CENSUS 2013
Statistics on ECE Teachers

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Executive Summary

Statistics New Zealand’s 2013 Census recorded 23,580 people as having worked as ECE teachers in March 2013. They had the following characteristics.

- ECE teachers tend to be younger than the general working population and a lot younger than teachers in the other education sectors.
- While most ECE teachers are European, their proportion of Māori, Pasifika and Asian teachers is higher than for the general working population and for teachers in the other education sectors.
- Māori teachers tend to be younger than other ECE teachers, and Pasifika teachers tend to be older.
- Very few ECE teachers are men. European teachers have the lowest percentage that is male and Māori teachers the highest.
- ECE teachers tend to work fewer hours a week than the general working population and teachers in other the education sectors.
- Likewise, the annual income of ECE teachers tends to be lower than the general working population and especially compared with teachers in other education sectors.
- The proportion of ECE teachers with a bachelor degree or higher qualification is higher than is the case with the general working population but lower than for teachers in the other education sectors.
- The proportion of ECE teachers with a bachelor degree or higher tends to be higher for:
  - Younger teachers (apart from very young teachers)
  - Asian teachers
  - Teachers working longer hours a week
  - Teachers with higher annual income.
1. Introduction

Statistics NZ’s Census collects a comprehensive set of data on early childhood education (ECE) teachers. Much of this information is additional to the type of data collected by the Ministry of Education. This paper summarises the findings from the 2013 Census. Where available, it also provides high-level summarised information from the Ministry’s own collections of data.¹

2. Total Number of ECE Teachers

The Census shows 23,580 people to be working as ECE teachers² in March 2013³. By comparison, the Ministry’s figures show 22,195 teachers to have been working in teacher-led ECE services in June 2013. These are divided between teachers working in education & care services (18,620), kindergartens (2,806), home-based services (628), casual education & care services (91), hospital-based services (34), and the Correspondence School (16).⁴ Note that the Ministry’s figures are a by-service count, which means that teachers working in more than one service will be counted more than once.

The Ministry’s figures also show an additional 2,281 people to have been working as paid staff in kōhanga reo services, some of whom would have been classified as ECE teachers in Statistics New Zealand’s classifications.⁵

Differences in what the Census and Ministry counts include result in slight differences in the teacher characteristics shown by each, although these differences are largely immaterial.

¹ The Census data used in this report was obtained from Statistics New Zealand as a customised request. Most of the Ministry’s data used in the report comes from its Education Counts website: http://www.educationcounts.govt.nz/statistics/ece2/staffing.
² That is, adults employed in the ANZSCO occupation code 2411, “Early Childhood (Pre-primary School) Teachers”.
³ More specifically, this is the number who worked as ECE teachers in the week ended 3 March 2013.
⁵ Kōhanga reo staff would have been classified as either ECE teachers or as education aides in the Census. Home-based educators and paid on-duty adults in playcentres would not have been classified as ECE teachers, but as either child carers or education aides.
3. Demographic Details

Age

The Census shows that most ECE teachers are in the 25-34 or 35-44 year-old age groups, with respectively 26% being in each. The next largest group was 45-54 year-olds (21%). See Figure 1.

ECE teachers tend to be younger than the general working population and a lot younger than teachers in the other education sectors. The percentage of ECE teachers under 45 years of age was 64%, which compares with 53% for all employed adults, 50% for primary school teachers, 46% for secondary school teachers, and 39% for university lecturers and tutors. The percentage for school teachers as a whole was 49%. See Figure 2.
Information on the age of ECE teachers is not collected by the Ministry of Education.

**Ethnicity**

The Census shows three quarters of ECE teachers to be European. The next largest ethnic group was Māori teachers (14%), closely followed by Asian teachers (12%). Pasifika teachers made up 6% of all teachers. See Figure 3.

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6 Statistics NZ defines ethnicity as follows: “Ethnicity is the ethnic group or groups that people identify with or feel they belong to. Ethnicity is a measure of cultural affiliation, as opposed to race, ancestry, nationality or citizenship. Ethnicity is self perceived and people can belong to more than one ethnic group.”


7 These are “total response” figures, which means that people with more than one ethnicity will be counted more than once. For this reason, the sum of the parts is greater than 100%. It also means that the values for “Other” may be slightly over-estimated, as they were calculated by summing two ethnic groups – “Middle Eastern/Latin American/African” and “Other Ethnicity”.

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Figure 3 Percentage of ECE teachers in each ethnic group

Figure 4 shows some of the larger of the ethnic sub-groups. The 75% of teachers who stated they were European can be further broken down into 68% “New Zealand European” and 7% “Other European”. The largest “Other European” ethnic group was “British and Irish” (3%). The largest Pasifika ethnic group was Samoan (3%) and the largest Asian ethnic group was Indian (5%), followed by Chinese (3%).

