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Knowledge and Skills

INTRODUCTION

This chapter provides an overview of the state of educational participation and achievement in New Zealand's eight largest cities. Understanding the state of education provides an insight into the knowledge and skills of city residents as they apply these to improve their quality of life.

WHY THIS IS IMPORTANT

Educational achievement is essential for effective participation in society. City societies are becoming increasingly knowledge-based and city economies require innovative solutions to meet market demands.

Peoples' ability to re-skill and up-skill during their working lives is important if they are to keep pace with today's rapidly changing work environment. The nature of jobs has changed to the extent that workers have come to expect many job changes and they must be prepared to apply a portfolio of skills to many different situations. This is particularly the case in cities which attract increasing numbers of people seeking work.

WHAT'S IN THIS CHAPTER?

- Participation in early childhood education
- School decile ratings
- School suspensions and stand-downs
- Qualification levels
- Participation in community education

KEY POINTS

Throughout the eight cities there has been considerable growth in the percentage of people who hold an educational qualification. A higher percentage of people in the eight cities have some form of educational qualification (degree, vocational, or school) than those in the rest of New Zealand. However, a significant percentage of young people are still leaving school without qualifications.

The underlying socio-economic status of communities is reflected in the levels of educational achievement across the eight largest cities. For example, Manukau and Waitakere continue to have the largest proportion of their students attending low decile schools. Correspondingly, both cities have low levels of early childhood participation and low proportions of their students attaining educational qualifications.

There may be a connection between school suspension and stand-down rates and juvenile offending rates. For example, Christchurch which continues to have the highest level of suspensions/stand-downs of the eight cities, also has high levels of juvenile offending. Maori and Pacific Islands students continue to be over-represented in suspension and stand-down rates across all eight cities.

Participation in community education varies extensively across all eight cities, although rates overall are higher than the rest of New Zealand.

LINKS

There are strong linkages between socio-economic status and levels of educational participation and achievement. Over the long term, poor educational performance at school will tend to make it harder for individuals to achieve good levels of income, with all the implications this has for health, housing quality, participation in community life, and eventually the educational achievement of their own children.

Within New Zealand's ageing population, Maori and Pacific Islands people will comprise a growing proportion of young New Zealanders. Cities will see a reduced working-age population, with proportionately more young Maori and Pacific Islands people supporting an older, mainly European population. Improving education levels for both Maori and Pacific Islands populations is critical to ensuring a sustainable society in New Zealand cities.

Participation in early childhood education



- Early childhood participation levels throughout most of the eight cities have shown an upward trend.
- Participation levels in Manukau and Waitakere remain significantly lower than all other cities.

WHAT THIS IS ABOUT

The stimulation of learning at an early age has an important bearing on future educational achievement. Social and academic development within early childhood programmes is likely to make the transition to formal education easier. Early childhood education can help reduce the achievement gap separating low income children and more advantaged children. Disadvantage tends to be cumulative, so attaining strong foundations early is important.¹⁹

This indicator illustrates early childhood education 'apparent' participation rates.²⁰ It reflects the number of children under 5 years old enrolled in early childhood education centres or home-based education programmes as a proportion of all children aged under 5 years.²¹

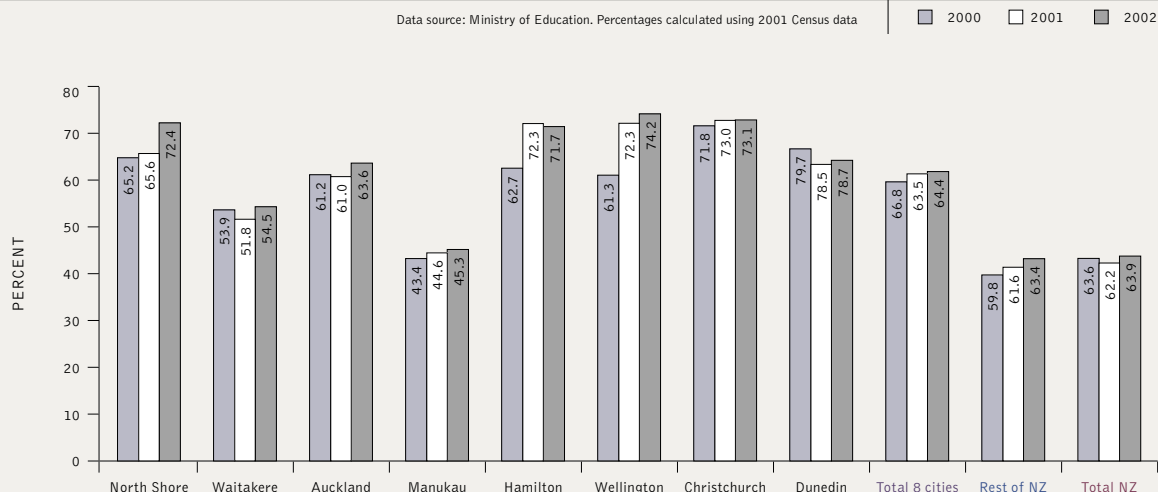
WHAT DID WE FIND?

