

PARENTHOOD AND LABOUR MARKET OUTCOMES

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SUMMARY HAIKU

Being a mother
means decreased hours and wages.
No such change for dads.

INTRODUCTION

The gender pay gap in NZ has generally been decreasing since 1998, and in the 2017 June quarter fell to 9.7%. However, the gap is still a long way from zero, and a high proportion of it cannot be explained by differences in elements such as age and education. Furthermore, recent research suggests the gap cannot be explained by differences in productivity between males and females.

In NZ, as internationally, the gender pay gap is larger among parents than non-parents, though the mechanisms driving this relationship are not entirely clear.

Our study combined administrative monthly earnings data and birth records with survey data on hours worked and earnings to describe the labour market outcomes of men and women as they have children. Through this, we examined how parenthood contributes to the gender pay gap in New Zealand. We considered the hourly earnings and hours worked in 2006-15 of a sample of non-parents and parents who had their first child in 2003-10, and the monthly earnings and employment in 2000-15 of the population of parents who had their first child in 2005.

METHODOLOGY

We used two data sources for this research. Monthly wage earnings, derived from tax data and included in Statistics New Zealand's Integrated Data Infrastructure (IDI), were used to study all New Zealand parents who had a first child in 2005 (this included about 13,700 mothers). We used employment and monthly earnings from five years before the first child's birth and up to ten years after.

Next the investigation focused on parents in the Household Labour Force Survey (HLFS) and NZ Income Survey (NZIS) who had their first child in 2003-2010. Unlike tax data, the quarterly HLFS contains information on hours worked, and its annual supplement, the NZIS, contains hourly wages. These surveys allowed examination of hours worked and hourly wages from 2006 to 2015. However, they include only a sample of parents, so the number of observations is much fewer. They also include each individual for a maximum of two years, so this cannot be used to trace an individual's outcomes change over the long run.



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RESULTS

We first looked at how long mothers and fathers who had their first child in 2005 were out of paid employment. This is likely to be driven by the combination of choice, necessity, and (in)ability to find paid employment. We found:

- Most women were out of paid employment for a considerable length of time after becoming parents: 61 percent of women had worked in at least one month by their child's first birthday, and 69 percent by their child's second birthday.
- Few men were out of paid work for long when they had children.
- Women with higher incomes pre parenthood and higher qualifications returned more quickly to work after childbearing and maintained higher employment rates after becoming parents.
- Women who became mothers when aged 25-34 had higher employment rates after having children than those who became mothers when aged 35-44. The employment rate of those who became mothers when aged under 25 was lowest, at only 34 percent in their child's second year.
- Prior to becoming mothers, Māori and Pasifika women were far more likely not to be employed than Pākeha women (around 22 percentage points). Part of this is likely to result from the tendency for Māori to have children when they are younger. This ethnic employment gap narrowed after motherhood.

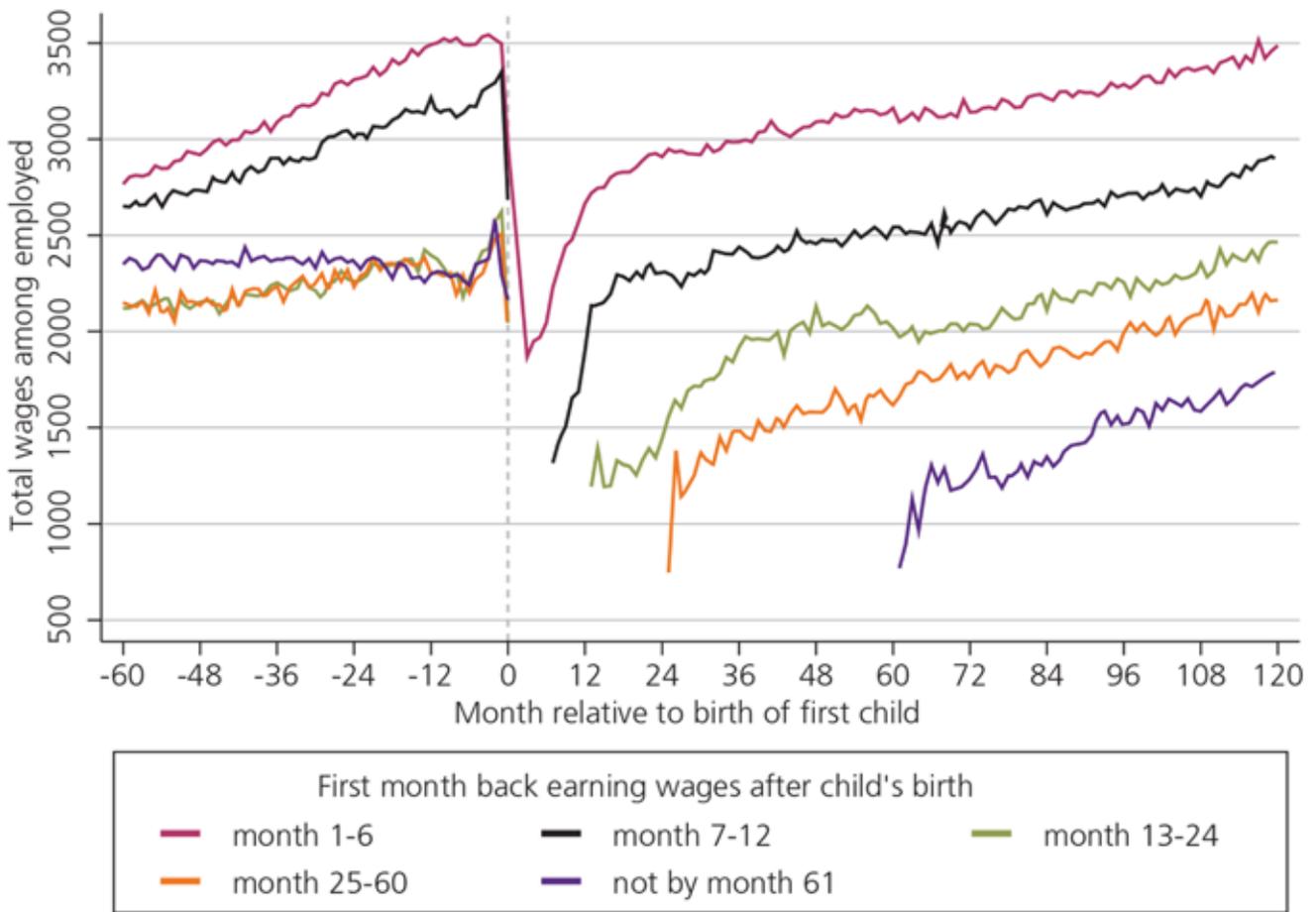
We next examined how monthly wage earnings changed when people returned to work after becoming parents.

