

Desired outcomes

Everybody has the knowledge and skills needed to participate fully in society.
Lifelong learning and education are valued and supported.

Knowledge and skills

Introduction

Knowledge and skills enhance people's ability to meet their basic needs, widen the range of options open to them in every sphere of life, and enable them to influence the direction their lives take. The skills people possess can also enhance their sense of self-worth, security and belonging.

We live in a society where access to information and proficiency with technology are becoming more important. An inclusive society will increasingly require everybody to have high levels of knowledge and skills.

Knowledge and skills include education and training, as well as abilities gained through daily life. The experiences of very young children within their families affect their acquisition and use of knowledge and skills, and influence their capacity to learn. Adults acquire skills through their work and non-work activities,— for example, parenting skills or skills relevant to recreation or leisure activities.

For many people, the acts of learning and mastering new skills are important in themselves. Possession of knowledge and skills can be integral to a person's sense of belonging and self-worth: many people define themselves by what they can "do", not only in employment but elsewhere in life.

Knowledge and skills relate directly to employment decisions and to career choices. Those with relatively few educational qualifications are more likely to be unemployed and, on average, have lower incomes when in work. This affects people's economic standard of living as well as their security and ability to make choices about their lives. Knowledge and skills are important for gaining access to services and for understanding and exercising civil and political rights.

Indicators

Five indicators are used in this chapter. Each provides a snapshot of New Zealanders' acquisition of knowledge and skills at a particular stage in their lives, from early childhood to school-leaving age to adulthood. They are: participation in early childhood education, school leavers with higher qualifications, participation in tertiary education, the educational attainment of the adult population and adult literacy skills in English. The focus of the indicators is on formal education and training. This reflects the importance of formal education and training and also the availability of data – there is little data that captures the contribution of informal, on-the-job training to acquiring knowledge and skills.

The indicators are relevant to current and future social wellbeing. Participation in early childhood education contributes significantly to a child's later development. Going to a kindergarten, kōhanga reo or some other early childhood education service prepares children for further learning, helps equip them to cope socially at school and develops their bodies and minds to better prepare them for adult life. Quality early childhood education programmes can help narrow the achievement gap between children from low-income families and children from more advantaged families.⁴⁸

Students who obtain higher qualifications at school tend to have more options for tertiary education and future employment. Those who leave school early have a greater risk of unemployment or low incomes.⁴⁹

Participation in tertiary education opens up career opportunities and improves the skills people need to participate in society. This has become more important with the growth of industries that require well-educated, highly skilled workforces. It also captures aspects of lifelong learning through participation in tertiary education.

The educational attainment of the adult population indicator provides a broad picture of New Zealanders' possession of knowledge and skills. It is influenced by factors not measured in the other indicators, such as adults gaining new qualifications and new migrants arriving with qualifications.

Literacy is a fundamental skill. A good level of literacy in English, including numeracy and the ability to understand documents and tables, is vital in the workplace and in everyday life.

Participation in early childhood education

Definition

The number of enrolments of children aged 3 and 4 years in licensed early childhood education (ECE) services as a proportion of all 3 and 4 year olds.

Over 90 percent of the enrolments of children aged 3 and 4 years are in licensed ECE services. Licensed services include kindergartens, playcentres, education and care services, te kōhanga reo, home-based services and the Correspondence School. Children enrolled in more than one ECE service will be double-counted. We include an alternative measure which avoids double counting – the proportion of new school entrants (Year 1 students) reporting regular participation in early childhood education immediately before starting school.

Relevance

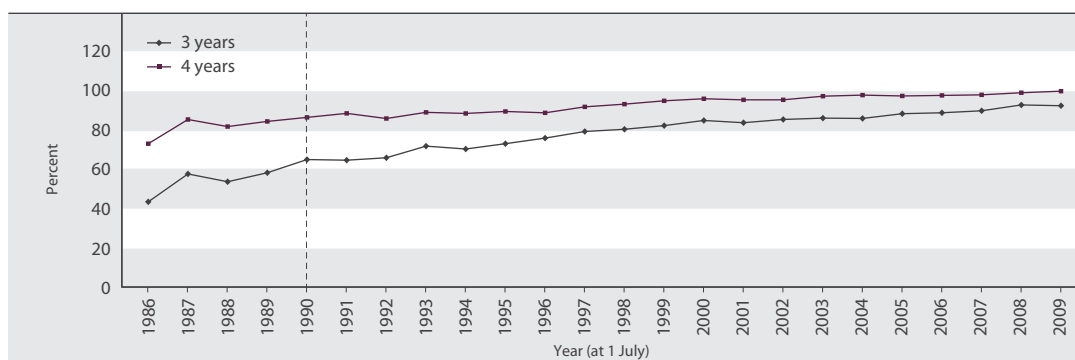
Evidence from New Zealand and international research shows that the early childhood years are vital to a child's development and to their future ability to learn.⁵⁰ Quality early childhood programmes prepare young children socially, physically and academically for entry into primary education and can help narrow the achievement gap between children from low-income families and those from more advantaged families.

