

Web Material

Restrictive Immigration Law and Birth Outcomes of Immigrant Women

Florencia Torche and Catherine Sirois

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## Web Appendix 1.

### METHODS

**Synthetic cohort construction:** A synthetic cohort approach allows for estimation of an effect when a unit is exposed to an event or intervention (“treatment”). It provides a systematic method to obtain a weighted sum of donor control units (states, in this setting) chosen from a pool of potential candidate units. The weighted combination of control units is chosen to approximate the unit affected by the treatment in terms of the outcome’s predictors.

We first established a donor state pool by excluding states that had passed similarly restrictive immigration legislation during the period of observation, providing a poor counterfactual (see Web Figure 1). These states include Alabama, Georgia, Indiana, Kansas, Mississippi, Missouri, Rhode Island, South Carolina, Utah, West Virginia. We then used Abadie et al.’s (1) algorithm to select a synthetic cohort of states that resembles the treated state in terms of demographic and socioeconomic pre-treatment trends and attributes from the donor pool. This ancillary analysis is based on the Current Population Survey (CPS), a monthly survey of about 54,000 households conducted by the US Census Bureau and the Bureau of Labor Statistics. Using the CPS monthly surveys from January 2007 to December 2012, we constructed a state-by-semester panel including the following trends and attributes:

- Lagged value of the outcome variable (birth weight). Lagged values of the outcome are considered critical predictors in synthetic cohort models because they include the effects of any factor shaping the outcome whether or not they are observed (2). Rather than including values of the outcome for all pre-treatment periods, it is recommended to use an average of lagged values prior to the period of treatment implementation or a single pre-treatment value (3) and to assess the sensitivity of the results to the choice of lagged outcome (4). We compared several lag structures and obtained similar results, so we report results with lagged birthweight value during the second semester of 2009, 12 months prior to the treatment.
- Proportion of non-citizen Latinos residing in the state.
- State-level unemployment rate.
- Proximity to the border, an ordinal variable coded 2 for border states, 1 for states adjacent to a border state, and 0 for other states (this attribute is constant over time).
- Proportion of non-citizen residents born in Mexico, El Salvador, Guatemala, Honduras, and Nicaragua.
- Proportion of the adult population with a high school diploma or more.

We assigned weights to the donor pool’s states to minimize the difference between the treated unit and the control units based on these pre-treatment trends and characteristics. **Web Table 1** reports the weights for the states included in the synthetic cohort and the predictor balance comparing Arizona with the synthetic cohort after weighting.

## RESULTS

**Web Tables 2 and 3** are the source of Figure 4.

**Web Table 2** reports estimates of the impact of SB1070 on the birth rate among Latina immigrant mothers (Model 1) and US-born black and white women (Model 2) across the period of exposure. The birth rate is expressed as the number of births per 1,000 population for each period of exposure, separately for each group of women. Population figures were obtained from monthly Current Population Surveys (CPS).

**Web Table 3** reports estimates of the impact of SB1070 on socioeconomic characteristics of women giving birth, obtained from the birth certificates. These characteristics include mother is teenager (19 years old or younger at time of birth), mother is unmarried at time of birth, and mother has a low level of educational attainment at time of birth (a high school diploma or less).

## ALTERNATIVE SPECIFICATIONS AND ROBUSTNESS TESTS

**Restricting analysis to “stayers”.** In our models, exposure to SB1070 has been defined by mother’s state of residence rather than the state of birth occurrence, as reported in the birth certificate. If women temporarily left their state of habitual residence and gave birth in their temporary location but did not change their permanent residence, they were coded as exposed in their state of residence. This decision averts confounding emerging from migratory flows induced by SB1070. However, it is plausible that a portion of the discrepancy between state of mother’s residence and state of birth occurrence is due to reporting error, or that residents of Arizona who gave birth in a different state have sufficient ties in the state of birth occurrence that the Arizona bill had a weaker effect on them. To account for this possibility, **Web Table 4** estimates alternative models restricted to mothers who gave birth in their state of residence. These models for “stayers” produce substantively identical results to the main findings presented in Table 1.

**Using an alternative control group.** We relied on a synthetic cohort approach to obtain control states based on similarity to Arizona in terms of pre-treatment trends. Some of the synthetic cohort member states neighbor Arizona (see Web Figure 1). If the hostile environment created by SB1070 led to substantial emigration from Arizona to these neighboring states, or if the bill had spillover effects on the Latino populations residing in the control states, they would provide a poor counterfactual. To address these potential sources of bias, we used Florida and New Jersey as alternative control states. While they differ from Arizona in pre-treatment attributes, Florida and New Jersey are important immigrant destinations. Given their distance from Arizona and different country-of-origin composition of the immigrant population, both would have been unlikely destinations of choice for Latina immigrants leaving Arizona as a result of SB1070 and would have been unlikely to experience spillover effects. **Web Table 5** offers results from models estimating the effect of SB1070 using these alternative control states and shows a negative effect of SB1070 among births occurring in the second half of 2010.

