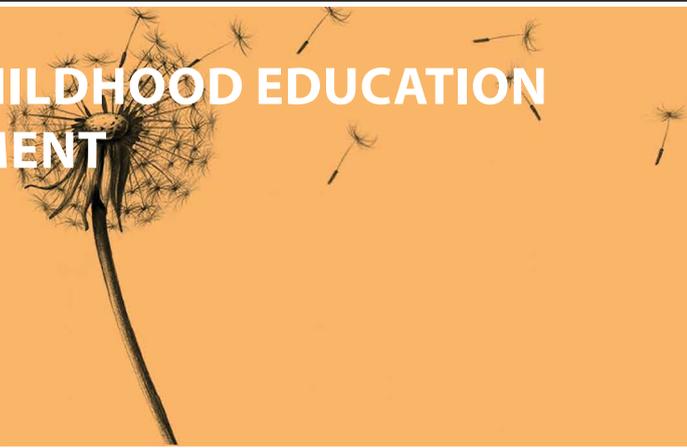


CHARACTERISTICS OF EARLY CHILDHOOD EDUCATION WORKERS AND THEIR EMPLOYMENT



An executive summary of Motu Note #39

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SUMMARY HAIKU

Filling info gaps
On early childhood sector
Insights with limits.

INTRODUCTION

The ECE sector has changed over the last decade from comprising mainly community-based, not-for-profit services to comprising mainly privately-owned services. With the increase in demand for ECE, there is also an increase in the demand for ECE staff.

The Ministry of Education has information on the ECE sector from the Early Learning Information system and annual ECE Census. The information available is primarily about the service providers and the children that attend these services. There is limited information about the ECE teaching and non-teaching workforce.

This study sought to fill that information gap, focusing on three issues: the characteristics of the ECE workforce; the annual transition and retention rates of workers in the ECE sector; and the industry sources and destinations of ECE workers who move into and out of the ECE sector.

DATA AND METHODOLOGY

The research uses data from the IDI obtained from several sources, including sample surveys, tax records and other administrative sources. In order to examine workforce dynamics, we need data on personal employment, qualifications and personal demographics. We define the ECE sector as comprising two 2006 Australian and New Zealand Standard Industrial Classification industries: preschool education and child care services. This definition overstates the ECE workforce by treating the 'child care services' industry as exclusively serving the ECE sector; on the other hand, it understates the ECE workforce by not covering self-employed people who do not pay themselves a wage.

Data on people's employment are taken from the Employer Monthly Schedule. We annualise earnings to the calendar year, to correspond to the academic year in New Zealand. We focus on all workers who work in the ECE sector during the year. A worker might work in multiple jobs concurrently or change from one job to another in the same year. Thus, a worker might be involved in several industries in a year. Given this, for each ECE worker we define their primary industry as the industry with their highest earnings in the year. We also categorise the extent of their involvement in ECE based on how much of their total annual earnings is from ECE (100 percent, [50–100 percent), or <50 percent).

Overall, we believe the Employer Monthly Schedule data provides reliable employment and earnings data for wage and salary workers in the ECE sector, subject to some caveats. First, the base observation in the data is monthly employment and earnings, with no direct indicator of part-time versus full-time employment or measure of hours. This makes it difficult to gauge the level of employment intensity worked within a month or obtain a reliable measure of hourly earnings or (full-time equivalent) salary rates. It may be possible to obtain a benchmark from reported hours worked in the Household Labour Force Survey (HLFS) or the population Census. Second, both the measures of qualifications and immigration status used in the analysis are less reliable for older cohorts of workers. This makes trend comparisons of

This research was supported by the Ministry of Education. We thank Philip Stevens for guidance and assistance with the project, Warren Smart for help with identifying the relevant ECE qualifications, and seminar participants at the Ministry of Education for helpful discussion and comments on the research