1. Enrolment

Current level and trends

At 1 July 2009, the enrolment rate in licensed early childhood education services was 92 percent for 3 year olds and 100 percent for 4 year olds. These figures are similar to 2008 levels of 93 percent for 3 year olds and 99 percent for 4 year olds. Since 1990, the enrolment rate in licensed ECE services has increased by 42 percent for 3 year olds and by 15 percent for 4 year olds.

Figure K1.1 **Early childhood education enrolment rate, 3 and 4 year olds, 1986–2009**



Sources: Ministry of Education; Ministry of Social Development

Notes: (1) Rates in excess of 100 percent are possible because children can be enrolled in more than one service. (2) Includes licensed services only from 1990.

Sex differences

Enrolment in early childhood education varies slightly by sex. In 2009, the enrolment rate for 3 year old children was 94 percent for girls and 91 percent for boys. For 4 year old children, the rates were 101 percent for girls and 98 percent for boys.

Enrolment by type of early childhood education service

In 2009, education and care services (51 percent) and kindergartens (34 percent) had the largest number of enrolments of 3 and 4 year olds in early childhood education. Much smaller numbers of children were enrolled in home-based services (6 percent), playcentres (5 percent), and ngā kōhanga reo (4 percent).

2. Prior participation, Year 1 students

The prior participation rate is an alternative measure that avoids double counting. The percentage of new school entrants who had attended early childhood education services has increased from 91 percent in July 2000 to 95 percent in July 2009, but growth has slowed since 2004.

Ethnic differences

New Zealand European children are the most likely to attend an early childhood education service before entering primary school, followed by Asian children. From 2000 to 2004, the proportions of both Māori and Pacific new school entrants who had attended ECE services increased faster than the rate for New Zealand European new school entrants. Growth in the rate for Māori then slowed, and the rate for Pacific children decreased slightly. In the year to 1 July 2009, increases in early childhood education participation were greater than average for Māori and Pacific new entrants.

Table K1.1 **Early childhood education attendance (%) by Year 1 students, by ethnic group, as at 1 July, 2000–2009**

	European	Māori	Pacific peoples	Asian	Other	Total
2000	95.4	84.8	76.1	89.2	83.0	91.0
2001	96.0	85.3	76.3	89.8	84.1	91.4
2002	96.6	86.5	79.4	92.1	86.6	92.3
2003	97.4	88.4	83.4	92.4	88.9	93.6
2004	97.6	89.3	84.7	94.1	89.4	94.1
2005	97.7	89.9	84.5	95.1	89.9	94.3
2006	98.0	89.9	84.2	96.0	91.7	94.5
2007	98.2	90.6	84.0	96.0	93.6	94.7
2008	98.3	90.4	84.8	95.3	93.8	94.7
2009	98.5	91.4	85.4	95.6	94.8	95.1

Source: Ministry of Education

Note: These figures exclude cases where attendance was unknown.

Socio-economic differences

Children in low decile schools (those that draw their students from communities with the highest degree of socio-economic disadvantage) are much less likely to have attended an early childhood education service than children in high decile schools. In 2009, 82 percent of new entrants in decile 1 schools had previously attended early childhood education services, compared with 96 percent in decile 5 schools and 99 percent in decile 10 schools.

Regional differences

In 2009, the proportion of Year 1 students who had attended early childhood education services was highest in the Nelson, Canterbury and Otago regions (each 99 percent), and lowest in the Northland (90 percent) and Auckland (93 percent) regions.

School leavers with higher qualifications

Definition

The proportion of secondary school leavers who left school with a qualification at National Certificate of Educational Achievement (NCEA) Level 2 or above.