**Models with clustered standard errors:** All models estimated use robust standard errors to account for heteroskedasticity. To account for potential common error structure, we estimated models with robust standard errors clustered at the state level. State-clustered standard errors

allow for an unrestricted covariance structure within states, the units determining treatment allocation (6). **Web Table 6** shows that clustered standard errors are substantially smaller than the robust standard errors, so we opted for the more conservative robust version. An additional potential issue leading to underestimation of standard errors in DID models is serial correlation, likely emerging from serial time dependency of the treatment itself (7). This is not a concern in this setting because the analysis relies on a short panel with time intervals of different lengths, and because the treatment is not an absorbing state.

**Evaluating an increase in home births:** In response to SB1070, some Latina immigrants in Arizona may have chosen not to deliver in health care facilities to avoid interacting with state authorities or healthcare providers. To test the plausibility of this response, we examined the effect of SB1070 on the prevalence of home births in Arizona using difference-in-differences models. **Web Table 7** offers results from the analysis and shows no significant change in the likelihood of a home birth among Latina immigrant women. A null effect is also found for US-born black and white women. Furthermore, even if the proportion of home births did not increase, it is possible that mothers who delivered at home had opted not to obtain a birth certificate for these births after the passage of SB1070. This possibility is extremely unlikely given the advantages of obtaining a birth certificate to prove citizenship, enroll in school, and apply for some government benefits<sup>1</sup>.

## Potential Mechanisms

Several mechanisms have been offered to account for a detrimental effect of prenatal stress exposure on birth weight, including the physioneuroendocrine stress maternal response that could harm the developing fetus, as well as behavioral responses by mothers such as reduction in prenatal care, cigarette and alcohol consumption, and change in diet or exercise (8,9). While we cannot perform an exhaustive evaluation of mechanisms with the data available in the birth certificates, we can test two behavioral pathways: A decline in prenatal care use and an increase in cigarette consumption as a response to SB1070.

*Prenatal care use:* The birth certificates contain information on the number of prenatal care visits during pregnancy. To adjust for length of gestation, we created a gestational-age specific measure of whether the number of prenatal care visits is adequate according to the recommendations of the American College of Obstetricians and Gynecologists (ACOG), whether it is lower than recommended, or higher than recommended (10,11)<sup>2</sup>. A lower than recommended number of prenatal care visits would suggest insufficient medical care, while a higher than recommended number is likely associated with pregnancy or maternal complications.

*Smoking:* Available information in the birth certificates about smoking during pregnancy and number of cigarettes smoked available in the birth certificates varies over time and across states. The only variable consistently available over the entire period of observations and for all states is a dichotomous indicator coded 1 if the mother smoked cigarettes during pregnancy, 0 otherwise.

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<sup>1</sup> In fact, unauthorized immigrants have organized to demand the right to a birth certificate for their US-born children when this right has been threatened at the state level. See for example Presto (13).

<sup>2</sup> An additional measure of prenatal care adequacy is time of care initiation. This variable is not available for all states included in the analysis.

**Web Table 8** offers estimates of the effect of SB1070 on birth weight controlling for prenatal care visits and **Web Table 9** offers models with controls for mother's cigarette consumption during pregnancy. (We should note that the analysis cannot be given a causal interpretation because the putative mediators are not randomly allocated, violating the sequential ignorability assumption (12)). The results show virtually no change in parameter estimates capturing the effect of SB1070 after accounting for these putative mediators, even if both have a strong association with the outcome. These results suggest these behavioral pathways do not account for the detrimental effect of exposure to SB1070 on birth weight among Latina immigrant women.

