

Direct and Spillover Impacts of Formal Employment: Evidence from Argentina

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July 5, 2019

Abstract

I estimate how a policy that drastically increased the cost of noncompliance with labor laws affected formality rates and other labor market outcomes of domestic workers in Argentina. I find that increasing sanctions and the probability of detection of informal employment led to a 36.7% increase in registration rates of domestic workers, a 3.8% increase in labor income and a 6.3% in total earnings per month. While the results are not driven by changes in unemployment rates, I do find a reduction of 3% in hours of work per week, consistent with a reduction in labor demand following the increase in cost. In addition to this, I estimate whether the increase in formality rates produced spillover effects in the labor market for other household members. Although I do not find changes in labor market outcomes for spouses, I observe a decline in labor force participation among young adult children. I also find evidence of an increase in school attendance and years of education among male children of domestic workers of secondary school age after the policy reform. The results suggest that worker registration could have considerable spillover effects for other individuals of the targeted worker's family.

JEL Classification: J08, J46, O17

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1 Introduction

According to ILO (2018), the informal sector accounts for 60% of employment in developing countries. Governments make continuous efforts to reduce the size of the informal sector for a number of reasons. First, informal jobs are associated with low wages, higher risk of dismissal, lack of benefits such as pensions, and exclusion from formal markets such as those of credit and housing (Camacho, Conover, and Hoyos, 2013). Hence, policymakers consider informal workers would be better off in the formal sector. Second, because these jobs are not registered to the fiscal and social security authorities, Governments miss tax revenue and may even misallocate welfare funds, since these workers could be eligible for programs aimed at the unemployed (Gerard and Gonzaga, 2016).

However, assuming workers would be better off with a formal job does not take into account that some workers may prefer to be employed in the informal sector. This could be either because they enjoy some of the non-wage amenities that informal jobs have (Maloney, 2004), or because they value the benefits of formal employment below their cost (Rosen, 1986). On the other hand, considering formal employment may not be the alternative to a job off the books. Indeed, if informal employment is a consequence of regulations that make formal employment too costly, reducing informal employment could lead to a reduction in labor demand in the form of higher unemployment or lower hours of work (Harris and Todaro, 1970; Fields, 1990).

Given these arguments, the effects of efforts to increase formality rates in the economy are ambiguous. In this paper I contribute to this discussion by studying the impacts of a reform aimed at increasing formality rates among domestic workers that took place in Argentina in 2013. Before the reform, the activity of domestic workers was regulated by different laws than those of employees in other occupations, granting them fewer rights. The policy corrected most of these differences, while also increasing the sanctions to employers hiring off the books. Moreover, at the same time the reform took place, the tax authority made changes to the way it would detect potential noncompliers. In practice, this change increased the probability of detection (which used to be virtually zero), especially for high income employers.

To study the impacts of these changes I use the Permanent Survey of Households (EPH) between the years 2009 and mid-2015, thus including four years before and two and a half years after the reform. This is a quarterly survey representative of 68% of the urban population, which contains

information on demographic, labor and socio-economic characteristics of all respondents. Of particular interest for this paper, the survey asks all wage workers if their employer deducts pension and health insurance contributions from her salary. This is the standard classification used to determine if a worker is formal or informal (Tornarolli, Battistón, Gasparini, and Gluzmann, 2014).

Since domestic workers constitute 7% of wage workers in the country, there is a large enough sample to study how the reforms affected their labor market outcomes. To do this, I employ a difference-in-differences strategy comparing the outcomes of domestic workers before and after the reform with those of workers in other sectors, who were not affected by the policy.

In my preferred specification, I find that the changes to the law led to an increase of 36.7% in the formality rates of domestic workers, with no discernible impact on employment levels, which suggests that the sector is characterized by a segmented labor market. This result is orders of magnitude larger than those found in previous studies that look at the effect of labor inspections on formality rates (Ronconi, 2010; Almeida and Carneiro, 2012). The reason for this difference may lie in the low baseline levels of registration of domestic workers compared to those observed in the rest of the economy: while approximately 65% of workers have a formal job, only 15% of domestic workers did at the time of the reform. Importantly, this effect is also larger than those found by de Melo Costa, de Holanda Barbosa, and Hirata (2016), who study a similar reform to domestic workers' rights that took place in Brazil. Besides the higher levels of registration that domestic workers in Brazil enjoyed compared to those in Argentina, the reform they study did not change either sanctions or the probability of detection for employers, which can also help explain the difference in results.

I also find that, following the reform, domestic worker's earnings increased by 6.3%, due to a 3.8% increase in labor income, while the rest is a consequence of increases in non-labor income. The raise in labor income is explained by the need of employers to comply with minimum wage laws, but also by a "lighthouse effect" whereby the minimum wage is used to coordinate wages in the informal sector (Lemos, 2009). In turn, the increase in non-labor income could be the result of higher awareness of domestic workers about the eligibility for existing welfare programs.

I do not find that unemployment among domestic workers did not increase following the reform. This could be a concern since it would change the composition of domestic workers in the sample, violating one of the assumptions of the DiD framework. Instead, I find a reduction of 3% in hours

of work per week, a result consistent with a decrease in labor demand by employers following the increase in cost.

Even though the informal sector represents a large share of the economy in developing countries, and despite the concern that labor informality represents, few studies have investigated the impact of policies set in place to increase worker registration, besides the ones mentioned before. Instead, most of the literature focuses on firm registration (De Mel, McKenzie, and Woodruff, 2013; De Andrade, Bruhn, and McKenzie, 2014; Galiani, Meléndez, and Navajas Ahumada, 2017; Rocha, Ulyssea, and Rachter, 2018). However, Ulyssea (2018) shows that higher formality rates of firms does not necessarily translate into formalization of workers.

Reforms such as the one I study in this paper may have impacts beyond those observed to targeted workers. Family members of registered domestic workers can benefit from some of the non-wage amenities that formal workers receive, such as access to a pension and to formal markets such as those of credit and housing. According to Galiani and Weinschelbaum (2012), the existence of these benefits of formal employment reduce the incentive for secondary wage earners to work in the formal sector. Moreover, the increase in income experienced by domestic workers can also produce changes in labor supply by other household members such as children.

Previous studies have shown that the expansion of welfare benefits can have negative effects on formal employment (Camacho et al., 2013; Bosch and Campos-Vazquez, 2014) and wage reporting (Bergolo and Cruces, 2014). Here, I employ the same difference-in-differences strategy to estimate spillover effects of the reform on labor market outcomes of spouses as well as young adult children of domestic workers. I focus on children aged 16 to 35 since the former is the minimum legal age to work and labor supply is quite low below that age, while the latter corresponds to the 99th percentile of the age distribution of children.

I find no statistically significant impact of the reform on spouses' participation rate or formality status. The reason behind this null result may lie in the fact that domestic workers are mostly female and those who live with a spouse tend not to be the household head. This means that spouses of domestic workers are generally men and the main income earner, a group that tends to have a low elasticity of labor supply (Blundell and MaCurdy, 1999). All the above said, confidence intervals for hours of work are large and I cannot reject a reduction of approximately 1.5% in labor supply along the intensive margin.

Regarding earnings of spouses of domestic workers, the estimates are highly sensitive to the comparison group used. When comparing with spouses of female workers in all occupations, I observe an increase of 3.5% in income, but this effect disappears when the comparison group is composed of spouses of female workers in the service sector. This discrepancy can be attributed to the difference in the composition of occupation across groups: while spouses of domestic workers hold similar occupations than spouses of female workers in the service sector, the distribution of occupations is very different from that of spouses of female workers in all sectors. Hence, the results observed are driven by changes in earnings across occupations rather than as a consequence of the reform.

In contrast to the findings for spouses of domestic workers, I observe a statistically significant decline of 2.7pp. (5.4%) in labor force participation rates for children of domestic workers. Although I also find evidence of a reduction in hours of work and an increase in income (which are nevertheless not statistically different from zero), the change in composition due to children of domestic workers dropping out of the labor force in the first place difficult the interpretation of these results.

In summary, there is evidence that the policy reform had spillover impacts among individuals with low labor attachment, although it did not affect the decisions of main household earners. This is important since the policy under analysis targeted a group of workers from low socioeconomic status, and for whom the levels of informality were exceptionally high. Therefore, these spillover impacts could provide a lower bound to the effects of formalization among more representative workers.

Another dimension along which other household members could be affected by the reforms is investment. Previous studies have found a link between wage employment (particularly for women) and investment, both in oneself and in children (Atkin, 2009; Jensen, 2012; Majlesi, 2016). Although targeted workers in my sample were already wage workers, the higher earnings and job stability conferred by formal employment can foster parental investment on children.

The survey allows me to test whether child schooling is affected by the reforms to domestic worker's labor regulations. I focus particularly on secondary school (12-18) children, since primary school attendance and completion in Argentina has been nearly universal since the 1970s.

I find that boys are 3.8 percentage points more likely to attend secondary school after the reform, which corresponds to a 4.5% increase in attendance. I also find evidence of an increase in years of

education of 2.16 months, or a 2.2% increase. While I do not observe similar effects for girl, this is because boys tend to have lower school attendance and years of education than girls, so the reform helped close the gender gap.

The rest of the paper is structured as follows: as a framework to analyze the impacts of the policy change, in Section 2 I lay out a simple model of labor demand where employers can choose whether to report their demand for household services, and how that could affect parental investment in children's schooling. In Section 3, I describe the characteristics of domestic workers in developing countries and in particular in Argentina, and I describe in more detail the policy that change their labor regulations. Section 4 describes the dataset used and the empirical strategy implemented to estimate the effects of the reform. Section 5 presents the results on the labor market for both domestic workers and her family members, while 6 shows the results of the policy change on children's educational outcomes. Finally, and Section 7 presents the conclusions of this study.

2 Theoretical Framework

2.1 Hiring decision in a dual labor market

The policy under study and its consequences can be analyzed using a simple model. Consider an individual who derives utility from consumption of goods (C) and household services (H) such that:

$$U(C; H) = \alpha \ln C + \beta \ln H \quad (1)$$

with $0 < \alpha < 1$, $0 < \beta < 1$, and $\alpha + \beta = 1$.

Demand for household services can be either reported to the social security administration or not. If reported, the individual has to pay a fixed cost κ (which corresponds to payroll taxes and non-wage benefits that registered workers receive), but can deduct from her income taxes a share δ of her expenditure on household services. If not reported, the individual does not pay the fixed cost, but has no tax break and she faces a probability of being detected by the Government and charged a fine. Let φ be the expected fine the individual has to pay for hiring an unregistered worker.

I model firing costs in the following way: there is an exogenous probability π_i that the labor relationship ends and a cost ν_i that the individual has to pay if that happens, with $i \in \{r, u\}$. To

keep matters simple, this cost ν_i includes the present value of severance payments and the cost of rehiring labor.

While $\pi_r < \pi_u$ to account for the fact that informal labor relationships are more likely to finish than formal ones, $\nu_r > \nu_u$ such that, for the time being, $\pi_r \nu_r = \pi_u \nu_u$. Although the monetary cost of firing a worker in the pre-reform period was very similar, it would take longer for an informal worker to receive a severance payment.

This individual has an exogenous income level y , over which she pays a share τ in the form of taxes. Models of dual labor market typically assume different wages for workers in the formal and informal sectors, according to the survey data I use for the study the difference in hourly wages between formal and informal workers is approximately 5%, compared to 50% for workers in other service sectors. Hence, in this setting I will assume the price of household services is w irrespective of whether it is reported, while the price of consumption goods is normalized to 1.

The problem faced by the individual is therefore:

$$\max U(C; H) \quad s.t. \begin{cases} 0 \leq H \leq \bar{H} \\ 0 \leq C \\ y(1 - \tau) = C + (wH + \kappa) \times (1 - \tau\delta) + \pi_r \nu_r & \text{if registered} \\ y(1 - \tau) = C + wH + \varphi + \pi_u \nu_u & \text{if unregistered} \end{cases}$$

The individual solves this problem by solving for $(C^*; H^*)$ under each hiring condition. Demand for household services is:

$$\text{If reporting: } H^r = \frac{y(1 - \tau) - \kappa(1 - \tau\delta) - \pi_r \nu_r}{w(1 - \tau\delta)} \beta$$

$$\text{If not reporting: } H^u = \frac{y(1 - \tau) - \varphi - \pi_u \nu_u}{w} \beta$$

Once the optimal demand for household services is determined, the individual will chose the sector of employment that yields the higher utility. The value functions for this problem are:

$$\text{If reporting: } V^r = \alpha \ln \alpha + \beta \ln \beta - \beta \ln w + \ln [y(1 - \tau) - \kappa(1 - \tau\delta) - \pi_r \nu_r] - \beta \ln (1 - \tau\delta)$$

$$\text{If not reporting: } V^u = \alpha \ln \alpha + \beta \ln \beta - \beta \ln w + \ln [y(1 - \tau) - \varphi - \pi_u \nu_u]$$

Hence, the decision to hire formally or informally depends on the tax rate (which in turn is a function of the level of income), the cost of hiring formally, the firing costs, the rate of deduction and the expected cost of detection.

Before the reform there were no penalties for hiring a domestic worker off the books ($\varphi = 0$). It is straightforward to show that for individuals who do not pay income taxes (90% of adults for whom $\tau = 0$) it is always a best response to hire a worker off the books.

A similar conclusion can be reached for the majority of individuals subject to a positive income tax rate. For three quarters of these individuals, the effective tax rate is less than 10% (Valente, 2016), putting a low upper bound on the tax break they can benefit from if they register a domestic worker.

The policy under study set in place sanctions for employers who failed to report a labor relationship and increased the probability of detection for individuals with high income. Additionally, severance payments doubled for individuals with a registered worker and quadrupled for those with an unregistered worker. These changes can be modeled as an increase in φ , while ν_f multiplied by two and ν_i multiplied by four.

Because the cost of not reporting increased substantially more than those of reporting, some employers became better off by reporting a previously unreported labor relationship. At the same time, because the cost of hiring increased irrespective of reporting status, demand for household services (i.e. hours of work of domestic workers) should decline.

In addition to the increase in sanctions to employers not complying with the law, the reform increased non-wage benefits for domestic workers, although most of these costs were absorbed by the Government. This can be modelled as a small increase in κ , with the expected result of further reducing the demand for household services in the formal sector.

2.2 Spillover effects of formality on children's education

Domestic workers tend to live in households of low socio-economic status. In 2012, the average monthly income of domestic workers was 31.6% that of other workers. Moreover, 38% of them were the head of the household, and this situation meant that 60% of households where the household head was a domestic worker belonged to the bottom 3 deciles of the household income distribution (Groisman and Sconfienza, 2012). Low income households usually suffer from liquidity and credit

constraints, which can hinder investments such as those in children's health and education. This has been the justification for introducing CCT programs in many developing countries.

Liquidity constraints can be relaxed not only by increasing household income, but also by reducing the variability in income received. A formal job is usually considered more stable than an unregistered one since in principle firing costs are higher. Using a very simple model of parental investment, it is possible to derive predictions about the spillover impacts of the policy under study on children.

Consider a worker j who derives utility from both her consumption and that of her children:

$$U_j = U(c_j, C_k) \quad (2)$$

Where $C_k = \{c_1, c_2, \dots, c_K\}$ is the vector of consumption from each child. In turn, following Atkin (2009) child k 's consumption is a function of parental characteristics X_j , parental investment I_k made during childhood, and the rate of return ρ :

$$c_k = f(\rho, I_k, X_j) \quad (3)$$

I consider a simple two-period model carrying some of the notation from the previous subsection. In period 1, worker j receives income wH with probability $(1 - \pi_i)$, $i \in \{r, u\}$. As before, $\pi_r < \pi_u$. She allocates that income between consumption c_j and investment I_k at price p_I . In the second period, she receives wH with certainty and a share of the firing cost $\theta\nu_i$ if she was fired in the previous period. Hence, her budget constraints are:

$$\begin{aligned} (1 - \pi_i)wH &= c_j + I_k p_I && \text{In period 1} \\ wH + \pi_i \theta \nu_i &= c_j && \text{In period 2} \end{aligned}$$

Given this setting, child k 's reduced form consumption is:

$$c_k = f(\rho, (1 - \pi_i)wH, X_j) \quad (4)$$

Ceteris paribus, child consumption will be higher if the parent is employed in the formal sector because the expected income that can be devoted to investment is higher. However, the reform under study is also expected to reduce the number of hours of work, so it is unclear in which direction expected income would change.

3 Conceptual Framework

According to the International Labor Organization, 67 million people around the world are employed as salaried domestic workers (Branch, of Work, Department, and of Statistics, 2015). The occupation is highly gendered: 50 million domestic workers are women, which corresponds to 1 every 25 women in the labor force.

Domestic workers perform their jobs at their employer's home, sometimes even living with them. This can generate a high level of confidence between employers and employees to the point of blurring the employment relationship. Moreover, it is sometimes argued that the employment of a domestic worker did not generate an economic benefit for the employer, neglecting the opportunity cost of home production. As a result, in most countries domestic workers' jobs are subject to different regulations and less protections than those enjoyed by other salaried workers. Moreover 50% of domestic workers are informally employed, making it one of the occupations with the highest rate of informality.

The situation of domestic workers in Argentina is not different from that in other developing countries. Approximately one million people are employed as domestic workers (approximately 7% of the total salaried workforce), of which 89% are cleaning ladies and 9% are caregivers. Women constitute 98% of all domestic workers, and almost 1 out of 6 salaried women is employed as a domestic worker.

Most domestic workers are employed by only one household, as shown in Figure 1. However, as Figure 2 shows, they are predominantly part-time workers: the average working time is 25 hours per week, and the median worker is employed 20 hours per week. While this helps explain why domestic workers' earnings are lower than other low-skilled employees, their hourly wage is still 30% lower.

The low rates of formality in the sector are also present in Argentina. To be considered formal, a

worker has to be registered at the Social Security Administration (ANSES) by their employer. While formality rates have hovered around 65% in the last decade, before the reform was implemented only 15% of domestic workers were registered. This is a consequence of the absence of inspections and lack of information about the mechanisms and costs of compliance.

Even though in 2006 the Government implemented a tax break for employers of domestic workers to encourage formalization. This tax break allowed employers to deduct part of the salary paid to the worker from their income taxes. However, in the years following the introduction of this benefit, the trend in formality rates among domestic workers was not different from that of other sectors of the economy.

3.1 The Reform to Domestic Worker's Regulations

As in most developing countries, the activity of domestic workers in Argentina was regulated by different laws than those which establish the rights of other workers. There was no limit to the number of work day hours¹ (other workers are subject to an 8-hour per day and 48-hour per week limit), they did not have a right to maternity or sick leave, and they were entitled to half the severance payment that other workers enjoyed due to dismissal (which amounts to one monthly salary per year of service). Moreover, their minimum wage was set by the Government at or below the Federal minimum wage (while in most occupations collective bargaining would set wages above the Federal minimum), and employers were not required to carry an occupational accident insurance policy.

