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Research Article

How do mothers work? Kin coresidence and mothers' work in Latin America

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How do mothers work? Kin coresidence and mothers' work in Latin America

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Abstract

BACKGROUND

While the employment of mothers has received considerable scholarly attention, the potential role of coresidence with kin for fostering mothers' work remains underdeveloped.

OBJECTIVE

We assess the relationship between kin coresidence, as well as the gender and employment status of kin on mothers' employment, and hours of work. Further, we compare Brazil and Peru, two South American, upper-middle-income countries with divergent patterns of household structure.

METHODS

Using nationally representative surveys from Brazil and Peru, we estimate linear probability models and Tobit regressions predicting mothers' employment and hours of work.

RESULTS

We find a positive association between kin coresidence and mothers' work outcomes. This association differs by the gender and employment status of kin. Our findings show the association between kin coresidence is stronger in Peru than in Brazil.

CONCLUSIONS

Scholarly work has shown that mothers shoulder most of the unpaid family work, imposing constraints on their opportunities in the labor markets. Coresident kin can help ease these diverging demands. Our results also suggest that the social norms that shape household arrangements may also influence support provided by coresident relatives.

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CONTRIBUTION

Our results highlight the importance of family structure to our understanding of mothers' work outcomes. Surveys designed to track kin support from members outside the household remain geographically scarce and are often limited to specific time periods. A focus on family structure allows us to take advantage of large, nationally representative data to explore the specific connection between kin coresidence and mother's economic outcomes for a wider set of contexts.

1. Introduction

Unresolved tensions between unpaid family labor and paid work represent a major concern for women and have long been a major topic of interest in academic and public debate. Whether framed as a cause of stress or a driving source behind the pay gap between mothers and childless women, the competing demands of work and family life are a widespread phenomenon and the most important constraint for working women worldwide (ILO 2017a). Since most mothers are still responsible for the bulk of unpaid family work (Killewald and García-Manglano 2016), which in turn decreases the time and energy mothers can invest in paid labor (Budig and England 2001; Kuhhirt and Ludwig 2012), it is plausible that the presence of adult relatives in the household could alleviate the challenge of combining employment and family demands for mothers.

Some contributions have shown the importance of kin assistance for working mothers. Previous findings, mostly focused on the United States, indicate that mothers who have any type of kin support are more likely to work and have higher earnings than women with no available kin (Hao and Brinton 1997; Harknett 2006; Tienda and Glass 1985; Uttal 1999). In this vein, we can expect that living with a kin member can increase mothers' chances of obtaining support from that relative (Sarkisian and Gerstel 2004) since coresidence involves proximity and long-term commitment, which are determinant elements for the provision of assistance (Chappell 1991).

Despite the potential importance of coresidence with kin for fostering mothers' paid work, this specific conceptual connection remains underinvestigated. This study seeks to build on previous research by addressing the potential role of residence with kin on mothers' work-related outcomes using nationally representative household data from Brazil and Peru. Both upper-middle-income economies, contemporary Brazil and Peru share important socioeconomic characteristics and have some of the highest rates of women's labor force participation in Latin America. In 2017, 60% of Brazilian women and 73% of Peruvian women were employed or searching for jobs (World Development Indicators 2021). Moreover, in the past few decades, both nations have experienced

important transformations regarding women's education and engagement in the workforce, which have significantly affected family life. At the same time, the two countries have substantially dissimilar patterns of household arrangements, with Peru showing a greater prevalence of large and multigenerational households compared to Brazil.

Given that family systems can potentially mitigate the competing demands of paid work and family labor, we ask if coresidence with adult kin affects mothers' employment outcomes. Specifically, our study has the following research objectives. First, we investigate whether coresidence with adult kin is associated with mothers' dedication to paid work, measured by mothers' participation in paid labor and working hours. Second, we explore if the association between coresident kin and mothers' work-related outcomes differs by gender and employment status of the coresident kin. Since women still undertake the bulk of family labor and employed relatives may face time constraints in their ability to take on chores and childcare, we expect that female relatives and those not working full time would provide more support to mothers. Last, given that social and cultural norms that structure household arrangements can also influence expectations of family support, we investigate if the potential effect of coresidence with kin differs between Brazil and Peru. In this study, kin members are defined as adult children and relatives, excluding husbands or cohabiting partners (Johnson 2000).

2. Kin support

Globally, as women's participation in the labor force has increased, their available time to provide unpaid family work has substantially declined. Nonetheless, women not only continue to perform most of domestic and care activities but remain the main person responsible for creating and sustaining a satisfactory child-rearing environment (Bianchi and Milkie 2010; Folbre 2012). By incorporating new demands while still bearing the bulk of family labor, women, and especially mothers, face high levels of work-family conflict (Nomaguchi, Milkie, and Bianchi 2005).

Whereas work and family represent contradictory demands in mothers' lives, family members often provide support to mothers, particularly in the provision of care for young children (Ciabattari 2007). Young adults in the United States who live in the same neighborhood as their parents show stronger earnings recoveries after job displacements, with this result driven by parents' childcare assistance (Krolikowski, Zabek, and Coate 2020). Compton and Pollak (2014) find that among American married mothers with young children, those whose mothers or mothers-in-law live nearby show better employment outcomes. American mothers frequently seek help from family members (Mazelis and Mykyta 2011), whose care provision they perceive as less imposing and

more socially acceptable (Scott, London, and Hurst 2005). Similarly, findings using British data reveal that mothers commonly manage conflicting needs to work and care for children by relying on informal care provided by relatives (Lyonette, Kaufman, and Crompton 2011). When mothers perceive that support from private safety nets is available, they report less economic hardship and higher earnings (Harknett 2006; Henly, Danziger, and Offer 2005).

While the importance of family support for working mothers has been broadly documented, the relationship between coresidence with relatives and women's work outcomes has received comparatively less attention. However, some scholars have hypothesized that coresidence with relatives could be beneficial in terms of availability of support for mothers by increasing the provision of assistance for dependents living in the household (Glick and Van Hook 2011; Pilkauskas, Garfinkel, and McLanahan 2014).

A few empirical investigations have examined if coresidence with family members affects mothers' work for pay. In a broad sense, these studies show a positive association between the two factors. Using data from the 1980s, researchers find that household extension is positively associated with the labor market entry of married American mothers (Tienda and Glass 1985). Also for the United States, Hao and Brinton (1997) find that coresidence with kin is positively associated with single mothers starting work or returning to school. Qualitative evidence for Kenya shows that coresiding kin members are more likely to assist working mothers than relatives living outside the household (Clark et al. 2017). Our study seeks to build on this small body of research by analyzing two upper-middle-income countries in the global South. In both Brazil and Peru, fast and profound social transformations have massively propelled women into the labor force while traditional gender roles remain entrenched, assigning mothers the main responsibility for family labor. Gender disparities in the distribution of family work are markedly more substantial in Brazil and Peru than in wealthy countries in the global North. We believe these countries can serve as paradigmatic examples of the rapid transformations taking place in emerging economies, which have substantially changed women's work.

3. Mothers' paid labor: The context of Peru and Brazil

Over the past few decades, Latin America has undergone a 'silent revolution' with rapid increases in women's education and employment levels. Across the region, the education gender gap has virtually disappeared or even reversed, while, currently, about 7 of every 10 Latin American women of childbearing years are in the workforce (Blofield and Martinez 2014). Changes in women's labor force participation became even more pronounced after the debt crisis of the 1980s and the subsequent economic restructuring

in the 1990s that rendered male breadwinner family models unsustainable (Rosero-Bixby, Castro-Martín, and Martín-García 2009). Since then, Latin America has recorded the largest percentage-point reduction in the labor participation gender gap worldwide (ILO 2017b).