### **Stratifying by mother's level of education**

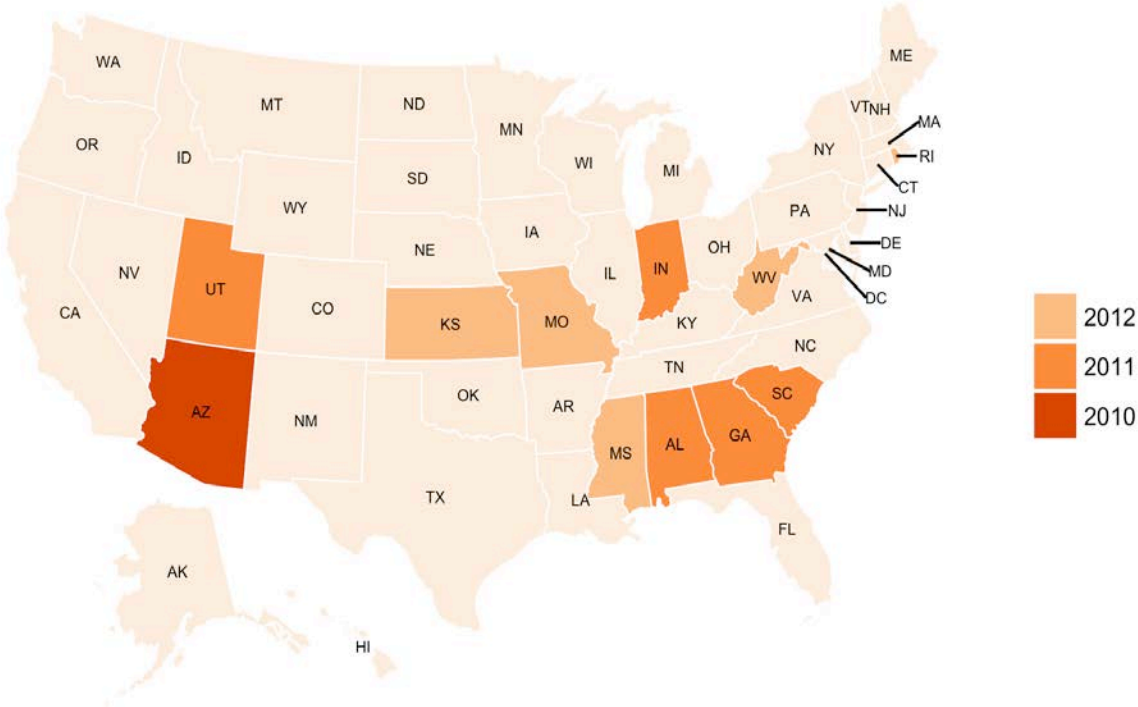
In order to examine heterogeneity in the effect of exposure to SB1070, we stratified the sample of Latina immigrants based on the mother's educational level. We distinguished two groups: Mothers with a high school diploma or less (low education) and mothers with some college education or more (high education). The models, presented in **Web Table 10** show a decline in birthweight among infants born in the second half of 2010 ( $t_3$ ) for both groups. Prenatal exposure to the bill's passage results in a decline in birthweight of 12 grams ( $P=.04$ ) among immigrants with low education, and 29 grams ( $P=.05$ ) among immigrants with higher levels of education (while these estimates differ in magnitude, they are statistically indistinguishable [ $P=.29$ ]).

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**Web Figure 1.** States considering restrictive omnibus immigration laws after Arizona passed SB1070.



**Web Table 1. Weights assigned to potential donor pool states to create counterfactual population using synthetic cohort approach.**

State	Weight	Predictor variable:	Predictor balance	
			Arizona	Synthetic cohort
		Lagged birth weight	3327.7	3329.6
California	0.522	Latino non-citizens	0.077	0.078
Louisiana	0.168	Unemployment rate	0.046	0.047
New Mexico	0.177	Border proximity	2.000	1.832
Texas	0.133	Non-citizens from Mexico & Central America	0.076	0.075
<b>Total weight</b>	<b>1.000</b>	Residents with a high school diploma	0.791	0.790



**Web Table 2. Difference in difference estimates of the impact of SB1070 on the birth rate (births per 1,000 population) for Latina immigrant mothers and US born Black and White mothers in Arizona and control states.**

	Latina immigrants	US-born black and white
to Jan 2007-Jun2009 (omitted)		
t <sub>1</sub> Jul 2009 – Dec 2009	-2.6*** (0.1)	0.2*** (0.0)
t <sub>2</sub> Jan 2010 – Jun 2010	-8.0*** (0.1)	-1.6*** (0.0)
t <sub>3</sub> Jul 2010 – Dec 2010	-5.3*** (0.1)	-0.5*** (0.0)
t <sub>4</sub> Jan 2011 – Jun 2011	-7.4*** (0.1)	-1.9*** (0.0)
t <sub>5</sub> Jul 2011 – Dec 2011	-5.6*** (0.1)	-1.0*** (0.0)
t <sub>6</sub> Jan – Dec 2012	-9.4*** (0.1)	-1.3*** (0.0)
Arizona *t <sub>0</sub> (omitted)		
Arizona *t <sub>1</sub>	-1.7*** (0.4)	-0.5*** (0.1)
Arizona *t <sub>2</sub>	-4.5*** (0.4)	1.1*** (0.1)
Arizona *t <sub>3</sub>	-2.7*** (0.4)	-0.4*** (0.1)
Arizona *t <sub>4</sub>	-7.7*** (0.4)	0.9*** (0.1)
Arizona *t <sub>5</sub>	-8.8*** (0.4)	0.2 (0.1)
Arizona *t <sub>6</sub>	-7.1*** (0.4)	1.7*** (0.1)
Constant	36.7*** (0.1)	12.8*** (0.0)