Early childhood education participation levels throughout most of the eight cities have shown a marked upward trend from 2000 to 2002.

Dunedin's participation levels were the highest of all eight cities. Wellington saw the largest growth in early childhood participation, increasing from 61.3% in 2000 to 74.2% in 2002. Other cities that saw significant growth were Hamilton and North Shore.

PERCENTAGE OF POPULATION AGED UNDER 5 YEARS WHO ATTEND STATE FUNDED PRE-SCHOOL (2000 TO 2002)

Data source: Ministry of Education. Percentages calculated using 2001 Census data



¹⁹ Ministry of Education. Briefing for the Incoming Minister of Education, August 2002.

²⁰ It is possible for children to be enrolled at more than one education service, therefore an 'apparent' participation measure is used. Figures may over estimate the true level of participation in early childhood education. Information collected from schools in July 2001 indicated that around 91% of new entrants had attended early childhood education. (Ministry of Education. July 2001 Early Childhood Statistics) www.minedu.govt.nz

²¹ Includes all licensed: Playcentres, Kindergartens, Education and Care Centres, Homebased Services, Te Kohanga Reo, Correspondence School; and licensed-exempt: Te Kohanga Reo and Early Childhood Development funded Playgroups, Pacific Islands Language Groups and Playcentres. A small percentage of children attend private pre-schools that receive no Government assistance. Children in these schools are not legally required to attend school.

Participation in early childhood education

Continued...

Participation levels in Manukau and Waitakere remain significantly lower than all other cities, although both saw an increase over the period reviewed. These two cities also continue to have the largest populations of under 5 year olds (comparing 1996 and 2001 Census data) of the eight cities, and the largest proportion of students in low decile schools.

There are varying levels of participation amongst ethnic groups in our largest cities. In 2001, most (94%) European Year One students had attended an early childhood education centre compared with 82% of Maori, 73% of Pacific Islands, and 85% of Asian Year One students.²² Manukau and Waitakere, with relatively large Maori and Pacific Islands populations, correspondingly have the lowest levels of early childhood participation.

²² Ministry of Education. Early Childhood Attendance by Year One Students by Ethnic Group, 2001. www.minedu.govt.nz

School decile ratings



- North Shore and Wellington continue to have a larger proportion of students in high decile schools.
- Manukau and Waitakere continue to have a larger proportion of students in lower decile schools.

WHAT THIS IS ABOUT

Comparing the percentage of students within each of the school deciles illustrates the socio-economic disparities within a city and between cities.²³ Deciles are used to provide funding to state and state integrated schools, to enable them to overcome the barriers to learning faced by students from low socio-economic communities. The lower the school's decile rating, the more funding they receive.

This indicator shows the percentage of pupils within school deciles in 2002. It is used to illustrate the extent to which a school (including primary, intermediate, secondary and special schools) draws its students from low or high socio-economic communities.

WHAT DID WE FIND?