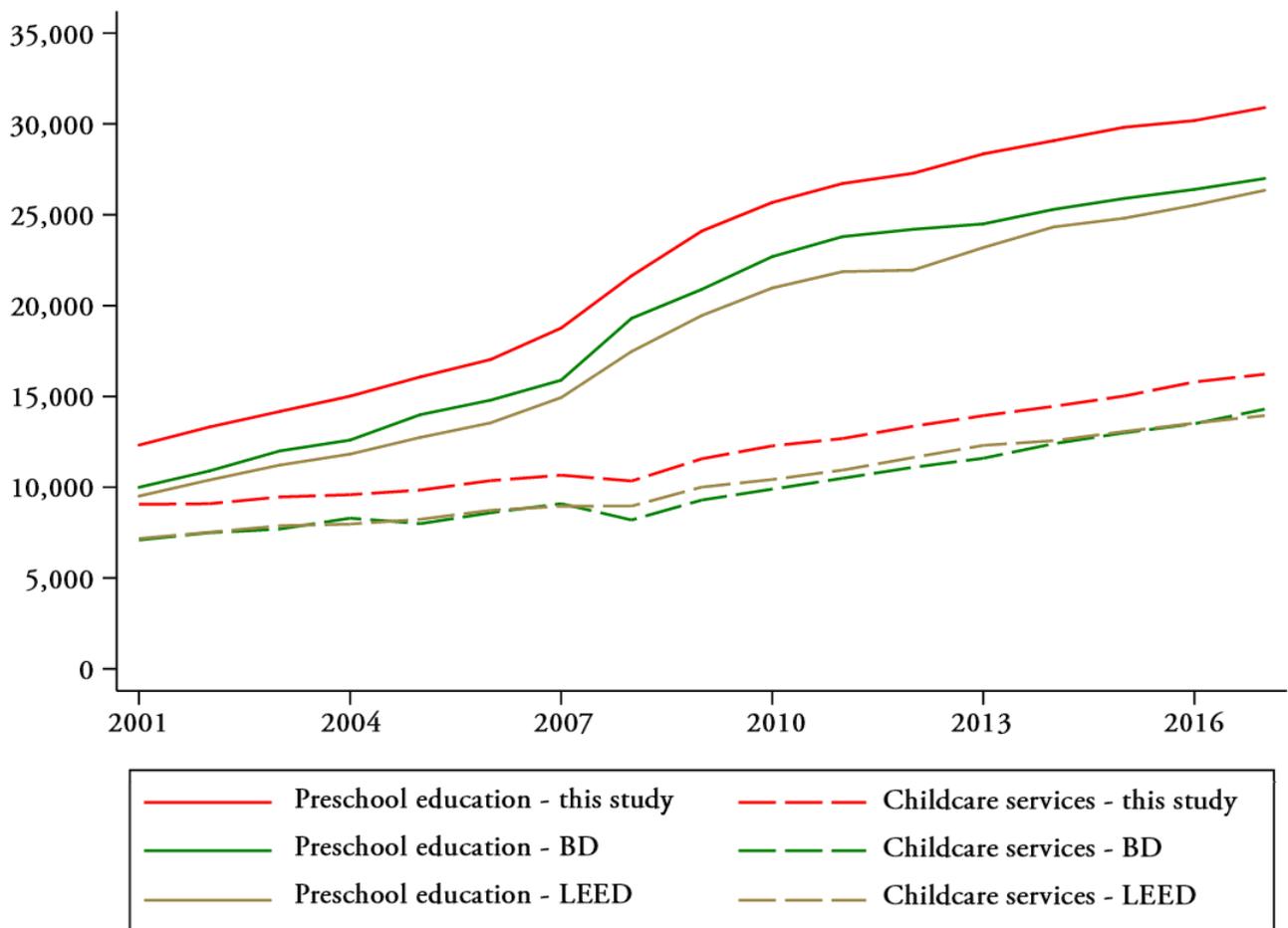
these characteristics over time difficult for all ECE workers; however, analyses based on younger cohorts should be more reliable and informative.

Data on qualifications are from the Ministry of Education’s data on course completion at the tertiary level. These data provide detailed information on provider code, qualification level code, subject code, completion year, etc. From this we derive the highest qualification obtained to date, and whether a person has an ECE qualification to date. Both these measures likely understate the number of qualified workers because they do not record qualifications obtained before 2003 or overseas. Finally, basic personal demographic characteristics are derived from date of birth, sex and ethnicity available in one of the central IDI tables (data.personal_detail), which is StatNZ’s best assessment of a person’s characteristics based on multiple sources available in the IDI. Immigrant status is inferred from citizenship, domestic student status and funding source in the Ministry of Education’s data on tertiary enrolments and courses.

RESULTS

We find that, between 2001 and 2017 the number of annual ECE workers almost doubled, from 29,200 to 57,700. Within the ECE sector, the ‘preschool education’ industry has grown from having just over a third more workers than ‘child care services’ to almost double the size of the latter.

Figure 1: Number of workers in the Early Childhood Education sector





Women make up the overwhelming majority (94 percent) of the ECE workforce. On average ECE workers were just under 36 years old in 2001, rising to just under 38 years old in 2017. The share of immigrant workers more than doubled and the share of workers of Asian ethnicity rose consistently and dramatically over the period.

The share of degree-qualified workers and ECE qualified workers also increased dramatically, both because over time increasingly more workers have their qualifications captured in the MOE data, and because of the increasing requirements for qualifications in the ECE workforce.

ECE employment became more intensive during the study period. This is evident given the mean number of months worked (per worker per year) in ECE increased, while the mean number of non-ECE jobs and the mean number of months worked in non-ECE decreased over the period. In addition, mean total earnings of all ECE workers increased by 54 percent over the period 2001-2017, compared to the 75 percent increase in mean ECE earnings and an almost tripling of median ECE earnings.

Retention rates within the ECE sector improved over the study period. Male workers are more likely than female workers to come from outside ECE industries and to move into those industries. Other characteristics that are associated with higher mobility include younger age groups, highest qualification being level 1-3, having no ECE qualifications, and deriving less than 50 percent of total earnings from ECE.

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