



Briefing Note: 2020 ECE Census Results

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| To: | Hon. Chris Hipkins, Minister of Education | | |
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Purpose of Report

The purpose of this paper is for you to:

- Note** that the 2020 Early Childhood Education (ECE) Census results will be released via Education Counts on Friday 18 December 2020.
- Agree** that this Briefing will be proactively released.

Agree / Disagree

Summary

- The annual ECE Census provides a snapshot of high-level statistics for early learning in New Zealand covering the services, enrolment numbers, teaching staff, and the use of languages. In 2020 it provided us with the following statistics:
 - The number of children enrolled at licensed early learning services in the 2020 ECE Census is 190,348 children (down 4% from the 2019 ECE Census figure of 198,923 children).
 - The percentage of all children in New Zealand aged 0-4 years enrolled at licensed early learning services has decreased from 63.9% in 2019 to 60.7% in 2020.
 - The number of enrolments at licensed early learning services has been decreasing since the 2017 ECE Census. We cannot tell from the 2020 ECE Census how much of the decrease is part of this ongoing trend and how much is due to COVID-19, however a recent *He Whakaaro* (Webber, 2020) indicates that the lower numbers

of children in early learning this year is mostly due to fewer children entering early learning than children leaving the sector.

- The number of teaching staff at licensed early learning services is 30,476 (down 5% from the 2019 figure of 32,065 teaching staff). Data on the age of teaching staff was collected for the first time this year. Over a quarter of teaching staff are in the 31 to 40 year old age band, and less than 10% are 61 years old and above.
- The number of licensed early learning services is 4,662 (up 0.2% from the 2019 figure of 4,653 services).
- 99.7% of eligible (i.e.: open, non-exempt) services completed the 2020 ECE Census.



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Evidence, Data and Knowledge

10/2/2020



Hon Chris Hipkins
Minister of Education

10/2/2021

Background

1. The annual ECE Census occurs in the last full week of June. It provides a snapshot of high-level statistics for early learning in New Zealand covering the services, enrolment numbers and attendance hours, teaching staff, and the use of languages. It is our only source of information on teaching staff and the use of languages, as well as on enrolments at services that do not use the Ministry's Early Learning Information (ELI) system (such as Kōhanga Reo).
2. The Census report contains information on many aspects of early learning, including numbers of children, service types, hours attended by children, teaching staff – their qualifications and background, and languages spoken.
3. The data enables the Ministry to analyse changes within the sector to inform policy advice and contribute to expenditure forecasts. The results are made available on Education Counts.
4. Prior to 2014 the Census information was collected via a paper form. The Early Learning Information system (ELI) made electronic capture and submission possible but also altered some of the data collected. This means time series are not always directly comparable before and after 2014.
5. The 2020 ECE Census took place from 22 - 28 June (the third week of Alert Level 1 in New Zealand). There was a response rate of 99.7% (the 2019 response rate was 96.0%). The majority of services (80%) used ELI to return their census; 99% of paper-based forms were submitted by playgroups that do not connect to ELI, and Kōhanga Reo whose responses are provided in bulk by Te Kōhanga Reo National Trust.
6. Two new questions relating to teaching staff were introduced in the 2020 ECE Census: age of teaching staff and total hours worked by teaching staff. Total hours worked has been used to calculate the percentage of working time teaching staff spend in contact with children, compared to release time.

Findings from the 2020 ECE Census

Key participation measures

7. Both the total number of enrolments and the enrolments rates¹ decreased between 2019 and 2020.
8. There were 190,348 enrolments at licensed early learning services during the 2020 ECE Census week, a 4% decrease from 2019 (198,923 enrolments).
9. The total proportion of all children in New Zealand aged 0-4 years old who attended a licensed early learning service during the 2020 ECE Census week was 60.7% (down from 63.9% in 2019). This includes 91.5% of 4-year olds (down from 94.2% in 2019) and 86.2% of 3-year olds (down from 89.8% in 2019).
10. Te Kura (formerly known as The Correspondence School) is the only licensed early learning service type to have seen an increase in enrolments between the 2019 and 2020 ECE Census. There were 333 children enrolled in early learning at Te Kura in 2020, up 21 from 2019.