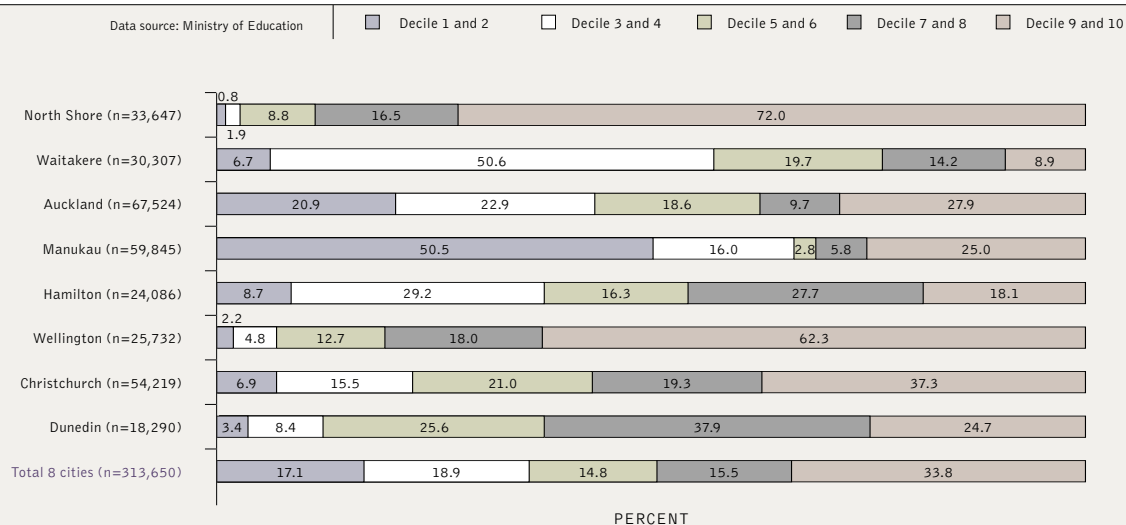
North Shore and Wellington had the major proportion of their students attending schools within the top two deciles at 72.0% and 62.3% respectively. This is high when compared to the average of 34.5% across the eight cities. Manukau (66.5%) and Waitakere (57.3%) continue to have a much larger proportion of students in lower decile schools. This compares to an average of 31.2% across the eight cities.

The eight cities combined had nearly half (49.3%) of all students in higher decile schools (deciles 7 to 10), and just over one third (36.0%) attend lower decile schools (deciles 1 to 4).

The Ministry of Education reports that on average, almost half (46.5%) the parents in decile 1 communities across New Zealand are without educational qualifications, with 36% employed in unskilled manual work compared to 10% and 6% respectively in decile 10 communities.²⁴

Correlations may exist between cities with low socio-economic status, such as Manukau and Waitakere, and lower participation levels in early childhood education, and higher levels of school leavers with no qualifications.

PERCENTAGE OF PUPILS WITHIN SCHOOL DECILE (2002)



²³ The decile rating for a school is used by the Ministry of Education to determine funding to schools and is indirectly comparable with the socio-economic status of an area. Decile 1 schools are the 10% of schools with the highest proportion of students from low socio-economic communities, whereas decile 10 schools are the 10% of schools with the lowest proportion of these students. It is possible that the decile rating system for schools is more divisive than the decile ratings of a local community. The rating is based on families with school aged children and includes household income, occupation, household crowding, educational qualifications, income support and ethnicity. Some "cross boundary" issues may exist, such as boarding schools in main centres with children resident in the area, and (particularly in Auckland) children from one city attending a school in another.

²⁴ Ministry of Education. Frequently asked questions about deciles. www.minedu.govt.nz

School suspensions and stand-downs

- Maori and Pacific Islands students continue to be over-represented in suspensions and stand-downs across all eight cities.

WHAT THIS IS ABOUT

School suspension and stand-down rates tend to highlight serious behavioural problems experienced by students at school.²⁵ The cause of such behavioural problems at school is complex and, in many cases, is likely to be related to other problems within a student's personal life. These problems will have an impact on the student's capacity to learn.

This indicator illustrates the combined number of suspensions and stand-downs, by ethnicity for the school year to 31 December 2001 and applies to the student population aged 5 to 15 years.²⁶

WHAT DID WE FIND?

The lowest number and rate of suspensions/stand-downs in 2001 was in Wellington. The rate per 1,000 of student population shows Christchurch (33.3), Hamilton (31.8) and Waitakere (30.9) having the highest rates.

Across the eight cities Maori and Pacific Islands students were over-represented in suspensions/stand-downs.

Male students across the eight cities make up the greater proportion of students who have been stood-down or suspended (73% of all stand-downs/suspensions).

Nationally the most common reasons for suspensions/stand-downs were for drugs (including substance abuse), physical assault on other students and continual disobedience.

NUMBER OF SUSPENSIONS/STAND-DOWNS, BY ETHNICITY (2001)							
	European	Maori	Pacific Islands	Asian	Other	Total	Rate per 1,000 Students
North Shore	311	116	50	18	11	506	17.6
Waitakere	357	327	143	11	7	845	30.9
Auckland	417	358	556	28	26	1,385	26.0
Manukau	247	419	454	32	21	1,173	22.2
Hamilton	282	271	32	7	27	619	31.8
Wellington	161	89	38	7	13	308	14.9
Christchurch	950	385	96	23	15	1,469	33.3
Dunedin	306	48	7	6	3	370	23.2

Data source: Ministry of Education

The process of ensuring that a student is able to continue his/her education in a school only stops once the student is 16 years of age or over. Suspensions and stand-downs are part of a broad range of ways in which student behaviour is managed and may represent one of a number of interventions.