Furthermore, presently, Brazil and Peru share substantial similarities. The two countries currently show similar rates in critical indicators, such as the infant mortality rate, life expectancy, and levels of poverty (ECLAC 2019).³ Importantly, key indicators associated with gender equality and women's well-being also present marked commonalities. After a period of drastic decline, fertility rates now converge around the replacement rate, at 1.7 births per woman in Brazil and 2.02 in Peru (US Census Bureau 2019). The gender education gap has practically disappeared in Peru and has reversed in Brazil (Duryea, Lam, and Levison 2007). Currently, younger women in both countries are more likely to access tertiary education compared to men, a situation that marks an abrupt contrast with the past (Ñopo 2012). Education quality is also comparable, as shown by similar scores on the Programme for International Student Assessment (OECD 2019). For additional context, Table 1 provides key socioeconomic indicators for both countries.

Table 1: Key socioeconomic indicators by country

	Brazil	Peru	Source
United Nations Development Program (UNDP) Classification	High human development	High human development	United Nations Development Program
World Bank Country Income Classification	Upper-middle income	Upper-middle income	
Poverty head-count ratio at \$3.20 per day (2011 PPP) (% of population)	9.2 (2018)	8.3 (2018)	WDI, World Bank
Life expectancy at birth	75.46 (2018)	76.28 (2018)	WDI, World Bank
Infant mortality rate (1,000 live births)	12.8 (2018)	11.1 (2018)	WDI, World Bank
Female labor force participation (% of female pop. ages 15–64; ILO estimate)	73.3% (2018)	60.5% (2018)	WDI, World Bank
Educational outcomes			
Mean years of schooling (females, ages 25 and older)	7.3	8	International Human Development Indicators (UN), data for 2010
Tertiary education (ratio on gender parity in school enrollment)*	1.366 (2017)	1.057 (2017)	WDI, World Bank
Fertility trends			
Fertility rates (births per woman)	1.7 (2018)	2.1 (2018)	US Census Bureau

Note: * Ratio of women to men enrolled at tertiary level.

Importantly, Brazil and Peru have some of the highest shares of women employed in Latin America, with Peru often ranking at the top of the region in this regard. By 2018,

³ While 30 years ago Peru ranked among the poorer countries in the region, progress over the past two decades is indisputable. In recent years Peru often leads economic growth among large Latin American economies (IMF 2015). Reports from media sources are also informative in this regard (The Economist 2018).

the female labor force participation rate was about 60% in Brazil and 73% in Peru. As a point of comparison, the same indicator for the United States is around 66% (World Development Indicators 2021). However, despite women's gains in status and employment, the gender gap in time spent in family work remains considerably higher in Latin America than in developed countries (García and de Oliveira 2011). Mothers in Peru spend around 35 hours per week in housework, while fathers allocate only 15 hours to similar tasks (Valladolid and Lopez 2011). This pattern is reinforced in larger families – in both Brazil and Peru, mothers increase their time in unpaid family work with each additional child, whereas fathers' effort remains unchanged regardless of their number of children (Pinheiro et al. 2016; Valladolid and Lopez 2011). Like the division of family labor within families, social policies in Brazil and Peru have also failed to follow changes in women's engagement in the labor force. While family-friendly provisions such as free access to daycare centers and preschools are included in official regulations, services remain scarce and geographically restricted. Not surprisingly, given that in both Brazil and Peru changes in women's status and attitudes were not met by a significant adjustment in men's behaviors, nor by the implementation of family-friendly policies (Esping-Andersen and Billari 2015), working women in the region report that balancing work and family life is their main challenge (ILO 2017a).

Given the challenging circumstances that working women navigate in Brazil and Peru, paid work can occur in a wide set of conditions. In both countries, women are overrepresented in low-quality jobs (ILO and ELAC 2013), while motherhood sorts women into precarious employment (Villanueva and Lin 2020). Consequently, access to employment is one outcome among several of importance for understanding mothers' work opportunities in Latin America. 'Better' jobs in nonwealthy countries are often characterized by rigid schedules and fixed or extended hours, a feature that disadvantages mothers (Heymann 2006; Ramírez-Bustamante 2019). In this study, we address total hours of paid work as an outcome of interest in addition to employment. Conceptually, total hours of paid work are connected to mothers' opportunity in the labor market. The inability to allocate more than just a few hours to employment is a factor explaining mothers' overall shorter tenures and lower work experience (Cerrutti 2000; Lupica 2015), which in turn are factors connected with the quality of mothers' work trajectories. Considering the above, as well as previous findings on coresidence with kin and women's work outcomes in other countries, we predict that mothers living with nonnuclear relatives will be more likely to work for pay and will work more hours:

Hypothesis 1: All else equal, mothers living with adult kin will be more likely to work for pay, and when employed they will work more hours than their peers with no coresiding kin.

Further, kin support may also vary according to key characteristics of the coresident relative. For instance, Yu and Xie (2018) find that in China the size of the motherhood wage penalty depends on whether mothers live with their own relatives or their husbands' relatives, with the pay gap being almost nonexistent when mothers reside with their own parents. While in Latin America there is no evidence suggesting a preference for patrilocal living arrangements, other attributes of coresident kin are likely to influence the amount of help with family labor received by mothers. Specifically, we address whether the potential role of kin coresidence at affecting mothers' employment differs by gender and employment status of the coresident relative (Tienda and Glass 1985).

Since domestic and care work remain largely shouldered by women (Folbre 2012), living with a female relative may have a larger role at decreasing mothers' time in care and housework, alleviating competing demands and reducing mothers' constraints for accessing paid work. Hence, we anticipate that the gender of the coresident kin will be associated with mothers' work-related outcomes:

Hypothesis 2A: Coresidence with adult female kin is more relevant than coresidence with male kin for mothers' labor outcomes.

Moreover, sharing a household with kin that works for pay can be less advantageous in terms of reducing mothers' constraints for employment. We expect that family members who are employed will have more time constraints than those who are not engaged in paid work. As a result, they may be less available to support mothers by taking on childcare or housework activities. Further, employed coresident kin members may contribute financially to the household, and, consequently, these relatives may feel less pressured to participate in family work. Therefore, we anticipate the following:

Hypothesis 2B: Otherwise equal, coresidence with employed kin is less supportive of mothers' work outcomes than coresidence with any kin member.

Yet, the potential role of coresident employed kin in affecting mothers' work outcomes is not straightforward. Employed coresident kin may increase mothers' social capital by providing access to work-relevant network ties (Cohen 2002). Information provided by relatives or friends has been found to play an important role for improving employment outcomes in a number of contexts (Obukhova and Lan 2013; Pedulla and Pager 2019; Restrepo and Salgado 2013). Following this argument, we can also expect that mothers who share a household with an employed nonnuclear relative will have better work outcomes, all else being equal.

4. Household arrangements in Brazil and Peru

Whereas adult relatives could provide support to working mothers, access to kin depends on factors such as proximity to relatives and family structure. Coresidence is a clear factor affecting the provision of support, placing coresident individuals in a strategic position to offer caregiving and domestic help (Chappell 1991). Brazil and Peru represent opposing cases in terms of household organization and coresidence with relatives. In Table 2, we show the prevalence of extended household arrangements in both countries, drawing on the data sources used in this study. We see that, while about 24% of Brazilian mothers reside with one or more nonnuclear adult relatives in their household, this arrangement is shared by more than 43% of Peruvians moms.

Extended household organization in Latin America has often been attributed to economic adversity and constrained access to housing. Yet, cultural aspects also likely play a role in the persistence of such arrangements (García and de Oliveira 2011). Southern Cone countries (e.g., Argentina, Brazil, and Chile) share an earlier predominance of nuclear family arrangements brought by European immigrants and a subsequent convergence toward smaller households. In contrast, Andean countries (Bolivia, Ecuador, and Peru), which did not receive a comparable influx of European migration, maintained, to an important extent, traditional patterns associated with family cohesion and larger extended household arrangements. Indeed, Andean countries show high rates of residence with extended relatives, even after couples enter unions (Esteve, García-Román, and Lesthaeghe 2012).

Brazil and Peru each represent an example of these contrasting predominant patterns of family structure in the Latin American region. That is, while both countries have converged substantially in terms of social and economic development, differences in the prevalence of extended households have persisted over time.

