

## PART 1 EARLY CHILDHOOD EDUCATION

PARTICIPATION IN EARLY CHILDHOOD EDUCATION (ECE) contributes to a child's later development. Quality early childhood education programmes can help narrow the achievement gap between children from lower income families and more advantaged children.

All families/whānau should have access to quality early childhood education services that are responsive to their needs. Current sector-wide activities to achieve this are focused on: assisting early childhood education teachers to meet and maintain the same professional standards as school teachers; supporting parents providing early childhood education to deliver quality services; and improving access to early childhood education services that meet family/whānau needs. These activities are underpinned by more collaborative relationships between services and programmes for young people.

Areas examined in this chapter are participation, accessibility, and teaching. We don't yet have actual indicators of the quality of early childhood education services; we have indicators about a subset of structural factors that underpin but don't guarantee quality.

# 1. PARTICIPATION

## WHAT WE HAVE FOUND

The number of children attending early childhood education services has been steadily increasing, for children of all ages, over the past 15 years. The rate of increase has been greatest for children aged one, two and three years. Over this same time period the labour market has strengthened; parents of young children are more likely to be in work.

In 2005 over 94 percent of children had received some form of early childhood education before starting school. Participation in early childhood education has increased since 2002 for children from all communities; the increase is greater for children from lower socio-economic backgrounds and Māori and Pasifika communities. However, children from these communities generally have lower levels of participation in early childhood education.

The time children spend in services reflects the changes in the type of service (all-day or sessional) parents are choosing to enrol their children in. The weekly average hours of attendance for a child attending an education and care service or a home-based network service has increased over the past five years; there have only been small increases in the average weekly hours of attendance at kindergartens over that same time.



## WHY THIS IS IMPORTANT

Children who attend a quality early childhood education service gain benefits that last through to their early years in school and beyond.<sup>1</sup> Children in their early years of school show higher cognitive skills and more advanced social skills than children who have not attended early childhood education prior to starting school.<sup>2</sup> Although the research can't say how long each day a child should attend to gain these benefits, attending from an early age and on a regular basis is beneficial, and children from disadvantaged families often gain more benefit.<sup>3</sup>

## HOW WE ARE GOING

### ENROLMENTS AND TIME SPENT IN EARLY CHILDHOOD EDUCATION

Over the past 15 years the number of enrolments in early childhood education services has continued to grow for all ages. The growth is most noticeable for children aged one, two and three years (see Figure 1.1). The data show:

- there has been a change in the type of service parents prefer to use: in 1998 enrolments in all-day services made up 42 percent of all enrolments, in 2005 this figure had risen to 60 percent. This change towards all-day services most likely reflects the growing number of employed parents
- in line with the increase in enrolments at all-day services, the average numbers of hours children are enrolled in education and care services and home-based services have increased; the increase is smaller in kindergartens (see Figure 1.2).

### PARTICIPATION IN EARLY CHILDHOOD EDUCATION BY SOCIO-ECONOMIC BACKGROUND

The extent to which children participate in early childhood education differs between different socio-economic backgrounds. Schools' deciles<sup>4</sup> can be used to identify differences in prior participation in early childhood education by socio-economic background. The data show:

- children across all socio-economic backgrounds have increased their participation in early childhood education over the past few years (see Figure 1.3)
- in 2005, 86 percent of children who attended a school from quintile 1 (deciles 1 and 2) attended an early childhood education service before starting school, compared with 98 percent of children who attended a school from quintile 5 (deciles 9 and 10) (see Figure 1.3).

### PARTICIPATION IN EARLY CHILDHOOD EDUCATION BY DIFFERENT ETHNIC GROUPS

The extent to which children have participated in early childhood education before starting school differs between the major ethnic groups, but all groups have increased their participation over the past few years, particularly Māori and Pasifika. The data show:

- in 2005 over 94 percent of children had participated in some form of early childhood education before starting school
- growth in participation is beginning to slow with a total increase of 0.2 of a percentage point between 2004 and 2005. There was little change in the participation rates of each ethnic group (see Table 1.1).

FIGURE 1.1: APPARENT PARTICIPATION RATES IN EARLY CHILDHOOD EDUCATION BY AGE (1990 TO 2005)



Source: Ministry of Education (2006a)

1. Excludes children aged five years.

2. Children can enrol at more than one service so double counting of enrolments will occur, causing the apparent participation rate to be greater than 100 percent for some age groups.

