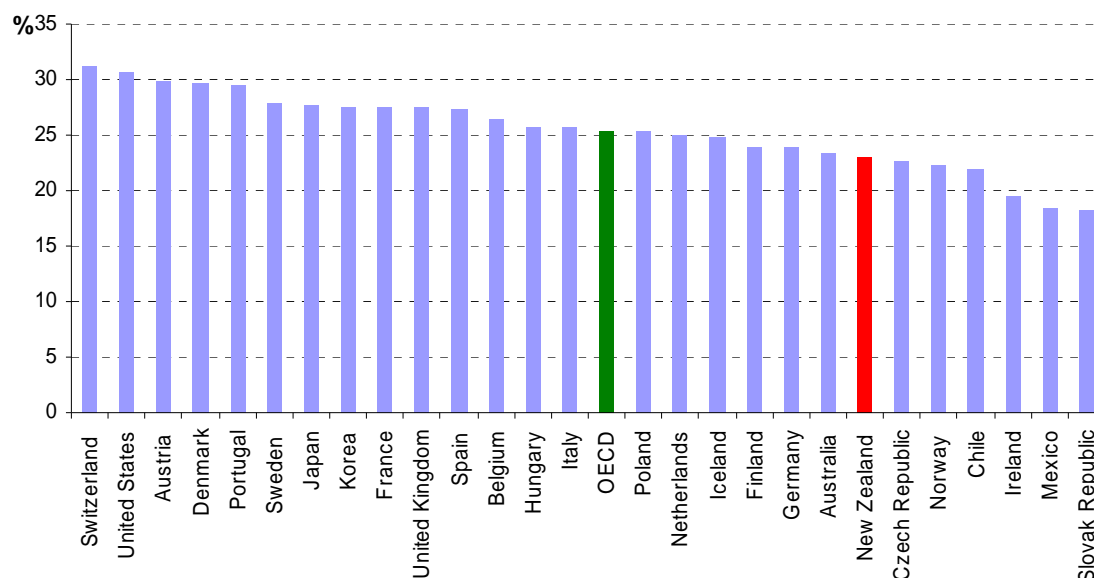
This is borne out in a measure of education expenditure that is not affected by relative wealth or demographic factors, the average expenditure per student relative to GDP per capita. This measure also enables an assessment across countries of our relative expenditure on different levels of education.

On this indicator, New Zealand expenditure is highest relative to other countries at the pre-primary and post-secondary non-tertiary levels, where it is above average. The pre-primary level is 19% – that is, expenditure per student amounts to 19% of our GDP per capita. This is 7% higher than the corresponding OECD level of 18%. At primary, secondary and tertiary levels, New Zealand's expenditure according to this measure is about 10% below the OECD average in each case. Overall (across education levels from primary to tertiary), New Zealand's expenditure is 23%, which is 9% below the OECD average of 25%.

The overall level of spending measured by this indicator is on a par with Australia and close to that of Finland (24%), often the setter of performance benchmarks. It is well below the highest spending – United States (31%) and also the United Kingdom (27%) – but well above Ireland (19%).



Figure 1: Annual expenditure per student relative to GDP per capita (primary to tertiary education) (2007)



See source Table B1.4 in EAG 2010 for full notes.

### Public expenditure on education

In New Zealand about 81% of total education expenditure is funded from government sources. This is slightly below the OECD average of 82.6%. It is also around the middle of a wide range, with around one third of countries' governments funding more than 90% of total education expenditure and almost one third funding less than 75%, including Australia, the United Kingdom and the United States.

With the advent of 20 Hours ECE<sup>5</sup>, the government share is now well above the OECD average in pre-primary education, ten percentage points higher (89.2% compared to an average 79.7%). At other levels it is slightly lower than average. Public expenditure at tertiary level, though below average (65.7% compared to an average of 69.1%), has grown more rapidly than in most countries: growth since 2000 is fourth highest in the OECD.

In interpreting these figures it is relevant to note the impact of international students. Fees paid by these students form part of the private funding that is measured; to the extent that we are interested in the public/private funding split as a measure of overall government support for education as a sector, international students depress the public expenditure proportion. As New Zealand has an above average proportion of international students in the tertiary sector, it is likely that it lowers the tertiary public funding proportion relative to the OECD average.

As a proportion of overall government expenditure, education spending<sup>6</sup> in New Zealand is one of the highest in the OECD: only Mexico and Turkey report higher proportions. That reflects a low level of public expenditure relative to GDP: New Zealand's 32.1% in the reference year was higher than only Australia, Chile, Korea, Mexico and the Slovak Republic.

New Zealand's public education expenditure as a percentage of GDP is in line with the OECD average. At levels below tertiary (excluding pre-primary education), it is slightly above and at tertiary level equal to the OECD average. Here we are measuring expenditure on educational institutions, a proxy for expenditure on educational inputs. When student support payments, such as student loans and student allowances, are taken into account (these constitute

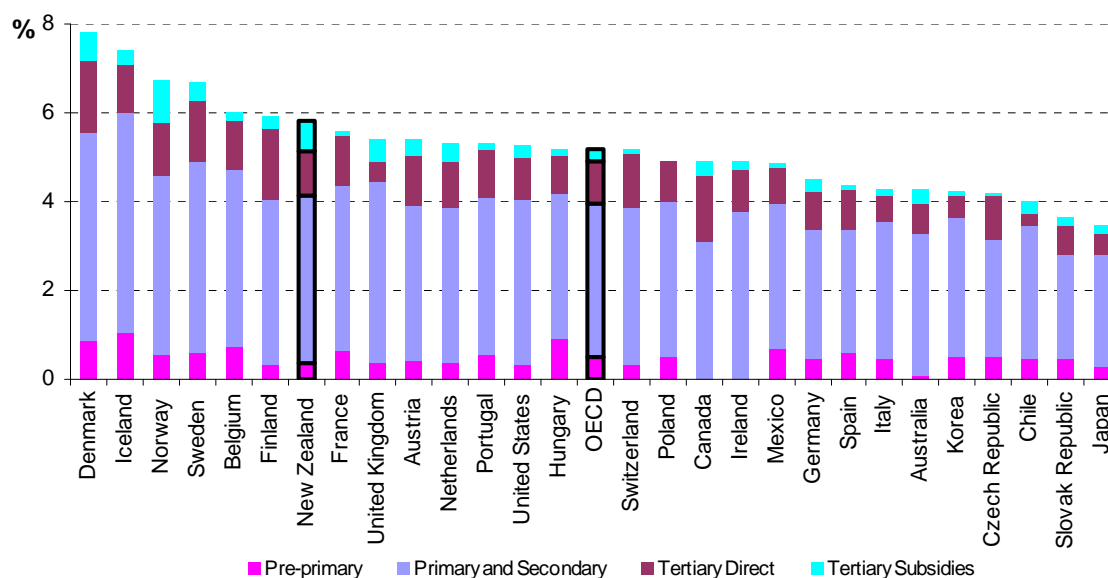
<sup>5</sup> This is the first year in which the impact of 20 Hours ECE has been reported in Education at a Glance.

<sup>6</sup> The proportion of total spending report here differs slightly from other measures reported by the Ministry and The Treasury due to slight differences in the definition of education expenditure.



expenditure from a public accounts perspective, though not a national accounts perspective), New Zealand's public expenditure on tertiary education, 1.7% of GDP, is much higher than the OECD average of 1.2%. It is notable that overall only Nordic countries (Denmark, Finland, Iceland, Norway and Sweden) and Belgium record higher levels of public expenditure on education according to this measure.

Figure 2: Public expenditure<sup>7</sup> on education as a percentage of GDP (2007)



See sources Table B4.1 and Table B5.3 in EAG 2010 for full notes.

New Zealand's high level of public expenditure on tertiary education needs to be qualified by recognition of the treatment of student loan borrowings which are recorded in full in this expenditure measure. They amount to almost 30% of the recorded tertiary public expenditure. An outcome of this is that a relatively high proportion of New Zealand's public tertiary education expenditure, measured according to this broader measure, is channelled via students rather than institutions.

OECD countries spend, on average, 19.5% of their public budgets for tertiary education on financial aid to students. New Zealand spends double this proportion. The high proportion in New Zealand is intended to maintain the diversity and open access of the New Zealand tertiary education system by providing students with access to tertiary education, regardless of their financial situation.

Other countries with a significant proportion of expenditure, also in the form of student loans, such as Chile, Norway and the United Kingdom, have a similar distribution of public expenditure to New Zealand. Some of New Zealand's public expenditure in the form of subsidies to students is earmarked for tuition fees. For example, around 62% of student loan borrowing by students is for the purpose of paying tuition fees. As a result, the indicator based on the distribution of public funding between institutions and students does not provide an accurate measure of how public resources are used for educational inputs.

Sources and further information on this section:

EAG 2010, Chapters B1 to B7.

EAG 2010 available online at [www.oecd.org/edu/eag2010](http://www.oecd.org/edu/eag2010)

<sup>7</sup> Includes public subsidies to households, in particular student support such as student loans.

### 3 HOW MANY IN OUR POPULATION ARE STUDYING?

More of our under fives are in early childhood education, and more of our adults are in post-secondary education than in other OECD countries, but fewer of our 15 to 19 year-olds are enrolled beyond the first year of upper secondary.

New Zealand has one of the lowest enrolment rates of 15 to 19 year-olds in school education, and the rate of upper-secondary graduation (the production of tertiary-ready school leavers) is also below the OECD average. While the rate at which school leavers transition directly to tertiary study is above the OECD average, a particular characteristic of New Zealand's system is the high delayed entry and participation of adults in tertiary education. Entry to vocational study in particular, is among the highest in the OECD<sup>8</sup>.

Despite high entry into tertiary study, New Zealand has one of the lowest percentages of entrants who complete their programme. New Zealand has an unusually high proportion of part-time students, particularly at older ages, and at vocational levels, where completion rates are lower. When completion rates for full-time students are compared, New Zealand ranks above average.