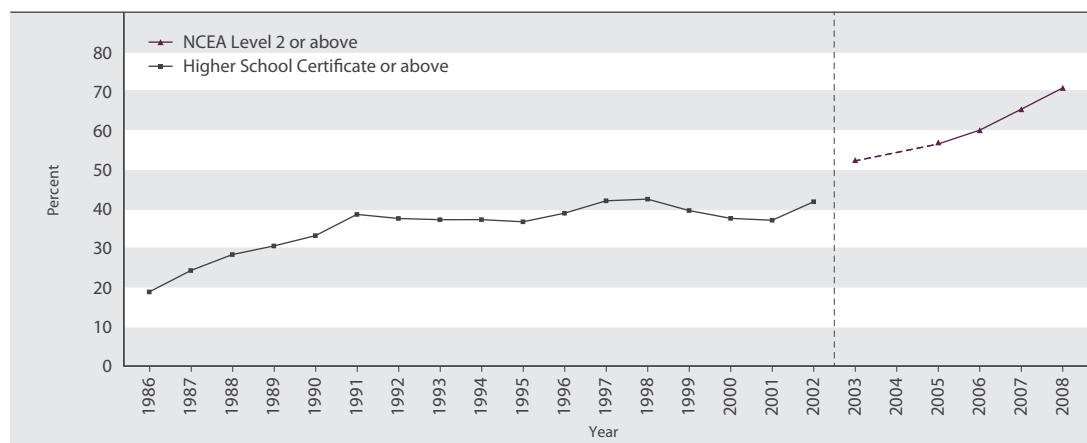
Relevance

Upper secondary school qualifications serve as the foundation for higher (post-secondary) learning and training opportunities as well as the preparation for direct entry into the labour market. Those who leave school early with few qualifications are at a much greater risk of unemployment or vulnerability in the labour force and of having low incomes.⁵¹

Current level and trends

In 2008, 71 percent of school leavers (37,000 students) left school with a qualification at NCEA Level 2 or above, an increase from the 2007 figure of 66 percent (37,000 students).⁵² Because of changes in the qualification structure, it is not possible to compare exactly the attainment of upper secondary school students who left school before 2003 with those who left school in 2003 and later. To illustrate the trend in higher school attainment over the long term, Figure K2.1 includes the proportion of school leavers who left with Higher School Certificate and above for the years 1986 to 2002.

Figure K2.1 **Proportion of school leavers with Higher School Certificate or above, 1986–2002 and NCEA Level 2 or above, 2003, 2005–2008**



Source: Ministry of Education

Notes: (1) A direct comparison cannot be made between rates up to and including 2002 with rates for 2003 on, due to the change in the qualification structure (see Appendix 2 for details). (2) Because of methodological changes, 2004 is not comparable with other years and has been omitted.

Sex differences

Female students are more likely than male students to leave school with an upper secondary school qualification. Between 2007 and 2008, the proportion of school leavers with NCEA Level 2 or above increased for both sexes but there was a slightly larger increase for females than for males. As a result, the sex difference in school attainment widened slightly between 2007 and 2008, from 9.3 percentage points to 9.7 percentage points.

Table K2.1 **Proportion (%) of school leavers with NCEA Level 2 or above, by sex, 2003, 2005–2008**

Year	Males	Females	Total
2003	47.6	57.9	52.6
2005	52.0	62.3	57.1
2006	55.8	64.5	60.2
2007	60.9	70.2	65.5
2008	66.0	75.8	70.9

Source: Ministry of Education

Note: Because of methodological changes, 2004 is not comparable with other years and has been omitted.

Ethnic differences

The proportion of school leavers with upper secondary school qualifications varies widely by ethnic group. Asian students who left school in 2008 had the highest proportion with NCEA Level 2 or above, followed by European school leavers, then Pacific and Māori school leavers. Between 2007 and 2008, there was an increase in the proportion of students leaving with a qualification at NCEA Level 2 or above for all ethnic groups. The increase was greater for Māori and Pacific students than for European and Asian students.

Table K2.2 **Proportion (%) of school leavers with NCEA Level 2 or above, by ethnic group, 2003, 2005–2008**

	European	Māori	Pacific peoples	Asian	MELAA/ Other	Total
2003	57.4	28.8	42.3	75.1	54.2	52.6
2005	63.0	32.7	45.3	79.9	55.8	57.1
2006	65.4	36.7	49.6	82.2	63.5	60.2
2007	70.6	43.9	56.0	84.2	67.0	65.5
2008	75.2	50.4	62.9	85.8	70.3	70.9

Source: Ministry of Education

Notes: (1) Because of methodological changes, 2004 is not comparable with other years and has been omitted. (2) MELAA stands for Middle Eastern, Latin American, African.

Socio-economic differences

Young people from schools that draw their students from low socio-economic communities are less likely than other young people to attain higher school qualifications. In 2008, 57 percent of school leavers from deciles 1–3 schools (in the most disadvantaged communities) attained qualifications at NCEA Level 2 or above, compared with 67 percent of those leaving deciles 4–7 schools and 82 percent of those leaving deciles 8–10 schools.

