Women's Labor Market Opportunities and Fertility Decisions: Evidence from Sri Lanka

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Abstract

Concerns about left-behind children and dangerous working conditions abroad have encouraged some governments to restrict women's labor migration. I examine how women's fertility responds to such restrictions in Sri Lanka. The Sri Lankan government introduced a policy in 2013 prohibiting women from migrating for work based on their age and the age of their youngest child. These restrictions could alter fertility decisions when women simultaneously choose both future employment and childbearing. Using a panel dataset created from the Demographic and Health Survey in a regression discontinuity in time framework, I find that women from poor households, who are most likely to migrate, change their fertility behavior. Young women, who are already restricted from migrating based on their own age increase their fertility. Older women, who are restricted from migrating only if they have young children, reduce their fertility. As a result, new mothers are less-educated and younger, which may have an impact on child outcomes. My findings contribute to the literature on migration policies in developing countries and trade-offs between women's employment and fertility decisions.

Keywords: Labor Migration, Fertility, Women's Employment, Sri Lanka

JEL classification: J13, J61, J78, O15

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1 Introduction

The International Labor Organization estimated in 2017 that more than 124 million people live abroad as migrant workers, and 68 million of them are women (ILO, 2018). Several countries, including Indonesia, the Philippines, Cambodia, Myanmar, and Sri Lanka have imposed restrictions targeting women's labor migration based on women's age, occupation, and destination, despite international laws preventing such restrictions.[1] Policy makers justify these restrictions by stating that they prevent exploitation of migrant women (Napier-Moore, 2017). The restrictions primarily affect women who migrate as domestic workers since they are more likely to face unsafe working conditions abroad (Napier-Moore, 2017).[2] While the restrictions are designed to protect women, and in some instances to improve the well-being of children, they also limit opportunities for women. We know very little about the impact of such restrictions on women and children. In this paper, I use a unique migration restriction in Sri Lanka to explore the impact of migration restrictions on fertility decisions.

In 2013, the government of Sri Lanka introduced a unique restriction on women's labor migration, targeting potential domestic workers based on the age of the youngest child in addition to more common age- and destination-based restrictions. These new restrictions increased the cost of having children for some women by explicitly tying employment opportunities to fertility. I utilize this policy change to explore women's fertility decisions via a regression discontinuity in time design. I find that young women who faced migration restrictions based on their age increase fertility at younger ages. On the other hand, women who are old enough that having young children is the only binding constraint for migration reduce their fertility. These changes in fertility patterns change the composition of new mothers: following the policy, new mothers are younger at first birth and less educated, while the birth spacing among siblings is lower after the introduction of restrictions. The findings shed light on how government-imposed restrictions, which are designed to protect women and children, could lead to unintended consequences for women's fertility decisions and potentially for child development.

[1] Napier-Moore (2017) discuss international laws that explicitly discourage restrictions on women's migration such as Convention on the Elimination of All Forms of Discrimination against Women, 1979, and international laws that fundamentally guarantee all persons' right to leave any country, such as Universal Declaration on Human Rights, 1948.

[2] The term domestic workers in this context refers to women who work as "housemaids". Their work usually includes taking care of day-to-day activities in the home such as cleaning, cooking, childcare, etc.

Sri Lanka has a high level of female labor migration. As of 2013, approximately 49% of total departures for foreign employment were women. In 2012, 86% of departures of women for foreign employment were domestic workers (SLBFE, 2016). Typically, women who migrate for employment are from poor households (ILO, 2013; United Nations Sri Lanka, 2015; Weeraratne, 2016; Wickramage et al., 2015). On average, more than 100,000 Sri Lankan women departed for foreign employment each year before 2013. Lack of job opportunities for Sri Lankan women compared to men likely contributed to higher labor migration rates. Labor force participation for women in Sri Lanka was 36% in 2016, and the gap between male and female labor force participation is 39%.

The restrictions in Sri Lanka have two components. The first component is based on a woman's age and destination country.[3] If a woman is younger than 21 years, she cannot migrate for work.[4] If her age is between 21-23, she can migrate to non-Middle Eastern countries, while if her age is between 23-25, she can migrate to any country except Saudi Arabia. If she is older than 25, there are no age-based restrictions.[5] The second component of the restrictions is based on the age of the youngest child. If a woman has a child under five years of age, she is not allowed to migrate for work as a domestic worker. If the youngest child is older than five, she can migrate for work after ensuring and proving her children have an alternative care arrangement. Sri Lanka's high and stable level of women's labor migration prior to the 2013 policy and subsequent rapid decrease following policy implementation, suggest there are first-order effects of restrictions on women's employment.[6]

The design and timing of the policy provide mechanisms for exogenous variation through unequal restrictions across age groups and a measurable change in women's fertility decisions before and after implementation. I use the regression discontinuity in time (RDiT) method to estimate how the 2013 restrictions on women's migration affects their fertility decisions. I assume fertility is consistent over time unless affected by an outside event. I utilize the introduction of the restrictions in Sri Lanka in 2013 as an exogenous shock to this natural trend where women

[3] Minimum age requirement for labor migration for any employment, and for both genders is 18 years of age.

[4] Minimum age requirement of 21 years of age for women who migrate as domestic workers introduced in 2011. All other components of the policy were introduced in 2013.

[5] Sri Lankan women primarily migrate to Middle Eastern countries, accounting for 90% of all women's migration. About 50% of Sri Lankan women migrate to Saudi Arabia.

[6] See Figure 1 for more details.

are forced to consider future potential income earning employment. Using the 2016 wave of nationally representative Demographic and Health Survey (DHS), I create a pseudo-panel of birth histories of 8015 ever-married women.[7] I restrict my study to poor households because women from poor households are more likely to be affected by the restrictions. Poor households are selected based on the lower two quintile of the wealth index provided with the Demographic and Health Survey (DHS-SriLanka, 2017).

Theory suggests that a higher value of time due to the potential labor market opportunities lead to lower fertility (Becker, 1992; Willis, 1973). Previous literature has used experimental and quasi- experimental methods to explore how changing labor market opportunities, which increase the value of time, affects women's fertility, education, and marriage (Heath and Mobarak, 2015; Jensen, 2012; Sviatschi, 2015). Those studies use variation in employment opportunities created through the introduction and growth of industries, increased availability of information, and access to the job market. The increase in employment opportunities may not necessarily reduce fertility if childcare costs are low.

The restrictions in Sri Lanka, however, raised the cost of having children by explicitly tying better employment opportunities to fertility decisions. In this case, a larger and more immediate impact on fertility is expected. Potential migrant women have fewer employment opportunities in Sri Lanka, and those jobs have low earnings (ILO, 2013). Since the restrictions vary by age groups, there is variation in the incentive structure. Younger women (age 15-21) do not expect to earn an income for the next few years from migration regardless of the status of her child (if any) as they are restricted from migrating due to age. Therefore, they have an incentive to complete their fertility goals sooner, since having a child at a young age does not affect their expected income. An older woman (age 25-40) will lose potential income from foreign jobs for at least 5 years as soon as they decide to have a child. Therefore, older women are incentivized to have fewer children if they want or need to work. Women who are between 21-23 and 23-25 years of age face partial restrictions on migration for work, and therefore, their incentives are ambiguous.

Consistent with existing theories on labor markets and fertility, I find that women from poor

[7] Ever-married women include married or living together, divorced or separated, and widowed women.

households change their childbearing patterns in response to the migration restrictions. Younger women (age 15-21) have more children after the restrictions were implemented, showing evidence for forward-looking decision making. The quarterly point estimate shows a 1.8 percentage point increase in births among young women, which represents a 52% increase in fertility rate. I also find that older women (age 25-40) decrease their childbearing rates. The quarterly point estimate shows a 0.37 percentage point decrease in births among older women after the introduction of the restrictions, which translates into a 12% decrease in fertility rate. Women who are between 21-23 and 23-25 years of age also decrease their childbearing, although the results are not statistically significant.

Additionally, I find that the average age a woman starts her childbearing is approximately eleven months earlier following policy implementation compared to childbearing age before the policy. New mothers after the policy introduction also have five months fewer of schooling. Further, I find that spacing among siblings of newborn children is lower following policy implementation. These results suggest that the environment in which children are born may be changing due to the 2013 restrictions. The new environment may lead to negative long-term effects on children, even if the intended goal of the restrictive policy is to improve child welfare.

I conduct robustness checks to establish the validity of my results. My estimates are robust to different specifications. I investigate discontinuity at multiple placebo cut-off dates, none of which show a significant discontinuity. Results are also robust when I focus on first births to address any effects total fertility goals might have on childbearing. Limiting the sample to women who are married at the time of observation in the panel data set does not affect the results. Women from rich households, who are less likely to be impacted by the restrictions, are not affected by the policy. Results are similar when using a "donut-RD regression" specification, where I dropped the observations at the cut-off of 2nd quarter of 2004.[8]

I contribute to the literature in flowing ways. First, to the best of my knowledge, my paper is the first study to examine the causal effect of this unique policy change in Sri Lanka on women's and children's outcomes. Previous literature on this policy is limited to first-order effects on overall departures of women for labor migrations (Weeraratne, 2016, 2018) and to qualitative

[8]Cut-off is set to 9 months after the introduction of the policy. This allows me to avoid the effect of pregnancies that happens before the policy.

studies on the impact of those restrictions (United Nations Sri Lanka, 2015). Although restricting women's labor migration is not limited to Sri Lanka, Sri Lankan policy is unique in its emphasis on the age of the youngest child.[9] My work explores the effects of these restrictive policies and provides a foundation for future studies in Sri Lanka and other countries.

Second, I contribute to the literature by examining unintended consequences of government migration restrictions for women. The rationale from the government of Sri Lanka for labor migration restrictions based on the child's age is to keep the mother with the young child to improve child welfare. Miller and Urdinola (2010) provide empirical evidence suggesting that time spent with children can be more important to their health than income lost from not working. However, in designing a restrictive migration employment policy, the government might not foresee that the appeal of high paying jobs could incentivize women to change their childbearing patterns. My findings suggest that women do change the timing of childbearing, and these changes could affect child welfare.

Third, I contribute to existing literature on the trade-off between labor market opportunities and fertility. There is mixed evidence on whether better employment opportunities lower women's childbearing. For example, Anukriti and Kumler (2012) observed an increase in childbearing and female birth after tariff reform in India, which increased economic opportunities for women. On the other hand, studies shows late marriages and delayed childbearing when women are presented with higher employment opportunities through higher education (Sviatschi, 2015), and (Heath and Mobarak, 2015). Jensen (2012), which is closest to my study, also observed delayed childbearing among young women using a randomized experiment to evaluate the impact of potential employment on fertility decisions. The mixed findings may reflect that employment opportunities may not directly impact women's fertility decisions if childcare costs are low. In the current study, the policy restrictions explicitly tied employment opportunities to fertility and therefore it is more likely to have incentivized women to change their fertility decisions.

Finally, I contribute to the literature which examines forward-looking decision making by young women or their parent(s) to prepare them for future labor market opportunities. There is evidence that when women see a greater chance of obtaining employment in the future, they are

[9]Nepal is the only other country to have such restrictions introduced in 2016 after Sri Lanka(Napier-Moore, 2017).

more likely to make forward-looking decisions. These decisions do not necessarily guarantee them a job, but they do increase women's ability to secure employment. Recent studies in South Asia provide evidence for women obtaining additional education to increase their chances of getting employment in the future (Heath and Mobarak, 2015; Oster and Steinberg, 2013). Heath and Mobarak (2015) find that additional potential employment opportunities had a greater effect on education attainment than direct cash assistance programs, indicating the importance of employment opportunities that incentivize the forward-looking behavior of women. I add to existing literature by providing evidence for the forward-looking behavior of young women in Sri Lanka who alter the timing of their childbearing to make themselves available for future jobs.

The paper is arranged as follows. Section 2 provides information on Sri Lankan migration trends. Section 3 describes the restrictions on women's migration and general characteristics of women who migrate in details. Section 4 describes the data and discusses the regression discontinuity in time methodology. Section 5 discusses the predictions based on the policy. Section 6 presents the findings of the study, and finally, Section 7 discusses the findings in the context of the previous literature and some possible long term implications. Section 8 concludes the paper.

2 Background

The Sri Lankan migrant workforce is relatively large and was estimated to be 1.7 million in 2012 (Jayasuriya and Opeskin, 2015). In 2016, nearly a quarter of a million (242,930) Sri Lankans migrated seeking better employment opportunities, signaling the importance of labor migration. Labor migration sharply rose in the early 1990s, mainly for women. However, due to government policies actively favoring male migration in late 2000's, the female portion of total migrants decreased from 75% in 1996 to 49% in 2012 to 34% in 2016. Still, the annual labor migration of women has remained stable over time until 2013 (SLBFE, 2016). Most women who migrate for work are deemed poor and low-skilled, mostly seeking housemaid jobs (Jayasuriya and Opeskin, 2015; Weeraratne, 2014). According to the ILO (2013), nearly 59% of migrant women are under the childbearing age of 35. The UN Committee on Rights of the Child reports that most women leave behind children at home, and half of such children are under six years

of age (Jayasuriya and Opeskin, 2015).

Sri Lanka's government supports labor migration since it is the second biggest driver of foreign exchange. Foreign remittances contributed 7.2 billion USD to the Sri Lankan economy in 2016 (8.8% of GDP), which was slightly less than total export earnings of USD 10.3 billion CBSL (2016). Sri Lanka adopted a national policy for labor migration in 2009 (United Nations Sri Lanka, 2015). having three components: (1) governing and regulating migration, (2) protecting and empowering migrant workers, and (3) linking migration with development. The national policy also emphasizes skill migration to counter the prevailing low-skill migration. The national policy explicitly recognizes the role of women in Sri Lanka labor migration and affirms the fundamental equality of women and men before the law. However, the government has shown a propensity toward reducing low-skill female migration while promoting high-skill migration of men since the 2000s. In doing so, the government has placed more weight on the safety of women and their traditional gender role of childbearing within the family.