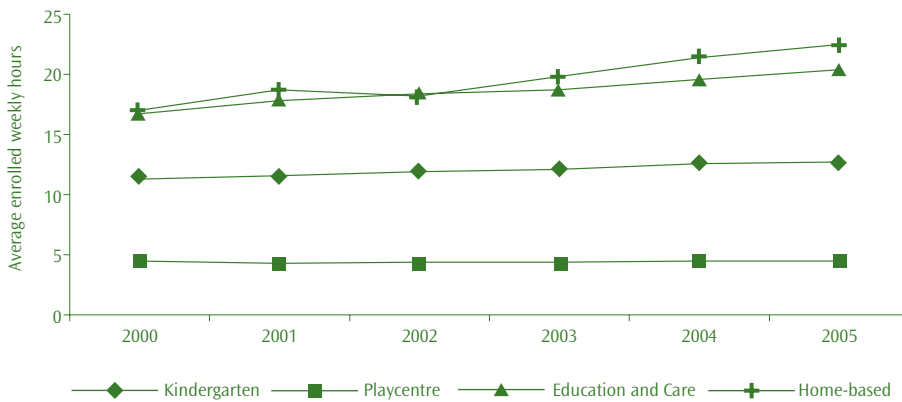
<sup>1</sup> Wylie, C., Hodgen, H., Ferral, H., & Thompson, J. (2006). *Contributions of early childhood education to age-14 performance: Evidence from the competent children, competent learners project*. Wellington: Ministry of Education & New Zealand Council for Educational Research (NZCER).

<sup>2</sup> NICHD Early Childcare Research Network. (2006). *Child-care effect sizes for the NICHD study of early child care and youth development*. *American Psychologist*, 61(2), 99-116.

<sup>3</sup> Leseman, P. P. M. (2002). *Early childhood education and care for children from low-income or minority backgrounds*. Paris: OECD.

<sup>4</sup> A school's decile indicates the extent to which the school draws its students from low socio-economic communities. Quintile 1 schools (deciles 1 and 2) are the 20 percent of schools with the highest proportion of students from low socio-economic communities, whereas quintile 5 schools (deciles 9 and 10) are the 20 percent of schools with the lowest proportion of these students. A school's decile does not indicate the overall socio-economic mix of the school.

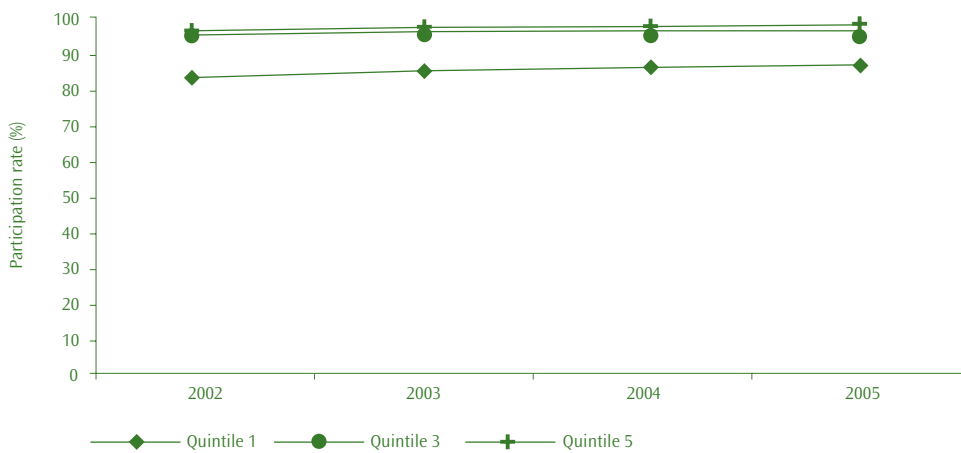
**FIGURE 1.2: AVERAGE WEEKLY ENROLLED HOURS IN EARLY CHILDHOOD EDUCATION BY SERVICE TYPE (2000 TO 2005)**



Source: Ministry of Education (2006b)

1. Excludes te kōhanga reo services as weekly enrolled hours are not collected (most children are estimated to be attending between 27 and 30 hours a week).