These and other differences between the rights of domestic workers and those of employees in other occupations were eliminated in 2013². In April of that year the President enacted a law that had been sent to Congress in 2010 in order to reform the labor regulations of domestic workers. Some exceptions remained: minimum wages were still set by the Government, and contributions were set at fixed amounts per month based on the hours of work per week the employee was hired for (\$4 for less than 12 hours, \$7.78 for 13 to 16 hours, and \$26.94 for more than 16 hours) instead of a percentage of the worker's gross salary, which is the norm for other employment relationships. Moreover, the Government covered certain benefits that are usually paid for by employers (such as

¹However, it mandated 3 hours of rest during the day and 9 during the night, effectively limiting the workday to 12 hours.

²The requirement to carry an occupational accident insurance policy only went into effect until November 2014

maternity leave).

The reform also equalized the sanctions for employers who were hiring domestic workers off the books. First, if an unregistered worker was fired she would be entitled to a severance payment equivalent to two monthly salaries per year of work, instead of the usual monthly salary per year of service. Because there are no formal records of the labor relationship, the only way for an informal worker to receive a severance payment is to take legal action against the employer. Although the process can take between 2 and 3 years, conditional on taking legal action judges tend to favor the employee for it is considered the weakest part of the labor relationship³.

Second, employers who were detected would be subject to a fine of up to \$1,500, although they were waived for 60 days to register an informal employee without facing this fine. Detection occurs either through inspection or if the employee demands the employer to register her and reports the irregularity to the authorities. In the case of domestic workers, officials are not allowed to make inspections in individual's homes. However, a few weeks after the law passed the Federal Administration of Public Revenue (AFIP) announced that it would send letters to households with a yearly income over \$90,000 per year or a net worth above \$55,000. These letters informed recipients that AFIP assumed they were employing a domestic worker, and thus were compelled to either register the worker, or prove that they did not have any employee in order to avoid sanctions. Figure 3 presents an example of this letter.

Ultimately, letters were sent only to individuals who satisfied both the income and assets conditions, but this decision was made public only days before the letters were sent. Although this substantially reduced the universe of letter recipients⁴, the fact that this campaign was made public raised awareness about the capacity of the tax authority to detect potential evaders.⁵ In fact, in addition to the large number of studies showing the effectiveness of these messages to increase tax compliance (see Mascagni, 2018 and Slemrod, 2018 for reviews), there is a growing literature showing significant spillover effects of law enforcement on noncompliers who are not directly targeted (Rincke and Traxler, 2011; Brollo, Kaufmann, and La Ferrara, 2017).

³See <https://www.clarin.com/economia/empresas-solo-ganan-juicios-laborales.0.BJ1LsCSTvXx.html> and <https://www.lanacion.com.ar/economia/en-cuatro-anos-se-duplicaron-los-juicios-laborales-nid1734898>

⁴At the time the letters were sent, less than 1% of individuals were above the income threshold, while it was not uncommon for property owners in the largest urban areas to be above the assets threshold

⁵These letters continued to be sent to a growing number of people. See <https://www.lanacion.com.ar/economia/empleos/la-afip-manda-cartas-para-inducir-el-blanqueo-de-empleo-domestico-y-dice-que-hubo-36000-registros-nid2154549>

3.2 Cost of compliance

Given these changes, it is important to compare the costs for an employer of complying with the new regulations as opposed to keeping the relationship off the books. Although with the data available it is not possible to determine if it was convenient for an employer to register a given employee, it will give an idea of which proportion of domestic workers was more likely to become formal after the reform.

Regarding wages, these were set at the equivalent of \$3.94 per hour or \$516.42 and \$258.21 per month for those working 40 and 20 hours a week, respectively. Figure 4 plots the density of the difference between the minimum pay and the actual pay for each informal worker at the time of the reform, given her hours of work. Sixty percent of informal domestic workers were already receiving a higher wage than the minimum, so the cost of registration for employers of these workers only amounts to the health and pension contributions. Among those receiving less than the minimum, the mean increase required to comply was \$162.⁶

On the other hand, the fine for having an employee off the books was \$1,500 if detected. Detection remained quite low for employers who do not pay income taxes, but increased substantially for those who do.

According to Persia (2014), individuals in the top two deciles of the income distribution (the only ones subject to a positive income tax rate) employ approximately 50% of domestic workers. Given that the highest amount of payroll taxes was set at \$26.94, a probability of detection of 1.8% was enough to incentivize these employers to register a worker if she was already being paid more than the minimum wage. Since I am not taking into account the difference in severance payment in case of firing nor the tax break obtained by formalizing a worker, this percentage is an upper bound on the detection rate required for these employers to comply with the new regulations.

Among employers paying below the minimum wage, the detection rate is a function of the difference between the current wage and the minimum required to comply. For example, for the average wage increase of \$162 plus a contribution of \$26.94, the probability of detection has to be approximately 12.6% for employers to have an incentive

Evidence of the change in the net cost of formalization can be observed in Figure 5. The left

⁶The median increase was \$138

panel shows the share of registered domestic workers before and after the policy change, while the right panel compares it the rate of registration for different groups of employees: all other salaried workers, female salaried workers only, and service workers employed by firms (cleaners, caregivers, waitresses, etc.) who are not subject to the reform.

The pre-reform period is characterized by a very slow increase in labor formality of less than one percentage point per year. Moreover, the 95% confidence intervals on the rate of formality before the reform was enacted overlap, so it is not possible to distinguish a change in formality rates during those years. However, in 2013 (the year of the reform) the rate of formality among domestic workers increases almost 4 percentage points followed by a 2 percentage point increase in 2014. In comparison, formality rates among other workers increase only slightly both before and after the domestic worker’s reform took place, a reflection of the stagnation experienced in terms of GDP and employment.

In the following section, I will detail the strategy I will use to estimate the causal impact of the reform on the labor market outcomes of domestic workers.

4 Data and empirical strategy

4.1 Data

The data used for the analysis is the Permanent Survey of Households (EPH), a stratified random sample that has been conducted quarterly since July 2003 by the National Statistical Office (INDEC, [n.d.](#))⁷. The survey covers the 32 largest MSAs of the country (representative of 62% of the country’s population and 68% of the country’s urban population), and is the main source for socioeconomic indicators in the country such as labor force participation, unemployment, earnings, poverty status, etc.

For this paper I use data between 2009 and the first half of 2015. Unfortunately the survey was interrupted for almost one year since June 2015, but this allows sufficient time to study the short-term impacts of the reform. On the other hand, starting in 2009 allows me to perform placebo tests at the time when the bill was sent to Congress (in 2010) and when it was first approved by the House (2011).

⁷From 1974 and until June 2003, the survey was conducted every six months.

The survey has a specific question regarding whether a person is a domestic worker, which is used here to define the treatment group. In turn, all salaried workers are asked if they have deductions in their salary for pension contributions⁸, and those who answer negatively are considered informal. This is the standard “legalistic” classification of an informal worker (Tornarolli et al., 2014). It should be noted that individuals are not asked about who their employer is and no information is collected that could allow the Government to link respondents to their employers, hence reducing the incentives to misreport employment and/or informality status.

The survey has a rotating panel structure, whereby households are interviewed during two consecutive quarters, then excluded for two quarters and re-interviewed in the following two periods. Using this structure, Table 1 shows the proportion of registered and unregistered domestic workers and workers in other occupations conditional on their registration status in the previous year.

Among domestic workers the shared registered in each year increases after the reform irrespective of their formality status the previous year, whereas the transition between states for other workers remains constant during the whole period of analysis. Unfortunately, the small number of domestic workers who appear both before and after the reform implies that the study would not be powered enough to take advantage of its panel structure. Hence, throughout this paper I stack each quarterly survey within a year and use it as a repeated cross-section.

4.2 Empirical Strategy

Since the policy reform affected only one well-defined group of workers and all these workers were treated at the same time, this policy can be analyzed using a difference-in-differences framework (Angrist and Krueger, 1999). Throughout this paper I will use the following specification to estimate the impact of the reform on labor market outcomes of the employees:

$$Y_{ijmt} = \beta_0 + \beta_1 DW_{ijmt} + \beta_2 DW_{ijmt} \times Reform_t + \Gamma X_{ijmt} + \theta_t + \nu_j + \mu_m + \psi_{tm} + \varepsilon_{ijmt} \quad (5)$$

Where Y_{ijmt} is the outcome of interest for individual i working in sector j from MSA m in year t . I will estimate the impact of the reform on formality rates, income and hours of work of domestic

⁸Although the burden of payroll taxes is split between workers and employers, it is the latter who has to transfer the money to the Social Security Administration

workers, as well as their spouses and young adult children above the legal age to work (16-35). I will also study the spillover effects of the reform on educational outcomes of children of high-school age (12-18).

DW_{ijmt} indicates the person is a domestic worker. $Reform_t$ is a dummy variable equal to one in the post-reform periods (i.e. 2013 to 2015). X_{imt} is a set of worker’s characteristics (age, country of birth, household size, marital status, literacy status and years of education). In turn, θ_t , ν_j and μ_k are fixed effects by year, occupation and MSA of residence, respectively. Finally, ψ_{tk} estimates the interaction between year and MSA to capture local labor market trends.

The main parameter of interest β_2 captures the effect of the policy change on the target population. In all cases, following Bertrand, Duflo, and Mullainathan (2004) I cluster the standard errors at the MSA level to control for serial correlation across time and adjust the p-values for multiple hypothesis testing using Hochberg’s step-up procedure (Benjamini and Yekutieli, 2001).

Given that I have data for multiple years both before and after the reform, it is also possible to estimate a specification which replaces the interaction term between the domestic worker and the post-reform indicators with interactions between the former and a dummy for each year. Such analysis is presented in Appendix B, showing very similar results to those of my preferred specification

Choosing the appropriate comparison group is not a trivial task in this case. Although identification does not require that treatment and comparison groups be similar in their baseline characteristics, this is desirable as it increases the likelihood that the evolution of both groups would be similar in the absence of treatment. On the other hand, since workers can self-select into similar occupations, if the comparison group is very similar to the treatment group in terms of the skills used there is potential for flows of workers between treatment and comparison group that may change the group composition in terms of characteristics that may be correlated with the outcomes of interest.

In all cases, my preferred comparison group is that of other service workers. This corresponds to cooks, waiters, cleaners, etc., who perform similar tasks than those of domestic workers, but were not affected by the reform since their place of work is not a household. However, avoid arbitrarily choosing occupations that might constitute outside options for domestic workers, I also compare their labor market outcomes of domestic workers before and after the reform to those of

other salaried women in all occupations and all wage employees regardless of their occupation. The inclusion of these groups should increase the precision of the estimates given the larger sample size used, but trend differences could be of concern.

Table 2 presents summary statistics for the treatment and each of the comparison groups in the pre-reform period, including whether or not these characteristics are statistically similar to those of domestic workers. Domestic workers are quite different in terms of demographic and socioeconomic characteristics than the rest of the employees, even when one concentrates on the sample of workers in other service occupations who are not domestic workers. Although this is not an issue in order to obtain unbiased estimates of the effect of the policy reform, the validity of the estimates relies on two crucial assumptions.

The first assumption, known as “group composition” refers to the fact that individuals in both treatment and comparison group should be similar in terms of the characteristics that may affect the outcomes of interest, before and after the treatment takes place. Because the data used is not a panel, determining whether the treatment generated changes in the composition of treatment and control groups is not straightforward. However, certain features of the data suggest this was not the case in this setting.

First, Figure 6 plots the share of workers in every wave of the survey for each of the occupations in the service sector, as well as domestic workers. If the reform changed the benefits of working in certain occupations (e.g. be a domestic worker), there should be a change in the composition of the survey in terms of occupations. However, the proportion of workers in each category remains flat over time. Figure 7, which plots the number of workers surveyed by occupation shows a very similar pattern.

On the other hand, the cost increase of hiring a domestic worker (both formally and informally) could have induced employers to fire their employee. The unemployment module of the EPH asks unemployed individuals with a previous job about their last occupation, so it is possible to determine if the reform increased the likelihood of domestic workers to be unemployed.

Table 3 presents DiD estimates when the dependent variable is a dummy that takes value one if the person is unemployed, and the domestic worker dummy now represents the current (employed) or last (unemployed) occupation of the individual. The results shown suggest that the reform did not increase the likelihood for domestic workers of becoming unemployed, which would be problematic

if workers with certain characteristics (e.g. ability, tenure, etc.) were more likely to lose their job following the reform.

The second assumption required for the internal validity of the empirical strategy, referred as “parallel trends” states that, in the absence of treatment, the evolution of the outcome variables for treatment and comparison groups would have been similar. Although it is not possible to ascertain this since in the treatment period individuals are either treated or untreated, one can find evidence in support of this by looking at the behavior of the variables of interest in periods before the treatment takes effect.

Figure 5 shows that the trends in percentage of formal workers was similar for the different groups included in the analysis. In addition to this, Figures 8 and 9 presents the unconditional means of log monthly income and wages (which are constructed as the ratio of income to hours of work), and the hours of work per week, respectively. Once again, although the levels are different across treatment and comparison groups, there is no indication of pre-trend differences between them.

In summary, the evidence presented so far is consistent with the assumptions that the labor market outcomes of treatment and comparison groups would have evolved similarly in the absence of treatment, and that the treatment itself did not induce changes in the composition of neither of the groups. In the following section, I will present further checks on the validity of these assumptions in the current context.

5 Labor market effects of the reform

5.1 Domestic workers

Table 4 shows the difference-in-differences estimates of the effect of the labor reform on the probability that a worker is registered to the tax authority using the specification described in Equation 5. Following the policy change, domestic workers became 5.5 percentage points more likely to be registered than other workers in the service sector (column 1). Given that formality levels for these workers in the pre-treatment period were 15%, this correspond to an increase of 36.7%. This result is robust to changes in the comparison group (columns 2 and 3).

Formality rates of domestic workers remain below those of other occupations even two years after

the reform. This is because for many employers the probability of detection either did not change or did not increase enough to make it more convenient to register their employee. However, given that almost 80% of domestic workers are employed by only one household, the observed increase means that more than 50 thousand employers registered a worker who was previously off the books.

Table 5 presents estimates of the impact of the reform on different measures of income. The results point to an increase of 3.2 to 3.8% in income from the main job (columns 1 through 3), and an increase of 3.8 to 4.5% when all jobs are considered (columns 4 through 6). Even though the estimates using the sample of service workers as the comparison group are not statistically different from zero, I cannot reject the null hypothesis that the point estimates are equal across comparison groups.

As mentioned before, in order to comply with all the labor regulations, some employers would have to increase the salary paid to their worker in order to set it above the minimum wage mandated by the Government. Moreover, every year since the policy change the Government increased the salaries of domestic workers in order to keep up with inflation. While workers in other occupations also obtained wage increases through collective bargaining, the increase in earnings for domestic workers should be larger than that observed for other wage workers due to the increase in the proportion who are formally entitled to the wages set by the Government.

In turn, columns 7 to 9 of Table 5 shows the impact of the reform on wages per hour from the main occupation, which are obtained by dividing total income from the main job by the number of hours per week worked in that job. As it can be seen, the increase in wages per hour ranges between 7.1 and 9.8%, more than twice the observed change in monthly income from the main occupation.

The difference between income per month and hours of work per week stems from the change in hours of work per week following the reform, shown in columns 1 to 3 of Table 6. Depending on the comparison group used, the impact of the reform on domestic workers' hours of work per week is between -0.74 and -1.67, which represents a decrease of 3 to 6.8%. The adjustment in hours of work is consistent with a reduction in labor demand following the increase in cost of hiring a domestic worker, both formally and informally. However, this did not change the proportion of workers who are part-time workers but would like to work more hours, as columns 4 to 6 of the same Table shows.

In turn, in Table 7 I estimate the effects of the reform on other sources of income besides work.

Panel A shows that monthly earnings of domestic workers (labor plus non-labor) increased between 6.3 and 7 percent, almost twice as much as labor income alone. To determine the source of this difference, I study changes in various different non-labor income sources: pensions, welfare benefits and alimony.

Because a large proportion of individuals receive zero income from these sources, I estimate the effect of the reform using a Tobit regression model. The estimates shown should therefore be interpreted as percent changes in the amount of each non-labor income source, stemming both from a change in earnings for those already receiving them and a change in the probability of receiving earnings from that source.

According to the results, after the reform income from pensions increased by approximately 61%, those from welfare increased approximately 10%, while income from alimony increased by 19% for domestic workers. That said, these results should be taken with caution due to the presence of pre-trend differences between affected workers and those used as comparison groups (shown in Appendix Table B4).

While the reform did not change the amounts or eligibility criteria for any program, it is possible that domestic workers became more aware of their rights. For example, since 2006 women aged 60 and men aged 65 or more who had not made enough contributions to be eligible for a pension could access a reduced benefit⁹. Greater awareness may be the result of the publicity the reform received among the public or due to better counseling to formal workers, for example by unions.

5.2 Threats to validity and robustness checks

As mentioned in Section 4, the estimates presented would be biased if the policy induced changes in the composition of either treatment or comparison groups. The evidence suggests that unemployment did not change differentially for domestic workers after the reform, and that the number and share of individuals across occupations remained stable. However, it is still possible that the reform induced flows of workers across occupations, leaving the total numbers and shares constant over time. Alternatively, the policy may change the selection into occupations among those who enter the labor market.

⁹This pension became known as the "domestic workers" pension because most beneficiaries are unpaid family workers.

To test this, I regress each individual characteristic on a domestic worker dummy, a post-reform dummy and an interaction between the two, controlling for year, MSA and occupation fixed effects. Table A presents the DiD estimate for each regression. There is no evidence that the reform induced a change in the characteristics of domestic workers: out of 41 point estimates, only one is statistically different from zero at the 1% level (the proportion of male domestic workers when the comparison group is composed of workers in all other occupations), and two are different from zero at the 5% level (the share of domestic workers who finished primary school and their average years of education when the comparison group is the sample of female workers). Although these changes could influence the results, their magnitudes are quite small and should not introduce large biases to the estimation.

Regarding the presence of pre-trend differences across groups, I formally test for it in two ways. First, I run all the regressions from the previous subsection, replacing the interaction between the domestic worker and *Reform* indicators with domestic worker-by-year interactions. In the presence of pre-trend differences, the interactions corresponding to pre-reform years should be statistically different from zero. Appendix B presents the results of this analysis, showing that no interaction coefficient before 2013 is statistically different from zero.

As a second validity test, I estimate the model using two alternative reform periods: in 2010 when the Bill was first sent to Congress and in 2011 the House of Representatives approved the Bill and it was expected it would be enacted after its treatment in the Senate. The results are shown in Panels A and B respectively of Table ???. In neither case I observe that any of the DiD coefficients is statistically different from zero, which suggests that there was no anticipation effect to the reform.