Plausibly, cultural norms that structure household arrangements also shape the availability and expectations of support among coresiding family members. Since extended households have traditionally been more prevalent among Peruvian families, norms of cooperation are likely to be part of scripted expectations associated with sharing a household. That is, coresidence with kin may have a more important positive role at facilitating employment among Peruvian mothers due to cultural norms that dictate the provision of support among household members. On the other hand, rules of reciprocity within Brazilian extended households may be less socially defined, hampering prospects of family assistance. Therefore, while we anticipate that kin coresidence will be positively associated with women's employment and work hours in both countries, we expect that this association will be stronger in Peru than in Brazil:

Hypothesis 3: The association between coresidence with kin and mothers' employment and work hours is stronger among Peruvian mothers than among their Brazilian counterparts.

Our analysis will focus on the association between kin coresidence and mothers' paid work. We draw on data from large-scale, cross-sectional surveys from Brazil and Peru, both providing detailed information on each member of the household. This type of survey data is a valuable source of information for research centered in less developed countries. While analysis employing longitudinal data allows for insights on the causal relationship between kin to mothers' employment and the direction of these associations, longitudinal data for nonwealthy countries is scarce. On the other hand, many national statistical agencies in developing countries carry out cross-sectional surveys similar to the ones used in this article.

5. Data and methods

5.1 Data and variables

Data. We draw on data from the primary population representative household survey for each country, conducted by their respective national statistical offices. Specifically, we use the Brazilian National Household Sample Survey (PNAD) and the Peruvian National Household Survey on Living Conditions and Poverty (ENAHO). Our data span from 2008 to 2015 for Brazil and from 2008 to 2017 for Peru. Both surveys use multistage probability sampling techniques and include detailed information about work and income, as well as other sociodemographic measures for all members of each household sampled.

We estimate models for each country separately and present them next to each other. As noted before, Brazil and Peru present important similarities in conditions that are pertinent to the study of mothers' employment. At the same time, they also show differences on household arrangements that are prevalent in each country, a matter that is at the core of this study. Therefore, we opt to report estimations by country instead of pooled results. Analyses using the pooled sources of data are displayed in Appendix A.

Sample restrictions. We restrict our sample to mothers in urban areas. Mothers are defined as females with children ages 18 or younger living in the household. We exclude rural areas from our analytical sample due to the predominance of agricultural work in rural settings (Rodríguez and Meneses 2011). In developing countries, families in agriculture tend to keep multiple production activities centered on the household, which makes the count of working hours a less meaningful measure (FAO 2010). Estimations

including mothers living in rural areas display substantially similar results and are available upon request.⁴ We limit our sample to women aged 25 to 50 years in order to exclude women who have not yet completed their formal education and minimize the number of mothers whose children no longer live in the household (and would appear as childless in our data). Results remain consistent when we use a broader age range, from 19 to 50 years. We further exclude family workers with zero income from our sample, whose compensation is difficult to assess. Moreover, we exclude women who are not related to the household head as well as residing domestic workers. Finally, to avoid overrepresenting larger households and potentially biasing our results due to a compositional effect, we select only one woman per household.

After implementing the restrictions noted above, our study includes all mothers who live with relatives, regardless of their position in the household structure.⁵ Often studies restrict analytical samples to women who are household heads (reference person in the household) and partners, a decision that excludes, for instance, young mothers who live with their own parents. Since extended arrangements are of importance for this study, we constructed our kin variables with the main goal of including all mothers in the household, in opposition to heads and partners only. In order to provide additional information, Appendix B presents descriptive information on arrangements of kin coresidence, using subsamples of household heads and partners.⁶

⁴ We follow the definitions of urbanicity used by each national statistical office. For Brazil, communities are defined as rural or urban based on their demographic density, the location in relation to the main urban centers, and the size of the population (IBGE 2017). For the Peruvian ENAHO survey, communities are categorized as rural if they consist of 400 adjacent dwellings or fewer (Trivelli 2010).

⁵ The PNAD and the ENAHO provide two levels of relationship structure for each household. The first level describes household members in relation to a household head or reference person. The detail in the description of relationships varies across the PNAD and the ENAHO, but both surveys indicate whether individuals are the household head, partner, children, other relatives, nonrelatives, or domestic workers. In the second level, the PNAD and the ENAHO describe 'family relationships,' that is, nuclear families within households. Family relationships are described in relation to family heads, listing family heads, their partners, their children, other relatives, and other nonrelatives. In both surveys, the description of nuclear relationships is less detailed than that of household-centered relationships. Hence, to describe shared household arrangements for all mothers and not only household heads and partners, our analysis focuses on coresidence with adult family members without detailing the nature of these relationships (e.g., if a kin member is a parent, sibling, etc.).

⁶ We do not operationalize kin in terms of the specific type of familial relationship with each mother in our samples (e.g., mother-in-law, mother, etc.). To provide descriptive information on this matter, Appendix Table B-1 shows types of kin relationships using samples of mothers who are household heads or partners. In Appendix Table B-2 we focus on mothers who live with kin, again, household heads or partners, and describe the type of household extension (vertical, horizontal, or mixed). To provide this information, we draw on an additional data source for Brazil – the Continuous Brazilian National Household Sample Survey (PNAD-C) 2012–2018. The PNAD-C replaced the previous PNAD, which we employ for our main estimations. The PNAD-C includes a much more detailed description of family relationships in relation to the household head. Unfortunately, the PNAD-C does not include relationships at the family level, which prevents us from capturing all mothers in the household. Thus, we opt to report kin coresident type of relationships using the PNAD-C, while keeping our main analysis using the 'traditional' PNAD.

Dependent variables. We employ the following measures associated with mothers' employment status and work intensity:

- 1) Employed: if the mother was employed at the moment of the interview (binary, 0/1).
- 2) Hours of work: mother's weekly hours of work, taking into account all her jobs. We include nonworking women in the analysis, computing their weekly working hours as zero.

Key independent variables. We operationalize coresidence with an adult kin member using a set of binary indicators. Our measures capture the presence of an adult relative in the household other than the mother's spouse or partner. All measures of kin include family members ages 19 to 64, including adult children who live with their parents (Johnson 2000; Sarkisian and Gerstel 2004). A first measure indicates the presence of any adult kin member in the household. We then further operationalize measures identifying the presence of a female kin member and kin members who are employed full time. Kin members working part time have more flexibility to combine work and family demands and can still provide support for working mothers through caretaking and housework. Because we seek to capture how work constraints can influence the provision of support within households, we focus on the presence of relatives who hold full-time paid employment. In this analysis, 'full-time employed' refers to individuals working 35 hours per week or more, including all their jobs.

The resulting measures are the following:

- 1) Presence of at least one adult kin member.
- 2) Presence of at least one female adult kin member. This is the same variable as (1) but includes only female individuals.
- 3) Presence of at least one adult kin member working for pay. This is the same variable as (1) but includes only full-time employed individuals.

Control variables. We include a measure for 'other household income' after deducting the mother's earnings, following empirical literature on women's selection into the labor force (Budig, Misra, and Boeckmann 2012; Harkness and Waldfogel 1999; Mandel and Semyonov 2005). Other household income is measured in logged US dollars using the official exchange rate for each year and country provided by the World Bank.

Because engagement in paid work initially increases with age but later drops as individuals become older, our estimations include both a measure of women's age and their age squared.

Further, given that educational systems differ in Brazil and Peru, we follow the standard operationalization of educational attainment used in scholarly empirical literature for each country. Educational attainment is measured according to each country's specific educational system, with four categories ranging from 'elementary or less' to 'some tertiary education or more.' More specifically, the four educational categories for Brazil are 0 to 7 years of schooling (less than elementary), 8 years of schooling (elementary), 9 to 11 years of schooling (at least some high school), and 12 or more years of schooling (some college or more) (Azzoni and Servo 2002). For Peru, the categories are elementary schooling or less (equivalent to 6 years of education or less), high school incomplete (6 to 10 years of schooling), high school complete (11 years of education completed), and at least one year of tertiary education (equivalent to 12 or more years of schooling) (e.g., Waters 2006).

