



East Asia & Pacific
Gender



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Does Access to Preschool Increase Women's Employment?

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KEY FINDINGS

- An additional public preschool per 1,000 children raises the employment of mothers of eligible-aged children by 6.9 percentage points, an increase of about 13%.
- Availability of public preschools also has positive, but smaller effects on mothers with children younger than eligible age. Women with younger children may take into account future childcare options when making decisions about work.
- Private preschools, which cost more on average and have greater variability in terms of quality compared to public preschools, have no impact on women's employment.

CONTEXT

Women's employment in Indonesia, at 48.7%, is significantly below the regional average of 56.9%.¹ Halim, Johnson and Perova (2017)² find that lack of access to informal childcare arrangements with grandparents or other elderly adults in the household is correlated with withdrawal from work. However, there is no evidence on whether formal childcare arrangements such as preschools or daycare centers impact women's labor market choices in Indonesia.

¹ World Development Indicators for 2017: <http://wdi.worldbank.org/tables>.

² Halim, Daniel, Hillary Johnson and Elizaveta Perova. "Could Childcare Services Improve Women's Labor Market Outcomes in Indonesia?". 2017. EAPGIL Policy Brief: www.worldbank.org/eapgil

EAST ASIA AND PACIFIC GENDER INNOVATION LAB

The East Asia and Pacific Gender Innovation Lab (EAPGIL) carries out impact evaluations and inferential research to generate evidence on what works in closing gender gaps in assets, economic opportunities, and agency, and how closing these gaps can help achieve other development outcomes. Ultimately, EAPGIL seeks to increase the welfare of women and men in East Asia and the Pacific by promoting the uptake of effective policies and programs identified based on evidence.

In addition to potential benefits related to early childhood development, preschools also alleviate the childcare burden for mothers. Studies from Argentina, the US, and Israel have shown that improving access to preschools has positive impacts on female labor force participation; however, it is not clear whether the same would be true in a different country context like Indonesia.

WHAT DID WE DO?

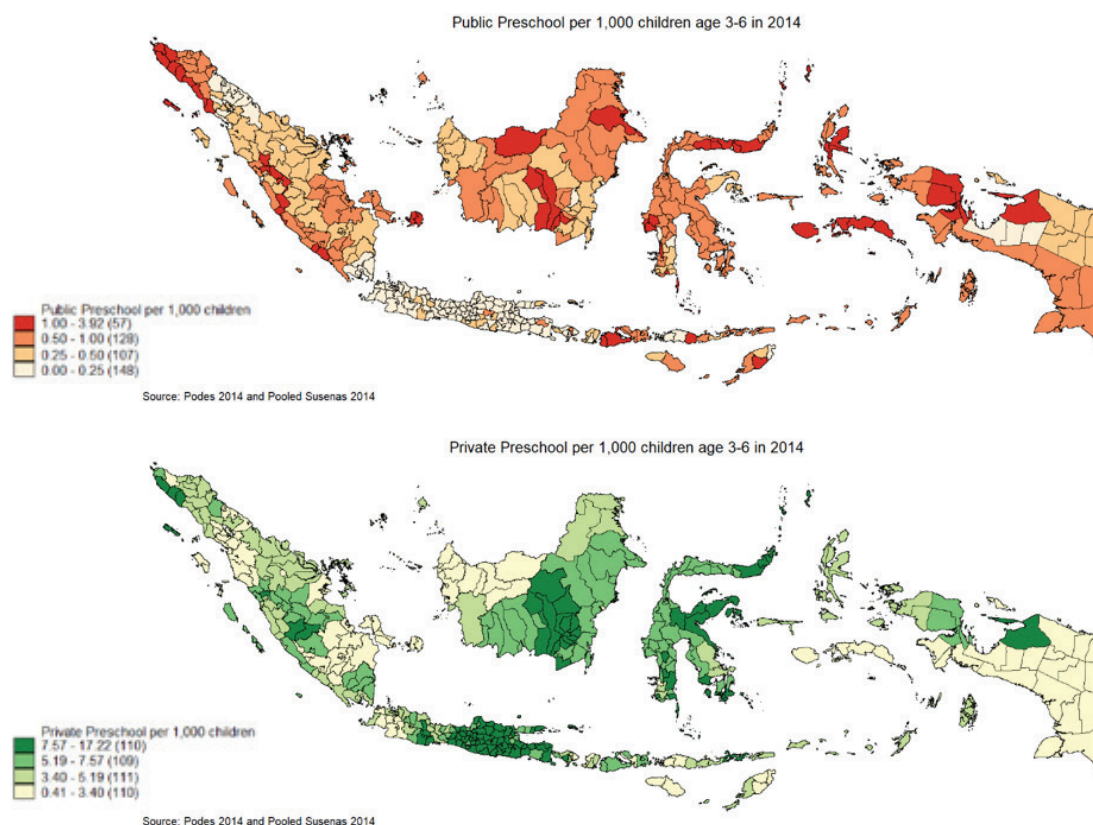
We combine two data sets: Indonesian Family Life Survey (IFLS), a household survey which tracks 10,000 women³ in 5 waves of data collection between 1993 and 2004 and a village census (PODES) carried out every 3 years, which contains information on the availability of preschools in a village. To estimate the effect of preschool availability of women's employment we use variation in the number of preschools in