5.3 Treatment effect heterogeneity

The evidence presented so far suggests that the change to worker’s rights (including the sanctions to employers for failing to register them) increased formality rates and income levels of domestic workers. However, since formality rates only increased to approximately 22% of domestic workers, it is clear that these changes did not affect all employees equally.

Two characteristics that distinguish domestic workers from workers in other sectors are the larger proportion of foreign-born individuals and their lower average level of education. Employers may take this into account, for example, by disproportionately registering workers with a higher

level of education than the sector average if their higher ability justifies the increased cost. Here, I explore whether the reform had heterogeneous treatment effects on the target population along these dimensions.

Appendix D presents estimates of the treatment effect for migrants and natives separately. Estimates on the likelihood of being registered after the reform compared to other workers are more than twice as large for migrants than for natives. However, the small sample size does not allow me to precisely estimate the effect of the reform.

On the other hand, although point estimates for income increases are larger for migrants than natives, changes in hourly wages are driven almost entirely by the latter. As for the estimates shown for the entire sample, this is due to the decrease in hours of work, which are larger for natives than migrants. Nonlabor income also seems to have increased more for natives than migrants, which is also consistent with natives becoming aware of their eligibility for Government programs that did not include to migrants.

From the data, it is possible to notice that migrant workers are older, have longer tenure and work longer hours than natives. Although they have 1.2% fewer years of education than natives, they are more likely to finish secondary school conditional on having finished primary school. They also are more likely to be registered¹⁰, work longer hours and have a higher wage per hour. Hence, the results observed are likely driven by selection, i.e. native domestic workers are negatively selected, so employers have lower incentives to register them.

In turn, Appendix E splits the sample by whether the employee completed high school. According to the results, individuals with a high school diploma or more were more likely to be registered after the reform than those without a secondary school degree, although I cannot reject the null hypothesis that the effects were the same. Similar conclusions can be drawn when looking at impacts on earnings and hours of work.

All the results are consistent with employers taking into account the characteristics of the employee (both observed and unobserved) when deciding how to respond to the policy reform. Although this could be in part to avoid higher sanctions¹¹, employers might be willing to pay a

¹⁰This gives suggestive evidence that country of origin was not a deterrent factor for registration of the workers by their employers.

¹¹Immigrants and high educated individuals have higher tenure than natives and low educated workers, respectively, which implies that severance payments would be higher

higher cost for a worker of higher quality.

5.4 Spillover effects

Although it is beyond the scope of this paper to calculate aggregate welfare changes, the evidence so far suggests that at least some domestic workers benefited from the change in regulations, while there is no conclusive evidence that any group was made worse off by it. However, other members of the domestic worker’s household could have responded to the policy reform, reducing its overall benefits.

First, certain benefits of being a formal worker extend to other household members. The most prominent example is health insurance coverage, although in the case of domestic workers payroll taxes did not include health coverage for other household members. Other benefits include pension coverage (individuals can claim the pension of a deceased spouse, provided they don’t receive a pension themselves), and access to formal credit and housing markets.

Galiani and Weinschelbaum (2012) model this situation and show that, when a household member can enjoy the non-wage benefits of another member, her incentives to work in the formal sector diminish. Moreover, empirical studies have found disincentives towards formal employment of the extension of health care coverage (Camacho et al., 2013; Bosch and Campos-Vazquez, 2014; Bergolo and Cruces, 2014) and relatively large cash transfer programs for the unemployed (Gasparini, Haimovich, Olivieri, et al., 2009).

On the other hand, the observed raise in income among domestic workers may reduce labor supply among children under income pooling or if this was a consequence of liquidity constraints faced by the household.

To test these hypotheses, I first study the impacts of the reform on spouses of domestic workers. Because most domestic workers married or living with a partner are secondary earners, I compare male household heads who are married to a domestic worker with male household heads married to either a service worker (in my preferred specification) or any other non-domestic worker. The results are shown in Table 8.

Columns 1 and 2 show that the reform to domestic worker’s regulations did not have an impact on their spouses’ labor supply decisions at the extensive margin. The coefficients are negative, but not statistically different from zero. A similar result is obtained on the intensive margin by looking

at columns 3 and 4. However, it should be noted that estimates are imprecise, and I cannot rule out reductions in labor supply of approximately 2% both on the extensive and intensive margin.

In turn, point estimates for formality rates (columns 5 and 6) are positive but not statistically different from zero, which suggests that concerns regarding negative spillovers of worker formalization within the household do not apply in this context, probably because the sample is composed of main instead of secondary wage earners.

Finally, columns 7 through 12 of Table 8 show the estimates for different measures of earnings: the natural log of monthly income from the main occupation and total income, and the natural log of wages per hour. When the comparison group is composed of spouses of service workers point estimates are small and statistically indistinguishable from zero. However, comparing earnings of spouses of domestic workers with those of spouses of workers in all other occupations yield point estimates of 3.3% for monthly income and almost 5% for hourly wages. Moreover, I can rule out a null effect at the 5% level.

The differences in magnitude and significance of point estimates across samples is a consequence of the different composition across samples. For example, Table 9 shows that the 15 most common occupations of spouses of domestic workers cover 89.65% of the affected group sample and 86.92% of the spouses of workers in the service sector. However, it only covers 68.96% of the sample of spouses of workers in all occupations other than domestic work.

In general, spouses of domestic workers are underrepresented in high-skilled occupations compared to spouses of wage workers in all other occupations, so the results observed in Table 8 reflect changes in the income distribution across low and high skilled occupations. Appendix Table F replicates the analysis keeping only individuals in the 15 most common occupations that spouses of domestic workers hold, showing more homogeneous estimates across comparison groups.

The reform to domestic workers' regulations can also spill over to children who participate in the labor market. Here, I consider children aged 16 to 35 for two reasons. First, Figure 10 shows the kernel density estimate of age among children of household heads in the sample. Only 1% of children are aged 36 or more, so removing those children from the sample should reduce noise introduced by outliers. In turn, 16 years is the minimum legal age to work, and as it can be seen in Figure 11 (which depicts the percentage of children who are participating in the labor force by age), labor force participation rates are very low for children below that age. In addition to this,

I dropped from the sample children who are domestic workers themselves to capture only spillover impacts of the reform.

Table 10 shows the results of the analysis. Panel A pools together female and male children, while panels B and C shows the results separately for each gender. As with spouses, confidence intervals are relatively large due to the small sample size, but the results in columns 1 and 2 suggest that children of domestic workers reduced their participation in the labor force by almost 2.7 percentage points, or 5.4% when compared to children of workers in other service occupations.

Given this result, it is difficult to interpret the estimates for the other outcomes, since the assumption of stability in group composition among employed children no longer holds. According to these results, hours of work per week (columns 3 and 4) decreased after the reform, a result driven by male children with a 3.5% reduction. In turn, labor earnings (columns 7 and 8) and total earnings (columns 9 and 10) increased approximately 2.5% and 1.5% respectively, but the result is driven by an increase of 7.7% and 5.9% for female children. Finally, hourly wages (columns 11 and 12) went up by almost 6% as a consequence of higher monthly income and lower hours of work. Once again, the result is mainly driven by a 10% increase in hourly wages for women.

6 The effects of formal employment on child investment

As Section 2 explained, a parent's access to formal employment can have positive effects on child investment, including education. Although the model also predicted that lower income (from the reduction in hours of work) could have negative effects on investment, the results showed that domestic worker's earnings (both from labor and non-labor sources) actually increased. Hence, we would expect these changes to lead to higher investment in children.

In particular, I use the EPH to study how the reform affected educational outcomes of children of secondary school age. The reason behind this choice is that primary school attendance and completion has been nearly universal in Argentina since the 1980s. On the other hand, dropout rates in secondary school are still high, and at the time of the reform only 65% of children finished secondary school.

In fact, Edo, Marchionni, and Garganta (2017) find that a conditional cash transfer program implemented in Argentina in 2009 only increased attendance rates for children aged 15-17 by almost

4% (especially among boys), while it had no effect in other children because attendance rates were already high.

Here, I will focus on all children of secondary school age (i.e. those 12 to 18 years old) who have not yet finished secondary school. The results focusing only on children between 15 and 17 are similar and shown in Appendix G, although the small sample size results in imprecise estimates. I also exclude children who are domestic workers themselves in order to avoid confounding the direct and spillover effects of the reform.

It should be noted that, although the time frame Edo et al. (2017) consider in their analysis is very similar to mine and all domestic workers with children aged 18 or less were eligible to receive the CCT, the program was introduced 4 years prior to the reform I study and covered children both in my treatment and comparison group.

The results, shown in Table 11 point to a modest but positive increase of approximately 2% in school attendance (Panel A, columns 1 and 2) and of 1% in years of education (Panel A, columns 3 and 4). However, these changes hide wide differences across gender.

While I find no effects on schooling for girls either in terms of attendance rates or years of education (Panel B), impacts are large and significant for boys (Panel C): after the reform, school attendance increased by 3-4%, while years of education went up by approximately 2%.

The reason behind these differences seems to lie in the difference in baseline values of school attendance and years of education between boys and girls of domestic workers and how these figures compare to those of children of other workers. Before the reform male children of domestic workers were 7 percentage points less likely to attend school and had 4 fewer months of education.

When comparing baseline values of schooling outcomes between male children of domestic workers and male children of wage workers in the service (all) sectors, the former are 4pp. (8pp.) less likely to attend school and have 0.04 (0.33) fewer years of education. In contrast, female children of domestic workers have zero (3pp.) lower probability of attending school and 0.03 more (0.16 fewer) years of education than female children of salaried workers in occupations of the service (all) sector. This suggests that the effects that the reform had on domestic workers helped close the educational gap between boys and girls.

7 Conclusion

Governments in low- and middle- income countries strive to reduce labor informality for a variety of reasons. From a public finance point of view it reduces tax revenue collected and increases the cost of welfare programs. From a policy perspective, informal jobs are considered less desirable because they lack protection from labor regulations and are more unstable.

However, efforts to increase formality rates could have various consequences to the targeted workers and their family members, some of which may not be desirable. While direct effects of policies to increase formalization (especially through policing) have received more attention in the recent years, spillover effects have not been well studied.

This paper aims to fill this gap in the literature by analyzing the impacts of one such regulation implemented in Argentina on both targeted workers and their family members. The policy targeted only domestic workers (a large sector in terms of employment and with the highest rates of informality in the economy), and consisted of an increase in the cost of noncompliance with the law through higher sanctions and higher detection rates for certain employers.

I find that these changes had a positive effect on the formality status of domestic workers. Moreover, while the higher cost of employing a registered worker reduced the hours of work they were hired for, monthly earnings of domestic workers increased by more than 6%. This increase is explained equally by a raise in labor and non-labor earnings. While the former was likely due to employers having to comply with minimum wage laws, the latter could be the result of workers getting more information about their rights and eligibility for Government programs.

Other family members may be affected by the policy change for various reasons. On one hand, when a household member has a formal job the incentives for other members to operate in the formal sector are reduced. This is because they can enjoy certain non-wage benefits that are tied to the formality status of any worker in the household, such as access to formal credit and housing markets, or pensions. Moreover, secondary wage earners such as young adult children could reduce their labor supply as a response to the income increase experienced by their parents. Finally, higher income and job stability may increase parental investment on their children in areas such as health and education.

I do not find effects of the reform to domestic workers' regulations on the labor market outcomes

of their spouses. The most likely explanation for this is that spouses of domestic workers are male and primary wage earners, whose labor supply decisions are usually unaffected by those of other household members. On the other hand, I do find evidence that young adult children of domestic workers reduced their labor force participation following the reform. Although I also observe changes in other outcomes such as a decrease in hours of work and an increase in income, these might be affected by changes in the composition of the affected group.

Regarding parental investments, I observe an increase both in secondary school attendance and years of education for male children of domestic workers following the increase in formality rates among domestic workers. While girls were not affected, their baseline levels of school attendance and years of education were already higher both compared to boys and with respect to children in my comparison groups. Hence, the reform only reduced the existing gender gap in education.

Unfortunately, the data available is limited in terms of the topics it covers. Since all the information is obtained from employees, it is not possible to link changes in registration status to characteristics of their employers. Moreover, there is no data on household decision making or consumption, so it is not possible to estimate changes in bargaining power or perform a welfare analysis of the reform. This should be subject for future research if these data become available.

The domestic worker sector has the highest informality rates of all occupations in the country, and while it has some characteristics that make it quite distinct from other sectors of the economy, it is not unconceivable that measures along the lines of the ones taken to reduce informality in this sector would have similar effects on other occupations with similar features. For example, since behavioral responses are smaller for main wage earners, and considering that women tend to be second wage earners and at the same time more likely to be in the informal sector, targeting occupations where women constitute the majority of the workforce may be more overall more effective than focusing on predominantly male occupations.

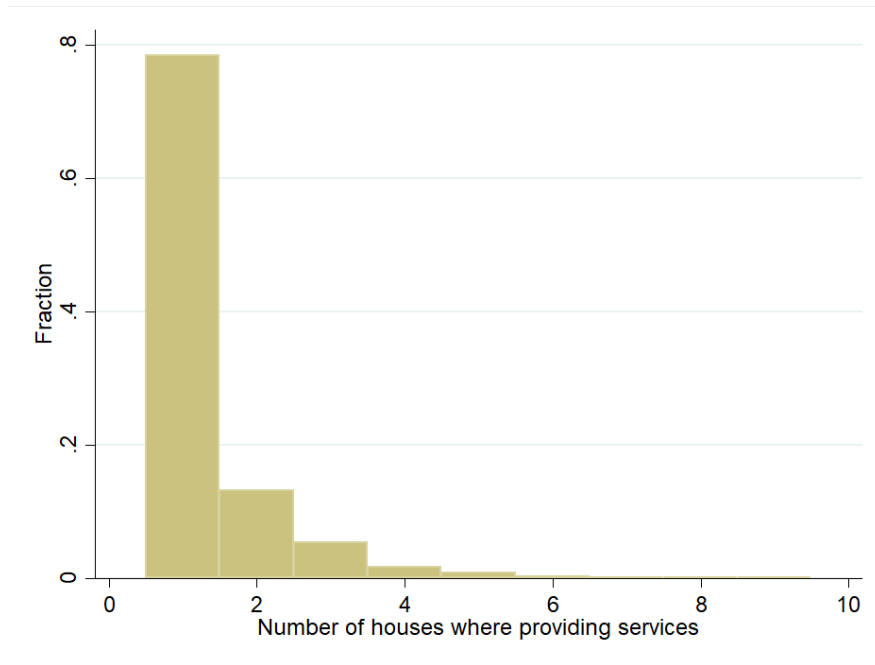
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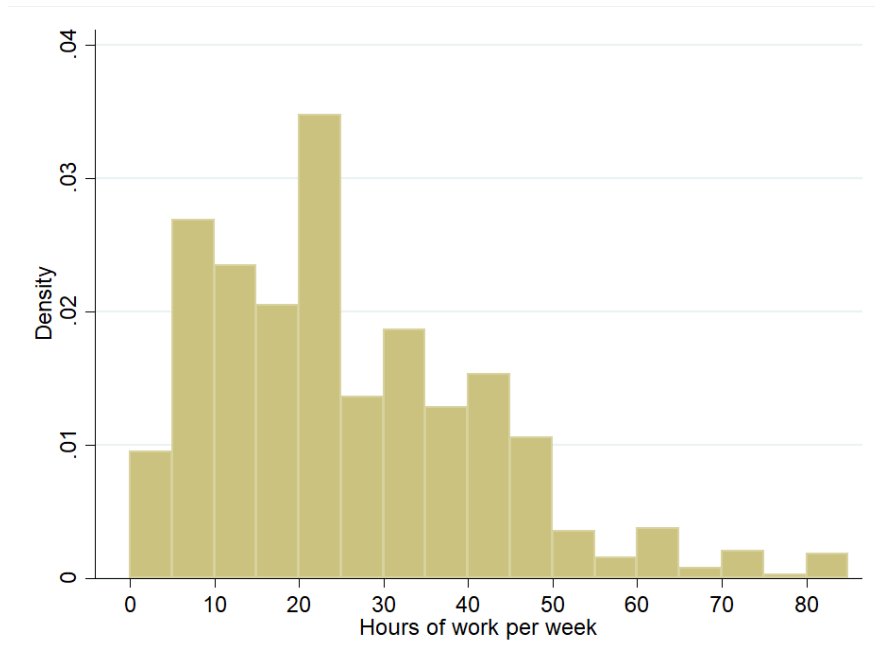
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Figure 1: Number of houses where domestic workers are employed



Note: The graph shows the histogram of the number of employers as reported by domestic workers for the years 2009 to 2012.

Figure 2: Number of hours of work per week of domestic workers



Note: The graph shows the distribution of hours of work per week as reported by domestic workers for the years 2009 to 2012. Hours of work per week are binned in intervals of 5 hours.

Figure 3: Letter sent by the tax authority compelling potential employers to register a domestic worker

i AFIP
2013 - AÑO DEL BICENTENARIO DE LA ASAMBLEA GENERAL CONSTITUYENTE DE 1813

Sr./Sra.:
CUIT/CUIL:
Domicilio
() CABA
CABA

Buenos Aires, 30 de Mayo de 2013

N° DE REFERENCIA DE ESTA CAMPAÑA: 1699
CORREO OFICIAL
DEVOLUCIONES - CGC B18432AC - MONTE GRAJADE

Referencia: Registro Especial de Personal de Casas Particulares.

De las acciones de control y cruces de información que realiza esta Administración Federal surge que usted es potencial empleador de personal de casas particulares.

A partir de la vigencia del nuevo "Registro especial de personal de casas particulares" (Resolución General N° 3491) toda relación laboral debe inscribirse en el Registro Especial de Seguridad Social. El trámite se realiza a través de www.afip.gob.ar hasta el 30 de Junio de 2013 inclusive.

Recuerde que el obligado que no registra la relación laboral estará en infracción y sujeto a la aplicación de las sanciones que prevé la Ley N° 11.683 texto ordenado 1998 y sus modificaciones.

Para obtener mayor información sobre el Régimen Especial de Contrato de Trabajo para el Personal de Casas Particulares podrá acceder a: www.afip.gob.ar/casasParticulares/ o comunicarse telefónicamente al 0800-222-2526.