There is no apparent relationship between the socio-economic status of a city and rates of suspension and stand-downs. However, there maybe a connection between high suspension and stand-downs rates and juvenile offending rates. For example, Christchurch, which continues to have the highest level of suspensions/stand-downs of the eight cities, also has high levels of juvenile offending.

²⁵ It should be noted that there maybe substantial differences between the application of stand-down/suspension procedures between schools. 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.

²⁶ Stand-downs of a student can total no more than 5 school days in any one 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. Following a suspension the board may decide to either lift the suspension with or without conditions, to extend the suspension, or in the most serious cases to either exclude or expel the student from the school. Students can be suspended or stood-down more than once. Nationally for 1999/2000, 16% of all stand-downs were stood-down more than once, and 9% of all suspensions were suspended more than once.

Qualification levels



- The eight cities combined have more students leaving school with qualifications than the rest of New Zealand.
- The number of people with qualifications has increased across all eight cities.
- There are significant differences in the level of post-school attainment between the eight cities.

WHAT THIS IS ABOUT

Individual and community levels of education have a strong positive association with a range of economic and social benefits²⁷ Measuring the qualification levels of a city's population aged 15 years and over helps to identify the job readiness of the future labour force. An educated population adds to the vibrancy and creativity of a city and is needed to remain competitive in the global economy. Measures used to assess this are:

- School leavers without qualifications
- Highest level of qualification gained.

WHAT DID WE FIND?

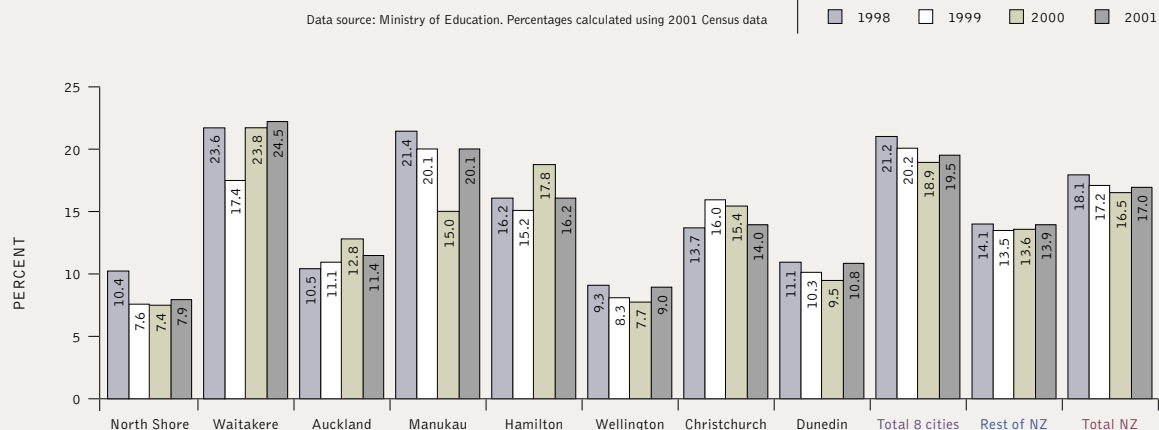
School leavers without qualifications

This measure shows the number of school leavers without qualifications as a percentage of all school leavers. In 2001 across the eight cities combined, the percentage of school leavers without a qualification was lower than the rest of New Zealand (13.9% and 19.5% respectively).

North Shore, Wellington, Dunedin, and Auckland had the lowest proportion of school leavers with no qualifications between 1998 and 2001. Waitakere and Manukau had the highest percentages of school leavers with no qualifications over this period. Although Manukau has shown some improvement, the percentage of students leaving school without qualifications in Waitakere has continued to increase.

In 2001, 17% of all school leavers across New Zealand left school without qualifications. Maori and Pacific Islands students were over-represented amongst this group - 33% of all Maori school leavers and 25% of Pacific Islands school leavers left without qualifications.

PERCENTAGE OF SCHOOL LEAVERS WITH NO QUALIFICATIONS (1998 TO 2001)



²⁷ The Treasury (2001) Human Capital and The Inclusive Economy. Wellington, page 24.

Qualification levels

Continued...