¹ The enrolment rate is the number of enrolments as a percentage of the total New Zealand population aged 0-4. Population numbers were sourced from Stats NZ's Estimated Resident Population by Age and Sex tables (Infoshare).

Key service measures

11. The total number of licensed early learning services has increased to 4,662 services, up 0.2% from the 4,653 services reported in the 2019 ECE Census.
12. Proportions of enrolments by service type were largely the same between the 2018, 2019 and 2020 ECE Census.
13. Occupancy rates have steadily decreased in most service types since 2017. The average occupancy rate for playcentres across New Zealand was 48.3% during the 2020 ECE Census week (48.0% in 2019). The average occupancy rate for kindergartens was 82.5% (82.3% in 2019), and for education & care services it was 78.0% (78.8% in 2019).
14. There were slightly more children per adult in licensed early learning services during the Census week in 2020 than in 2019. There was a national average of 5.7 children per adult during each service's busiest time, up from a national average of 5.6 in 2019.
15. The only licensed early learning service on the Chatham Islands is a Kōhanga Reo.

Key teaching staff measures

16. The total number of teaching staff² at licensed early learning services during the 2020 ECE Census week was 30,476, down 5% from the 32,065 who worked in the 2019 ECE Census week.
17. Women account for 97% of teaching staff at early learning services, and 65% of teaching staff identify as Pākehā.
18. The percentage of qualified teaching staff at licensed early learning services has increased from 68% in 2019 to 72% in 2020.
19. Just over a quarter of teaching staff (26%) are in the 31 to 40-year old age group, while less than 10% are 61 years old and above. Older teaching staff are more likely to be qualified than younger teaching staff. This is likely because people often work in early learning while gaining a qualification that allows for registration with the Teaching Council of Aotearoa New Zealand.
20. The new 'total hours worked' question allows us to calculate the percentage of working time that teaching staff spend in contact with children. 91% of the working time of education and care teaching staff is spent in contact with children. This is higher than the 70% for kindergarten teaching staff.

Correlating the ECE Census and Other ECE Participation Measures

21. The Ministry currently reports three different measures of participation at early learning services: the Participation Intensity Measure, the enrolment figures in the ECE Census, and the prior participation rate.

² Teaching staff data in these tables relates to licensed ECE teacher-led services. Excluded are parent-led licensed services, such as playcentres and Kōhanga Reo, playgroups and other service types that are not licensed ECE services. For home-based services, data relates to coordinators (caregivers and educators are excluded).

22. The Participation Intensity Measure looks at the hours that children attend ECE over the entire time that children are aged 3 and 4. The key measures are what percentage of children attend for 10 or more, and 20 or more, hours a week.
23. The June 2020 Participation Intensity Measure results indicate that 74% of children attended ECE for 10 or more hours a week on average when aged 3, and 84% attended for 10 or more hours a week on average when aged 4; 35% of children attended ECE for 20 or more hours a week on average when aged 3, and 39% attended ECE for 20 or more hours a week on average when aged 4.
 - a. The percentage of children who attended ECE for 10 or more and 20 or more hours a week on average was lower in 2020 than 2019 as a result of COVID-19.
 - b. Most children in New Zealand attended 0 hours of ECE each week during the Level 4 lockdown, reducing the overall percentage of children attending ECE for an average of 10 or more, and 20 or more, hours a week.
 - c. From 2017 to 2019, the percentages of children who attended ECE for 10 or more, and 20 or more, hours a week on average had increased.
24. The ECE Census measures the hours attended by children during the ECE Census week (22-28 June 2020), rather than over a year. The 2020 ECE Census results state that the average weekly attendance hours in ECE for 3-year olds is 21.7 hours per week (21 hours, 44 minutes), and 22.2 hours for 4-year olds (22 hours, 11 minutes). These are in line with the Participation Intensity Measure – namely that 4-year olds attend for longer each week than 3-year olds.
25. While enrolments as measured in the ECE Census have been decreasing since 2017, the decrease between 2019 and 2020 was likely exacerbated by COVID-19. However, Webber (2020) states that the decrease in children in formal early learning between 2019 and 2020 is due to “fewer new children entering than children leaving the sector.” We will know more once we receive enrolment figures from the 2021 ECE Census.
26. So far, we have not seen any impact from COVID-19 on the prior participation rate. The early learning prior participation rate is calculated from information provided when a child is enrolled at school. The prior participation rate is calculated quarterly as “year ended in quarter”; since September 2019 the total prior participation rate has held steady at 97.1%.