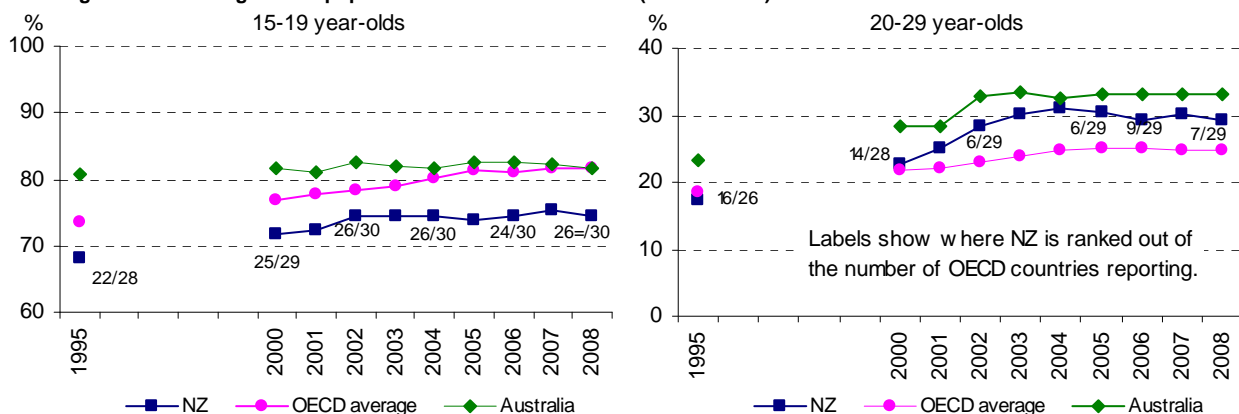
With low upper secondary enrolment and graduation, high rates of entry and enrolment at diploma level and above, but very low completion, New Zealand produces what appears to be one of the highest rates of graduates. This rate is boosted by those adults entering and graduating from tertiary education later in adulthood, and by international graduates. When adjusted for these factors, New Zealand probably has about an average graduation rate.

EAG comparisons provide us with a picture of the relationship between how much of our population is entering, participating in, and completing different levels of education, and the rate at which New Zealand is subsequently producing graduates.

#### Enrolment

At pre-school ages, New Zealand has relatively high participation, 10<sup>th</sup> highest in the OECD at 91% compared with an OECD average of 72%. This, in part, reflects the universal education focus of our early childhood education system, compared with other countries which separate care only from education programmes – particularly for under threes. At ages 15 to 19 however, participation in education remains low. The percentage of 15-19 year-olds in education has remained relatively constant around 74% or 75% in recent years, while the OECD average has increased from 77% in 2000 to 82% in 2008. Ranking 26<sup>th</sup> out of 30 countries, the percentage of New Zealand 15 to 19 year-olds in education is one of the lowest in the OECD.

Figure 3: Percentage of the population enrolled in education (1995 to 2008)



See source Table C1.2 in EAG 2010 for full notes.

<sup>8</sup> See section 7 for more on NZ youth.

The low enrolment rate of 15 to 19 year-olds is due to lower retention in schools. The percentage of 16, 17 and 18 year-olds enrolled in school is much lower than the OECD average, while the percentage of 18 and 19 year-olds in post-school education is higher than the OECD average.

In line with this lower enrolment rate, the rate at which New Zealand is producing young people qualified to enter tertiary study ("upper secondary graduation rate") is also slightly below the OECD average (78% compared with 80% – with New Zealand ranked 15<sup>th</sup> out of 26 OECD countries). The rate for males is lower at 67% compared to the OECD average for males of 76%, while the rate for females is higher, at 87% compared to the OECD average for females of 84%<sup>9</sup>. However, more of our 15 to 19 year-olds are in employment or in post-secondary education than is the case for other OECD countries, and more will enter post-secondary study later in life. This 15 to 19 year-old age group is discussed further in chapter 7.

Most of these indicators are based on data for the year 2008. For New Zealand, this reflects a period before the effects of the current economic recession had largely begun to be felt in terms of increased demand for education. These effects are likely to be felt sooner and more significantly by those with lower qualifications, and by younger adults. A special section in EAG 2010 (pages 342-3) discusses the impact of the recession on youth.

While retention in schools may be lower than the OECD average, entry to, and participation in, post-secondary education remains high. Entry is often later in adulthood. The percentage of 15 to 19 year-olds in post-secondary study is higher than is the case in many other OECD countries. The percentage of 20 to 29 year-olds in education is the 7<sup>th</sup> highest in the OECD, while at older ages, New Zealand, along with Australia, has one of the highest rates of enrolment in education in the OECD. New Zealand's relative performance in this regard is helped by our traditionally open access for mature students, as well as higher levels of adults with few or no school qualifications entering tertiary study via lower-level post-secondary study.

The enrolment rate for 20 to 29 year-olds rose significantly in the 1990s and early 2000s. This rise was greater than the rise in many other OECD countries and our ranking consequently rose from around 16<sup>th</sup> in 1995 to 6<sup>th</sup> in 2003. However, since 2003, the enrolment rate for 20 to 29 year-olds has remained about the same, near 30%.

The OECD "entry rate" indicator measures the percentage of a population entering post-secondary education for the first-time. New Zealand traditionally has had one of the highest entry rates. However, OECD traditionally includes international students among those entering tertiary education for the first time. This can have a distorting impact, which can be significant for those countries with high proportions of international students, such as New Zealand and Australia. The rate of entry to degree-level study was 72% (5<sup>th</sup> – with international students included), but reduced to 58% with international students excluded. Adjusted rates are not provided for many countries, but for many of these countries the impact of international students on their entry rate will be negligible. But even with international students removed, New Zealand has a higher percentage of its population entering tertiary study than the unadjusted OECD average (58% compared with 56%). At doctorate level, the impact of international students is more significant; the entry rate reduces from 2.5% (about the OECD average) to 1.3%.

Entry to diploma level study is particularly high in New Zealand. With international students removed, New Zealand (at 38%) is ranked 2<sup>nd</sup> in terms of entry rates to diploma-level study,

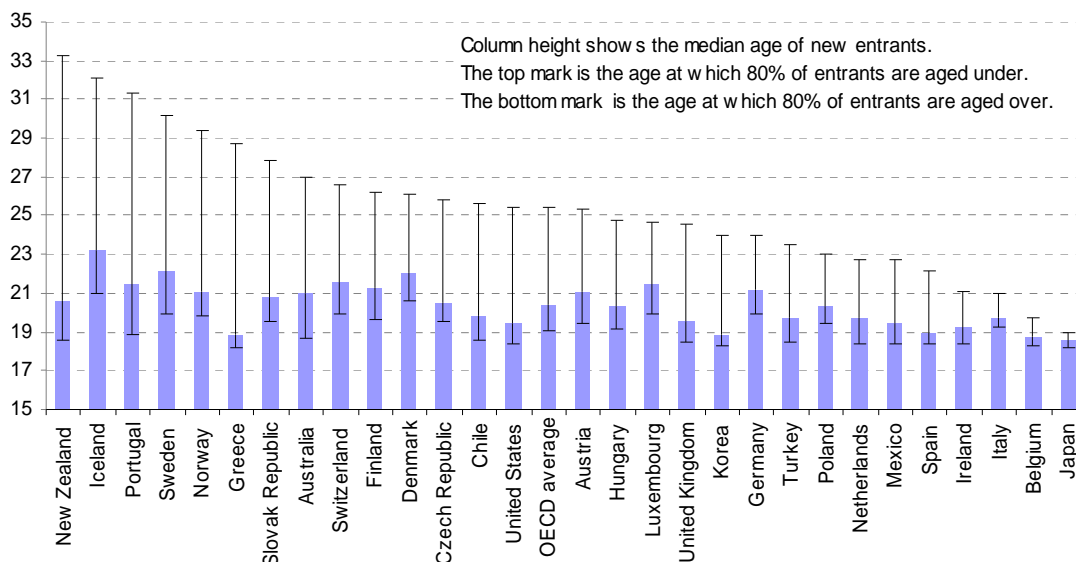
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<sup>9</sup> In NZ's case, this rate represents the proportion of a 'typical' age cohort that has gained for the first time a qualification that will allow them to enter diploma-level study or above. For school ages this mainly represents NCEA level 2. NZ's rate is boosted by a relatively higher percentage of first-time upper secondary-level-equivalent graduation occurring in post-secondary settings—that is, adults, in particular, women with no school qualification gaining a level 1-3 certificate in a tertiary education organisation.

when compared to countries with their international students included. The OECD average rate of entry to diploma-level study (with international students included) was 16%.

Entry rates are also affected by limitations in their construction that serve to artificially inflate results for those countries with higher levels of older students entering tertiary study for the first time. New Zealand has the oldest age profile for degree entrants in the OECD. Half of New Zealand students who entered degrees for the first time were aged 20 or over, while 20% of first-time entrants to degrees were aged 33 or above.

Figure 4: Distribution of ages at which students first enter degree study (2008)



See source Table A2.3 in EAG 2010 for full notes.

A new indicator in EAG 2010 (A5) compares the contribution of non-formal learning for adults. New Zealand had the second highest rate of 25 to 64 year-olds participating in either formal or non-formal learning at 67%, compared with the OECD average of 41%. Our rate is influenced by a particularly high level of participation in very short types of non-formal learning, such as short seminars and workshops. While we had relatively more adults involved in non-formal learning, on average they spent less time, 47 hours per year, compared with the OECD average of 79 hours.

## Completion

While entry to, and participation in, post-secondary education is high in New Zealand, relatively fewer people complete their studies. New Zealand ranked 21<sup>st</sup> out of 23 countries, in terms of the percentage of first degree entrants who completed their programme, and 15<sup>th</sup> out of 17 countries in terms of diploma entrants who completed their programme.

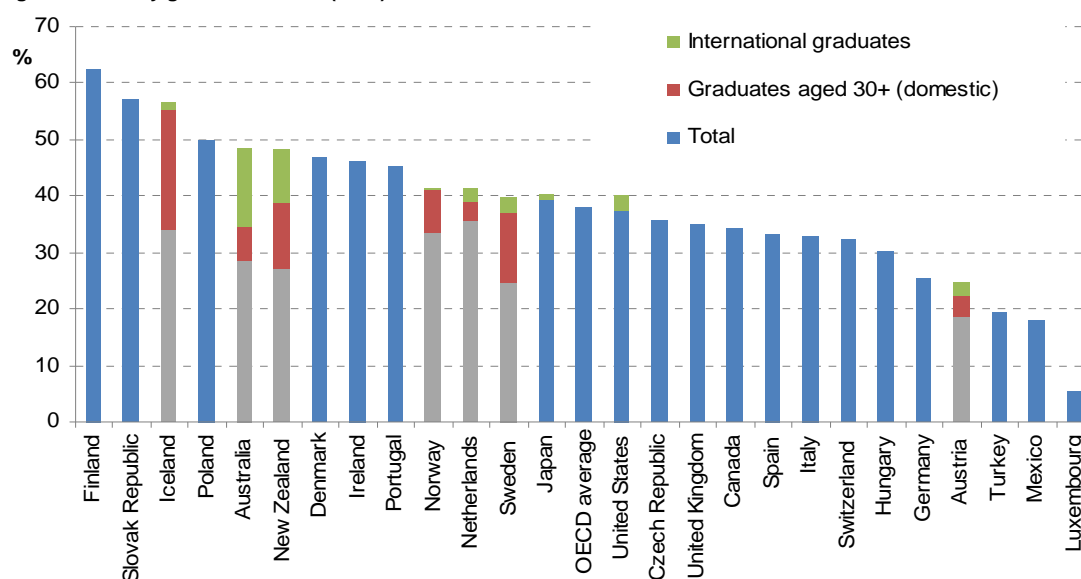
New Zealand's performance is significantly affected by its high proportion of students who study part-time, where we have one of the highest rates in the OECD. New Zealand's degree completion rate increases from 57% to 74% when viewed for full-time students only, and of the 12 countries that can report full-time rates, New Zealand ranks 3<sup>rd</sup>, and above the average of 70%. Part-time students not only take longer to complete, but fail to complete their qualification at much higher rates than full-time students. Some part-time students, particularly those at older ages and at diploma level, enrol in one or two papers only. This may suggest, for some at least, that gaining a qualification is not their intention. In OECD completion rate statistics, they are counted as drop-outs, even if they successfully completed all the courses they set out to achieve.