We control for the number of coresident children and their age as having more and younger children commonly increases time spent on childrearing and household chores, reducing the time available for paid work. Offspring are categorized as children if they are up to 18 years old. We include indicators on the number of children (continuous), while the age of the youngest child is measured with a categorical indicator (1 = 6 years old or younger; 2 = 7 to 12 years old; and 3 = 13 to 18 years old). Female-headed households are measured with a binary indicator coded as 1 if mothers do not have a married or cohabiting partner present in the household.

Since in Latin America Afro-descendant women and indigenous women are located in lower-status and less-paid positions in the labor market (ECLAC 2016), we include a dichotomous control for racial and ethnic disadvantaged groups within each country. In Brazil, 1 = all racial groups except for white individuals, while in Peru 1 = indigenous.⁷ We also include a dummy variable indicating if the household employs a residing domestic worker, a measure that taps into households' capability to outsource family labor.

All models include controls for mothers' position relative to the household head, with three categories – head or partner, child, or another family member – as well as survey year. It is worth mentioning that, when reporting results, we use the terms adult relative and kin member interchangeably.

5.2 Analytical strategy

Each of our hypotheses includes two outcomes: mothers' engagement in paid labor and the number of hours mothers work for pay. Therefore, for all hypotheses, models were conducted separately in order to examine each outcome.

⁷ We code respondents as indigenous based on their maternal language.

Our plan of analysis accounts for the main set of factors largely driving mothers' work opportunity, in addition to a mother's position in the household structure. Thus, all models control for the same set of measures: age and age-squared, other household income (excluding mothers' earnings), race/ethnicity, age of youngest child, number of children, educational attainment, the presence of a domestic worker in the household, position in the household structure (head/partner, offspring, or other family member), and survey year. We expect that, if any association with the measure of interest – presence of coresident kin – was found, it will signal a trend worth investigating, even if small in magnitude.

Hypothesis 1: Coresidence with kin members is supportive for mothers' paid work outcomes.

We examine the association between mothers' employment (dichotomous) and residence with kin using linear probability models (LPM). Compared to logit and probit models, an LPM approach provides the key advantage of its ease of interpretability (Breen, Karlson, and Holm 2018; McGarry 2000) and facilitates comparisons of estimates across models. Results using logit regression estimates are substantially similar and are available upon request.

Then, to inspect whether there is a positive connection between living with kin members and mothers' hours of paid work, we employ Tobit regressions. Tobit models are designed to estimate linear relationships between variables when there is either left or right censoring in the dependent variable. Further, Tobit models are commonly used to estimate labor supply of hours of work, as hours are clustered at zero for nonworkers (McDonald and Moffitt 1980; Wooldridge 2010). We conducted sensitivity analysis, modeling hours of work using OLS and truncated regressions (results available upon request) and obtained results pointing to a similar direction to those shown here.

Hypothesis 2A: Coresidence with adult female kin is more relevant than coresidence with male kin for mothers' labor outcomes.

Hypothesis 2B: Coresidence with employed kin is less supportive of mothers' labor outcomes than coresidence with any kin member.

To test Hypotheses 2A and 2B, we compare coefficients from a first model with the presence of any kin member as the main predictor (Model 1) with a second model with presence of a female kin member (Model 2) as the main covariate of interest. Analogously, for addressing Hypothesis 2B, we compare Model 1 (any coresident kin as key covariate of interest) with a third model where the main predictor is presence of a full-time employed kin member (Model 3). Coefficients of Tobit regressions can be

interpreted as OLS regressions on the uncensored latent variable (that is, for all women in the sample). Therefore, for regressions estimating mothers' hours in paid work, we also compare coefficients across models.

We examine estimations for each country, with results presented next to each other across the Results section (Hypothesis 3). Finally, as supplementary analysis, we explored sources of heterogeneity and conducted sensitivity analysis, which are briefly discussed in the Results and Appendixes.

6. Results

6.1 Descriptive information

Table 2 provides descriptive information on the mothers in our sample (N = 249,762 in Brazil and 61,687 in Peru). As noted, Peruvian mothers are more likely to live with kin compared to their Brazilian peers – 43.5% of Peruvian mothers in our sample share a household with kin versus only 24.3 % of Brazilian mothers. Similarly, over 30% of mothers in Peru live with adult female kin, while this percentage is considerably lower among their Brazilian peers (14%). Table 2 also shows that in Brazil, about 15% of mothers in our sample live with a relative who is employed full time, and this proportion is over 26% in Peru.

In both countries, more than 60% of mothers in our sample work for pay, though this share is higher in Peru. The average of weekly hours of work for Brazilian and Peruvian mothers is 24 and 29 hours, respectively, including mothers who are not employed (coded as working 0 hours). In both countries, only a small share of mothers employ a residing domestic worker. Average educational levels are low, as over 40% of Brazilian mothers have completed elementary schooling or less, and about 35% of their Peruvian peers do not have a high school diploma. The average age of mothers in our sample is also similar across both countries, and most of them live with a partner. The average number of children is 1.7 and 1.9 among Brazilian and Peruvian women, respectively. About 51% of Peruvian mothers have a youngest child aged 0 to 6, compared to 42.5% of mothers in Brazil. Household heads and partners represent 95% of mothers in Brazil and almost 80% in Peru. Children of the household head and other relatives comprise about 5% of the sample in Brazil and over 20% of the sample in Peru.

Table 2: Weighted means and proportions. Only mothers, ages 25 to 50, in urban areas. Brazil (2008–2015) and Peru (2008–2017)

	Brazil	Peru
Presence of any kin (males and females, ages 19–64)	24.3	43.5
Presence of female kin, ages 19–64	14.6	30.5
Presence of employed kin, ages 19–64	14.8	26.5
Works for pay	62.7	68.1
Weekly hours of work (mean)	24.1 (21.35)	28.8 (27.10)
Has a partner	79.3	76.3
Live-in domestic worker	0.2	1.1
Number of children (mean)	1.7 (0.93)	1.9 (0.99)
Age of youngest child		
0–6 years old	42.5	50.9
7–12 years old	32.9	30.8
13–18 years old	24.6	18.3
Age (mean)	36.5 (6.65)	37.2 (6.93)
Educational attainment		
Less than elementary/Elementary	29.7	20.1
Elementary education/HS incomplete	11.2	14.2
Less than high-school or high school complete/High school complete	40	30.3
Some tertiary and more	19	35.3
Ethnic/race minority	52.7	13.9
Monthly household income (mean- in US \$)	1,350.5 (2,554.19)	1,091 (1,001.95)
Relationship to household head		
Head or partner of household head	95.1	78.8
Child of household head	3.8	16.1
Other relative	1.1	5.1
N =	249,762	61,687

Note: Own calculations based on PNAD (Brazil) and ENAHO (Peru).

6.2 Multivariate results

6.2.1 Presence of any kin

Tables 3 and 4 present results from models predicting mothers' work for pay (dichotomous) and weekly hours of work (continuous) with presence of any kin for Brazil and Peru. Taken together, these results provide some support to our first hypothesis. Net

of other socioeconomic characteristics, our measure for kin indicates that mothers living with an adult relative are more likely to be employed than those who do not live in such an arrangement, both in Brazil and in Peru.