Atentamente,

Dirección General de los Recursos de la Seguridad Social
ADMINISTRACION FEDERAL DE INGRESOS PUBLICOS
Número de referencia de esta campaña: 1699

www.afip.gob.ar

+ INFORMACION **0810 - 999 - 2347 (AFIP)**
De lunes a viernes de 8 a 20 hs.
mayuda@afip.gob.ar

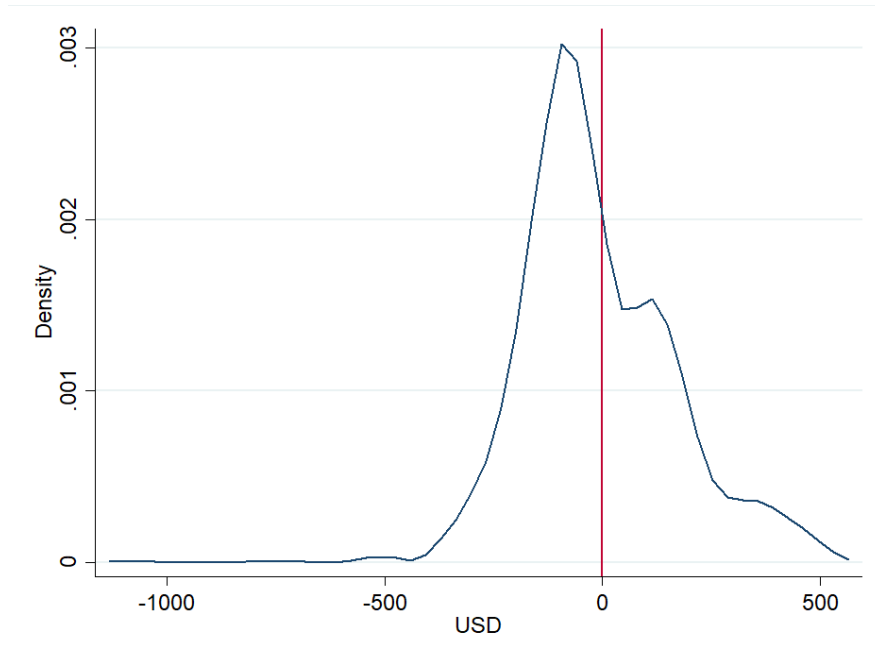
From the control and information cross-checks that this Administration performs we believe you are a potential employer of a domestic worker.

Since the implementation of the Special Registry of Domestic Workers (General Resolution N. 3491) it is mandatory to register all labor relationships in the Social Security's Special Registry. The procedure is fulfilled through www.afip.gob.ar until June 30th 2013.

Remember that failure to register the labor relationship is considered a contravention subject to the sanctions specified in Law 11683 text ordered 1998 and its modifications.

Note: The image shows the letter that the tax authority (AFIP) sent to potential employers of domestic workers compelling them to register such employee. The letter specifies which laws and procedures contain the sanctions employers would face if they do not comply with the regulations.

Figure 4: Difference between minimum wage and current wage for informal domestic workers in Q1 2013



Note: The Figure depicts the kernel density estimate of the difference between the minimum monthly salary a worker should receive given her hours of work per week and her actual salary at the time of the reform, in US dollars. Positive differences imply that a worker is being paid less than the mandated minimum

Figure 5: Share of registered workers

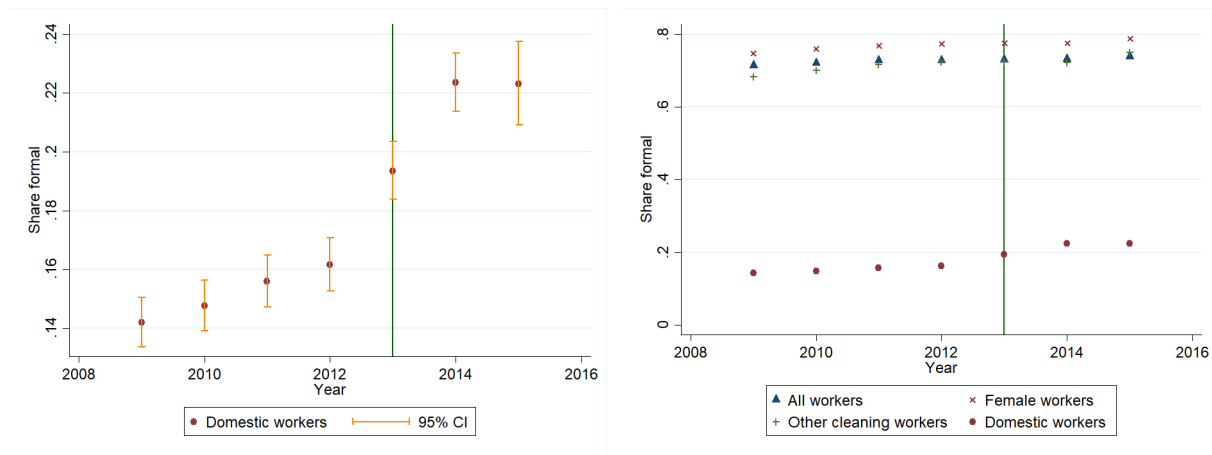
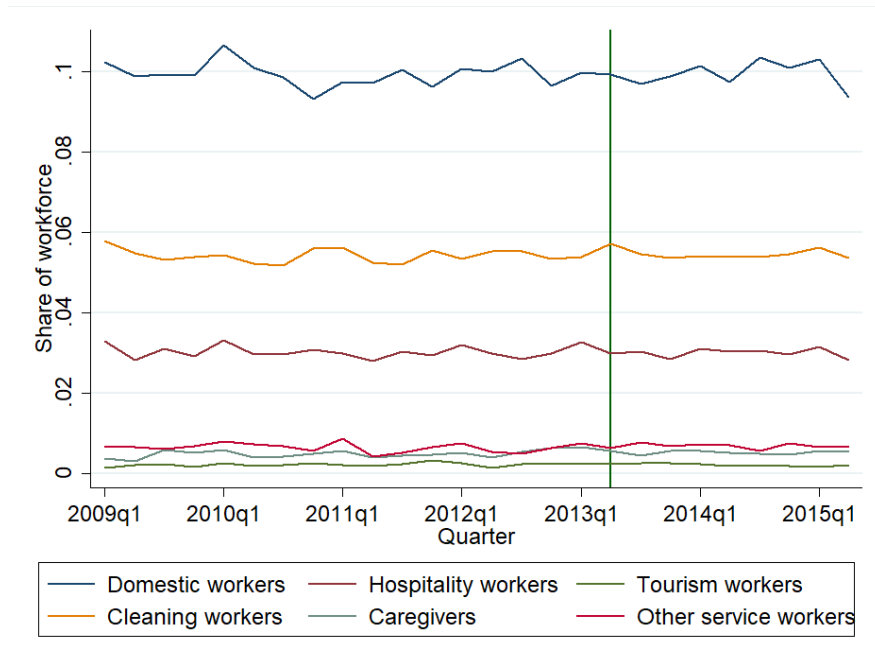
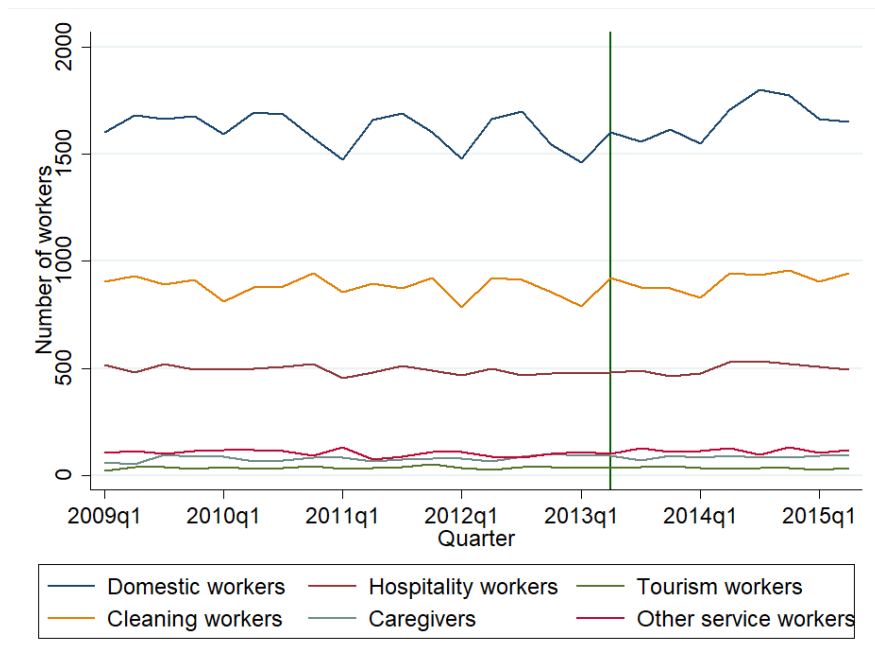


Figure 6: Share of workers by occupation



Note: The Figure shows the share of domestic workers and of workers in each occupation of the service sector for every wave in which the survey was conducted. Occupation is self-reported by survey respondents.

Figure 7: Number of workers by occupation



Note: The Figure shows the number of domestic workers and of workers in each occupation of the service sector for every wave in which the survey was conducted. Occupation is self-reported by survey respondents.

Figure 8: Earnings from main job

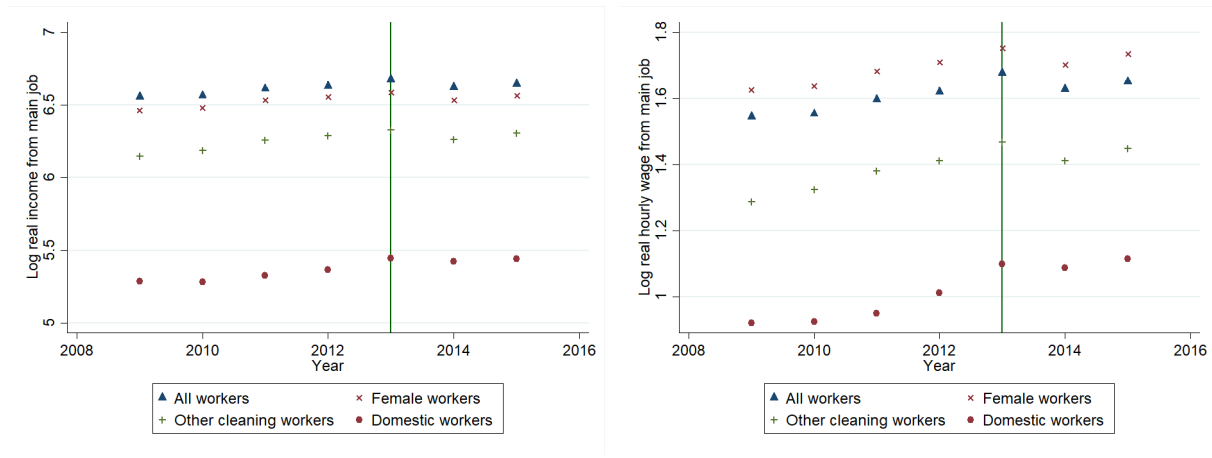


Figure 9: Hours of work per week

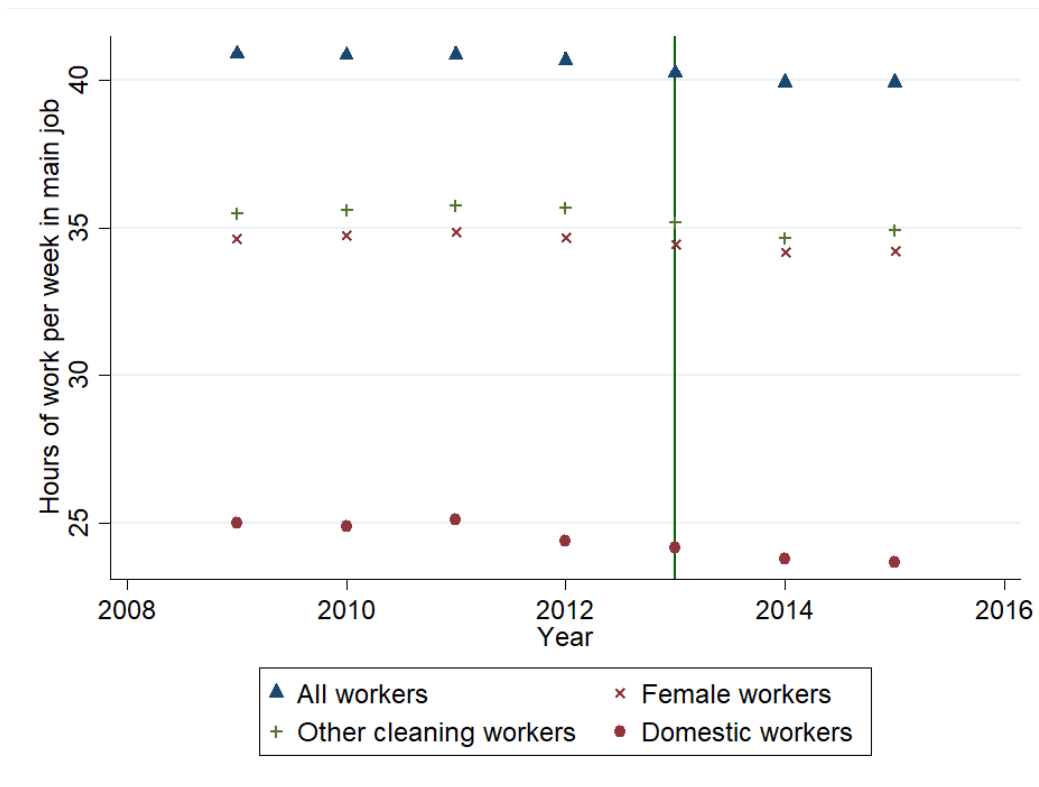


Figure 10: Age distribution of children in the sample

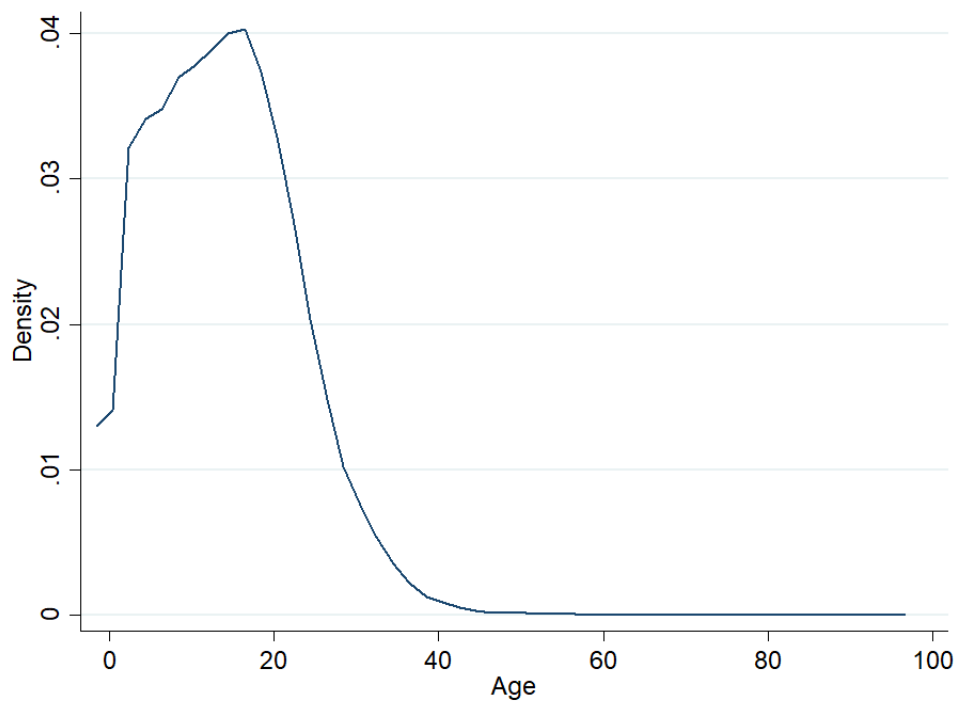


Figure 11: Share of children in the labor force, by age

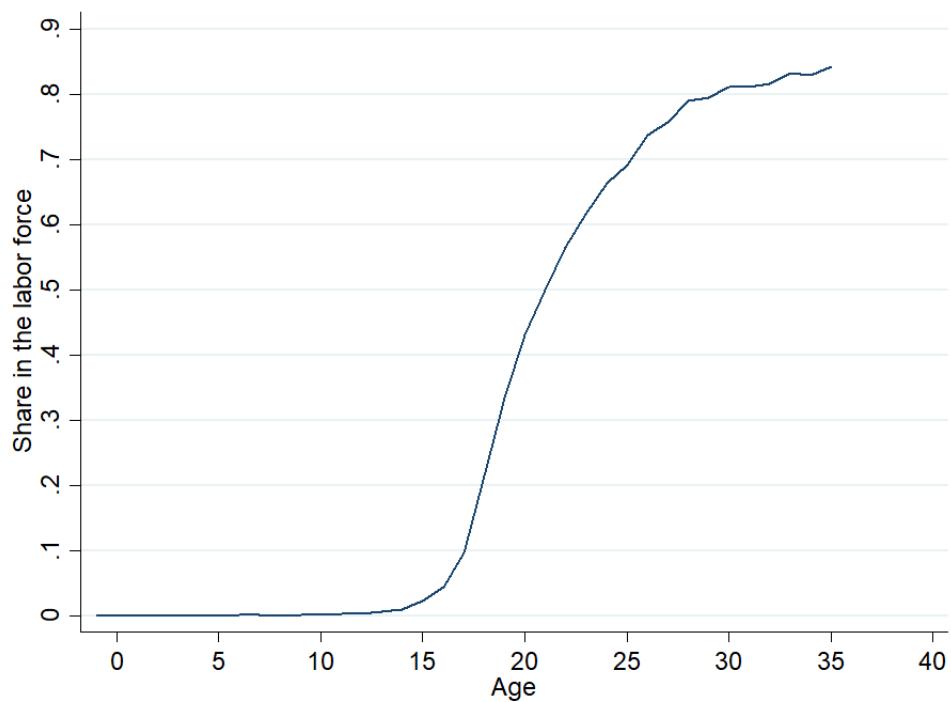


Table 1: Share of registered workers in each year by type of worker and formality status in the previous year

Year	Domestic workers		Other workers	
	Non-registered	Registered	Non-registered	Registered
2010	0.083	0.666	0.250	0.958
2011	0.082	0.669	0.266	0.955
2012	0.097	0.622	0.257	0.955
2013	0.114	0.646	0.258	0.954
2014	0.122	0.718	0.246	0.951
2015	0.135	0.680	0.257	0.953

Note: The table shows, for each year, the proportion of domestic and non-domestic workers who are registered, depending on their registration status in the previous year in which the respondent was surveyed.