EAG also compares "graduation rate". While this sounds similar to "completion rate" discussed above, it instead measures the rate at which a country is producing new graduates – so is a population-based measure. Historically, this rate has suffered in a similar way to "entry rate" from limitations in its construction that artificially inflate results for those countries with high levels of international students, and higher levels of older students graduating for the first time. While some of our international graduates may stay on and live in New Zealand, many will leave New Zealand after graduation. Graduation rates are based on a “synthetic cohort” which assumes that the number of first-time graduates across different age groups doesn’t change over time. This assumption does not hold as well in NZ where more young people are gaining qualifications than was the case in the past, meaning that there will be fewer older first-time graduates in the future.

EAG 2010, however, now provides rates adjusted for both these factors, which show how significant these distortions were for some countries, in particular New Zealand and Australia. Graduates over 30 make up 13 percentage points of the 48% graduation rate, while international students make up 10 percentage points. New Zealand’s graduation rate for domestic students aged under 30 is 27% (compared with the traditional unadjusted rate of 48%), while Australia’s adjusted rate is 29%.

Not enough countries yet report rates adjusted for their international or older students, so conclusive comparisons are not really possible. However, for many countries the impact of international students on the graduation rate will be negligible. With international students excluded, the graduation rate for New Zealand is about the average OECD rate with international students included.

Figure 5: Tertiary graduation rates (2008)



See source Table A3.1 in EAG 2010 for full notes.

The gain in qualifications through overseas-born adults bringing their qualifications is not covered in EAG, but is likely to be a factor in higher average overall levels of attainment in the population, which are discussed in the next section.

*Sources and further information on this section:*

EAG 2010: Chapters C1 (Participation), A2 (Upper secondary graduation and entry to tertiary), A3 (tertiary graduation), A4 (Tertiary completion rates), A5 (Adults in formal and non-formal learning).

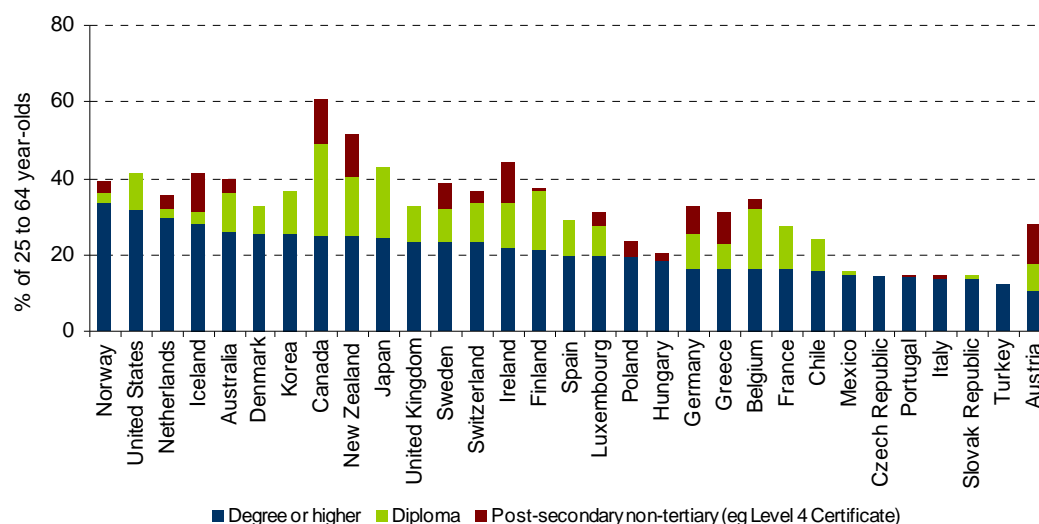
EAG 2010 available online at [www.oecd.org/edu/eag2010](http://www.oecd.org/edu/eag2010)

## 4 HOW EDUCATED ARE WE?

Overall, New Zealand has a high proportion of tertiary qualified adults – in particular, a very high proportion with vocational qualifications. Despite high levels of tertiary qualified adults, one in five adults aged 25 to 34 years does not have a year 12-equivalent school qualification or higher, a rate which is about the OECD average, but higher than some countries we might normally compare with.

One in four NZ adults aged 25 to 64 hold a degree or higher, and New Zealand is ranked 8<sup>th</sup> in the OECD in this measure. New Zealand is ranked 4<sup>th</sup> highest (at 15%) in terms of those who hold a diploma as their highest qualification, and second equal (at 11%) in terms of those who hold a level 4 certificate as their highest qualification. At degree level we sit behind the United States, and on a par with Australia, Canada and the United Kingdom. In terms of vocational attainment New Zealand sits second only to Canada, on a par with Ireland and significantly ahead of Australia, the United States and the United Kingdom. When diplomas and degrees are considered together, New Zealand ranks second in terms of the percentage of its adult population with a tertiary qualification.

Figure 6: Population with Level 4 and above attainment (2008) – sorted by highest degree attainment



See source Table A1.1a in EAG 2010 for full notes.

At the other end of the scale, 28% of New Zealand adults have not attained an upper secondary qualification, about the same rate as the OECD average, on a par with Australia and the United Kingdom (both at 30%), but significantly below Canada (13%) and the United States (11%). This pattern of rankings is similar for both men and women.

Comparisons are compromised to some extent by the treatment of one-year upper secondary level qualifications, which are common in New Zealand, but less common in some other OECD countries. In New Zealand's case, this covers NCEA level 1, school certificate and equivalent qualifications, and comprises 7% of the population. By OECD definitions, these are not considered as upper secondary attainment, and are not included in the figures for NZ upper secondary attainment. Although less common, some countries, such as Australia and the United States, include this group with upper secondary.

In terms of degree attainment, New Zealand's ranking is higher for recent graduates. Our level of attainment is 5<sup>th</sup> highest for those aged 25 to 34, and around 8<sup>th</sup> or 9<sup>th</sup> for older graduates. However, New Zealand has a much older profile for diploma holders, and attainment at this level is 2<sup>nd</sup> highest for 55 to 64 year-olds and 6<sup>th</sup> highest for 25 to 34 year-olds.

Sources and further information on this section: EAG 2010, Chapter A1.



## 5 THE ECONOMIC BENEFITS OF EDUCATION IN NZ

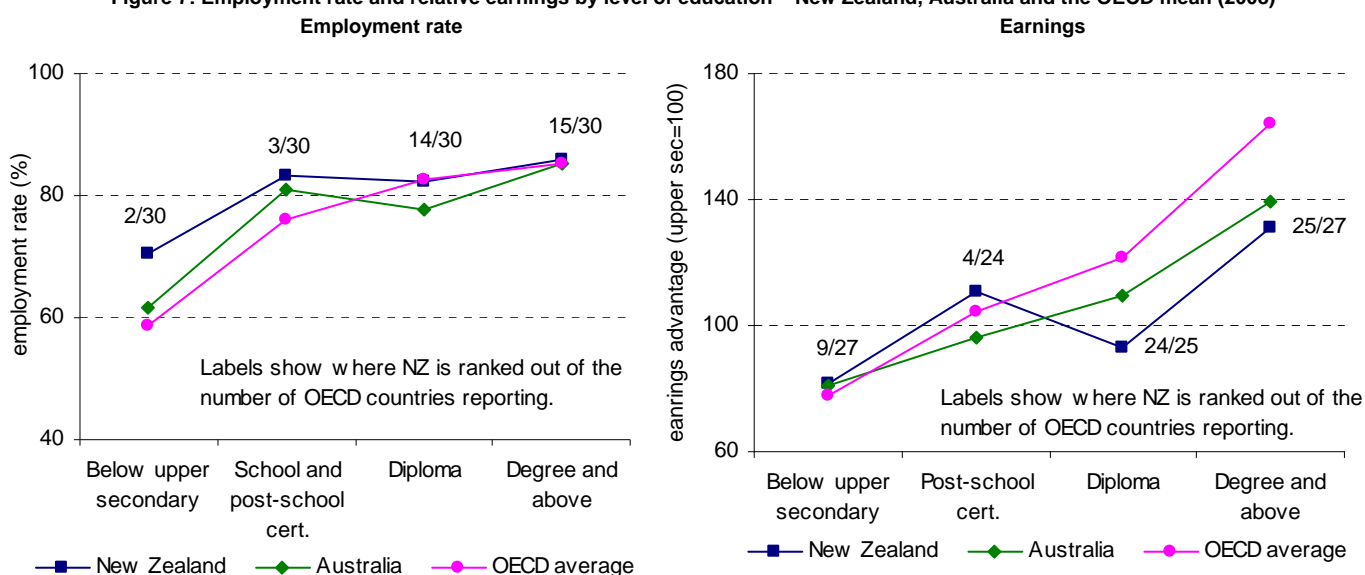
As with all countries in the OECD, employment and earnings increase with level of education, but New Zealand has one of the smallest differences in employment or earnings between adults with school and adults with tertiary qualifications. Private and public returns for investing in a tertiary education are also lower, as are labour costs. New Zealand is in a group of countries, including Scandinavian countries and Australia, which have higher levels of tertiary qualified adults, and lower returns.

This has traditionally been the case in New Zealand, and in part, reflects traditionally good outcomes for those with an upper secondary education in New Zealand. These results relate to 2008, largely before the impact of the economic recession on employment and earnings had begun to be felt in New Zealand, and when levels of employment for those with school qualifications were amongst the highest in the OECD. While employment rates are higher for those with lower levels of education, those with tertiary education have employment rates similar to the OECD average.

### Employment and earnings

EAG results consistently support the benefits of education in terms of higher employment and earnings with higher education. As with all countries in the OECD, employment rates and earnings increase with education in New Zealand. However, New Zealand has a much smaller difference in both employment rates and earnings between its least educated and most educated.

