

EL PERÚ PENDIENTE

Ensayos para un desarrollo con bienestar



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EDITORES



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The case for enhanced childcare provision in a post-pandemic Peru



Lorena Alcázar and Sonia Laszlo¹

In this essay we explore the relationship between childcare and maternal labour market outcomes by reviewing the existing worldwide evidence and reflect on potential ways forward for Peru. The global challenge of balancing work and care has been long-drawn, especially for women and girls, who are disproportionately burdened with care responsibilities. Lack of access to affordable and quality childcare prevents women from fully engaging in the labour market, restricts their occupational choices to those compatible with childcare and limits the long-term effectiveness of women's empowerment initiatives, such as entrepreneurship and micro-financing programs, often sentencing women to precarious jobs for life. Lack of quality, affordable childcare also hinders elder daughters' accumulation of human capital, since they must often forgo their own educational objectives in order to care for their younger siblings. This has long-term effects on their own labour market outcomes.

The COVID-19 pandemic has laid bare, and indeed worsened, a pre-existing and global care crisis. Women everywhere have been disproportionately affected by the pandemic through job losses, since they are over-represented in the sectors most likely to be impacted by lock-downs (food services, hospitality and retail) and in the informal sector. They are also more likely to be represented in essential services and customer-facing jobs, which entail a greater risk of exposure to the virus for themselves and their loved ones. In two-parent households, women are most likely to leave their jobs to care for their children and educate

¹ We would like to thank Bruno Escobar for his invaluable research assistance, as well as Alan Sánchez for his comments.

them in areas where schools and childcare centres have closed, since they are most likely to be the lower-wage earning parent, and because of prevailing gender roles. Many women, especially in the informal sector, where there is little to no social protection, may have little choice but to combine work with additional childcare responsibilities, which can have negative effects both on their productivity and their health and well-being. While the pandemic has led to an increase in men's and fathers' time contribution to household care responsibilities, hopefully changing traditional gender roles and social norms regarding care, women's time allocation to childcare increased even more (Adams-Prassl et al., 2020; Graeber et al., 2021; Grantham et al., 2021).

These issues are particularly severe in Peru, where 73.5% of women's participation in the workforce is in the informal sector (ILO, 2018). In this sector, known to be the most impacted by the COVID-19 pandemic (World Bank, 2020), there has been an increase in the precarity of women's work (Andina, 2020) and institutional childcare is very scarce. Levya and Urrutia (2021) document that job losses among informal sector workers were particularly severe for Peru, compared to other Latin American countries. The experience of women in Latin America in general, if not globally, is that the pandemic has halted and set back the progress that had been made towards women's empowerment and narrowing the gender gap, with a disproportionately weakened attachment to the labour market and an increase in the care workload. To make matters worse, mitigation measures in the region may have even widened the gender gap and worsened the distribution of unpaid care work, as underscored by Bidegain et al. (2020).

As the world emerges from the current crisis, countries have the opportunity to learn a valuable lesson from the pandemic experience: that childcare deserves a central role in labour market policy, especially since it has increased the employment gender gap. While the benefits of childcare policy extend beyond the labour market into early childhood education and human capital accumulation, we focus our essay on maternal employment, since there is now sufficient high-quality evidence of the effects of childcare policy on the labour market, in both developed and developing countries. The care economy is also increasingly discussed by policy makers as an integral part of the new social contract agenda. We focus our essay on childcare, and not on other forms of care (such as care for the elderly or infirm), because of its unique relationship to maternal employment and because the pandemic induced school and daycare closures have meant an extraordinary shock, both in depth and breadth. The policy options are also very unique to childcare.

We review the relevant empirical literature, mostly in economics, that rigorously investigates the relationship between childcare and women's labour market outcomes, in both developed and developing country contexts.² We note the paucity of studies on the Peruvian and Latin American contexts, despite a heterogeneous ecosystem of childcare arrangements; prior to the pandemic, the main focus of childcare research in Peru focused predominantly on child development. Drawing lessons from small-scale and experimental studies in lowand middle-income countries will be important in order to extrapolate for the Peruvian context, especially regarding the impact of subsidised centre-based childcare on maternal employment. More than ever, the COVID-19 care crisis has underscored the need for policy makers to consider extending childcare provision as part of their social protection panoply of programs. The experience of upper-middle- or high-income countries with larger-scale programs may be especially informative for understanding in some measure the external validity of the prospect of moving programs to scale.

1. The COVID-19 crisis

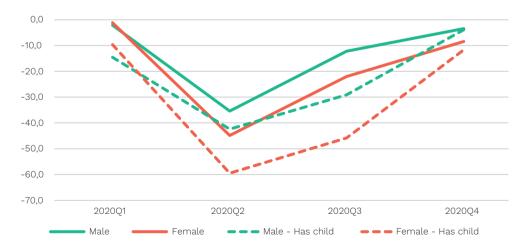
The COVID-19 crisis, and particularly the measures taken to cope with its health consequences, have made evident the conflicts between employment and the need for childcare. The crisis has shown the strong relationship between gender gaps in the employment world, gender stereotypes and the importance of the care economy (CEPAL, 2020d y 2020f). Furthermore, as lockdown measures eased, parents were expected to return to work, while schools and day-care facilities remain closed, and other childcare options, like grandparents' help, are still restricted. Indeed, according to Unesco (2021), as of 2021 Q2 Peruvian schools remain largely closed, even though many other countries in the region have opened much earlier and widely. This situation, as explained above, will affect women's employment conditions more than men's. In fact, there is already evidence across the world, as well as in Peru, that the pandemic has affected women more than men in the labour markets: according to the Young Lives project, the employment gender gap has widened significantly (Niños del Milenio, 2021).