Table 2: Summary statistics

	Domestic Workers		Service workers		Female workers		All workers	
	Mean	Difference	Mean	Difference	Mean	Difference	Mean	Difference
Demographics								
Proportion male	0.01	0.476***	0.49	0.000	0.00	0.62	0.610***	
Age	40.34	-2.239***	38.10	-1.967***	38.41	37.73	-2.616***	
Share internal migrant	0.19	-0.001	0.19	-0.007*	0.18	0.19	-0.002	
Share foreign migrant	0.08	-0.033***	0.04	-0.053***	0.02	0.03	-0.048***	
Household size	4.32	0.090***	4.41	-0.556***	3.77	4.02	-0.302***	
Education								
Literacy	0.99	0.003***	0.99	0.007***	1.00	1.00	0.006***	
Ever attended school	0.99	0.003***	1.00	0.007***	1.00	1.00	0.006***	
Complete primary school (%)	0.90	0.043***	0.94	0.090***	0.99	0.97	0.073***	
Complete secondary school (%)	0.29	0.094***	0.39	0.513***	0.81	0.66	0.368***	
Complete higher education (%)	0.02	0.023***	0.04	0.364***	0.38	0.24	0.224***	
Years of education	8.82	0.838***	9.66	4.405***	13.23	11.96	3.138***	
Work								
Hours of work per week	24.74	13.131***	37.87	10.013***	34.72	40.84	16.099***	
Monthly income (USD)	184.15	277.112***	461.26	448.599***	632.46	686.84	502.684***	
Hourly wage (USD)	2.32	0.913***	3.23	2.624***	4.95	4.57	2.247***	
Tenure (months)	48.73	-9.308***	39.42	-5.128***	43.58	42.50	-6.232***	
Health insurance contribution	0.15	0.483***	0.63	0.626***	0.77	0.73	0.582***	
Pension contribution	0.15	0.468***	0.62	0.611***	0.76	0.72	0.571***	
Has health insurance	0.42	0.295***	0.71	0.448***	0.86	0.80	0.386***	
Observations								
	25987	25645		89530		235830		

Note: Mean refers to the mean of the variable for the corresponding group in the pre-reform period (2009-2012). The column Difference shows the difference in the variable mean in the pre-reform period between the corresponding group and domestic workers, with stars representing the statistical significance of the difference. Service workers refers to workers in the service occupations. Female workers refers to salaried female workers from all occupations. All workers refers to all salaried employees from occupations other than domestic workers.
 *** p<0.01, ** p<0.05, * p<0.1

Table 3: Effect of policy reform on unemployment

Comparison group	(1) Service workers	(2) Female workers	(3) All workers
Domestic worker \times Reform	-0.002 (0.004)	-0.004 (0.004)	-0.004 (0.003)
Mean dependent variable of treatment group pre-reform	0.09	0.09	0.09
R-squared	0.062	0.156	0.203
Observations	93,312	202,780	461,129
q-value	1	1	1
Controls	Yes	Yes	Yes
Year FEs	Yes	Yes	Yes
Occupation FEs	Yes	Yes	Yes
MSA FEs	Yes	Yes	Yes
Year by MSA FEs	Yes	Yes	Yes
Number of clusters	32	32	32

Note: Each column reports the results of estimating Equation 5 when the outcome of interest is an indicator that takes value 1 if the individual is unemployed. The sample includes all employed and unemployed individuals with a previous job. Service workers refers to workers in the service occupations. Female workers refers to salaried female workers from all occupations. All workers refers to all salaried employees from occupations other than domestic workers. Controls include age, migrant status, household size, literacy status, years of education, and marital status. Standard errors clustered at the MSA level in parentheses. Q-value corresponds to Hochberg's q-value to adjust for False Discovery Rate.

*** $q < 0.01$, ** $q < 0.05$, * $q < 0.1$

Table 4: Effect of policy reform on formality status

Comparison group	(1) Service workers	(2) Female workers	(3) All workers
Domestic worker \times Reform	0.055*** (0.013)	0.054*** (0.010)	0.058*** (0.010)
Mean dependent variable of treatment group pre-reform	0.15	0.15	0.15
R-squared	0.305	0.401	0.312
Observations	84,372	187,450	426,666
q-value	0.000	0.000	0.000
Controls	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes
Occupation Fixed Effects	Yes	Yes	Yes
MSA Fixed Effects	Yes	Yes	Yes
Year by MSA Fixed Effects	Yes	Yes	Yes
Number of clusters	32	32	32

Note: Each column reports the results of estimating Equation 5 when the dependent variable is an indicator that takes value 1 when contributions to the pension system are made out of the worker's salary. The sample includes all salaried workers. Service workers refers to workers in the service occupations. Female workers refers to salaried female workers from all occupations. All workers refers to all salaried employees from occupations other than domestic workers. Means of control and treatment groups in the pre-reform period were drawn from Table 2. Controls include age, migrant status, household size, marital status, literacy status and years of education. Standard errors clustered at the MSA level in parentheses. Q-value corresponds to Hochberg's q-value to adjust for False Discovery Rate.

*** q<0.01, ** q<0.05, * q<0.1

Table 5: Changes in labor earnings after policy reform

Comparison group	Income per month from main job			Income per month from all jobs			Wage per hour from main job		
	(1) Service workers	(2) Female workers	(3) All workers	(4) Service workers	(5) Female workers	(6) All workers	(7) Service workers	(8) Female workers	(9) All workers
Domestic worker X Reform	0.032 (0.017)	0.034 (0.013)	0.038** (0.012)	0.038 (0.017)	0.041** (0.014)	0.045*** (0.012)	0.071*** (0.015)	0.098*** (0.013)	0.089*** (0.012)
R-squared	0.442	0.553	0.513	0.416	0.542	0.503	0.360	0.514	0.477
Observations	84,372	187,450	426,666	84,372	187,450	426,666	84,372	187,450	426,666
q-value	0.563	0.107	0.017	0.24	0.028	0.004	0.000	0.000	0.000
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Occupation Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year by MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of clusters	32	32	32	32	32	32	32	32	32

Note: Each column reports the DiD estimate for the regression in which the left hand side is the natural logarithm of the variable in the column title. Service workers refers to workers in the service occupations. Female workers refers to salaried female workers from all occupations. All workers refers to all salaried employees from occupations other than domestic workers. Controls include age, migrant status, household size, marital status, literacy status and years of education. Standard errors clustered at the MSA level in parentheses. Q-value corresponds to Hochberg's q-value to adjust for False Discovery Rate. *** q<0.01, ** q<0.05, * q<0.1

Table 6: Changes in hours of work after policy reform

Comparison group	Hours of work per week on main job			Involuntary part-time worker		
	(1) Service workers	(2) Female workers	(3) All workers	(4) Service workers	(5) Female workers	(6) All workers
Domestic worker x Reform	-0.742 (0.307)	-1.667*** (0.256)	-1.158*** (0.224)	0.001 (0.006)	-0.003 (0.006)	-0.004 (0.007)
Mean dependent variable of treatment group pre-reform	24.74	24.74	24.74	0.17	0.17	0.17
R-squared	0.199	0.229	0.295	0.068	0.074	0.062
Observations	84,372	187,450	426,666	84,372	187,450	426,666
q-value	0.143	0.000	0.000	1.000	1.000	1.000
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Occupation Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year by MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Number of clusters	32	32	32	32	32	32

Note: Each column reports the DiD estimate for the regression in which the left hand side is either the number of hours of work per week, or an indicator for willing to work more hours. The sample includes all salaried workers. Service workers refers to workers in the service occupations. Service workers refers to workers in the service occupations. Female workers refers to salaried female workers from all occupations. All workers refers to all salaried employees from occupations other than domestic workers. Controls include age, migrant status, household size, marital status, literacy status and years of education. Standard errors clustered at the MSA level in parentheses. Q-value corresponds to Hochberg's q-value to adjust for False Discovery Rate.
*** q<0.01, ** q<0.05, * q<0.1

Table 7: Changes in non-labor earnings after policy reform

Comparison group	(1) Service workers	(2) Female workers	(3) All workers
Dependent variable			
Total income per month	0.063** (0.020) [0.023]	0.066*** (0.014) [0.000]	0.070*** (0.014) [0.000]
Income from pension	0.609*** (0.045) [0.000]	0.509 (0.266) [0.459]	0.684 (0.321) [0.282]
Income from welfare	0.099*** (0.020) [0.000]	0.012 (0.032) [1.000]	0.371*** (0.057) [0.000]
Income from alimony	0.192*** (0.027) [0.000]	0.372 (0.218) [0.675]	0.535 (0.236) [0.209]
Observations	84,372	187,450	426,666
Controls	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes
Occupation Fixed Effects	Yes	Yes	Yes
MSA Fixed Effects	Yes	Yes	Yes
Year by MSA Fixed Effects	Yes	Yes	Yes
Number of clusters	32	32	32

Note: Each coefficient corresponds to the DiD estimate for the regression in which the left hand side is the natural logarithm of the row variable. Estimates for income from pension, income from welfare and income from alimony obtained using a Tobit model, where the dependent variable was set to zero for individuals not receiving income from the corresponding source. Service workers refers to workers in the service occupations. Female workers refers to salaried female workers from all occupations. All workers refers to all salaried employees from occupations other than domestic workers. Controls include age, migrant status, household size, marital status, literacy status and years of education. Standard errors clustered at the MSA level in parentheses. Hochber's q-values to adjust for False Discovery Rate in brackets

*** q<0.01, ** q<0.05, * q<0.1

Table 8: Impact of domestic worker's reform on spouses' labor market outcomes

Spouses of workers in comparison group	Labor force participation		Hours of work		Formality		Labor income		All income		Wage per hour	
	(1) Service	(2) All	(3) Service	(4) All	(5) Service	(6) All	(7) Service	(8) All	(9) Service	(10) All	(11) Service	(12) All
Spouse of Domestic worker \times Reform	-0.007 (0.011)	-0.003 (0.007)	-0.560 (0.689)	-0.725 (0.393)	0.015 (0.022)	0.006 (0.015)	0.007 (0.019)	0.033** (0.012)	-0.001 (0.019)	0.035** (0.013)	0.019 (0.015)	0.048*** (0.013)
Mean dependent variable of treatment group pre-reform	0.89	0.89	47.05	47.05	0.65	0.65						
R-squared	0.182	0.158	0.181	0.224	0.183	0.167	0.392	0.430	0.381	0.428	0.383	0.449
Observations	23,528	84,012	13,213	53,048	13,213	53,048	13,213	53,048	13,213	53,048	13,213	53,048
q-value	0.957	0.957	0.957	0.586	0.957	0.957	0.957	0.05	0.957	0.05	0.957	0.003
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Occupation Fixed Effects	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year by MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of clusters	32	32	32	32	32	32	32	32	32	32	32	32

Note: Service refers to spouses of workers in the service occupations. All refers to spouses of wage workers from all occupations other than domestic workers. Controls include age, migrant status, household size, marital status, literacy status and years of education. Q-value corresponds to Hochberg's q-value to adjust for False Discovery Rate. Standard errors clustered at the MSA level in parentheses.
*** q<0.01, ** q<0.05, * q<0.1

Table 9: Main sectors of employment of spouses of domestic workers and share of sample in each occupation, by group

Sector of occupation	Spouses of domestic workers	Spouses of service workers	Spouses of all wage workers
Construction	23.64	15.88	7.87
Manufacturing	14.88	11.96	8.44
Transportation	13.28	13.04	8.41
Cleaning	7.90	9.93	2.98
Retail	5.23	5.55	8.31
Private security	4.96	5.39	2.33
Administrative	4.24	7.38	14.36
Repairer	3.00	2.47	1.66
Storage	2.67	2.71	2.03
Police	2.45	3.16	3.29
Restoration	2.35	4.48	1.64
Other services	1.95	1.39	0.60
Other retail	1.05	1.59	1.40
Management	1.04	1.15	5.14
Farm production	1.01	0.84	0.40
Total	89.65	86.92	68.86

Note: The table shows the fifteen main sectors of employment of spouses of domestic workers, and the share of individuals employed in each sector. Columns 2 and 3 show the share of spouses of service sector workers and all wage workers, respectively, who are employed in each occupation.

Table 10: Impact of domestic worker's reform on children's labor market outcomes

Occupation of parents in comparison group	Labor force participation		Hours of work		Formality		Labor income		All income		Wage per hour	
	(1) Service	(2) All	(3) Service	(4) All	(5) Service	(6) All	(7) Service	(8) All	(9) Service	(10) All	(11) Service	(12) All
<i>Panel A: All Children</i>												
Child of Domestic worker x Reform	-0.027** (0.008)	-0.007 (0.007)	-1.142 (0.566)	-0.91 (0.383)	-0.004 (0.016)	-0.011 (0.013)	0.025 (0.023)	0.023 (0.019)	0.016 (0.024)	0.019 (0.019)	0.059** (0.018)	0.048** (0.014)
Mean dependent variable of treatment group pre-reform	0.50	0.50	40.85	40.85	0.43	0.43						
R-squared	0.304	0.310	0.206	0.217	0.258	0.243	0.358	0.359	0.350	0.351	0.378	0.384
Observations	51,301	169,493	15,930	48,257	15,930	48,257	15,930	48,257	15,930	48,257	15,930	48,257
q-value	0.036	1.000	0.543	0.294	1.000	1.000	1.000	1.000	1.000	1.000	0.036	0.036
<i>Panel B: Female Children</i>												
Child of Domestic worker x Reform	-0.031 (0.012)	-0.006 (0.009)	-0.202 (1.008)	0.012 (0.635)	0.027 (0.038)	0.010 (0.018)	0.077 (0.036)	0.031 (0.027)	0.059 (0.039)	0.028 (0.027)	0.100*** (0.022)	0.042 (0.019)
Mean dependent variable of treatment group pre-reform	0.33	0.33	35.49	35.49	0.50	0.50						
R-squared	0.237	0.270	0.226	0.213	0.256	0.219	0.382	0.360	0.370	0.348	0.426	0.396
Observations	23,528	78,336	4,661	15,599	4,661	15,599	4,661	15,599	4,661	15,599	4,661	15,599
q-value	0.212	1.000	1.000	1.000	1.000	1.000	0.437	1.000	1.000	1.000	0.001	0.428
<i>Panel C: Male Children</i>												
Child of Domestic worker x Reform	-0.023 (0.014)	-0.008 (0.010)	-1.499 (0.569)	-1.205 (0.431)	-0.012 (0.020)	-0.015 (0.015)	-0.001 (0.029)	0.023 (0.022)	-0.005 (0.029)	0.019 (0.022)	0.036 (0.023)	0.051* (0.017)
Mean dependent variable of treatment group pre-reform	0.63	0.63	42.95	42.95	0.40	0.40						
R-squared	0.285	0.316	0.175	0.184	0.276	0.260	0.371	0.375	0.365	0.368	0.376	0.386
Observations	27,773	91,157	11,261	32,644	11,261	32,644	11,261	32,644	11,261	32,644	11,261	32,644
q-value	1.000	1.000	0.181	0.130	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.057
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Occupation Fixed Effects	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year by MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of clusters	32	32	32	32	32	32	32	32	32	32	32	32

Note: Sample include children of household heads aged 16 to 35. Service refers to children of wage workers in the service occupations. All refers to children of wage workers from all occupations other than domestic workers. Controls include age, gender, household size and marital status. Standard errors clustered at the MSA level in parentheses. Q-value corresponds to Hochberg's q-value to adjust for False Discovery Rate.
 *** q<0.01, ** q<0.05, * q<0.1

Table 11: Impact of domestic worker's reform on children's schooling

Occupation of parents in comparison group	School attendance		Years of education	
	(1) Service workers	(2) All workers	(3) Service workers	(4) All workers
<i>Panel A: All Children</i>				
Child of Domestic worker x Reform	0.02 (0.009)	0.016* (0.006)	0.070 (0.063)	0.100* (0.040)
Mean dependent variable of treatment group pre-reform	0.87	0.87	8.07	8.07
R-squared	0.134	0.105	0.402	0.454
Observations	33,255	113,092	33,255	113,092
q-value	0.127	0.082	1.000	0.086
<i>Panel B: Female Children</i>				
Child of Domestic worker x Reform	-0.000 (0.013)	0.000 (0.008)	-0.058 (0.088)	0.048 (0.050)
Mean dependent variable of treatment group pre-reform	0.91	0.91	8.24	8.24
R-squared	0.116	0.091	0.449	0.498
Observations	16,351	54,740	16,351	54,740
q-value	1.000	1.000	1.000	1.000
<i>Panel C: Male Children</i>				
Child of Domestic worker x Reform	0.038* (0.013)	0.030*** (0.008)	0.179 (0.086)	0.156* (0.060)
Mean dependent variable of treatment group pre-reform	0.84	0.84	7.91	7.91
R-squared	0.162	0.120	0.366	0.419
Observations	16,904	58,352	16,904	58,352
q-value	0.074	0.005	0.202	0.082
Controls	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes
Occupation Fixed Effects	Yes	Yes	Yes	Yes
MSA Fixed Effects	Yes	Yes	Yes	Yes
Year by MSA Fixed Effects	Yes	Yes	Yes	Yes
Number of clusters	32	32	32	32

Note: Sample includes children aged 12 to 18 who have not completed secondary school. Service workers refers to children of wage workers in the service occupations. All workers refers to children of wage workers from all occupations other than domestic workers. Controls include age, gender and household size. Standard errors clustered at the MSA level in parentheses. Q-value corresponds to Hochberg's q-value to adjust for False Discovery Rate.

*** q<0.01, ** q<0.05, * q<0.1

Appendix A Tests for changes in group composition

Table A1: Estimates of the effect of the reform on observable characteristics

	(1)	(2)	(3)
Proportion male	0.014 (0.005)		0.008*** (0.002)
Age	0.670 (0.258)	0.286 (0.255)	0.282 (0.227)
Household size	0.035 (0.041)	0.039 (0.040)	0.032 (0.034)
Share married	0.025 (0.011)	0.014 (0.009)	0.016 (0.008)
Share divorced	0.005 (0.008)	0.003 (0.006)	0.004 (0.007)
Share widow	-0.005 (0.005)	-0.006 (0.004)	-0.008 (0.004)
Share internal migrant	0.004 (0.007)	-0.001 (0.006)	-0.000 (0.005)
Share foreign migrant	0.001 (0.004)	0.000 (0.004)	0.001 (0.003)
Share literate	-0.002 (0.002)	-0.001 (0.001)	-0.000 (0.001)
Share who ever attended school	-0.000 (0.001)	0.001 (0.001)	0.001 (0.001)
Share with complete primary school	0.002 (0.007)	0.017** (0.005)	0.014 (0.005)
Share with complete secondary school	-0.013 (0.009)	0.021 (0.007)	0.013 (0.006)
Share with complete tertiary education	-0.009 (0.004)	-0.008 (0.003)	-0.035 (0.065)
Years of education	-0.035 (0.065)	0.172** (0.052)	0.128 (0.049)
Comparison group	Service workers	Female workers	All workers
Observations	84374	187452	426672

Note: Each row reports the estimate of the interaction between the treatment and the domestic worker dummies on the corresponding covariate, using as control group the sample specified in the column. Service workers refers to workers in the service occupations. Female workers refers to salaried female workers from all occupations. All workers refers to all salaried employees from occupations other than domestic workers. Controls include MSA fixed effects, year fixed effects, occupation fixed effects and year-MSA fixed effects. Standard errors clustered at the MSA level in parentheses. Stars correspond Hochberg's q-values used to adjust for False Discovery Rate.