**FIGURE 1.3: PRIOR PARTICIPATION RATES IN EARLY CHILDHOOD EDUCATION FOR CHILDREN STARTING SCHOOL BY QUINTILE (2002 TO 2005)**



Source: Ministry of Education

1. Excludes The Correspondence School ECE, Health Camps, New Zealand Agency for International Development\* (NZAID) and Foreign fee-paying students.
2. The number of students with unknown attendance has been excluded when calculating participation rates.
3. Students who attend a school that doesn't have a decile rating, mostly private schools, are not shown.

\* A student on a scholarship from the New Zealand Agency for International Development. Prior to 2004, this was known as a Ministry of Foreign Affairs and Trade (MFAT) scholarship.

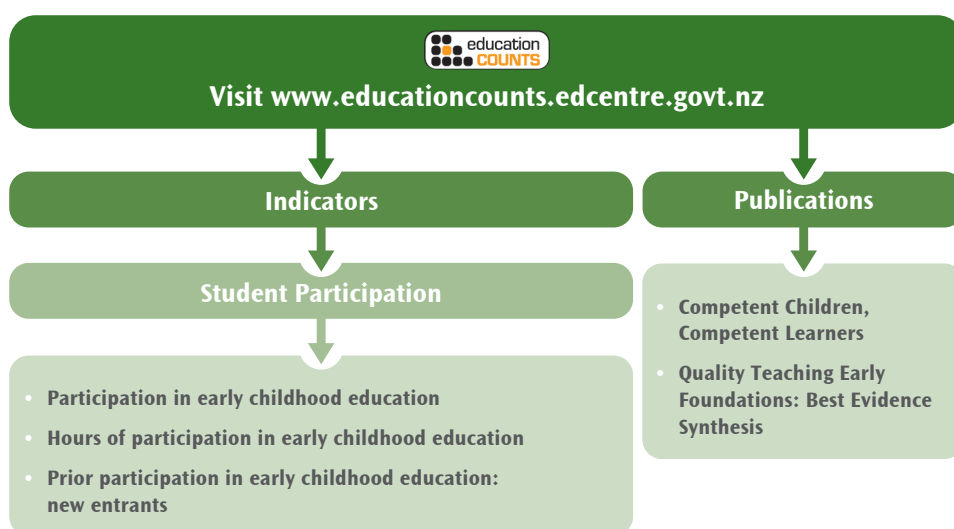
**TABLE 1.1: PRIOR PARTICIPATION RATES IN EARLY CHILDHOOD EDUCATION FOR CHILDREN STARTING SCHOOL BY ETHNIC GROUP (2002 TO 2005)**

Ethnic Group	ECE Prior Participation Rate (%)			
	2002	2003	2004	2005
Māori	86.5	88.4	89.3	89.9
Pasifika	79.4	83.4	84.7	84.5
Asian	92.1	92.4	94.1	95.1
Other	86.6	88.9	89.4	89.9
European/Pākehā	96.6	97.4	97.6	97.7
<b>Total</b>	<b>92.3</b>	<b>93.6</b>	<b>94.1</b>	<b>94.3</b>

Source: Ministry of Education (2005c)

1. Excludes The Correspondence School ECE, Health Camps, NZAID and Foreign fee-paying students.
2. The number of students with unknown attendance has been excluded when calculating participation rates.

## WHERE TO FIND OUT MORE



## 2. ACCESSIBILITY

### WHAT WE HAVE FOUND

Access to early childhood education services is a precondition for children being able to participate in early childhood education and gain its benefits.

Despite rising demand for early childhood education services, most areas have a service that is able to take on new enrolments. However, in 2005 14 percent and 16 percent of licensed services had waiting times of more than six months for three- and four-year-olds, and one- and two-year-olds respectively.

The rise in early childhood education fees was lower than the increase in average income over the last four quarters to the June 2006 quarter; suggesting that, overall, early childhood education became more affordable. Total fees relative to changes in average income fell by 1.3 percent.



## WHY THIS IS IMPORTANT

Participation in quality early childhood education benefits both children and their families/whānau.

Various factors must be present for a child to access an early childhood education service. The child must be able to get to the service. There must be a place for the child; the service must be acceptable to the parents and child, including culture and philosophy; and the service must be affordable.