Table 3: Linear probability models predicting mothers' work for pay. Only mothers 25 to 50 years old, in urban areas

	Brazil		Peru	
	Coef./SE	P-value	Coef./SE	P-value
Household composition				
Presence of kin (males and females, ages 19–64)	0.010 (0.003)	0.000	0.032 (0.006)	0.000
Female headed household	0.091 (0.003)	0.000	0.146 (0.006)	0.000
Number of children	–0.023 (0.001)	0.000	0.002 (0.003)	0.469
Age of youngest child				
7–12 years old	0.074 (0.003)	0.000	0.075 (0.006)	0.000
13–18 years old	0.087 (0.003)	0.000	0.082 (0.008)	0.000
Age	0.056 (0.002)	0.000	0.042 (0.004)	0.000
Age-squared	–0.001 (0.000)	0.000	–0.001 (0.000)	0.000
Educational attainment (ref: elementary or less)				
Elementary education/HS incomplete	0.071 (0.004)	0.000	0.008 (0.008)	0.335
Less than high school or high school complete/High school complete	0.129 (0.003)	0.000	–0.003 (0.007)	0.683
Some tertiary and more	0.293 (0.003)	0.000	0.098 (0.007)	0.000
Non-white	–0.022 (0.002)	0.000	0.057 (0.007)	0.000
Live-in domestic worker	0.090 (0.016)	0.000	0.168 (0.022)	0.000
Logged household income (excluding mothers' earnings)	–0.015 (0.000)	0.000	–0.048 (0.002)	0.000
Constant	–0.431 (0.032)	0.000	0.008 (0.074)	0.916
Observations	249,762		61,687	

Sources: For Brazil, PNAD; for Peru, ENAHO.

Note: All regressions include controls for year and relationship to household head.

Table 3 provides results for an LPM analysis predicting mothers' employment. We see that our coefficients for presence of any kin indicate a positive relationship between

the presence of a coresident family member and mothers' employment. For Peru, a coresident adult kin is associated with about a 3 percentage point increase in the probability of being employed (p-value: 0.000), a coefficient that is larger in magnitude to our second category for educational attainment (high school incomplete versus the category of reference, elementary education). For Brazil, our coefficient of interest points to a more modest association, at about 1 percentage point change, in the expected direction (p-value: 0.000).

Table 4: Tobit models predicting mothers' weekly hours work. Only mothers 25 to 50 years old, in urban areas

	Brazil		Peru	
	Coef./SE	P-value	Coef./SE	P-value
Household composition				
Presence of kin (males and females, ages 19–64)	0.879 (0.197)	0.000	3.358 (0.484)	0.000
Female headed household	6.626 (0.195)	0.000	12.557 (0.495)	0.000
Number of children	-1.903 (0.091)	0.000	-0.140 (0.238)	0.555
Age of youngest child (ref: 0–6)				
7–12 years old	5.162 (0.180)	0.000	6.267 (0.496)	0.000
13–18 years old	6.443 (0.225)	0.000	8.271 (0.671)	0.000
Age	3.946 (0.125)	0.000	3.704 (0.331)	0.000
Age-squared	-0.053 (0.002)	0.000	-0.046 (0.004)	0.000
Educational attainment (ref: elementary or less)				
Elementary education/HS incomplete	5.777 (0.272)	0.000	0.572 (0.700)	0.413
Less than high school or high school complete/High school complete	10.047 (0.190)	0.000	-0.115 (0.618)	0.853
Some tertiary and more	19.259 (0.210)	0.000	5.215 (0.596)	0.000
Non-white	-2.209 (0.148)	0.000	5.322 (0.589)	0.000
Live-in domestic worker	7.103 (1.108)	0.000	13.520 (1.769)	0.000
Logged household income (excluding mothers' earnings)	-0.930 (0.013)	0.000	-3.691 (0.216)	0.000
Constant	-57.115 (2.276)	0.000	-37.087 (6.138)	0.000
Observations	249,762		61,687	

Sources: For Brazil, PNAD; for Peru, ENAHO.

Note: All regressions include controls for year and relationship to household head.

Table 4 displays results for our Tobit models predicting weekly hours of paid work with coresidence with any adult kin. We see that these results are analogous to those presented in Table 3. That is, coefficients of interest point to a positive association between coresidence with kin and mothers' work intensity, with this association being stronger among Peruvian mothers as compared to their Brazilian counterparts.

6.2.2 Presence of female kin

In Table 5 we present LPMs predicting mothers' employment with coresidence with female kin (columns 4 and 5 for Brazil and columns 8 and 9 for Peru), as well as Tobit models predicting hours of work, also with female coresident kin as main independent variable (columns 12 and 13 for Brazil and 16 and 17 for Peru). To facilitate comparisons across models, Table 5 further includes the estimate results of models predicting mothers' work outcomes with presence of any kin member in the household. Results in Table 5 also show a positive link between residence with female kin and mothers' work outcomes in Brazil and Peru. We see that, for both countries, our coefficients of interest indicate that mothers who coreside with female kin are more likely to work for pay compared to their peers who do not live with an adult female relative, all else being equal (columns 4 and 8). At the same time, this set of results provides only partial support for Hypothesis 2A. Our coefficient for the presence of female kin is substantially larger than that for any kin for our sample for Brazil but not for Peru.

Results in Table 5 show a similar trend for predicting hours of work (Tobit models). Tobit estimations for Brazil and Peru indicate that the presence of a female adult family member increases the expected uncensored number of working hours per week. Table 5 also provides partial support for Hypothesis 2A, indicating that coresidence with female family members may be particularly helpful for Brazilian mothers. Yet, among Peruvian mothers, the presence of a female relative in the household does not appear to be more advantageous for mothers' work outcomes than coresidence with any adult relative.

Table 5: Linear probability models predicting mothers' work for pay and Tobit models predicting mothers' work hours with presence of female kin. Only mothers 25 to 50 years old, in urban areas

	Linear probability models							
	Brazil				Peru			
	(2) Coef./SE	(3) P-value	(4) Coef./SE	(5) P-value	(6) Coef./SE	(7) P-value	(8) Coef./SE	(9) P-value
Household composition								
Presence of kin (males and females)	0.010 (0.003)	0.000			0.032 (0.006)	0.000		
Presence of female kin			0.020 (0.003)	0.000			0.026 (0.006)	0.000
Constant	-0.431 (0.032)	0.000	-0.434 (0.032)	0.000	0.008 (0.074)	0.916	0.010 (0.074)	0.893
Observations		249,762				61,687		
	Tobit models							
	Brazil				Peru			
	(10) Coef./SE	(11) P-value	(12) Coef./SE	(13) P-value	(14) Coef./SE	(15) P-value	(16) Coef./SE	(17) P-value
Household composition								
Presence of kin (males and females)	0.879 (0.197)	0.000			3.358 (0.484)	0.000		
Presence of female kin			1.571 (0.232)	0.000			2.955 (0.506)	0.000
Constant	-57.115 (2.276)	0.000	-57.336 (2.275)	0.000	-37.087 (6.138)	0.000	-37.054 (6.147)	0.000
Observations		249,762				61,687		

6.2.3 Presence of employed kin

Table 6 is organized as Table 5. Thus, we present LPMs predicting mothers' employment with the presence of full-time employed kin in the household (columns 4 and 5 for Brazil; 8 and 9 for Peru) and Tobit models predicting mothers' working hours with the same key independent variable of interest (columns 12 and 13 for Brazil and 16 and 17 for Peru).

We see that results displayed in Table 6 do not support Hypothesis 2B – our coefficients for full-time employed kin are positive and larger than those for any kin for both countries. Again, to ease comparisons across models, Table 6 also includes results of models predicting the association between mothers' work outcomes and presence of any kin member (see columns 2, 6, 10, and 14). For instance, our coefficient of interest indicates that coresidence with a relative who works full time is associated with a 3.6 percentage point change in the probability of Brazilian mothers working for pay, all else

being equal (column 4). Similarly, our coefficient for Peru points to living with employed kin being associated with a 4-percentage-point increase in the probability of mothers being engaged in paid labor.

