

KNOWLEDGE AND SKILLS

All people have the knowledge and skills they need to participate fully in society. Lifelong learning and education are valued and supported. All people have the necessary skills to participate in a knowledge society. ¹

WHY THIS IS IMPORTANT

The knowledge, skills, attitudes and values people gain throughout life influence the opportunities they have to participate in society.

Knowledge, skills, attitudes and values often affect people's employment opportunities and choices, incomes and economic standard of living. Evidence shows that those people with relatively few educational qualifications are more likely to be unemployed and, on average, have lower incomes when in work. The rapid pace of change in our society means that people must continually upskill and be responsive to changing employment and skills needs in order to be able to have employment choices.

Knowledge and skills also affect people's opportunities to participate in other aspects of society. For example, people's knowledge of their culture and history plays a part in developing a sense of identity and a shared sense of community. It also influences how they interact with others. Continued formal and informal learning beyond school is linked to individual and community progress.

Knowledge and innovation are key drivers of economic growth and social cohesion. Technological, economic and social changes, and increasing internationalisation, are broadening career opportunities and access to higher incomes. These changes are also increasing the need for more highly skilled workers to compete nationally and internationally.

FACTORS INFLUENCING KNOWLEDGE AND SKILLS

The relationships between the factors that contribute to knowledge and skills, and are the outcomes of educational achievement, are complex. It seems apparent, however, that there are some factors which have a profound impact on the knowledge and skills outcomes for individuals and communities. For example:

- Taken as a whole, family and community resources, processes and characteristics are the most important influence on educational outcomes for children in early childhood and schooling.
- Within the education system, the quality of teaching practices by educators is the largest influence on the achievement of children in

schooling – greater than other influences and factors such as class programmes, curriculum activities, resources or environment. Quality teaching is identified as a key influence on high quality outcomes for diverse students. The evidence reveals that up to 59% of the variance in student performance is attributable to differences between teachers and classes, while up to almost 21%, but generally less, is attributable to school level variables.

- Connections between homes and classrooms, between parents and educators, are also shown to be a crucial factor.

These influences are very complex, inter-related and often unpredictable.

WHAT DO THE MEASURES AND TRENDS TELL US?

On average, New Zealand school students perform well in comparison to students in other countries. However, 1 in 5 New Zealand school leavers do not have any qualifications² and, on many international tests of educational achievement, New Zealand has a comparatively long tail of low achievers.³ Christchurch trends are similar to national trends.

There are a variety of measures available to help us build a picture of the knowledge and skills of Christchurch people.

EARLY CHILDHOOD EDUCATION

Quality early childhood education has a persistent and positive influence on children's cognitive attainment and social outcomes. For example, the Competent Children Study undertaken by the New Zealand Council for Educational Research has shown that early childhood education has lasting benefits for children's competency levels.⁴ The quality of teacher support for children's learning and their interaction with children is particularly important. The Ministry of Social Development identified that quality early childhood programmes prepare young children socially and academically for entry into primary education and can help narrow the achievement gap separating children from low-income families from more advantaged children.⁵

Participation in early childhood education has been rising steadily over the last 15 years in Christchurch and other large cities in New Zealand. The national participation rate in early childhood education is high by international standards.⁶

EARLY CHILDHOOD EDUCATION, JANUARY 2003

Type of Service	Number of centres	Number of enrolments
Free Kindergarten	52	4,119
Playcentre	23	841
Education and Care Service	145	8,370
Home-based Network	13	467
Te Kohanga Reo	7	138
Total	240	13,935

Source: Ministry of Education, 2003.

Currently most of the new entrants at Christchurch and New Zealand schools have attended some form of early childhood education.⁷ However participation in early childhood education is lower than desirable for some groups, particularly Māori children and Pacific children.

PRIMARY AND SECONDARY SCHOOL PARTICIPATION

In 2002 in Christchurch, 155 state and private schools provided education and training for 55,750 pupils from years 1 to 15.

PRIMARY AND SECONDARY EDUCATION, 2002

Type of School	# of Schools	Total Roll
Full primary (Year 1-8)	62	15,851
Contributing Primary (Year 1-6)	43	12,222
Intermediate (Year 7-8)	11	4,618
Special Schools	9	510
Secondary (Year 7-15)	4	2,004
Composite (Year 1-15)	8	3,593
Secondary (Year 9-15)	18	16,952
Grand Total	155	55,750

Source: Ministry of Education, 2003

Christchurch's and New Zealand's populations are ageing fast. The rolls of the early childhood and school sectors are expected to decline. Early childhood and tertiary rolls are not expected to decline as much as the population overall because of increasing participation in these sectors.

PRIMARY AND INTERMEDIATE SCHOOLS

- Primary and intermediate schools in Christchurch have experienced roll growth over the last 11 years. The roll in 2002 was about 14% higher than it was in 1992.
- Roll growth has been uneven over this time, with the growth rate greatest between 1993 and 1998.
- The primary age cohort (5-12 years) within Christchurch is projected to peak between 2001-2003 and then begin a gradual decline through to 2021. The extent of the decline is projected to be between 2000 – 9500 5- 12 year olds.

SECONDARY SCHOOL

- Secondary school rolls in Christchurch have varied during the last 11 years.
- The secondary roll declined rapidly between 1992 and 1995, and grew rapidly between 1996 and 1999.
- Variations of rolls have occurred at the individual school level.

- The projected peak in the 13-17 age cohort is expected to occur in 2007.

EDUCATION ACHIEVEMENT AT SCHOOL

The average education achievement of New Zealand secondary school students is high by international standards. Students performing well are performing at above average standards, however, there is a long tail of low achievers. New Zealand has one of the greatest variations in achievement in the OECD. There are variations in achievement within individual schools and between groups of students across the city. On average, 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.⁸ However, variations within schools are more significant than those between schools. Persistent low family income is related to poorer education outcomes. There is some evidence that early low income, even if family income later improves, can affect education outcomes.⁹

The case linking socio-economic disadvantage to poorer education outcomes is particularly marked in the statistics for Māori and Pacific peoples. While much of the relatively poor education status of Māori and Pacific peoples can be attributed to poorer socio-economic status, even when deprivation is taken into account Māori and Pacific peoples have worse

outcomes than do Pakeha.

While educational outcomes across the population are related to characteristics such as parental education and income, there are evidence-based examples of how the link between educational underachievement and these background characteristics can be broken.

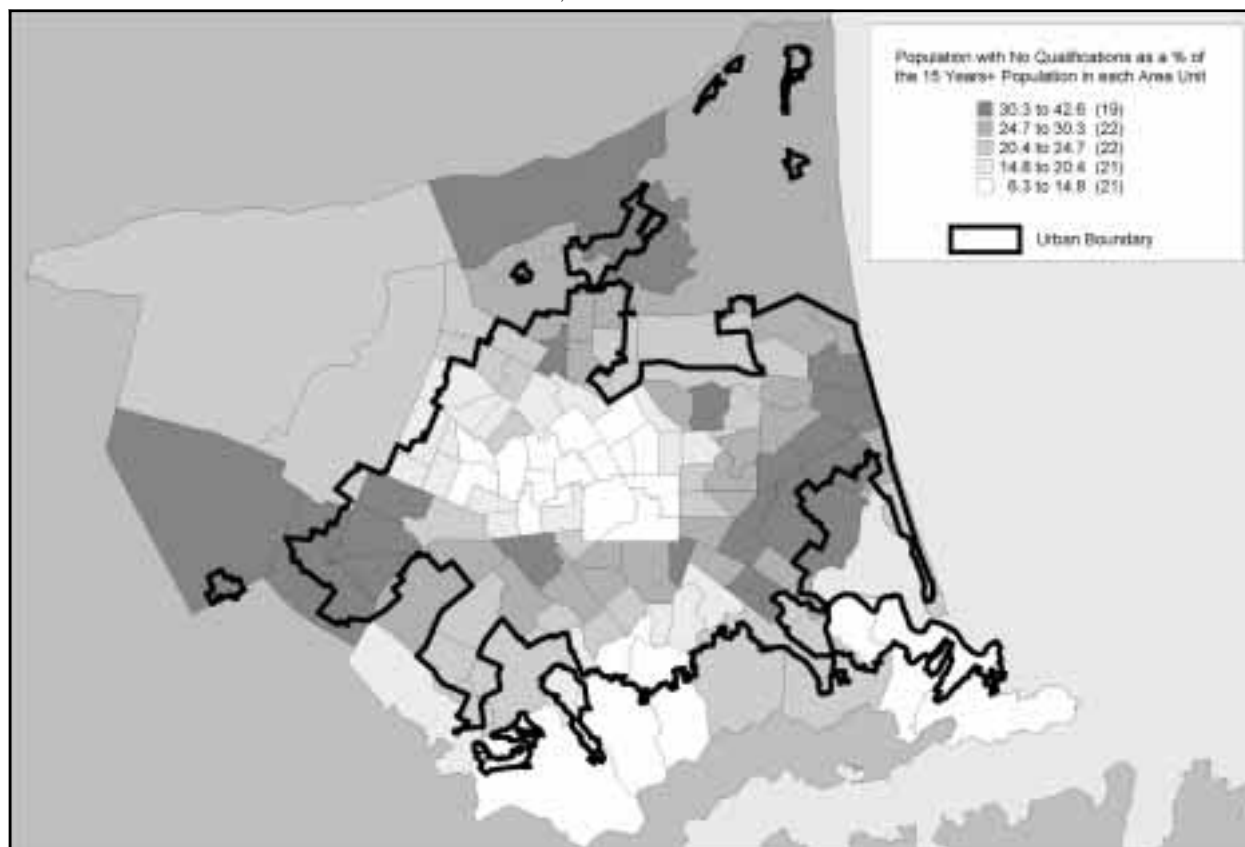
SCHOOL LEAVERS WITHOUT QUALIFICATIONS

A large number of people still leave school without qualifications.¹⁰

In 2001 the proportion of school leavers without qualifications in Christchurch was slightly lower than the national figure (22.9% compared with 23.7%). This figure for Christchurch has fallen from 37% since 1986. This may be due to; changes in education policy which encourage young people to stay at school longer, the new educational qualifications framework means far fewer young people leave school with no qualifications, education partnerships with iwi and/or opportunities of more relevance for some students (such as sports/arts academies).