Monthly wage earnings are driven by the combination of hourly wages and monthly hours worked, but are important in themselves for a parent's ability to support their family and for lifetime earnings.

- Across pre-parenthood income categories, employed women experienced decreases in monthly earnings when they had children. These decreases were larger for women who returned to work more slowly. Men experienced no such income decreases upon becoming parents.
- Women with low incomes before parenthood, such as young mothers, experienced only small monthly income decreases, but this isn't necessarily a positive sign. It could result from a range of factors such as underemployment before becoming parents.
- Among those who are employed, monthly income for Māori, Pasifika and Asian women actually increased slightly when they became parents; Pākeha women experienced the largest fall in monthly income.
- Time out of employment mattered more for the earnings of high-income women. This may be because they had more specialised skills that weakened while they were not working.
- Women who returned to work quickly tended to be those with higher income and faster income growth even prior to parenthood. Their fast return to employment increased their earnings lead over their slower-returning colleagues.
- The earnings growth of women who returned to work quickly was much slower after becoming parents than before, with substantial consequences for lifetime earnings. Prior to parenthood, these women were on a trajectory to be very high earners; the dampening of their income growth could help explain why there are relatively few women in the highest income brackets.
- In contrast, the rate of income growth for low-income women changed little when they became parents.



Figure 1: Monthly earnings of mothers by length of time out of employment



To better understand what drives changes in monthly wage income experienced by women, we delved into the change in how many weekly hours people worked after having children.

- We found employed mothers worked fewer hours than before parenthood: a median of 27 hours down from a median of 40 hours. In contrast, employed fathers worked a median of 41 hours both before and after becoming parents.
- The longer a woman spent out of work the shorter the number of hours she worked upon her return. Women who returned to work in the first six months after their child’s birth worked a median of 30 hours, those who returned in months 7 to 12 worked a median of 27 hours, and those who returned after month 12 worked a median of 22 hours.



Figure 2: Employed women's hours worked by time out of employment

Finally, we used regression analysis to examine the contribution of parenthood to gender differences in hourly wages.

- Across our HLFS sample, we observed women earned 6.8 percent lower hourly wages on average than men of the same age and education. This value differs from other estimates of the gender wage gap because our sample is not representative of the population.
- The wage difference was 5.7 percent between men and women without children, but 12.5 percent between men and women who were parents.

Merely comparing the hourly wages of employed parents with those of employed non-parents will not accurately estimate the extent to which a man or woman can expect his or her wages to change if he or she has children (the causal effect of parenthood on hourly earnings) for two reasons. The first is that people who become parents may not be representative of the population as a whole even within their age and educational group. The second is that those who choose to work after having had children tend to be those with greater earnings potential. We deal with these issues in two ways. First, we identify people who will have children in the future and estimate how their wages differ from the wages of those who will never have children in a way that is allowed to vary by gender. Second, in our regressions we control for pre-parenthood income quartile as a proxy for earnings potential.

- When we compared the earnings of those who would become parents in the future with those who did not reproduce, we found men who subsequently became parents had 14 percent higher hourly wages than men of the same age and education who did not become parents. Women who would later become parents were earning 7.8 percent higher hourly wages than women of the same age and education who did not become parents.
- When men became parents, their hourly wages were not significantly affected.
- When women became parents, their hourly wages decreased by an average of 4.4 percent relative to the wages they could have expected had they not had children, a statistically significant effect.
- This wage penalty for motherhood varied substantially by time out of paid work. Mothers who returned to work within six months experienced a statistically insignificant 2.3 percent decrease in hourly wages, whereas those who returned after more than a year experienced a statistically significant 8.3 percent decrease in hourly wages. Some, but not all, of these decreases could be explained by mothers moving to lower-paying industries or occupations.