Figure 7: Employment rate and relative earnings by level of education – New Zealand, Australia and the OECD mean (2008)



See sources Table A6.1b (Web only) and Table A7.1 in EAG 2010 for full notes.

In 2008, New Zealand had high employment levels across all education levels and less difference in rates of employment between the least and most educated. New Zealand ranked 6<sup>th</sup> in terms of the percentage of adults aged 25 to 64 in employment (at 80% compared with the OECD average of 74%). Those adults with tertiary qualifications were employed at a similar rate to the OECD average (85% for those with degrees, and 75% for those with diplomas).

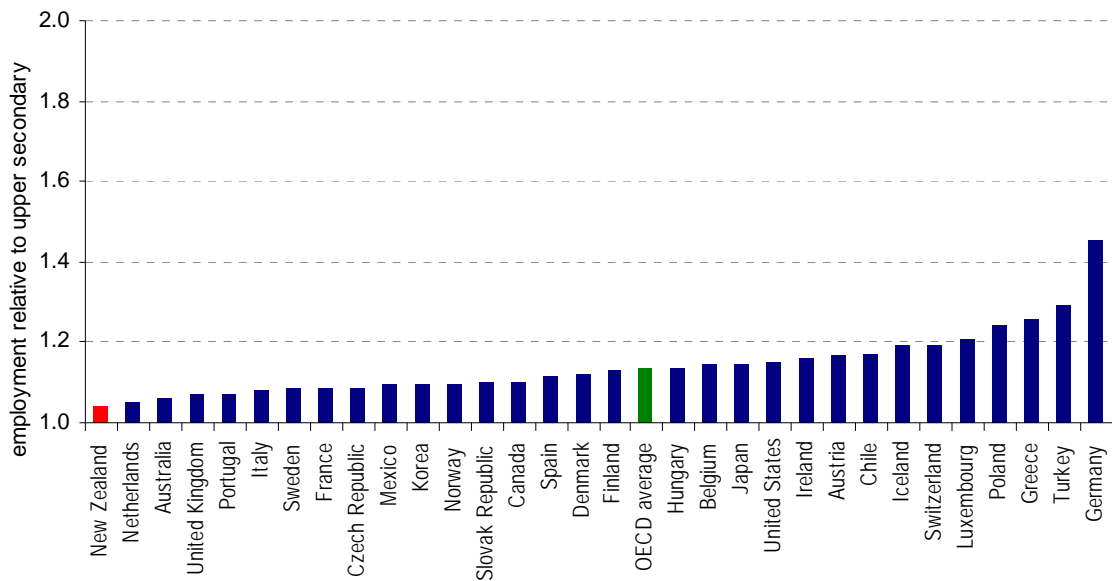
Those with upper secondary qualifications only were much more likely to be employed than similarly educated adults in other OECD countries (83% for those with year 12 or 13 equivalent



qualifications). New Zealand had the 3<sup>rd</sup> highest employment rate for upper secondary educated adults in 2008. Those with year 11-equivalent qualifications (which are not counted as upper secondary) also had relatively high employment (79% compared with 74%).

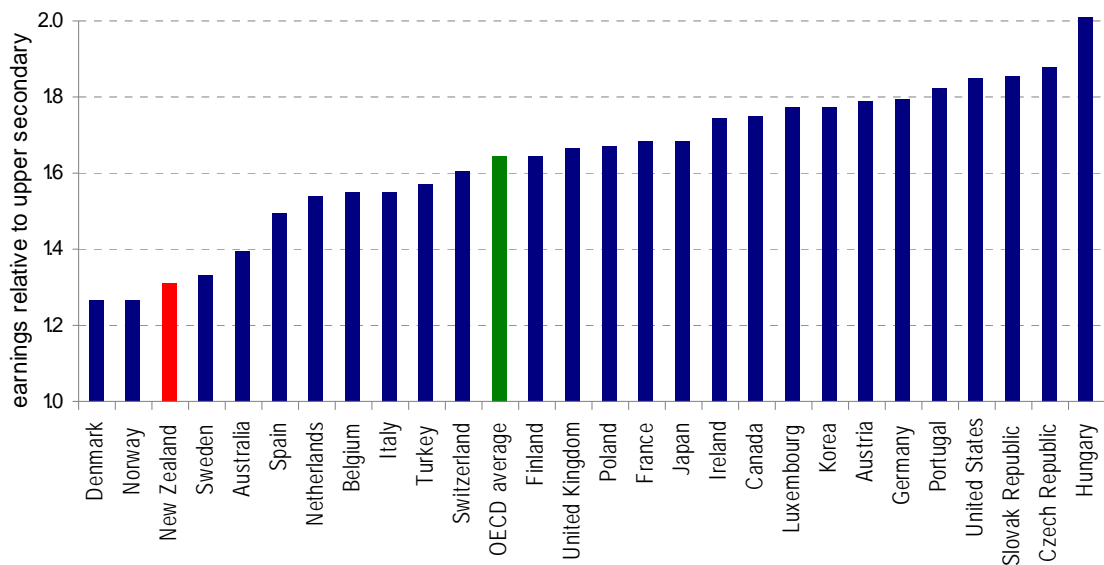
With at least upper secondary education being the norm now across the OECD, EAG presents many of the employment indicators and all of the earnings indicator results relative to those with an upper secondary education. New Zealand has a much lower difference in earnings than other countries between those with an upper secondary education and those with higher levels of education. The premium for a degree or higher qualified adult in New Zealand was 1.37 compared to the OECD average premium of 1.64. New Zealand ranked 3<sup>rd</sup> lowest and alongside Scandinavian countries and Australia in the bottom five.

**Figure 8: Employment rate advantage for degree educated over upper secondary educated (2008)**



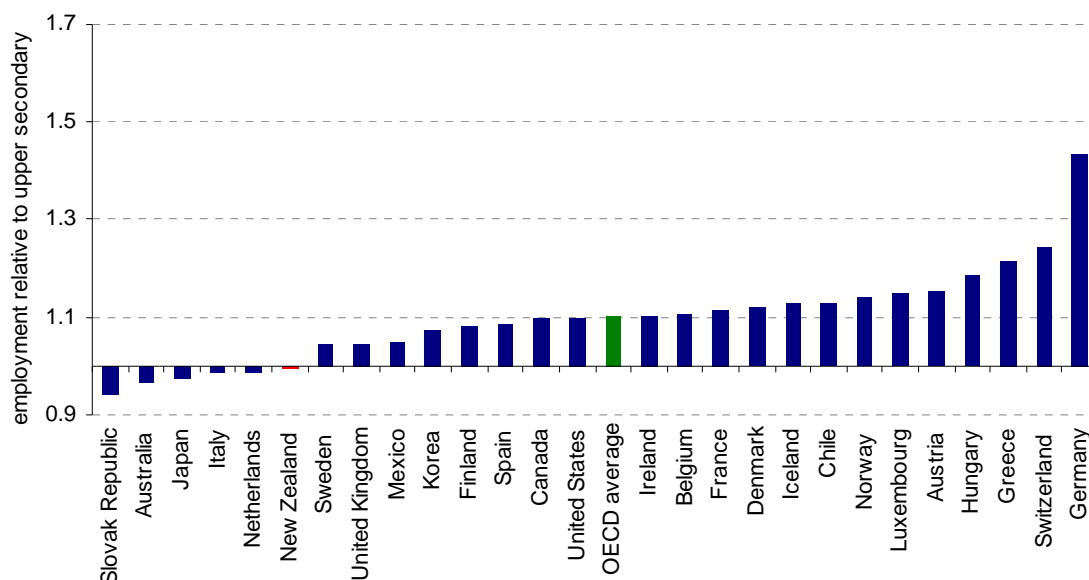
See sources Table A6.1b (Web only) and Table A6.3a in EAG 2010 for full notes.

**Figure 9: Employment rate and earnings advantage for degree educated over upper secondary educated (2008)**



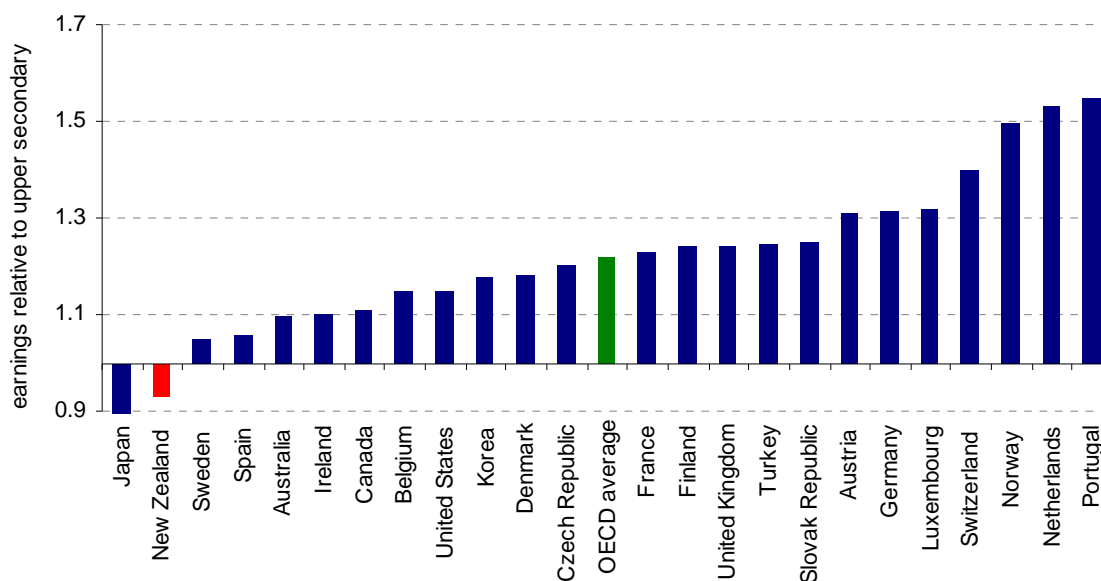
See source Table A7.1 in EAG 2010 for full notes.

Figure 10: Employment rate and earnings advantage for diploma educated over upper secondary educated (2008)



See sources Table A6.1b (Web only) and Table A6.3a in EAG 2010 for full notes.

Figure 11: Employment rate and earnings advantage for diploma educated over upper secondary educated (2008)



See source Table A7.1 in EAG 2010 for full notes.

The premium for a diploma-qualified adult (at 0.93) was second lowest in the OECD (the only country other than Japan where there was no earnings advantage). However, as with Japan, there was a strong gender effect moderating the results for diploma holders. While combined male and female results show a negative premium, when viewed separately, males and females each show a positive advantage over someone of the same gender with an upper secondary education. These combined results for diploma holders are influenced by a large proportion of females, who on average earn less than males. In particular, many diploma holders are women with former nursing and teaching diplomas, whose relative earnings were traditionally lower.