On average, young people from schools that draw their students from low socio-economic communities are more likely than other young people to leave school

POPULATION WITH NO QUALIFICATIONS BY AREA UNIT, 2001

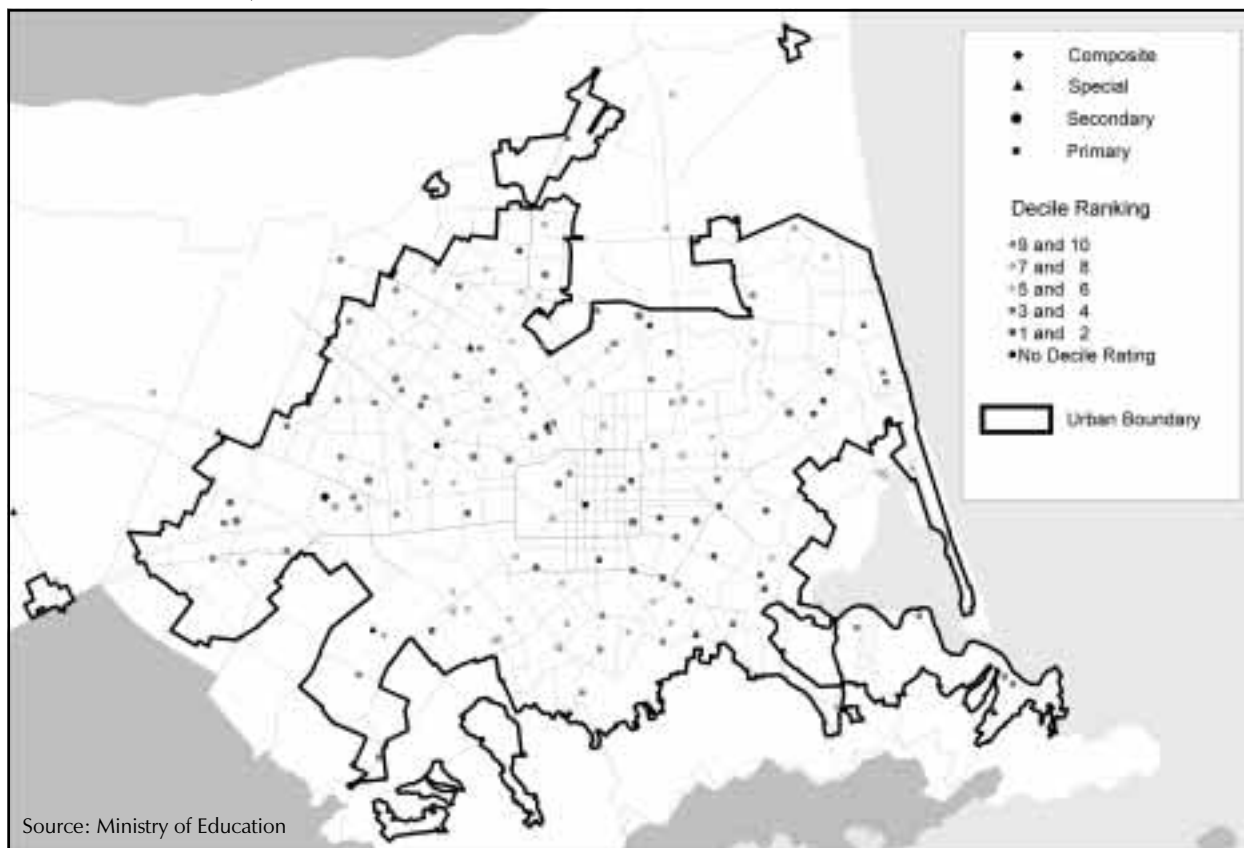


Source: Statistics New Zealand, 2001 Census of Population and Dwellings

with no formal qualifications. Nationally 7.4% of students from high schools drawing students from high socio-economic status left school with no formal qualification (less than 12 credits at level 1 on the National Qualifications Framework). This compared to 30.1% of students from lower socio-economic status areas.¹¹

The Canterbury Health and Development Study found that those who left school with no formal qualification were found to be at increased risk of a number of poor outcomes at age 21.¹²

LOCATION OF SCHOOLS, BY DECILE RANKING



STAND-DOWNS, SUSPENSION AND EXCLUSION¹³

- Stand-down is a discipline mechanism used by schools to exclude a student from school. A student can be stood-down for a total of no more than five school days in any term, or ten days in a school year.
- Suspension is the formal removal of a student from school until the board of trustees decides the outcome at a suspension meeting.
- Exclusion means the formal removal of a student aged under 16 from school, and the requirement that the student enrol elsewhere.

The Ministry of Education reports that levels of suspensions from school are relatively high by international standards¹⁴.

Across Christchurch City and New Zealand there appears to be substantial differences between the application of stand-down/suspension procedures between schools and across different ethnic groups.

Both are subject to guidelines issued by the Ministry of Education but are strongly influenced by the policies set by a school board of trustees e.g. “zero tolerance” to issues such as bullying or drugs.

STAND-DOWNS

Christchurch schools stood down 1,095 students during 2001, and 794 in 2002. It must be noted that individual students can be stood down more than once. (ie, total number of stand downs for 2002 is 957, from 794 students).¹⁵

In Christchurch during 2002, the 3 leading causes for Stand-downs were

- continual disobedience (29%)
- physical assault on other students (22%)
- verbal assault on staff (19%)

Gender distribution was

- females (24%)
- males (76%)

Numerically, the majority were European/Pakeha, but, importantly, in proportion to their total populations

within schools, Māori and Pacific students were over-represented.

Numbers	European	Māori	Pacific	Asian	Other	Total
Auckland City	364	276	525	52	62	1279
Christchurch	634	210	70	24	19	957
Dunedin	256	59	13	15	6	349
Hamilton	281	295	13	6	28	626
Manukau	190	395	607	42	35	1269
North Shore	233	87	36	37	69	462
Waitakere	443	291	186	40	18	977
Wellington	143	79	45	15	18	300

Data source: Ministry of Education 2003

STAND-DOWNS

Rates per 1,000	European	Māori	Overall rate
Auckland City	15	41	20
Christchurch	16	40	18
Dunedin	16	37	18
Hamilton	20	50	26
Manukau	12	32	21
North Shore	11	36	13
Waitakere	30	51	31
Wellington	9	31	12

Data source: Ministry of Education 2003

SUSPENSION

Rates per 1,000	European	Māori	Overall rate
Auckland City	5	13	7
Christchurch	5	15	6
Dunedin	5	11	6
Hamilton	3	10	5
Manukau	4	9	5
North Shore	2	15	3
Waitakere	6	15	7
Wellington	3	7	3

Data source: Ministry of Education 2003

SUSPENSION

Christchurch Schools suspended 282 students during 2001, and 301 students in 2002. It must be noted that individual students can be suspended more than once, and that sometimes students who have been stood-down are later suspended.

In Christchurch during 2002, the 3 leading causes for Suspensions were:

- continual disobedience (28%)
- drugs (19%)

- physical assault on other students (18%)

The gender distribution was :

- females (28%)
- males (72%)

Although European/Pakeha were numerically in the majority, Māori and Pacific students were over-represented (locally and nationally).

Numbers	European	Māori	Pacific	Asian	Other	Total
Auckland City	117	89	197	7	18	428
Christchurch	193	78	26	<5	<5	302
Dunedin	77	16	<5	<5	7	105
Hamilton	47	61	<5	<5	<5	114
Manukau	56	110	113	11	9	229
North Shore	52	35	9	6	8	110
Waitakere	96	87	32	6	7	228
Wellington	40	17	<5	<5	<5	69

Data source: Ministry of Education 2003

Exclusion

Christchurch schools excluded 90 students during 2001, and 93 students in 2002. It must be noted that some students who are excluded from school have been suspended (possibly more than once) and that these students may also have been stood down during the same year.

In Christchurch during 2002, the 3 leading causes for

exclusion were:

- continual disobedience (32%)
- physical assault other students (24%)
- verbal assault on staff (12%)

Gender distribution:

- female (21%)
- male (79%)

Numbers	European	Māori	Pacific	Asian	Other	Total
Auckland City	36	41	77	<5	<5	158
Christchurch	56	27	11	<5	<5	95
Dunedin	32	7	<5	<5	<5	40
Hamilton	19	27	<5	<5	<5	48
Manukau	19	53	54	<5	<5	130
North Shore	21	9	<5	<5	<5	37
Waitakere	31	25	9	<5	<5	67
Wellington	8	1	<5	<5	<5	9

Data source: Ministry of Education 2003

Rates per 1,000	European	Māori	Overall rate
Auckland City	1	6	2
Christchurch	1	5	2
Dunedin	2	5	2
Hamilton	1	5	2
Manukau	1	4	2
North Shore	1	4	1
Waitakere	2	4	2
Wellington	1	0	1

Data source: Ministry of Education 2003

Home Schooling

81 students from Christchurch City TLA were enrolled for home schooling during 2001, and 81 were enrolled for home schooling in 2002.