Table 6: Linear probability models predicting mothers' work for pay and Tobit models predicting mothers' work hours with presence of employed kin. Only mothers 25–50 years old, in urban areas

	Linear probability models							
	Brazil				Peru			
	(2) Coef./SE	(3) P-value	(4) Coef./SE	(5) P-value	(6) Coef./SE	(7) P-value	(8) Coef./SE	(9) P-value
Household composition								
Presence of kin (males and females)	0.010 (0.003)	0.000			0.032 (0.006)	0.000		
Presence of full-time employed kin			0.036 (0.003)	0.000			0.039 (0.006)	0.000
Constant	-0.431 (0.032)	0.000	-0.441 (0.032)	0.000	0.008 (0.074)	0.916	0.011 (0.074)	0.884
Observations	249,762				61,687			
	Tobit models							
	Brazil				Peru			
	(10) Coef./SE	(11) P-value	(12) Coef./SE	(13) P-value	(14) Coef./SE	(15) P-value	(16) Coef./SE	(17) P-value
Household composition								
Presence of kin (males and females)	0.879 (0.197)	0.000			3.358 (0.484)	0.000		
Presence of full-time employed kin			3.049 (0.230)	0.000			4.884 (0.541)	0.000
Constant	-57.115 (2.276)	0.000	-57.953 (2.274)	0.000	-37.087 (6.138)	0.000	-37.176 (6.140)	0.000
Observations	249,762				61,687			

Sources: For Brazil, PNAD; for Peru, ENAHO.

Notes: Models in Tables 5 and 6 include all controls included in Tables 3 and 4. All kin definitions refer to adults, ages 19 to 64.

Tobit regressions show analogous results (Table 6, under Tobit models), with our coefficients for the presence of full-time employed kin being stronger in magnitude for both Brazil and Peru than those for any kin. Taken together, we see this set of results as pointing to alternative pathways for a coresident kin's impact on mothers' employment. Reasonably, these results suggest that coresident employed relatives could play a role at facilitating mothers' access to the world of paid labor, for instance, by providing information on job openings, opportunities for independent work, or steps required to start a small self-owned business.

6.3 Differences between countries

Taken as a whole, the results discussed above show that in all LPM and Tobit estimations the presence of an adult family member is a stronger predictor of work outcomes among Peruvian mothers compared to their Brazilian counterparts, providing support for Hypothesis 3. This pattern is consistent for all our measures of coresident kin, and it is particularly visible in the first set of results, using any kin as the main predictor, where our coefficient of interest for Brazil has the expected direction but is modest in magnitude.

Moreover, as noted, our results also suggest that female relatives are particularly helpful for Brazilian mothers but not more supportive than the presence of any kin for their Peruvian counterparts. A salient role of female kin could point to childcare transfers being particularly critical in facilitating mothers' employment in Brazil. In turn, this could be aligned with overall patterns of female employment in both countries. In Peru, where mothers' employment is more normative than in Brazil, families and communities could be more used to providing informal childcare, for instance, through (any) coresident kin or through neighbors' weak supervision (a neighbor 'keeping an eye' on children). In contrast, a context where mothers' engagement in paid work is less normative could result in stronger social norms defining who is suitable for providing childcare aside from mothers (that is a female body, preferably a relative). On the other hand, interestingly, our results for employed kin point in the same direction for both countries, suggesting that access to networks connected to employment or to job-related information are helpful factors for mothers in both nations.

6.4 Ancillary analysis

Heterogeneity. We examined whether the association between kin coresidence and mothers' employment varies by mothers' characteristics, such as marital/cohabiting status, socioeconomic status, children's age, and number of earners in the household. As expected, results suggest that kin support is more beneficial for mothers with younger children; yet, other potential sources of variation seem to differ substantially by country. Results are presented in Appendix C.

Robustness check. In this study we evaluate whether mothers' engagement in paid labor is positively associated to the presence of nonnuclear adult family members in the household. We proposed that the noted association would be likely driven by kin support provided to mothers, for instance, through childcare transfers. Yet, an alternative explanation for a positive association between mothers' employment and the presence of kin in the household is that mothers are pushed toward employment given the need to

financially support the coresident relative. This scenario would also be consistent with mothers with coresident kin being more engaged in paid labor than mothers who do not live with adult relatives. We addressed this concern by evaluating whether the presence of an adult kin member who has a disability is associated with mothers' employment. We were able to assess this matter using data from Peru.⁸ Plausibly, a coresident relative who has a disability will not be able to provide mothers with support that is conducive to employment. Therefore, if coresidence with kin is associated with mothers' employment because kin members provide support to mothers, we should not see an association between coresidence with kin and mothers' work when looking at the presence of kin members with a disability. Appendix D presents results of this exercise. We see that, across a set of operationalizations of coresident kin, only our coefficient of 'kin with a disability' fails to reach statistical significance, while its magnitude is smaller than all other definitions for kin. We present results for OLS models predicting employment; Tobit estimations predicting working hours are consistent with those shown here.

7. Discussion and conclusion

Globally, researchers report a stall in the gender revolution that progressively placed a high share of women in the workforce over the course of the second half of the 20th century. This stalling of progress is not exclusive to rich nations, and in Latin America, the rate of women's engagement in paid work shows deceleration for the first time in fifty years (Gasparini and Marchionni 2015). The fact that women have massively joined the labor market but remain the prime person responsible for unpaid domestic and care work responsibilities is a key factor explaining such trends. In this context, it becomes particularly important to study the connection between household composition and mothers' opportunities in the labor markets, especially in societies where public-funded care options are hardly available. In this article, we contribute to the scholarship on family support and mothers' work opportunities examining if kin coresidence is associated with mothers' work outcomes in Brazil and Peru.

Whereas most investigations of work and family have focused on contexts where nuclear household arrangements are predominant, we investigate Brazil and Peru, two upper-middle-income countries in which patterns of household arrangements differ significantly. Capitalizing on nationally representative data that provides detailed information on employment for each member of the household, our study highlights the positive connection between kin coresident and mother's employment and work intensity.

⁸ The Peruvian ENAHO inserted a disability section in 2014. The Brazilian PNAD does not include information on this matter.

First, our findings support that living with any adult kin is positively associated with mothers' work opportunities in both Brazil and Peru. While this association is modest in Brazil when compared to Peru, our coefficients for coresidence with any kin remain positive and statistically significant across multiple specifications and after accounting for a large set of factors largely driving mothers' employment. Second, our results indicate that kins' gender can influence the role of coresidence in mothers' paid work, yet this association differs by country. While living with female relatives is more beneficial to Brazilian mothers, the gender of coresident kin is not a relevant factor for mothers in Peru. Third, we examined the role of kin employment characteristics on mothers' labor outcomes. We find that in both countries, coefficients for full-time employed kin are sizeable in magnitude compared to other measures of kin coresidence. We interpret the latter set of results as suggesting alternative mechanisms for the positive association between coresidence with kin and mothers' employment. While kin-based networks are typically considered of lesser utility in labor markets (Granovetter 1973), our sample consists of mothers of minor children, a segment drastically disadvantaged in their ability to establish ties with others (Munch, McPherson, and Smith-Lovin 1997; Smith-Lovin and McPherson 1993). Within this context, an employed coresident relative could represent a substantial improvement in mothers' access to network connections, providing job-related information and employment contacts (Cohen 2002; Hao and Brinton 1997). Another potential mechanism for this result is that of financial support, with employed kin contributing to mothers' access to paid childcare. More research is clearly needed to explore these alternatives.

Taken as a whole, our results are aligned with previous research documenting the relevance of family support for working mothers. In most countries, institutional support for working parents is minimal, and the bulk of care work is commonly carried out informally by family members. Hence, mothers working for pay commonly rely on care provided by relatives, especially when their children are young (Hein 2005). Our study builds on the family-work scholarship by highlighting the relevance of household dynamics and coresidence with relatives as an arrangement that facilitates mothers' engagement in the workforce.

Since context importantly moderates associations between family and mothers' work (Aycan 2008), we examined if the relationship between mothers' work outcomes and kin coresidence varied by country. While households in Brazil converged early in history to nuclear-based arrangements, extended households have been considerably more prevalent in Peru. We argued that these divergent processes that influenced patterns of family structure could have also resulted in different expectations about assistance within households. The extensive historical presence of extended households in Peru may have contributed to the development of social norms about family members' responsibilities and dependence on each other, supporting mandates of cooperation

within households. Our results support this notion – while living with a kin member is associated with mother' employment and hours of work in both countries, this association is stronger in Peru than in Brazil. This suggests that Peruvian mothers not only have more access to coresiding family members, but they also receive more support from coresident relatives than their Brazilian counterparts.