Regional differences

The Wellington region had the highest proportion (77 percent) of 2008 school leavers with qualifications at NCEA Level 2 or above, followed by Nelson and Auckland (both 76 percent) and Otago (75 percent). The West Coast had the lowest proportion (50 percent), followed by Gisborne (58 percent) and Tasman (60 percent).

Participation in tertiary education

Definition

The proportion of the population aged 15 years and over enrolled at any time during the year in formal tertiary education leading to a recognised New Zealand qualification.

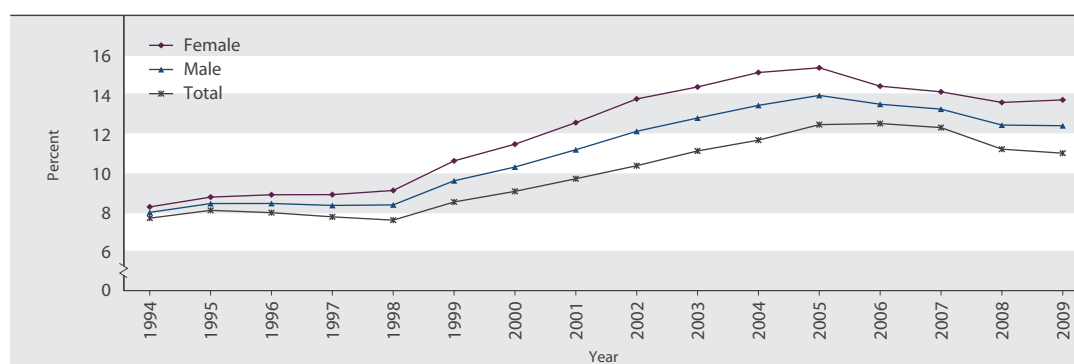
Tertiary education providers include public institutions (universities, polytechnics, wānanga) and private tertiary education providers receiving government funding or approval and registered with the New Zealand Qualifications Authority. Qualifications range from certificates and diplomas to bachelor and postgraduate degrees. Domestic students only are included. Students enrolled at more than one qualification level have been counted in each level.

Relevance The acquisition of a tertiary qualification provides individuals with additional skills and knowledge to participate in society and in the economy.

Current level and trends During 2009, 426,000 people aged 15 years and over were enrolled in formal tertiary education, an increase from 421,000 people in 2008. The age-standardised tertiary education participation rate was 12.4 percent in 2009, about the same as the rate in the previous year (12.5 percent).

Between 1998 and 2005, there was a rapid increase in tertiary education enrolments: the age-standardised participation rate rose from 8.4 percent in 1998 to a peak of 14.0 percent in 2005. Enrolments for certificate-level qualifications have largely driven trends in tertiary participation over the last decade. Participation increased from 2.5 percent in 1998 to 6.2 percent in 2005 for Levels 1–3 certificate courses and from 0.5 percent to 2.3 percent for Level 4 certificate courses. By 2009, participation at these levels had fallen to 4.4 percent and 2.0 percent, respectively. In all other levels of qualification, participation rates remained relatively unchanged between 2005 and 2009. Against the overall fall in participation between 2005 and 2009, the rate of participation in bachelor's degree courses increased slightly, from 3.4 percent to 3.6 percent.

Figure K3.1 Age-standardised tertiary education participation rate, by sex, 1994–2009



Source: Ministry of Education

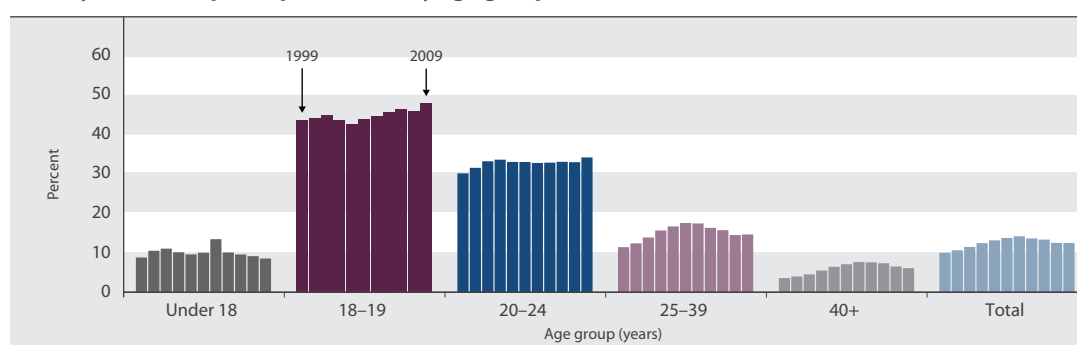
Sex differences

Females are more likely than males to participate in tertiary study: in 2009, the age-standardised participation rate was 13.7 percent for females and 11.0 percent for males. The sex difference widened over the decade to 2004, narrowed somewhat between 2005 and 2007 as participation fell more for females than for males over that period, then widened slightly from 2007 to 2009 as participation fell more for males. In 2009, females were much more likely than males to be studying for bachelor's degrees (4.4 percent and 2.8 percent, respectively) but there was little or no sex difference in enrolments for certificate level qualifications, the most numerous group.