In Manukau in 2001, 41.3% of Maori school leavers left school without a qualification. In Waitakere this percentage was 39.9%. For Pacific Islands students the percentages were 29.3% in Manukau and 29.9% in Waitakere.

The attainment of school leavers can be correlated to the decile ranking of a school. Across New Zealand in 2001, 42% of high decile (deciles 8-10) school leavers left with at least Entrance to University qualifications compared to 10.2% in low decile schools (deciles 1-3). Conversely, only 7.4% of students from high decile schools left school with no formal qualification or less than 12 credits at level one on the National Qualifications Framework, compared to 30.1% of students from low decile schools.²⁸

North Shore and Wellington (which have a lower proportion of the population in low decile schools) continue to have lower levels of school leavers without qualifications, while Waitakere and Manukau (with a higher proportion of students in low decile schools) have a higher percentage of school leavers without qualifications.

There is a lack of information regarding those who leave school without a qualification and simply 'fall through the cracks'. This group includes young people who might not enrol in training or further education, or qualify for any welfare benefits, or register as unemployed.

Highest level of qualification gained

This measure shows the highest level of qualification gained within the population aged 15 years and over. Highest qualification refers to school qualifications, post-school qualifications (degree and vocational) and no qualification (including still at school).²⁹

PERCENTAGE OF POPULATION AGED 15 YEARS AND OVER WITHIN HIGHEST QUALIFICATION CATEGORIES (1996, 2001) ³⁰										
	No Qualification		School		Vocational		Degree		Not Incl. Elsewhere	
	1996	2001	1996	2001	1996	2001	1996	2001	1996	2001
North Shore	22.4	14.7	30.6	41.6	20.4	19.3	11.1	14.6	15.5	9.9
Waitakere	31.6	22.6	27.8	37.9	17.7	16.5	5.9	8.1	17.1	14.9
Auckland	23.1	14.7	25.9	35.7	16.4	15.8	15.4	19.5	19.2	14.3
Manukau	35.0	24.4	25.9	36.6	15.3	15.1	5.5	7.4	18.4	16.5
Hamilton	28.3	21.8	29.2	35.5	18.5	18.7	10.2	12.5	13.9	11.4
Wellington	17.3	11.6	28.0	34.8	18.0	17.4	23.2	26.7	13.5	9.6
Christchurch	30.1	22.9	28.7	36.1	18.0	17.7	9.2	11.1	14.1	12.1
Dunedin	28.8	21.5	30.1	36.1	17.2	17.5	11.0	13.2	12.9	11.8
Total 8 cities	27.1	19.1	27.9	36.7	17.4	17.0	11.5	14.3	16.1	13.0
Rest of NZ	36.5	27.8	25.3	32.5	17.9	18.1	5.1	6.5	15.1	15.1
Total NZ	32.2	23.7	26.5	34.5	17.7	17.6	8.0	10.1	15.5	14.1

Data source: Statistics New Zealand, Census 1996, 2001

²⁸ Ministry of Education, 2001. www.minedu.govt.nz

²⁹ Highest post-school qualification is the highest qualification gained, apart from school qualifications, and is collected for people aged 15 years and over. Included are qualifications awarded by training and educational institutions as well as on the job training. A qualification is a formally recognised award for attainment resulting from a full-time (20 hours per week) learning course of at least three months, or from part-time study for an equivalent period of time or from on the job training. Levels of qualification; Degree - Higher and Bachelor degree; Vocational - Advanced Vocational, Intermediate Vocation, Skilled Vocational, Basic Vocational Qualifications; School - Higher school, Sixth form, Fifth form; None - No Qualification (including still at school), and Not Elsewhere Included.

³⁰ The categories of qualification were updated between the 1996 and 2001 Censuses. They have been grouped into similar qualification types to allow clearer reporting. For 1996, Not Elsewhere Included category includes Post-school Qualification Not Applicable, Post-school Qualification Unidentifiable, Post-school Qualification Not Specified, School Qualification Not Applicable, School Qualification Unidentifiable, School Qualification Not Specified and Not Specified. For 2001, Not Elsewhere Included category includes Highest Qualification Unidentifiable and Not Stated.

Qualification levels

Continued...



There has been considerable growth throughout New Zealand in the percentage of people that hold an educational qualification. While there has been some increase in the percentage of those gaining post-school qualifications, most of the increase has been in those gaining school qualifications. Within the post-school field the apparent decline in the number of people with skilled vocational qualifications (e.g. trade certificates and apprenticeships), has been offset by increases in the numbers of people with degree level qualifications.