+p<.10 \*p<.05, \*\*p<.01, \*\*\*p<.001. Two-tailed tests. Robust standard errors in parentheses. Indicator for the treatment group (Arizona) dropped because of perfect collinearity with the county fixed effects

**Web Table 3. Difference in difference estimates of the impact of SB1070 on socioeconomic attributes (teen mother, unmarried mother, mother with low educational attainment) of Latina immigrant mothers and US-born Black and White mothers in Arizona and control states.**

	Mother is teenager		Mother is single		Mother has low education	
	Latina immigrant	US-born black and white	Latina immigrant	US-born black and white	Latina immigrant	US-born black and white
to Jan 2007-Jun2009 (omitted)						
t <sub>1</sub> Jul 2009 – Dec 2009	-0.011*** (0.001)	-0.004** (0.001)	0.011*** (0.002)	0.011*** (0.003)	-0.009** (0.003)	-0.025*** (0.006)
t <sub>2</sub> Jan 2010 – Jun 2010	-0.015*** (0.002)	-0.011*** (0.001)	0.008** (0.003)	-0.002 (0.003)	-0.024*** (0.004)	-0.048*** (0.007)
t <sub>3</sub> Jul 2010 – Dec 2010	-0.018*** (0.002)	-0.013*** (0.002)	0.011*** (0.003)	0.008* (0.003)	-0.028*** (0.003)	-0.047*** (0.006)
t <sub>4</sub> Jan 2011 – Jun 2011	-0.022*** (0.002)	-0.018*** (0.001)	0.002 (0.008)	-0.003 (0.002)	-0.036*** (0.004)	-0.066*** (0.005)
t <sub>5</sub> Jul 2011 – Dec 2011	-0.028*** (0.002)	-0.021*** (0.002)	-0.001 (0.008)	0.011*** (0.003)	-0.040*** (0.005)	-0.059*** (0.004)
t <sub>6</sub> Jan – Dec 2012	-0.032*** (0.002)	-0.027*** (0.002)	0.004 (0.005)	0.006+ (0.003)	-0.052*** (0.005)	-0.067*** (0.005)
Arizona *t <sub>0</sub> (omitted)						
Arizona *t <sub>1</sub>	-0.005+ (0.003)	-0.002 (0.002)	-0.014*** (0.004)	0.001 (0.006)	-0.004 (0.004)	0.020** (0.006)
Arizona *t <sub>2</sub>	-0.010*** (0.002)	0.001 (0.002)	-0.032*** (0.005)	0.017** (0.005)	-0.006 (0.007)	0.030*** (0.007)
Arizona *t <sub>3</sub>	-0.011*** (0.003)	0.003 (0.002)	-0.034*** (0.005)	0.012* (0.005)	-0.001 (0.004)	0.028*** (0.007)
Arizona *t <sub>4</sub>	-0.016*** (0.003)	0.004* (0.002)	-0.019* (0.009)	0.010* (0.004)	-0.008 (0.006)	0.040*** (0.006)
Arizona *t <sub>5</sub>	-0.010** (0.003)	0.002 (0.003)	-0.039*** (0.009)	0.010* (0.005)	-0.010+ (0.005)	0.030*** (0.006)
Arizona *t <sub>6</sub>	-0.008** (0.003)	0.007** (0.002)	-0.036*** (0.006)	0.020** (0.007)	-0.002 (0.008)	0.036*** (0.006)
Constant	0.096*** (0.001)	0.097*** (0.001)	0.491*** (0.002)	0.393*** (0.001)	0.853*** (0.002)	0.424*** (0.002)

+p<.10 \*p<.05, \*\*p<.01, \*\*\*p<.001. Two-tailed tests. Robust standard errors in parentheses. Indicator for the treatment group (Arizona) dropped because of perfect collinearity with the county fixed effects Teen mothers are women 19 years old or younger at the time of birth, single mothers are women who are unmarried at the time of birth, low education mothers are mothers with a high school diploma or less at the time of birth.

**Web Table 4. Difference in difference estimates of the impact of SB1070 on birth weight for Latina immigrant mothers and US-born Black and White mothers in Arizona and control states, excluding women who gave birth outside of their state of residence.**