Communications Approach

27. Typically, any media interest in this data is limited.
28. Key questions and answers relating to the release are attached (see Annex 1) should we need to respond to queries.

Next Steps

29. The full set of data tables and the attached summary posters are to be published via Education Counts. In consultation with your office, this material is to be released on Friday 18 December 2020.
30. More detailed research reports based on the 2020 ECE Census data will be released throughout 2021. We are currently seeking feedback on which topics would be of interest to the broader early learning sector.

Proactive Release

31. We recommend that this Briefing is proactively released as per your expectation that information be released as soon as possible. Any information which may need to be withheld will be done so in line with the provisions of the Official Information Act 1982.

References

Webber, A. (2020). *How participation in early learning is affected by COVID-19*. Available at <https://www.educationcounts.govt.nz/publications/series/he-whakaaro/he-whakaaro-how-participation-in-early-learning-is-affected-by-covid-19>.

Annexes

- Annex 1: Key questions and answers
- Annex 2: Summary poster: Participation in Early Learning
- Annex 3: Summary poster: Early Learning Teaching Staff
- Annex 4: Summary poster: Licensed Early Learning Services
- Annex 5: Summary poster: Te Reo Māori in Early Learning – Kōhanga Reo
- Annex 6: Summary poster: Te Reo Māori in Early Learning – Services other than Kōhanga Reo
- Annex 7: Summary poster: Pacific Languages in Early Learning
- Annex 8: Summary poster: Asian Languages in Early Learning

Annexes 2 to 8 are publicly available here: <https://www.educationcounts.govt.nz/publications/ECE/annual-ece-census-2020-fact-sheets>

Annex 1: Key questions and answers

What do these posters say?

A number of reports are to be published at different times as part of this year's early learning Census, each containing different sets of data. These posters are the first to be released.

This report captures information in a number of important areas. Key findings include:

- There were 190,348 enrolments at licensed early learning services during the 2020 ECE Census week, a 4% decrease from 2019 (198,923 enrolments).
- The total number of licensed early learning services has increased to 4,662 services, up 0.2% from the 4,653 services reported in the 2019 ECE Census week.
- The total number of teaching staff³ at licensed early learning services was 30,476 during the 2020 ECE Census week, down 5% from the 32,065 who worked during the 2019 ECE Census week.
- The proportion of qualified to unqualified teaching staff at licensed early learning services has increased from 68% in 2019 to 72% in 2020.

What was the response rate?

This year's response rate was high at 99.7% of eligible (i.e. open, non-exempt) services, and 80% of services submitted their Census electronically through the Ministry's Early Learning Information (ELI) system, with the remainder supplying their information on paper or via Excel.

So overall, it's positive?

It's a statistical release and doesn't draw overall conclusions. The findings are useful when considered alongside other years so trends can be identified. (See note Background: 4 on time series before 2014).

Can we conclude that overall, there are no major differences between this year's data and last year's?

The ECE Census is an annual snapshot of the early learning sector and has a high level of data quality. There are no major differences in the quality between this year's data and last year's data.

What do we attribute the difference in teacher numbers?