The proportion of people with qualifications in the eight largest cities is higher than for the rest of New Zealand. Among the eight cities however, Manukau, Waitakere, and Christchurch have higher levels than other cities of people aged 15 years and over who have no qualifications. There are significant disparities between the eight cities when comparing degree or higher attainment levels. In Wellington, 26.7% of the population 15 years and over hold a degree or higher qualification compared to 7.4% in Manukau.

Nationally, due to a large increase in enrolment figures between 1996 and 2001, Maori are now participating in formal post-school education and training at a higher rate than non-Maori. However, 78% of those Maori students enrolled in post-school education are enrolled in sub-degree level study (certificates and diplomas). The growth in Maori participation is mainly concentrated in private providers and 'wananga', part-time and extramural study, and certificate programmes.^{31, 32}

The associated positive economic benefits from higher levels of education are well documented. Cities with a highly educated population are more likely to have a population on higher levels of income compared to those cities with a less educated population. For example Wellington, which has the highest percentage of people with post-school qualifications, also has the highest average hourly earnings of any city in New Zealand. This is consistent with the make up of the Wellington workforce being concentrated on the higher paying business and financial services sectors.

³¹ Wananga is a public tertiary institution that provides programmes with an emphasis on the application of knowledge regarding ahuatanga Maori (Maori tradition) according to tikanga Maori (Maori custom). www.minedu.govt.nz

³² Ministry of Education. Briefing for the Incoming Minister of Education, August 2002.

Participation in community education

- Participation in community education vary extensively across all eight cities, although all achieve higher rates than the rest of New Zealand.

WHAT THIS IS ABOUT

Adult and community education programmes play a vital role in allowing access to learning for the people in our cities. It offers important opportunities for the wider community to gain knowledge, skills and confidence to participate fully in society. In recent years, on-going education and learning have become increasingly regarded as significant contributors to life enrichment and as essential requirements for competitive advantage in cities.

This indicator shows the percentage of the population aged 15 years and over who have participated in community education. Community education includes study post-secondary school, but not study for degree or higher level qualifications.

WHAT DID WE FIND?

Participation rates vary extensively across all eight cities, although all achieve higher rates than the rest of New Zealand. North Shore and Dunedin have the highest rates of participation.

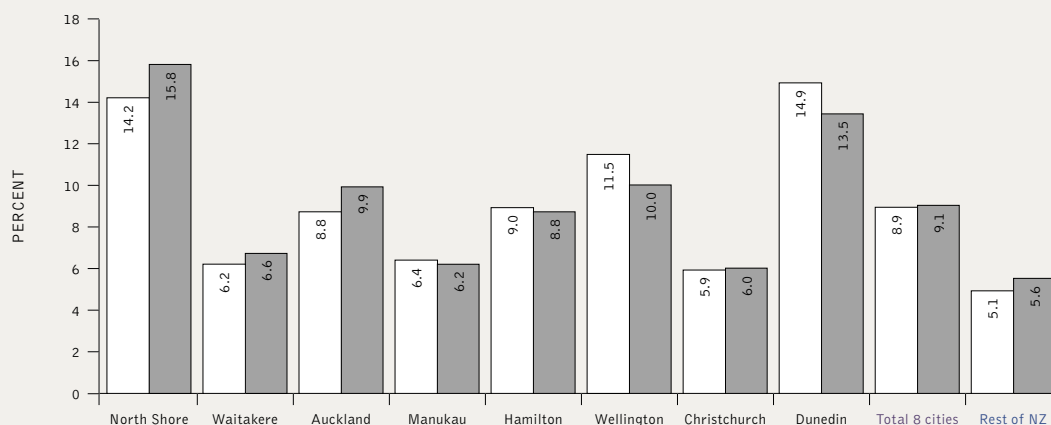
Wellington and Dunedin participation rates show a decline from 2000 to 2001, although both cities still maintain high levels of participation.

Nationally, females accounted for almost three-quarters of all enrolments in community education.

PERCENTAGE OF POPULATION AGED 15 YEARS AND OVER WHO PARTICIPATED IN COMMUNITY EDUCATION (2000, 2001)

Data source: Ministry of Education. Percentages calculated using 2001 Census data

□ 2000 ■ 2001



There appears to be a correlation between low levels of participation in community education and low levels of people with qualifications. This is the case in, for example, Waitakere, Manukau and Christchurch.