Age differences

Tertiary education participation is highest among 18–19 year olds (47.7 percent in 2009), followed by 20–24 year olds (34.0 percent). Between 2005 and 2008, the participation rate increased slightly for 18–19 year olds, remained steady for 20–24 year olds and declined for all other age groups. In 2009, there was a rise in the rate for 18–19 year olds and 20–24 year olds, perhaps in response to reduced job opportunities for youth following the March 2008 to March 2009 recession.

Figure K3.2 Tertiary education participation rate, by age group, 1999–2009



Source: Ministry of Education

Note: In the under 18 years age group, the figure for 2005 reflects a large number of enrolments in Levels 1–3 certificate courses at institutes of technology or polytechnics in that year.

Ethnic differences

In 2009, the age-standardised tertiary education participation rate was highest for Māori at 17.1 percent. Participation rates were similar for the Asian ethnic group (12.5 percent), Pacific peoples (12.1 percent) and Europeans (11.4 percent).

The Māori age-standardised tertiary education participation rate climbed rapidly from 7.2 percent in 1998 to just under 20 percent between 2003 and 2005. All ethnic groups experienced an increase in tertiary education participation in the first half of the 2000s and a fall in participation between 2005 and 2008, with Māori and Asian ethnic groups experiencing the greatest fall. For Māori, the fall was mainly due to fewer Māori taking certificate-level courses. Between 2008 and 2009, there was an increase in participation at bachelor's degree level for all ethnic groups.

In the peak tertiary education age group, 18–19 years, the Asian and European ethnic groups had considerably higher participation rates than Māori and Pacific peoples in 2009. In the 20–24 years age group the differences between the ethnic groups were much smaller. At older ages, Māori tertiary education participation rates were considerably higher than those of other ethnic groups.

Table K3.1 Tertiary education participation rates (%), by age and ethnic group, 2009

Age group (years)	European	Māori	Pacific peoples	Asian	Total
Under 18	7.9	11.8	7.8	3.3	8.5
18–19	47.4	36.5	42.4	50.2	47.7
20–24	34.9	30.1	28.8	32.1	34.0
25–39	12.7	21.7	15.8	13.2	14.6
40+	4.7	14.1	7.6	8.2	6.1

Source: Ministry of Education

In 2009, the Asian ethnic group had the highest age-standardised rate of participation in bachelor's degree courses (5.0 percent), followed by Europeans (3.5 percent), Māori (3.1 percent), and Pacific peoples (3.0 percent). Pacific females (4.0 percent) and Māori females (3.9 percent) were more likely than European males (2.7 percent) to be enrolled in bachelor's degree courses.

International comparison

There are no robust measures of tertiary education participation across OECD countries. Some indication of New Zealand's relative standing can be gained from the proportion of people enrolled in education at various ages. In 2007, 30 percent of 20–29 year olds (the age group usually enrolled only in tertiary education) were enrolled in education, placing New Zealand seventh out of 29 countries. This was above the OECD median of 24 percent. The New Zealand rate was higher than those of the United Kingdom (17 percent), Ireland (21 percent), the United States (23 percent) and Canada (26 percent), but below the rate for Australia (33 percent).⁵³

At older ages, New Zealand's rate of enrolment in education is much higher than the OECD median (1.6 times higher at ages 30–39 years, twice as high at age 40 years and over).

Educational attainment of the adult population

Definition

The proportion of adults aged 25–64 years with an educational attainment of (1) at least upper secondary school level, and (2) bachelor’s degree or higher.

At least upper secondary school level includes any formal qualification at NCEA Level 1 (or its predecessor, School Certificate) or higher. Bachelor’s degree or higher includes bachelor’s degrees, postgraduate certificates or diplomas, master’s degrees, and doctorates.