	Latina immigrant	US-born black and white
t <sub>0</sub> Jan 2007-Jun2009 (omitted)		
t <sub>1</sub> Jul 2009 – Dec 2009	-13.8*** (3.6)	-2.7 (3.2)
t <sub>2</sub> Jan 2010 – Jun 2010	-4.8 (3.0)	-6.6 (5.1)
t <sub>3</sub> Jul 2010 – Dec 2010	-6.5* (2.9)	-2.7 (2.5)
t <sub>4</sub> Jan 2011 – Jun 2011	-7.5* (3.5)	0.8 (2.7)
t <sub>5</sub> Jul 2011 – Dec 2011	-7.6+ (4.6)	3.1 (2.7)
t <sub>6</sub> Jan – Dec 2012	-8.3** (2.8)	6.9** (2.5)
Arizona *t <sub>0</sub> (omitted)		
Arizona *t <sub>1</sub>	-3.4 (4.6)	-2.0 (4.2)
Arizona *t <sub>2</sub>	-8.1+ (4.8)	11.3* (5.5)
Arizona *t <sub>3</sub>	-15.6** (5.3)	-0.7 (3.0)
Arizona *t <sub>4</sub>	9.6 (6.0)	-0.5 (4.7)
Arizona *t <sub>5</sub>	-1.7 (6.8)	4.0 (4.6)
Arizona *t <sub>6</sub>	5.9 (6.0)	10.1+ (5.2)
Female	-95.0*** (1.1)	-117.4*** (1.3)
Education LT 8 years (omitted)		
Education some HS	10.4*** (2.1)	17.2* (7.3)
Education HS graduate	4.3 (3.9)	82.8*** (7.7)
Education some college	12.3** (3.8)	118.1*** (8.6)
Education college graduate	11.3+ (6.4)	163.7*** (9.8)
Birth order:1 (omitted)		
Birth order 2-3	75.8*** (3.1)	46.4*** (2.7)
Birth order 4-5	98.6*** (4.3)	28.2*** (5.0)
Birth order 6+	100.5*** (5.8)	-4.1 (8.8)
Mother's age	30.8*** (1.4)	12.6*** (1.2)
Mother's age <sup>2</sup>	-0.5*** (0.0)	-0.2*** (0.0)
Mother is married	12.5*** (2.0)	104.4*** (4.0)
Constant	2,857.3*** (19.5)	2,983.3*** (16.6)

+p<.10 \*p<.05, \*\*p<.01, \*\*\*p<.001. Two-tailed tests. Robust standard errors in parentheses. Indicator for the treatment group (Arizona) dropped because of perfect collinearity with the county fixed effects

**Web Table 5. Difference in difference estimates of the impact of SB1070 on birth weight for Latina immigrant mothers and US-born Black and White mothers in Arizona using Florida and New Jersey as control states.**

	Latina immigrant	US-born black and white
t <sub>0</sub> Jan 2007-Jun2009 (omitted)		
t <sub>1</sub> Jul 2009 – Dec 2009	-9.1+ (4.7)	0.7 (1.9)
t <sub>2</sub> Jan 2010 – Jun 2010	-0.0 (5.3)	4.0* (2.0)
t <sub>3</sub> Jul 2010 – Dec 2010	-5.6 (5.8)	2.5 (2.4)
t <sub>4</sub> Jan 2011 – Jun 2011	-2.9 (7.0)	4.5+ (2.4)
t <sub>5</sub> Jul 2011 – Dec 2011	-4.2 (4.3)	6.5** (2.1)
t <sub>6</sub> Jan – Dec 2012	9.6 (6.1)	12.0*** (2.0)
Arizona *t <sub>0</sub> (omitted)		
Arizona *t <sub>1</sub>	-8.2 (5.6)	-4.1 (3.3)
Arizona *t <sub>2</sub>	-11.2+ (6.0)	3.5 (2.9)
Arizona *t <sub>3</sub>	-15.6* (7.3)	-2.6 (2.7)
Arizona *t <sub>4</sub>	6.4 (8.5)	-1.1 (4.6)
Arizona *t <sub>5</sub>	-3.0 (6.5)	3.1 (4.6)
Arizona *t <sub>6</sub>	-10.7 (7.9)	9.2+ (5.3)
Female	-96.3*** (1.6)	-119.2*** (1.3)
Birth order:1 (omitted)		
Birth order 2-3	83.7*** (3.3)	34.9*** (2.1)
Birth order 4-5	109.1*** (4.9)	4.0 (4.6)
Birth order 6+	104.7*** (6.6)	-45.7*** (10.5)
Mother's age	2.1*** (0.4)	2.7*** (0.2)
Mother is married	13.1*** (2.6)	149.3*** (4.4)
Birth in state of residence	103.5*** (25.9)	38.0* (15.1)
Constant	3,131.0*** (32.4)	3,125.4*** (15.6)

+p<.10 \*p<.05, \*\*p<.01, \*\*\*p<.001. Two-tailed tests. Robust standard errors in parentheses. Indicator for the treatment group (Arizona) dropped because of perfect collinearity with the county fixed effects. Controls for mother's education not included because the variable is not available for the entire period of observation in the control states.