3 Details of the Policy

The government of Sri Lanka implemented a new set of regulations on female labor migration effective since 2013 July (referred to as "the restrictions"). The policy restricts women's ability to freely migrate as domestic workers based on the woman's age and the age of her youngest child (if any).[10] Both restrictions apply only to women and are imposed simultaneously, meaning that a woman who migrates as a domestic worker should be exempt from both restrictions. I next discuss the respective restrictions, implementation, and direct effect of the policy.

3.1 Restriction 1: Based on the Age of the Youngest Child

The first part of the policy is based on the age of the youngest child and Sri Lanka is the first country to introduce such policy. A woman is restricted from migrating if she has a child younger than five years old and intend to be a domestic worker. If the youngest child is older than five,

[10]Domestic Workers are housemaids who work with private families. Their employer is the family, and the contract is between women and the family.

then she is required to make satisfactory alternative care arrangements. Moreover, she must obtain the consent of the proposed caregiver and husband.[11] The government has justified the policy by stating that it provides protection and care for younger children who otherwise would have been left behind with their father or grandparents (United Nations Sri Lanka, 2015).[12] Sri Lankan women are expected to play a large role in childcare and child development. The argument is that when the mother is absent from the family, children are prone to quit school, face domestic abuse, and marry too soon. Moreover, the husbands of migrant women are said to more likely to suffer alcoholism and extramarital affairs to the detriment of families(United Nations Sri Lanka, 2015). Here, the government places the onus on the women to have a better family.

3.2 Restriction 2: Based on the Age of the Migrant Woman

While the minimum age for general labor migration is 18, in 2011, the minimum age for domestic workers was set at 21. This age-based restriction applies only to women. Another policy enacted in 2013, which forms the basis for this paper, set further age restrictions on domestic-worker migration based on the destination country. Accordingly, women younger than 21 are not allowed to migrate as domestic workers to any country. Women between 21 and 23 are permitted to migrate only to non-Middle-Eastern countries (10% of total women's migration is to to non-Middle-Eastern countries before the policy). Women between 23 and 25 may migrate as domestic workers to any country except Saudi Arabia (55% of total women's migration is to countries other than Saudi Arabia before the policy). Finally, women older than 25 are free of age-based restrictions. This destination-based policy attempts to address domestic violence and abuse faced by women in certain foreign countries at the hand of employers (Napier-Moore, 2017). These types of abuse are common among domestic workers employed in the Middle East (Hennebry, 2017; ITUC, 2017). Therefore, the government requires a stricter age for young women seeking Saudi Arabian work. I discuss the policy in detail in the following paragraphs. Both restrictions

[11] Exceptions: if the age of the woman is greater than 50, or if a woman is a returning migrant worker with a re-entry visa they not subject this restriction.

[12] From the preamble of the direction issued by the Sri Lanka Bureau of Foreign Employment: "With the objective of preventing various difficulties and social problems resulting from the migration of women for employment, particularly in instances where the safety of children of women migrating is not ensured..." - Translated by the author based on the original direction and subsequent directions

are summarized below in Table 1.

Table 1: Migration Restrictions for women

Women's age	Age of the youngest child	
	≤ 5	> 5 / No Children
< 21	Not allowed	Not allowed
21 - 23	Not allowed	Non-Middle Eastern (10%*)
23 - 25	Not allowed	All except Saudi Arabia (55%*)
≥ 25	Not allowed	Any country

* Fraction of women migrant departures in 2012, before the introduction of restrictions.

3.3 Implementation

The policy has been implemented in two stages. First, the July 2013 regulations target only women migrating through employment agencies for domestic worker jobs. Approximately 76% of women used employment agencies before this policy (2013). The policy was extended in January 2014 to all-female domestic workers migrating through agencies and those self-migrating.

Sri Lanka's Bureau of Foreign Employment (SLBFE) is the government institution tasked with enforcing new restrictions. All migrant workers leaving Sri Lanka are legally required to register with the SLBFE. SLBFE partners with the Divisional Secretariat Office (DSO) to collect village-level information of migrant women.[13] Each DSO has two dedicated government-appointed Development Officers (DO). DOs visit women's homes to collect and verify information through village-level government civil servants called "Grama Niladhari".[14] When women opt to migrate for work, they are required to register with the SLBFE, who then informs the DSO. DSO officers, with help from Grama Niladhari, next collect information for the Family Background Report (FBR), and may recommend for migration a woman free of both age restrictions. The FBR gathers data on any children, child-care arrangements and demographic information of

[13]DSO is a mid-level administrative unit. There are 331 DSOs in Sri Lanka, and a typical DSO enlists 30 "Grama Niladhari" units.

[14]There are 14022 Grama Niladharis in Sri Lanka. Each Grama Niladhari is responsible for a few villages. Since most government tasks proceed through these Grama Niladharis, they have a good relationship with people and are thus in the best position to enforce policy and gather information.

migrant women.[15]

Possible enforcement concerns include corruption in the verification process and women avoiding the SLBFE registry. As to the latter, registration with the SLBFE is mandated by law. As a plus, SLBFE incentivizes potential migrants by providing pre-departure training, low-cost loans, welfare assistance to left-behind children and insurance for death or disability.[16]

There are possible concerns on government ability to enforce the restrictions. Corruption in the verification process or woman deciding not to register with SLBFE. On the latter, registration with SLBFE is mandatory by law. Moreover, SLBFE incentivizes potential migrants by providing pre-departure training, low-interest loans, welfare assistance to left-behind children, insurance for death and disability.[17]

3.4 Who is Affected by the Policy?

The migration restriction targets only women, and more specifically, women who migrate intending to be domestic workers. Identifying potential migrant women is an important first step in evaluating the effects of the restriction. ILO (2013) surveyed a selected sample of 2000 returnee Sri Lankan migrants. Table 2 summarizes the findings that help understand the group of women more likely impacted by the policy. Key features of the demographic and economic conditions of the migrant women are presented next.

Women who migrate have fewer economic opportunities at home. Despite higher educational attainment, Sri Lankan women suffer the 14^{th} largest labor force participation gap in the world, and the difference is worse for low-educated categories. Less than one-quarter of women had paid pre-migration employment, and only 20% of this work was professional or vocational in nature Table 2. Jayasuriya and Opeskin (2015), United Nations Sri Lanka (2015), and HRW (2007) have documented the scarcity of income-earning opportunities as a key driver behind female

[15] I visited a few DSOs and discussed the implementation of the restrictions. They noted that there is greater than 95% conformity under the restrictive policy.

[16] There is a registration fee of 15,000 Sri Lankan Rupees for the first two years. After that, 3200 per each additional two years. When women migrate through Employment Agencies, agencies usually pay these fees to attract more migrant workers to them.

[17] There is a registration fee of 15,000 SLR for the first two years. Then, 3200 is paid for two-year extensions. When women migrate through Employment Agencies, agencies usually pay these fees to attract more workers.

migration. The majority of migrant women are less-educated (HRW, 2007), and Table 2 lists that 85% of women have dropped out of school before finishing 11^{th} grade. Administrative data from SLBFE (2016) portray migrant women as mainly in the 25-40 age group at the time of migration. Table 2 also shows 89% of women as married before migration. Typical migrant women work two or three years before returning to Sri Lanka since employment contracts typically valid for two years (ILO, 2013) . ILO (2013) confirm that 66% of women return after two years and that 88% of women return after three years of continuous work.

Migrant women are more likely to come from poor households. As Table 2 shows, more than 80% of women who migrate are from poor households with incomes beneath the median household level in the country. HRW (2007) details evidence of the lower-income status for families of migrant women. Table 2 also presents the main motivation driving female migration being linked to economic hardship (HRW, 2007). Foreign employment, although economically attractive, does not necessarily enhance social status. There is a particular stigma attached to women migrating to Middle Eastern countries as housemaids (Bhattacharjee et al., 2016), which could suggest migration decisions are based on hard economic necessities. Given the existing literature and survey data, it is reasonable to see women from poor households as most likely to migrate as housemaids, making them most affected by the restrictions. I thus focus my study on women in poor households.

3.5 The Effect of the Restrictions on Departures for Labor Migration

When the policy is strictly enforced, we expect to see changes in migration patterns for women. Panel (a) of Figure 1 shows a clear shift in the foreign employment departures of women after the implementation of the policy and men, in contrast, do not show a clear response linked to policy timing. Panels (a) and (b) in Figure 2 presents the departures of men and women in age groups versus time. Women show a drop in departure after the policy for all age groups, except for women over 50. This confirms a policy where women over 50 are unrestricted. The sharpest female decline comprised the age group of 25-29. Men, in contrast, had not shown drastic changes in their overall departure trend. The drop in departures for males in the 25-29 age group did not match the timing of the policy. Figure 3 shows the departures of women

over time-based on their intended occupation. Nearly all of the departure drop comprised of housemaids. This aligns with a policy where restrictions apply only to women who migrate as housemaids. Weeraratne (2016, 2018) also provides empirical evidence on changes to departures after restriction enforcement. Reduction in departures has been quite significant for the 25-34 age group. It is evident from the above data that there has been a notable first-order effect of the policy curtailing female migratory trends.

4 Data and Methodology

4.1 Data

The Demographic and Health Survey (DHS) of Sri Lanka provides a rich data set to understand the effect of the migrant policy on women's decision-making. I use 2016 DHS data in my analysis. Department of Census and Statistics Sri Lanka conducts DHS, and they use a two-stage stratified sampling design, The questionnaires in the DHS is adapted from the standard DHS core questionnaires along with country-specific questions. DHS has a nationally representative sample of 27,210 households in 2016, and feature a separate questionnaire regarding ever-married women aged 10-49(DHS-SriLanka, 2017).[18]

The survey collects, among other details, demographic characteristics, reproductive health, and birth histories. Histories comprised all births of ever-married women (includes living together arrangements), including deceased children at the time of the survey. The survey recorded the year and month of each child's birth date. I use birth histories to create a panel dataset of all births. McIntosh et al. (2011) use retrospective panel dataset created via a history of fundamental, discrete and memorable events of respondents in a cross-sectional survey. Anukriti and Chakravarty (2019), Lucas (2013), and Anukriti and Kumler (2012) use the same methodology of creating retrospective panel dataset to study fertility outcomes using birth histories of women.

When creating my retrospective panel dataset, I use all births of a woman, including deceased children, if any. I create the panel for each woman from 1st quarter of 2006 to 1st quarter of 2016. Each woman appears in the panel dataset for each year-quarter with her age incremented

[18]Data: Department of Census and Statistics of Sri Lanka

to reflect that year-quarter. I create a binary variable to indicate a woman giving birth in a particular year-quarter, equaling "1" if she gave birth, zero otherwise. I use the birth year-quarter of woman and survey visit year-quarter to calculate the respective age of women in the panel. I adjust the age of women to match the specific year-quarter.

I use years of schooling (as a measure of education level), ethnicity, religion, district, and region (urban-rural-state) as control variables in the analysis. I make two adjustments to women histories on her years of schooling and place of living. First, I adjust the education of women over time, after observing her education level at the time of the survey to reflect the level of education she had in a particular year-quarter. In doing so, I consider ages 15 to 18 as correspond to 10^{th} to 13^{th} grades, reflecting standard ages of years of schooling in Sri Lanka. I take ages 19 to 23 to represent college education if a woman had a college degrees at the time of the survey. Second, I adjust the district in which a woman lived if she changed her living district in the past to reflect her place of residence in a particular year-quarter.[19]

Three limitations impact my analysis when using retrospective panel dataset created from the Demographic and Health Survey. First, there is potential recall bias when recording birth histories of a mother who could not remember her earlier births or birth month-years. Recall bias is especially relevant in the case of deceased children. However, the government introduced the migrant restrictions in 2013, which is not so long ago as to challenge memory of at least the recent births. Moreover, there is usually a record book for each Sri Lankan child, which is supervised by government-appointed midwives. The record book allows interviewers to verify accuracy of answers for childbirth.[20] Second, survey only included ever-married women.[21] However, premarital births are low in Sri Lanka, suggesting that any effect from such exclusions is lower.[22] Further, estimates show that 89% of all migrant women are married before migration (ILO, 2013). This shows that vast majority of affected women are married. The third issue is that the survey does not collect information on women who have already migrated. I address this concern in Section 7, where I argue the construction of the identification strategy mitigate effect

[19] A question in DHS asked women if and when they last changed districts.

[20] 98% of children claim to have the record book, and 90% of them were verified by interviewers.

[21] DHS for some countries collect information of all women. However, Sri Lanka and few others like India and Bangladesh only collect information of ever-married women.

[22] According to the vital statistics of Sri Lanka there are about 3% illegitimate births in year 2014. For women who are younger than 21, the illegitimate births are about 4%

of those women who not represented in the survey.

I restrict my sample to women from poor households. As discussed in Section 3.4, the restrictions principally affect poor women who are more likely to seek foreign work as housemaids. I use the Wealth Index which publishes with the survey to identify poorer households. The Wealth Index was created using household assets, and calculations were based on standard formulas employed by the DHS program.[23] I also limited the analysis to women who are between age 15 to 40.[24]

Table 3 summarizes data for both the full sample and sample of poor households which is the focus group of my study. Accordingly, there are 18300 women in the full sample. My analysis uses histories of 8015 women who are from poor households. 49% of poor women are Buddhist and 52% are Sinhalese, the leading religious and ethnic groups in Sri Lanka. Approximately 80% women are from rural areas, and only 22% of women have post-secondary (completing the 11^{th} grade) or upper education. Compared to the full sample, women from poor households come from rural areas, more likely to be in a minority group, and are less educated.