EAG 2010 indicators mostly relate to the year 2008, largely before the impact of the current recession had taken effect on employment. Along with Australia, New Zealand was enjoying relatively high levels of employment, particularly for those with school qualifications, and

demand for vocational work was still high. This partly accounts for the relatively lower education gap in employment and earnings.

Data over time on employment, unemployment and earnings shows that business cycles do impact on relative benefits. Those with lower qualifications are affected sooner and more significantly, acting to increase relative benefits for the higher qualified. Between the period 1997 to 2008, unemployment rates for upper-secondary educated adults varied between 2.0% (in 2007) and 5.1% (in 1998) – a change of 160%. Over the same period, unemployment rates for tertiary educated adults varied between 2.2% (in 2007) and 4.0% (in 1998) – a change of 80%.

New Zealand traditionally, however, has had a lower difference in employment and earnings between those with school and tertiary qualifications. Between 1997 and 2008, the biggest difference in employment rates between tertiary and school-qualified adults was 3.6 percentage points, while the premium for tertiary qualified adults ranged between 1.15 and 1.23.

Age is also likely to be a factor in the poorer results found for diploma holders. Recent Ministry of Education research<sup>10</sup> found, in terms of annual income, that those with diplomas were not significantly different in annual income from those with a level 2-3 school qualification. But among older respondents, those with non-degree tertiary qualifications had lower annual income than those who completed secondary school. This may reflect differences between the expectations for education in the last twenty years, and those in the 1960s and 1970s, when expectations of tertiary participation were lower. When hourly earnings for 15 to 24 year-olds with a non-degree tertiary qualification are compared with those of 15 to 24 year-olds with an upper secondary qualification, New Zealand Income Survey data shows a 15% hourly premium for the tertiary qualified group in 2008.

New Zealanders born overseas also have an influence on the results. People born overseas have poorer outcomes than those born in New Zealand with the same level of qualification. In part, this reflects the fact that the overseas-born group includes many people for whom English is not a first language. Reflecting immigration policy, recent immigrants are more likely than New Zealand-born to hold tertiary qualifications, and the higher proportion of overseas-born in the tertiary qualified group lowers the earnings of the tertiary group relative to those with upper secondary qualifications.

Adults without any school qualification remained at a significant disadvantage across all OECD countries. New Zealand adults with no school qualification fared a little better than other countries in 2008, with employment rates above the OECD average (68% compared with 62%) – some 18 percentage points less than those with a degree or higher. Their earnings were, on average, 82% of those with upper secondary as their highest attainment, again a little better than the OECD average.

New Zealand females with a degree or higher were 1.15 times more likely to be unemployed than New Zealand males with a degree or higher. This difference was larger than that of Australia, the United States, the United Kingdom or Canada, but less than the OECD average 1.24. There was no difference in unemployment rates between men with diplomas and women with diplomas. New Zealand women with less than year 12 school qualifications were 1.25 times more likely to be unemployed than equivalently educated men. This was the second lowest gender difference across OECD countries for adults with less than year 12 school qualifications.

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<sup>10</sup> Scott (2010) Social and economic indicators of education [www.educationcounts.govt.nz/publications/tertiary\\_education](http://www.educationcounts.govt.nz/publications/tertiary_education).

## Returns on investment in tertiary education

Individuals and governments invest in education in the promise of a positive financial return. The measure used in EAG to compare returns is the Net Present Value approach, which provides an estimate of the present value of an investment's future cash flows net of the initial investment, discounted at a 3% real interest rate.<sup>11</sup>

Figure 12 shows that, on this basis, both private and public returns to education are positive across all OECD countries. Figure 12 also shows that compared with other countries, returns are lower in New Zealand. The net present value in US dollars of the private return from an investment in tertiary education was the second lowest in the OECD, while the public return was 4th lowest.

Figure 12: Private and public returns for investing in a tertiary education (2008)

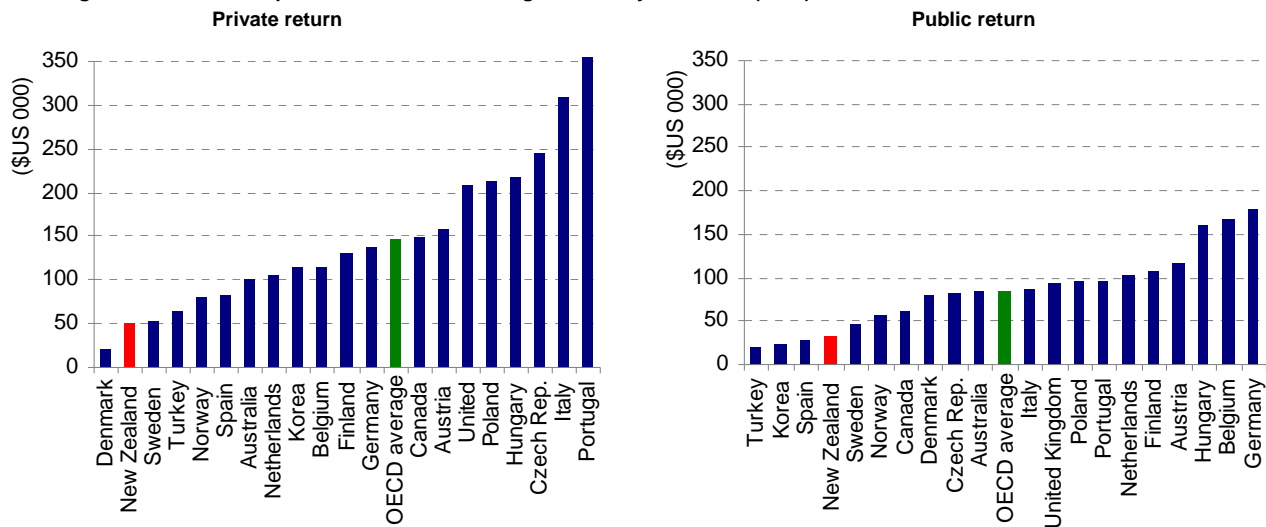
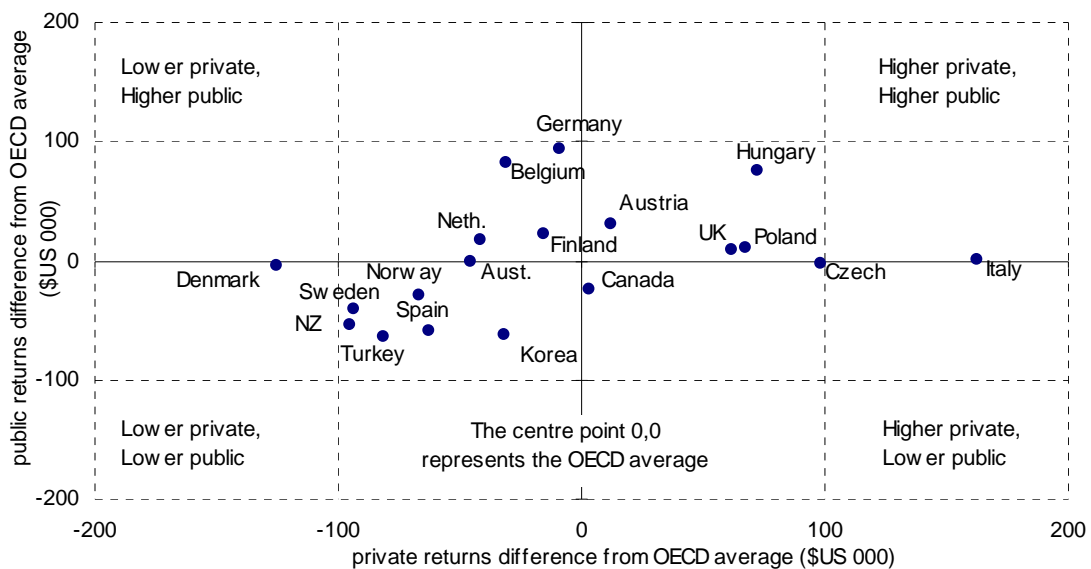


Figure 13: Private and public returns for investing in a tertiary education – relative to average OECD returns (2008)

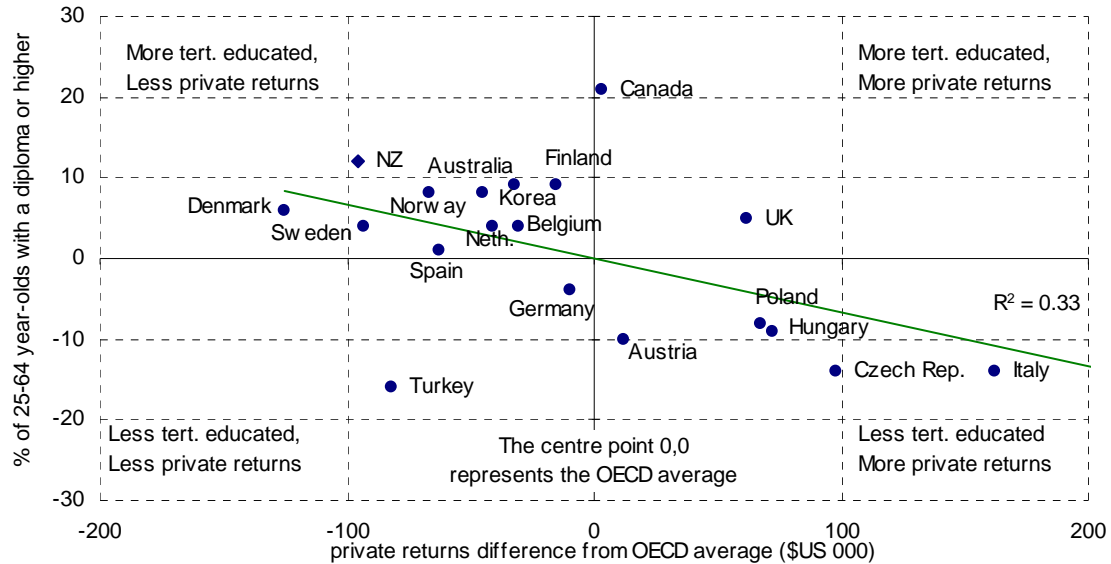


See source Chart A8.1 in EAG 2010 for full notes to both Figures 12 and 13.

<sup>11</sup> For a full description of the approach used see EAG, chapter A8, in particular, page 141.

New Zealand is grouped with a set of countries that compared to the OECD average have both high levels of tertiary attainment in their population and lower private and lower public returns (Figures 13 and 14). These countries include most Scandinavian countries, Spain and Australia.