Total Number of Students Homeschooling	
Auckland City	144
Christchurch	81
Dunedin	22
Hamilton	46
Manukau	39
North Shore	32
Waitakere	46
Wellington	22

Data source: Ministry of Education 2003

ALTERNATIVE EDUCATION

178 students participated in alternative education in Christchurch City

- 137 of those attending were verified alienated
- 41 were not verified as alienated

The gender and ethnicity breakdown was:

- European male (56)
- Māori male (51)
- Māori female (27)
- European female (24)
- Unknown ethnicity (11)
- Unknown ethnicity male (7)
- Pacific male (1)
- Pacific female (1)

Of those students who were verified, the criteria indicated were:

- out of school for 2 terms or more (60)
- a history of dropping out of mainstream after re-integration (31)
- multiple Exclusions (27)
- criteria not indicated (15)
- refused by local schools (4)

EXEMPTIONS

The destination for most school leavers who left school early last year was primarily “Training Opportunities” and “Youth Training” courses. There appears to be a trend for some students to substitute tertiary education for senior secondary school education. This is reflected in the change in participation rates of 16 to 18-year-olds in secondary education (which is declining) and tertiary education (which is increasing).

In the Christchurch City TLA area, 259 students were granted early leaving exemptions during 2001, and 268 in 2002. Some students applied for exemptions, but these were not granted. It is assumed that students who were not granted exemptions returned to school.

In Christchurch during 2002, 88% of early leaving exemptions were granted for students to attend training courses. The remaining 12% were for full-time employment.

- 27% of exemptions were from Decile 1 - 4 schools
- 61% of exemptions were from Decile 5 - 8 schools
- 12% of exemptions were from Decile 9 and 10 schools

Gender distribution:

- male (67%)
- female (33%)

Total	ELE granted	15 years pop.	Rate per 1,000 of pop. 15 years
Auckland City	162	8682	1.9
Christchurch	268	8346	3.2
Dunedin	70	3033	2.3
Hamilton	139	3528	3.9
Manukau	209	9180	2.3
North Shore	94	5373	17.5
Waitakere	119	4839	2.5
Wellington	47	3525	1.3

Data source: Ministry of Education 2003

Māori	ELE granted	Māori 15 years pop.	Rate per 1,000 of Māori pop. 15 years
Auckland City	50	489	10.2
Christchurch	48	444	10.8
Dunedin	17	153	11.1
Hamilton	53	417	12.7
Manukau	72	834	8.6
North Shore	19	210	9.0
Waitakere	34	456	7.5
Wellington	10	183	5.5

Data source: Ministry of Education 2003

TRUANCY

No truancy data is available as not all schools collect attendance data. The number of referrals to the Truancy Service is not an accurate reflection of truancy as referrals fluctuate for a number of reasons. Data from national truancy surveys in 1996, 1998 and 2002 indicate that there has not been an increase in truancy, in fact there has been a slight decrease in secondary school truancy. The Christchurch office of the Ministry of Education states that there is not reason to believe that Christchurch trends would be any different to national trends.

The literature indicates that the most effective approaches to tackling school truancy are comprehensive and collaborative, and target the reduction of risk factors associated with the incidence of truancy. Jacobsen et al (2002) identified that approaches showing the most promise (not only of reducing truancy) include parental involvement, meaningful sanctions or consequences for truancy, meaningful incentives for school attendance, ongoing school-based truancy reduction programmes and the involvement of community resources (law enforcement).

TERTIARY EDUCATION

Overall there is high participation in formal educational beyond school and increasing uptake of formal workplace training. There is an increasing range of study options available beyond the traditional formal tertiary sector.

Nationally, educational attainment at the tertiary level is improving and is marginally better than the OECD average. New Zealand has one of the highest international levels of tertiary participation and people graduating with degrees. However, internationally, New Zealand is below average in numbers of PhD graduates.¹⁶

PARTICIPATION LEVELS

The Ministry of Education reports that, nationally, the traditional pathways into tertiary education are changing:

- While university continues to have the largest share of learners, with around 37% of all learners in 2001, its share of students has been falling with learners increasingly choosing private providers, wananga and polytechnics for study. Private providers grew from 12% of all students in 1999 to over 19% in 2001.
- The proportion of tertiary students who were at school in the previous year has risen about 1% per year since 1994, and now forms about 18% of all students. There have also been increases in the proportion of students who were working in the previous year (around 40% of enrolments in 2001).
- In 2000, 1522 learners were enrolled in foundation and bridging programmes run by providers to assist those who lack the skills and qualifications to enter higher-level tertiary learning directly. In addition, 37,000 students were enrolled in transition programmes administered by Skill New Zealand, such as Youth Training, Training Opportunities and Skill Enhancement programmes.

Due to an increase in participation in 2001, Māori are now participating in formal post-school education and training at a higher rate than are non-Māori.¹⁷ However:

- Participation by Māori 18 to 24-year-olds continues to be significantly less than non-Māori, especially at university.

- About 78% of Māori students are enrolled in non-degree level study (certificates and diplomas). Māori women make up the large majority of these students.
- Growth in Māori participation is now concentrated in private providers and wananga, in part-time and extramural study, and in certificate programmes.
- Participation of Māori at degree level is increasing at about the same rate as for non-Māori, but is 20% less for Māori than for non-Māori over all ages and less than half the non-Māori rate in the 18 to 24-year-old age group.
- Enrolments at post-graduate level by Māori have risen 41% since 1997, compared to 34% for Pacific students, and 13% for Pakeha students. Māori are participating at about half the rate of non-Māori in post-graduate study.

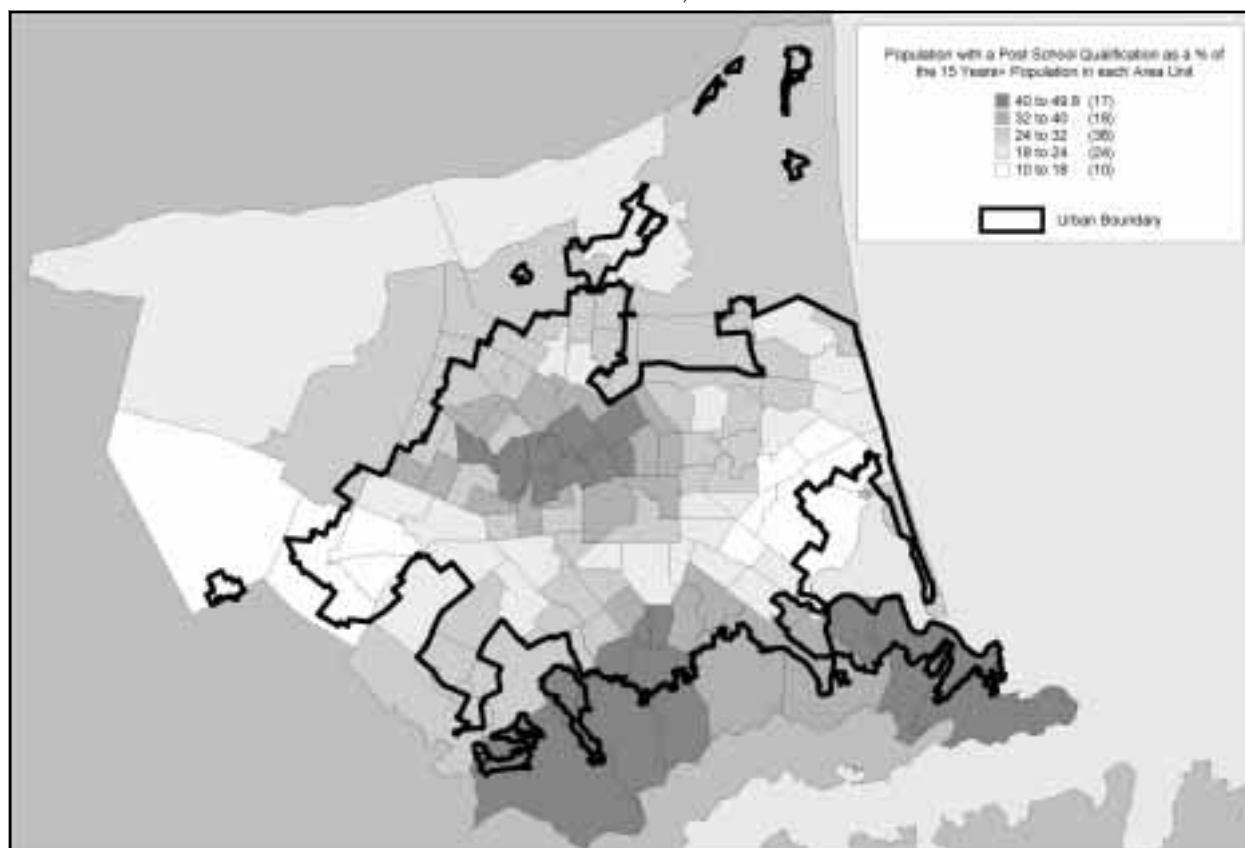
For Pacific peoples:

- Participation is increasing for all ages and is now similar to the rate for the total population.¹⁸
- Participation in the 16 to 24 age group has been increasing faster than Pakeha since 1996, but it is still low in comparison.
- High overall participation rates for Pacific peoples are primarily due to relatively high levels of participation in the over 40-year-old age group.

According to the Ministry of Education, 52 tertiary training institutions (that received Ministry of Education funding, or had courses that were approved for Student Loans and Allowances) operated in Christchurch City during the year to June 2002. They included the City's 3 main facilities University of Canterbury, Christchurch College of Education and Christchurch Polytechnic Institute of Technology as well as private training establishments (PTEs). Lincoln University, which is located outside the city boundaries, is also a major tertiary education provider for the city.