## HOW WE ARE GOING

### PHYSICAL ACCESS

For a child to have physical access to a service, it has to be sufficiently close to the child's home, or some other convenient location for the family/whānau, such as a parent's place of work or a sibling's school. If the family/whānau relies on public transport, then bus and train services need to be close to both their home and the service. If private transport is used, then safe parking is important. Children who need additional support to access early childhood education, such as children who use wheelchairs, have to be catered for if they are to access the service. The data show:

- of the population aged zero to four years, 97.9 percent have at least one licensed early childhood education service within 10 km of their home. Only 10.7 percent have three or fewer services within 10 km of their home
- of those children who attended licensed early childhood education services in 2005, an estimated 75 percent lived 3.6 km or less from the service they attended. The 75<sup>th</sup> percentile figures were 2.8 km for children living in urban areas and 13 km for those living in rural areas<sup>5,6</sup>

- in most regions less than five percent of the zero to four-year-old population had only three or fewer early childhood education services within 25 km of their home. Limited access to early childhood education services for children aged zero to four years is more of an issue for rural regions in the South Island, particularly in West Coast (24.7 percent), Southland (14 percent) and Marlborough (13.1 percent).

Families/whānau not able to attend licensed services are able to use distance learning through The Correspondence School. They can also attend licence-exempt playgroups.

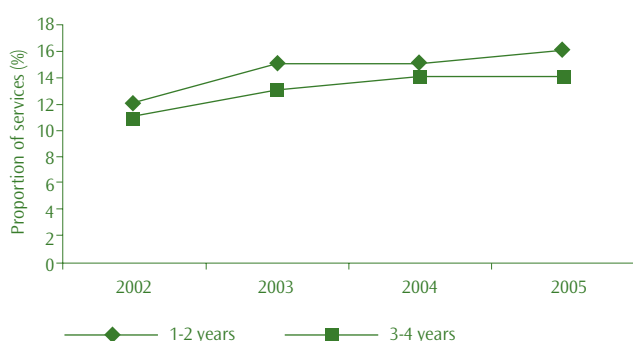
### AVAILABILITY OF PLACES

For a service to be accessible there must be a place available at a suitable time for the child to be enrolled. If children have to wait for a place, the wait should be short.

Most areas with early childhood education services have sufficient space to take on new enrolments. The data show:

- ninety-two percent of licensed early childhood education services' catchment areas have adequate capacity, with adequate capacity being defined as having at least five percent of the hours on offer in the area unused and hence available for children to enrol<sup>7</sup>
- fourteen percent and 16 percent of licensed early childhood education services have waiting times longer than six months for three to four-year-olds and one to two-year-olds respectively. For both age groups the proportions have increased over time (see Figure 2.1). These rises are a reflection of families/whānau' increasing demand for early childhood education, as indicated by rising participation rates.

**FIGURE 2.1: PERCENTAGE OF LICENSED EARLY CHILDHOOD EDUCATION SERVICES WITH WAITING TIME OF SIX MONTHS OR LONGER BY AGE (2002 TO 2005)**



Source: Ministry of Education

1. Excludes casual-education and care services as these services have casual rolls and therefore waiting times are not collected.
2. Excludes playcentres and te kōhanga reo as waiting times are not collected.
3. The one to two-year-old age group excludes kindergartens, as few kindergartens offer services for children aged one to two years.

<sup>5</sup> These conclusions are based on a sample of 80 percent of licensed early childhood education services. The sample was from services that provided information for the calculation of the Equity Funding index and hence is biased towards lower socio-economic communities.

<sup>6</sup> 'Home' is defined as the census area unit where the children live.

<sup>7</sup> The 'hours on offer' figure takes account of the fact that, in reality, services tend to operate below their maximum capacities.

## AFFORDABILITY

Families/whānau must be able to afford an early childhood education service. Whether a family/whānau considers early childhood education to be affordable is dependent on three factors: the cost of the service, the family's/whānau's income, and the importance the family/whānau attaches to early childhood education relative to other ways their income can be spent.

The Ministry of Education provides financial assistance directly to early childhood education services as a per-hour subsidy for each child who attends. There are rates depending on the age of the child, whether the service is all day or sessional, the proportion of qualified teachers, and the type and quality of the service. From 1 July 2007 the government will be providing up to 20 hours of free early childhood education to children aged three and four years old who attend teacher-led services.