**Figure 14: Tertiary education attainment and private returns for investing in a tertiary education – relative to average OECD returns (2008)**

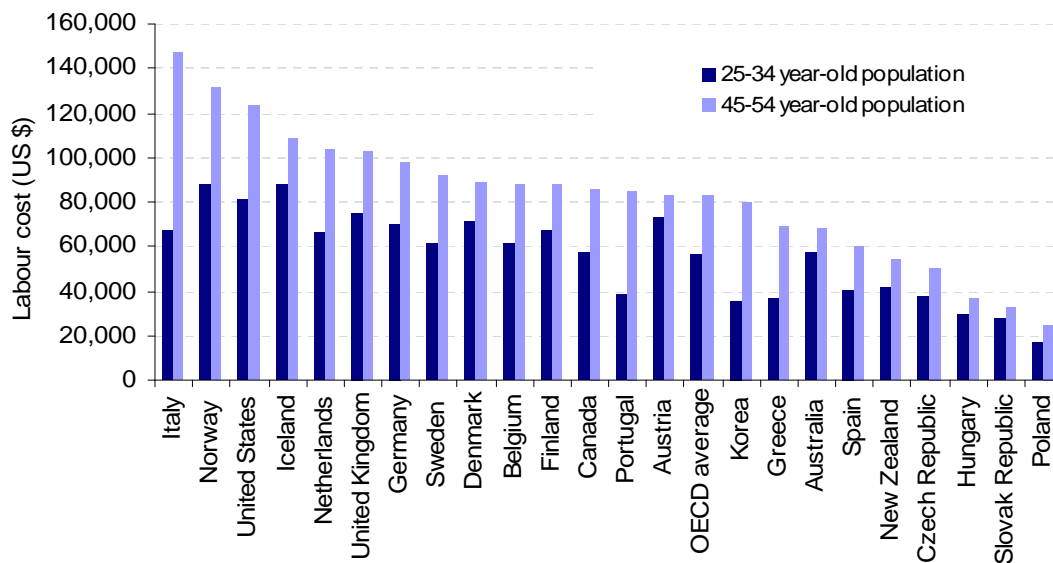


See sources Table A1.3a and Chart A8.1 in EAG 2010 for full notes.

### Labour costs

A new indicator in EAG 2010 compares the labour cost for employing a full-time full-year worker. In line with relatively lower earnings, labour costs for a tertiary educated full-time full-year worker are also low. Figure 15 shows the cost for a recent graduate (at \$41,700 US, ranked 9<sup>th</sup> lowest) versus a more experienced graduate (at \$54,600 US, ranked 5<sup>th</sup> lowest). The graph also shows that New Zealand, along with Australia, has a relatively smaller difference between the cost of a recent graduate versus a more experienced tertiary graduate.

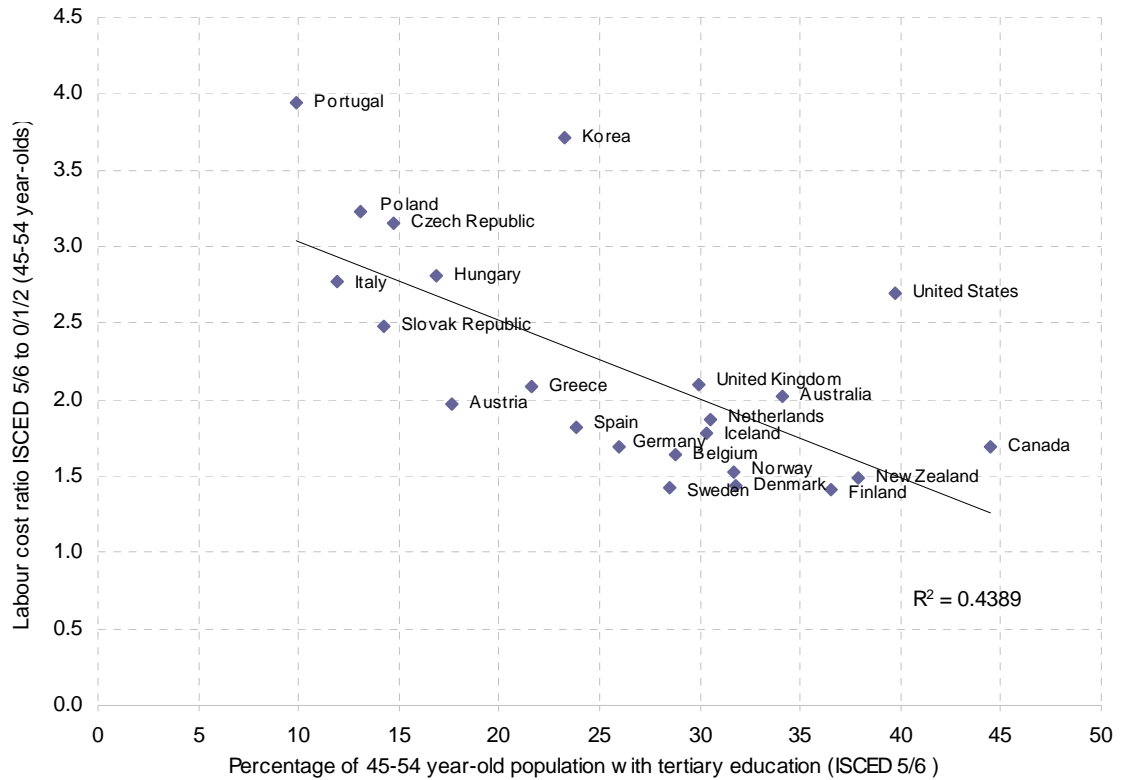
**Figure 15: Annual labour cost employing a recent versus experienced male tertiary graduate (2008)**



See source Chart A10.3 in EAG 2010 for full notes.

EAG 2010 also compares levels of attainment in the population with labour cost (Figure 16). Again, New Zealand is closest to a block of countries including the Scandinavian countries, and to a lesser extent Australia. There is a strong negative association between attainment and labour cost, which along with Figure 14 is suggestive of a relationship between the supply of tertiary educated individuals and lower earnings and lower labour cost. While high supply may be reflected in lower, but still positive, returns, very high returns can indicate undesirable skill shortages.

Figure 16: Labour cost ratio and attainment levels for adults aged 45-54 (2008)



See source Chart A10.5 in EAG 2010 for full notes.

*Sources and further information on this section:*

EAG 2010, Chapters A6 (Employment), A7 (Earnings), A8 (Returns), A10 (Labour costs).

EAG 2010 available online at [www.oecd.org/edu/eaq2010](http://www.oecd.org/edu/eaq2010)

## 6 THE SOCIAL BENEFITS OF EDUCATION IN NZ

Health status and interest in politics in New Zealand increase with level of education as in other OECD countries. New Zealand has one of the highest levels of self-reported health status across all levels of education, and the smallest difference between least and most educated. We also have a more uniform interest in politics; New Zealanders with low qualifications have more interest in politics than similarly-educated adults in other countries, while tertiary educated adults have less; and overall, we are about average.

First introduced in 2009, EAG 2010 includes three social indicators: health status, interest in politics, and interpersonal trust – and compares differences by education level across OECD countries. New Zealand data is available for the first two of these. All three indicators generally show a positive relationship with education, increasing as level of education increases.

Compared with other OECD countries, New Zealand has one of the highest levels of self-reported health status across any level of education, and along with Ireland and Sweden the smallest gap between least and most educated. Around 82% of adults with below upper secondary education rated their health as very good or excellent – the highest in the OECD, where the mean was 61%. For New Zealand adults with a tertiary education, 92% rated their health as at least very good, the 3<sup>rd</sup> highest in the OECD, where the average was 83%.

New Zealand has a much more uniform interest in politics across education levels than is the case in other OECD countries. Interest in politics is higher for those with less than upper secondary (ranked 8<sup>th</sup> out of 27 countries), about average (ranked 12<sup>th</sup>) for those with upper secondary education, and below average for tertiary educated (ranked 25<sup>th</sup>).

Figure 17: Percentage of adults aged 25-64 reporting their health as at least very good – by level of education (2008)

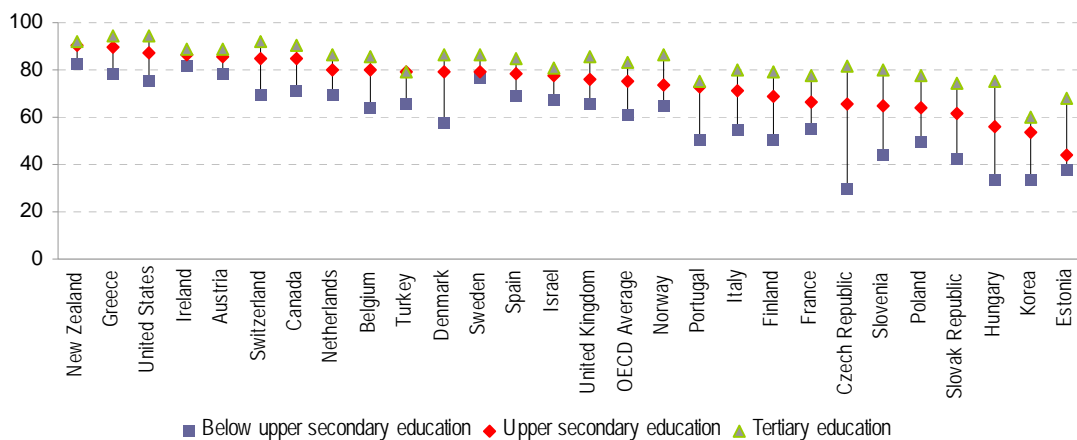
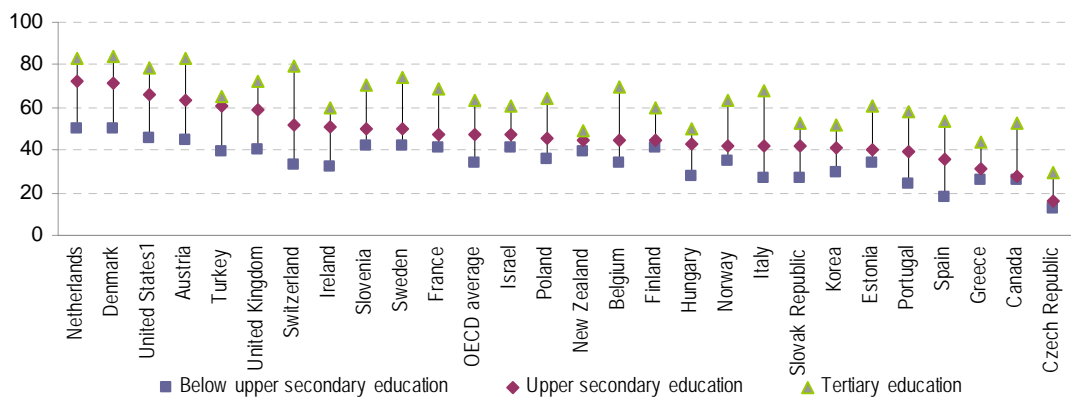


Figure 18: Percentage of adults expressing interest in politics – by level of education (2008)



Sources and further information on this section: EAG 2010, Chapter A9. Figure 15: Table A9.1; Figure 16: Table A9.2.