4.2 Empirical Strategy

The goal of my study is to examine the causal effect of restrictions on female fertility choices in response to the foreign employment restrictions. The restrictions are based on women's own age and that of her youngest child. The former restricts labor migration making your selection of destination conditioned on the age. This gives a different exposure to the restriction for a woman depending on her age. My identification strategy is based on this variation and the timing of the restrictions. To estimate the effects of the restrictions, I use regression discontinuity-in-time (RDiT). Regression Discontinuity (RD) is widely used in economics (Lee and Lemieux, 2010). RD estimates the effects by comparing outcomes just above and below a threshold of an observed running variable. RDiT likewise uses time as the running variable using a particular date as a threshold and the threshold date is when the event (or change) happens. In my analysis, I assume fertility follows a naturally smooth trend over time absent an outside shock. I take the

[23] Link: The DHS Program: Wealth Index Construction.
[24] Only about 2% of all births in my survey are from women who are older than 40 years.

introduction of the restrictions as an exogenous shock to this natural trend where women are forced to consider future employment and fertility in view of the new restrictions. To allow for natural trend, I use a liner trend in my specification. I make a adjustment to the threshold by adding nine months to the introduction of restrictions to adjust for pregnancies that occurred before the announcement of the policy.

I use the following RDiT specification for my baseline regression:

$$\begin{aligned} y_{it} = \alpha + \beta_1 Post_t + \beta_2(YearQuarter_t - 2014Q2) \\ + \beta_3 Post_t * (YearQuarter_t - 2014Q2) + \gamma X_{it} + \epsilon_{it} \end{aligned} \tag{1}$$

I estimate births for individual woman i, during year-quarter t, and y_{it} stands for the outcome variable. y_{it} is an indicator variable which take a values of 1 when women i gave birth in year-quarter t, and 0 otherwise. $Post_t$ is an indicator variable which takes value of 1 when the year-quarter is after the threshold, and 0 otherwise. I select the 2$^{\text{nd}}$ quarter of 2014 as the cutoff for RDiT specification in Equation 1. The restrictions were first introduced and implemented in July 2013. Having the 2$^{\text{nd}}$ quarter of 2014 as the cutoff put any pregnancies occurred before the policy to the left of the threshold, assuming there was no prior knowledge of the policy. 2$^{\text{nd}}$ quarter of 2014 is approximately nine months after the restriction which is a typical pregnancy period for a woman. Although policy makers had considered these restrictions as early as 2008, there was no specific discussion that attracted the attention of the public. Moreover, the policy was announced and enforced at the administrative level, not through a legislative process.[25] Therefore, I believe it is reasonable to assume that anticipation from the general public is insignificant.

I use $Post_t$ to capture the discontinuity in the outcome variable due to the restrictions. Accordingly, coefficient β_1 of Equation 1 gives the size of discontinuity in the outcome post-policy versus pre-policy. In order to allow for smooth linear trend, I added $(YearQuarter_t - 2014Q2)$. Further, the effect of the policy might not directly correspond to a jump or drop in fertility, instead could lead to a change its long-term trend. For example, a change in fertility pattern may take more than one quarter to emerge as more women get to know the restrictions that

[25]Sri Lanka Bureau Foreign Employment enforced restrictions via administrative circulars.

could impact their decisions. I use $Post_t$ * $(YearQuarter_t - 2014Q2)$ to allow for such changes in the trend.

Migration patterns and fertility rates may vary among ethnicity or religious groups. I thus use ethnic and religion fixed effects in my specification as controls. Inclusion of district-fixed effects control for any district time-invariant characteristics. My underlying assumption is that introduction of the policy is uncorrelated with other time varying determinants. I also show few robustness checks in Section 6.3 to validate my findings. Finally, to the best of my knowledge there was no other policy that coincided with the restrictions that could generate age varying changes in labor market opportunities and fertility.

Estimates for the RDiT are sensitive to the order of specification. In my approach, a major assumption is that fertility should show a smooth trend over time. Equation 1 assumes a linear trend and estimates β_1 to assess whether there is a discontinuity in the long-term trend after policy implementation. However, I use two alternate higher-order polynomial specifications, to control for non-linear trends. Gelman and Imbens (2019) suggest that the quadratic specification is superior to higher-order polynomials. Moreover, due to data limitations, I have only few time periods after the policy. Therefore, using a 3rd or higher-order polynomial might not be the best for sparse data points after the policy. Therefore, I first modify Equation 1 to include a quadratic trend as expressed in the following Equation 2:

$$\begin{aligned} y_{it} = \alpha &+ \beta_1 Post_t + \beta_2(YearQuarter_t - 2014Q2) + \beta_3 Post_t * (YearQuarter_t - 2014Q2) \\ &+ \beta_4(YearQuarter_t - 2014Q2)^2 + \beta_5 Post_t * (YearQuarter_t - 2014Q2)^2 \\ &+ \gamma X_{it} + \epsilon_{it} \end{aligned} \tag{2}$$

Second, I estimate Equation 3 where I use higher-order polynomials, but restricting slope as unchanged (continuous) before and after periods. Equation 3 forces fertility (or other outcomes) to have the same trend over time, thus estimating the effect of the policy versus the counter trend that would have existed without the policy restrictions.

$$y_{it} = \alpha + \beta_1 Post_t + \beta_2(YearQuarter_t - 2014Q2) + \beta_4(YearQuarter_t - 2014Q2)^2 + \beta_6(YearQuarter_t - 2014Q2)^3 + \gamma X_{it} + \epsilon_{it} \quad (3)$$

I report the results from Equation 2 and Equation 3, along with baseline specification of Equation 1.

5 Predictions

Migration restrictions affect a woman differently based on her age, and that shape the differing trade-offs linking labor market and fertility decisions faced by women of varying age. The restrictions strictly ban women younger than 21 from labor migration as domestic workers. They must wait until 23 years of age to migrate to some of the Middle Eastern countries (55% of total women's migration in 2012) where the domestic worker jobs are available and further wait until 25 to realize full employment potential. Therefore, having a child early does not necessarily change her expected income from foreign employment. In this context, the opportunity cost of early motherhood is less compared to later childbirth that incurs greater opportunity cost in terms of losing the potential expected income. The effect of lower inter-temporal opportunity cost in the current period could incentivize younger women to pursue childbearing early. In other words, a forward-looking young woman could opt to have children early and have both restrictions elapse together to permit full potential employment opportunities in the future. Such a rational response could lead to higher childbirth rates among women under 21.

Women older than 25 years of age face a different trade-off. In the absence of a child younger than five years old, they can migrate for domestic work to any country. Having a child after 25 now incurs a higher opportunity cost since childbirth restricts a new mother from migrating over the next five years, and lead to loss of expected income from foreign employment. Thus, older women seeking to soon migrate as domestic workers will be less likely to bear a child. Accordingly, I expect to see a decrease in childbirth among women older than 25 years of age.

It is unclear how women from the other two age groups, age 21-23 and age 23-25, would

behave. For women between the ages of 21 and 23, the restrictions could impact either way. The 21-23 age group has some opportunities to migrate, but not mainly as domestic workers since these jobs are mostly available in the forbidden Middle Eastern countries. However, waiting another year or two grants access to half the global housemaid job market after reaching age of 23. Thus, they could either postpone fertility expecting to migrate soon or decide to have a child now and wait a bit longer to migrate. Women between the age of 23 and 25 may see a reasonable chance of securing foreign employment as domestic workers since they may migrate anywhere but Saudi Arabia. Therefore, I expect them to respond more like the older women group and curb childbearing.

6 Results

6.1 Changes in Fertility

I estimate Equation 1 to examine changes in fertility after the introduction of restrictions for women from poor households, and take 2nd quarter of 2014 as the cutoff for my RDiT specification. Figure 4 and Table 4 show the effects on fertility due to the restrictions. Following the discussion in Section 5, I divide the full sample into four subsamples based on age group under 21, between 21 and 23 (excluding 23), between 23 and 25 (excluding 25), and greater than or equal to 25. The outcome is an indicator variable that takes the value of 100 if a woman gave birth in a particular year-quarter. Otherwise, the indicator variable takes the value of zero. I interpret coefficient β_1 of Equation 1 as the effect of the policy where a significant positive (or negative) value of β_1 indicates an increase (or decrease) in the percentage of women giving birth due to the restrictions. Panels A to D of Figure 4 depicts the results for each age group. Table 4 shows point estimates of fertility rate using Equation 1. Results show clear changes to the fertility rate for each age group.

I find younger women (ages 15-21) show a 1.8 percentage point increase in births in the quarter after the introduction of the restrictions (Column 1 of Table 4). Before the restriction, on average, 3.54% of all younger women gave birth in a quarter. Therefore, the point estimate represents a 52% increase in fraction younger women giving birth, which is a relatively large

response. This suggests, as discussed in Section 5, that younger women make forward-looking decisions where they attempt to have children early to avoid both migration restrictions when they become old enough to migrate as domestic workers. Column 4 of Table 4 shows that older women (age 25-40) decrease their childbearing after the restrictions. The quarterly point estimate shows a 0.37 percentage point decrease in births among older women. This represents a 12% decrease in fertility rate among older women. The mean fertility rate for older women is 3% before the restrictions. As discussed earlier, these older women do not face any restriction for migration as domestic workers if they do not have any children younger than five. If they decide to have a child now, they will be restricted from migrating for another five years leading to loss of expected income. Therefore, the opportunity cost of having a child, in terms of expected future income, is significant for older women, thus leading to lower fertility rates. Column 2 and 3 of Table 4 shows the percentage point decreases in childbearing among women 21-23, and 23-25 are 0.29 and 0.35, representing a 7.8% and 6.9% decrease in fertility rate. However, the point estimates are not statistically significant.

Regression Discontinuity-in-Time results are sensitive to the polynomial order specification. As discussed in Section 4.2, I re-estimate fertility outcomes, for all age groups, using Equation 2 and Equation 3 to allow fertility rates to trend with a higher polynomial order. Panel B and Panel C of Table 4 present the results. My estimates are robust to the alternative specifications.

6.2 Additional Outcomes

In this section, I focus on how restrictions could impact children. The stated goal of the restrictions has been to keep mothers at home to improve the development of children. However, my prior findings indicate that women respond to restrictions by changing childbearing decisions. After the policy, younger women give more birth while older women refrain. This has repercussions on the environment the child grows up and could lead to short- and long-term effects on child development. The survey I use for this study, collected data only three years after the introduction of the restrictions. This limits me from investigating any long-term outcomes for children. However, I will discuss changes in the child's environment regarding women and children in the following paragraphs.

First, I investigate changes in children's outcomes due to the altered fertility timings of women. To do so, I recreate the pseudo panel casting a child as a unit of measure. Each child enters the panel in the year-quarter born. Birth weight proxies as a child outcome. Since there are more young mothers after the policy, there could be an effect on birth weights. Data on birth weight is available only for infants born post-January 2011, limiting the sample to children younger than five years old. I regress birth weight on time, as the running variable, using Equation 1 to estimate the discontinuity. Table 5 shows no significant change in post-policy birth weight. Results are similar for alternative specifications as shown in Panel B and C of Table 5.

Altered fertility signals a change in birth timing among women from low-income households. One potential effect of new fertility patterns is that the environment in which the new children are born into changes. I test a few measures probing this new environment. I recreate the pseudo panel taking a child as a unit of measure. Each child enters the panel in the year-quarter they are born and exit in the next quarter. The cutoff is set at nine months after the policy, 2^{nd} quarter of 2014. Column 1 of Table 6 shows that the average age of mother at birth is decreased by 0.27 years from its mean of 27.4 years. However, the results are not significant. Next, I consider the average age of mothers at their first birth. Column 2 of Table 6 shows the average woman start childbearing about 0.89 years earlier. The mean age at first birth is 24.4 years. In Column 3 of Table 6, the dependent variable is the years of schooling of mothers at childbirth. Point estimates show new mothers, on average, have 0.402 fewer years of schooling. The average of the dependent variable is 9.93. Overall, these findings indicate changes in the childhood environment after the onset of the policy. Mothers are younger at first birth and less educated. Even if the restrictions do not directly affect children, these changes in characteristics of mothers could impact child development in the short and long run.

Forward-looking behavior observed changes in fertility suggests that younger women might rush to marry and bear children early. I use survey data to recreate the pseudo panel categorizing women according to their married year-quarter, where they enter the panel in the year-quarter of their marriage. The outcome variable is women's age at a particular year-quarter. I use 4^{th} quarter of 2013 as the cut-off quarter because the changes to marriages could immediately follow the announcement of the policy. Column 1 of Table 7 shows a slight drop in age at marriage,

which is not significantly different from the average age of 22.9. Next, In column 2 of Table 7, the dependent variable is the gap between marriage and first birth. To estimate the effect, I re-create the pseudo panel where a woman enters the panel only when she gave her first birth, and exit the panel next quarter. The dependent variable is measured as the time difference in quarters between getting married (or cohabiting) and first birth. There is no significant evidence for changes in marriage-birth gaps. If young women rush to marry and become mothers, I would expect a decrease in the age at marriage and in the marriage-birth gap.

Changes in birth spacing among siblings may also factor in child development. I construct the panel based on childbirth year-quarters. Each child enters the panel in the year-quarter (s)he was born. The dependent variable is the age lag between the current child and the immediate-older sibling. I omit the oldest child. Column 3 of Table 7 shows suggestive evidence for a 0.32 years reduction in lag between subsequent births, compared to the mean of 4.52 years. The results are, however, not robust to other specifications. One possible mechanism is that mothers who had a younger child at the time of policy onset might plan the next child sooner. In that way, if she intends to have more children, she can shorten the combined length of the restrictive period for migration.

6.3 Robustness Checks

I perform several robustness checks to ensure that the estimates discussed in Section 6 are indeed causal. I use suggestions provided by Hausman and Rapson (2018) on regression discontinuity in time (RDiT) methodology to validate my estimates.

First, I conduct placebo tests to show the discontinuity in the outcome as unique at the cutoff specific to the implementation of the policy. If my estimates uniquely capture the causal effect of the restriction, then I should not see any significant discontinuities at the placebo cutoffs. Hausman and Rapson (2018) recommends using placebo tests as a robustness check and states that 29% of studies that use RDiT design, report placebo test results. I use different placebo cutoffs before the implementation of the restriction and estimate the discontinuity (β_1) using Equation 1. Placebo cut-offs are from 1st quarter of 2007 to 2nd quarter of 2013. Figure 5 plots the distribution of discontinuities at all possible cutoffs versus the size of the cut-off at my

threshold. Panels A and D of Figure 5, which correspond to the younger and older women in my analysis, show that the estimate at the cutoff specific to my analysis is significantly different from the distribution of placebo estimates at different cutoffs. This provides evidence for the existence of unique discontinuity at the defined threshold. One concern with the presentation of the placebo test in Figure 5 is that the inability to observe if the placebo discontinuities are significant. To address this issue, I plot the discontinuities at each placebo cut-off against those cut-off year-quarters. Figure 6 shows the size of discontinuity along with 95% confidence intervals. Results show that none of the discontinuities at the placebo cutoffs are significant. These results thus lend support to the casual nature of my findings.

Fertility changes in my main findings could be affected by women who already had children or were halfway through their fertility goals at the time of the introduction of the restrictions. To address this, I investigate the first birth of women over time, which also addresses concerns with respect to lifetime fertility decisions. I re-create the pseudo panel and limit the panel dataset to women who do not have a child at any time during the study period. All women exit from the panel dataset once she had her first birth. Figure 7 and Table 7 present results for the first births of women, which show similar and stronger effects from the restriction for both younger and older women. I report estimates for baseline Equation 1 and other alternate specifications. I find younger women (age < 21) show a significant 2.08 percentage point increase in first time childbearing, while older women (age ≥ 25) show a 1.78 percentage point decrease. These results suggest that, on average, younger women start childbearing early. Older women who have not stared childbearing yet appear to be postponing their first birth further into the future.

I use panel dataset of birth histories for mothers who had ever been married at the time of Demographic and Health Survey in 2016. One issue with this approach is that women who are married at the time of the survey may be unmarried when observed in the panel dataset in earlier years. One mitigating factor for this concern is that I estimate a discontinuity in the long-term trend, and adjustment to ongoing marital status is unlikely to incur a discontinuity at a specific cutoff time. However, to further address this matter, I adjust the panel to include only the women who are married at the time of each observation. I follow Anukriti and Chakravarty (2019) and re-create the panel where each woman enters when she is married and remains the

full survey quarter. Figure 8 and Table 9 show the estimation results. I find evidence of a discontinuity at the 2nd quarter of 2014 cutoff. Therefore, my main findings are robust to this adjustment. However, the overall long-term trend shows just a slightly different direction from the original results for younger (age<21) and older (age≥25) women categories.

As argued earlier, I do not expect impacts from anticipation of the policy. However, as Hausman and Rapson (2018) suggest, a "donut regression" discontinuity design further counters this concern. I re-estimate Equation 1 after removing the 2nd quarter of 2014 to create a "donut" hole in the panel dataset. Figure 9 and Table 10shows the findings are similar to my main findings in Section 6 and point estimates are stronger. Thus, my main findings are robust to the "donut regression-discontinuity" design.

I focus on poor households since women from these households are more prone to migrate as domestic workers and thus more likely to be affected by the policy.[26] I also check whether there is a response among women from rich households, who are less likely to be impacted by the policy change. Wealthy women are selected from the top two wealth quintiles following the same construction as main sample. Figure 11 and Table 11 show the estimated coefficients, which are not statistically significantly different from zero, except older women (age 25-40) who shows a significant increase in fertility rate. However, estimates are not robust to the other polynomial specifications. As discussed in Section 5, we would expect women in that age group to lower the fertility if they are rationally responding to the restrictions. When discussing women from rich households, it is important to understand that the policy does not explicitly target poor households. Therefore, women from rich households may still be affected by migration restrictions. Moreover, there can be indirect effects on women of wealthy households from changes in labor market conditions for poor-household women. One possible example would be a post-policy labor supply of poor and low-skilled women rising domestically to assist mothers from rich households seeking housemaids within the country. This lowers the cost of childcare for "rich" women and could incentivize them to increase childbearing.

[26] See Section 3.4

7 Discussion

I find forward-looking behavior in young women who increase childbearing in response to migration restrictions to preserve potential foreign employment opportunities. My findings are consistent with the results of Jensen (2012), who uses a randomized experiment to evaluate the impact of increased employment opportunities on fertility decisions. He finds that young women delay childbirth when provided more information and access to employment opportunities. Sviatschi (2015) and Heath and Mobarak (2015) also show evidence for delayed childbearing when potential employment opportunities arise. However, they argue that increased education achievements may explain changes in childbearing. My findings are also consistent with broader implications of Anukriti and Chakravarty (2019), who conclude that people may change fertility decisions to retain opportunities when those opportunities are conditional on fertility. In Sri Lanka, restrictions on women's migration reduce availability of foreign work opportunities, thus leading women to change timing of childbearing.

My findings suggest children are born into different environments following the 2013 restrictions, which potentially represents unforeseen negative impacts on child well-being despite the intended objectives of government restrictions. My findings show that following the restrictions, mothers are younger on average, especially for first births, and that young women increase their childbearing. Some studies suggest a negative impact of young motherhood on child outcomes (Aizer et al., 2018) and show benefits of delayed childbearing Branson and Byker (2018). Thus, increased motherhood at a young age in post-restriction Sri Lanka could generate negative outcomes for children. Further, Keats (2018) discusses the positive effects of mother's education level on child health. I find that new mothers have fewer years of schooling following the 2013 restrictions. This could lead to long-term negative effects for children. Moreover, I find suggestive evidence for lower birth spacing among siblings, for which prior literature provides mixed evidence (Bhalotra and Van Soest, 2008; Golsteyn and Magnée, 2017; Whitworth and Stephenson, 2002). Future research should evaluate whether the restriction affects children, which has implications for the effectiveness of the government's attempt to improve children's outcomes.

Long-term effects on child development might not be limited only to changes in the environment but also linked to time parents spend with their children. In fact, Miller and Urdinola

(2010)) argue that time spent with children is more important for children's health, providing evidence for lower infant and child mortality rates where the opportunity cost of time is low. Restrictions in Sri Lanka force mothers to remain at home but may also reduce income for families, which could benefit children via greater investment in their education and physical health. This is particularly important as most families affected by the restrictions are poor. There is mixed evidence on how the migration of women affects children and what balance of time and income best improve child outcomes. Edwards and Ureta (2003) find a positive impact on child education from remittances, while Acosta (2011)) shows significant positive effects only for girls. However, Adunts and Afunts (2019) find that seasonal parental migration negatively affects children's education in Armenia, and Cortes (2015) shows greater detriments from maternal migration compared to paternal migration in the Philippines. Lin and van der Meulen Rodgers (2019)find significant rates of malnutrition in left-behind children. In Sri Lanka, migrant motherhood is linked to poor education outcomes for children (Sarma and Parinduri, 2016). Assessing childre's outcomes, including education attainment, is beyond the scope of this study. However, future research could investigate both short- and long-term effects of migration restrictions on children.

Women's well-being may also be affected by the restrictions. These restrictions are, in part, intended to protect women from potentially dangerous working conditions abroad ((Napier-Moore, 2017). Although there is evidence for poor working conditions for domestic workers (ITUC, 2017), the restrictions also eliminate income potential for women. Loss of outside employment options could lead to lower bargaining power for women within their households (Aizer, 2010; Majlesi, 2016). My findings also suggest, on average, that women begin childbearing eleven months earlier following the restrictions. When women initiate fertility at younger ages, this could diminish women's lifetime development and achievements (Miller, 2011; Wilde et al., 2010). Overall, these effects imply that well-meaning policies for women and children may instead yield unintended and potentially negative outcomes for them.

One of the limitations of my study is that the 2016 Demographic and Health Survey excludes women who have migrated from Sri Lanka at the time of the survey. These already-migrated women could affect my estimates because, in the regression discontinuity in time design, I com-

pare births just before and after the policy. This is especially important because the restriction dictates who could leave as a labor migrant, which could lead to a selection bias on two groups of women remains in the two side of the threshold. However, I argue that these already-migrated women do not affect my estimates for two reasons.

First, I set the threshold in my regression discontinuity in time (RDiT) design to nine months after the introduction of the policy, or the 2nd quarter of 2014.[27] Thus, I compare the average of my outcome variable, the percentage of women who gave birth, just before and after the threshold while controlling for a smooth long-term trend. If I have all these women, who had migrated at the time of the survey, therefore, missing in the survey data, adding them back women will not change the births just before or after the threshold because a woman who gave birth around 2nd quarter of 2014 (either side of the threshold) is prohibited from migrating and is therefore included in the study. This is because the threshold is defined nine months after the introduction of restrictions, and by the time of the threshold no women with children younger than five can leave for labor migration. This implies that the probability of women who should have been in my data but were missing at the time of the survey is the same immediately preceding and succeeding the threshold. Therefore, I reasonably assume that there is no differential effect for women and their corresponding births if I add already-migrated women to my sample. Second, if there is any effect of not including already migrated women, it should bias the result of both younger (age 15-21) and older (age 25-40) women similarly. The fact that my findings show fertility responses in opposite directions for those two groups of women, following the predictions, strongly suggests the absence of these women from the sample does not drive the results.

8 Conclusion

In this paper, I study the effects of a unique Sri Lankan policy designed to restrict the labor market opportunities of Sri Lankan women. In particular, I study the effects of the policy on fertility outcomes. Younger women and women with young children face the most severe

[27] As discussed in Section 4.2, I set the threshold nine months after the introduction of the policy to avoid the effect of pregnancies that started before the announcement of the policy. I assume those pregnancies are not affected by the policy announcement as women do not have advanced knowledge about the policy.

restrictions. These restrictions jointly affect the childbearing incentives faced by women of various ages. The policy increases the opportunity cost of childbearing for older women (age 25-40) and lowers the opportunity cost of childbearing for women under 21, for whom labor migration is forbidden based on her age. Sri Lanka is the first country to use child's age as a condition for migration; I use the exogenous variation in exposure to the policy to estimate its causal effects.[28] Although the Sri Lankan government's motivation for imposing the restrictions is to protect women and children , women are likely to respond to the changed labor market.[29] Research on the effects of migration restrictions on fertility is limited because in most contexts, many other facets of the economy change with policy, making identification of the policy's effect(s) difficult. My research is the first to identify the effect of a migration restriction on birth timing.

My stidy finds that after the introduction of the policy, fertility rates of younger women (age 15-21) increases while the fertility rates of older women (age 25-40) decreases. My results also show that the environment into which children are born changes; first-time mothers are younger and less educated after the introduction of the policy. I also find a decrease in the time between births after the introduction of the restrictions. The results suggest that forward-looking young women begin to have children sooner than they would have in the absence of the policy to maximize their employment window. Further, my findings corroborate and extend the literature by providing evidence that changes in labor market opportunities affect the fertility decisions of women. However, the changes in employment opportunities could affect household bargaining power (Aizer, 2010; Majlesi, 2016), and my results could be an outcome of intra-household decision making. Understanding how the changes in bargaining power affect fertility decisions should be considered in future research.

The change in the timing of childbearing caused by this labor migration policy may have various effects on the child development. In particular, less educated, younger mothers and lower birth spacing could lead to negative impacts on children, which invite further research

[28] Philippines, Indonesia, Myanmar, and Cambodia have also implemented similar migration restrictions based on women's age, intended destination and occupation. Nepal introduced a restriction based on child's age in 2016 after Sri Lanka's restriction (Napier-Moore, 2017).

[29] From the preamble of the direction issued by the Sri Lanka Bureau of Foreign Employment: "with the objective of preventing various difficulties and social problems resulting from the migration of women for employment, particularly in instances where the safety of children of women migrating is not ensured...". - Translated by the author.

into the policy in Sri Lanka and other migration policies worldwide. Many migration policies are designed specifically to suppress the engagement of women with the labor markets. My study is the first to document causal effect of labor migrations restrictions on fertility outcomes. It is also critical to understand the full range of these policies' effects, including those outside the labor market.

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9 Figures and Tables

9.1 Migrant Women and Departure Data

Table 2: Average Characteristics of Migrant Women

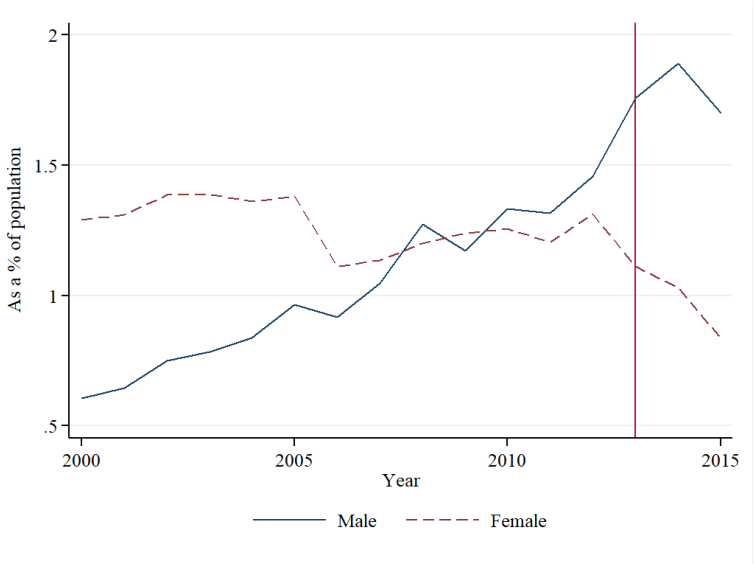
Characteristics	Migrant Women
Demographic	
Age	More likely to be in 25-46 age group before migration. 59% women migrate before 35 years of age.
Education	85% of women are less educated and dropped out of school before completion of 11^{th} grade.
Marital Status	89% women are ever-married before migration.
Economic	
Employment	24% of women were formally employed before migration, and less than 20% them worked in a professional or vocational capacity.
Income	Most of these women earned 2,500 - 10,000 Sri Lankan Rupees monthly, which is approximately equivalent to USD 38-77 per month in 2013 dollars. Average income of a typical Sri Lankan income earner in 2012 is 25,778 (HIES-SriLanka, 2012). As a migrant, the majority of women expect to earn 10,000 - 25,000 Sri Lankan Rupees.
Family Income	80% of women lived in households with less than 25,000 Sri Lankan Rupees (Post Migration). Median income of a household in Sri Lanka in 2012 was 30,100 Sri Lankan Rupees (HIES-SriLanka, 2012).
Migration	
Reason for Migration	65% have stated economic hardship as the main reason. 15% of respondents have stated wanting to build a house as the reason. Other reasons were to pay off debts, to increase income, lack of local jobs, and children's education.
Duration	Typical migrant term lasts 2-3 years. Employment contract usually has two year length. 66% of women return after two years, and 88% return after three years. Repeated migration is not uncommon.
Destination	Main destination for women was Middle East region (90% of all women) which offered the most opportunities for domestic workers. 45% of all women domestic workers selected Saudi Arabia. (SLBFE, 2016).
Occupation	86% of women migrated as domestic Workers in 2013 (SLBFE, 2016).

Data sources: (1) Survey conducted by International Labour Organization (ILO) based on women migrant returnees of Sri Lanka in 2013 (ILO, 2013). When specified, (2) Sri Lanka Bureau of Foreign Employment SLBFE (2016) and Household Income and Expenditure Survey (HIES-SriLanka, 2012)

Figure 1: Annual Departure for Foreign Employment

(a) Total Annual Departures

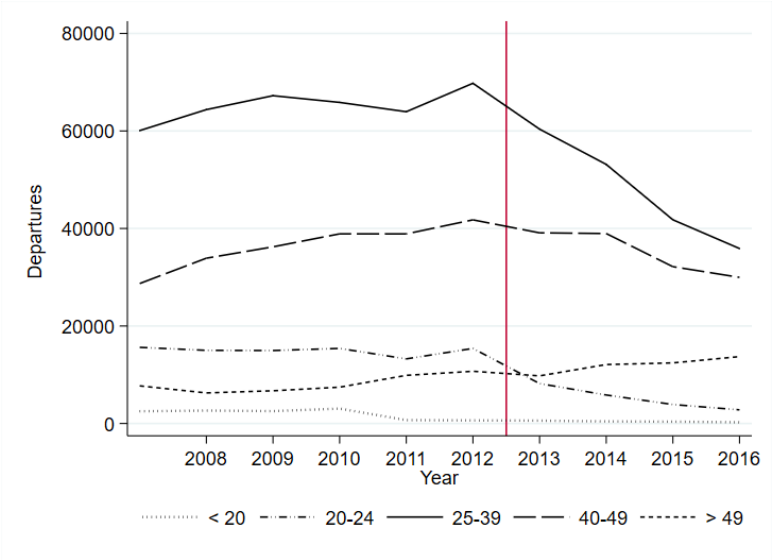
(b) Annual Departures as a Percentage of Population



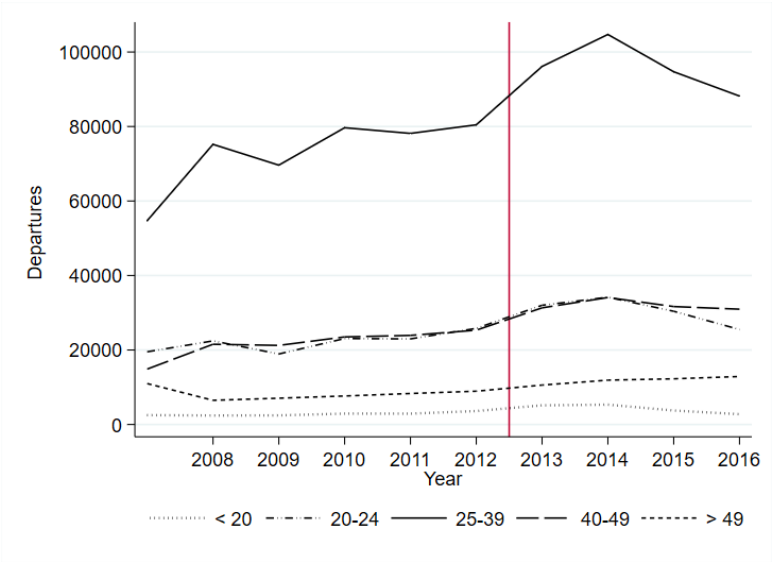
Notes: Figures are based on annual foreign employment departure data from Sri Lanka Foreign Employment Bureau (SLBFE, 2016), shows the flow of migrant workers. Vertical line represent year 2013. Because the policy is introduced in July 2013, I take 2012 as the pre-policy year. (a) Number of annual departures for foreign employment. (b) Annul departure as a fraction of total population. Calculated as (Number of (fe)male departure/Total (fe)male population in that year).

Figure 2: Departures by age group

(a) Female

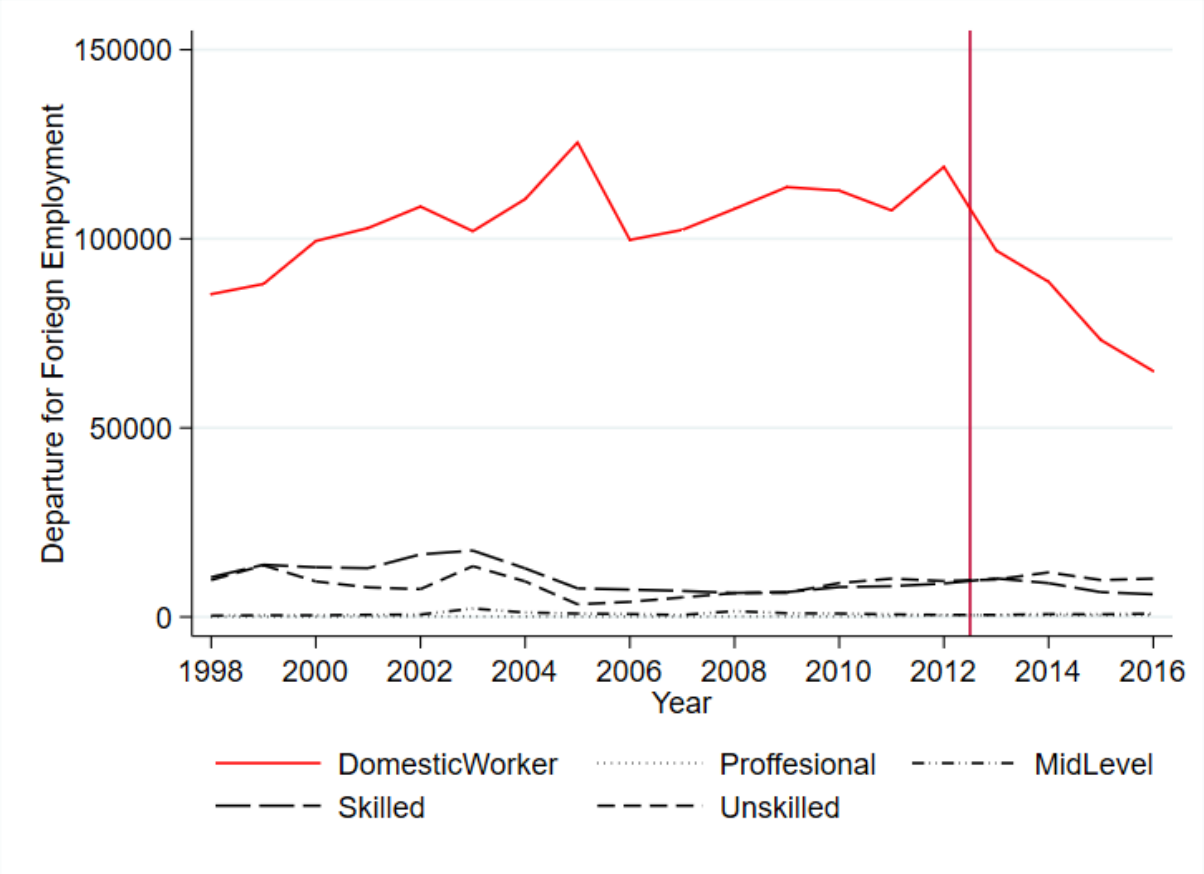


(b) Male



Notes: Figures are based on annual foreign employment departure data from Sri Lanka Foreign Employment Bureau (SLBFE, 2016), shows the flow of migrant workers categorized into different age groups. Vertical line represent year 2013. Because the policy is introduced in July 2013, I take 2012 as the pre-policy year.

Figure 3: Women's Annual Departure for Foreign Employment by Occupation



Notes: Figures are based on annual foreign employment departure data from Sri Lanka Foreign Employment Bureau (SLBFE, 2016), shows the flow of female migrant workers categorized based on occupations. Vertical line represent year 2013. Because the policy is introduced in July 2013, I take 2012 as the pre-policy year. See Figure 11 in the appendix for breakdown of departure for lesser significant job categories.

9.2 Descriptive Data

Table 3: Summary Statistics

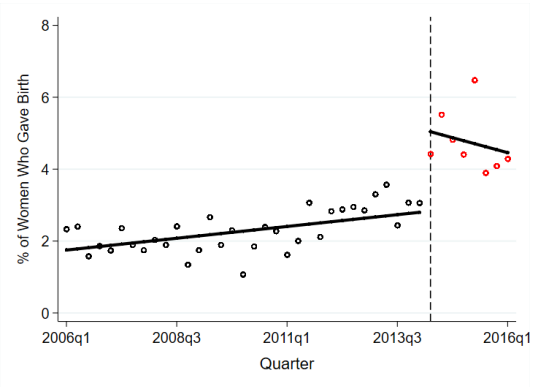
	Full Sample	Poor Households
Sample Size	18300	8015
Average age	35.8	35.35
Age when get married	22.9	22.0
Religion (%)		
Buddhist	63.3	49.4
Hindu	17.7	32.0
Islam	9.9	8.7
Catholic	7.4	7.9
Christian	1.6	2.0
Ethnicity (%)		
Sinhalese	67.6	51.8
SL Tamil	20.0	34.4
Indian Tamil	2.8	5.7
Muslim	9.3	7.8
Other	0.3	0.2
Region (%)		
Rural	78.4	80.5
Urban	15.9	7.4
Estate*	5.7	12.0
YearsofSchooling	10.07	8.81

Notes: All variable is measured based on observation at the time of survey. Indian and SL Tamil are people belongs to Tamil ethnicity, however, categorized based on origin historical origin for administrative purpose. *Estate sector consist of plantation sector and mainly include Tea and Rubber plantations. Poor households selected based on the lower two quintiles of the wealth index which is provided with the Demographic and Health Survey in 2016 (DHS-SriLanka, 2017).

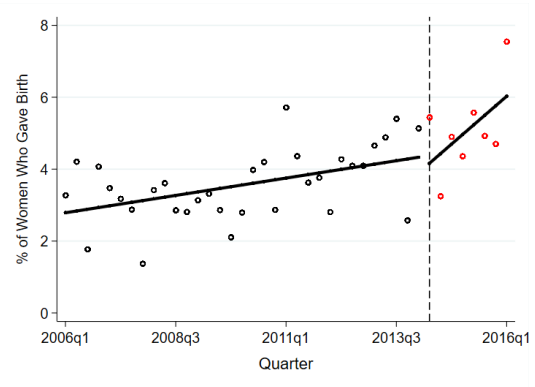
9.3 Main Results

Figure 4: Percentage of Women Giving Birth

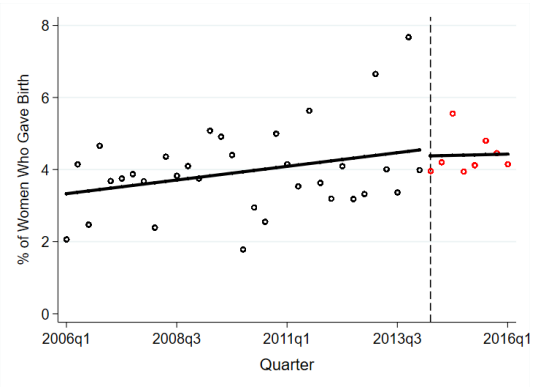
(a) **Women's Age 15-21**



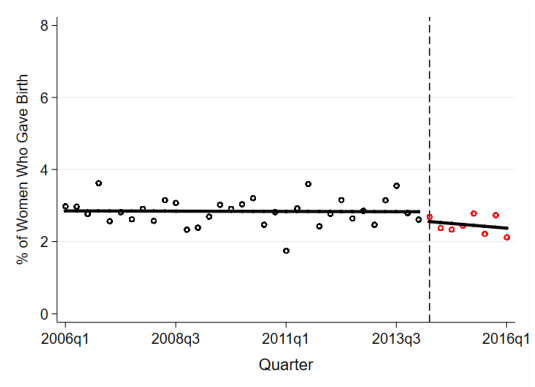
(b) **Women's Age 21-23**



(c) **Women's Age 23-25**



(d) **Women's Age 25-40**



Notes: Regression is estimated using Equation 1 with the linear spline and observations are at the individual women's level. The outcome variable is an indicator variable that takes the value of 100 if a woman gave birth in a particular year-quarter, otherwise zero. The vertical axis represents the percentage of women who gave birth in a specific year-quarter. The sample of women for each panel is from the respective age group at the time of each year-quarter. Each point in the figure represents the weighted average of the outcome variable at each year-quarter. The vertical line represents the cut-off. The cut-off which is set to 2nd quarter of 2014, which is third quarter after the introduction of the restriction. This is to avoid the effect of pregnancies started before the restrictions. Religion, ethnicity, and district fixed effects are included in the regressions. Control variables include education, age, age^2, and quarterly (Q1, Q2, Q3, and Q4) dummies. Standard Errors are clustered at the year-quarter level.

Table 4: Percentage of Women Giving Birth

	Dep. Var: Dummy (Have a child) * 100			
Women's Age:	**15-21**	**21-23**	**23-25**	**25-40**
Panel A: Linear Smoother				
Post	1.838***	-0.348	-0.375	-0.370*
	(0.454)	(0.618)	(0.520)	(0.152)
(Quarter - 2014Q2)	0.029***	0.055**	0.040*	0.000
	(0.008)	(0.016)	(0.019)	(0.006)
(Quarter - 2014Q2)*Post	-0.122	0.232	0.006	0.016
	(0.105)	(0.138)	(0.069)	(0.027)
Panel B: Quadratic Spline				
Post	0.839+	-0.259	-0.771	-0.622**
	(0.449)	(0.602)	(0.789)	(0.187)
Panel C: Cubic Spline (Constraining the slope to be same)				
Post	1.549**	-0.821	-0.959	-0.563**
	(0.453)	(0.821)	(0.866)	(0.198)
Mean	3.54	5.00	4.77	2.99
Observations	40358	19773	21871	184869
Controls	x	x	x	x

Notes: Panel A shows result from regressions are estimated using Equation 1. Panel B and Panel C show estimates using Equations 2 and 3. Observations are at the individual women's level. The outcome variable is an indicator variable that takes the value of 100 if a woman gave birth in a particular year-quarter, otherwise zero. *Post* shows the discontinuity at the cut-off in terms of percentage point increase or decrease in percentage of women who gave birth. The sample of women for each column is from the respective age group at the time of each year-quarter. The cutoff is set to 2^{nd} quarter of 2014, which is the third quarters after the introduction of the restriction to avoid the effect of pregnancies started before the restrictions. Religion, ethnicity, and district fixed effects are included in the regressions. Control variables include women's education, age, age^2, and quarterly (Q1, Q2, Q3, and Q4) dummies. Standard Errors are clustered at the year-quarter level. Significant levels: + p<0.1, * p<0.05, ** p<0.01, *** p<0.001

Table 5: Children's Outcome

Dependent Variable:	Birth Weight of a Newborn Child
Panel A: Linear Spline	
Post	34.54
	(37.21)
Panel B: Quadratic Spline	
Post	13.97
	(27.35)
Panel C: Cubic Spline (Constraining the slope to be same)	
Post	13.97
	(27.35)
Mean	2886
Observations	3430
Ethnicity FE	x
Religion FE	x
District FE	x

Notes: Outcome variable, birth weight is recorded in grams. Sample is limited to children born from 2011 to 2016 due to the limited data availability. Panel A shows result from regressions are estimated using Equation 1. Panel B and Panel C show estimates using Equations 2 and 3. Observations is at the level of children, and each child is in the sample once at his birth year-quarter. *Post* shows the discontinuity at the cut-off in terms of birth weight. The cutoff is set to 2^{nd} quarter of 2014, which is the third quarter after the introduction of the restriction to avoid the effect of pregnancies started before the restrictions. Religion, ethnicity, and district fixed effects are included in the regressions. Control variables include mother's education, and quarterly (Q1, Q2, Q3, and Q4) dummies. Standard Errors are clustered at the year-quarter level. Significant levels: + p<0.1, * p<0.05, ** p<0.01, *** p<0.001

Table 6: Mother's Characteristics at Birth

Dependent Variable:	Age of Mother	Age of Mother (First Birth)	Mother's Years of Schooling
	(1)	(2)	(3)
Panel A: Linear Spline			
Post	-0.273	-0.887*	-0.402**
	(0.281)	(0.314)	(0.097)
Panel B: Quadratic Spline			
Post	-0.100	-0.560	-0.484*
	(0.408)	(0.436)	(0.138)
Panel C: Cubic Spline (Constraining the slope to be same)			
Post	-0.388	-0.976+	-0.370*
	(0.390)	(0.490)	(0.163)
Mean	27.37	24.42	9.93
Observations	7794	3071	7794
Ethnicity FE	x	x	x
Religion FE	x	x	x
District FE	x	x	x

Notes: (1) Age is measured in years. Age of mother is calculated as the average age of all women who gave birth in particular quarter. (2) Age of mother at first birth indicate the average age of women who gave birth for the first time at a particular quarter. (3) Education is measured as years of schooling. Panel A shows result from regressions are estimated using Equation 1. Panel B and Panel C show estimates using Equations 2 and 3. Observations is at the level of children, and each child is in the sample once at his birth year-quarter. *Post* shows the discontinuity at the cut-off. The cutoff is set to 2^{nd} quarter of 2014, which is the third quarter after the introduction of the restriction to avoid the effect of pregnancies started before the restrictions. Religion, ethnicity, and district fixed effects are included in the regressions. Control variables include mother's education for (1) and (2), age and age^2 for (3). Quarterly (Q1, Q2, Q3, and Q4) dummies are included. Standard Errors are clustered at the year-quarter level. Significant levels: + p<0.1, * p<0.05, ** p<0.01, *** p<0.001

Table 7: Women's Marriage and Birth Spacing

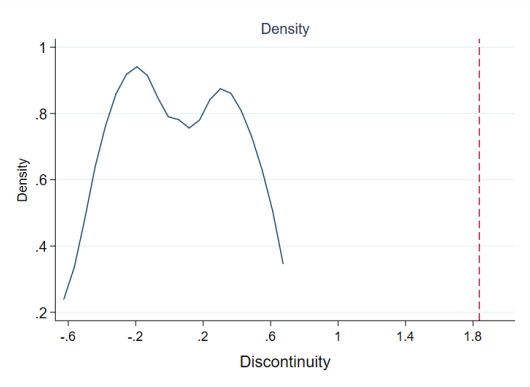
Dependent Variable:	Age at Marriage	Marriage to First Birth Gap	Birth Spacing
	(1)	(2)	(3)
Panel A: Linear Spline			
Post	-0.172	0.077	-0.324+
	(0.379)	(0.109)	(0.162)
Panel B: Quadratic Spline			
Post	0.829+	0.058	-0.004
	(0.435)	(0.163)	(0.145)
C: Cubic Spline (Constraining the slope to be same)			
Post	-0.391	0.057	-0.133
	(0.413)	(0.155)	(0.203)
Mean	22.96	1.46	4.52
Observations	2934	2911	4075
Ethnicity FE	x	x	x
Religion FE	x	x	x
District FE	x	x	x

Notes: All measures are in years. For (1) Cut-off quarter is 4^{th} quarter of 2013 because the marriages could be immediately affected by the policy. Observation is women at their marriage year-quarter. For (2) and (3) The cutoff is set to 2^{nd} quarter of 2014, which is the third quarter after the introduction of the restriction to avoid the effect of pregnancies started before the restrictions. Observation is a child's age. (1) Outcome variable is age at marriage. (2) Outcome variable is marriage to first birth gap is measured in years. (3) Birth Spacing is measured as the age of the immediate-before child when the child is born. I left out the oldest child. Panel A shows result from regressions are estimated using Equation 1. Panel B and Panel C show estimates using Equations 2 and 3. *Post* shows the discontinuity at the cut-off. Religion, ethnicity, and district fixed effects are included in the regressions. Control variables include women's (or mother's) education for all, and mother's age and age^2 for (2) and (3). Quarterly (Q1, Q2, Q3, and Q4) dummies are included. Standard Errors are clustered at the year-quarter level. Significant levels: + p<0.1, * p<0.05, ** p<0.01, *** p<0.001

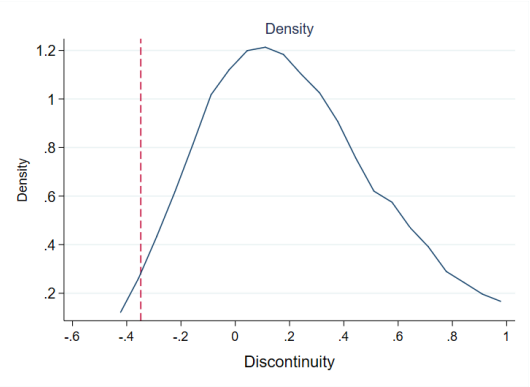
9.4 Robustness Checks

Figure 5: Placebo Test: Distribution of Discontinuities (β_1) at Different Cutoffs

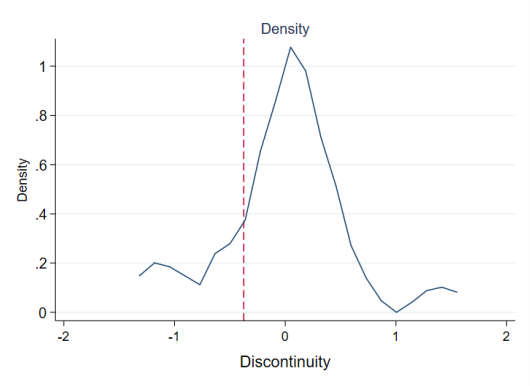
(a) **Women's Age 15-21**



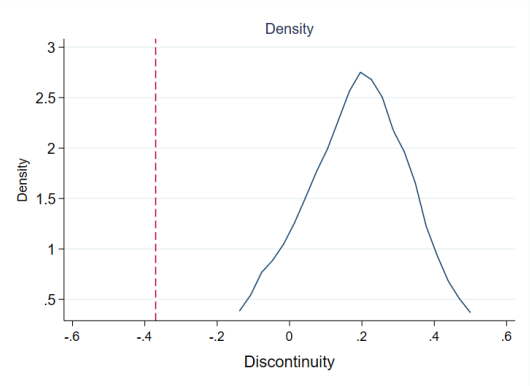
(b) **Women's Age 21-23**



(c) **Women's Age 23-25**



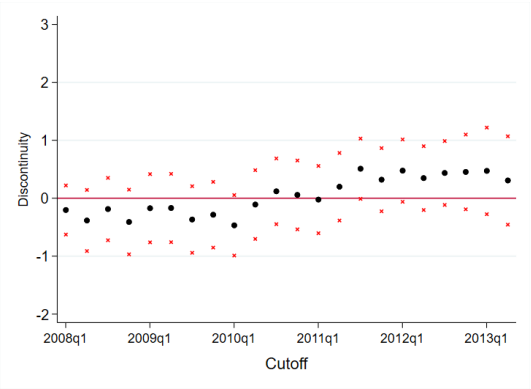
(d) **Women's Age 25-40**



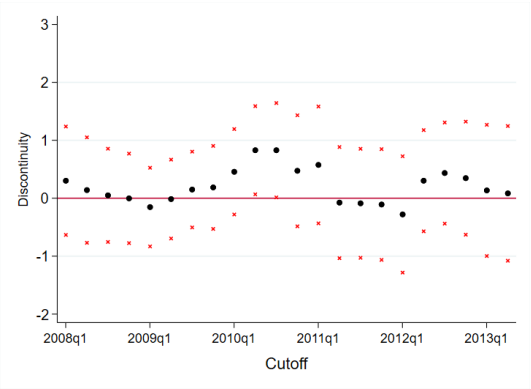
Notes: I use the linear specification in Equation 1 to estimate the discontinuity. Each graph shows the distribution of discontinuities (β_1) estimated at different cut-offs from 1st quarter of 2008 to 2nd quarter of 2013, relevant to the respective age groups. Vertical line represent the discontinuity (β_1) estimated at the cut-off of 2nd quarter of 2014, which is the effect of the policy. Religion, ethnicity, and district fixed effects are included in the regressions. Control variables include education, age, age^2, and quarterly (Q1, Q2, Q3, and Q4) dummies. Standard Errors are clustered at the year-quarter level.

Figure 6: Placebo Test: Discontinuities (β_1) at Different Cutoffs

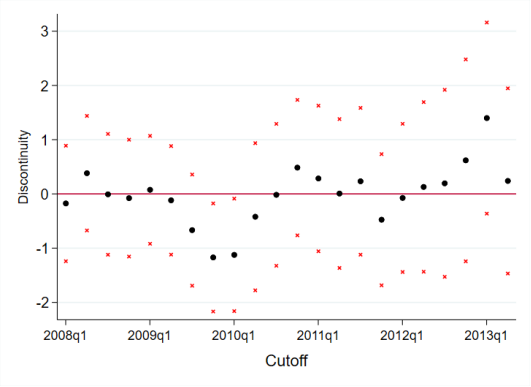
(a) **Women's Age 15-21**



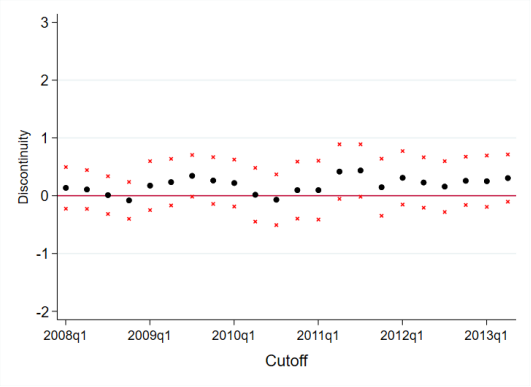
(b) **Women's Age 21-23**



(c) **Women's Age 23-25**



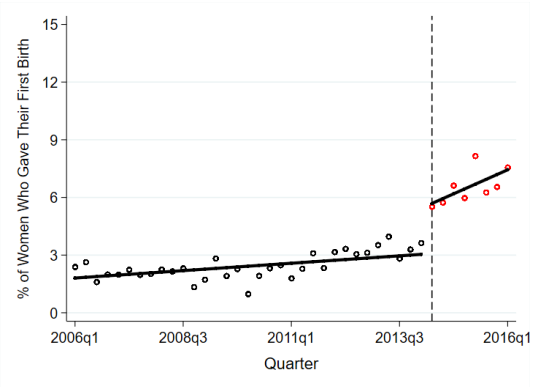
(d) **Women's Age 25-40**



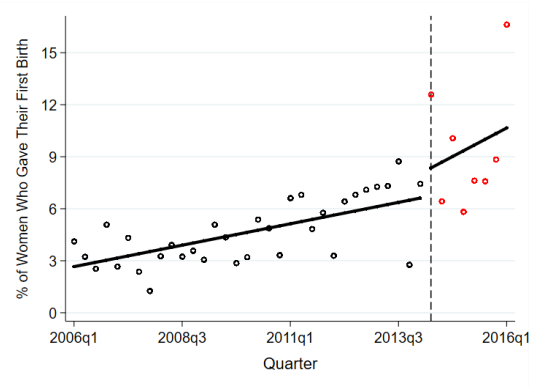
Notes: I use the linear specification in Equation 1 to estimate the discontinuity. Each "dot" represent the discontinuity (β_1) estimated by taking the particular year-quarter as the cut-offs. Each "cross" shows the 95% confidence interval for respective estimates. Estimates for cut-offs from 1st quarter of 2008 to 2nd quarter of 2013. Religion, ethnicity, and district fixed effects are included in the regressions. Control variables include education, age, age^2, and quarterly (Q1, Q2, Q3, and Q4) dummies. Standard Errors are clustered at the year-quarter level.

Figure 7: Percentage of Women Giving Their First Birth

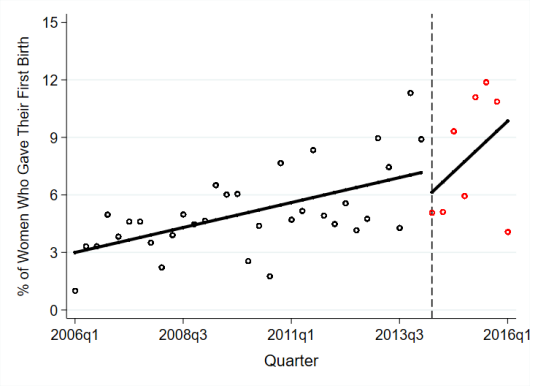
(a) **Women's Age 15-21**



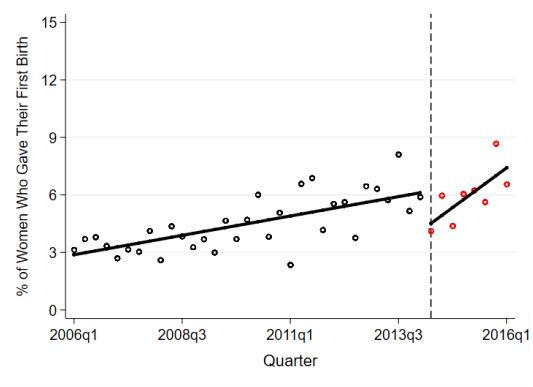
(b) **Women's Age 21-23**



(c) **Women's Age 23-25**



(d) **Women's Age 25-40**



Notes: The vertical line represents the cut-off which is set to 2nd quarter of 2014. Regression is estimated using Equation 1 and observations are at the individual women's level. A woman enters the panel dataset only if she does not have a child exit from the panel dataset once she had her first birth. The outcome variable is an indicator variable that takes the value of 100 if a woman gave her first birth in a particular year-quarter, otherwise zero. The vertical axis represents the percentage of women who gave first birth in a specific year-quarter. The sample of women for each panel is from the respective age group at the time of each year-quarter. Each point in the figure represents the weighted average of the outcome variable at each year-quarter. The cut-off is set to third quarter after the introduction of the restriction to avoid the effect of pregnancies started before the restrictions. Religion, ethnicity, and district fixed effects are included in the regressions. Control variables include education, age, age^2, and quarterly (Q1, Q2, Q3, and Q4) dummies. Standard Errors are clustered at the year-quarter level.

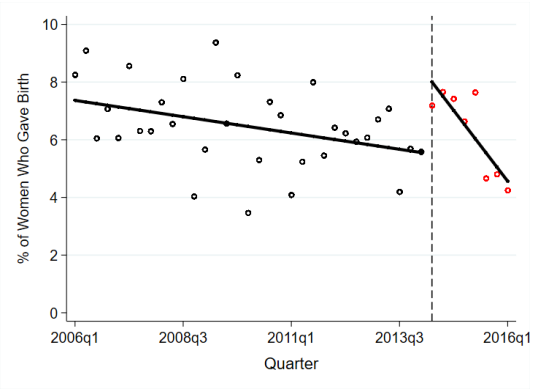
Table 8: Percentage of Women Giving Their First Birth

	Dep. Var: Dummy(Have a child) * 100			
Women's Age:	**15-21**	**21-23**	**23-25**	**25-40**
Panel A: Linear Spline				
Post	2.081***	1.251	-1.609	-1.782*
	(0.316)	(2.164)	(1.278)	(0.659)
Panel B: Quadratic Spline				
Post	1.089***	4.188*	-4.912**	-2.306*
	(0.302)	(1.890)	(1.482)	(0.930)
Panel C: Cubic Spline (Constraining the slope to be same)				
Post	1.514**	0.586	-3.194+	-2.379*
	(0.436)	(2.620)	(1.864)	(0.934)
Observations	32217	9869	8213	28001
Controls	x	x	x	x

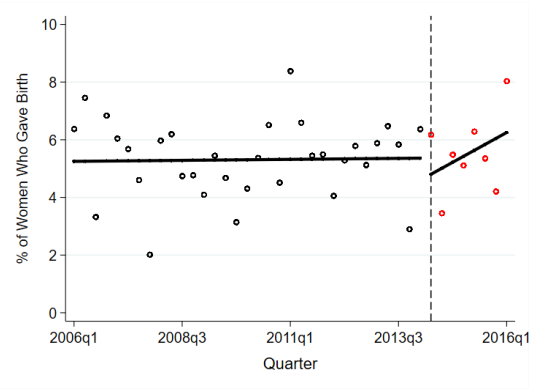
Notes: Panel A shows result from regressions are estimated using Equation 1. Panel B and Panel C show estimates using Equations 2 and 3. Observations are at the individual women's level. A woman enters the panel dataset only if she does not have a child exit from the panel dataset once she had her first birth. The outcome variable is an indicator variable that takes the value of 100 if a woman gave her first birth in a particular year-quarter, otherwise zero. *Post* shows the discontinuity at the cut-off in terms of percentage point increase or decrease in percentage of women who gave birth for the first time. The sample of women for each column is from the respective age group at the time of each year-quarter. The cutoff is set to 2^{nd} quarter of 2014, which is the third quarters after the introduction of the restriction to avoid the effect of pregnancies started before the restrictions. Religion, ethnicity, and district fixed effects are included in the regressions. Control variables include women's education, age, age^2, and quarterly (Q1, Q2, Q3, and Q4) dummies. Standard Errors are clustered at the year-quarter level. Significant levels: + p<0.1, * p<0.05, ** p<0.01, *** p<0.001

Figure 8: Percentage of Women Giving Birth: Using Married Sample

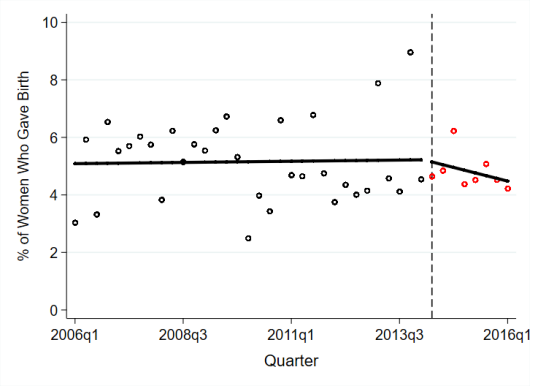
(a) **Women's Age 15-21**



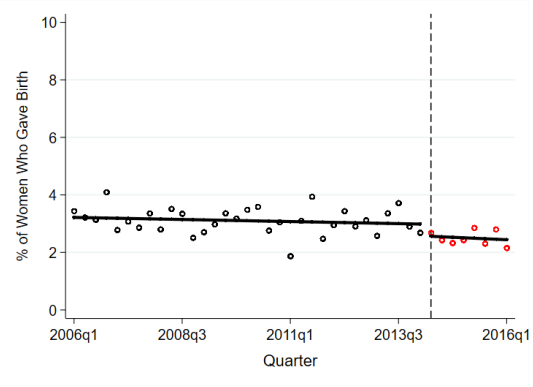
(b) **Women's Age 21-23**



(c) **Women's Age 23-35**



(d) **Women's Age 25-40**



Notes: Sample is limited to the women who were married and from the respective age group at the time of each year-quarter. The vertical line represents the cut-off which is set to 2nd quarter of 2014. Regression is estimated using Equation 1 and observations are at the individual women's level. The outcome variable is an indicator variable that takes the value of 100 if a woman gave her first birth in a particular year-quarter, otherwise zero. The vertical axis represents the percentage of women who gave birth in a specific year-quarter. Each point in the figure represents the weighted average of the outcome variable at each year-quarter. The cut-off is set to third quarter after the introduction of the restriction to avoid the effect of pregnancies started before the restrictions. Religion, ethnicity, and district fixed effects are included in the regressions. Control variables include education, age, age^2, and quarterly (Q1, Q2, Q3, and Q4) dummies. Standard Errors are clustered at the year-quarter level.

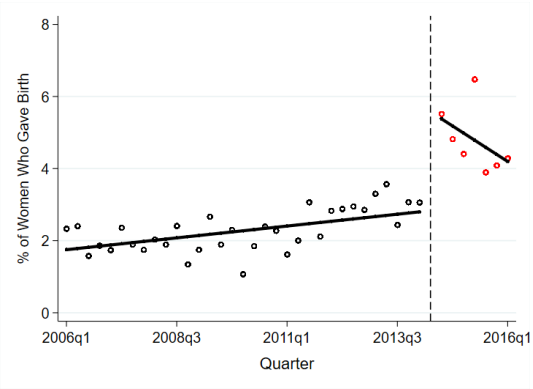
Table 9: Percentage of Women Giving Birth: Using Married Sample

	Dep. Var: Dummy(Have a child) * 100			
Women's Age:	**15-21**	**21-23**	**23-25**	**25-40**
Panel A: Linear Spline				
Post	2.188***	-0.712	-0.289	-0.529**
	(0.666)	(0.741)	(0.590)	(0.159)
Panel B: Quadratic Spline				
Post	1.073	-0.734	-0.590	-0.752***
	(0.746)	(0.762)	(0.893)	(0.199)
Panel C: Cubic Spline (Constraining the slope to be same)				
Post	2.301**	-0.889	-0.905	-0.684**
	(0.752)	(0.979)	(0.968)	(0.209)
Observations	13937	12869	15930	160403
Controls	x	x	x	x

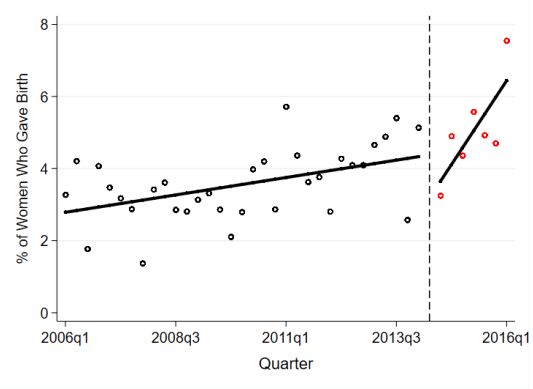
Notes: Sample is limited to the women who were married and from the respective age group at the time of each year-quarter. Panel A shows result from regressions are estimated using Equation 1. Panel B and Panel C show estimates using Equations 2 and 3. Observations are at the individual women's level. The outcome variable is an indicator variable that takes the value of 100 if a woman gave her first birth in a particular year-quarter, otherwise zero. *Post* shows the discontinuity at the cut-off in terms of percentage point increase or decrease in percentage of women who gave birth. The cutoff is set to 2nd quarter of 2014, which is the third quarters after the introduction of the restriction to avoid the effect of pregnancies started before the restrictions. Religion, ethnicity, and district fixed effects are included in the regressions. Control variables include women's education, age, age^2, and quarterly (Q1, Q2, Q3, and Q4) dummies. Standard Errors are clustered at the year-quarter level. Significant levels: + p<0.1, * p<0.05, ** p<0.01, *** p<0.001

Figure 9: Percentage of Women Giving Birth: "Donut-Regression"

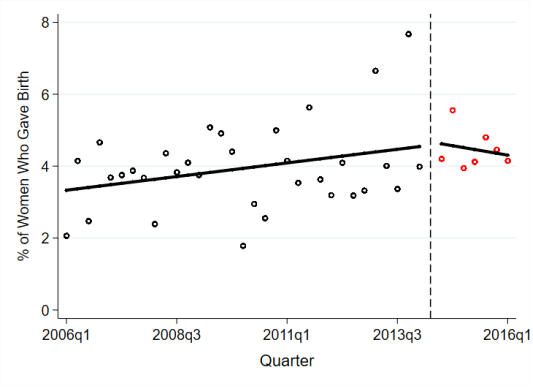
(a) **Women's Age 15-21**



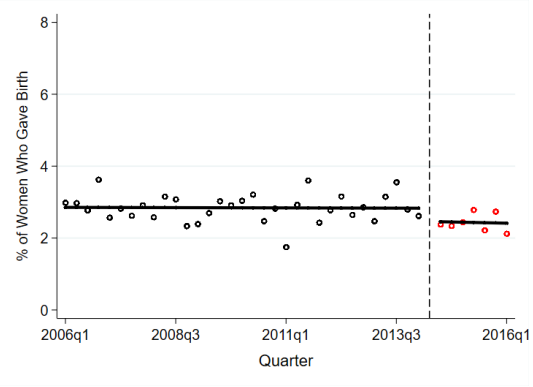
(b) **Women's Age 21-23**



(c) **Women's Age 23-25**



(d) **Women's Age 25-40**



Notes: The vertical line represents the cut-off which is set to 2nd quarter of 2014. Observations at 2nd quarter of 2014 removed to create the "donut-hole" in the sample. Regression is estimated using Equation 1 and observations are at the individual women's level. The outcome variable is an indicator variable that takes the value of 100 if a woman gave her first birth in a particular year-quarter, otherwise zero. The vertical axis represents the percentage of women who gave birth in a specific year-quarter. Each point in the figure represents the weighted average of the outcome variable at each year-quarter. The cut-off is set to third quarter after the introduction of the restriction to avoid the effect of pregnancies started before the restrictions. Religion, ethnicity, and district fixed effects are included in the regressions. Control variables include education, age, age^2, and quarterly (Q1, Q2, Q3, and Q4) dummies. Standard Errors are clustered at the year-quarter level.

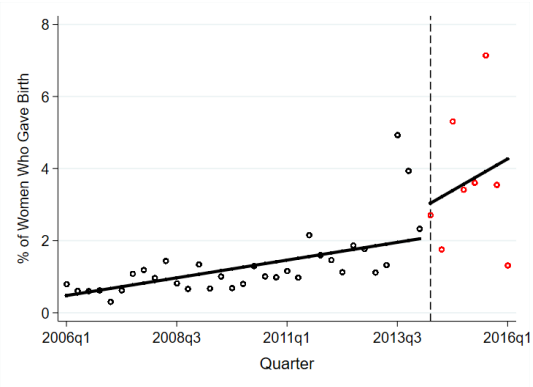
Table 10: Percentage of Women Giving Birth: "Donut-Regression"

	Dep. Var: Dummy(Have a child) * 100			
Women's Age:	**15-21**	**21-23**	**23-25**	**25-40**
Panel A: Linear Spline				
Post	2.519***	-0.988	-0.105	-0.416**
	(0.277)	(0.717)	(0.567)	(0.189)
Panel B: Quadratic Spline				
Post	1.815*	-1.192	-0.218	-0.861**
	(0.743)	(0.993)	(0.991)	(0.293)
Panel C: Cubic Spline (Constraining the slope to be same)				
Post	1.962***	-0.786	-0.906	-0.618**
	(0.429)	(1.180)	(1.035)	(0.241)
Observations	39812	19389	21428	180332
Controls	x	x	x	x

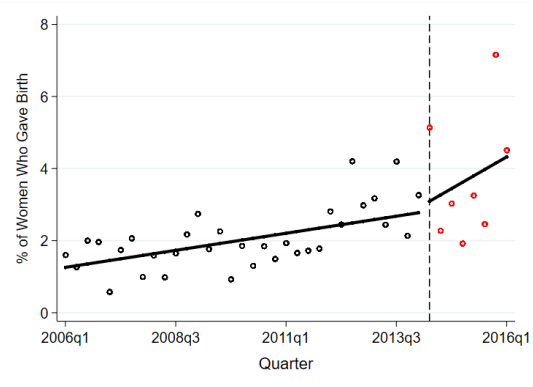
Notes: Observation from 2nd quarter of 2014 removed to create the "donut-hole" in the sample. Panel A shows result from regressions are estimated using Equation 1. Panel B and Panel C show estimates using Equations 2 and 3. Observations are at the individual women's level. The outcome variable is an indicator variable that takes the value of 100 if a woman gave her first birth in a particular year-quarter, otherwise zero. *Post* shows the discontinuity at the cut-off in terms of percentage point increase or decrease in percentage of women who gave birth. The cutoff is set to 2nd quarter of 2014, which is the third quarters after the introduction of the restriction to avoid the effect of pregnancies started before the restrictions. Religion, ethnicity, and district fixed effects are included in the regressions. Control variables include women's education, age, age^2, and quarterly (Q1, Q2, Q3, and Q4) dummies. Standard Errors are clustered at the year-quarter level. Significant levels: + p<0.1, * p<0.05, ** p<0.01, *** p<0.001

Figure 10: Percentage of Women Giving Birth: Women from Wealthy Households

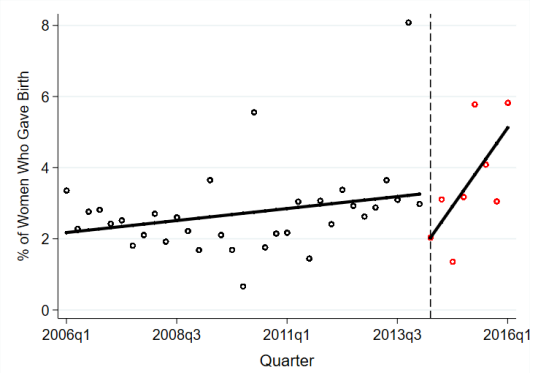
(a) **Women's Age 15-21**



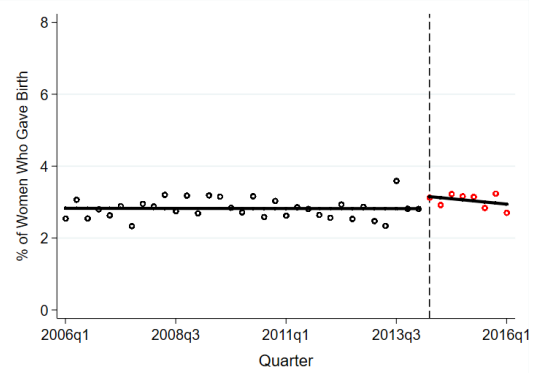
(b) **Women's Age 21-23**



(c) **Women's Age 23-25**



(d) **Women's Age 25-40**



Notes: Sample is from the wealthy households who are from the upper two quintile of the wealth index. The vertical line represents the cut-off which is set to 2nd quarter of 2014. Regression is estimated using Equation 1 and observations are at the individual women's level. The outcome variable is an indicator variable that takes the value of 100 if a woman gave her first birth in a particular year-quarter, otherwise zero. The vertical axis represents the percentage of women who gave birth in a specific year-quarter. Each point in the figure represents the weighted average of the outcome variable at each year-quarter. The cut-off is set to third quarter after the introduction of the restriction to avoid the effect of pregnancies started before the restrictions. Religion, ethnicity, and district fixed effects are included in the regressions. Control variables include education, age, age^2, and quarterly (Q1, Q2, Q3, and Q4) dummies. Standard Errors are clustered at the year-quarter level.

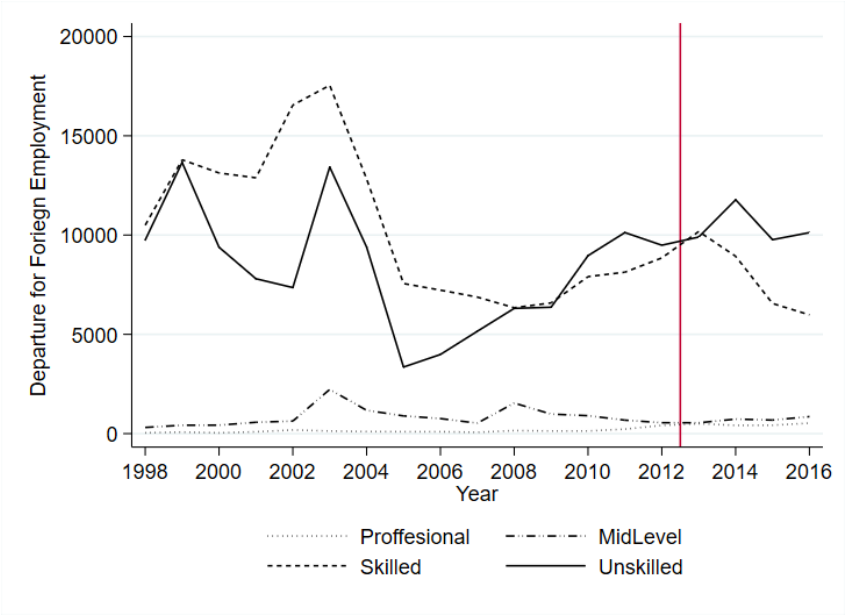
Table 11: Percentage of Women Giving Birth: Women from Wealthy Households

	Dep. Var: Dummy(Have a child) * 100			
Women's Age:	**15-21**	**21-23**	**23-25**	**25-40**
Panel A: Linear Spline				
Post	0.706	0.016	-1.745*	0.324*
	(0.850)	(1.148)	(0.755)	(0.160)
Panel B: Quadratic Spline				
Post	-.908	0.890	-2.951**	0.268
	(1.058)	(0.874)	(1.024)	(0.250)
Panel C: Cubic Spline (Constraining the slope to be same)				
Post	-0.443	-0.710	-3.274*	0.251
	(1.143)	(1.247)	(1.323)	(0.275)
Observations	23241	14538	17814	169867
Controls	x	x	x	x

Notes: Sample is from the wealthy households who are from the upper two quintile of the wealth index. Panel A shows result from regressions are estimated using Equation 1. Panel B and Panel C show estimates using Equations 2 and 3. Observations are at the individual women's level. The outcome variable is an indicator variable that takes the value of 100 if a woman gave her first birth in a particular year-quarter, otherwise zero. *Post* shows the discontinuity at the cut-off in terms of percentage point increase or decrease in percentage of women who gave birth. The cutoff is set to 2^{nd} quarter of 2014, which is the third quarters after the introduction of the restriction to avoid the effect of pregnancies started before the restrictions. Religion, ethnicity, and district fixed effects are included in the regressions. Control variables include women's education, age, age^2, and quarterly (Q1, Q2, Q3, and Q4) dummies. Standard Errors are clustered at the year-quarter level. Significant levels: + p<0.1, * p<0.05, ** p<0.01, *** p<0.001

10 Appendix

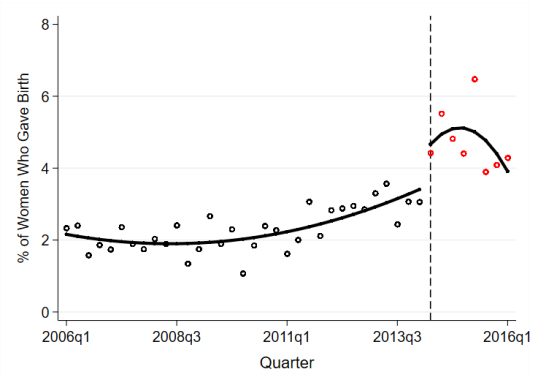
Figure 11: Women's Annual Departure for Foreign Employment by Occupation (Without Domestic Workers)



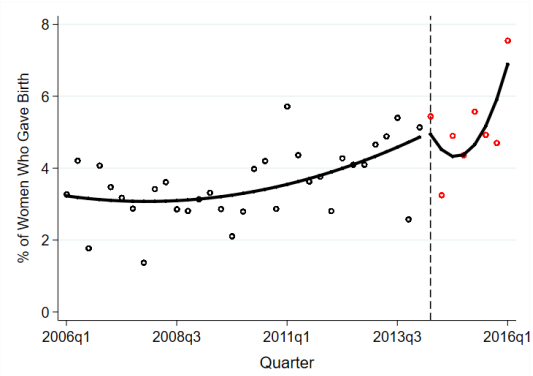
Notes: Figures are based on annual foreign employment departure data from Sri Lanka Foreign Employment Bureau (SLBFE, 2016), shows the flow of female migrant workers categorized based on occupations, without domestic workers. Vertical line represent year 2013. Because the policy is introduced in July 2013, I take 2012 as the pre-policy year.

Figure 12: Percentage of Women Giving Birth - Quadratic Spline

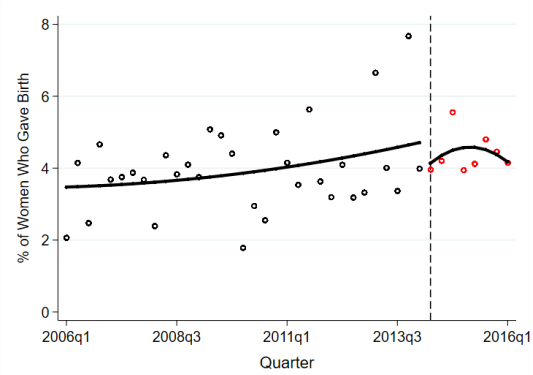
(a) **Women's Age 15-21**



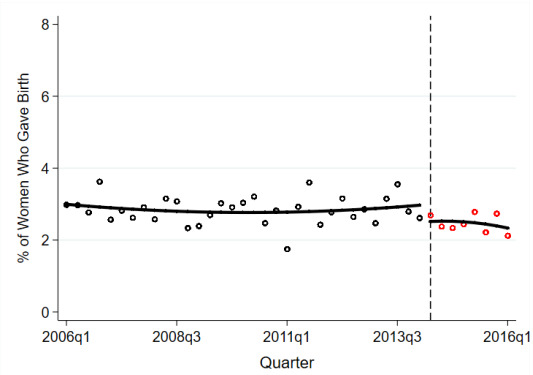
(b) **Women's Age 21-23**



(c) **Women's Age 23-25**



(d) **Women's Age 25-40**



Notes: The vertical line represents the cut-off which is set to 2nd quarter of 2014. Regression is estimated using Equation 2 with the quadratic spline and observations are at the individual women's level. The outcome variable is an indicator variable that takes the value of 100 if a woman gave birth in a particular year-quarter, otherwise zero. The vertical axis represents the percentage of women who gave birth in a specific year-quarter. The sample of women for each panel is from the respective age group at the time of each year-quarter. Each point in the figure represents the weighted average of the outcome variable at each year-quarter. The cut-off is set to third quarter after the introduction of the restriction to avoid the effect of pregnancies started before the restrictions. Religion, ethnicity, and district fixed effects are included in the regressions. Control variables include education, age, age^2, and quarterly (Q1, Q2, Q3, and Q4) dummies. Standard Errors are clustered at the year-quarter level.