Halim et al. (2021) conducted a similar literature review released on November 1st, after this essay was accepted for publication in this volume and sent for editing. While our review is similar, Halim et al. (2021) focus much more than we do on methodological differences between a larger set of studies. The aim of the literature review in this paper was to provide an evidence base on which we can make a case for subsidised childcare in Peru.

The ENAHO for 2019 and 2020 allows us to investigate the impact of the pandemic on labour force participation, comparing the impacts for women and men and observing differential impacts for women and men with children aged 12 or less in Peru. Figures 1 to 3 show labour force participation by quarter for 2020 relative to the same quarter in 2019 for the labour market as a whole (Figure 1), for the informal sector (Figure 2) and the formal sector (Figure 3). These figures show overall changes that are familiar globally: for both men and women, we see the deep drop in labour force participation in 2020 Q2, with a V-shaped or checkmark recovery, with persistent year-on-year reduction in employment by 2020Q4. In addition, much like in many other labour markets globally, job losses tend to be worse for women than for men, and worse for both groups if they have young children.

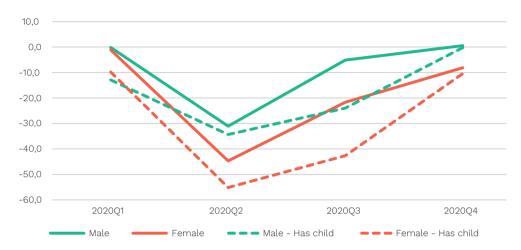
Several striking patterns emerge from looking at these data by formal/informal sector work. The first is that total job losses in the formal sector are greater than total job losses in the informal sector, in percentage terms. This pattern is not that surprising, given that public health measures such as lockdowns are harder to enforce in the informal sector, and that in the absence of strong social protection programs, workers who

Figure 1 Employed population, 2020 – YoY % change



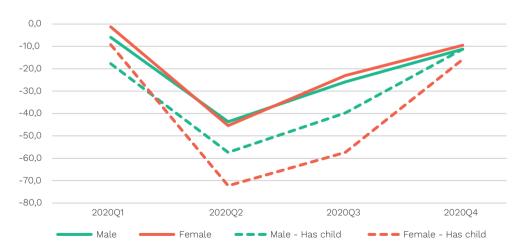
Source: ENAHO 2019, 2020.

Figure 2
Informal working population, 2020 – YoY % change



Source: ENAHO 2019, 2020.

Figure 3
Formal working population, 2020 – YoY % change



Source: ENAHO 2019, 2020.

lose formal sector jobs will seek informal work. However, this trend may be worrisome in the long term, in terms of an overreliance on precarious informal employment, which may be more compatible with short term work and unpaid care work (Andina, 2020). The second is that in the formal sector, the gender gap in labour force participation is entirely driven by parents of children aged 0-12.

2. Evidence review

What does the theory predict?

The main goal of this essay is to provide some guidance regarding policy toward a feminist transition to a post-pandemic labour market. We look at the international evidence regarding subsidised childcare and maternal employment and consider both extensive (labour force participation) and intensive (working hours, earnings) margins. Extensive margin effects are expected to be unambiguously non-negative: for a non-participant, a reduction in childcare costs would decrease the reservation wage and thus increase the probability of entering the labour force. A labour market participant would already be facing a wage greater than her reservation wage; therefore, the subsidy would have little effect on her decision to participate. Intensive market effects are, however, expected to be negative for already employed mothers: a subsidy would expand the working mother's budget constraint, inducing her to spend more on goods and services, as well as on leisure time, or to spend the subsidy on better childcare (the income effect triggered by the subsidy would decrease working hours).

While policy makers may be concerned about such potential disincentive effects, there are a few points worth mentioning, especially in the context of low- and middle-income countries. In labour markets characterised by a high degree of informality, working mothers (especially in low socioeconomic conditions) must often string together multiple income-generating activities in order to make ends meet. Many of these activities are precarious in nature, offer little in terms of social security and expose them to gender-based violence in the workplace. If they have young children under their care, this may mean having to work long hours to cover childcare costs or engage in activities compatible with childcare, which inevitably reduce hourly productivity. Far from being a disincentive effect, a reduction of hours among working

The alternatives are informal, unpaid childcare by another family member or neighbour, or leaving older children to fend for themselves (latchkey children). See Nayriro et al. (2017) for a qualitative discussion of safety issues around children out of care.

mothers may improve welfare if working long hours means that they are overworked, stressed and with little time left for quality time with their children. Furthermore, especially for mothers working in the informal sector in irregular or precarious occupations, access to safe and affordable childcare during regular hours can help mothers find more stable employment.