Figure 4 Percentage of ECE teachers in each ethnic group

Compared with the general working population and other education sectors, ECE teachers are more likely to be Māori, Pasifika or Asian. For example, compared with school teachers, the percentage of ECE teachers who were Māori was 1.3 times higher, the percentage who were Pasifika was 2.0 times higher, and the percentage who were Asian was 2.4 times higher. See Figure 5.
Individual ECE teachers are also more likely to have more than one ethnicity than is the case with the general working population and teachers in the other education sectors. This is seen in Figure 6, which shows the percentage difference between the sum of people in the different ethnic groups and the overall total number of people. The greater this difference, the greater will be the extent of multiple-ethnicity. Figure 6 shows the difference at both the level 1 detail of ethnicity and the finer level 2 detail of ethnicity.

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8 As was explained before, people with multiple ethnicities will be included in each of the ethnic counts, which means that the sum of the parts (the individual ethnicities) will be greater than the whole (the total population).

The Ministry also collects data on the ethnicity of teachers. Figure 7 compares these with the Census figures. For most ethnic groups, the Ministry shows fewer teachers, with its total number being 6% lower. Its figures are likely to be lower because who is an ECE teacher is more narrowly defined in the data shown here (i.e. it is teachers working in teacher-led ECE services). The discrepancy is even larger for Māori teachers, due to kōhanga reo services not being included in these figures. \(^{10}\) Interestingly, the Ministry shows a higher number of Pasifika teachers than is shown

\(^{10}\) Kōhanga reo staff are not included in the Ministry figures shown here, because the Census would have categorised most kōhanga staff as education aides rather than ECE teachers, and there is no way of knowing who would have been put into which category.
in the Census (34% more). This may be because the Ministry figures include unpaid teachers whereas the Census only includes teachers receiving pay.11 A higher percentage of Pasifika teachers may be volunteers.

**Ethnicity and Age**

Māori teachers tend to be younger, with 46% being under 35 years of age compared with 33% of Pasifika teachers. By contrast, Pasifika teachers tend to be older, with 44% being 45 years or older compared with 30% of Māori and Asian teachers. See Figure 8.

**Figure 8 Age distribution of ECE teachers, by ethnic group**

![Age distribution of ECE teachers, by ethnic group](image)

**Gender**

Only 3.0% of ECE teachers are men. The percentage is highest for Māori teachers (5.9%) and lowest for European teachers (2.3%). See Figure 9.

By comparison, the Ministry’s data shows 2.2% of teachers in teacher-based ECE services to be men. It too shows European teachers as having the lowest percentage (1.9%), but Māori teachers are just behind Asian teachers as having the highest percentage (respectively 2.9% and 3.0%). The main difference may be that some of the teachers counted in the Census figures work in kōhanga reo services, which are not included in the Ministry’s figures shown here. Other data collected by the Ministry shows a higher percentage of kōhanga reo staff to be men (13%).

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11 The employment count in the Census also includes unpaid adults working in family businesses, but this is unlikely to apply to many if any ECE teachers.
The percentage of ECE teachers who are men declines slightly over most of the age range, from 3.4% for 15-24 year-olds to 2.5% for 55-64 year-olds, but is highest for the oldest group (5.2%). See Figure 10. However, this distribution does vary by ethnic group, with the youngest age group having the highest percentage of men for Pasifika teachers (9.6%) and Asian teachers (6.6%). See Figure 11.
4. Other Details

Hours Worked a Week

Slightly over half of ECE teachers worked fewer than 40 hours a week (54%). However, the 10-hour range with the most teachers was 40-49 hours a week (41%). See Figure 12.
The Ministry also collects hours-a-week data, but these figures show ECE teachers as having fewer hours. There are several reasons for this difference. The main one is that the Ministry only counts the time that teachers have direct contact with the child. By contrast, the Census includes all hours of employment, which also includes time spent on administration, preparation for the next day, and so on. Another reason is that the Ministry’s figures are collected on a by-service basis and does not add together the hours of teachers working at more than one service. See Figure 13.

**Figure 13 Percentage of teachers in each hours/week range, by data source**

Compared with the other education sectors, ECE teachers tend to work fewer hours. The 54% of ECE teachers working fewer than 40 hours compares with 26% for school teachers and 36% for university lecturers and tutors. The figure for all employed adults was 37%. See Figure 14.

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12 There is also a slight difference in timing. The Census question relates to the week ended 3 March 2013 whereas the Ministry’s information relates to the week ended 30 June 2013.
Income

Just over a third of ECE teachers had an annual income of $30,001 - $50,000 a year, with 39% earning less than this. See Figure 15.

Annual income is greatly influenced by the number of hours worked. This can be seen in Figure 16, which looks at the distribution of teachers in each income range across the hours per week ranges. It shows, for example, that 55% of the teachers earning up to $5,000 worked fewer than 20 hours a week compared with only 2% of the teachers earning more than $50,000, whereas the percentage of these two groups working 40 hours or more a week was respectively 17% and 80%.
The annual income of ECE teachers tends to be lower than that of other employed adults and a lot lower than that of teachers in the other education sectors. The 25% of ECE teachers who earn more than $50,000 compares with 39% of all employed adults, 67% of school teachers, and 73% of university lecturers and tutors. See Figure 17.