In a broad sense, comparing samples of individuals from different countries offers insights into contextual influences on work–family dynamics (Powell, Francesco, and Ling 2009). Embedded social norms regarding support may also help explain why the gender of a coresident kin is less relevant for mothers' work in Peru than in Brazil. Prevalent expectations about kin coresidence in Peru may push relatives to cooperate regardless of their gender, while in Brazil, where coresidence with kin is less normative, cooperation could be more aligned with traditional gender norms. Further, we suspect that cross-national differences in maternal labor force participation could also explain differences in kin support to mothers. Whereas rates of Brazilian women in the workforce are above the Latin American average, rates for their Peruvian peers are notably high. We could anticipate that in Peru, where mothers' employment is ubiquitous, all kin support operates in a way that is conducive to a 'natural state,' where mothers in the household are employed.

In this study, we highlight the opportunity of exploiting high-quality large datasets, conducted on regular bases by national statistical agencies. A focus on family structure allows researchers to explore the connection between coresidence with kin and mothers' economic outcomes for a larger set of contexts, in contrast to relying only on surveys designed to track sources of support, which are often geographically scarce and limited to specific time periods. While many developing countries do not have surveys that track and quantify kin relationships, household surveys are much more prevalent and can be used to understand the influence of household composition on mothers' engagement in paid work. Moreover, while comparative research has devoted extensive attention to contrasting policies affecting mothers' work outcomes, family support systems have received less attention and can be a promising area for future investigation. This is particularly the case for contexts where state-provided support for mothers is lacking or nonexistent. It is worth mentioning that because in nonindustrial countries state-mandated policies often face important limitations in their implementation, policy comparisons are less informative.

Our study has limitations and presents several avenues for future research. First, we are not able to claim a causal connection between the presence of kin in the household and mothers' labor outcomes. Mainly, mothers who are more willing to engage in paid work may intentionally decide to live in extended households to attain family support and balance work and family demands. Yet, this study does not aim to evaluate causality. Rather, we are interested in the consistent association between coresidence with kin and

mother's paid work, which we believe are jointly determined processes. Further, given data constraints, we are not able to identify the type of support each kin member provides. Future research, particularly if working with time-use data, could illuminate more-specific patterns in this regard. Similarly, our data sources do not provide specific information on how much of the family work is being outsourced, aside from the presence of a domestic worker living in the household. Yet, we also expect that our controls for socioeconomic status partially capture the role of family labor being outsourced. Moreover, we do not have information on relatives outside the household. Mothers, even in single-headed or nuclear households, may live nearby family members and obtain support from them (Compton and Pollak 2014). Data collection efforts on this topic will be particularly helpful.

Importantly, our study does not include the period of the COVID-19 emergency. Globally, Brazil and Peru are among the countries with the highest death rates due to the pandemic (Johns Hopkins 2021). The COVID-19 pandemic affected a wide range of issues intricately connected to women's employment and extended households in the face of vulnerable families becoming unable to afford rents. Upcoming research using recently released data from both countries will certainly help us understand the impacts of COVID-19 on mothers' work outcomes.

Despite its limitations, our study contributes to a developing body of literature examining the connection between household composition and socioeconomic processes. Focusing on the connection between family structure and mothers' labor outcomes, we explored this matter using data from two emerging economies, differing on the prevalence of extended households but offering other important similarities. Our results suggest that these processes may be influenced by social norms of support within households and perceptions of family roles differing by country. Finally, we believe our results have implications on how we think about family support and how social context may shape availability and expectation of assistance. As nuclear family arrangements lose ground to increasingly important multigenerational bonds and doubled-up households, also in developed countries (Glick and Van Hook 2011; Pilkauskas, Garfinkel, and McLanahan 2014), the expansion of scholarly inquiry that incorporates nonnuclear family members and shared households provides a promising future research agenda for family scholars.

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Appendix A: Results using pooled data

Table A-1: Linear probability models predicting mothers' work for pay. Only mothers 25 to 50 years old, in urban areas. Pooled data

	Model 1	Model 2	Model 3
Peru (ref: Brazil)	0.043 (0.003)	0.043 (0.003)	0.043 (0.003)
Household composition			
Presence of kin (males and females)	0.013 (0.003)		
Presence of female kin		0.021 (0.003)	
Presence of full-time employed kin			0.034 (0.003)
Constant	-0.400 (0.029)	-0.403 (0.029)	-0.409 (0.029)
Observations	311,449	311,449	311,449

Table A-2: Tobit models predicting mothers' weekly hours work. Only mothers 25 to 50 years old, in urban areas. Results in odds ratio. Pooled data

	Model 1	Model 2	Model 3
Peru (ref: Brazil)	5.990 (0.260)	5.988 (0.260)	5.991 (0.259)
Household composition			
Presence of kin (males and females)	1.196 (0.183)		
Presence of female kin		1.800 (0.212)	
Presence of full-time employed kin			3.135 (0.212)
Constant	-57.309 (2.148)	-57.545 (2.148)	-58.135 (2.147)
Observations	311,449	311,449	311,449

Notes: Tables A-1 and A-2 include all controls included in Table 3 and 4. All kin definitions refer to adults ages 19 to 64.

Appendix B: Kin relationships and type of household extension

Table B-1: Nature of kin relationship for all mothers. Only head of the household or partner, ages 25 to 50, in urban areas. Brazil (2012–2018) and Peru (2008–2017). Proportions

	Brazil		Peru	
	Mother not working	Mother working	Mother not working	Mother working
Coresident kin, ages 19–64	22.9	22.7	29.4	35.0
Coresident female kin	12.3	12.5	17.6	20.8
Coresident adult children	18.7	18.3	24.1	29.5
Coresident adult female child	9.35	9.17	13.4	16.3
Coresident parent/parent-in-law	1.50	1.59	2.30	2.29
Coresident mother/mother-in-law	1.27	1.41	1.92	1.92
Coresident other relative	2.96	2.89	6.62	7.59
Coresident female other relative	1.34	1.40	3.05	3.51
Coresident sibling	1.77	1.95		
Coresident sister	0.78	0.96		
Observations	93,136	154,121	15,453	35,397

Sources: For Brazil, PNAD-C; for Peru, ENAHO.

Notes: All kin definitions refer to adults ages 19 to 64. Only Brazil has a relationship variable indicating presence of siblings of the household head. For Peru, 'other relatives' include siblings, children-in-law, and other relatives. Note that mothers may have more than one coresident kin in the household.

Table B-2: Type of household extension. Only mothers with a kin coresident, head of the household or partner, ages 25 to 50, in urban areas. Brazil (2012–2018) and Peru (2008–2017). Proportions

	Brazil	Peru
Only adult children	74.62	72.62
Vertical	5.14	5.33
Horizontal	12.42	10.04
Mixed	7.82	12.00
Observations	247,257	50,850

Sources: For Brazil, PNAD-C; for Peru, ENAHO.

Notes: Vertical households are those in which the kin member is parent/parent-in-law for mothers who are head/partner of the household head. Horizontal households are those comprising the presence of a sibling or other relatives. Mixed households are those comprising a parent/child and a sibling/other relative.

Appendix C: Exploring sources of heterogeneity

To inspect variations in the association between presence of an adult family member in the household and mothers' employment outcomes across mothers' characteristics, we estimate models including interaction terms between presence of any kin and a set of measures tapping into mothers' traits. Particularly, we examine the follow interactions: (Model 1) an interaction between presence of any kin and mother's socioeconomic status, measured by educational attainment; (Model 2) an interaction between presence of any kin and age of the youngest child; (Model 3) an interaction between presence of any kin and female-headed households; and lastly, (Model 4), an interaction between presence of any kin and number of individuals earning any income derived from their labor. The latter variable is coded in four categories (1 = 0 to 1 earner; 2 = 2 earners; 3 = 3 earners; 4 = 4 or more earners).