Some of the decrease in teacher numbers could be linked to the decrease in enrolments, as enrolments have decreased by 4% and teacher numbers by 5%. The increase in the percentage of qualified teachers could be a result of actions in the Early Learning Action Plan including the introduction of incentives for 100 per cent qualified teachers and the intention to regulate for 80 per cent qualified teachers. These actions may have led to services prioritising qualified over unqualified teachers if staffing levels need to be reconsidered.

What is being done to help with ECE teacher supply?

Our investment in ECE teacher supply initiatives is ongoing and these are making good progress.

³ Teaching staff data in these tables relates to licensed ECE teacher-led services. Excluded are parent-led licensed services, such as playcentres and Kōhanga Reo, playgroups and other service types that are not licensed ECE services. For home-based services, data relates to coordinators (caregivers and educators are excluded).

Alongside our scholarships and awards programme offering financial support for those studying and the existing Teacher Education Refresh enrolment places, there are new targeted domestic initiatives. These include relocation support for teachers and recruitment support to help teachers return to and stay in the profession.

Can we assume COVID-19 has influenced this year's numbers?

While enrolments as measured in the ECE Census have been decreasing since 2017, the decrease between 2019 and 2020 was likely exacerbated by COVID-19. We will know more once we receive enrolment figures from the 2021 ECE Census, however Webber (2020) states that the decrease in children in formal early learning between 2019 and 2020 is due to "fewer new children entering than children leaving the sector."

Please see Webber (2020) for further discussion on the how participation in early learning is affected by COVID-19.

Only 91.5% of 4-year olds attended ECE in 2020 – but the ECE prior participation statistics state that 97.1% of children attend ECE before starting school in New Zealand. Why the difference?

There are a few possible reasons for the difference between the ECE Census results and the ECE prior participation results.

1. The ECE Census and the prior participation results are based on two different data sets. Information for the ECE Census is drawn from ECE services, and the total population of children is taken from Stats NZ. The prior participation statistics are calculated based on information collected from parents/caregivers when children are enrolled in primary schools. Overall, these sources are very similar, however there are small differences in the total number of children according to each data source, which can cause small differences between the attendance and participation rates.
2. Another difference is that the ECE Census attendance rate is based on children aged 0 – 4, while the prior participation rate is based on children who have started school in the previous 12 months.
 - a. A small number of children don't begin ECE until after they turn 5, meaning that these children will not be included in the ECE attendance rate – but they will be counted in the prior participation rate once they start school.
 - b. The same is true for children who begin ECE when aged 4 – but start **after** the ECE Census week (which was 22 to 28 June for 2020). These children won't be included in the ECE Census attendance rate but will be included in the prior participation rate once they start school.
 - c. Moreover, any children who usually attend ECE but did not attend during the Census week will not be included the ECE Census attendance rate but will be counted in the prior participation rate once they start school.

What about the ECE participation intensity measure? How does that line up with the average weekly attendance hours recorded in the ECE Census?

The participation intensity measure uses administrative data drawn from the Early Learning Information (ELI) system and population projections from StatsNZ to calculate the percentage of children attending early childhood education for 10 or more, and 20 or more, hours a week on average at age 3 and at age 4.

The June 2020 results indicate that 74% of children attended ECE for 10 or more hours a week on average when aged 3, and 84% attended for 10 or more hours a week on average

when aged 4; 35% of children attended ECE for 20 or more hours a week on average when aged 3, and 39% attended ECE for 20 or more hours a week on average when aged 4.

The participation intensity results for 2020 were affected by the Alert Level 4 lockdown, which prevented almost all children in New Zealand from attending ECE for several weeks. As most children in New Zealand attended 0 hours of ECE each week during the Level 4 lockdown, this reduced the overall percentage of children attending ECE for an average of 10 or more and 20 or more hours a week.