**Web Table 6. Difference in difference estimates of the impact of SB1070 on birth weight for Latina immigrant and US-born Black and White mothers in Arizona and control states using clustered standard errors.**

	Latina immigrant	US-born black and white
to Jan 2007-Jun2009 (omitted)		
t <sub>1</sub> Jul 2009 – Dec 2009	-14.2* (3.8)	-2.6 (3.5)
t <sub>2</sub> Jan 2010 – Jun 2010	-5.4*** (0.4)	-6.4 (9.2)
t <sub>3</sub> Jul 2010 – Dec 2010	-6.9* (2.2)	-2.5 (5.3)
t <sub>4</sub> Jan 2011 – Jun 2011	-8.3* (2.6)	0.7 (2.5)
t <sub>5</sub> Jul 2011 – Dec 2011	-8.0 (7.7)	3.2 (5.4)
t <sub>6</sub> Jan – Dec 2012	-8.7** (1.3)	7.3 (6.2)
Arizona *t <sub>0</sub> (omitted)		
Arizona *t <sub>1</sub>	-3.0 (3.5)	-1.7 (3.4)
Arizona *t <sub>2</sub>	-8.1*** (0.6)	11.6 (9.0)
Arizona *t <sub>3</sub>	-14.9** (1.8)	-0.7 (5.3)
Arizona *t <sub>4</sub>	10.6* (3.0)	0.6 (2.6)
Arizona *t <sub>5</sub>	-1.3 (7.2)	3.7 (5.5)
Arizona *t <sub>6</sub>	6.1** (1.1)	9.7 (5.9)
female	-95.4*** (0.8)	-117.6*** (1.6)
Education LT 8 years (omitted)		
Education some HS	10.7+ (4.4)	15.1 (8.2)
Education HS graduate	4.6 (7.5)	80.5** (10.6)
Education some college	11.8+ (4.4)	115.5** (15.6)
Education college graduate	12.9+ (5.7)	161.3** (21.3)
Birth order:1 (omitted)		
Birth order 2-3	75.8*** (5.0)	46.3** (9.0)
Birth order 4-5	98.4*** (7.5)	27.6+ (12.9)
Birth order 6+	100.3** (12.4)	-3.3 (19.4)
Mother's age	30.6*** (0.7)	12.6* (2.9)
Mother's age <sup>2</sup>	-0.5*** (0.0)	-0.2** (0.0)
Mother is married	12.7*** (0.6)	104.8*** (12.1)
Birth in state of residence	233.8*** (4.7)	137.7** (20.1)
Constant	2,627.0*** (9.5)	2,846.6*** (41.7)

+p<.10 \*p<.05, \*\*p<.01, \*\*\*p<.001. Two-tailed tests. Robust standard errors in parentheses. Indicator for the treatment group (Arizona) dropped because of perfect collinearity with the county fixed effects

**Web Table 7. Difference in differences estimates of the impact of SB1070 on the percent of home births for Latina immigrant mothers and US-born Black and White mothers in Arizona and control states.**

	Latina immigrant	US-born black and white
t <sub>0</sub> Jan 2007-Jun2009 (omitted)		
t <sub>1</sub> Jul 2009 – Dec 2009	0.010 (0.023)	0.014 (0.082)
t <sub>2</sub> Jan 2010 – Jun 2010	-0.029 (0.020)	0.241** (0.078)
t <sub>3</sub> Jul 2010 – Dec 2010	0.028 (0.034)	0.442*** (0.095)
t <sub>4</sub> Jan 2011 – Jun 2011	0.011 (0.017)	0.347*** (0.089)
t <sub>5</sub> Jul 2011 – Dec 2011	0.023 (0.028)	0.373** (0.133)
t <sub>6</sub> Jan – Dec 2012	0.047* (0.021)	0.419*** (0.069)
Arizona *t <sub>0</sub> (omitted)		
Arizona *t <sub>1</sub>	0.000 (0.036)	0.182 (0.123)
Arizona *t <sub>2</sub>	0.003 (0.024)	0.010 (0.104)
Arizona *t <sub>3</sub>	-0.014 (0.037)	-0.136 (0.155)
Arizona *t <sub>4</sub>	0.048 (0.031)	-0.160 (0.117)
Arizona *t <sub>5</sub>	-0.017 (0.033)	-0.015 (0.154)
Arizona *t <sub>6</sub>	-0.037 (0.026)	-0.061 (0.135)
Female	0.028* (0.014)	0.019 (0.021)
Education LT 8 years (omitted)		
Education some HS	-0.015 (0.013)	-0.634*** (0.190)
Education HS graduate	-0.001 (0.012)	-0.685** (0.227)
Education some college	0.095* (0.042)	-0.371 (0.263)
Education college graduate	0.186*** (0.046)	0.317 (0.315)
Birth order: 1 (omitted)		
Birth order 2-3	0.073*** (0.017)	0.355*** (0.074)
Birth order 4-5	0.116*** (0.022)	0.813*** (0.145)
Birth order 6+	0.224*** (0.050)	2.106*** (0.304)
Mother's age	0.007 (0.007)	0.045 (0.031)
Mother's age <sup>2</sup>	-0.000 (0.000)	-0.001 (0.000)
Mother is married	0.008 (0.012)	0.449*** (0.098)
Birth in state of residence	0.054 (0.058)	1.304** (0.458)
Constant	-0.083 (0.142)	-1.389+ (0.771)

+p<.10 \*p<.05, \*\*p<.01, \*\*\*p<.001. Two-tailed tests. Robust standard errors in parentheses. Indicator for the treatment group (Arizona) dropped because of perfect collinearity with the county fixed effects Home births include any residential birth, even if it is not in the mother's residence.