different districts (Figure 1) and over time (Figure 2). We also exploit the exogenous overlap between expanded access to preschool and the time children are eligible for it to establish the causal relationship.

There are two primary challenges to rigorously estimating the impacts of preschool expansion on women's employment. First, the decision to enroll one's child in preschool may be driven by factors that also affect a woman's labor market decisions, such as career preferences and family circumstances, which we cannot observe and account for in the analysis. Second, construction of a preschool in a district may be correlated with other district level factors that may affect women's employment, such as local economic development. Our data and empirical strategy permit us overcome both challenges⁴.

We study one specific type of preschool: Taman Kanak-kanak (TK). TK is a formal education program

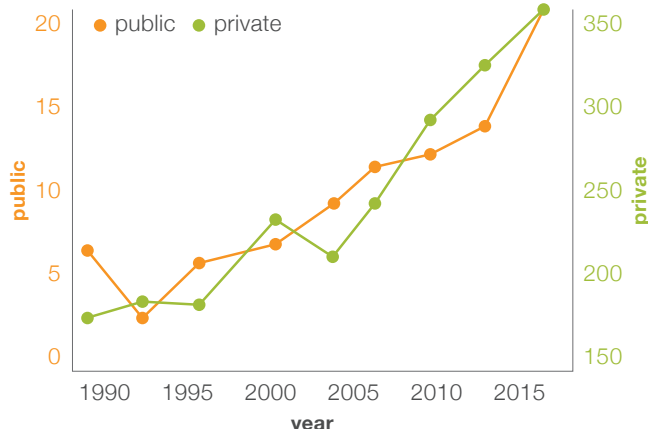
FIGURE 1: PUBLIC & PRIVATE PRESCHOOLS



³ The IFLS has a high re-contact rate: 87.8% of households contacted in 1993 were successfully contacted or confirmed to be dead in 2014.

⁴ We isolate the impact of preschool availability at the district level by including district-time fixed effects, and control for time-invariant differences between women by including individual fixed effects. For more details on the methodology, please see the full paper at: www.worldbank.org/eapgil

FIGURE 2: AVERAGE NUMBER OF PUBLIC AND PRIVATE PRE-SCHOOLS PER-DISTRICT



Note: data from Podes 1990-2014, aggregated to districts as they existed in 1993

aimed to prepare for school children between the ages of 4 and 6⁵. We choose TK because it is covered consistently in the PODES data during our study period.

WHAT DID WE FIND?

Public preschools are cheaper to attend than private ones

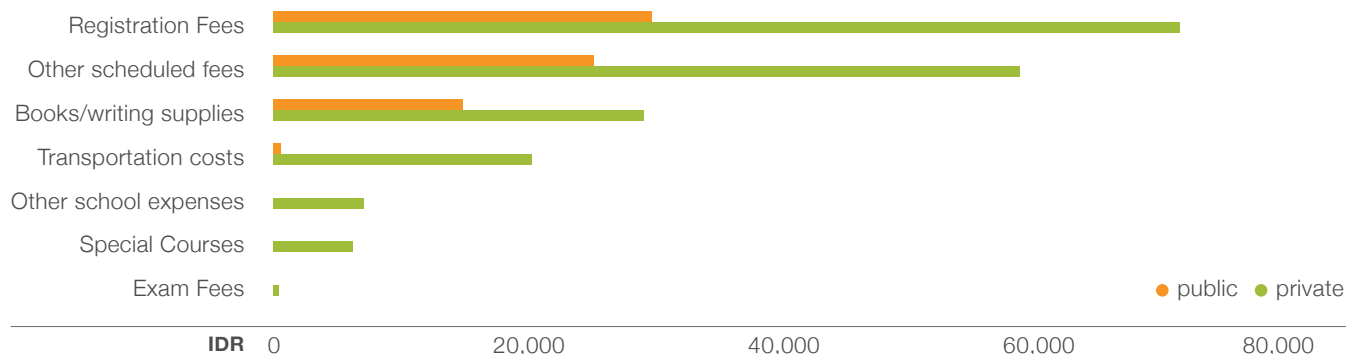
Only a small minority of TKs (3,377 out of 67,770, or less than 5%⁶) are funded and operated by the government, and parents do not need to pay any tuition fees. Parents may have to pay some additional charges in public schools, but they are significantly lower than those in private schools (Figure 3).