Once again, a key factor behind this difference is likely to be the number of hours worked per week, as can be seen in Figure 14. However, other factors will also be causing the difference, such as ECE teachers working fewer days a year or a lower hourly salary rate. This is indicated by Figure 18, which focuses only on teachers working 40-49 hours a week, thereby partly accounting for this factor. While it
shows the percentage of ECE teachers earning more than $50,000 to increase to 42% from Figure 14’s 25%, it is still lower than the figures for the other sectors.

Figure 18 Percentage of teachers in each income range of teachers working 40-49 hours/week, by sector

The Ministry does not collect data on the income of ECE teachers. However, another source of data is Statistics NZ’s Employment Outcomes of Tertiary Education (EOTE) dataset, which links individuals’ data on participation and achievement in tertiary education with monthly earnings data from the Linked Employer-Employee Database. This data shows that, for students of less than 24 years of age graduating in 2003, the earnings of ECE teachers in 2008 was the same as that of all such graduates ($45,000), but lower than that of primary school teachers ($52,000) and secondary school teachers ($53,000). Of course, these figures are not directly comparable with what is shown in the Census, as they relate to younger people who have tertiary qualifications.13

A further source of information on income comes from Statistics NZ’s New Zealand Income Survey. Although a survey and hence subject to sampling errors, this has the advantage providing data on hourly earnings, which means that no further adjustment is required for the number of weeks and hours per week worked. The median hourly earnings of ECE teachers in the June 2013 quarter was $23.50. This was above that of the general workforce ($21.58), but below that of primary and intermediate school teachers ($28.59) and secondary school teachers ($28.65).

These figures take no account of differences in age and qualification levels (ECE teachers tend to be younger and less qualified than school teachers). Interestingly, the gap with school teachers is smaller for full-time teachers ($24.23 for ECE teachers compared with respectively $26.85 and $27.23 for the two school sectors) and larger for part-time teachers ($21.00 for ECE teachers compared with respectively $39.73 and $42.00 for the two school sectors), which may be because of higher special payments for relieving school teachers.

**Qualifications**

The percentage of ECE teachers with university qualifications that are a Bachelor Degree or higher (52%) is more than twice that of all employed adults (25%) but lower than that of teachers in the other education sectors. For the education sector, the percentage appears to increase with the age of child, ranging from 52% for ECE teachers to 86% for university lecturers and tutors. The average for school teachers as a whole was 78%. See Figure 19.

![Figure 19 Percentage of adults employed in different occupation groups that have a bachelors degree or higher](image)

Besides the 52% of ECE teachers whose highest qualification is a Bachelor Degree or higher, a further 32% had some sort of other post-school qualification. In all, 83% of ECE teachers had some sort of post-school qualification.

Not all of the ECE teachers with post-school qualification had their highest qualification in ECE teaching. In total, only 56% did, with the figures being 55% for those with Bachelor Degrees or higher and 58% for those with other post-school qualifications. This does not mean that the other teachers did not have a qualification in ECE teaching, only that this was not their highest qualification.
Indeed, a total of 3% of ECE teachers with post-school qualifications had primary school teaching as their highest qualification and a total of 23% had some sort of non-ECE qualification in the Education sector.

The Ministry also collects information on the qualifications of ECE teachers, although in this case the focus is mainly whether the teacher has ECE qualifications of a type and level that are recognised as such by the NZ Teachers Council. At the end of June 2013, 76% of ECE teachers had such a qualification.

The remaining analysis on qualifications relates to the percentage of ECE teachers who have a bachelors degree or higher.

With the exception of ECE teachers less than 25 years of age, the percentage of ECE teachers with a bachelors degree or higher tends to fall with age. While 60% of 25-34 year-olds had a bachelor degree or higher, only 28% of teachers aged 65 years or higher did. This compares with 52% of all ECE teachers. See Figure 20.

Figure 20 Percentage of ECE teachers in different age groups that have a bachelors degree or higher

Māori teachers have the lowest percentage with a bachelor degree or higher (39%) and Asian teachers have the highest (72%). See Figure 21. These findings tend to be occur across the age groups, although with the exception of Pasifika teachers having the second highest percentages for the 55 years and over group and European teachers having the lowest percentages. See Figure 22.
The percentage of ECE teachers with a bachelor degree or higher tends to be higher for those working more hours a week than those working fewer. It was highest for teachers working 40-49 hours a week (63%) and lowest for teachers working 10-19 hours a week (33%). See Figure 23.
The percentage with bachelor degrees or higher was consistently lower over the annual income ranges up to $30,000, ranging from 34% to 36%. However, it then rose for those in the $30,001-$50,000 range (59%) and was even higher for those earning more than $50,000 (68%). See Figure 24.