Relevance

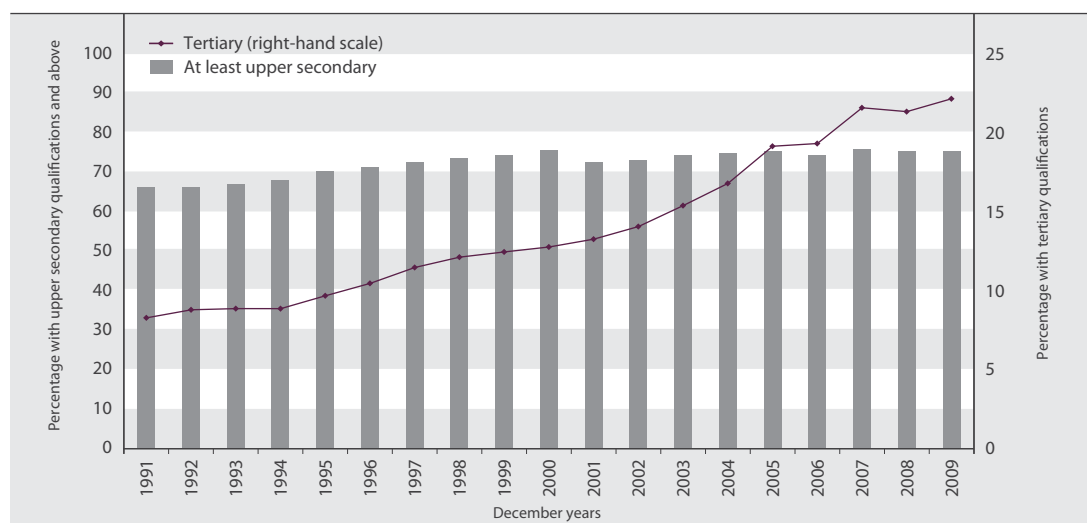
The educational attainment of the adult population is an indicator of the skills available in the economy. The level of formal educational qualifications in the population is a commonly used proxy for the stock of “human capital”, ie the skills available in the population and labour force.

Current level and trends

In the year ended December 2009, 75 percent of the population aged 25–64 years (1.68 million people) had attained an educational qualification at upper secondary school level or above. This was the same proportion as in 2008 but a substantial increase from 62 percent in 1991.

The proportion of adults with a bachelor’s degree or higher qualification rose from 8 percent in 1991 to 21 percent in 2008, and reached 22 percent in 2009 (492,000 people).

Figure K4.1 **Proportion of adults aged 25–64 years with an educational qualification of at least upper secondary level and tertiary level, 1991–2009**



Source: Statistics New Zealand, Household Labour Force Survey
 Notes: (1) Average for December years. (2) At least upper secondary equals NCEA Level 1 (or its predecessor, School Certificate) or higher; tertiary equals bachelor’s degree or higher. (3) Data for 1991–2008 revised by Statistics New Zealand.

Age and sex differences

Younger adults aged 25–34 years are much more likely to have at least upper secondary school qualifications or a bachelor’s degree or higher than adults aged 55–64 years.

Sex differences in educational attainment have narrowed over time. For younger age groups, women are more likely than men to have higher qualifications.

Table K4.1 **Proportion (%) of population aged 25–64 years with higher qualifications, by age group and sex, 2009**

	Age group (years)				Total 25–64
	25–34	35–44	45–54	55–64	
At least upper secondary					
Males	78.8	78.9	75.6	70.1	76.1
Females	82.2	78.2	74.4	61.1	74.6
Total	80.5	78.5	75.0	65.5	75.3
Tertiary					
Males	26.2	22.7	18.9	17.2	21.3
Females	32.2	25.7	18.4	12.8	22.6
Total	29.3	24.2	18.6	14.9	22.0

Source: Statistics New Zealand, Household Labour Force Survey

Notes: (1) Average for December years. (2) At least upper secondary equals NCEA Level 1 (or its predecessor, School Certificate) or higher; tertiary equals bachelor's degree or higher.

Ethnic differences

There are marked ethnic differences in adult educational attainment. In 2009, 79 percent of European adults aged 25–64 years held at least upper secondary school qualifications, compared with 65 percent of Māori adults and 52 percent of Pacific adults. The proportion was 71 percent for the combined Asian, Middle Eastern, Latin American, African and Other ethnic group category. The latter group had the highest proportion of adults with a tertiary degree at bachelor's degree level or above (37 percent), followed by European adults (22 percent), Māori adults (10 percent) and Pacific adults (8 percent). However, while the proportion of adults with a tertiary qualification at bachelor's degree level or above almost doubled in the decade to 2009, it was around two and a half times higher for Māori and Pacific adults.