*** q<0.01, ** q<0.05, * q<0.1

Appendix B Difference-in-differences estimates using yearly interactions

The following tables present the results of estimating the following equation using the same outcomes shown in the main part of the paper:

$$Y_{ijkt} = \beta_0 + \beta_1 DW_{ijkt} + \sum_{t=2009}^{2015} \beta_t DW_{ijkt} \times I[Year = t] + \Gamma X_{ijkt} + \theta_t + \nu_j + \mu_k + \psi_{tk} + \varepsilon_{ijkt} \quad (6)$$

The omitted category is always the year 2012, the year prior to the introduction of the reforms. It should be noted that p-values reported in these tables have not been corrected for multiple hypothesis testing.

Table B1: Effect of policy reform on formality status

Comparison group	(1) Service workers	(2) Female workers	(3) All workers
2009 x Domestic worker	0.010 (0.015)	0.002 (0.011)	-0.005 (0.010)
2010 x Domestic worker	-0.005 (0.012)	0.001 (0.011)	-0.004 (0.009)
2011 x Domestic worker	-0.002 (0.011)	0.001 (0.009)	-0.003 (0.007)
2013 x Domestic worker	0.036** (0.017)	0.032*** (0.011)	0.034*** (0.011)
2014 x Domestic worker	0.071*** (0.018)	0.074*** (0.012)	0.071*** (0.013)
2015 x Domestic worker	0.065*** (0.021)	0.058*** (0.016)	0.061*** (0.016)
Domestic worker	-0.310*** (0.022)	-0.293*** (0.023)	-0.292*** (0.021)
Constant	0.172*** (0.039)	0.279*** (0.042)	0.185*** (0.030)
R-squared	0.305	0.401	0.312
Observations	84,372	187,450	426,666
Controls	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes
Occupation Fixed Effects	Yes	Yes	Yes
MSA Fixed Effects	Yes	Yes	Yes
Year by MSA Fixed Effects	Yes	Yes	Yes
Number of clusters	32	32	32

Note: Each column reports the results of estimating Equation 5 when the dependent variable is an indicator that takes value 1 when contributions to the pension system are made out of the worker's salary. The sample includes all salaried workers. Service workers refers to workers in the service occupations. Female workers refers to salaried female workers from all occupations. All workers refers to all salaried employees from occupations other than domestic workers. Controls include age, migrant status, household size, marital status, literacy status and years of education. Standard errors clustered at the MSA level in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

Table B2: Changes in labor earnings after policy reform

Comparison group	Income per month from main job			Income per month from all jobs			Wage per hour from main job		
	(1) Service workers	(2) Female workers	(3) All workers	(4) Service workers	(5) Female workers	(6) All workers	(7) Service workers	(8) Female workers	(9) All workers
2009 x Domestic worker	0.072*** (0.026)	0.022 (0.018)	0.011 (0.017)	0.059** (0.025)	0.017 (0.018)	0.003 (0.017)	0.040* (0.021)	-0.002 (0.017)	-0.006 (0.015)
2010 x Domestic worker	0.018 (0.022)	0.000 (0.021)	-0.006 (0.021)	0.015 (0.021)	-0.003 (0.019)	-0.011 (0.019)	0.008 (0.018)	-0.012 (0.017)	-0.014 (0.016)
2011 x Domestic worker	-0.016 (0.020)	-0.006 (0.016)	-0.013 (0.016)	-0.012 (0.023)	-0.006 (0.019)	-0.013 (0.019)	-0.015 (0.015)	-0.026* (0.013)	-0.029** (0.013)
2013 x Domestic worker	0.027 (0.018)	0.027* (0.014)	0.024* (0.013)	0.035** (0.017)	0.032** (0.013)	0.027** (0.013)	0.041** (0.018)	0.053*** (0.014)	0.043*** (0.013)
2014 x Domestic worker	0.069*** (0.021)	0.052** (0.019)	0.048*** (0.016)	0.067*** (0.023)	0.053** (0.020)	0.047*** (0.017)	0.111*** (0.022)	0.115*** (0.016)	0.101*** (0.014)
2015 x Domestic worker	0.057* (0.032)	0.030 (0.025)	0.038 (0.025)	0.064* (0.033)	0.044 (0.026)	0.047* (0.026)	0.090*** (0.024)	0.101*** (0.023)	0.095*** (0.022)
Domestic worker	-0.664*** (0.034)	-0.576*** (0.028)	-0.624*** (0.029)	-0.623*** (0.031)	-0.530*** (0.027)	-0.576*** (0.027)	-0.305*** (0.033)	-0.256*** (0.039)	-0.266*** (0.036)
Constant	5.296*** (0.059)	5.185*** (0.057)	5.305*** (0.030)	5.274*** (0.050)	5.178*** (0.050)	5.309*** (0.029)	5.537*** (0.040)	5.512*** (0.041)	5.411*** (0.022)
R-squared	0.442	0.553	0.513	0.416	0.542	0.503	0.360	0.514	0.477
Observations	84,372	187,450	426,666	84,372	187,450	426,666	84,372	187,450	426,666
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Occupation Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year by MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of clusters	32	32	32	32	32	32	32	32	32

Note: Each column reports the DiD estimate for the regression in which the left hand side is the natural logarithm of the variable in the column title. Service workers refers to workers in the service occupations. Female workers refers to salaried female workers from all occupations. All workers refers to all salaried employees from occupations other than domestic workers. Controls include age, migrant status, household size, marital status, literacy status and years of education. Standard errors clustered at the MSA level in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table B3: Changes in hours of work after policy reform

Comparison group	Hours of work per week on main job			Involuntary part-time worker		
	(1) Service workers	(2) Female workers	(3) All workers	(4) Service workers	(5) Female workers	(6) All workers
2009 x Domestic worker	0.790 (0.467)	0.721** (0.321)	0.519 (0.326)	0.002 (0.011)	0.013 (0.012)	0.016 (0.011)
2010 x Domestic worker	0.339 (0.518)	0.452 (0.367)	0.375 (0.362)	0.004 (0.010)	0.008 (0.010)	0.012 (0.010)
2011 x Domestic worker	-0.051 (0.375)	0.482* (0.282)	0.388 (0.300)	0.002 (0.010)	-0.000 (0.009)	0.000 (0.009)
2013 x Domestic worker	-0.257 (0.438)	-0.782* (0.406)	-0.482 (0.373)	-0.003 (0.008)	-0.003 (0.009)	-0.002 (0.008)
2014 x Domestic worker	-0.702* (0.395)	-1.485*** (0.331)	-1.036*** (0.288)	0.005 (0.010)	0.005 (0.010)	0.008 (0.010)
2015 X Domestic worker	-0.400 (0.654)	-1.678*** (0.456)	-1.110** (0.439)	0.010 (0.014)	0.005 (0.012)	0.005 (0.013)
Domestic worker	-8.594*** (1.118)	-7.302*** (0.952)	-8.442*** (1.149)	0.095*** (0.016)	0.093*** (0.017)	0.091*** (0.016)
Constant	35.114*** (1.583)	33.084*** (1.517)	39.116*** (0.868)	0.160*** (0.019)	0.108*** (0.021)	0.088*** (0.012)
R-squared	0.199	0.229	0.295	0.068	0.074	0.062
Observations	84,372	187,450	426,666	84,372	187,450	426,666
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Occupation Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year by MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Number of clusters	32	32	32	32	32	32

Note: Each column reports the DiD estimate for the regression in which the left hand side is either the number of hours of work per week, or an indicator for willing to work more hours. The sample includes all salaried workers. Service workers refers to workers in the service occupations. Female workers refers to salaried female workers from all occupations. All workers refers to all salaried employees from occupations other than domestic workers. Controls include age, migrant status, household size, marital status, literacy status and years of education. Standard errors clustered at the MSA level in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table B4: Changes in non-labor earnings after policy reform

Comparison group	Total income per month			Income from pension		
	(1) Service workers	(2) Female workers	(3) All workers	(4) Service workers	(5) Female workers	(6) All workers
2009 x Domestic worker	0.001 (0.024)	-0.032 (0.019)	-0.047** (0.018)	-0.697*** (0.034)	-0.979** (0.456)	-1.169*** (0.435)
2010 x Domestic worker	0.015 (0.018)	0.004 (0.017)	-0.004 (0.017)	-0.112*** (0.037)	0.233 (0.476)	0.203 (0.476)
2011 x Domestic worker	-0.012 (0.022)	-0.005 (0.018)	-0.007 (0.018)	-0.717*** (0.040)	-0.224 (0.308)	-0.413 (0.352)
2013 x Domestic worker	0.033* (0.019)	0.036** (0.014)	0.031** (0.014)	0.136*** (0.037)	-0.152 (0.461)	-0.137 (0.457)
2014 x Domestic worker	0.080*** (0.028)	0.072*** (0.023)	0.069*** (0.020)	0.273*** (0.037)	0.453 (0.467)	0.486 (0.433)
2015 x Domestic worker	0.087** (0.037)	0.071** (0.030)	0.075** (0.029)	0.360*** (0.036)	0.811** (0.369)	1.103** (0.432)
Domestic worker	-0.533*** (0.031)	-0.454*** (0.022)	-0.486*** (0.024)	2.405*** (0.052)	1.665*** (0.628)	2.273*** (0.726)
Constant	5.355*** (0.062)	5.388*** (0.063)	5.385*** (0.034)	7.937*** (0.006)	8.249*** (0.167)	-41.353*** (1.918)
R-squared	0.388	0.512	0.482			
Observations	84,372	187,450	426,666	84,372	187,450	426,666
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Occupation Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year by MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Number of clusters	32	32	32	32	32	32

Note: Each column reports the DiD estimate for the regression in which the left hand side is the natural logarithm of the variable in the column title. Service workers refers to workers in the service occupations. Service workers refers to workers in the service occupations. Female workers refers to salaried female workers from all occupations. All workers refers to all salaried employees from occupations other than domestic workers. Controls include age, migrant status, household size, marital status, literacy status and years of education. Standard errors clustered at the MSA level in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table B4: Continued

Comparison group	Income from welfare			Income from alimony		
	(1) Service workers	(2) Female workers	(3) All workers	(4) Service workers	(5) Female workers	(6) All workers
2009 x Domestic worker	-0.153*** (0.012)	0.435*** (0.016)	-0.098*** (0.033)	-1.049*** (0.024)	-0.018 (0.464)	-0.421 (0.473)
2010 x Domestic worker	-0.077*** (0.017)	-0.091*** (0.024)	-0.569*** (0.048)	-0.938*** (0.025)	-0.135 (0.415)	-0.416 (0.405)
2011 x Domestic worker	-0.050*** (0.017)	-0.165*** (0.025)	-0.362*** (0.045)	-0.397*** (0.024)	0.247 (0.406)	0.173 (0.414)
2013 x Domestic worker	0.129*** (0.017)	-0.036 (0.024)	0.020 (0.043)	-1.258*** (0.023)	-0.052 (0.351)	-0.155 (0.363)
2014 x Domestic worker	-0.193*** (0.018)	0.031 (0.025)	0.116** (0.045)	-0.269*** (0.023)	0.360 (0.380)	0.338 (0.397)
2015 x Domestic worker	0.328*** (0.017)	0.131*** (0.024)	0.188*** (0.044)	1.013*** (0.020)	1.297*** (0.499)	1.422*** (0.494)
Domestic worker	2.966*** (0.022)	2.167*** (0.036)	3.390*** (0.067)	1.142*** (0.034)	-0.359 (0.628)	0.736 (0.684)
Constant	6.382*** (0.003)	6.576*** (0.004)	-50.558*** (0.003)	-46.218*** (0.010)	-7.458** (0.150)	-11.696*** (0.148)
Observations	84,373	187,459	426,670	84,373	187,459	426,670
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Occupation Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year by MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Number of clusters	32	32	32	32	32	32

Table B5: Impact of Domestic worker's reform on spouses' labor market outcomes

Spouses of workers in comparison group	Labor force participation		Hours of work		Formality		Labor income		All income		Wage per hour	
	(1) Service	(2) All	(3) Service	(4) All	(5) Service	(6) All	(7) Service	(8) All	(9) Service	(10) All	(11) Service	(12) All
2009 × Spouse of Dom. worker	0.037*** (0.013)	0.017 (0.013)	0.198 (0.823)	-0.213 (0.640)	0.029 (0.034)	0.011 (0.026)	-0.021 (0.031)	-0.054** (0.022)	-0.013 (0.031)	-0.049** (0.022)	-0.030 (0.030)	-0.054** (0.024)
2010 × Spouse of Dom. worker	0.025 (0.015)	0.011 (0.011)	0.778 (1.075)	0.804 (0.793)	0.029 (0.035)	0.015 (0.027)	-0.022 (0.038)	-0.025 (0.032)	-0.024 (0.037)	-0.031 (0.032)	-0.034 (0.038)	-0.046 (0.034)
2011 × Spouse of Dom. worker	0.015 (0.014)	0.008 (0.010)	0.563 (0.902)	0.136 (0.743)	0.016 (0.021)	0.000 (0.019)	0.003 (0.028)	-0.017 (0.022)	-0.009 (0.026)	-0.018 (0.020)	-0.005 (0.032)	-0.022 (0.027)
2013 × Spouse of Dom. worker	0.020 (0.013)	0.012 (0.011)	1.375 (1.022)	-0.073 (0.657)	0.032 (0.028)	0.014 (0.020)	0.047 (0.036)	0.029 (0.024)	0.019 (0.037)	0.036 (0.024)	0.013 (0.027)	0.025 (0.021)
2014 × Spouse of Dom. worker	0.008 (0.012)	-0.001 (0.009)	-0.804 (0.710)	-0.714 (0.585)	0.019 (0.033)	0.002 (0.027)	-0.042 (0.032)	-0.025 (0.024)	-0.029 (0.030)	-0.017 (0.023)	-0.021 (0.028)	-0.013 (0.025)
2015 × Spouse of Dom. worker	0.010 (0.017)	0.011 (0.012)	-1.913 (1.207)	-1.112* (0.553)	0.071** (0.029)	0.036 (0.030)	-0.021 (0.023)	0.038* (0.020)	-0.043 (0.031)	0.013 (0.023)	0.023 (0.030)	0.057*** (0.021)
Spouse of Domestic worker	-0.014 (0.010)	-0.013 (0.008)	0.494 (0.646)	0.585 (0.477)	-0.073*** (0.022)	-0.093*** (0.020)	-0.046** (0.020)	-0.117*** (0.017)	-0.049** (0.022)	-0.120*** (0.018)	-0.057*** (0.019)	-0.122*** (0.016)
Constant	1.213*** (0.048)	1.107*** (0.042)	52.734*** (3.166)	48.538*** (1.928)	0.518*** (0.069)	0.573*** (0.076)	5.986*** (0.105)	5.830*** (0.096)	5.955*** (0.103)	5.855*** (0.090)	0.686*** (0.093)	0.642*** (0.091)
R-squared	0.182	0.158	0.182	0.224	0.183	0.167	0.392	0.430	0.381	0.428	0.383	0.449
Observations	23,528	84,012	13,213	53,048	13,213	53,048	13,213	53,048	13,213	53,048	13,213	53,048
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Occupation Fixed Effects	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year by MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of clusters	32	32	32	32	32	32	32	32	32	32	32	32

Note: Service refers to spouses of workers in the service occupations. All refers to spouses of wage workers from all occupations other than Domestic workers. Controls include age, migrant status, household size, marital status, literacy status and years of education.
*** p<0.01, ** p<0.05, * p<0.1

Table B6: Impact of domestic worker's reform on children's labor market outcomes

Occupation of parents in comparison group	Labor force participation		Hours of work		Formality		Labor income		All income		Wage per hour	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Service	All	Service	All	Service	All	Service	All	Service	All	Service	All
2009 x Child of domestic worker	0.022 (0.014)	0.006 (0.012)	0.230 (0.866)	1.547*** (0.536)	0.011 (0.021)	0.012 (0.016)	-0.004 (0.039)	-0.010 (0.034)	-0.001 (0.036)	-0.004 (0.028)	-0.027 (0.033)	-0.062*** (0.029)
2010 x Child of domestic worker	0.027 (0.017)	0.009 (0.010)	0.327 (0.978)	2.204*** (0.628)	0.018 (0.028)	0.014 (0.021)	0.018 (0.033)	0.033 (0.032)	0.009 (0.032)	0.032 (0.029)	-0.014 (0.026)	-0.045* (0.026)
2011 x Child of domestic worker	0.037** (0.015)	0.018* (0.009)	0.315 (0.752)	0.925 (0.605)	0.013 (0.027)	-0.008 (0.021)	0.014 (0.034)	0.011 (0.032)	0.001 (0.036)	0.009 (0.031)	-0.006 (0.030)	-0.017 (0.026)
2013 x Child of domestic worker	-0.014 (0.015)	0.002 (0.011)	-1.079 (0.913)	0.630 (0.654)	-0.024 (0.027)	-0.019 (0.020)	0.028 (0.035)	0.029 (0.027)	0.009 (0.036)	0.020 (0.025)	0.047 (0.031)	0.004 (0.021)
2014 x Child of domestic worker	-0.006 (0.018)	-0.007 (0.013)	-1.093 (0.786)	0.109 (0.552)	0.033 (0.022)	0.014 (0.020)	0.050* (0.028)	0.041 (0.025)	0.033 (0.026)	0.039 (0.024)	0.072** (0.028)	0.030 (0.023)
2015 x Child of domestic worker	0.008 (0.020)	0.016 (0.015)	-0.274 (1.040)	-0.141 (0.668)	0.014 (0.042)	-0.027 (0.034)	0.001 (0.049)	0.021 (0.041)	0.007 (0.045)	0.023 (0.036)	-0.006 (0.047)	0.017 (0.033)
Child of domestic worker	0.000 (0.010)	0.050*** (0.009)	0.205 (0.014)	-0.563 (0.012)	-0.057*** (0.070)	-0.074*** (0.417)	-0.067*** (0.024)	-0.115*** (0.023)	-0.060*** (0.023)	-0.117*** (0.020)	-0.053*** (0.021)	-0.087*** (0.017)
Constant	-0.640*** (0.023)	-0.811*** (0.021)	25.425*** (0.977)	25.166*** (0.747)	-0.049 (0.036)	0.013 (0.025)	4.951*** (0.057)	5.002*** (0.030)	4.991*** (0.055)	5.027*** (0.030)	0.496*** (0.036)	0.560*** (0.020)
R-squared	0.304	0.310	0.206	0.218	0.258	0.243	0.358	0.359	0.350	0.351	0.379	0.384
Observations	51,301	169,493	15,930	48,257	15,930	48,257	15,930	48,257	15,930	48,257	15,930	48,257
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Occupation Fixed Effects	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year by MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of clusters	32	32	32	32	32	32	32	32	32	32	32	32