Expanding access to public preschools increases women's employment

We find that mothers of age-eligible children are 6.9 percentage points more likely to work with an additional public preschool per 1,000 children in the district, compared to women without children or women whose children are not eligible (Figure 4). Calculations based on the data from PODES and SUSENAS, Indonesia's Labor Force Survey, suggest that this translates into 1 additional public preschool enabling 52 more mothers of age-eligible children to work. We do not find any impacts associated with availability of private preschools.

This difference in impacts of private and public preschools may be due to the dual role played by childcare services. On the one hand, these services alleviate childcare constraints. On the other hand, they are likely to improve early-childhood development. Some women may seek to enroll their children in preschools to achieve both objectives, others may do so only for educational reasons. These women are not employed due to other reasons than childcare constraints. They are likely to be wealthier and able to afford private as opposed to the free public preschool. Thus, although they may use private preschools to enhance the early education of their children, preschool availability does not affect their decision to work.

FIGURE 3: ANNUAL COST OF ATTENDANCE FOR PUBLIC AND PRIVATE PRESCHOOLS



Source: IFLS 2003

5 The age restriction is not strictly enforced and TKs typically include children between the ages of 3 and 6.

6 PODES 2005.

7 Both PODES and SUSENAS from 2014 were used.

ACKNOWLEDGMENTS

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FOR MORE INFORMATION

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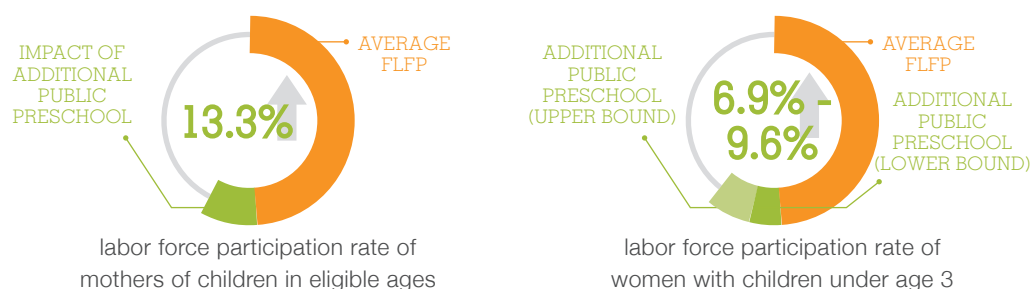
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FIGURES 4 & 5: IMPACT OF AN ADDITIONAL PUBLIC PRE-SCHOOL PER 1000 CHILDREN ON EMPLOYMENT OF MOTHERS



Impacts of public preschools on employment extend beyond the period when children are age-eligible for preschool

We also find that improvement in access to public preschools is associated with an increase in employment of women with children under three, compared to women without children or children at least 18 years of age. An additional public preschool per 1,000 children increases employment among these women by 3.6 to 5 percentage points⁸ (Figure 5).). Based on the current employment rate in this group of women, this means that building an additional public preschool likely enables 27-37 women to find employment⁹.

Why might preschool availability affect women whose children are not in the eligible age range? If a woman knows that the option of a public pre-school will exist in the future, she faces the need to find a childcare solution only for a relatively short time. Hence, she may be less likely to drop out of the labor force. In the absence of the preschool, there is a need to find a childcare solution for a longer time period – until children are 7 and can start primary school. In this case the costs of childcare may outweigh the benefits of remaining in the labor force.

WHAT ARE THE POLICY IMPLICATIONS?

We find that public preschool expansion in Indonesia increases women's employment by 13.3 percent. We also find evidence of effects beyond the age-eligible group: access to public preschools increases the likelihood that mothers of children under 3 (below the eligibility cutoff) work. Overall, these findings suggest that one additional public preschool per 1,000 children is associated with approximately 89 more women employed.

These findings highlight the role that public preschool expansion can have in increasing women's employment in Indonesia. Notably, we do not find impacts of private preschool expansions on women's employment. Future research should provide more empirical evidence on why positive impacts on women's employment are limited to public preschools only. If our hypothesis that public and private preschools serve different populations is confirmed, this analysis will also indicate which groups of women are more likely to take up and benefit from public preschools. This information will help policy makers better target preschool programs, or create subsidies that may enable poorer women to take advantage of private preschools.

⁸ Depending on specification.

⁹ Based on PODES 2014 and SUSENAS 2014.