Table K4.2 **Proportion (%) of population aged 25–64 years with higher qualifications, by ethnic group, selected years, 1991–2009**

	European	Māori	Pacific peoples	Asian/MELAA/ Other	Total
At least upper secondary					
1991	66.2	39.0	31.5	57.3	66.1
1996	72.2	47.3	38.9	62.9	71.2
2001	76.2	58.2	52.7	67.8	72.4
2008	78.9	63.8	49.9	72.4	75.2
2009	79.3	65.4	52.0	71.0	75.3
Tertiary					
1991	8.5	1.3	2.8	19.9	8.2
1996	10.6	2.4	2.1	26.7	10.3
2001	12.9	4.8	5.6	31.5	13.1
2008	20.8	9.5	7.6	37.0	21.2
2009	21.7	10.1	8.3	36.9	22.0

Source: Statistics New Zealand, Household Labour Force Survey

Notes: (1) Average for December years. (2) At least upper secondary equals NCEA Level 1 (or its predecessor, School Certificate) or higher; tertiary equals bachelor's degree or higher. (3) Data for 1991–2008 revised by Statistics New Zealand. (4) People who reported more than one ethnic group are counted once in each group reported. (5) MELAA stands for Middle Eastern, Latin American, African. (6) From the December 2007 quarter, people responding "New Zealander" are included in the Other ethnic group. Before that quarter, they were included in European.

International comparison

In OECD figures for 2007, 72 percent of New Zealand adults had at least upper secondary level qualifications, similar to the OECD median of 73 percent. New Zealand ranked 16th highest out of 29 OECD countries. In the proportion of adults with bachelor's degrees or higher, New Zealand ranked fifth equal (with Denmark and Canada) out of 30 OECD countries, with a rate of 25 percent. This was above the OECD median of 20 percent. Countries that had higher proportions of adults with tertiary qualifications at this level included Norway (32 percent, the highest rate) and the United States (31 percent). Australia (24 percent), the United Kingdom (23 percent) and Ireland (21 percent) had lower proportions than New Zealand.

Among 25–34 year olds, New Zealand ranked fourth with 33 percent having tertiary qualifications at bachelor's degree level or higher. This was above the United States and Australia (31 percent), Ireland (30 percent) and Canada and the United Kingdom (both 29 percent).

New Zealand is among the 25 OECD countries in which females aged 25–34 years are more likely than males of that age to have tertiary qualifications at bachelor's degree level or higher.

Adult literacy skills in English

Definition

The proportion of the population aged 16–65 years with higher literacy skills in English (defined as skills at Level 3 or above), as measured in the 1996 International Adult Literacy Survey (IALS) and the 2006 Adult Literacy and Life Skills Survey (ALL).

Level 3 is a “suitable minimum for coping with the demands of everyday life and work in a complex, advanced society. It denotes roughly the skill level required for successful secondary school completion and college entry”.⁵⁴ Prose literacy is defined as the ability to read and understand continuous texts (such as news stories, editorials, brochures and instruction manuals). Document literacy is the ability to read and understand discontinuous texts (such as charts, maps, tables, job applications, payroll forms and timetables). Numeracy is the ability to read and process mathematical and numerical information in diverse situations.⁵⁵

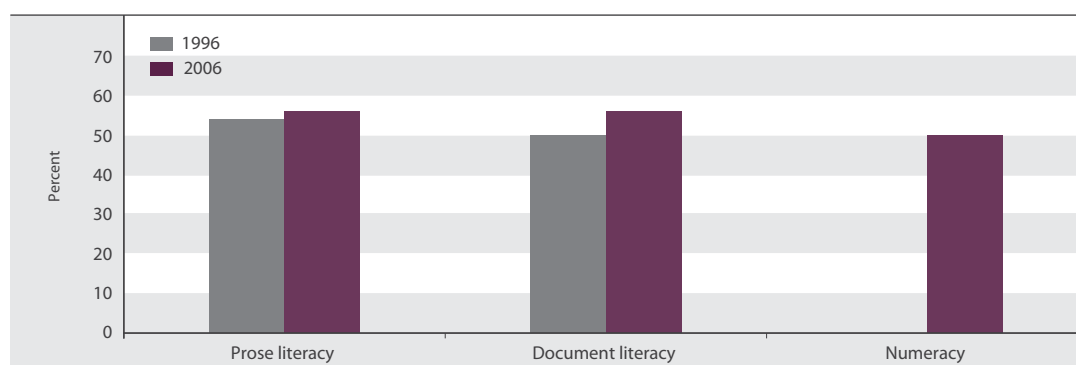
Relevance

The increasing complexity of our society and the need for a more flexible and highly skilled workforce mean individuals need to understand and apply information of varying difficulty from a range of sources to function effectively at work and in everyday life. The IALS and the ALL surveys were designed to measure adult literacy skills in English by assessing proficiency levels, using test materials derived from specific contexts within countries.

Current level and trends

Results from the second international literacy survey in 2006 showed 56 percent of New Zealand’s population aged 16–65 years had higher prose literacy skills (at Level 3 or above), 57 percent had higher document literacy skills and 49 percent had higher numeracy skills. These proportions represent an improvement since 1996, when 53 percent of adults had prose literacy skills at Level 3 and above and 49 percent had document literacy skills at these levels. There is no comparable trend data for numeracy skills.