What does the evidence say?

We conducted a review of the empirical literature that investigates the impact of formal childcare arrangements in both developed and developing countries. We used the following search parameters in EconLit: "Childcare AND policy AND (Labour OR Labor)" and restricted the search to peer-reviewed journals (no date restrictions). This process generated 233 items. We then went through these abstracts in order to identify papers with rigorous empirical approaches: only studies with a rigorous causal identification strategy were considered for inclusion in our review (considered. natural and randomised experiments, differencein-difference or regression discontinuity designs, structural, or other methods that construct plausible counterfactuals). In total, 23 papers are identified and reviewed (as of May 2021). Table 1 summarises these 23 papers by making note of the country, the institutional setting (subsidised centre-based care, school-based programs and cash-for-care), sample size, research design (and dataset) and presenting a brief summary of labour market outcomes into labour force participant (or employment). hours worked and earnings.5

The first point of note in this review is the disproportionate number of studies from OECD countries, especially for Canada, where the province of Quebec was among the first to implement a jurisdiction-wide subsidised childcare program, in 1997.6 Most of the evidence coming from the OECD uses difference-in-difference or regression discontinuity design using large, nationally representative data (labour force surveys, income dynamics surveys, census or tax files). In low- and

- We begin by identifying 23 empirical papers (in developed and developing countries). Papers were identified in ECONLIT using search parameters: "Childcare, policy, peer reviewed" and restricted to empirical papers evaluating existing programs (therefore excluding discussion papers and simulations). The ECONLIT review excludes grey literature. We added papers identified in the Grantham et al. (2021) review, as well as papers we were aware of that addressed the Peruvian and Latin American contexts.
- We should note that in most developing countries with a large informal workforce, distinctions between in-the-labour-force and employed are not observationally obvious in many data sets.
- Only in the 2020 Canadian Throne Speech and 2021 Federal Budget has the Federal Government committed to a National childcare program modeled on the Quebec experience.

middle-income countries, the evidence is more recent and more mixed in study design. The emergence of small-scale randomised controlled trials, such as in Kenya (Clark et al., 2019), India (Nandi et al., 2020) and Chile (Martínez and Perticará, 2017), is noteworthy, though the latter relates to afterschool care among primary aged children. In both OECD and low- and middle-income countries, the vast majority of programs studied are linked to subsidised centre-based care. Some studies look at cash-for-care, such as Hardoy and Shone (2010) for Norway, Gathmann and Sass (2018) for Germany and Kosonen (2014) for Finland. These programs may be most uniquely appropriate for Nordic countries, where labour market and fertility dynamics are very different from those of much of the rest of the world.

Almost all studies on the impact of childcare programs on maternal labour market outcomes consider the extensive margin response on labour force participation. The evidence is overwhelmingly consistent in this area. Studies from vastly different contexts all confirm that subsidised centre-based childcare increases maternal participation in the workforce, which is consistent with the theoretical prediction. Furthermore, the magnitudes of the effects are generally comparable around a 2 to 10 percentage point increase in labour force participation, a figure that can greatly contribute to narrowing the participation gender gap.

Some studies report informative heterogeneous effects on labour force participation or employment by considering differential impacts by education and on reliance on informal sector work. For example, and perhaps not surprisingly, extensive margin responses are greater among low-education mothers, as indicated in Canada (Lefevre and Merrigan, 2008), Japan (Zhang and Managi, 2021) and South Korea (Choi and Jung, 2017). Similarly, evidence from Vietnam (Dang et al., 2019) and Peru's Cuna Más program (Bovd and Rentería, 2018) point to a compositional effect, where subsidised childcare allowed women to have an increased participation in the formal sector and a reduced participation in informal work. This is consistent with the evidence from Kenya (Clark et al., 2019), where recipients of childcare vouchers were more likely to be engaged in a Government-run slum-cleaning program or to work in the hospitality and restaurant industry, and less likely to be engaged in laundry and smallscale vending, which are typically more informal in nature. Both sets of results point to the potential of subsidised childcare as an important form of social protection for the most vulnerable mothers.

7 Conversely, cash-for-care programs are linked with decreased participation in the workforce.

Evidence on the effects of subsidised care on the intensive margin is, however, quite scarce and mixed. Most studies reviewed here do not report on this dimension, and among those that do, most report an increase in total working hours, including in the case of young women participating in Peru's Cuna Más program (Boyd and Rentería, 2018). The one exception is the Clark et al. (2019) randomised controlled trial study in Kenya, which finds that receiving a voucher for free childcare led to an average reduction of 4,85 fewer hours per week (intention-to-treat effect) for working mothers and 22 fewer hours among those that redeemed the voucher (treatment on the treated), an effect largely driven by single mothers, who are most at risk of experiencing difficulties in balancing work and care.

Few studies consider the effects on earnings, and those that do find no effect. In the case of studies in low- and middle-income countries, the nil effect on earnings —especially in light of changes in hours worked— may be puzzling. In these cases, the answers may lie in the reliance on informal sector work for most beneficiaries of subsidised care programs in those countries. On the one hand, measuring earnings in the informal sector is notoriously difficult. On the other hand, subsidised childcare facilitates increased participation in possibly better paid (or at least more reliable) employment in the formal sector, that typically requires more stable hours. Even informal sector workers who work on their own may be more productive on an hourly basis if they are not simultaneously caring for their infants or toddlers.