The ECE Census measures the hours attended by children during the ECE Census week (22 to 28 June for 2020), rather than over a year. The 2020 ECE Census results state that the average weekly attendance hours in ECE for 3-year olds is 21.7 hours per week (21 hours, 44 minutes), and 22.2 hours for 4-year olds (22 hours, 11 minutes). These are in line with the participation intensity findings – namely that 4-year olds attend for longer each week than 3-year olds.

Why is the proportion of services on the 80%+ funding band so much higher than the proportion of qualified teachers?

We have regulated minimum adult-to-child ratios for licensed early learning services. Our funding bands mean higher funding rates are available to services who have increasingly higher proportions of certificated teachers (those holding a current practising certificate issued by the Teaching Council), covering those regulated ratio hours. Many services choose to operate with more teachers than they need to meet these ratios.

The ECE Census is a once-a-year snapshot of ECE services, and we include all teaching staff that work during the Census week. It doesn't matter if they are full or part-time, permanent or relieving. We also include staff who aren't required to meet regulated adult-to-child ratios in the Census count.

For funding purposes, we only look at the teachers required to meet the regulated ratios. In the Census week, we're looking at more than that. Both data sets tell us useful things, but the two measures are not directly comparable.

Differences between funding and Census data

There are a number of reasons why funding data may recognise a higher proportion of certificated teaching staff hours than the proportion of qualified teaching staff reported through ECE Census data, including:

- In ECE Census returns, services report the total number of teaching staff who had child contact time during the Census week, regardless of whether they are required to meet adult-to-child ratios. Funding bands are determined by the proportion of regulated staff hours that are worked by certificated teachers. The number of hours worked by teaching staff in excess of those required to meet the regulated ratio requirements are not counted for funding band purposes. Services have an incentive to allocate certificated staff to regulated staff hours.
- The ECE Census count includes home-based coordinators but not the educators they supervise. Funding bands apply to centre-based services only; home-based services are not counted.
- Census data is based on the headcount of teaching staff, whereas funding data is based on hours worked.

- Qualified staff may work longer hours than unqualified staff. This will affect funding bands, but not census data. For example, the 2020 ECE Census data indicates that 77% of full-time staff are qualified, compared to 66% of part-time staff.
- Relievers may work in multiple services in the course of the ECE Census week, and hence be counted more than once. 2020 ECE Census data indicates that qualification rates for permanent staff are higher than for non-permanent staff.
- Qualification ratios determined from ECE Census data are reduced if services employ additional unqualified staff, above the minimum number of staff required by regulated ratios. However, these staff may not be contributing towards regulated staff hours which determine funding bands.
- The ECE Census is a snapshot in time, for one week of the year, and may not be wholly representative of longer time periods. In contrast, funding bands are calculated as averages over a funding period (i.e. four months).

What is causing the decreasing numbers of bilingual and immersion Pacific language services?

The percentage of teaching time spent in a language may change from year to year and is based on estimates from the services themselves. Due to differences in staffing, a service may move from being in or out of the 51%+ teaching time band from year to year.

We only have around 70% of early learning teachers holding both an ECE qualification and a current practising certificate from the Teaching Council of Aotearoa New Zealand. Does this mean we have a significant number of services with staff who are not qualified to teach?

Different types of early learning settings have different requirements. All teacher-led services are currently required to have 50 per cent of their teachers qualified, and the Government has indicated that, over time, a higher proportion of staff required to meet ratios in teacher-led services will need to be qualified.

Specifically, the Early Learning Action Plan 2019-2029 commits to regulate for 80 percent qualified teachers in teacher-led centres, leading to regulation for 100 percent.

Why is teaching staff ethnicity reported in a separate table?

Data relating to teaching staff ethnicity has been collected in recent years, however it had not been published. Feedback from our stakeholders encouraged us to rethink this, and we decided to publish data relating to teaching staff ethnicity starting in 2019.

This data has been published on its own as teaching staff ethnicity is collected on a total response basis rather than a prioritised response basis – this means that a teaching staff member is counted once under each ethnicity they report, for up to three ethnicities. So, a teaching staff member who gives their ethnicity as Māori, Samoan and Pākehā will be counted three times – once as Māori, once as Samoan, and once as Pākehā.