## 7 OUR YOUTH

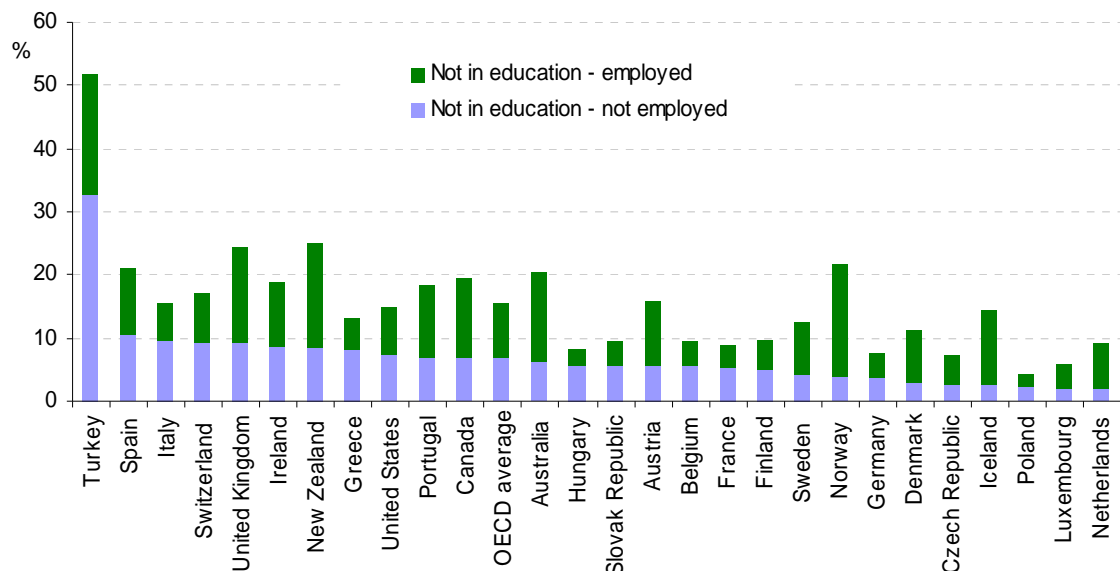
Fifteen to 19 year-olds in New Zealand do not stay on at upper secondary as long as they do in other countries. It is more common for our youth to leave after one year of upper secondary than it is in other OECD countries, where at least two years of upper secondary is more common. Our youth are more likely to get a job, or move to post-secondary study, than youth in other countries, but even so, 8.4% of our 15 to 19 year-olds were not in education or employment in 2008, the 7<sup>th</sup> highest rate in the OECD.

Many New Zealanders delay, or decide later in life, to do post-secondary study; we have one of the highest entry and enrolments rates for vocational or degree study at older ages. By age 29, New Zealanders have spent about as much time in education as the OECD average, and our attainment rates – especially at diploma level – remain some of the highest in the OECD. Having said this, one in five 25-34 year-olds do not have a year 12 equivalent school qualification, about the OECD average but higher than many countries we would compare with.

The percentage of 15-19 year-olds in education (either secondary or tertiary) has remained relatively constant between 72% and 75% since 2000, while the OECD average has gradually increased each year from 77% to 82% in 2008. Ranking 26<sup>th</sup> out of 30 countries, the percentage of New Zealand 15 to 19 year-olds in education is one of the lowest in the OECD.

In line with lower enrolment rates, the rate at which New Zealand is producing young people qualified to enter tertiary study ("upper secondary graduation rate") is also below the OECD average (78% compared with 80% – and ranked 15<sup>th</sup> out of 26 OECD countries). The rate for males is lower at 67% compared to the OECD average for males of 76%, while the rate for females is higher, at 87% compared to the OECD average for females of 84%<sup>12</sup>. While more of our youth are staying on to year 12 or 13 than in the past – in particular, since the introduction of NCEA in 2002 – NZ still has relatively more of its youth leaving school after year 11 than in other countries. One-year upper secondary qualifications are less common in other OECD countries, and in OECD terms are not considered as upper secondary graduation.

Figure 19: Percentage of 15 to 19 year-olds not in education by whether employed or not (2008)



See source Chart C3.2a in EAG 2010 for full notes.

<sup>12</sup> This rate includes adults doing post-secondary study equivalent to school level, so the graduation rate for school youth is lower still.

While enrolment rates may be low, more of our 15 to 19 year-olds are in employment or post-secondary education than is the case for other OECD countries. New Zealand had the third highest employment rate for 15 to 19 year-olds who weren't otherwise in education, and the second highest when those also in education were included. More youth transition more or less directly to post-secondary study than is the case for 15 to 19 year-olds in other countries; 3% at age 16 (ranked 1<sup>st</sup>), 7% at age 17 (ranked 5<sup>th</sup>), 34% at age 18 (ranked 6<sup>th</sup>), and 44% at age 19 (ranked 8<sup>th</sup>). However, despite higher transition both to employment and post-secondary, 8.4% leave education and do not enter employment. This rate (sometimes referred to as "not in education, employment or training", or "NEET") was the 7<sup>th</sup> highest in the OECD in 2008.

While enrolment and completion in schools may be relatively lower than the OECD average, entry to and participation in post-school education remains high. The percentage of 15 to 19 year-olds in post-school study is higher than is the case in many other OECD countries. The percentage of 20 to 29 year-olds in education is 7<sup>th</sup> highest in the OECD, while at older ages, New Zealand, along with Australia, has one of the highest rates of enrolment in education in the OECD.

Most of these indicators are based on data for the year 2008. For New Zealand, this reflects a period before the effects of the current economic recession had largely begun to be felt in terms of increased demand for education. These effects are likely to be felt sooner and more significantly by those with lower qualifications, and by younger adults. A special section in EAG 2010 (pages 342-3) discusses the impact of the recession on youth.

Some of these 15 to 19 year-olds may decide to continue study later in life. New Zealand has the oldest age profile for degree entrants in the OECD. Half of New Zealand students who entered degrees for the first time were aged 20 or over, while 20% of first-time entrants to degrees were aged 33 or above. A NZ 15 year-old can expect to have had an additional 6.7 years in education by the time they reach age 30. This is about equal to the OECD average. They can also expect to have had two years neither in education or employment, which again, is about the OECD average.

Attainment levels remain high in New Zealand, and while the contribution of recent immigrants to this is not reported, it is likely that many youth who leave school early, do return to successfully complete tertiary qualifications later in life. Having said this, one in five 25-34 year-olds do not have year 12 equivalent school qualification, about the OECD average but higher than many countries we would compare with.

*Sources and further information on this section:*

EAG 2010, Chapters C3 (Youth transitions), C1 (Participation), A2 (Upper secondary graduation and entry to tertiary), A3 (tertiary graduation, A4 (Tertiary completion rates).

EAG 2010 available online at [www.oecd.org/edu/eag2010](http://www.oecd.org/edu/eag2010)

## 8 NZERS IN TERTIARY STUDY OVERSEAS & OVERSEAS TERTIARY STUDENTS IN NZ

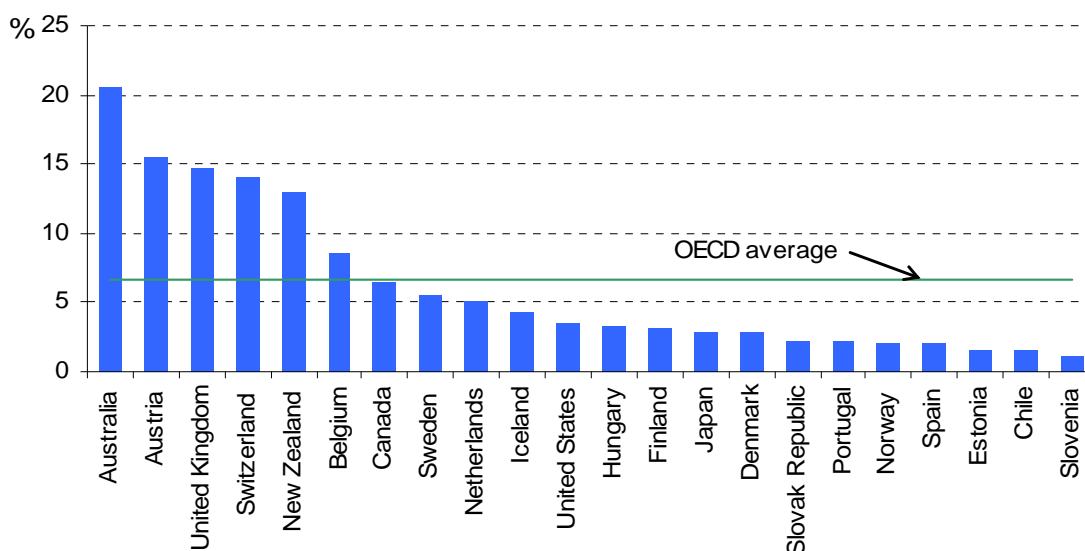
New Zealand is a net importer of tertiary students; many more come to NZ for tertiary study, than leave NZ for tertiary study overseas. While numbers declined at diploma and degree level between 2005 and 2008, they increased at postgraduate levels, dramatically so at doctorate level. In 2008, we had the 5th highest proportion of our tertiary student body that came from overseas and we were the 12th largest market in absolute market share terms. Fewer than 5,000 NZ citizens were recorded as studying overseas – nearly half of these in Australia, and nearly 90% when the United States, the United Kingdom and Canada are added.

Nearly 60,000 international students<sup>13</sup> were enrolled in tertiary education in New Zealand in 2008, up significantly from 8,200 in 2000, but down since 2005. We had the 5<sup>th</sup> highest proportion of our tertiary student body that came from overseas. Some 12.5% of our diploma students and 12.4% of our degree students in 2008 were international students. We rank 2<sup>nd</sup> and 5<sup>th</sup> respectively in these proportions.

While numbers declined at diploma and degree level between 2005 and 2008, they increased at postgraduate levels, dramatically so at doctorate level, since the introduction of domestic fees status policy in 2005. Over 31% of our doctorate students come from overseas, the third highest proportion after the UK and Switzerland.

While the United States, the United Kingdom, France, Germany and Australia comprised 50% of the total international student market, New Zealand was still 12<sup>th</sup> largest in absolute market share, with 1.8% of the estimated 3.3 million mobile students worldwide.