Of particular interest is that some reviewed studies considering the effect of subsidised childcare on employment outcomes among single mothers found that the impact of childcare provision on hours worked differs between single and married women. Single mothers tend to have higher employment rates than married ones. In Africa, Clark et al. (2019) note that, while there is no difference in extensive work participation margins changes between single and married women, there is a stark difference in work intensity. Single mothers reduce dtheir workload by about 8,8 hours a week (without any loss to their earnings), while married women increased their working hours by 4,3 hours a week. In Italy, Carta and Rizzica (2018) note that the effect of childcare on labour market participation can be mostly seen among married women.

8 The positive effects on earnings in Lefevre and Merrigan (2008) and Lefevre et al. (2008) for Quebec are among all mothers in the sample; therefore, the effect is likely driven by non-working mothers who switch to participating as a result of improved access to childcare.

It is also important to note that childcare provision can also further the efforts of labour-training programs for mothers. Evidence in developing countries is very scarce, but Attanasio et al. (2011) found through an experiment in Colombia that training programs including some form of subsidised childcare showed higher impacts for women in terms of work participation and earnings.

3. The Peruvian context

Overview of existing arrangements

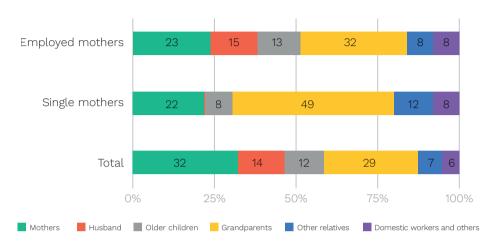
In Peru, public childcare service coverage for younger children (0-2 years old) is very limited, reaching no more than 12,4% of that population (Cruz-Saco et al. 2016). Although childcare provision is limited for all children ages, according to the Ministry of Education, 93,9% of children 3-5 years old attended preschool by 2019.

We now turn our attention to understanding the care arrangements currently existing in the country. Time-use surveys allow us to identify gender roles and, in particular, childcare arrangements within the household. Unfortunately, the only time-use data for Peru are from 2010 (from INEI's 2010 Encuesta Nacional de Uso del Tiempo). These show that women dedicate twice as much time as men to unpaid domestic work and more than twice the time to childcare (5 hours and 49 minutes and 12 hours and 14 minutes per week, respectively) (Beltrán and Lavado 2015).

Given the lack of recent information on time use, we investigated the Demographic and Health Survey (ENDES) from 2019 in order to have a snapshot of childcare arrangements in Peru. Specifically, we report the survey responses to the question of who usually cares for children when the (female) respondent leaves the home. This question is not specific to the motives for leaving the home (e.g., work, chores, social visits). Therefore, we must be careful not to interpret answers to this question as conclusive evidence of a link between childcare and women's work. It does, nonetheless, provide an informative picture of how important informal —relative to formal— childcare is for Peruvian mothers. In addition, the ENDES survey allows us to see how childcare cross-tabulates against wealth status, employment status and marital status, dimensions along which the literature identified above suggested interesting heterogeneity effects.

Figure 4a shows that informal family childcare (by husbands, older children and grandparents) makes up the overwhelming majority of childcare arrangements, and that no-care (mother takes child when

Figure 4.a"Who looks after children when mother leaves home?"
% by employment and single civil status



Fuente: ENDES, 2019.

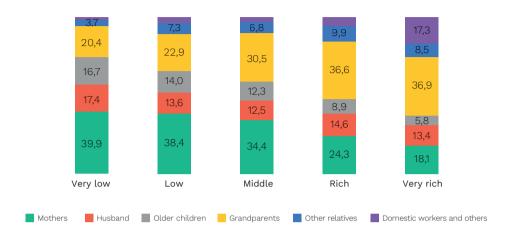
she leaves the home) still comprises a significantly large fraction of the sample. These graphs do not show formal childcare arrangements, such as Cuna Más or other instances of institutional childcare, because they compose a miniscule proportion of responses (less than 1% each in the total sample and the two subsamples represented in Figure 4a). Figure 4b shows the distribution of care by wealth quintile. We observe that grandparents and domestic workers become more important as caregivers the more mothers belong to wealthier quintiles. What remains a striking feature in both figures is the share of women who report taking care of their children themselves when they leave the home. However, the main takeaway from these ENDES data is that formal childcare is nearly absent from self-reported care arrangements.

The trends underscored by this simple descriptive analysis from the ENDES survey is corroborated in more detail in the qualitative study of childcare arrangements using the Young Lives Study by Rojas (2021). Rojas (2021)⁹ finds that among Peruvian families in poor environments

9 The study is based on information about wellbeing perceptions and inter-household relationships, qualitative data collected by the longitudinal Young Lives Study for Peru between 2007 and 2018.

12

Figure 4.b"Who looks after children when mother leaves home?"
% by wealth levels



Fuente: ENDES, 2019.