In 2002, there were 28,499 full and part-time enrolments for formal programmes of study at Christchurch's three main tertiary institutions and Lincoln University. Participation of Māori and Pacific people in tertiary education is increasing at the same rate as non-Māori, yet is still at a much lower level overall. Also, it is particularly low in some disciplines, such as engineering and sciences and technology.

POPULATION WITH A POST SCHOOL QUALIFICATION BY AREA UNIT, 2001



Source: Statistics New Zealand, 2001 Census of Population and Dwellings

QUALIFICATIONS AND EDUCATION ACHIEVEMENT

National mean educational achievements are excellent when compared internationally. In 2001, New Zealand ranked 11th among 30 OECD countries in the proportion of adults aged 25-64 years with at least upper secondary level qualifications, and 14th (equal with Ireland) in the proportion who have completed tertiary qualifications to bachelor's degree or higher. Countries which had higher proportions of adults with tertiary qualifications at this level included the United States (28%), Canada (20%), Australia (19%), and the United Kingdom (18%). Among younger adults aged 25-34 years with a tertiary qualification, New Zealand ranked 15th, while Ireland ranked 11th.¹⁹ However,

New Zealand has a wide distribution in student achievement; for example, nearly 1 in 5 students leave school without a qualification.

The level of educational achievement in Christchurch is very similar to that of the rest of New Zealand.

- 70% of people aged 25 to 64 years have qualifications at upper secondary level or higher.
- 28.8% of residents aged 15 years and over have some form of tertiary qualification.
- only 22.9% have no qualifications. This has fallen from 37% since 1986.

HIGHEST QUALIFICATION GAINED OF POPULATION AGED 15 YEARS AND OVER.

	1986		1991		1996		2001	
	Number	%	Number	%	Number	%	Number	%
Post Graduate	5,205	2.3	5,841	2.5	7,920	3.2	9,702	3.8
Bachelors Degree	8,154	3.6	10,596	4.6	15,000	6.0	18,681	7.3
Higher School Qualification	88,511	3.9	11,574	5.0	16,953	6.8	18,660	7.3
Sixth form Qualification	18,873	8.4	16,956	7.3	22,761	9.1	27,171	10.7
Fifth form Qualification	28,602	12.8	25,893	11.1	26,796	10.8	33,327	13.1
All others or not specified*	70,959	31.7	90,324	38.8	84,693	34.0	89,073	34.9
No Qualifications	83,463	37.2	71,394	30.7	74,916	30.1	58,470	22.9
Total	224,067		232,578		249,039		255,078	

* Category includes certificates, diplomas, overseas high school qualifications among others. Categories change from census to census and are therefore not exactly comparable.

Source: Information and monitoring Team, Christchurch City Council 2003

The proportion of adults with a Bachelor’s Degree or higher qualification has risen. While some of the increase is due to adults gaining additional qualifications, most of the upward trend is due to new entrants to the 25-64 age group (young people and migrants) being better qualified on average than people reaching retirement age. Māori and Pacific adults are much less likely than European and Other ethnic groups to have higher qualifications.

The map at the top of page 66 show the distribution across the city of the educational achievements of the population. Their spatial patterns reflect those of the Deprivation Index where more affluent (less deprived) suburbs have higher rates of population with post school qualifications and the areas which are more deprived have a higher population with no qualifications.

COMMUNITY EDUCATION AND LIFELONG LEARNING

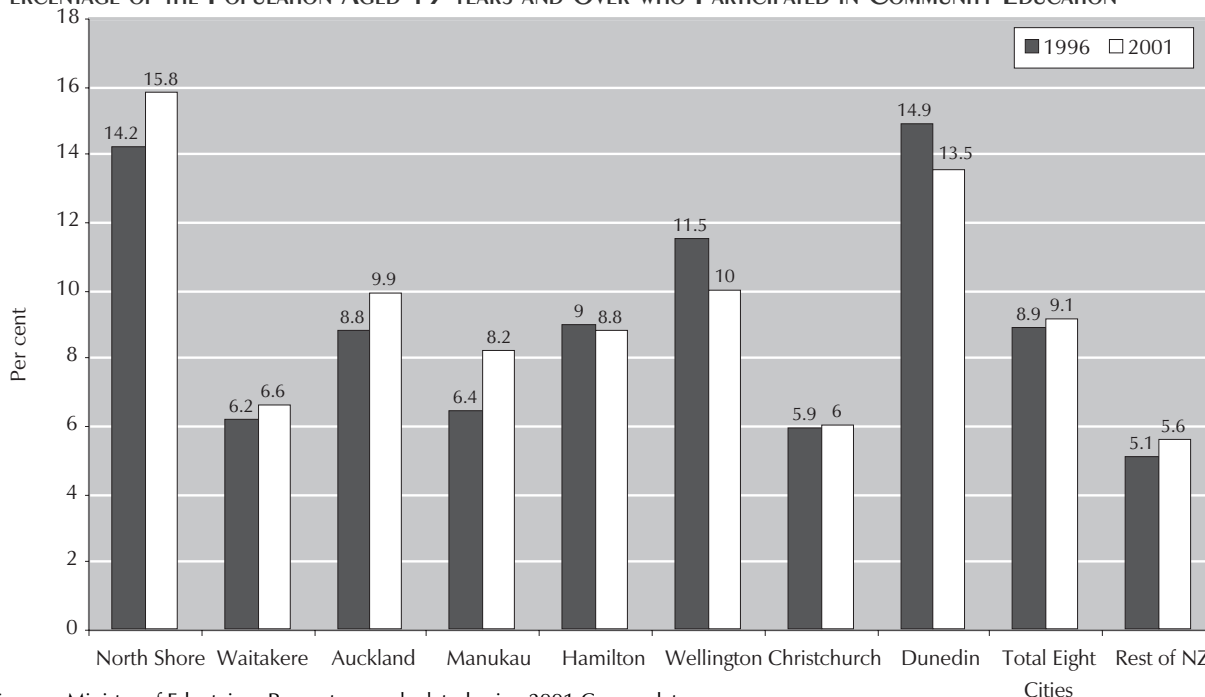
Community and general education plays an important role in providing access to learning in our communities. Ongoing education and learning provide increased opportunities for participation and life enrichment.

Opportunities for increasing skill and knowledge levels have grown in recent years with the wide availability of distance learning, e-learning and summer school programmes.

Community education is offered at schools and also some tertiary education institutions. Nationally, during 2001, there were 249 schools offering community education to 190,030 students, an increase of 1.3% (2538 students) since 2000. The most common age group for enrolments was in the 30-39 age group with the 40-49 age group close behind. In most age groups the female to male ratio was near 3:1 except in the 16-19 age group where males accounted for 40% of enrolments and in the 60+ age group where males represented 30% of enrolments.

In Christchurch, in 2001, there were 15,284 enrolments in Community Education programmes run by High Schools. There were also 735 enrolments in Community Education at Canterbury University at 31 July 2001 and 3372 enrolments at Christchurch Polytechnic Institute of Technology. There are many other organisations in the community providing community education, but data on these is not gathered in a comprehensive way at present.

PERCENTAGE OF THE POPULATION AGED 15 YEARS AND OVER WHO PARTICIPATED IN COMMUNITY EDUCATION



Source: Ministry of Educaion. Percentages calculated using 2001 Census data

Education and learning take place throughout the lifespan in formal and informal settings including families/whanau, school, community organisations, tertiary institutions, workplaces and through leisure and cultural pursuits.

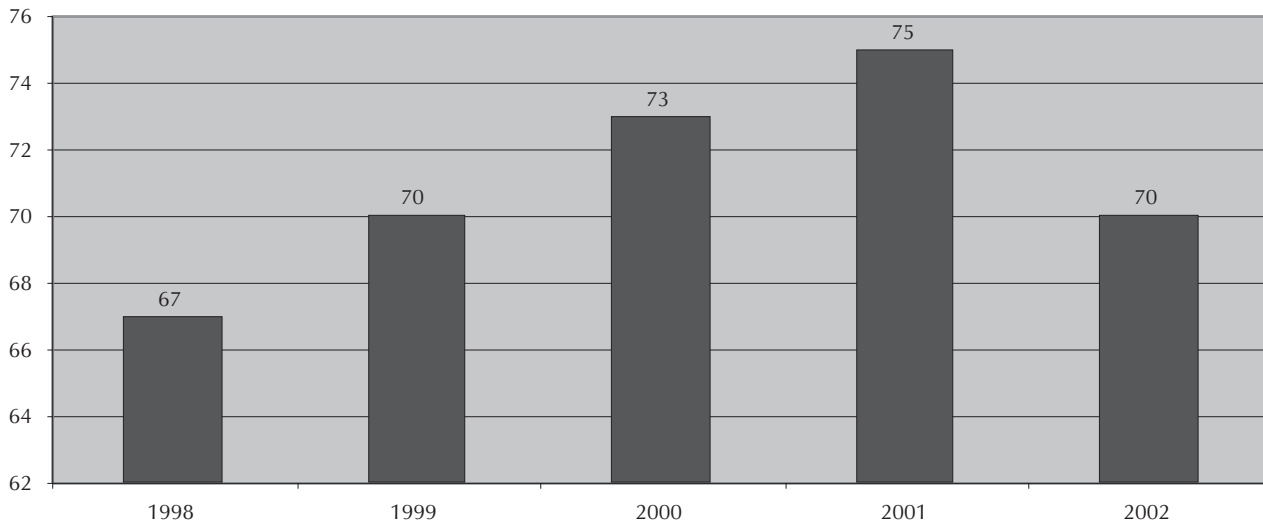
LIBRARIES

Libraries support and enhance learning opportunities through a wide range of resources, search skills, technology and information, outreach programmes and learning environments. Public libraries help to make knowledge available in communities. They

promote the efficient use of resources by allowing their shared use among large numbers of people. More than 70% of the Christchurch population are registered members of the library and many others use the library facilities for study and reading. In the year to June 2002, 3.1 million visits were made to a Christchurch City Library.