Information on fees paid for early childhood education services is collected as part of Statistics New Zealand's Consumer Price Index (CPI). This shows that the price that families/whānau pay for early childhood education services has risen over time. However, the increase in fees has tended to be matched by income growth. Affordability has therefore not deteriorated. The data show:

- the price paid by families/whānau for early childhood education services rose three percent between the June 2005 and 2006 quarters
- changes in fees vary according to the service type, with kindergarten fees rising 10 percent and fees for education and care and home-based services rising 1.3 percent. The increase of kindergarten fees and donations has been from a low base and hence does not contribute as much to the overall rise

- after taking account of the general CPI rise, fees for all early childhood education services decreased by 0.9 percent, made up of a 5.8 percent increase for kindergartens and a 2.6 percent decrease for education and care and home-based services
- total fees relative to changes in average income<sup>8</sup> decreased by 1.3 percent from the June 2005 quarter to the June 2006 quarter. The changes for kindergartens and education and care and home-based services were 5.4 percent and -3 percent respectively (see Figure 2.2).<sup>9</sup>

## WHERE TO FIND OUT MORE

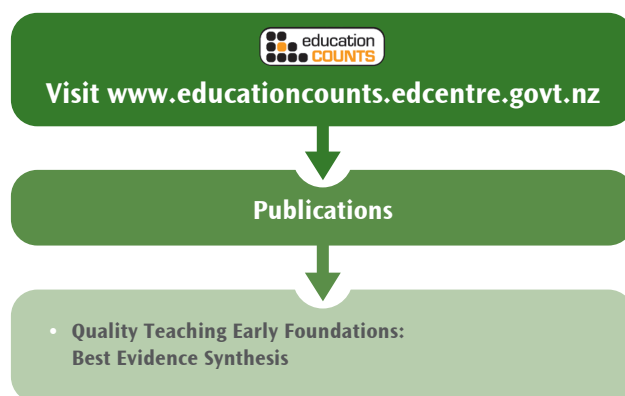
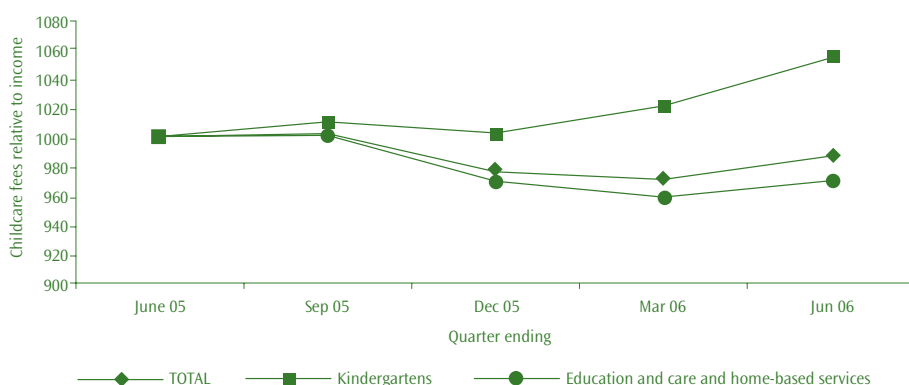


FIGURE 2.2: INDEX OF CHILDCARE FEES RELATIVE TO INCOME BY QUARTER (JUNE 2005 TO JUNE 2006)



Source: Statistics New Zealand, manipulated by Ministry of Education

1. Index = Consumer Price Index (CPI) components divided by the Quarterly Employment Survey (QES) hourly ordinary-time earnings.
2. Product re-based in June 2005 to equal 1,000.

<sup>8</sup> Average hourly ordinary-time earnings (from Statistics New Zealand's Quarterly Employment Survey) are used as a proxy for income.

<sup>9</sup> Since the December 2005 quarter, the index for the education and care and home-based services has also reflected changes to the level and threshold of the Childcare Subsidy. The index for kindergartens does not; it reflects the pre-subsidy fee.