—both urban and rural— household members are largely responsible for childcare, a task mostly borne by women within the household. Furthermore, Rojas points out that this task most often falls on grandmothers and older (female) siblings, to the detriment of their studies.

This evidently has important implications for women's engagement with the labor market. Indeed, as is true especially for single-headed households, women end up relying on precarious, informal, and low-paying jobs that are more compatible with the flexibility required when taking care of children. In a study of vulnerable youth in urban Peru, Alcázar et al. (2018) find that the most important determinants of precarious work in women's career trajectories are early cohabitation or marriage and pregnancy.¹⁰

Cuna Más

Peru does have a subsidised childcare program that largely targets poor households in urban areas: Cuna Más, which is under the purview of

Pregnancy in the last year is associated with a 37% increase in the risk of vulnerability in urban areas (defined as neither working nor studying or working in precarious jobs) (Alcázar et al., 2018).

MIDIS¹¹. Taking on much of the program portfolio previously offered by Wawa Wasi, a program it now replaces, Cuna Más provides affordable childcare for children aged 36 months or less. Its coverage is, however, very limited. In 2019, childcare was provided to 59,378 children from 6 to 36 months of age, out of a target urban population of 969,600, equivalent to only 6% (Rousseau 2021). Information about this program and initial evaluations can be found in García and Collantes (2018) and Boyd and Rentería (2018), and the evidence regarding the program's impact on women's employment was summarised above.

Ultimately, three key points emerge. Firstly, regardless of Cuna Más use, non-maternal childcare is in great measure undertaken by other family members (predominantly grandparents) and, especially in wealthier households, by domestic workers. Secondly, as pointed out in García and Collantes (2018) and Boyd and Rentería (2018), the program's non-random roll-out provides significant challenges to the identification of causal effects, including the effect on maternal employment (extensive or intensive margins). Finally, the primary focus of Cuna Más remains on early childhood development. Even the landing page of the program on MIDIS is silent on the role it can play for mothers' outcomes, in contrast to Wawa Wasi, in which one of the four stated objectives was promoting women's development (quality of life, education and employment).¹²

Female labour force participation in Peru

In this section we present a brief snapshot of women's participation in the workforce in Peru immediately before the pandemic, using the 2019 ENAHO. First, we update Figure 2 from Boyd and Rentería (2018) using the 2019, rather than the 2015, ENAHO to investigate the age-participation profile for women and for women with children (truncated at age 45) and compare this to men and men with children.¹³ Indeed, the overall pattern in Figure 5 below is similar to their figure. A few patterns of interest emerge. The first is that for nearly all age groups, there is a 20 to 30 percentage point participation gap between men and women. Secondly, there is surprisingly little difference in the participation rate for women with kids and without kids. Thirdly, young men are far more likely to enter the workforce if they have children, compared to childless

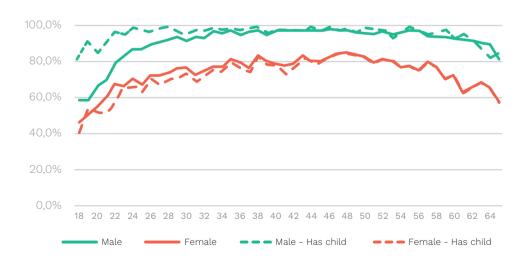
- 11 In rural areas Cuna Más provides household visits and community sessions aimed at improving parental practices, and does not provide daycare.
- 12 See Cueto et al. (2009) for a discussion on Wawa Wasi. It is worth noting that they raised the concern that *Wawa Wasi* had not sufficiently prioritised child development.
- 13 From here on, we consider a child any individual aged 12 or less.

young men (ages 18-25). Fourthly, older women exit the workforce earlier than older men, which may be consistent with the important role they play in providing care for their grandchildren.

Figure 6 compares labour force participation by marital status. What is most striking here is that single women have a much larger probability of engaging in the workforce than cohabitating women. Single mothers have a higher LFP rate than childless single women, while this is reversed for cohabitating women.

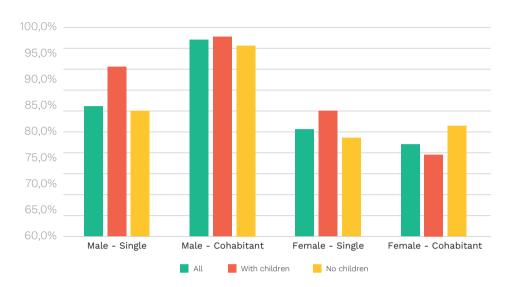
Peru's labour market is characterised by its large informal sector. According to the ILO (2018), 58% of women work in the informal sector (compared to 53,5% of men), LFP(m)=65,5%, LFP(f)=73,5%. Almost 50% of female informal workers are own-account workers. Since the literature on childcare and maternal employment has identified informality as a dimension of interest in terms of heterogeneous effects, it is worth investigating how these correlations look for formal versus informal sector work. Recalling the discussion above, affordable childcare has been linked to reduced informal sector work and increased formal

Figure 5Labour force participation rate by gender and children



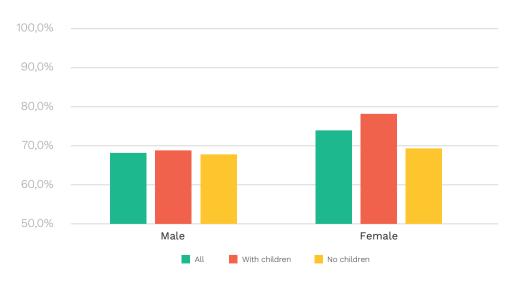
Fuente: ENAHO 2019.