This means that the total number of teaching staff in the Teacher Ethnicity table is higher than the total number of teaching staff in the ECE Teaching Staff tables, because some teaching staff are being counted up to three times.

Why are you using total response ethnicity? And why don't you use it for children?

The Ministry uses the 'total response' method to report ethnicity whenever possible in order to recognise the diverse backgrounds of all students. This method counts all ethnic groups an individual may identify with. For example, when a student identifies with both Māori and Pacific heritage, both identities are counted. This means the total number of individuals will be larger than the number of individuals in the data collection – the approach makes the data look

‘messy’ however it is the Stats NZ standard for ethnicity reporting and it better reflects the fact that some people identify with more than one ethnicity.

While the Ministry prefers to use the ‘total response’ method, it is not always possible due to data limitations, such as when ethnicity data has been prioritised prior to being supplied to the Ministry. Prioritised ethnicity was the main reporting method used in the past and some prioritised reports still remain due to legacy collection methods and systems – such as children’s ethnicity within the ECE Census.

The Ministry is reviewing its data collections and systems and working with education providers and their software vendors to shift towards always using the ‘total response’ ethnicity reporting method. You can contact Data.Team@education.govt.nz if you have further questions.

Why is there no earlier data on total teaching staff hours?

The 2020 ECE Census was the first year we collected data on the total hours worked by teaching staff in the early learning sector. In the past we had collected data on contact hours which was used to calculate the occupancy rates of services.

The addition of total working hours allows us to calculate what percentage of staff time is spent in contact with children, and what is available as release time. The 2020 ECE Census results state that 91% of the working time of education and care teaching staff is spent in contact with children. This is higher than the 70% for kindergarten teaching staff.

Why do education and care teachers spend a greater percentage of their time in contact with children than kindergarten teachers, and what is being done to improve the consistency of teachers’ conditions across the sector?

Most education and care services operate for longer hours than most kindergartens. It is likely to be more difficult to provide release time for teachers in these longer day contexts since this time can’t be taken outside the service’s operating hours. Action 3.4 of the Early Learning Action Plan 2019 - 2029 is to implement a mechanism that improves the levels and consistency of teachers’ salaries and conditions across the early learning sector.

What is being done to help with ECE teacher supply?

Our investment in ECE teacher supply initiatives is ongoing and these are making good progress.

Alongside our scholarships and awards programme offering financial support for those studying and the existing Teacher Education Refresh enrolment places, there are new targeted domestic initiatives. These include relocation support for teachers and recruitment support to help teachers return to and stay in the profession.

How many new ECE teachers are joining the workforce?

Enrolments

- Between 2018 and 2019, there was an increase in domestic students enrolling for the first time in ECE initial teacher education qualifications close to 10% (or 130 more) in ECE students.
- In 2019, there were 1,440 domestic first-time ECE ITE enrolments, which is the highest they have been since 2014 and 16% higher than the low point in 2017.
- As ECE first-time ITE enrolments have increased in 2018 and 2019 it is likely that in the future we will see more ECE graduates ready to join the teacher workforce once they have completed their studies.
- We’ll have full-year ITE enrolment data for 2020 available from April next year.

Graduates

- The number of first-time domestic ECE ITE graduates in 2019 (945) represented the lowest number of graduates since 2005. This was a decrease of 1% (10 less).
- The number of first-time domestic ITE students completing an ECE sector qualification has been decreasing since 2013, which is in line with a decrease in domestic students starting ECE qualifications between 2011 and 2017. However, the rate of decrease in graduates slowed in 2019, with the number of graduates being 10 fewer than in 2018.

The increase in the number of first-time ECE ITE students enrolling in 2018 and 2019 indicates that the number of graduates should start to increase from around 2020. This is because of the time between increases in enrolments and time taken to complete the qualification.