**Web Table 8. Difference in differences estimates of the impact of SB1070 on birth weight controlling for adequacy of prenatal care visits. Latina immigrants and US-born Black and White mothers in Arizona and control states.**

	Latina immigrant	US-born black and white
t <sub>0</sub> Jan 2007-Jun2009		
t <sub>1</sub> Jul 2009 – Dec 2009	-15.1*** (3.4)	-2.7 (3.4)
t <sub>2</sub> Jan 2010 – Jun 2010	-6.7* (2.9)	-7.5 (5.6)
t <sub>3</sub> Jul 2010 – Dec 2010	-8.1** (2.9)	-3.1 (2.5)
t <sub>4</sub> Jan 2011 – Jun 2011	-10.2** (3.6)	-0.9 (2.6)
t <sub>5</sub> Jul 2011 – Dec 2011	-10.0* (4.8)	1.3 (2.5)
t <sub>6</sub> Jan – Dec 2012	-10.1** (3.1)	6.8* (2.6)
Arizona *t <sub>0</sub> (omitted)		
Arizona *t <sub>1</sub>	-2.2 (4.5)	0.9 (4.5)
Arizona *t <sub>2</sub>	-6.4+ (3.6)	15.0* (6.2)
Arizona *t <sub>3</sub>	-13.6* (5.6)	2.8 (2.7)
Arizona *t <sub>4</sub>	13.2* (5.9)	5.1 (4.6)
Arizona *t <sub>5</sub>	1.5 (7.0)	9.1+ (5.0)
Arizona *t <sub>6</sub>	9.1 (6.7)	15.0* (6.0)
female	-95.5*** (1.2)	-117.6*** (1.3)
Education LT 8 years		
Education some HS	10.7*** (2.0)	14.8* (7.1)
Education HS graduate	4.7 (3.9)	77.8*** (7.4)
Education some college	12.1** (4.2)	112.1*** (8.2)
Education college graduate	12.6* (6.3)	157.2*** (9.5)
Birth order:1 (omitted)		
Birth order 2-3	75.5*** (3.1)	46.3*** (2.6)
Birth order 4-5	98.4*** (4.0)	29.1*** (5.0)
Birth order 6+	100.9*** (5.5)	0.1 (8.2)
Mother's age	30.1*** (1.5)	12.3*** (1.1)
Mother's age <sup>2</sup>	-0.5*** (0.0)	-0.2*** (0.0)
Mother is married	12.1*** (2.0)	103.1*** (4.0)
Birth in state of residence	236.9*** (16.4)	140.6** (53.6)
Recommended prenatal care		
Less than recommended visits	-37.1*** (6.3)	-70.3*** (4.7)
More than recommended visits	-73.4*** (11.4)	-83.2*** (7.3)
Constant	2,640.3*** (29.2)	2,864.0*** (54.4)

+p<.10 \*p<.05, \*\*p<.01, \*\*\*p<.001. Two-tailed tests. Robust standard errors in parentheses. Indicator for the treatment group (Arizona) dropped because of perfect collinearity with the county fixed effects

**Web Table 9. Difference in differences estimates of the impact of SB1070 on birth weight controlling for mother's smoking during pregnancy. Latina immigrants and US-born Black and White mothers in Arizona and control states.**