Figure 6
Labor force participation rate by gender, children and civil status



Fuente: ENAHO 2019.

Figure 7Informality rate by gender and children



Fuente: ENAHO 2019.

sector work, in recognition of the fact that childcare-constrained mothers may opt for informal sector work, which might be more compatible with caring for young children.

Figure 7 confirms the high informality rate among women as compared to men, regardless of whether they have children or not. However, what is most striking in this figure is the gap in participation in the formal sector between women with children and without children, while there is no similar difference for men, even if the level of participation is lower.

3. Recommendations and considerations

Policy considerations

Access to affordable, quality childcare deserves a more central role in labour market policies, as has been dramatically underscored by the COVID-19 pandemic. School closures have meant a reduced participation in the labour market for both men and women, with mothers bearing the brunt of this response both in OECD countries (Alon et al., 2020a, 2020b y 2021; Qian and Fuller, 2020) and in the Global South generally (Grantham et al., 2021), and Latin America in particular (Malaver-Fonseca et al., 2021). Indeed, schools have only partially reopened in Peru as of 2021 Q2 (UNESCO, 2021), making this issue even more salient. If we take into account the evidence provided above regarding the impacts of subsidised childcare, there is no question about the integrated nature of the relationship between childcare and parental —particularly maternal— employment. This supports a concerted policy shift away from considering early childhood education as solely within the purview of education policies and towards considering childcare jointly with labour and social protection policies.

A number of policy decisions remain for which the existing empirical evidence has more or less little to say. Policy makers considering subsidising childcare in order to further labour force participation will rightly care about potential disincentive effects on hours. Existing evidence on this is, however, mixed. If anything, along the intensive margins, the evidence from low- and middle-income countries has suggested that access to affordable childcare facilitates moving away from precarious work in the informal sector towards more stable and decent jobs in the formal sector. Even if it may entail less hours, it is not at the expense of earnings. The valid theoretical concerns regarding intensive margin disincentives simply haven't been documented in the settings that have attempted to measure the impact on hours worked.

There could be a significant potential unintended effect on maternal mental health if access to childcare leads to mothers' increased likelihood of working the "double shift". If working mothers still bear the burden of unpaid reproductive care and household chores after work/school/childcare, this may lead to increased stress and decreased parental wellbeing (Brodeur and Connolly, 2013). While there are signs that the pandemic has shaken up norms around gender roles, with fathers playing a larger role in unpaid reproductive work, in both developed and developing economies (Alon et al., 2020a; Grantham et al., 2021) in reality this norm shift is unlikely to be powerful enough to lead to gender equality in this respect. In fact, there is already some evidence —although self-reported and based on small samples— that finds that 1 in 4 parents in lockdown showed some symptoms of poor mental health, compared with 1 in 20 parents not in lockdown.¹⁴

The existing literature on childcare policy has contributed little towards understanding general equilibrium effects, especially in the area of childcare markets. While Baker et al. (2008) have shown that the Quebec childcare subsidy crowded out informal care, it is unclear to what extent this effect can be generalised for the context of low- and middle-income countries. To be sure, if the crowded-out informal childcare were to be the care provided by older and mostly female siblings, this may be a desirable outcome, since subsidised centre-based childcare programs will for example, release adolescent girls from the necessity of providing childcare, and they will be able to invest their time instead in schooling. Similarly, if "informal care" is in fact "no care" —leaving young children to fend for themselves ("latchkey children")— such policies will provide a much safer option. Another alternative to formal childcare is care provided by grandparents, which many families may prefer (especially if the grandparents are retired and live in multi-generational homes). Meanwhile, many also rely on domestic workers (nannies) for childcare, especially among middle-income or highincome families. Without making any judgement on whether the quality of childcare provided by domestic workers is any different than the one provided in a childcare centre, increased use of centre-based care will unquestionably reduce the demand for domestic workers, which may have ripple effects on a vulnerable sector of the labour force in which women are disproportionately represented.

Expanding subsidised childcare will also require increased capacity to absorb a greater intake. This may spur investment and hiring in the

childcare sector. Even in non-pandemic times, the high take-up of subsidised childcare and demand for it can lead to market frictions, with long (and frustrating) waitlists for spots. Conversely, the pandemic has revealed a lack of resilience in this sector —as pointed out in Grantham et al. (2021) and by Sabrina Habib, of Kenya's Kidogo (WEDLab, 2020), the labour market shock and childcare closures have wreaked havoc in the childcare sector, with increased uncertainties regarding enrolment and revenue, and the eventual exit of centre-based childcare providers—much like in any other sector affected by lockdowns and other non-health related interventions.