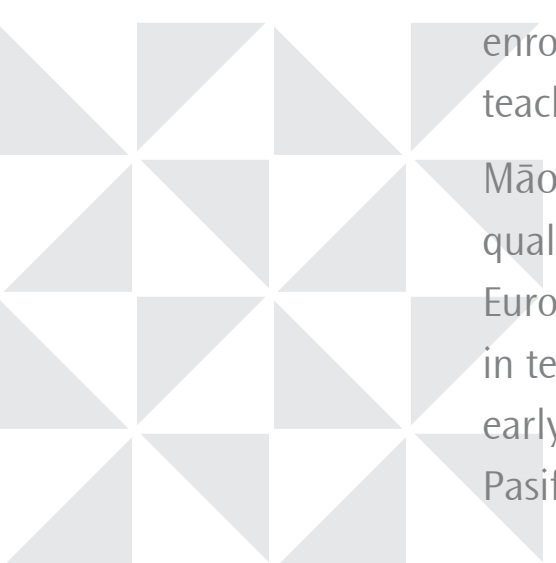
# 3. TEACHING

## WHAT WE HAVE FOUND

Since 2002 when the early childhood education strategic plan was first implemented, the proportion of teachers in early childhood education who are qualified and/or registered has increased, with over half of early childhood teachers registered or qualified in 2005. Most of this growth has been in education and care services, which account for 60 percent of enrolments in all teacher-led early childhood education services. The number of registered teachers is not evenly distributed around the country; Auckland, which has a large number of services, has a low proportion of teachers who are qualified.

In 2005, 40 percent of all unqualified teachers employed in the early childhood education sector were enrolled in tertiary education courses leading to teacher registration. Since 2001 the number of enrolments in tertiary education courses leading to teacher registration has increased by 65 percent.

Māori and Pasifika teachers are less likely to hold qualifications that lead to teacher registration than European/Pākehā teachers. The number of enrolments in tertiary education courses leading to registration as early childhood education teachers for Māori and Pasifika peoples has increased in the last two years.



## WHY THIS IS IMPORTANT

Children benefit from participation in quality early childhood education services. That quality is achieved through a number of interacting factors. Teaching is just one aspect of quality and is the result of the interaction of the ratio of trained adults to children, the number of children (or group size) and the qualification levels of teachers.<sup>10</sup>

One of the ways to improve the quality of early childhood education is to increase the number of qualified and registered early childhood education teachers. Teacher registration ensures the quality of teachers because it shows that newly graduated teachers have completed suitable teacher education programmes and are supervised and supported through an advice and guidance programme. Gaining full registration and maintaining practice certificates assures currency of professional knowledge and practice. The early childhood strategic plan has the target that, by 2012, all regulated staff in teacher-led early childhood education services must be registered or enrolled in approved early childhood teacher education programmes.

## HOW WE ARE GOING

### REGISTERED AND QUALIFIED TEACHERS

Before teachers can become registered with the New Zealand Teachers' Council (NZTC), they must hold a qualification approved by the Council. Once qualified, teachers can then apply for provisional registration with the Council, as long as they are of good character and are fit to be teachers.

The proportion of early childhood teachers who are qualified and registered with the NZTC has increased since 2002. The data show:

- fifty-four percent of early childhood teachers held a qualification that met NZTC teacher registration requirements in 2005. This has increased from 49 percent in 2002 (see Figure 3.1)
- forty-six percent of early childhood teachers in education and care services held qualifications that met NZTC registration requirements in 2005. This has increased from 39 percent in 2002 (see Figure 3.1). As kindergarten teachers have been required to be registered teachers for some time, most of the unqualified teachers are in education and care services
- fifty-two percent of early childhood teachers were registered with the NZTC in 2005. This has increased from 35 percent in 2002 (see Figure 3.1)
- forty-four percent of early childhood teachers in education and care services were registered with the NZTC in 2005. This has increased from 24 percent in 2002 (see Figure 3.1)<sup>11</sup>
- in 2005 the percentages of Māori (42 percent) and Pasifika (42 percent) qualified teachers were lower than for European/Pākehā (59 percent) (see Figure 3.2). However, Pasifika teachers are becoming qualified twice as fast as other teachers
- Auckland has a lower proportion of qualified teachers (45 percent), and a large number of services (872).