Figure K5.1 **Proportion of adults aged 16–65 years with literacy skills at Level 3 or above, 1996, 2006**



Source: Satherley P, Lawes E and Sok S (2008b)
Note: Numeracy was measured in the 2006 survey only.

Sex differences

In 2006, males were more likely than females to have numeracy skills at Level 3 or above, but there was no significant sex difference in higher prose literacy. The picture was mixed for document literacy. Overall, there was no significant sex difference in the proportion of adults with document literacy skills at Level 3 or above. However, among young adults aged under 25 years, a larger proportion of females than of males had these skills. The pattern was reversed at ages 45 years and over, with males more likely than females to have higher document literacy skills.

All of the improvement in higher prose literacy between 1996 and 2006 was due to increases for males (from 49 percent to 54 percent). The substantial improvement in document literacy was shared by both sexes: the proportion of adults with skills at Level 3 or above increased from 49 percent to 56 percent for females, and from 50 percent to 58 percent for males.

Table K5.1 **Proportion (%) of adults with literacy skills at Level 3 or above, by age group and sex, 2006**

Age group (years)	Prose literacy		Document literacy		Numeracy	
	Females	Males	Females	Males	Females	Males
16–24	49	44	54	49	40	45
25–34	59	56	60	61	49	57
35–44	63	56	61	62	52	60
45–54	63	61	57	62	45	58
55–65	51	52	43	53	34	51
Total	57	54	56	58	45	54

Source: Satherley P and Lawes E (2008a) Figures 4.1, 4.2, 4.3, and customised data

Age differences

The proportion of adults with literacy and numeracy skills at Level 3 or above was larger at ages 25–54 years than at younger and older ages in 2006. Improvements in higher prose and document literacy between 1996 and 2006 were entirely due to improvements for adults aged 25–65 years. Young adults aged 16–24 years in 2006 were slightly less likely than their counterparts in 1996 to have higher document literacy, and much less likely to have higher prose literacy. However, on an age cohort basis, those aged 25–34 years in 2006 had improved in prose and document literacy relative to 16–24 year olds in 1996.

Table K5.2 **Proportion (%) of adults with literacy skills at Level 3 or above, by age group, 1996, 2006**

Age group (years)	Prose literacy		Document literacy		Numeracy
	1996	2006	1996	2006	2006
16–24	56	47	55	52	43
25–34	52	57	52	60	53
35–44	59	60	54	61	55
45–54	53	62	47	60	51
55–65	42	52	31	48	43
Total	53	56	49	57	49

Sources: Satherley P and Lawes E (2008a) Figures 2.2, 2.4, 2.6; Satherley P, Lawes E and Sok S (2008b)
Note: Numeracy was measured in the 2006 survey only.

Ethnic differences

Across all three domains, a clear majority of New Zealand Europeans had literacy skills at Level 3 or above. Compared to Asian adults in 2006, Māori adults had a larger proportion with prose literacy at Level 3 or above, but a smaller proportion with higher levels of document literacy and numeracy. Pacific peoples consistently had the smallest proportions with skills at Level 3 or above. In 2006, less than one quarter of Pacific adults had prose or document literacy skills at this level and only 14 percent had higher numeracy skills. Between 1996 and 2006, the proportions of New Zealand European, Māori and Asian adults with higher prose and document literacy skills increased, while the proportions of Pacific adults with these skills declined.

Table K5.3 **Proportion (%) of adults with literacy skills at Level 3 or above, by ethnic group, 1996, 2006**

Ethnic group	Prose literacy		Document literacy		Numeracy
	1996	2006	1996	2006	2006
New Zealand European	59	64	55	64	56
Māori	35	37	30	36	25
Pacific peoples	28	21	26	24	14
Asian	28	34	33	43	39
Total	53	56	49	57	49

Source: Satherley P and Lawes E (2008c)
Note: Robust statistics are not available for Other ethnicities because of small numbers.

International comparison

Comparable information from the IALS and ALL surveys is available for New Zealand, Australia, the English-speaking part of Canada, and the United States. In 2006, New Zealand had the same proportion of adults with prose and document literacy skills in English at Level 3 or above as Australia (56 percent), a lower proportion than English-speaking Canada (60 percent), and a higher proportion than the United States (48 percent). The proportion of adults with numeracy skills at Level 3 or above was similar for New Zealand (50 percent), Australia (51 percent) and Canada (52 percent), and lower for the United States (42 percent).⁵⁶