Note: Sample include children of household heads aged 16 to 35. Service refers to children of wage workers in the service occupations. All refers to children of wage workers from all occupations other than domestic workers. Controls include age, gender, household size and marital status. Standard errors clustered at the MSA level in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table B7: Impact of domestic worker's reform on female children's labor market outcomes

Occupation of parents in comparison group	Labor force participation		Hours of work		Formality		Labor income		All income		Wage per hour	
	(1) Service	(2) All	(3) Service	(4) All	(5) Service	(6) All	(7) Service	(8) All	(9) Service	(10) All	(11) Service	(12) All
2009 x Child of domestic worker	0.033 (0.021)	-0.004 (0.014)	-0.114 (1.703)	2.513** (1.178)	-0.014 (0.055)	-0.019 (0.036)	-0.055 (0.083)	-0.051 (0.051)	-0.048 (0.075)	-0.055 (0.047)	-0.082 (0.055)	-0.143*** (0.042)
2010 x Child of domestic worker	0.019 (0.024)	-0.013 (0.012)	1.333 (1.520)	2.590*** (1.265)	-0.015 (0.058)	0.031 (0.041)	-0.024 (0.074)	0.026 (0.057)	-0.029 (0.077)	0.033 (0.051)	-0.119* (0.061)	-0.099* (0.052)
2011 x Child of domestic worker	0.057** (0.022)	0.019 (0.016)	1.035 (1.559)	0.815 (1.059)	-0.021 (0.057)	-0.012 (0.039)	-0.044 (0.072)	-0.027 (0.045)	-0.036 (0.068)	-0.016 (0.043)	-0.093 (0.059)	-0.056 (0.038)
2013 x Child of domestic worker	-0.021 (0.021)	-0.010 (0.015)	0.760 (1.624)	2.704* (1.383)	-0.018 (0.054)	0.001 (0.038)	0.032 (0.063)	0.037 (0.046)	-0.003 (0.066)	0.018 (0.049)	-0.002 (0.058)	-0.059 (0.042)
2014 x Child of domestic worker	0.001 (0.021)	-0.013 (0.015)	0.043 (1.164)	0.771 (1.005)	0.062 (0.069)	0.046 (0.043)	0.105* (0.057)	0.017 (0.048)	0.094 (0.063)	0.028 (0.050)	0.089* (0.045)	-0.007 (0.038)
2015 x Child of domestic worker	0.020 (0.031)	0.019 (0.019)	0.188 (1.919)	0.806 (1.740)	-0.024 (0.066)	-0.048 (0.041)	-0.054 (0.103)	-0.015 (0.078)	-0.036 (0.092)	-0.002 (0.066)	-0.050 (0.061)	-0.039 (0.055)
Child of domestic worker	-0.021 (0.015)	0.015 (0.011)	-0.487 (1.356)	-1.457 (0.996)	-0.034 (0.039)	-0.061* (0.030)	-0.051 (0.056)	-0.090** (0.037)	-0.051 (0.058)	-0.093** (0.038)	-0.005 (0.038)	-0.032 (0.029)
Constant	-0.533*** (0.026)	-0.696*** (0.022)	21.355*** (2.215)	21.382*** (1.009)	-0.009 (0.068)	0.043 (0.047)	4.882*** (0.085)	4.945*** (0.049)	4.899*** (0.081)	4.944*** (0.051)	0.638*** (0.059)	0.691*** (0.037)
R-squared	0.238	0.270	0.226	0.214	0.256	0.220	0.383	0.360	0.371	0.348	0.427	0.397
Observations	23,528	78,336	4,661	15,599	4,661	15,599	4,661	15,599	4,661	15,599	4,661	15,599
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Occupation Fixed Effects	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year by MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of clusters	32	32	32	32	32	32	32	32	32	32	32	32

Note: Sample include female children of household heads aged 16 to 35. Service refers to female children of wage workers in the service occupations. All refers to female children of wage workers from all occupations other than domestic workers. Controls include age, household size and marital status. Standard errors clustered at the MSA level in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table B8: Impact of domestic worker's reform on male children's labor market outcomes

Occupation of parents in comparison group	Labor force participation		Hours of work		Formality		Labor income		All income		Wage per hour	
	(1) Service	(2) All	(3) Service	(4) All	(5) Service	(6) All	(7) Service	(8) All	(9) Service	(10) All	(11) Service	(12) All
2009 x Child of domestic worker	0.014 (0.022)	0.017 (0.016)	0.135 (1.066)	1.197 (0.714)	0.027 (0.033)	0.025 (0.021)	0.010 (0.042)	0.007 (0.033)	0.013 (0.039)	0.014 (0.028)	-0.004 (0.041)	-0.029 (0.033)
2010 x Child of domestic worker	0.036* (0.020)	0.029** (0.012)	-0.366 (1.347)	1.940** (0.856)	0.040 (0.037)	0.009 (0.025)	0.033 (0.044)	0.034 (0.032)	0.025 (0.044)	0.030 (0.031)	0.033 (0.032)	-0.020 (0.027)
2011 x Child of domestic worker	0.024 (0.021)	0.018 (0.012)	-0.137 (0.803)	1.055 (0.734)	0.028 (0.030)	-0.005 (0.022)	0.026 (0.039)	0.024 (0.040)	0.006 (0.041)	0.018 (0.038)	0.022 (0.040)	-0.006 (0.037)
2013 x Child of domestic worker	-0.005 (0.019)	0.011 (0.014)	-2.020* (1.177)	-0.121 (0.744)	-0.020 (0.034)	-0.021 (0.022)	0.013 (0.045)	0.025 (0.029)	0.003 (0.046)	0.019 (0.027)	0.059 (0.040)	0.028 (0.028)
2014 x Child of domestic worker	-0.009 (0.025)	0.002 (0.018)	-1.656 (1.009)	-0.075 (0.839)	0.027 (0.028)	0.006 (0.022)	0.017 (0.038)	0.053* (0.028)	0.003 (0.040)	0.048* (0.028)	0.058 (0.036)	0.047 (0.030)
2015 x Child of domestic worker	0.003 (0.027)	0.013 (0.019)	-0.577 (1.214)	-0.390 (0.757)	0.046 (0.056)	-0.012 (0.039)	0.020 (0.056)	0.038 (0.040)	0.019 (0.056)	0.036 (0.036)	0.008 (0.056)	0.038 (0.033)
Child of domestic worker	0.014 (0.020)	0.077*** (0.015)	0.725 (0.838)	-0.274 (0.549)	-0.068*** (0.023)	-0.081*** (0.014)	-0.066*** (0.028)	-0.124*** (0.024)	-0.058*** (0.029)	-0.124*** (0.022)	-0.072** (0.027)	-0.107*** (0.022)
Constant	-0.440*** (0.036)	-0.695*** (0.028)	31.682*** (0.974)	30.794*** (1.026)	-0.045 (0.040)	0.023 (0.026)	5.148*** (0.055)	5.201*** (0.036)	5.171*** (0.058)	5.219*** (0.037)	0.465*** (0.041)	0.545*** (0.028)
R-squared	0.286	0.316	0.175	0.184	0.276	0.260	0.371	0.375	0.365	0.368	0.376	0.386
Observations	27,773	91,157	11,261	32,644	11,261	32,644	11,261	32,644	11,261	32,644	11,261	32,644
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Occupation Fixed Effects	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year by MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of clusters	32	32	32	32	32	32	32	32	32	32	32	32

Note: Sample include male children of household heads aged 16 to 35. Service refers to male children of wage workers in the service occupations. All refers to male children of wage workers from all occupations other than domestic workers. Controls include age, household size and marital status. Standard errors clustered at the MSA level in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table B9: Impact of domestic worker's reform on children's schooling

Occupation of parents in comparison group	School attendance		Years of education	
	(1) Service workers	(2) All workers	(3) Service workers	(4) All workers
2009 x Child of domestic worker	-0.004 (0.011)	-0.010 (0.011)	-0.046 (0.106)	-0.096 (0.067)
2010 x Child of domestic worker	0.020* (0.011)	0.008 (0.008)	-0.028 (0.095)	0.018 (0.054)
2011 x Child of domestic worker	0.031** (0.014)	0.017 (0.011)	-0.144* (0.083)	-0.054 (0.052)
2013 x Child of domestic worker	0.030** (0.012)	0.020** (0.009)	-0.075 (0.092)	0.015 (0.059)
2014 x Child of domestic worker	0.027** (0.013)	0.017* (0.009)	0.047 (0.097)	0.105* (0.056)
2015 x Child of domestic worker	0.042*** (0.013)	0.023** (0.010)	0.122 (0.103)	0.077 (0.069)
Child of domestic worker	-0.026*** (0.007)	-0.045*** (0.007)	0.003 (0.077)	-0.317*** (0.046)
Constant	1.757*** (0.045)	1.574*** (0.034)	-0.171 (0.167)	-0.762*** (0.139)
R-squared	0.135	0.105	0.402	0.454
Observations	33,255	113,092	33,255	113,092
Controls	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes
Occupation Fixed Effects	Yes	Yes	Yes	Yes
MSA Fixed Effects	Yes	Yes	Yes	Yes
Year by MSA Fixed Effects	Yes	Yes	Yes	Yes
Number of clusters	32	32	32	32

Note: Sample includes children aged 12 to 18 who have not completed secondary school. Service workers refers to children of wage workers in the service occupations. All workers refers to children of wage workers from all occupations other than domestic workers. Controls include age, gender and household size. Standard errors clustered at the MSA level in parentheses.

*** q<0.01, ** q<0.05, * q<0.1

Table B10: Impact of domestic worker's reform on female children's schooling

Occupation of parents in comparison group	School attendance		Years of education	
	(1) Service workers	(2) All workers	(3) Service workers	(4) All workers
2009 x Child of domestic worker	-0.002 (0.018)	-0.020 (0.014)	-0.017 (0.133)	-0.144* (0.081)
2010 x Child of domestic worker	0.015 (0.016)	0.000 (0.010)	-0.047 (0.134)	-0.028 (0.063)
2011 x Child of domestic worker	0.014 (0.016)	-0.002 (0.012)	-0.170 (0.110)	-0.105* (0.060)
2013 x Child of domestic worker	0.003 (0.017)	-0.000 (0.012)	-0.196* (0.102)	-0.084 (0.063)
2014 x Child of domestic worker	0.007 (0.020)	-0.005 (0.013)	-0.066 (0.119)	0.054 (0.068)
2015 x Child of domestic worker	0.010 (0.020)	-0.016 (0.013)	-0.048 (0.127)	-0.074 (0.080)
Child of domestic worker	-0.007 (0.013)	-0.017* (0.009)	0.068 (0.097)	-0.187*** (0.055)
Constant	1.593*** (0.038)	1.465*** (0.030)	-0.799*** (0.191)	-1.320*** (0.128)
R-squared	0.116	0.092	0.449	0.499
Observations	16,351	54,740	16,351	54,740
Controls	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes
Occupation Fixed Effects	Yes	Yes	Yes	Yes
MSA Fixed Effects	Yes	Yes	Yes	Yes
Year by MSA Fixed Effects	Yes	Yes	Yes	Yes
Number of clusters	32	32	32	32

Note: Sample includes female children aged 12 to 18 who have not completed secondary school. Service workers refers to female children of wage workers in the service occupations. All workers refers to female children of wage workers from all occupations other than domestic workers. Controls include age and household size. Standard errors clustered at the MSA level in parentheses.

*** q<0.01, ** q<0.05, * q<0.1

Table B11: Impact of domestic worker's reform on male children's schooling

Occupation of parents in comparison group	School attendance		Years of education	
	(1) Service workers	(2) All workers	(3) Service workers	(4) All workers
2009 x Child of domestic worker	-0.002 (0.014)	-0.001 (0.014)	-0.072 (0.115)	-0.061 (0.088)
2010 x Child of domestic worker	0.027 (0.017)	0.015 (0.012)	-0.016 (0.119)	0.049 (0.089)
2011 x Child of domestic worker	0.046** (0.018)	0.034** (0.014)	-0.115 (0.115)	-0.018 (0.082)
2013 x Child of domestic worker	0.056*** (0.016)	0.036*** (0.010)	0.039 (0.129)	0.097 (0.092)
2014 x Child of domestic worker	0.047** (0.018)	0.039*** (0.012)	0.150 (0.113)	0.156** (0.073)
2015 x Child of domestic worker	0.071*** (0.018)	0.060*** (0.013)	0.246** (0.118)	0.221** (0.097)
Child of domestic worker	-0.043*** (0.010)	-0.072*** (0.010)	-0.053 (0.085)	-0.437*** (0.062)
Constant	1.864*** (0.053)	1.646*** (0.039)	0.037 (0.197)	-0.520*** (0.170)
R-squared	0.163	0.120	0.366	0.419
Observations	16,904	58,352	16,904	58,352
Controls	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes
Occupation Fixed Effects	Yes	Yes	Yes	Yes
MSA Fixed Effects	Yes	Yes	Yes	Yes
Year by MSA Fixed Effects	Yes	Yes	Yes	Yes
Number of clusters	32	32	32	32

Note: Sample includes male children aged 12 to 18 who have not completed secondary school. Service workers refers to male children of wage workers in the service occupations. All workers refers to male children of wage workers from all occupations other than domestic workers. Controls include age and household size. Standard errors clustered at the MSA level in parentheses.

*** q<0.01, ** q<0.05, * q<0.1

Appendix C Placebo tests

The following Tables show the results of estimating Equation 5 when the dependent variable is an indicator that takes value 1 when the individual reports that their employer deducts pension contributions from their salary, and the treatment period is set in 2010 (when the bill to reform domestic workers' regulations was sent to Congress) and 2011 (when the House approved the bill and sent it to the Senate, where it was expected to be approved quickly) respectively.

Table C1: Effect of policy reform on formality status - Placebo treatment in 2010

Comparison group	(1) Service workers	(2) Female workers	(3) All workers
Domestic worker \times Reform	-0.013 (0.017)	0.000 (0.008)	0.002 (0.008)
Mean dependent variable of treatment group pre-reform	0.14	0.14	0.14
R-squared	0.288	0.383	0.266
Observations	38,979	87,121	197,962
Controls	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes
Occupation Fixed Effects	Yes	Yes	Yes
MSA Fixed Effects	Yes	Yes	Yes
Year by MSA Fixed Effects	Yes	Yes	Yes
Number of clusters	32	32	32

Note: The Table replicates the estimation from Table 4 for the period 2009-2011 when the treatment period is set in 2010. The sample includes all salaried workers. Service workers refers to workers in the service occupations. Female workers refers to salaried female workers from all occupations. All workers refers to all salaried employees from occupations other than domestic workers. Controls include age, migrant status, household size, marital status, literacy status and years of education. Standard errors clustered at the MSA level in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table C2: Effect of policy reform on formality status - Placebo treatment in 2011

Comparison group	(1) Service workers	(2) Female workers	(3) All workers
Domestic worker \times Reform	-0.003 (0.011)	-0.001 (0.009)	0.004 (0.008)
Mean dependent variable of treatment group pre-reform	0.15	0.15	0.15
R-squared	0.318	0.408	0.312
Observations	51,630	115,246	261,804
Controls	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes
Occupation Fixed Effects	Yes	Yes	Yes
MSA Fixed Effects	Yes	Yes	Yes
Year by MSA Fixed Effects	Yes	Yes	Yes
Number of clusters	32	32	32

Note: The Table replicates the estimation from Table 4 for the period 2009-2012 when the treatment period is set in 2011. The sample includes all salaried workers. Service workers refers to workers in the service occupations. Female workers refers to salaried female workers from all occupations. All workers refers to all salaried employees from occupations other than domestic workers. Controls include age, migrant status, household size, marital status, literacy status and years of education. Standard errors clustered at the MSA level in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Appendix D Treatment effects by birthplace

The following tables reproduced the analysis of the policy reform on the labor market outcomes of domestic workers separately for natives and migrants.