**FIGURE 3.1: QUALIFICATION AND REGISTRATION STATUS OF EARLY CHILDHOOD TEACHERS IN TEACHER-LED SERVICES BY SERVICE TYPE (2002 TO 2005)**



Source: Ministry of Education

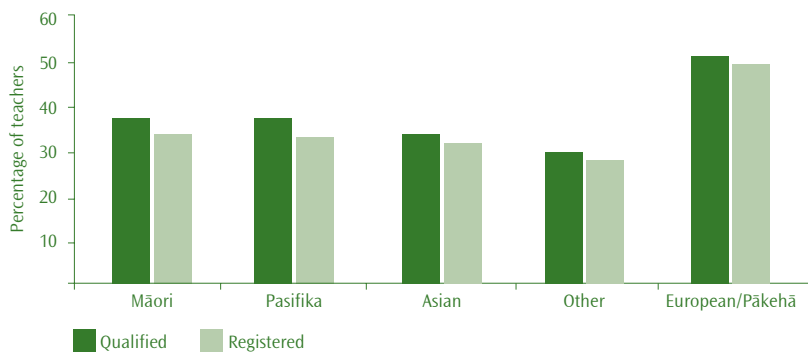
1. Excludes caregivers in home-based networks.
2. Excludes adults on duty in parent/whānau-led services including playcentres and te kōhanga reo.

<sup>10</sup> Farquhar, S. E. (2003). *Quality Teaching Early Foundations: Best Evidence Synthesis*. Wellington: Ministry of Education.

<sup>11</sup> Person(s) responsible regulations and changes to the funding of services provided incentives for existing qualified teachers to become registered in 2005. As such, there was a large increase in the percentage of teachers registered over 2004. This increase is largely owing to existing qualified teachers becoming registered and is not expected to continue at this level in coming years.



**FIGURE 3.2: QUALIFICATION AND REGISTRATION STATUS OF EARLY CHILDHOOD TEACHERS BY ETHNIC GROUP (2005)**



Source: Ministry of Education

1. Excludes caregivers in home-based networks.
2. Excludes adults on duty in parent/whānau-led services including playcentres and te kōhanga reo.
3. European/Pākehā includes teachers of Other European ethnicity.

### TEACHERS IN STUDY

In order to meet the goal of all regulated staff in teacher-led early childhood education services being qualified and registered or enrolled in an approved early childhood teacher education programme by 2012, existing unqualified teachers need to be in study for NZTC approved qualifications. The data show:

- over 2,500 unqualified teachers (40 percent of all unqualified teachers) were in study in 2005 for qualifications approved by the NZTC (see Table 3.1).

### ENROLMENTS AND GRADUATES FROM NZTC-APPROVED ECE TERTIARY COURSES

The number of enrolments in tertiary courses leading to qualifications that meet NZTC registration requirements and the number of completed qualifications from these courses have both increased since 2002. The data show:

- the number of enrolments in tertiary courses that can lead to teacher registration increased by 57 percent between 2002 and 2005. The number of completions has increased by 51 percent between 2002 and 2005 (see Table 3.2)
- the growth in enrolments of Māori (77 percent) students since 2002 is greater than that of non-Māori students (54 percent). The growth in enrolments of Pasifika students (78 percent) since 2002 is greater than that of non-Pasifika (54 percent) students.

**TABLE 3.1: NUMBER OF UNQUALIFIED EARLY CHILDHOOD TEACHERS IN STUDY FOR A QUALIFICATION APPROVED BY THE NZTC BY SERVICE TYPE AND EXPECTED YEAR OF GRADUATION (2005)**

Service Type	Expected Year of Graduation			Total
	2005	2006	2007 or later	
Free kindergarten	4	2	9	15
Education and care services	678	833	1,017	2,528
<b>Total</b>	<b>682</b>	<b>835</b>	<b>1,026</b>	<b>2,543</b>

Source: Ministry of Education

1. Education and care services includes casual-education and care services.

**TABLE 3.2: ENROLMENTS AND COMPLETIONS FROM TERTIARY EARLY CHILDHOOD EDUCATION COURSES LEADING TO TEACHER REGISTRATION (2002 TO 2005)**

	2002	2003	2004	2005
Enrolments	3,860	4,450	5,100	6,060
Completions	780	910	1,030	1,180

Source: Ministry of Education

1. Data may differ from that published previously owing to changes in methodology.

### WHERE TO FIND OUT MORE