	Latina immigrant	US-born black and white
t <sub>0</sub> Jan 2007-Jun2009		
t <sub>1</sub> Jul 2009 – Dec 2009	-15.1*** (3.7)	-3.1 (3.4)
t <sub>2</sub> Jan 2010 – Jun 2010	-5.7+ (3.0)	-6.8 (4.4)
t <sub>3</sub> Jul 2010 – Dec 2010	-7.0* (3.0)	-3.6 (2.6)
t <sub>4</sub> Jan 2011 – Jun 2011	-9.3* (3.6)	-1.8 (2.3)
t <sub>5</sub> Jul 2011 – Dec 2011	-9.1+ (4.7)	0.1 (2.9)
t <sub>6</sub> Jan – Dec 2012	-8.6* (3.5)	5.5* (2.6)
Arizona *t <sub>0</sub> (omitted)		
Arizona *t <sub>1</sub>	-2.3 (4.7)	-4.1 (4.3)
Arizona *t <sub>2</sub>	-7.4+ (3.8)	8.6+ (5.0)
Arizona *t <sub>3</sub>	-14.5*** (5.4)	-4.7 (2.9)
Arizona *t <sub>4</sub>	11.4+ (6.0)	-0.6 (4.8)
Arizona *t <sub>5</sub>	0.2 (7.0)	1.0 (5.0)
Arizona *t <sub>6</sub>	6.4 (6.3)	4.7 (5.9)
female	-95.2*** (1.2)	-118.1*** (1.3)
Education LT 8 years		
Education some HS	10.8*** (1.9)	7.4 (7.6)
Education HS graduate	4.7 (3.8)	62.1*** (7.8)
Education some college	11.8** (4.2)	95.4*** (7.9)
Education college graduate	13.2* (6.3)	143.7*** (8.6)
Birth order:1 (omitted)		
Birth order 2-3	73.9*** (3.6)	49.9*** (2.8)
Birth order 4-5	96.4*** (5.4)	33.9*** (5.6)
Birth order 6+	98.2*** (7.1)	6.6 (8.9)
Mother's age	31.4*** (1.6)	19.9*** (2.7)
Mother's age <sup>2</sup>	-0.5*** (0.0)	-0.3*** (0.0)
Mother is married	-10.4*** (3.1)	-72.5*** (14.5)
Birth in state of residence	234.0*** (17.4)	136.2* (53.8)
Smoked during pregnancy	-101.4*** (20.7)	-146.6*** (6.5)
Constant	2,637.0*** (34.4)	2,921.7*** (80.4)

+p<.10 \*p<.05, \*\*p<.01, \*\*\*p<.001. Two-tailed tests. Robust standard errors in parentheses. Indicator for the treatment group (Arizona) dropped because of perfect collinearity with the county fixed effects



**Web Table 10. Difference-in-Difference Estimates of the Impact of SB1070 on Birth Weight (grams) for Latina Immigrant Mothers with low educational attainment (a high school diploma or less) and high educational attainment (some college or more), 2007-2012.**

	Low-education Latina immigrants	High-education Latina Immigrants
t <sub>0</sub> Jan 2007-Jun2009 (omitted)		
t <sub>1</sub> Jul 2009 – Dec 2009	-14.587*** (4.379)	-12.341* (5.530)
t <sub>2</sub> Jan 2010 – Jun 2010	-5.884 (4.240)	-3.902 (9.056)
t <sub>3</sub> Jul 2010 – Dec 2010	-8.063* (3.386)	-2.612 (6.128)
t <sub>4</sub> Jan 2011 – Jun 2011	-6.708+ (3.433)	-15.980* (7.747)
t <sub>5</sub> Jul 2011 – Dec 2011	-8.115 (5.654)	-7.876 (6.813)
t <sub>6</sub> Jan – Dec 2012	-8.808** (3.347)	-8.952 (5.892)
Arizona *t <sub>0</sub> (omitted)		
Arizona *t <sub>1</sub>	-2.608 (5.410)	-6.642 (9.774)
Arizona *t <sub>2</sub>	-6.058 (5.280)	-16.994 (18.511)
Arizona *t <sub>3</sub>	-11.884* (5.666)	-29.005+ (14.982)
Arizona *t <sub>4</sub>	9.222 (7.704)	15.769+ (9.524)
Arizona *t <sub>5</sub>	-1.720 (6.880)	-0.981 (12.972)
Arizona *t <sub>6</sub>	8.167 (5.726)	-2.217 (9.201)
Female	-92.849*** (1.301)	-108.354*** (4.518)
Education some HS		
	11.175*** (1.939)	
Education HS graduate		
	4.926 (3.738)	
Education some college		
		-2.991 (4.733)
Education college graduate		
Birth order:1 (omitted)		
Birth order 2-3	77.557*** (3.416)	70.713*** (5.093)
Birth order 4-5	100.014*** (4.341)	92.175*** (4.661)
Birth order 6+	100.930*** (5.580)	100.333*** (17.963)
Mother's age	30.607*** (1.455)	25.505*** (3.015)
Mother's age <sup>2</sup>	-0.495*** (0.025)	-0.427*** (0.048)
Mother is married	11.750*** (2.317)	17.931*** (3.292)
Birth in state of residence	231.506*** (16.207)	245.869*** (36.384)
Constant	2,624.666*** (26.092)	2,725.641*** (52.583)
Observations	1,213,836	230,705

+ < .10, \*  $P < .05$ , \*\*  $P < .01$ , \*\*\*  $P < .001$  (two-tailed tests). Robust standard errors in parentheses. Indicator for the treatment group (Arizona) dropped because of perfect collinearity with the county fixed effects.