Table D1: Effect of policy reform on formality status

Comparison group	(1) Service workers	(2) Female workers	(3) All workers	(4) Service workers	(5) Female workers	(6) All workers
Domestic worker \times Reform	0.111 (0.043)	0.116* (0.041)	0.113** (0.037)	0.051*** (0.012)	0.050*** (0.009)	0.054*** (0.010)
Mean dependent variable of treatment group pre-reform	0.24	0.24	0.24	0.15	0.15	0.15
Sample	Migrants	Migrants	Migrants	Natives	Natives	Natives
R-squared	0.293	0.340	0.289	0.309	0.404	0.314
Observations	4,955	6,681	14,046	79,403	180,750	412,607
q-value	0.100	0.055	0.025	0.046	0.020	0.012
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Occupation Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year by MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Number of clusters	32	32	32	32	32	32

Note: Each column reports the results of estimating Equation 5 when the dependent variable is an indicator that takes value 1 when contributions to the pension system are made out of the worker's salary. The sample includes all salaried workers. Service workers refers to workers in the service occupations. Female workers refers to salaried female workers from all occupations. All workers refers to all salaried employees from occupations other than domestic workers. Means of control and treatment groups correspond to pre-reform period. Controls include age, household size, marital status, literacy status and years of education. Standard errors clustered at the MSA level in parentheses. Q-value corresponds to Hochberg's q-value to adjust for False Discovery Rate.
*** q<0.01, ** q<0.05, * q<0.1

Table D2: Changes in labor earnings after policy reform

Comparison group	Income per month from main job			Income per month from all jobs			Wage per hour from main job		
	(1) Service workers	(2) Female workers	(3) All workers	(4) Service workers	(5) Female workers	(6) All workers	(7) Service workers	(8) Female workers	(9) All workers
<i>Panel A: Migrants</i>									
Domestic worker x Reform	0.049 (0.048)	0.043 (0.037)	0.041 (0.026)	0.035 (0.048)	0.039 (0.037)	0.031 (0.028)	0.027 (0.032)	0.05 (0.025)	0.065 (0.027)
R-squared	0.433	0.506	0.514	0.410	0.487	0.491	0.397	0.468	0.441
Observations	4,955	6,681	14,046	4,955	6,681	14,046	4,955	6,681	14,046
q-value	1.000	1.000	0.913	1.000	1.000	1.000	1.000	0.358	0.146
<i>Panel B: Natives</i>									
Domestic worker x Reform	0.03 (0.017)	0.034 (0.014)	0.038** (0.013)	0.038 (0.017)	0.043** (0.014)	0.046*** (0.013)	0.073*** (0.016)	0.100*** (0.013)	0.090*** (0.012)
R-squared	0.445	0.556	0.514	0.418	0.545	0.505	0.358	0.516	0.479
Observations	79,403	180,750	412,607	79,403	180,750	412,607	79,403	180,750	412,607
q-value	0.667	0.120	0.026	0.212	0.021	0.004	0.000	0.000	0.000
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Occupation Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year by MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of clusters	32	32	32	32	32	32	32	32	32

Note: Each column reports the DiD estimate for the regression in which the left hand side is the natural logarithm of the variable in the column title. Service workers refers to workers in the service occupations. Female workers refers to salaried female workers from all occupations. All workers refers to all salaried employees from occupations other than domestic workers. Controls include age, household size, marital status, literacy status and years of education. Standard errors clustered at the MSA level in parentheses. Q-value corresponds to Hochberg's q-value to adjust for False Discovery Rate.
*** q<0.01, ** q<0.05, * q<0.1

Table D3: Changes in hours of work after policy reform

Comparison group	Hours of work per week on main job			Involuntary part-time worker		
	(1) Service workers	(2) Female workers	(3) All workers	(4) Service workers	(5) Female workers	(6) All workers
<i>Panel A: Migrants</i>						
Domestic worker x Reform	0.040 (0.960)	-0.975 (1.162)	-0.879 (0.905)	-0.001 (0.012)	-0.004 (0.017)	0.010 (0.013)
Mean dependent variable of treatment group pre-reform	27.77	27.77	27.77	0.13	0.13	0.13
R-squared	0.236	0.227	0.286	0.086	0.096	0.076
Observations	4,955	6,681	14,046	4,955	6,681	14,046
q-value	1.000	1.000	1.000	1.000	1.000	1.000
<i>Panel B: Natives</i>						
Domestic worker x Reform	-0.771* (0.301)	-1.653*** (0.263)	-1.138*** (0.225)	0.001 (0.007)	-0.004 (0.007)	-0.005 (0.007)
Mean dependent variable of treatment group pre-reform	24.49	24.49	24.49	0.18	0.18	0.18
R-squared	0.202	0.233	0.297	0.070	0.075	0.062
Observations	79,403	180,750	412,607	79,403	180,750	412,607
q-value	0.100	0.000	0.000	1.000	1.000	1.000
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Occupation Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year by MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Number of clusters	32	32	32	32	32	32

Note: Each column reports the DiD estimate for the regression in which the left hand side is either the number of hours of work per week, or an indicator for willing to work more hours. The sample includes all salaried workers. Service workers refers to workers in the service occupations. Service workers refers to workers in the service occupations. Female workers refers to salaried female workers from all occupations. All workers refers to all salaried employees from occupations other than domestic workers. Means of control and treatment groups correspond to pre-reform period. Controls include age, household size, marital status, literacy status and years of education. Standard errors clustered at the MSA level in parentheses. Q-value corresponds to Hochberg's q-value to adjust for False Discovery Rate.
*** q<0.01, ** q<0.05, * q<0.1

Table D4: Changes in non-labor earnings after policy reform

Comparison group	Total income per month			Income from pension		
	(1) Service workers	(2) Female workers	(3) All workers	(4) Service workers	(5) Female workers	(6) All workers
<i>Panel A: Migrants</i>						
Domestic worker x Reform	0.052 (0.055)	0.037 (0.040)	0.051 (0.034)	0.485*** (0.048)	-0.788*** (0.085)	-0.486*** (0.135)
R-squared	0.404	0.475	0.476			
Observations	4,955	6,681	14,046	4,969	6,701	14,058
q-value	1.000	1.000	1.000	0.000	0.000	0.004
<i>Panel B: Natives</i>						
Domestic worker x Reform	0.063** (0.019)	0.068*** (0.014)	0.071*** (0.014)	0.593*** (0.046)	0.569 (0.278)	0.737 (0.320)
R-squared	0.389	0.514	0.484			
Observations	79,403	180,750	412,607	79,404	180,758	412,612
q-value	0.014	0.000	0.000	0.000	0.344	0.189
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Occupation Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year by MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Number of clusters	32	32	32	32	32	32

Note: Each column reports the DiD estimate for the regression in which the left hand side is the natural logarithm of the variable in the column title. Service workers refers to workers in the service occupations. Service workers refers to workers in the service occupations. Female workers refers to salaried female workers from all occupations. All workers refers to all salaried employees from occupations other than domestic workers. Controls include age, migrant status, household size, marital status, literacy status and years of education. Standard errors clustered at the MSA level in parentheses. Q-value corresponds to Hochberg's q-value to adjust for False Discovery Rate.
*** q<0.01, ** q<0.05, * q<0.1

Table D4: Continued

Comparison group	Income from welfare		Income from alimony			
	(1) Service workers	(2) Female workers	(3) All workers	(4) Service workers	(5) Female workers	(6) All workers
<i>Panel A: Migrants</i>						
Domestic worker x Reform	-0.792*** (0.036)	-0.340*** (0.053)	0.473*** (0.080)	1.420*** (0.050)	-0.208 (0.116)	0.231 (0.130)
Observations	4,969	6,701	14,058	4,969	6,701	14,058
q-value	0.000	0.000	0.000	0.000	0.576	0.595
<i>Panel B: Natives</i>						
Domestic worker x Reform	0.127*** (0.020)	0.039 (0.031)	0.378 (0.000)	0.199*** (0.027)	0.408 (0.218)	0.566 (0.231)
Observations	79,404	180,758	412,612	79,404	180,758	412,612
q-value	0.000	1.000	1.000	0.000	0.497	0.131
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Occupation Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year by MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Number of clusters	32	32	32	32	32	32

Appendix E Treatment effects by level of education

The following tables reproduced the analysis of the policy reform on the labor market outcomes of domestic workers separately for those with low education (less than completed high school) and high education (completed high school or more).

Table E1: Effect of policy reform on formality status

Comparison group	(1) Service workers	(2) Female workers	(3) All workers	(4) Service workers	(5) Female workers	(6) All workers
Domestic worker x Reform	0.048*** (0.014)	0.040* (0.014)	0.059*** (0.011)	0.067*** (0.016)	0.068*** (0.012)	0.067*** (0.012)
Mean dependent variable of treatment group pre-reform	0.15	0.15	0.15	0.15	0.15	0.15
Sample	Low Education	Low Education	Low Education	High Education	High Education	High Education
R-squared	0.313	0.316	0.278	0.299	0.330	0.254
Observations	53,671	55,503	154,866	30,701	131,931	271,787
q-value 0.009	0.053	0.000	0.000	0.000	0.000	
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Occupation Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year by MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Number of clusters	32	32	32	32	32	32

Note: Each column reports the results of estimating Equation 5 when the dependent variable is an indicator that takes value 1 when contributions to the pension system are made out of the worker's salary. The sample includes all salaried workers. Service workers refers to workers in the service occupations. Female workers refers to salaried female workers from all occupations. All workers refers to all salaried employees from occupations other than domestic workers. Means of control and treatment groups correspond to pre-reform period. Controls include age, migrant status, household size, marital status, literacy status and years of education. Standard errors clustered at the MSA level in parentheses. Q-value corresponds to Hochberg's q-value to adjust for False Discovery Rate.
*** q<0.01, ** q<0.05, * q<0.1

Table E2: Changes in labor earnings after policy reform

Comparison group	Income per month from main job			Income per month from all jobs			Wage per hour from main job		
	(1) Service workers	(2) Female workers	(3) All workers	(4) Service workers	(5) Female workers	(6) All workers	(7) Service workers	(8) Female workers	(9) All workers
<i>Panel A: Low Education</i>									
Domestic worker x Reform	0.028 (0.017)	-0.022 (0.015)	0.021 (0.012)	0.039 (0.017)	-0.010 (0.014)	0.03 (0.012)	0.065*** (0.017)	0.042** (0.013)	0.064*** (0.013)
R-squared	0.435	0.423	0.486	0.406	0.397	0.463	0.357	0.368	0.372
Observations	53,671	55,503	154,866	53,671	55,503	154,866	53,671	55,503	154,866
q-value	0.800	1.000	0.667	0.210	1.000	0.138	0.002	0.020	0.000
<i>Panel B: High Education</i>									
Domestic worker x Reform	0.033 (0.023)	0.049* (0.019)	0.047* (0.018)	0.034 (0.024)	0.053* (0.020)	0.050* (0.019)	0.085*** (0.018)	0.128*** (0.017)	0.119*** (0.016)
R-squared	0.448	0.499	0.469	0.428	0.494	0.463	0.371	0.492	0.458
Observations	30,701	131,931	271,787	30,701	131,931	271,787	30,701	131,931	271,787
q-value	1.000	0.080	0.098	1.000	0.082	0.100	0.000	0.000	0.000
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Occupation Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year by MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of clusters	32	32	32	32	32	32	32	32	32

Note: Each column reports the DiD estimate for the regression in which the left hand side is the natural logarithm of the variable in the column title. Service workers refers to workers in the service occupations. Female workers refers to salaried female workers from all occupations. All workers refers to all salaried employees from occupations other than domestic workers. Controls include age, migrant status, household size, marital status, literacy status and years of education. Standard errors clustered at the MSA level in parentheses. Q-value corresponds to Hochberg's q-value to adjust for False Discovery Rate. *** q<0.01, ** q<0.05, * q<0.1

Table E3: Changes in hours of work after policy reform

Comparison group	Hours of work per week on main job			Involuntary part-time worker		
	(1) Service workers	(2) Female workers	(3) All workers	(4) Service workers	(5) Female workers	(6) All workers
<i>Panel A: Low Education</i>						
Domestic worker x Reform	-0.784 (0.410)	-1.641*** (0.350)	-0.861* (0.327)	0.004 (0.007)	0.003 (0.007)	-0.001 (0.007)
Mean dependent variable of treatment group pre-reform	24.41	24.41	24.41	0.17	0.17	0.17
R-squared	0.202	0.198	0.303	0.073	0.080	0.068
Observations	53,671	55,503	154,866	53,671	55,503	154,866
q-value	0.459	0.000	0.083	1.000	1.000	1.000
<i>Panel B: High Education</i>						
Domestic worker x Reform	-0.695 (0.404)	-1.883*** (0.346)	-1.585*** (0.330)	-0.004 (0.009)	-0.009 (0.010)	-0.010 (0.010)
Mean dependent variable of treatment group pre-reform	25.54	25.54	25.54	0.19	0.19	0.19
R-squared	0.203	0.241	0.294	0.070	0.066	0.057
Observations	30,701	131,931	271,787	30,701	131,931	271,787
q-value	0.667	0.000	0.000	1.000	1.000	1.000
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Occupation Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year by MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Number of clusters	32	32	32	32	32	32

Note: Each column reports the DiD estimate for the regression in which the left hand side is either the number of hours of work per week, or an indicator for willing to work more hours. The sample includes all salaried workers. Service workers refers to workers in the service occupations. Service workers refers to workers in the service occupations. Female workers refers to salaried female workers from all occupations. All workers refers to all salaried employees from occupations other than domestic workers. Controls include age, migrant status, household size, marital status, literacy status and years of education. Standard errors clustered at the MSA level in parentheses. Q-value corresponds to Hochberg's q-value to adjust for False Discovery Rate.
*** q<0.01, ** q<0.05, * q<0.1

Table E4: Changes in non-labor earnings after policy reform

Comparison group	Total income per month			Income from pension		
	(1) Service workers	(2) Female workers	(3) All workers	(4) Service workers	(5) Female workers	(6) All workers
<i>Panel A: Low Education</i>						
Domestic worker x Reform	0.059** (0.021)	0.005 (0.015)	0.053*** (0.014)	0.246*** (0.043)	0.030 (0.040)	0.251 (0.375)
R-squared	0.376	0.384	0.434			
Observations	53,671	55,503	154,866	53,672	55,517	154,874
q-value	0.049	1.000	0.004	0.000	1.000	1.000
<i>Panel B: High Education</i>						
Domestic worker x Reform	0.073** (0.024)	0.086*** (0.019)	0.084*** (0.019)	2.271*** (0.074)	1.562*** (0.124)	1.998*** (0.159)
R-squared	0.412	0.480	0.453			
Observations	30,701	131,931	271,787	30,701	131,942	271,796
q-value	0.030	0.000	0.000	0.000	0.000	0.000
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year FEs	Yes	Yes	Yes	Yes	Yes	Yes
Occupation FEs	Yes	Yes	Yes	Yes	Yes	Yes
MSA FEs	Yes	Yes	Yes	Yes	Yes	Yes
Year by MSA FEs	Yes	Yes	Yes	Yes	Yes	Yes
Number of clusters	32	32	32	32	32	32

Note: Each column reports the DiD estimate for the regression in which the left hand side is the natural logarithm of the variable in the column title. Service workers refers to workers in the service occupations. Female workers refers to salaried female workers from all occupations. All workers refers to all salaried employees from occupations other than domestic workers. Controls include age, migrant status, household size, marital status, literacy status and years of education. Standard errors clustered at the MSA level in parentheses. Q-value corresponds to Hochberg's q-value to adjust for False Discovery Rate.
*** q<0.01, ** q<0.05, * q<0.1

Table E4: Continued

Comparison group	Income from welfare		Income from alimony			
	(1) Service workers	(2) Female workers	(3) All workers	(4) Service workers	(5) Female workers	(6) All workers
<i>Panel A: Low Education</i>						
Domestic worker x Reform	-0.036 (0.021)	-0.297*** (0.024)	0.272*** (0.053)	-0.142*** (0.033)	-0.038 (0.039)	0.185*** (0.054)
Observations	53,672	55,517	154,874	53,672	55,517	154,874
q-value	0.667	0.000	0.000	0.000	1.000	0.008
<i>Panel B: High Education</i>						
Domestic worker x Reform	0.427*** (0.029)	0.320*** (0.055)	0.677*** (0.081)	0.612*** (0.031)	0.624*** (0.060)	0.801*** (0.075)
Observations	30,701	131,942	271,796	30,701	131,942	271,796
q-value	0.000	0.000	0.000	0.000	0.000	0.000
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year FEs	Yes	Yes	Yes	Yes	Yes	Yes
Occupation FEs	Yes	Yes	Yes	Yes	Yes	Yes
MSA FEs	Yes	Yes	Yes	Yes	Yes	Yes
Year by MSA FEs	Yes	Yes	Yes	Yes	Yes	Yes
Number of clusters	32	32	32	32	32	32

Appendix F Labor market outcomes of spouses of domestic workers - Restricted sample

The following table presents the estimates shown in Table 8 when the sample of employed individuals is restricted to the 15 most common occupations among spouses of female domestic workers. These occupations cover 89.65% of spouses of domestic workers, 86.92% of spouses of female workers employed in service occupations and 68.86% of spouses of female workers employed in any occupation.

Table F1: Impact of domestic worker's reform on spouses' labor market outcomes

Spouses of workers in comparison group	Labor force participation		Hours of work		Formality		Labor income		All income		Wage per hour	
	(1) Service	(2) All	(3) Service	(4) All	(5) Service	(6) All	(7) Service	(8) All	(9) Service	(10) All	(11) Service	(12) All
Spouse of Domestic worker \times Reform	-0.010 (0.016)	-0.003 (0.011)	-0.490 (0.682)	-0.509 (0.385)	0.008 (0.022)	0.006 (0.016)	0.009 (0.019)	0.03 (0.014)	-0.006 (0.021)	0.032 (0.015)	0.019 (0.017)	0.04 (0.014)
Mean dependent variable of treatment group pre-reform	0.83	0.83	47.34	47.34	0.64	0.64						
R-squared	0.279	0.263	0.174	0.170	0.176	0.162	0.376	0.403	0.365	0.387	0.366	0.407
Observations	15,238	47,279	11,720	38,242	11,720	38,242	11,720	38,242	11,720	38,242	11,720	38,242
q-value	1	1	1	1	1	1	1	0.417	1	0.417	1	0.153
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Occupation Fixed Effects	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year by MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of clusters	32	32	32	32	32	32	32	32	32	32	32	32

Note: This table replicates Table 8 using only the 15 most common occupations among spouses of domestic workers, which accounts for 89.6% of the sample of spouses of domestic workers who are wage employees. Service refers to spouses of workers in the service occupations. All refers to spouses of wage workers from all occupations other than domestic workers. Controls include age, migrant status, household size, marital status, literacy status and years of education. Q-value corresponds to Hochberg's q-value to adjust for False Discovery Rate. Standard errors clustered at the MSA level in parentheses.
*** q<0.01, ** q<0.05, * q<0.1

Appendix G Impact of domestic worker’s reform on children’s education - Restricted sample

The following table presents the estimates shown in Table 11 when the sample is restricted to individuals aged 15 to 17 in order to match the age groups used in Edo et al. (2017).

Table F2: Impact of domestic worker's reform on children's schooling

Occupation of parents in comparison group	School attendance		Years of education	
	(1) Service workers	(2) All workers	(3) Service workers	(4) All workers
<i>Panel A: All Children</i>				
Child of Domestic worker x Reform	0.018 (0.014)	0.009 (0.010)	0.101 (0.086)	0.095 (0.057)
Mean dependent variable of treatment group pre-reform	0.85	0.85	8.91	8.91
R-squared	0.085	0.071	0.167	0.185
Observations	15,155	51,031	15,155	51,031
q-value	1.000	1.000	1.000	1.000
<i>Panel B: Female Children</i>				
Child of Domestic worker x Reform	0.002 (0.022)	-0.003 (0.014)	0.054 (0.129)	0.086 (0.080)
Mean dependent variable of treatment group pre-reform	0.88	0.88	9.10	9.10
R-squared	0.090	0.071	0.188	0.209
Observations	7,666	25,093	7,666	25,093
q-value	1.000	1.000	1.000	1.000
<i>Panel C: Male Children</i>				
Child of Domestic worker x Reform	0.033 (0.024)	0.021 (0.015)	0.150 (0.104)	0.114 (0.073)
Mean dependent variable of treatment group pre-reform	0.81	0.81	8.71	8.71
R-squared	0.115	0.078	0.167	0.168
Observations	7,489	25,938	7,489	25,938
q-value	1.000	1.000	1.000	1.000
Controls	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes
Occupation Fixed Effects	Yes	Yes	Yes	Yes
MSA Fixed Effects	Yes	Yes	Yes	Yes
Year by MSA Fixed Effects	Yes	Yes	Yes	Yes
Number of clusters	32	32	32	32

Note: Sample includes children aged 15 to 17 who have not completed secondary school. Service workers refers to children of wage workers in the service occupations. All workers refers to children of wage workers from all occupations other than domestic workers. Controls include age, gender and household size. Standard errors clustered at the MSA level in parentheses. Q-value corresponds to Hochberg's q-value to adjust for False Discovery Rate.

*** q<0.01, ** q<0.05, * q<0.1