There are also logistical considerations from an implementation perspective. The first is how to target any subsidised care program. A universal program is likely not feasible for most low- and middle-income countries. This is despite the fact that the benefits to ECCE are estimated to be well above the costs (UNESCO, 2015).¹⁵ It is worth noting that it has taken Canada well over 20 years since the Quebec experience before even considering rolling out something similar at a national level.¹⁶ Nor is it likely to be desirable, given sizable inequalities. That said, Rousseau (2021) provides detailed recommendations for a universal institutionalised childcare policy for Peru. Rousseau's (2021) policy recommendations, considering the target population's heterogenous payment capacities, proposes sub-national, private sector and civil society collaboration, under the central Government's centralised rule and coordination.

In the case of Peru's Cuna Más program, targeting is primarily geographic, using district level poverty indicators, as indicated by García and Collantes (2018), targeting mostly the poor and extremely poor. According to both García and Collantes (2018) and Boyd and Rentería (2018), the Cuna Más daycare centres are predominantly located in urban areas. For the purpose of leveling the playing field for women in the labour market, it is worth considering whether an expansion of a subsidised care program into lower middle-income brackets, especially for single mothers, may provide more benefits than costs. For the non-poor, small user fees may provide some fiscal relief, hile alternative legislative policies

15 Simeu et al. conduct a Cost-Benefit Analysis of the Child Care program in Kenya (Clark et al., 2019). Benefits of the program (accruing to mothers in terms of labour market outcomes) are equivalent to roughly 90 USD per year per child, and the costs about 50 USD per year per child, suggesting very large returns. García et al. (2016) report a 7,3-fold benefit-to-cost ratio for ECCE in the US. Levin and Schwartz (2012) discuss the difficulties in obtaining comparable cost figures for pre-school (ages 3-6).

Additionally, although funding has been allocated in the April 2021 budget for the first time in Canadian history, many challenges will still need to be addressed before it can become a reality for millions of Canadian families.

mandating private firms of a certain size to have onsite childcare may alleviate fiscal concerns while targeting formal sector workers. Similarly, regarding the question of there being any benefit, from a labour market perspective, to an expansion of the program into rural areas, the only study we are familiar with that rigorously evaluates a subsidised centre-based care program in rural areas is the Nandi et al. (2019) study in Rajasthan, India. Compared to urban or large-scale studies, they find much more moderate extensive margin effects and little to no intensive margin effects.

Priority research questions

We have identified a number of priority research questions for moving forward towards building an evidence base for subsidised centre-based care for Peru. The existing evidence on the extensive margin is already quite robust, and there is likely to be little new to find on this margin; the positive effect of subsidised childcare on maternal employment, supported by the theory, has borne out by the experience in low-, middle-and high-income countries. However, more research is required in order to understand intensive margin effects, and especially the role such subsidised care programs can play in facilitating more formal and/or lucrative employment opportunities. An estimation of changes or, more likely, of the strengthening of these effects given the COVID-19 crisis should also be a priority research topic.

Given the overreliance on informal family care in Peru, attempts to scale up or universalise formal childcare options will likely have a large number of spillover effects (e.g., labour market or educational outcomes among family caregivers) and general equilibrium effects on the paid childcare sector, especially in relation to domestic workers who provide childcare to a non-negligible proportion of middle- to high-income families. Similarly, expansions to subsidised centre-based childcare, such as the Cuna Más program, may not be the only option. Indeed, there is a global trend toward seeking a multiplicity of formal childcare arrangements, especially workplace childcare centres, as discussed in Rousseau (2021) for Peru. Such program expansions will have considerable fiscal effects and maintaining high quality care will be both crucial (especially for child welfare and development) and expensive. Therefore, a clear understanding of the fiscal benefits, especially through increased economic growth and associated income tax revenues, will be necessary.

A number of logistical and implementation concerns will have to be addressed as well. Not least among these is what will be an optimal targeting strategy. Given the significant income inequality, a fully subsidised

universal program may not be desirable. Means testing and co-payments for Government-run programs may be the more viable consideration, and finding feasible solutions for informal sector workers will need to become a priority, particularly in a post-pandemic world.

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Table 1

Authors	Country	Insitutional Setting	Program Details	Sample size	Research design (Data)	Extensive margin effect	Intensive margin effect	Earnings effects
Angeles et al. (2014)	Mexico	Evaluation of Subsidised centre-based care: Programo de Estancias Infantiles para Apoyar a Madres Trabajadoras	Subsidised centre-based care	1573 households	Pipeline	18% increase	Increase of 24 hours per month	No effect on income
Baker et al. (2008)	Quebec (Canada)	Subsidised centre-based care	Subsidised centre-based care	±34 000	DD (NLSCY)	7,7pp increase	ΥN	Ψ Z
Boll and Lagemann (2019)	Germany		Subsidised centre-based care	000 99 <	(TT)) QQ	No strong results	hours worked for a 1% increase in overall daycare coverage, interesting difference by	∢ Z
Boyd and Rentería (2018)	Peru	Impact of Cuna Más	Mostly centre-based care	13 636	Entropy Balancing (Non- experimental) (ENAHO)	13,9% increase in LFP (reduced participation in informal sector)	Nil effect	Nil effect
Carta and Rizzica (2018)	Italy	Expansion to younger kids	Subsidised centre-based care		RDD (Italian LFS)	ITT on LFP=[4,8pp-7,1pp], on E=[4,5pp to 6,2pp]	₹ Z	No effect on wage of new hires