Figure 20: Percentage of tertiary students who are international (2008)



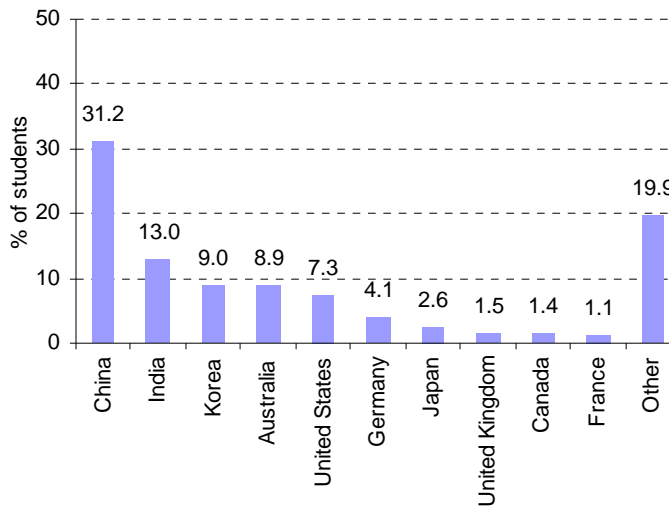
See source Chart C2.1 in EAG 2010 for full notes.

<sup>13</sup> EAG uses the term "international" or "mobile" student to refer to those students whose country of residence, or whose country of prior education is different to the country where they are studying, and the term "foreign" student to refer to those students whose country of citizenship is different. Many of the indicators in EAG relate to "international" or "mobile" students – but indicators on market share and destination relate to foreign students.

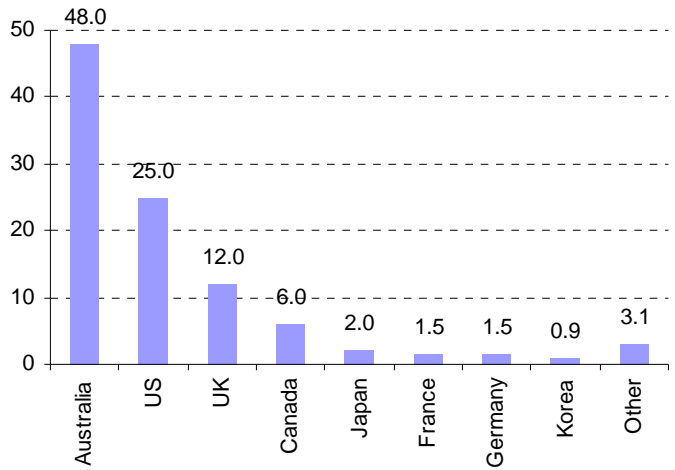
Fewer than 5,000 New Zealanders were recorded as studying overseas in 2008. Nearly half of these went to Australia and around 90% when students to the United States, United Kingdom and Canada are added. Students going to Japan and Korea to study made up a further 3% as did New Zealand students studying in France and Germany.

**Figure 21: International student mobility (2008)**

**a) Where our international students come from**



**b) Where NZ students study overseas**



See sources Table C2.2 and Table C3.3 in EAG 2010 for full notes.

*Sources and further information on this section:*

EAG 2010, Chapter C2 (Who studies abroad and where?).

EAG 2010 available online at [www.oecd.org/edu/eag2010](http://www.oecd.org/edu/eag2010)

## 9 STAFFING RESOURCES

Teacher salaries and student to teacher ratios provide further measures of the resources devoted to education. Base teacher salaries for New Zealand teachers compare favourably with those of their OECD counterparts in benchmarks OECD uses, though are below OECD averages in absolute terms. New Zealand student to teacher ratios compare favourably with OECD average levels at pre-primary and upper secondary levels, but are higher at other levels of education.

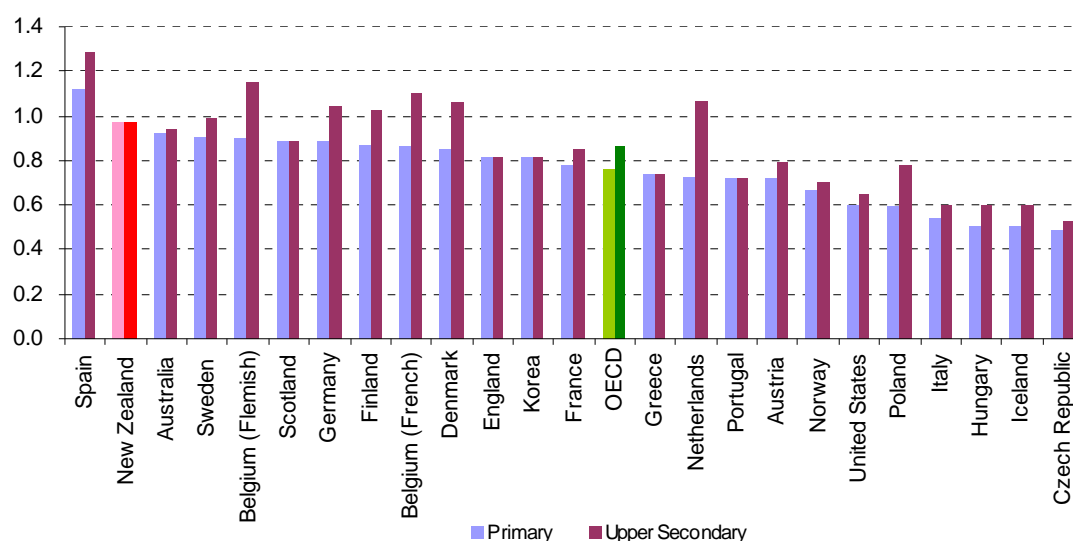
EAG provides statistics on indicative salary rates of various types of teachers. While information on additional payments, such as management units, is collected, the main salary indicators are based on base salary rates only. Further work by OECD will shortly extend the scope and usefulness of their salary data collection.

Current indicators continue to illustrate a relatively short salary scale for New Zealand, and base salary rates that compare relatively favourably against other internal benchmarks, though are below average OECD levels in absolute terms.

The short scale for base salaries in New Zealand from minimum to maximum is matched only in Scotland and Denmark. After 15 years, a benchmark measure for EAG, New Zealand salaries have grown, based on base salary scales, by more than the OECD average. However, the eventual gap between minimum and maximum base salaries is lower in New Zealand.

In absolute terms, New Zealand teacher salaries are lower than the OECD average, which reflects lower than average GDP per capita. Relating salary levels to GDP per capita, we find that the benchmark base salary after 15 years' experience is 42% above the average GDP per capita in New Zealand for both primary and secondary teachers.<sup>14</sup> Across the OECD, salary rates average only 16% and 29% above GDP per capita for primary and secondary teachers respectively.

Figure 22: Ratio of teachers' salary after 15 years of experience to earnings for full-time full-year workers with tertiary education aged 25 to 64 (2008)



See source Table D3.1 in EAG 2010 for full notes.

<sup>14</sup> OECD figures relate to upper secondary education.

This year OECD presents the relativity between the benchmark base salary after 15 years' experience with the average full-time earnings of a tertiary-qualified adult and compares this across countries. The New Zealand teacher base salary rates are slightly below this tertiary benchmark with a ratio on 0.97 for both primary and secondary teachers. Only in Spain does the primary teacher salary benchmark exceed the benchmark for tertiary qualified. New Zealand's ratio is the second highest, a little above that of Australia. At upper secondary level, New Zealand is above the OECD average of 0.86 and is sixth highest.

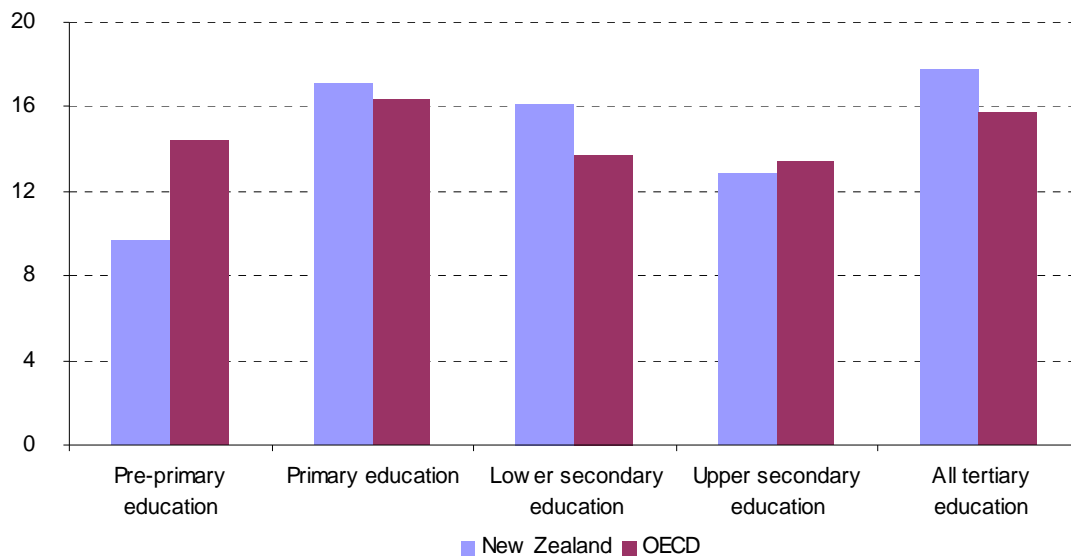
### Teaching staff ratios

Teaching staff ratios provide another resource indicator and may, as EAG notes, require trade-offs against other forms of teaching investment<sup>15</sup>, such as teacher salaries, professional development and teacher training, and teaching technology.

Teaching staff ratios vary across education levels, reaching a minimum on average across the OECD at upper secondary education level. New Zealand exhibits a similar pattern with relatively low ratios at upper secondary level. However, even lower ratio is recorded at pre-primary level, where the ratio of 9.6 students is fourth lowest in the OECD, behind the Nordic countries, Denmark, Iceland and Sweden.

At other levels of education, New Zealand teaching ratios are higher than average OECD levels, except at upper secondary education. At both lower secondary and tertiary education levels, New Zealand's ratios of 16.2 and 17.8 respectively are noticeably higher than the OECD averages of 13.7 and 15.8. At upper secondary education level, its ratio of 12.8 is somewhat lower than the OECD average of 13.5.

Figure 23: Ratio of students to teaching staff in educational institutions (2008)



See source Table D2.2 in EAG 2010 for full notes.

Sources and further information on this section:

EAG 2010, Chapters D1-D6 (Learning environment and organisation of schools).

EAG 2010 available online at [www.oecd.org/edu/eag2010](http://www.oecd.org/edu/eag2010)

<sup>15</sup> This is similar to the concept of average class size, though differences between student instruction time and teacher working time can lead to significant differences in some countries. New Zealand is currently unable to provide comparable data on average class sizes.