In 2002, 70% of respondents in the Annual Survey of Residents said they had been to a Christchurch City Council library in the last 12 months. Library patronage had been increasing steadily in the previous years and appears to have peaked in 2001, before declining by 5% in 2002.

RESPONDENTS WHO HAVE VISITED ANY OF THE CHRISTCHURCH CITY COUNCIL PUBLIC LIBRARIES IN THE LAST 12 MONTHS?



Source: Christchurch City Council Annual Survey of Residents, 2002

WORKPLACE LEARNING

A recent review of the literature suggests that there may be an underprovision of workplace learning in some areas, such as small businesses.²⁰ Work-based learning is not evenly distributed among employees: “Employees who are more educated, male, younger, and in full time work tend to access more work-based learning and gain associated higher wage benefits. Since employers provide more work-based learning for those employees who are already well educated, those with low skills can remain ‘stuck’ in (often insecure) low skill/low pay jobs with little prospect of either career advancement or future employability”.²¹

LITERACY AND FOUNDATION SKILLS

The Ministry of Education has identified the following as essential foundation skills.²²

- the ability to read, write and communicate effectively
- sound numeracy skills
- self-confidence, including a sense of cultural identity
- openness to diversity, challenge and change
- learning skills and an enthusiasm for ongoing learning

The Ministry reports that adults with low literacy and numeracy levels are more likely to be unemployed, to earn low incomes, and to have children with poor educational achievement. The Ministry of Education has identified that a significant number of adult New Zealanders do not have the foundation skills needed to participate fully in work and modern life.²³

No local data on literacy is available. However, key findings from the OECD’s International Adult Literacy Survey (IALS)²⁴ indicate that in New Zealand:

- Average literacy levels, and the distribution of literacy skills within the population, are similar to that of Australia, the United States and the United Kingdom. Overall, New Zealand compares favourably with other countries in terms of prose literacy but not so well for quantitative and document literacy.
- Similar to many other countries, almost half of all New Zealand adults aged from 16 to 65-years-old were estimated to be at low levels of ability and to have pressing literacy needs for success in today’s society. 1 in 5 New Zealanders were found to have very poor literacy skills.
- The majority of Māori and Pacific adults performed well below average on all counts of literacy.
- Almost half of all unemployed people were at

the very lowest level of literacy.

- Some industries have high concentrations of people with low literacy skills, including the manufacturing, construction and agriculture industry groups.
- Migrants, people with disabilities and those with few or no qualifications also tend to have low levels of foundation skills.

The international *Progress in International Reading Literacy Study (PIRLS-01)* assessed the literacy level of a sample of Year 5 students in New Zealand and 35 other countries in 2001. The study found:²⁵

- New Zealand rated 13th out of 35 countries.
- New Zealand had the fifth highest percentage (17%) of students reaching the top 10% benchmark.
- Only 84% of New Zealand students reached the lower benchmark (a similar rate to countries such as Israel and Slovenia).
- This spread of scores for New Zealand students is wider than the spread for most other countries.

The Ministry of Education has identified that nationally there have been gains in literacy and numeracy from targeted programmes in schools, but there are still significant gaps. The Ministry identified that nationally the majority of Māori and Pacific adults have pressing literacy needs.²⁶

Nationally, the number of adults participating in foundation education courses (including adult literacy) is lower than the number known to lack foundation skills. Those with the lowest skills are the least likely to receive training in employment and tend to be unemployed and not engaged in education and training.

INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT)

Technology provides opportunities for accessing information, communicating and developing knowledge and skills. As information and communication technologies (ICT) spread it creates a new dimension of exclusion; the so-called 'digital divide'.²⁷

Schools

During 2001, the Ministry of Education conducted a computer census of all schools, the Education Review Office²⁸ evaluated the implementation of ICT in 355 schools, and The Learning Centre Trust of New Zealand (TLCT) surveyed ICT use in 600 schools.²⁹

There is no significant correlation between school decile levels and the availability of access to ICT in schools.

Households

The 2001 Census showed that 37% (45,078 dwellings) of Christchurch households had access to the internet. This is slightly higher than the national average. 3 census area units have greater than 60% of households with internet access. These are the (typically more affluent) suburbs of Kennedy's Bush, Westmorland and Riccarton Bush.

Individuals

The Christchurch Annual Survey of Residents asks respondents how often they use e-mail and how often they use the World Wide Web for work, education or personal use. Usage has increased since this question was first posed. Of those who have used e-mail or the world wide web, the majority used it at home.

FREQUENCY OF RESPONDENTS USE OF EMAIL OR WORLD WIDE WEB FOR WORK, EDUCATION OR PERSONAL USE (PER CENT).

	Email		World wide web	
	2001	2002	2001	2002
Daily	31	35	18	22
Several times a week	14	14	16	16
Once a week	4	3	8	6
Several times a month	4	5	6	7
Once a month	1	1	3	3
Less often than once a month	5	3	7	7
Never	41	39	42	39

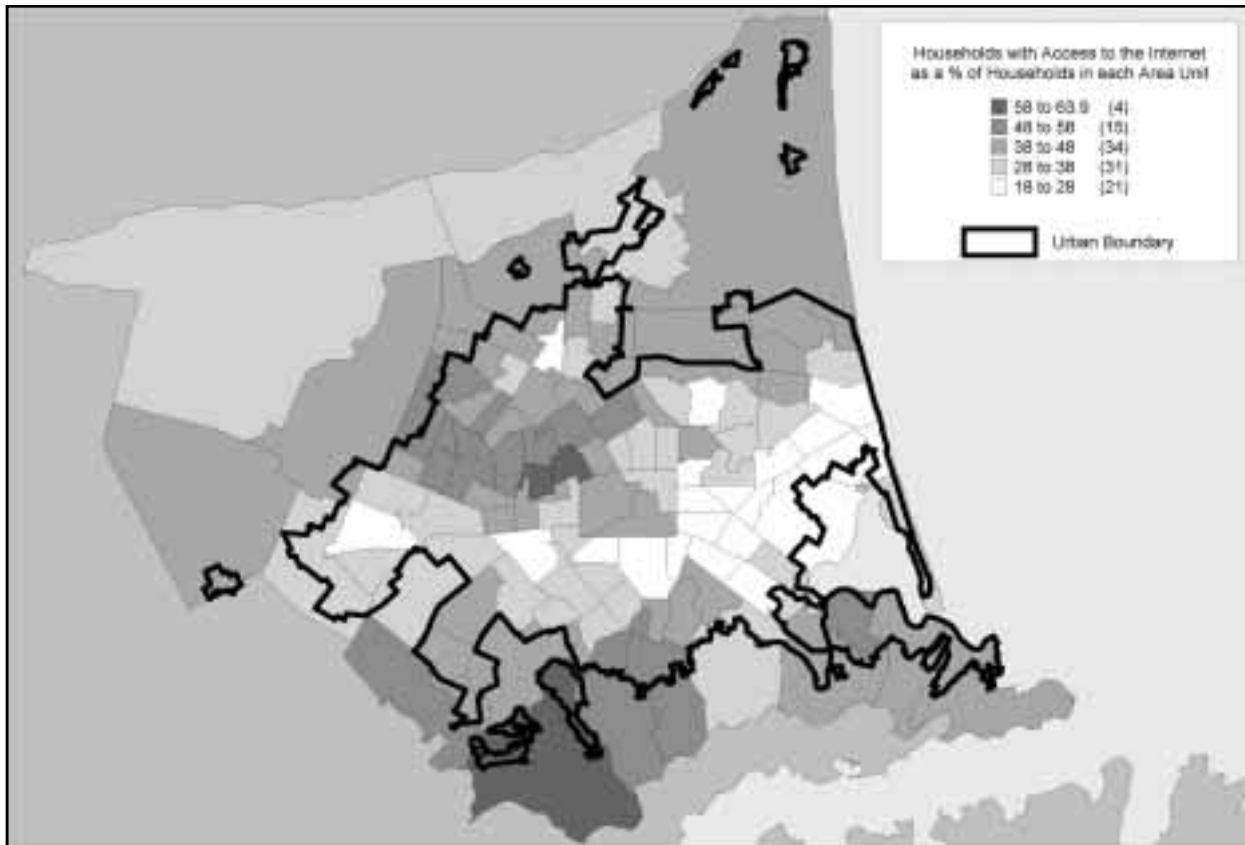
Source: Christchurch City Council, Annual Survey of Residents, 2002

The Big Cities Quality of Life Survey (2002) breaks down the location of use into who is more or less likely to use email or the internet, and where they are more likely to use it. People who are full time employed, have higher incomes, or are between 26 and 44 years old are more likely to use email or the internet at work. Younger people, people with lower incomes, and the part-time employed are more likely to use it at a

learning institution. 26 to 34 year olds were significantly less likely to use it at home.

The results of these surveys would indicate the presence of a 'digital divide' in Christchurch City, where older people, especially women, and those with lower incomes are not using the internet or email as much as are younger people, mostly males, with higher incomes.

HOUSEHOLDS WITH ACCESS TO THE INTERNET BY AREA UNIT, 2001



Source: Statistics New Zealand, 2001 Census of Population and Dwellings

RESEARCH AND INNOVATION

The project gathered little information regarding our research capacity. Further information is required in this area.

Reports indicate that areas of apparent strength in research nationally include science, medicine and health, social sciences and Māori development.

Links between universities and business are growing, as is collaboration between international and domestic research. There is an apparent lack of alignment in some areas of research-focus and quality. However, knowledge diffusion and technology transfer from the tertiary sector is not happening on a sufficient scale to make New Zealand's innovation system thrive.³⁰ The Tertiary Education Reforms currently being implemented by the new Tertiary Education Commission have implications for the way the tertiary sector is funded to do research.

GLOBAL CHANGES/FEE PAYING STUDENTS

Globalisation has also created more open and competitive international education markets. New Zealanders are having to be prepared to participate in a global society and, at the same time, schools and tertiary institutions are having to respond to globalisation at the classroom level.

In the late 1990s over 1.6 million tertiary students were studying outside their own country and it is estimated that this number will grow to 5 million over the next 20 years. There has been a large increase in the number of foreign fee paying students and families with school-age children immigrating to New Zealand. In 2001 there were around 52,000 foreign fee-paying students in New Zealand, a 36% increase from 2000 and an 86% increase over 1999 numbers. The impact on the economy from these students passed \$1 billion in 2001.³¹

The total number of foreign fee-paying (FFP) students in Canterbury-Christchurch region has steadily increased since 1994 with a slight downturn in 1998, which was caused by 1997 Asian financial crisis. The

average annual growth rate of FFP students over the years 1994-1998 was about 25% which includes the down turn period of 1997-8.

NUMBER OF FFP STUDENTS IN CANTERBURY REGION, 1994-2002*

Year	School		Public Tertiary	Private Tertiary	English Language Schools	Total	Growth Rate
	Primary	Secondary					
1994	36	536	539	na	na	1,111	—
1995	54	745	810	na	na	1,609	45%
1996	86	843	1,067	na	na	1,996	24%
1997	118	927	1,188	244 ^(a)	na	2,477	24%
1998	108	791	1,419	299 ^(a)	na	2,617	6%
1999	103	825	1,307	210 ^(a)	2,688 ^(a)	5,133	96%
2000	179	987	1,533	313 ^(a)	2,816 ^(a)	5,828	14%
2001	316	1,343	1,914	132	3,249 ^(a)	6,954	19%
2002	618	1,544	2,839	240	10,500 ^(b)	15,741	126%

Source: Ministry of Education, 2002.

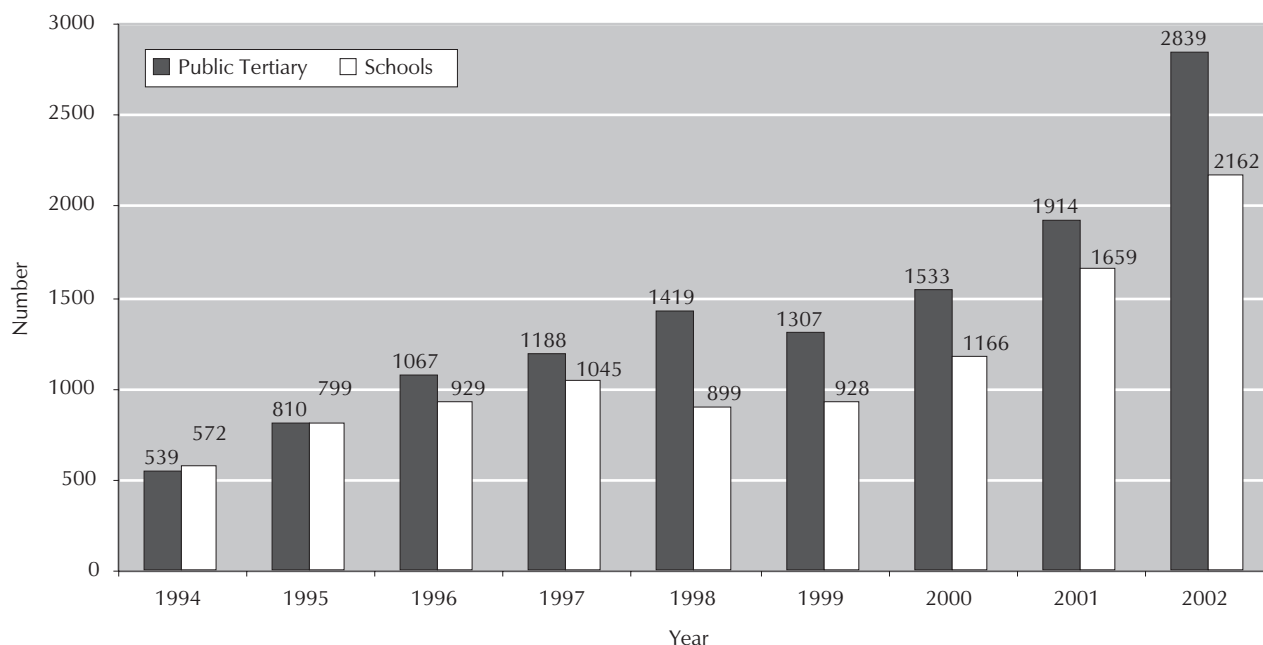
(a) They were estimated by using the percentage of FFP students enrolled in NZ public tertiary institutions in Canterbury region.

(b) Source: Education Christchurch (*The Press*, 13 June 2002)

The numbers in public tertiary institutions have risen from 539 in 1994 to 2,839 in 2002, an increase of 427%. Numbers in the secondary schools have risen from 572 in 1994 to 2,612 in 2002, an increase of 278%. In Canterbury region alone 2,162 FFP students

enrolled in New Zealand schools in 2002 compared to 1,659 FFP students in 2001. In 2002 FFP students in English language schools accounted for 67% of total FFP students in Canterbury-Christchurch region, followed by FFP students in public tertiary (18%).

NUMBER OF FFP STUDENTS IN CANTERBURY REGION, 1994-2002

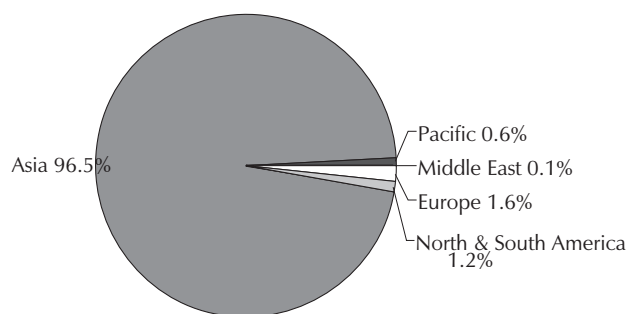


Source: Ministry of Education, 2002.

The majority of FFP students enrolled in schools in Christchurch-Canterbury region in 2002 were of Asian citizenship (96.4%) followed by Europe (1.6%).

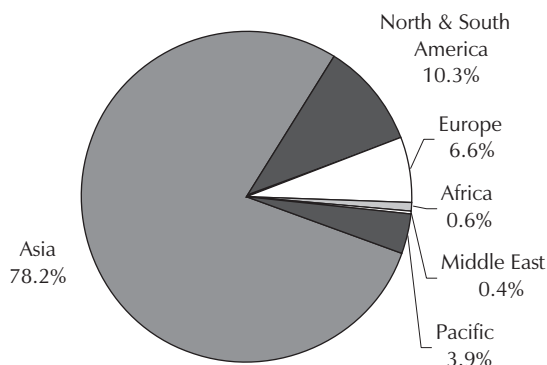
The great majority of FFP students enrolled in public tertiary sector in Canterbury-Christchurch region in 2002 were also of Asian citizenship (78.3%), followed by American citizenship (10.3%).

FTP STUDENTS IN CANTERBURY SCHOOLS BY REGION OF CITIZENSHIP, 2002



Source: Ministry of Education, 2002

FTP STUDENTS IN CANTERBURY PUBLIC TERTIARY INSTITUTIONS BY REGION OF CITIZENSHIP, 2002



Source: Ministry of Education, 2002

WHAT DID PEOPLE TELL US ABOUT KNOWLEDGE & SKILLS?

This section describes the responses to issues of knowledge and skills by representatives from the community provider sector, government agency frontline staff and managers, local government agency staff, local councillors and Community Board members, local Members of Parliament, Ngāi Tahu and iwi/ Māori organisations, key intersectoral networks and other key stakeholders. Respondents discussed the common themes outlined in the introduction to this section.

- Quality and commitment of staff was identified as critical to the achievement of positive outcomes as well as the importance of appropriately trained and/ or qualified staff and adequate levels of staffing. There is great difficulty in recruiting skilled Māori staff;
- Consultation and collaboration across and between sectors was viewed as essential in achieving positive outcomes;
- Relationship building was also considered a key factor contributing to positive outcomes;
- A 'case management' approach was identified as a key contributor to positive outcomes, particularly for clients with complex needs;
- Resource/funding limitations were viewed as barriers to achieving positive outcomes.

Specific feedback about knowledge and skills is summarised below:

Respondents believed that people should have opportunities to experience good education outcomes at all stages of life. They would like to see more support for community based education opportunities, as well as greater resourcing of schools and training programmes to enable them to provide accessible and

appropriate education opportunities.

We need an education system that is innovative, and which values children — where all children and young people achieve their potential

Respondents from central and local and community sectors were concerned that some groups in the community experience poorer educational outcomes. For example:

Poverty is associated with lack of engagement with formal learning, truancy and a low level of educational qualifications. This can in turn lead to low status jobs and periods of unemployment.

Family poverty, parental unemployment and poor maternal educational attainment increase the risk of educational failure amongst children.

Young women who become pregnant while at high school and choose to continue the pregnancy are more likely to leave school in order to bring up their child, and therefore to leave school with limited or no qualifications.