					Survey of Women and Families)	dd9/2 kq		
	Kenya	Informal urban settlements	Subsidised centre-based care	>700	RCT (Own data collection)	8,5pp increase [ITT], 30pp increase [TOT]	Decrease by 4.85 hrs (ITT) 22 hrs (TOT)	No effect
(2019)	Vietnam	Effect of early childcare centres and kindergartens	State-provided kindergartens, private childcare centres	3863	RDD (VHLSS)	41% increase chance in wage-earning job, 26% increase in formal job	₹ Z	4 Z
De Henau et EU al. (2010)	EU-15	Compares publicly provided childcare to other family policies		Between 700 and 1500 per country, 13 countries	Observational (ECHP - 1994 to 2001)	Increase in free childcare provision (ages 0-2)> decrease in LFP gap between mothers and nonmothers between 1 and 1,8pp.	₹ Z	4 2
García and Pe Collantes (2018)	Peru	Impact of Cuna Más	Mostly centre-based care	25 452	Structural / Observational (ENAHO)	NA - estimation on working	Increase of 6 hours per week for very young women	∢ Z
Gathmann Gern and Sass (2018)	Germany	Change in one state	Cash-for-home care	+ 2600	DD (microcensus)	Only after 1 year, see reduction in LFP ±4,5pp	Not significant	
Givord and Fran Marbot (2015)	France	Change in subsidy rate	Subsidised center-based care	>2,3M	DD (tax files)	1.1pp increase	Ϋ́	₹ Z

Authors	Country	Insitutional Setting	Program Details	Sample size	Research design (Data)	Extensive margin effect	Intensive margin effect	Earnings effects
Haeck et al. (2015)	Quebec (Canada)	Subsidised centre-based care; look at LT effects on LFP	Subsidised centre-based care		DD (NLSCY)	+ [Opp and 12pp]	+ between 0 and 6 weeks worked	∢ Z
Hallman et al. (2005)	Guatemala	Impact evaluation of Government- sponsored day care program (Hogares Comunitarios)		1300		Simulations: Nil effect of price on LFP	Simulations: positive effects of reduction in formal care	Y Z
Hardoy and Shone (2010)	Norway	Benefit for parents of 1 and 2 yo. not in subsidised care (child allowance)	Cash-for-care	>276 000	DDD Natural experiment (Statistics Norway)	Decrease in LFP around 15%	₹ Z	∀ Z
Kosonen (2014)	Finland	Subsidised centre based care, subsidised home care, exploit changes in municipality - specific supplemental subsidy for home care	Subsidised center-based care, cash-for- home-care	[5700 - 11 200]	(Sal) ada/aa	100 Euro increase > 3pp reduction in LFP	₹ Z	Income
Lefebvre and Merrigan (2008)	Quebec (Canada)	Same as Lefebvre et al. (2009) but shorter term	Subsidised centre-based care Subsidised	28 000	DD quasi- experimental (Stats Can SLID) (1993-2002)	Increase by 8,1%	231 increase	5285\$ annual increase

2	a

Lefebvre et al. (2009)	Quebec (Canada)	Subsidised centre-based care; look at LT effects on LFP heterogeneity effects (education)	centre-based care	± 45 000	DD quasi- experimental (Stats Can SLID) (1996-2004)	5,3pp increase in LFP (effects stronger among low ed moms)	160 increase in annual hours	3548\$ annual increase
Lovasz and Szabo-Morvai (2019)	Hungary		Subsidised centre-based care	3054	RDD (Hungarian LFS)	Access to childcare > increase by 11,7pp	∀ Z	₹ Z
Martínez and Perticará (2017)	Chile	Impact of afterschool care (ages 6-13)	Public schools	±2100	RCT (Own data collection)	4,3pp increase in LFP, 3,4pp increase in employment	Nil effect	Nil effect
Nandi et al. (2020)	India	Community- based daycare Comprehensive	Subsidised centre-based care	2858	RCT (Own data collection) Regression	+ [2,3pp and 2.6pp] paid work the day before	₹ Z	Nil effect
Zhang and Managi (2021)	Japan	Support System for Children and Child-rearing (CSSCC)	Subsidised centre-based care	>246 000	(Own data collection, 2015-2017)	1pp increase in capacity> 18pp increase in non-regular participation (no effect on regular employment); effects driven by lowed momes	₹ Z	∢ Z

DD = Difference in difference, DDD = Triple difference, ECHP = European Community Household Panel, IDS = Income distribution statistics, ITT = Intent to treat, LFP = Labour force participation rate, LFS = Labour Force Survey, LT = Long-term, NA = Not available, NLSCY = National Longitudinal Survey of Children and Youth, pp = Percentage point, RCT = Randomized control trial, RDD = Regression discontinuity design, SLID = Survey of Labour and Income Dynamics, TOT = Treatment on the treated, VHLSS = Vietnam Household Living Standard Survey Unless otherwise noted, the sample size refers to the number of individuals. Note: