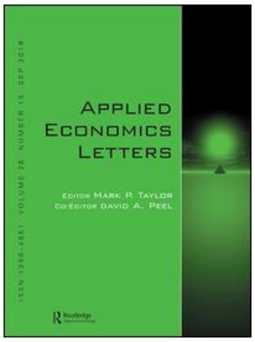

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Impact of state children's health insurance program on fertility of immigrant women

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ABSTRACT

Between 1997 and 2000, all states in the United States (US) enacted the State Children's Health Insurance Programme (SCHIP) to provide publicly funded health insurance coverage for children in low-income families. However, only 15 states including the District of Columbia initially chose to provide coverage for children of newly arrived immigrants in their SCHIP. We exploit the resulting state and time variation in the implementation of the programme in a difference-in-differences framework to estimate the effect of a publicly funded children's health insurance benefit on immigrant women's fertility. While estimates from full samples show that the net effect of the programme was indistinguishable from zero, we find a significant positive effect on the fertility of unmarried immigrant women, both at the extensive and at the intensive margin. Our findings have important policy implications for societies experiencing a persistent decline in fertility.

KEYWORDS
State children's health insurance program; fertility; immigrant women; quantity-quality tradeoff

JEL CLASSIFICATION
I18; J13

I. Introduction

We investigate the impact of the Child Health Insurance Programme (CHIP), formerly known as the State Children's Health Insurance Programme (SCHIP), on immigrant women's fertility. The conceptual foundation underlying our analysis is the 'quantity-quality trade-off' model, which implies that given limited resources, parents optimize their fertility decisions based on their quantity/quality preferences (Becker and Lewis 1973). Specifically, an increase in child quantity often requires compromising on the allocation of child-rearing resources like time and market-based inputs across off-springs. As such, welfare programmes that can effectively reduce parents' financial burden by extending health insurance coverage to uninsured children can incentivize childbearing, especially for economically constrained families. We explain the underlying mechanism in Appendix Section A.1.[1]

The CHIP is a large-scale joint initiative between the federal and state governments in the US to provide health insurance coverage to uninsured children in low-income ('working poor') families who do not qualify for Medicaid. Although eligibility criteria in the benefit programme vary across states and have evolved over time, broadly, the programme extends enrolment to children whose family income lies above the Medicaid eligibility but lower than 200% of the Federal poverty level (Edmunds and Coye 1998). Enacted into law as a part of the Balanced Budget Act in 1997, implementation of CHIP across states prompted a drop in child uninsured rate from 14% to 7% (Paradise 2014). As CHIP reduces out-of-pocket child healthcare expenses for low-income groups, the welfare programme can be expected to lower marginal cost of having a child, thereby influencing fertility decisions.

In 1996, the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) prohibited all non-naturalized newly arrived immigrants from receiving any federal means-tested benefits including the Medicaid.[2] However, utilizing state autonomy

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[1]See Conti and Ginja (2020) for recent evidence on impacts of expanding a publicly funded health insurance program.
[2]For details, see Fix and Passel (1999).

afforded by the Balanced Budget Act, 15 states including the District of Columbia (referred to as 'generous' states hereafter) included children of newly arrived immigrants in their CHIP (Rosenbach et al. 2001).[3] In 2009, the CHIP Reauthorization Act allowed all states to cover all immigrant children with federal funds, irrespective of when they entered the country. Newly arrived non-naturalized immigrants in other 'non-generous' states remained ineligible for CHIP coverage in the pre-2009 era. We exploit this variation in immigrant eligibility for CHIP benefits across states as a 'natural experiment' in a difference-in-differences (DD) framework to estimate the effect of child health care benefit on fertility.

II. Methods

Prior evidence

There is ample evidence that social welfare interventions, such as parental leave, income tax credits, and childcare support can positively influence childbearing decisions (Lalive and Zweimüller 2009; Azmat and González 2010; Haan and Wrohlich 2011; Brewer and Ratcliffe 2012). However, majority of the studies in this space draw from the experiences of European economies that are also characterized by generous public benefits on several other fronts not directly related to childcare costs (Walker 1995; Rønsen 2004; Duvander and Andersson 2006; Gauthier 2007). The relatively scant US-based evidence pertinent to our analysis explore the effects of Medicaid eligibility expansions on fertility (Zavodny and Bitler 2010; DeLeire, Lopoo, and Simon 2011) and mostly report null effects. Importantly, Drewry et al. (2015) focus on the impact of SCHIP's 'unborn child ruling expansions' on prenatal care utilization (PNCU) and birth outcomes among foreign-born Latina population and find positive effects on PNCU but not on birth outcomes.

Data and model

We utilize the Annual Social and Economic Supplement data of the Current Population Survey (ASEC-CPS) for the years 1997 through 2009.[4] The outcome variable in our analysis is a binary indicator denoting whether an immigrant woman gave birth to a new child during a given year. The key explanatory variable is the availability of generous CHIP in the respective state and year. Additional individual-level covariates include age, race, ethnicity, marital status, education, number of other children and indicator for having a child younger than five.[5] State-level time-variant information include state unemployment rate as a proxy for economic conditions in the state and an indicator for whether governor is democrat as a proxy for political/social conditions in the state. The descriptive information of all the variables used in our analysis is summarized in Appendix Table A1. We include summary statistics on a combined sample of women including immigrants and natives for comparison purposes.

We analyse fertility decisions of immigrant women of childbearing ages (15–45).[6] First, we look at the effect of generous CHIP on childbearing of an overall sample of immigrant women, then split the sample by marital status.[7] For each sample, we estimate the DD model:

$$\begin{aligned} Y_{ist} = \beta_1 + \beta_2 \cdot CHIP_{st} + X_{ist} \cdot \beta_3 + Z_{st} \cdot \beta_4 + \eta_s \\ + \lambda_t + \phi_s \cdot t + \in_{ist} \end{aligned} \tag{1}$$

[3]However, US-borne children of immigrants are exempt from the five-year ban.
[4]Due to the introduction of substantial welfare reforms by the PRWORA, the pre-1997 era represents a distinct welfare regime.
[5]We do not control for 'work status' as women may often make labour supply decisions in tandem with fertility decisions. Additionally, whether women's employment is directly impacted by generous CHIP is a pertinent question for our analysis. Therefore, we further estimate the impact of generous SCHIP on employment outcomes using the same DD framework. Results shown in Table A6 indicate that employment is not an important channel through which SCHIP affects fertility.
[6]For robustness check, we also analyse a smaller sample of women aged 17–40 where most births are concentrated. See Figure A1.
[7]To empirically test if women select into marital relationships following the CHIP intervention, in unreported regressions, we look at the likelihood of a woman being in a marital relationship. We do not find any significant effect in the broad sample of women including immigrants and native born and also for the specific sample of immigrant women only.

where Y_{ist} is a binary indicator for childbirth of an immigrant woman i in state s and the year t. $CHIP_{st}$ indicates whether the state s in year t has a generous CHIP in place for the entire year.[8] The parameter β_2 represents the estimate of the impact of generous CHIP on childbearing among immigrant women. We control for a range of individual- and state-level characteristics (X_{ist} and Z_{st}), state (η_s) and year (λ_t) fixed effects, and state linear time trends ($\phi_s.t$).

In addition to the DD regressions, we conduct an event study, both as a test for parallel trends assumption necessary for DD analysis, and to evaluate dynamic effects of the programme. Specifically, we estimate:

$$Y_{ist} = \theta_1 + \sum_{k=-3}^{10} \mu_k.1(t - T = k) + X_{ist}.\theta_2 + Z_{st}.\theta_3 + \eta_s + \lambda_t + e_{ist} \tag{2}$$

where μ_k is a coefficient of a binary indicator which equals 1 when the gap between year t and CHIP implementation (T) is given by k years. We code the relative period indicators in a way such that k ranges from −3 to +10. We treat $k = -3$ as the reference base period to examine how impact of the programme evolves before and after policy implementation.

Our DD analysis is substantiated by a difference-in-difference-in-differences (DDD) model that estimates change in fertility of immigrant women in generous states net of changes in fertility of immigrant women in non-generous states as well as net of change in fertility of non-immigrants who are unaffected by generous CHIP. The model is:

$$\begin{aligned} Y_{ist} = {} & \delta_1 + \delta_2.Immi_i.Generous_s.Post_{st} \\ & + \delta_3.Immi_i.Generous_s + \delta_4.Immi_i.Post_{st} \\ & + \delta_5.Generous_s.Post_{st} + \delta_6.Immi_i \\ & + \delta_7.Generous_s + \delta_8.Post_{st} + X_{ist}.\delta_9 \\ & + Z_{st}.\delta_{10} + \eta_s + \lambda_t + \phi_s.t + v_{ist} \end{aligned} \tag{3}$$

where, $Immi_i$ is the indicator of whether woman i is an immigrant; $Generous_s$ is an indicator of whether state s covers immigrant population in its CHIP; and $Post_{st}$ equals 1 to represent post-CHIP implementation years for state s. The parameter δ_2 represents the DDD estimate of the impact of the policy of our interest in fertility of immigrants. The triple difference estimator ensures that we are accounting for any unobserved changes that may differentially affect fertility in generous and non-generous states. We apply ASEC sample weights to all our regressions and adjust standard errors for clustering at the state-level.

III. Results

Our DD results from estimating Equation (1) are presented in Table 1. We analyse three sample types: all immigrant women, married immigrant women, and unmarried immigrant women.[9] Consistent with Zavodny and Bitler (2010), the weighted linear probability estimates indicate that CHIP did not have any statistically significant impact on the overall immigrant population or married immigrant women. However, the programme appears to have a significant positive impact on women who are not married.[10] Importantly, this group has the lowest average family income and health insurance coverage rate (Table A1). For unmarried immigrant women aged 15–45, CHIP implementation in generous states is

Table 1. Effect of generous CHIP on the fertility of immigrant women.

Panel A: Ages 15–45	All women	Married	Not married
	(1)	(2)	(3)
Generous CHIP	−0.004	−0.017	0.018***
	(0.007)	(0.011)	(0.006)
Observations	86,497	53,409	33,088
Panel B: Ages 17–40			
Generous CHIP	−0.004	−0.021	0.024***
	(0.009)	(0.013)	(0.006)
Observations	68,122	41,879	26,243
Panel C: DDD model (ages 15–45)			
Generous CHIP	−0.002	−0.017	0.019***
	(0.008)	(0.011)	(0.006)
Observations	558,858	273,841	285,017

Notes: ***,**,* = statistically different from zero at the 1%,5%,10% level.

[8]Generous states include Alaska, California, Delaware, District of Columbia, Hawaii, Illinois, Massachusetts, Minnesota, Nebraska, New Jersey, New Mexico, New York, Pennsylvania, Virginia and Washington (Rosenbach et al. 2001; Olds 2016)

[9]We also test the effect of CHIP on fertility of all women (immigrant and native) and do not find any statistically significant effect of the program. Results are available upon request.

[10]Note that we estimate the Intention-to-Treat (ITT) effects rather than average treatment effects.

followed by a 1.8 percentage point increase in the probability of having a childbirth (see Table 1, Panel A). The coefficient is statistically significant at the 1% level. Results from the 17–40 age group (Panel B) and from DDD (Panel C) also reveal positive effects on childbirths for non-married immigrant women. We report the full set of our DD and DDD regression estimates in Tables A2 and Tables A3, respectively.

As already mentioned, we perform an event study analysis by estimating Equation (2). We do not find any statistically significant anticipatory effects (leads) in our event analysis. Results are graphically presented in Figure 1. In line with the DD results, the lags suggest no post CHIP swings in fertility in case of combined and married sample but an upward trend in fertility of unmarried sample (see estimates in Table A4).[11]

Next, we conduct a series of robustness checks. First, we estimate the effects of CHIP on immigrants at the intensive margin by investigating childbirth outcomes of women with at least one additional biological child. Second, we test the effect of CHIP on fertility of women who lie below 150% of the federal poverty threshold. Third, to account for self-selection bias that may arise from immigrant women migrating to generous states, we conduct a robustness check by limiting our sample to those who did not relocate to another state in the year prior to survey. Results from all these additional specifications are presented in Table 2 and are consistent with our main results.

Importantly, the period around first SCHIP implementations in the US was marked by a shift in overall welfare regime ushered in by the

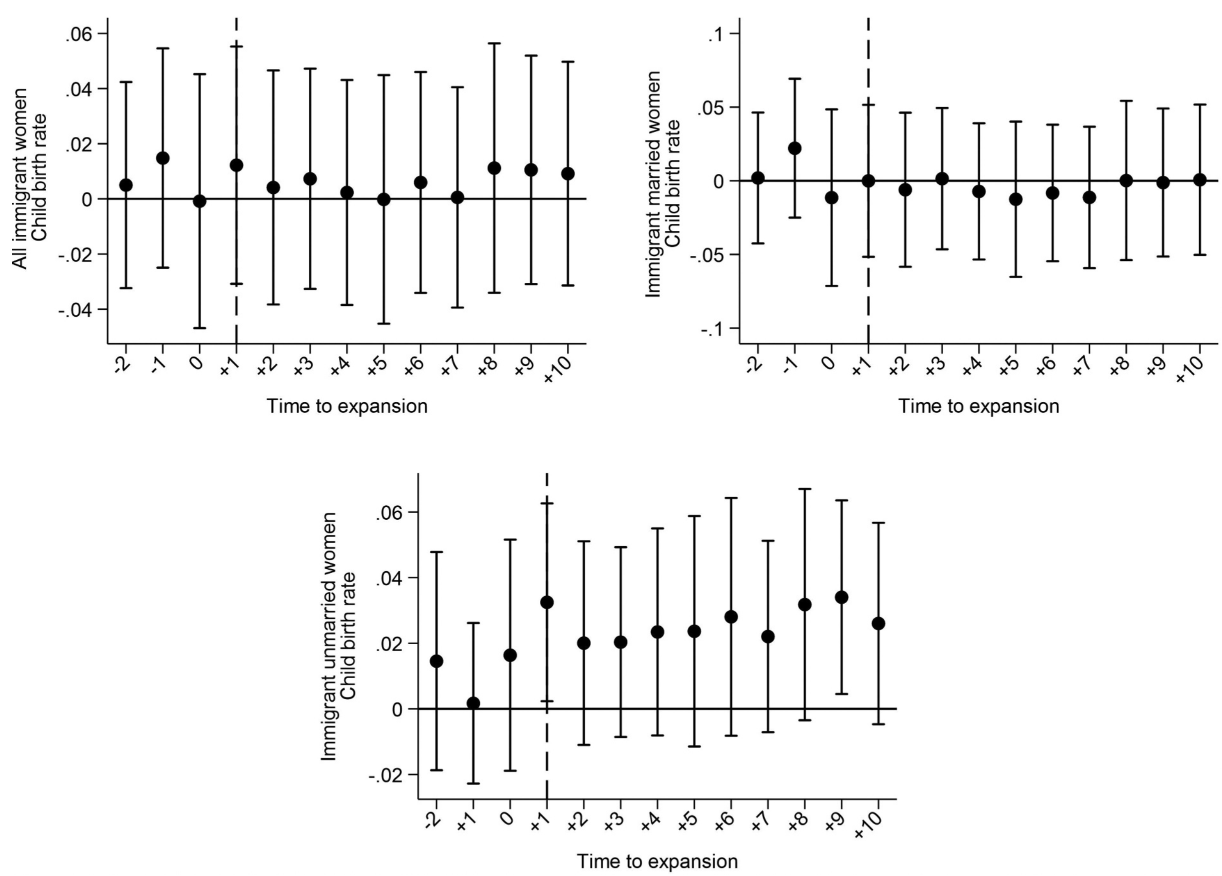

Figure 1. Dynamic effects of generous CHIP on the fertility of immigrant women.

[11]Since the event study shows significant positive impact on unmarried immigrant women beginning one year after implementation, we re-estimate our DD models with policy lagged by one year to allow for an extended period between policy announcement and take-up. Our findings remain qualitatively similar to the main specification (see Table A5).

Table 2. Robustness checks on various subsamples of immigrant women.

	Same state residents		Women with at least one child		< 150% poverty threshold	
	DD estimates	DDD estimates	DD estimates	DDD estimates	DD estimates	DDD estimates
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: All immigrant women						
Generous SCHIP	−0.004	−0.002	0.002	−0.003	0.007	0.008
	(0.008)	(0.008)	(0.012)	(0.012)	(0.015)	(0.014)
Observations	81,831	539,107	38,376	209,938	29,264	129,567
Panel B: Married immigrant women						
Generous SCHIP	−0.015	−0.015	−0.012	−0.017	−0.015	−0.011
	(0.012)	(0.013)	(0.014)	(0.013)	(0.025)	(0.023)
Observations	50,790	264,802	31,637	162,001	14,982	37,970
Panel C: Unmarried immigrant women						
Generous SCHIP	0.016**	0.018***	0.068***	0.061***	0.029***	0.027***
	(0.007)	(0.006)	(0.021)	(0.018)	(0.009)	(0.009)
Observations	31,041	274,305	6,739	47,937	14,282	91,597

Notes: ***,**,* = statistically different from zero at the 1%,5%,10% level.

PRWORA. For example, the programme Aid to Families with Dependent Children (AFDC) was replaced by the Temporary Assistance for Needy Families (TANF). Other less significant changes occurred in food stamp benefits and Medicaid.[12] To ensure that we are not picking up the effects of some other simultaneous policy changes, we conduct a falsification test where we randomly assign SCHIP implementation dates to 15 states and re-estimate the model for unmarried immigrant women. The distribution of 100 coefficients indicating the effect of such placebo treatment is presented in Figure A2 along with the true coefficient. That almost all of the placebo coefficients hover around zero and true estimate is a distinct outlier is reassuring.

IV. Conclusion

In recent times low fertility combined with increasing life expectancy has resulted in rapidly ageing population across several industrialized economies. This ageing phenomenon can have significant long-term macroeconomic implications such as labour shortages, fiscal burden, and reduced innovations. Our analysis provides important insights into the understanding of whether financial safety net provided by social welfare programmes that can reduce cost of raising a child influence individuals' childbearing decision, especially for economically vulnerable groups such as immigrants. Our results indicate potential gains in fertility from expanding publicly funded health insurance for children in specific subset of immigrant population. However, policymakers should also consider several factors such as mother's age-at-birth, motivations for childbearing, and other socio-political implications in designing welfare programme. Hence, the findings motivate the need for further research on the specific mechanisms behind these results, to explore potential heterogeneities across different demographic groups of immigrant women, and to assess the extent to which these findings can be generalized to other population groups.

Compliance with ethical standards

We hereby declare that this project did not receive specific grant from funding agencies in the public, commercial, or not-for-profit sectors. We also declare that this study does not involve any financial or personal conflict of interest.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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[12]See Tschoepe and Hindera (2001) for details on these changes.

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APPENDIX

A.1 Theoretical framework

We begin with Millimet and Wang (2011) utility maximization problem, which is a modified version of Becker & Tomes' (1976) quantity-quality trade-off model. One of the important features of Millimet and Wang (2011) model is that the authors consider health-related resources and health endowment as inputs of child quality. Households' objective is to maximize their utility U given by the function $U = U(n, q, c)$, where n represents child quantity, q represents child quality, and c is consumption. Further, q is a function of market-based health inputs w and child's health endowment θ. In particular, child quality is represented by the production function: $q = q(w, \theta)$, where q is positively related to both w and θ ($q_w > 0$ *and* $q_\theta > 0$).

Households maximize their utility subject to a budget constraint given by:

$$c.p_c + n.p_n + wn.p_w = M \tag{A.1}$$

where M denotes household income, p_c is the unit price of consumption,[13] p_n is the cost per child, and p_w represents price of market-purchased health inputs. In presence of economic support provided by the SCHIP (1) can be modified to:

$$c.p_c + n.p_n + wn.\left(p_w - p_{schip}\right) = M \tag{A.2}$$

where p_{schip} is equates to the state-sponsored healthcare support for each unit of health input purchased.

The equilibrium condition for the constrained utility maximization problem is given by:

$$\frac{\partial U}{\partial c} = \lambda p_c = \lambda \pi_c \tag{A.3}$$

$$\frac{\partial U}{\partial q} = \lambda \frac{(p_w - p_{schip})}{\partial q / \partial w} n = \lambda \pi_q \tag{A.4}$$

$$\frac{\partial U}{\partial n} = \lambda\left(w p_w - w p_{schip} + p_n\right) = \lambda \pi_n \tag{A.5}$$

In the above equations, π_c, π_q and π_n are the shadow prices of consumption, child quality, and child quantity, respectively. The equilibrium condition suggests that while an unplanned or exogenous increase in number of children increases the shadow price of child quality, a state-sponsored child health insurance represented by p_{schip} is negatively related with the same. More specifically, ceteris paribus, implementation of SCHIP can reduce the cost for parents to improve child health quality if they decide to have additional childbirth and further, it is less costly to have an additional child if child quality is high.

[13]Millimet and Wang (2011) also include children's sex ratio in their model assuming that having more children belonging to the same sex can be provide certain cost advantages to households (discussed later). However, to provide a basic understanding of the quantity-quality trade-off, it is not required to account for sex ratio in the main model.

Table A1. Summary statistics.

	All women (native and immigrant)			Immigrant women		
	Overall	Married	Unmarried	Overall	Married	Unmarried
Gave birth to a new child	0.056	0.084	0.028	0.068	0.090	0.033
SCHIP	0.890	0.887	0.892	0.895	0.897	0.891
Generous SCHIP	0.388	0.375	0.401	0.550	0.539	0.569
Unemployment rate	5.278	5.236	5.317	5.509	5.505	5.516
Democrat governor	0.442	0.437	0.446	0.423	0.423	0.423
Lower than HS	0.210	0.098	0.318	0.312	0.284	0.357
HS graduate	0.278	0.300	0.256	0.267	0.278	0.249
Some college	0.204	0.184	0.222	0.134	0.110	0.173
Associate degree	0.085	0.110	0.060	0.060	0.064	0.053
Bachelor	0.165	0.222	0.110	0.157	0.180	0.121
Employed	0.720	0.754	0.687	0.625	0.607	0.654
Any health insurance coverage	0.824	0.862	0.788	0.661	0.690	0.614
Medicaid coverage	0.112	0.055	0.167	0.103	0.074	0.152
Age	30.641	35.177	26.282	31.984	34.364	28.143
White	0.803	0.859	0.749	0.684	0.698	0.663
African American	0.119	0.065	0.171	0.080	0.058	0.116
Native	0.015	0.011	0.019	0.008	0.008	0.009
Asian	0.046	0.052	0.041	0.212	0.223	0.194
Hispanic	0.169	0.169	0.169	0.530	0.529	0.531
Married	0.490			0.617		
Family income (annual)	64,929.400	78,936.360	51,471.620	55,283.840	63,906.120	41,366.210
Number of own child	1.153	1.753	0.577	1.381	1.812	0.686
Number of own child aged<5	0.313	0.480	0.153	0.388	0.519	0.177
Immigrant	0.155	0.195	0.116			
Sample	558858	273841	285017	86497	53409	33088

Notes: Data include women aged 15–45 from Annual Social and Economic Supplement of the Current Population Survey 1997–2009.The measure for annual family income is adjusted for inflation using 2005 as the reference base year. Survey weights are applied.

Table A2. Difference-in-differences regression estimates.

Variables	All women	Married	Not married
	(1)	(2)	(3)
Generous CHIP	−0.004	−0.017	0.018***
	(0.007)	(0.011)	(0.006)
Less than High school	−0.071***	−0.059***	−0.033***
	(0.004)	(0.005)	(0.004)
High school	−0.046***	−0.042***	−0.018***
	(0.003)	(0.004)	(0.003)
Some college	−0.049***	−0.041***	−0.021***
	(0.004)	(0.005)	(0.003)
Associate degree	−0.030***	−0.028***	−0.010*
	(0.006)	(0.009)	(0.006)
Bachelor's degree	−0.016***	−0.015***	−0.003
	(0.003)	(0.005)	(0.003)
Age	−0.007***	−0.011***	−0.003***
	(0.000)	(0.000)	(0.000)
White	0.011*	0.015**	0.008
	(0.006)	(0.007)	(0.008)
African American	0.012*	0.010	0.011
	(0.007)	(0.009)	(0.009)
Native American	0.026**	0.030**	0.017
	(0.012)	(0.014)	(0.022)
Asian	0.004	0.009	0.002
	(0.007)	(0.009)	(0.007)
Hispanic	0.007***	−0.006*	0.007***
	(0.002)	(0.003)	(0.003)
Married	0.057***	-	-
	(0.003)		
Family income	−0.000***	0.000	−0.000***
	(0.000)	(0.000)	(0.000)
Number of own children	0.040***	0.038***	0.045***
	(0.002)	(0.002)	(0.002)
Medicaid coverage	0.048***	0.060***	0.027***
	(0.010)	(0.013)	(0.007)
Health insurance coverage	−0.002	0.007	−0.005**
	(0.003)	(0.005)	(0.002)
Unemployment rate	−0.001	−0.003	0.003*
	(0.002)	(0.003)	(0.002)
Democratic governor	−0.000	0.001	−0.004*
	(0.003)	(0.004)	(0.002)
Observations	86,497	53,409	33,088

Notes: Data include immigrant women aged 15–45 from Annual Social and Economic Supplement of the Current Population Survey 1997–2009. All models control for year and state fixed effects along with state linear time trends. Standard errors are clustered at the state level and are reported in parentheses. All regressions are weighted by individual-level ASEC supplement weight. Women with post-graduate qualification and women belonging to mixed or other race are treated as the omitted categories with respect to education and racial characteristics, respectively. ***,**,* = statistically different from zero at the 1%,5%,10% level.

Table A3. Triple difference regression estimates.

Variables	All women	Married	Not married
	(1)	(2)	(3)
Generous state*CHIP*Immigrant	−0.002	−0.018	0.019***
	(0.008)	(0.011)	(0.006)
Generous state*CHIP	−0.001	0.001	−0.001
	(0.003)	(0.004)	(0.002)
Generous state*Immigrant	−0.004	0.002	−0.020***
	(0.006)	(0.009)	(0.005)
CHIP*Immigrant	−0.008	−0.006	−0.011**
	(0.007)	(0.010)	(0.005)
Immigrant	0.019***	0.019***	0.018***
	(0.005)	(0.007)	(0.005)
Generous state	−0.117	1.489	−1.258*
	(0.891)	(1.194)	(0.659)
CHIP	0.006	0.008	0.003
	(0.004)	(0.008)	(0.004)
Less than High school	−0.092***	−0.072***	−0.042***
	(0.003)	(0.004)	(0.002)
High school	−0.055***	−0.061***	−0.015***
	(0.002)	(0.003)	(0.001)
Some college	−0.055***	−0.054***	−0.023***
	(0.002)	(0.003)	(0.002)
Associate degree	−0.043***	−0.046***	−0.019***
	(0.002)	(0.003)	(0.002)
Bachelor's degree	−0.024***	−0.024***	−0.010***
	(0.002)	(0.003)	(0.001)
Age	−0.006***	−0.011***	−0.003***
	(0.000)	(0.000)	(0.000)
White	0.007***	0.018***	−0.001
	(0.002)	(0.005)	(0.003)
African American	0.002	−0.001	−0.004
	(0.003)	(0.006)	(0.003)
Native American	0.010*	0.013	0.004
	(0.005)	(0.008)	(0.005)
Asian	−0.007**	0.005	−0.009***
	(0.003)	(0.005)	(0.003)
Hispanic	0.000	−0.009***	0.001
	(0.001)	(0.003)	(0.001)
Married	0.059***	-	-
	(0.001)		
Family income	−0.000***	0.000	−0.000***
	(0.000)	(0.000)	(0.000)
Number of own children	0.040***	0.036***	0.044***
	(0.001)	(0.001)	(0.001)
Medicaid coverage	0.056***	0.065***	0.041***
	(0.005)	(0.009)	(0.004)
Health insurance coverage	−0.001	0.018***	−0.001*
	(0.001)	(0.002)	(0.001)
Unemployment rate	0.000	−0.000	0.000
	(0.001)	(0.001)	(0.001)
Democratic governor	0.001	0.001	0.000
	(0.001)	(0.001)	(0.001)
Observations	558,858	273,841	285,017

Notes: Data include immigrant and native women aged 15–45 from Annual Social and Economic Supplement of the Current Population Survey 1997–2009. Standard errors are clustered at the state level and are reported in parentheses. All models control for year and state fixed effects along with state linear time trends. The regressions are weighted by individual-level ASEC supplement weight. Women with post-graduate qualification and women belonging to mixed or other race are treated as the omitted categories with respect to education and racial characteristics, respectively. ***,**,* = statistically different from zero at the 1%,5%,10% level.

Table A4. Event analysis estimates.

Time indicators	All women	Married	Not married
	(1)	(2)	(3)
2 years prior	0.005	0.002	0.015
	(0.019)	(0.022)	(0.017)
1 year prior	0.015	0.022	0.002
	(0.020)	(0.023)	(0.012)
Year effective	−0.001	−0.011	0.016
	(0.023)	(0.030)	(0.018)
1 year after	0.012	−0.000	0.032**
	(0.021)	(0.026)	(0.015)
2 years after	0.004	−0.006	0.020
	(0.021)	(0.026)	(0.015)
3 years after	0.007	0.001	0.020
	(0.020)	(0.024)	(0.014)
4 years after	0.002	−0.007	0.023
	(0.020)	(0.023)	(0.016)
5 years after	−0.000	−0.013	0.024
	(0.022)	(0.026)	(0.017)
6 years after	0.006	−0.008	0.028
	(0.020)	(0.023)	(0.018)
7 years after	0.001	−0.011	0.022
	(0.020)	(0.024)	(0.015)
8 years after	0.011	0.000	0.032*
	(0.023)	(0.027)	(0.018)
9 years after	0.011	−0.001	0.034**
	(0.021)	(0.025)	(0.015)
10 years after	0.009	0.001	0.026*
	(0.020)	(0.025)	(0.015)
Observations	85,772	52,962	32,810

Notes: The period 3 or more years prior to CHIP implementation is the omitted category. The individual and state-level covariates are identical to the variables used in the main analysis. Standard errors are clustered at the state level and are reported in parentheses. All regressions are weighted by individual-level ASEC supplement weight. Women with post-graduate qualification and women belonging to mixed or other race are treated as the omitted categories with respect to education and racial characteristics, respectively. ***,**,* = statistically different from zero at the 1%,5%,10% level.

Table A5. Robustness check using lagged CHIP.

	All Women	Married	Not married
Lagged generous CHIP	−0.0020	−0.0110	0.0131**
	(0.0055)	(0.0082)	(0.0051)
Observations	558,858	273,841	285,017

Notes: All models control for year and state fixed effects along with state linear time trends. Standard errors are clustered at the state level and are reported in parentheses. All regressions are weighted by individual-level ASEC supplement weight. Women with post-graduate qualification and women belonging to mixed or other race are treated as the omitted categories with respect to education and racial characteristics, respectively. ***,**,* = statistically different from zero at the 1%,5%,10% level.

Table A6. Impact of generous SCHIP on immigrant women's employment.

	All women (1)	Married (2)	Not married (3)
Generous CHIP	0.004	0.001	0.013
	(0.013)	(0.015)	(0.021)
Observations	86,497	53,409	33,088
Individual characteristics	Yes	Yes	Yes
State characteristics	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes
State fixed effects	Yes	Yes	Yes
State linear time trends	Yes	Yes	Yes

Notes: The individual and state-level covariates are identical to the variables used in the main analysis. Standard errors are clustered at the state level and are reported in parentheses. All regressions are weighted by individual-level ASEC supplement weight. Women with post-graduate qualification and women belonging to mixed or other race are treated as the omitted categories with respect to education and racial characteristics, respectively. ***,**,* = statistically different from zero at the 1%,5%,10% level.

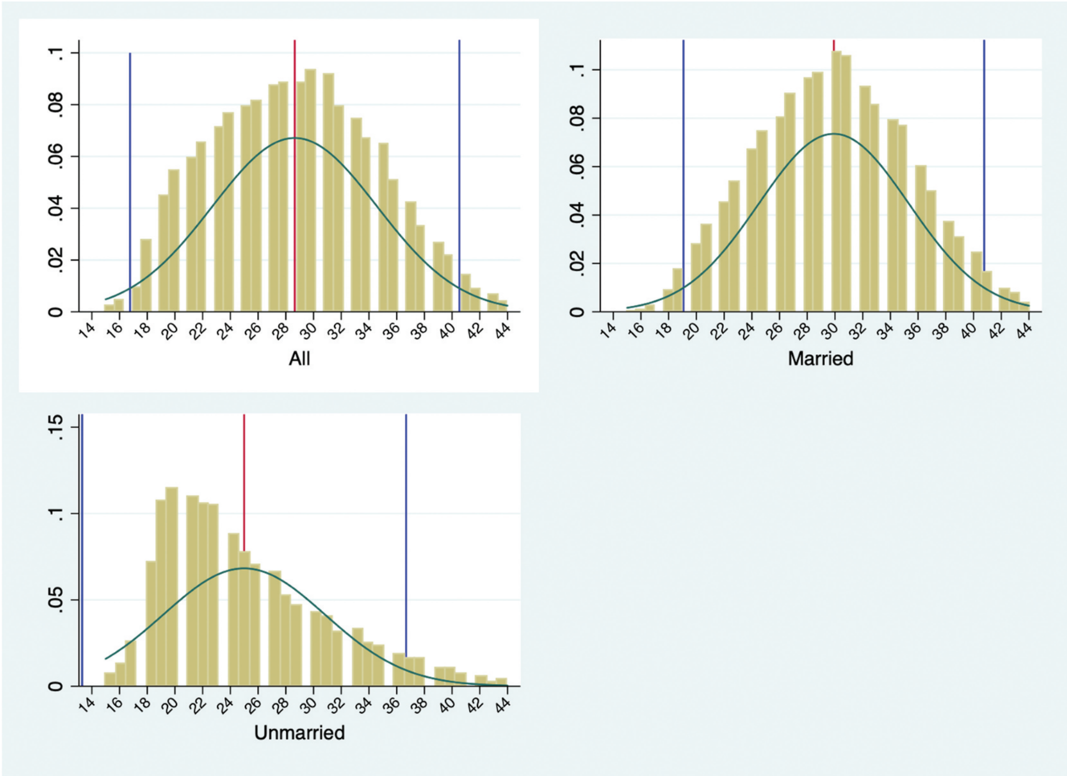

Figure A1. Distribution of birth across ages of immigrant women. Notes: Data include women aged 15–45 from Annual Social and Economic Supplement of the Current Population Survey 1997–2009. The red line indicates mean and blue lines indicate two standard deviations around the mean.

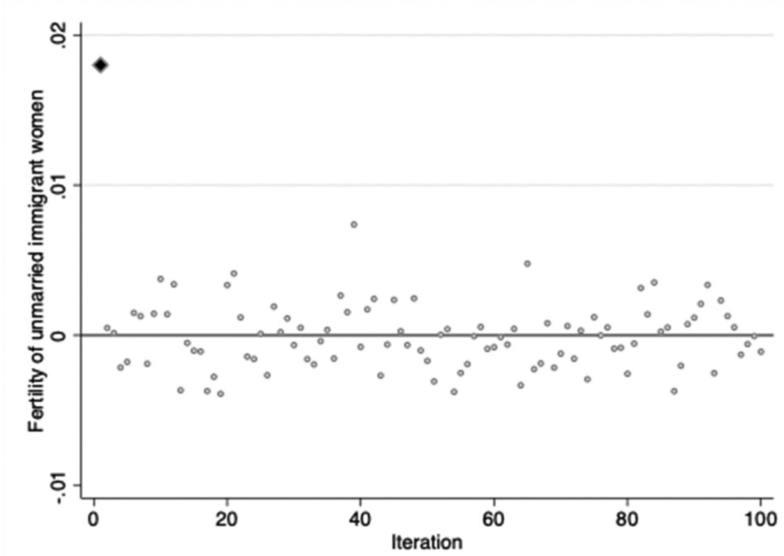

Figure A2. Falsification test with randomized treatment dates. Notes: Data include women aged 15–45 from Annual Social and Economic Supplement of the Current Population Survey 1997–2009. The solid diamond represents the estimated impact of SCHIP on fertility of unmarried immigrant women while the empty circles represent estimates from a simulation where we assign random SCHIP implementation dates to the treated states.