Some respondents from central government and local government were concerned that there are increased pressures on schools to respond to social and community issues. Many believed that social agencies and social services need to address "social problems" to allow the teachers to focus on educational development.

Inter-agency work needs to support family and community development in a way that allows teachers to focus on learning outcomes instead of acting as social workers as well.

Teachers should be able to get back to teaching — and not have to be social workers.

Education should be delivered in partnerships between the education sector and the wider community — we need wrap around models where schools and other social service agencies provide integrated support for the student and their families.

However, other feedback suggested that schools need to change to meet the broader needs of students including social needs and life skills. Some feedback suggested that schools were one institution that had failed to change in response to the children and young people entering their institution.

Respondents at the community workshop and government focus groups voiced concerns about the increasing number of children and young people who are being excluded from school. Some stakeholders reiterated this during their interviews. Stakeholders also raised concerns about truancy rates; there was a perception that truancy rates were increasing.

Respondents also raised concerns about what they

thought was an under-investment in our academic institutions

There is an increasing dependence on foreign fee paying students. This reflects an under-investment in our academic institutions

A number of central and local government and community respondents identified poor literacy, digital literacy and foundation skills as a concern.

Respondents also identified a range of gaps in services. The specific gaps in services that were identified included:

- post school courses for Māori
- programmes that support the development of parenting skills for parents
- school support services for children with disabilities
- after school programmes and holiday programmes
- support initiatives targeting children at risk through truancy, exclusion and suspension.

CONCLUSIONS

This section discusses some of the key themes that have emerged in the trends, consultation review of

current service provision. It attempts to draw some conclusions from the information gathered.

KEY CHALLENGES

The key challenges emerging from the mapping exercise were:

- improving achievement of those with fewest skills
- addressing disparity gaps in educational achievement
- enabling participation in early childhood education
- increasing participation in, and engagement with, education
- building educational and qualification pathways to encourage lifelong learning
- ensuring that the foundation learning skills such as literacy and numeracy are acquired
- ensuring people have appropriate skills for 21st century

ACHIEVEMENT OF THOSE WITH FEWEST Skills

Given the importance of education and skills. For future well-being raising the educational achievement of those with fewest skills should be a priority. The relationships between various factors can mean that

some individuals and communities are less likely to reach the level of attainment of knowledge and skills necessary to participate in society in the ways described above.

A further challenge is to address the factors which contribute to students exiting from schools

prematurely. For example, the factors which contribute to suspension and exclusion of students from schools. Another related challenge is the way schools respond to students' behaviours and the significant variation in how suspension and exclusions are applied and for what purpose.

Reducing underachievement for Māori remains a key challenge. The Ministry of Education is actively building collaborative relationship with Mana whenua and taura here (non mana whenua iwi) groups to improve Māori education outcomes.

FOUNDATION Skills INCLUDING LITERACY

People need a strong learning base they can build upon. The increased capacity to teach literacy and numeracy, particularly in the later primary and early secondary years, is a further challenge. Foundations skill gaps can also be addressed through the availability of appropriate and high quality adult literacy programmes.

The Ministry of Education has identified that nationally there have been gains in literacy and numeracy from targeted programmes in schools, but there are still significant gaps. The Ministry identified that nationally the majority of Māori and Pacific adults have pressing literacy needs.³²

TRANSITIONS AND LINKS WITHIN THE SECTOR

The links between the various parts of the education sector are somewhat disjointed. A challenge is to ensure Christchurch young people have a smooth transition between early childhood, primary, intermediate and secondary schools with information exchange and consistent support. Another challenge is to ensure individuals are able to access appropriate opportunities to gain knowledge and skills, whatever their needs. For example, by increasing links between the formal and non-formal parts of the sector and ensuring that individuals have adequate information with which to make choices. People gain knowledge and skills at work, at home and in a formal educational settings. A key challenge is to recognise the role that each setting plays and develop better connections, and to develop effective strategies for informing students.

CHANGING DEMOGRAPHICS

As the demography of Christchurch changes, the demands on the education system will also change.

Former refugee children are an increasing group in our schools. Refugees have typically experienced both displacement and trauma and now face the task of

adapting to a new environment, frequently involving the simultaneous acquisition of a new language. These populations of children represent groups potentially 'at risk' for less than optimal outcomes at school, and might have special needs and / or evidence behaviour problems.³³

Māori and Pacific young people, who are currently underachieving in the education system, will comprise a greater proportion of New Zealand and the city's population in the future. One of the key challenges is to ensure that Māori and Pacific peoples achieve at higher levels.

We are experiencing an ageing population which will also have implications for education sector, including greater demands for lifelong learning opportunities. There will be a growing need for learning to continue beyond formal education.

FAMILIES/WHANAU AND COMMUNITIES

Families and whanau are where children first learn foundation skills. Homes that have available a range of education-related and other resources (e.g. books, television, parental time) have a major influence on young children's achievement. A range of quality experiences, activities and interactions, and active parental support have a major impact on young children's educational attainment.³⁴

Children who come from very low income families are particularly at risk. They face greater health risks and greater intellectual/emotional development risks than children from higher income homes. However, some children from low socio-economic homes achieve well because there are compensating factors, such as support from extended family/whanau.

A higher level of parental education can improve children's achievement as it can enable parents to provide more constructive support and experiences for their children. Evidence also indicates that parental expectations can have a positive influence on children's achievement (although these expectations can in turn be shaped by children's school performance). Regardless of ethnicity or socio-economic status background, families with high levels of expectations have the most positive effects on their children's achievement especially at senior level.³⁵

Family structure, and changes in family types, in themselves, do not necessarily have a significant impact on achievement. The resources available to children and parents and family ties are more important than family structure. In general, children in single-parent families do not achieve highly, but this seems to be

influenced more by very low income and consequently limited resources than family structure.³⁶

Frequent mobility or changes of household for children (although this is usually intertwined with other factors such as parental instability, child abuse or job loss) can have a negative impact of children's achievement. Dysfunctional family process, for example conflict, substance abuse, child abuse, can affect children's performance. Children in such family circumstances are at increased risk of truancy, mental health disorders, delinquency and low levels of literacy.³⁷

Social networks, for example Pacific church connections, Māori cultural connection, all provide opportunities for children's further learning. Social networks also provide support for parents.³⁸

EARLY CHILDHOOD EDUCATION

Early childhood education is an important, yet relatively undervalued, component of the education system. The developmental and social skills that children gain from quality care provide an important advantage for future learning. Participation in early childhood education improves the likelihood of achieving positive outcomes. Quality early childhood programmes can help narrow the achievement gap separating children from low-income families from more advantaged children. The challenge is to ensure that all ethnic and socio-economic groups have the opportunity to benefit from early childhood education.

KNOWLEDGE SOCIETY

Because we now live in a 'knowledge society' access to information and proficiency with technology are no longer just helpful but essential. Knowledge and innovation are becoming as important as financial and physical capital in driving the modern economy. Our local and national economy depends more and more on skilled people. A key challenge is to ensure that our education sector remains informed and in tune with the changing skills and learning that are needed and that our workplaces encourage innovation and foster staff development and lifelong learning opportunities.

POSSIBLE RESPONSES

INTEGRATION ACROSS ALL PARTS OF EDUCATION SECTOR

Achievement at any one stage of education and learning is often dependant on prior learning. There appears to be a need for improvement in alignment and connectedness of institutions from pre-school to tertiary level and the development of education and qualification pathways within the formal school system.

There are particular issues that require a coordinated approach, for example suspensions, truancy, and literacy.

MANAGEMENT OF TRANSITIONS

Transitions need to be managed between different levels of education and into employment. There need to be comprehensive local strategies that encourage pro-active responsibility for locating and engaging with young people who are at risk of falling out of formal schooling or who are no longer in formal schooling or training.

INTEGRATION ACROSS SECTORS

There is evidence that integrated programmes which simultaneously address a range of issues (e.g. poverty, health problems, lack of resources, limited repertoire of strategies for helping children) faced by some parents and their children, can have a major influence in children's achievement. Well co-ordinated education, health and social services enhance the likelihood of positive outcomes for children and their families. Positive working relationships and links need to be established between schools and early childhood services and health and welfare agencies (government and community) to enable the needs of children and their families to be met.

INVOLVEMENT OF PARENTS, FAMILIES AND COMMUNITIES IN EDUCATION

Partnerships between schools, families and communities are also essential in supporting positive social and academic outcomes. Significant gains in achievement can result from effective links between home and early childhood education and classroom experiences, and through partnerships between family/whanau and educators.³⁹

We need strategies to improve the capability of parents to contribute to their children's wellbeing and

education from early childhood education. Such support may include the provision of training for parents and adults on how to effectively contribute to school Board of Trustees. The research indicates that partnerships between school and home need to be built on a genuinely collaborative basis if children's achievement is to be enhanced. Partnerships initiated by the school on the basis of deficit assumptions (for example, developing a programme for problem parents), tend to be counterproductive for those involved.⁴⁰

There is potential to develop more integrated psycho-socio-educational- preventative approaches to reduce crises within schools. This would develop the community orientation of the schools, enhance many aspects of school life, and demonstrate the importance of the school to the wider community.

FOUNDATIONS Skills AND LITERACY

Remedial programmes and programmes targeted at those for whom English is a second language are critical to improving the extent to which these groups get the same life chances as others and come to participate fully in society.⁴¹

WORKPLACE AND COMMUNITY LEARNING

Strategies to support employers and employees to implement workplace training opportunities and to take up training that leads to recognised qualifications, particularly by those employees with low skills and qualifications to meet the skill requirements of industry need to be developed. There is a need to improve engagement of adults in workplace and community learning.