Table C-1: Linear probability models predicting mothers' work for pay with interactions. Only mothers 25 to 50 years old, in urban areas

	Model 1		Model 2		Model 3		Model 4	
	Brazil	Peru	Brazil	Peru	Brazil	Peru	Brazil	Peru
Household composition								
Presence of kin (males and females included)	0.012 (0.005)	0.028 (0.011)	-0.023 (0.004)	0.002 (0.009)	0.004 (0.003)	0.036 (0.007)	0.028 (0.005)	0.045 (0.008)
Educational attainment (ref: elementary or less)								
Elementary education/HS incomplete	0.072 (0.004)	0.017 (0.011)	0.037 (0.003)	0.025 (0.006)	0.071 (0.004)	0.008 (0.008)	0.071 (0.004)	0.008 (0.008)
Less than high school or high school complete/high school complete	0.127 (0.003)	-0.011 (0.009)	0.069 (0.002)	0.048 (0.005)	0.129 (0.003)	-0.003 (0.007)	0.129 (0.003)	-0.003 (0.007)
Some tertiary and more	0.298 (0.003)	0.096 (0.009)	0.140 (0.002)	0.129 (0.006)	0.293 (0.003)	0.098 (0.007)	0.293 (0.003)	0.098 (0.007)
Number of earners (ref: 0-1 earner)								
Two earners			0.834 (0.001)	0.744 (0.004)				
Three earners			0.878 (0.003)	0.797 (0.008)				
Four or more earners			0.903 (0.010)	0.839 (0.021)				
Female-headed household	0.091 (0.003)	0.146 (0.006)	0.327 (0.003)	0.348 (0.006)	0.082 (0.003)	0.157 (0.008)	0.091 (0.003)	0.146 (0.006)
Age youngest child (ref: 0-6)								
7-12 years old	0.074 (0.003)	0.075 (0.006)	0.023 (0.002)	0.040 (0.004)	0.074 (0.003)	0.075 (0.006)	0.076 (0.003)	0.078 (0.008)
13-18 years old	0.088 (0.003)	0.081 (0.008)	-0.005 (0.002)	0.033 (0.006)	0.088 (0.003)	0.082 (0.008)	0.096 (0.004)	0.103 (0.010)

Table C-1: (Continued)

	Model 1		Model 2		Model 3		Model 4	
	Brazil	Peru	Brazil	Peru	Brazil	Peru	Brazil	Peru
Presence of kin * Education attainment								
Kin * Elementary education/HS incomplete	-0.007 (0.009)	-0.021 (0.016)						
Kin * Less than high school or high school complete/High school complete	0.009 (0.006)	0.019 (0.014)						
Kin * Some tertiary and more	-0.023 (0.007)	0.004 (0.013)						
Presence of kin * Number of earners								
Kin * Two earners			-0.385 (0.005)	-0.338 (0.011)				
Kin * Three earners			-0.162 (0.006)	-0.171 (0.012)				
Kin * Four or more earners			-0.098 (0.011)	-0.102 (0.023)				
Presence of kin * Female headed					0.027 (0.006)	-0.019 (0.010)		
Presence of kin * Age youngest child (ref: 0-6)								
Kin * 7-12 years old							-0.017 (0.006)	-0.008 (0.011)
Kin * 13-18 years old							-0.032 (0.006)	-0.041 (0.013)
Constant	-0.426 (0.032)	0.005 (0.074)	-0.022 (0.020)	0.138 (0.057)	-0.430 (0.032)	0.006 (0.074)	-0.428 (0.032)	0.008 (0.074)
Observations	249,762	61,687	249,762	61,687	249,762	61,687	249,762	61,687

Table C-2: Tobit models predicting mothers' weekly work hours with interactions. Mothers 25 to 50 years old, in urban areas

	Model 1		Model 2		Model 3		Model 4	
	Brazil	Peru	Brazil	Peru	Brazil	Peru	Brazil	Peru
Presence of kin (males and females included)	1.202 (0.331)	3.097 (0.913)	-0.451 (0.364)	1.176 (1.013)	0.346 (0.226)	3.872 (0.547)	2.584 (0.354)	5.155 (0.696)
Educational attainment (ref: elementary or less)								
Elementary education/HS incomplete	5.982 (0.316)	1.247 (0.924)	3.543 (0.204)	1.840 (0.625)	5.782 (0.272)	0.575 (0.700)	5.772 (0.272)	0.575 (0.699)
Less than high school or high school complete/High school complete	10.036 (0.221)	-0.985 (0.809)	6.155 (0.144)	3.528 (0.548)	10.042 (0.190)	-0.104 (0.618)	10.048 (0.190)	-0.120 (0.617)
Some tertiary and more	19.634 (0.240)	5.322 (0.766)	9.584 (0.163)	7.723 (0.552)	19.258 (0.210)	5.217 (0.596)	19.277 (0.210)	5.202 (0.596)

Table C-2: (Continued)

	Model 1		Model 2		Model 3		Model 4	
	Brazil	Peru	Brazil	Peru	Brazil	Peru	Brazil	Peru
Number of earners (ref: 0–1 earner)								
Two earners			54.529 (0.149)	54.705 (0.529)				
Three earners			57.767 (0.265)	59.462 (0.986)				
Four earners			60.279 (0.744)	60.034 (2.470)				
Female headed household	6.616 (0.195)	12.548 (0.494)	24.177 (0.190)	28.826 (0.534)	5.852 (0.233)	13.819 (0.658)	6.594 (0.195)	12.564 (0.494)
Age of youngest child (ref: 0–6)								
7–12 years old	5.180 (0.180)	6.263 (0.496)	2.068 (0.128)	4.115 (0.433)	5.184 (0.180)	6.268 (0.496)	5.417 (0.196)	7.011 (0.613)
13–18 years old	6.476 (0.225)	8.261 (0.671)	0.711 (0.172)	5.076 (0.604)	6.491 (0.225)	8.257 (0.671)	7.174 (0.252)	10.644 (0.873)
Presence of kin * Education attainment								
Kin * Elementary education/HS incomplete	-0.741 (0.615)	-1.562 (1.389)						
Kin * Less than high school or high school complete/High school complete	0.159 (0.421)	2.003 (1.189)						
Kin * Some tertiary and more	-1.660 (0.459)	-0.245 (1.091)						
Presence of kin * Number of earners								
Kin * Two earners			-22.137 (0.418)	-21.793 (1.143)				
Kin * Three earners			-10.087 (0.464)	-11.018 (1.387)				
Kin * Four or more earners			-7.474 (0.857)	-3.797 (2.661)				
Presence of kin * Female headed					2.191 (0.381)	-2.282 (0.869)		
Presence of kin * Age youngest child (ref: 0–6)								
Kin * 7–12 years old							-1.663 (0.439)	-2.078 (0.916)
Kin * 13–18 years old							-2.879 (0.445)	-4.759 (1.100)
Constant	-56.852 (2.278)	-37.101 (6.147)	-33.578 (1.640)	-33.288 (5.509)	-57.009 (2.276)	-37.331 (6.137)	-56.879 (2.276)	-37.224 (6.135)
Observations	249,762	61,687	249,762	61,687	249,762	61,687	249,762	61,687

Notes: Tables C-1 and C-2 include all controls included in Table 3 and 4. All kin definitions refer to adults ages 19 to 64.

Appendix D: Robustness check. Analysis including kin member with a disability as main predictor of interest

Table D-1: Linear probability model predicting mothers' work for pay. Only mothers, ages 25 to 50, in urban areas. Peru, 2014–2017

	Model 1	Model 2	Model 3	Model 4
Presence of any kin (ages 19–64)	0.0369 (0.00643)			
Presence of female kin (19–64)		0.0249 (0.00675)		
Presence of any kin, employed full-time (19–64)			0.0488 (0.00709)	
Presence of female kin, employed full-time (19–64)				
Presence of kin with disability (19–64).				0.00844 (0.0167)
Constant	0.147 (0.0793)	0.147 (0.0794)	0.146 (0.0793)	0.161 (0.0793)
<i>N</i>	29,964	29,964	29,964	29,964

Source: ENAHO, 2014–2017.

Note: Table D-1 includes all controls included in Table 3.