STUDENT SUPPORT / REDUCING DISPARITIES

Positive initiatives that support Māori, Pacific people and residents of some particular parts of the city in their attainment of formal school qualifications should be pursued.

A belief should be built throughout the system, particularly amongst teachers and parents, that all students can achieve regardless of background, educational needs or ethnicity.

FOCUS ON TEACHER DEVELOPMENT

Research indicates that within the education system, the quality of teaching practices by educators is the largest influence on the achievement of children in schooling – greater than other factors such as class programme, curriculum, activities, resources or environment. Differences in achievement within schools and between classes are generally far larger than the differences between individual schools. Effective teaching requires a strong professional knowledge base and expertise that enables teachers to be responsive to the diversity of students. Teaching that is responsive to student diversity can have a positive impact on low and high achievers at the same time.

Quality teaching is identified as a key influence on outcomes for students - up to 59% of variance in student performance is attributable to differences between teachers and classes, while up to almost 21%, but generally less, is attributable to school level variables.⁴²

Evidence shows teaching that is responsive to student diversity can have very positive impacts. Teaching needs to be responsive to diversity within ethnic groups, for example, diversity within Pakeha, Māori, Pasifika and Asian students, and the diversity within individual students influenced by intersections of gender, cultural heritage(s), socio-economic background, and talent.⁴³

The Ministry of Education has recently identified the characteristics of quality teaching based on international and New Zealand research. There is strong support for the Ministry of Education's role in strengthening the capability of teachers with particular respect to the teaching of literacy and numeracy and with the development of effort focused on strengthening the teaching of students in the later primary and early secondary years.

DIGITAL DIVIDE

Digital divide initiatives need to focus more on the access to technology. They should also consider how the technology can be used to assist low-income individuals and groups to better their situation - narrowing the social divide as well as the digital divide.⁴⁴

- ¹ Ministry of Social Development (2003d) *The Social Report 2003*, Ministry of Social Policy, Wellington.
- ² Annesley, B., Christoffel, P., Crawford, R., Jacobsen, V., Johnston, G. and Mays, N. (May 2002) *Summary Version: Investing In Children's Wellbeing From A Life Course Perspective: A Preliminary Analytical Framework and Overview of the Literature*, The Treasury, Wellington.
- ³ The Treasury (2002) *Briefing for Incoming Minister*, www.treasury.govt.nz/briefings/2002/chap2.asp, The Treasury, Wellington.
- ⁴ Wylie, C., Thompson, J. and Kerlake Hendricks, A. (1996) *Competent Children at 5: Families and Early Education and Schools*, New Zealand Council for Educational Research, Wellington.
- ⁵ Ministry of Social Development (2003d) *The Social Report 2003*, Ministry of Social Policy, Wellington.
- ⁶ In 2001, New Zealand ranked sixth out of 29 OECD countries in the proportion of under fives year olds enrolled in early childhood education (Ministry of Social Development (2003d) *The Social Report 2003*, Ministry of Social Policy, Wellington).
- ⁷ In 2001, 88% of all Year One students had attended some form of early childhood education service before starting school. This compares with 86% of Year One students in 2000 (Ministry of Social Development (2003d) *The Social Report 2003*, Ministry of Social Policy, Wellington).
- ⁸ Ministry of Social Development (2003d) *The Social Report 2003*, Ministry of Social Policy, Wellington.
- ⁹ Wylie, C. (2001) *Research Projects on Competent Children Study*, www.nzcer.org.nz/research/compchild.htm#, Findings New Zealand Council for Educational Research, Wellington.
- ¹⁰ Ministry of Education (2002a) *Briefing for Incoming Minister*, www.minedu.govt.nz, Ministry of Education, Wellington.
- ¹¹ Ministry of Education (2001) *School Leavers 2001*, www.minedu.govt.nz, Ministry of Education, Wellington.
- ¹² Fergusson, D., Swain-Campbell, N.R. and Horwood, L.J. (in print) Outcomes of Leaving School without Formal Education Qualifications in *New Zealand Journal of Education Studies*, Quoted in Jacobsen, V., Nicholas, M., Crawford, R., Annesley, B., Christoffel, P., Johnston, G. and Durbin, S. (2002) *Investing in Well-being: An Analytical Framework*, *New Zealand Treasury Working Paper 02/23*, Publisher, Wellington.
- ¹³ Following a suspension the board may decide to lift the suspension with or without conditions, to extend the suspension, or, in the most serious cases, to either exclude or expel the student.
- ¹⁴ Ministry of Education (2003d) *Statement of Intent 2003-2008*, www.minedu.govt.nz/index.cfm?layout=document&documentid=8409&indexid=6088&indexparentid=1000, Ministry of Education, Wellington.
- ¹⁵ Ministry of Education (2003) Data Supplied by Ministry of Education Christchurch Office, Ministry of Education, Christchurch.
- ¹⁶ Ministry of Education (2003d) *Statement of Intent 2003-2008*, www.minedu.govt.nz/index.cfm?layout=document&documentid=8409&indexid=6088&indexparentid=1000, Ministry of Education, Wellington.
- ¹⁷ Māori participation rates have been higher than non-Māori rates since 1999, but after adjusting for the younger Māori population, Māori participation rose above non-Māori participation for the first time in 2001 (at 15.4% compared with 13% for non-Māori based on full year participation data).
- ¹⁸ Enrolments grew by 24% between 1999 and 2001 (compared to 59% for Māori and 11% for Pakeha). According to the 2001 Census the rate of participation for Pacific peoples aged 16-years and over was around 14% in 2001.
- ¹⁹ Ministry of Social Development (2003d) *The Social Report 2003*, Ministry of Social Policy, Wellington.
- ²⁰ Long, M., Ryan, R., Burke, G., Hopkins, S. (1999) *Employer-Supported Education and Training: A Literature Review*, Ministry of Education, Wellington.
- ²¹ Ministry of Education (2002c) *Digital Horizons - Learning through ICT*, www.minedu.govt.nz/index.cfm?layout=document&documentid=6760&indexid=6918&indexparentid=1024#P828_39561, Ministry of Education, Wellington.
- ²² Ministry of Education (2003d) *Statement of Intent 2003-2008*, www.minedu.govt.nz/index.cfm?layout=document&documentid=8409&indexid=6088&indexparentid=1000, Ministry of Education, Wellington.
- ²³ Ministry of Education (2002a) *Briefing for Incoming Minister*, www.minedu.govt.nz, Ministry of Education, Wellington.
- ²⁴ OECD (2002) *Education at a Glance: OECD Indicators: 2002 Edition*, OECD, Paris.

- ²⁵ Ministry of Education (2003c) *Reading Literacy in New Zealand (PIRLS 2001)*, Ministry of Education, Wellington.
- ²⁶ Ministry of Education (2002a) *Briefing for Incoming Minister*, www.minedu.govt.nz, Ministry of Education, Wellington.
- ²⁷ Larsen, K. and Istance, D. (2001) Centre for Educational Research and Innovation in *Lifelong Learning for All*, <http://oecdpublications.gfi-nb.com/cgi-bin/OECDBookShop.storefront/EN/product/911996061P1> OECD Centre for Educational Research and Innovation (CERI).
- ²⁸ Education Review Office (2001a) *The Implementation of Information and Communications Technology (ICT) in New Zealand Schools 2001*, ERO, Wellington.
- ²⁹ The Learning Centre Trust of New Zealand (2001a) *The Learning Centre Trust Report 2001*, The Learning Centre Trust of New Zealand, Wellington.
- ³⁰ Ministry of Education (2003b) Mapping the Building of Capacity and Capability within the Educational Research Community, www.minedu.govt.nz/index.cfm?layout=document&documentid=6512&data=l&fromprint=y&goto=00-03#TopOfPage, Ministry of Education, Wellington.
- ³¹ Information supplied by Canterbury Development Corporation (2003)
- ³² Ministry of Education (2002a) *Briefing for Incoming Minister*, www.minedu.govt.nz, Ministry of Education, Wellington.
- ³³ Ministry of Education (2003a) *Interventions for Refugee Children in New Zealand Schools: Models, Methods, and Best Practice*, www.minedu.govt.nz/index.cfm?layout=document&documentid=6042&indexid=5880&indexparentid=5871, Ministry of Education, Wellington.
- ³⁴ Biddulph, F., Biddulph, J. and Biddulph, C. (June 2003) Best Evidence Syntheses the Complexity of Community and Family Influences on Children's Achievement in New Zealand in *Best Evidence Synthesis*, Ministry of Education, Wellington.
- ³⁵ Ibid.
- ³⁶ Ibid.
- ³⁷ Ibid.
- ³⁸ Ibid.
- ³⁹ Mallard, Hon. T. (2003) Research on Teaching to Help Students Achievement in *Media Statement 29 July 2003*.
- ⁴⁰ Biddulph, F., Biddulph, J. and Biddulph, C. (June 2003) Best Evidence Syntheses the Complexity of Community and Family Influences on Children's Achievement in New Zealand in *Best Evidence Synthesis*, Ministry of Education, Wellington.
- ⁴¹ Ministry of Education (2002a) *Briefing for Incoming Minister*, www.minedu.govt.nz, Ministry of Education, Wellington.
- ⁴² Alton-Lee, A. (June 2003) Best Evidence Syntheses Quality Teaching for Diverse Students in Schooling in *Best Evidence Synthesis*, Ministry of Education, Wellington.
- ⁴³ Ibid.
- ⁴⁴ Kirschenbaum, J., and Kunamneni, R. (2001) *Bridging the Organizational Divide: Toward a Comprehensive Approach to the Digital Divide*, www.policylink.org/publications.html, Blackwell Publishing, Oakland.