

# The Short-term response of the Hispanic noncitizen population to anti-ilegal immigranton legislation

## PROBLEM

- Immigration policy is among the most important topics in the public debate in the US, and other countries.
- The evaluation of the impact immigration legislation and regulation is important for the design of immigration policy.
- The selection bias makes it difficult to identify the effects of particular reforms.
- A good approximation to the counterfactual is needed.

## GENERAL OBJECTIVE

- Estimate the short-term effect of the Arizona Immigration Law of 2010 (SB 1070) “show me your papers” on the noncitizen Hispanic state population.
- This Law had several stages with different implications.
- I study dinamic effects.

## DATA

- State-level aggregate data from the Current Population Survey (CPS).
- Monthly data (2009-2012) combined within five-month periods.

## METHODS

- To get a consistent estimate of the effect of Arizona Immigration Law, it is necessary to obtain a **suitable counterfactual**.
- A Synthethic control method is performed to create the “synthetic Arizona”

$$\hat{w} = \arg \min_W (A_b - D_b W)' V (A_b - D_b W)$$

- $A_b$ :  $k \times 1$  vector of pre-intervention variables that predict the outcome.
- $D_b W$ : weighted average of pre-intervention vectors of the donor units.
- $W$ :  $J \times 1$  vector of positive weights that add up to one.
- $V$ :  $k \times k$  positive semidefinite matrix used to minimize the MSE for the pre-intervention period.
- Once the synthetic Arizona is found, I apply a Difference-in-difference estimation.

Table 1. States in the synthetic control estimations

State	Hispanic noncitizens (%)	Hispanic noncitizens between 15 and 45 years old with high school diploma or less (%)
Texas	40.30	15.10
Washington	24.40	40.50
California	23.30	41.50
Kentucky	12.10	2.90

## RESULTS

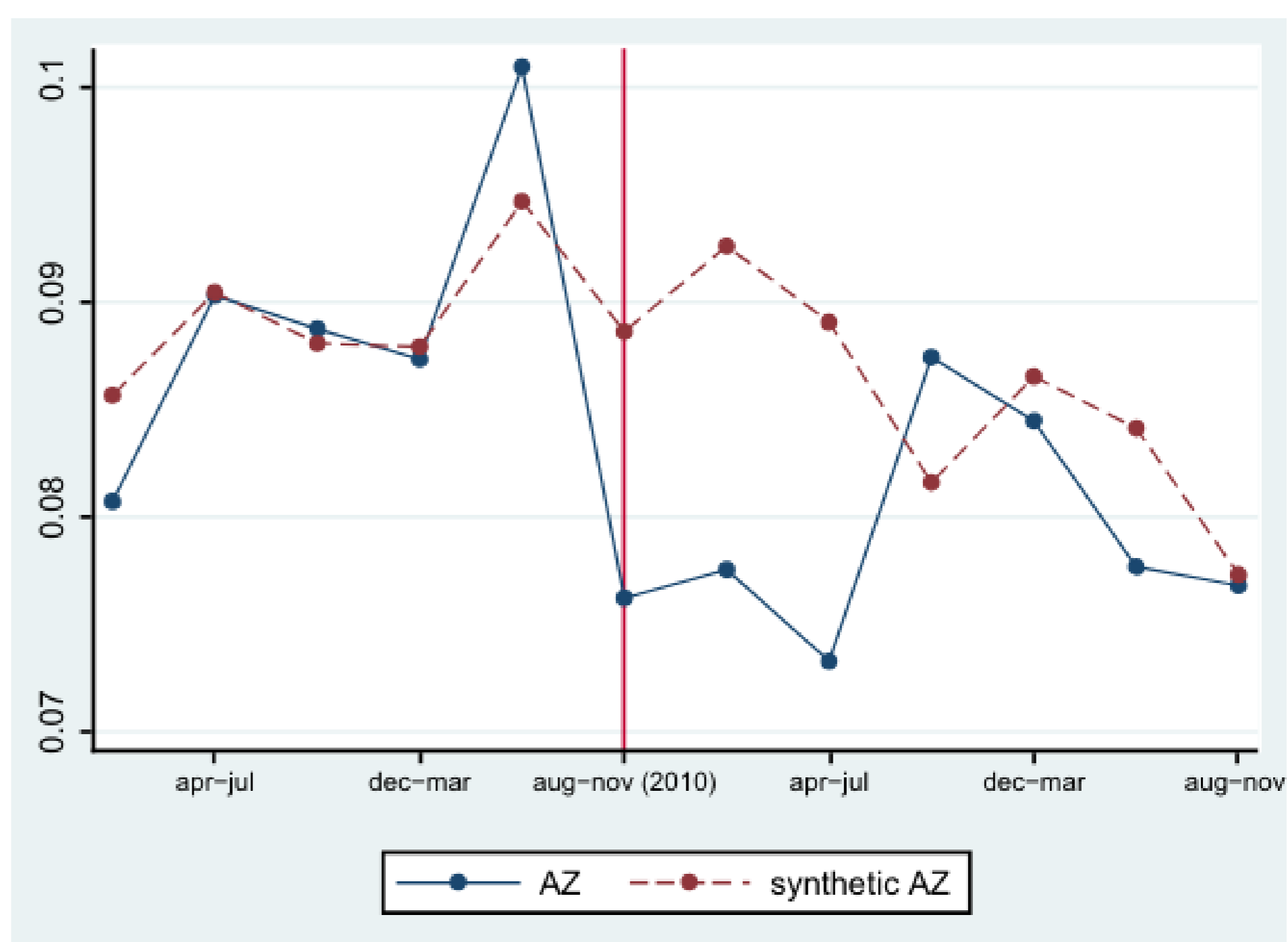


Figure 1. Proportion of Hispanic noncitizens among the population between 15 and 45 years old with high school diploma or less in Arizona and synthetic control

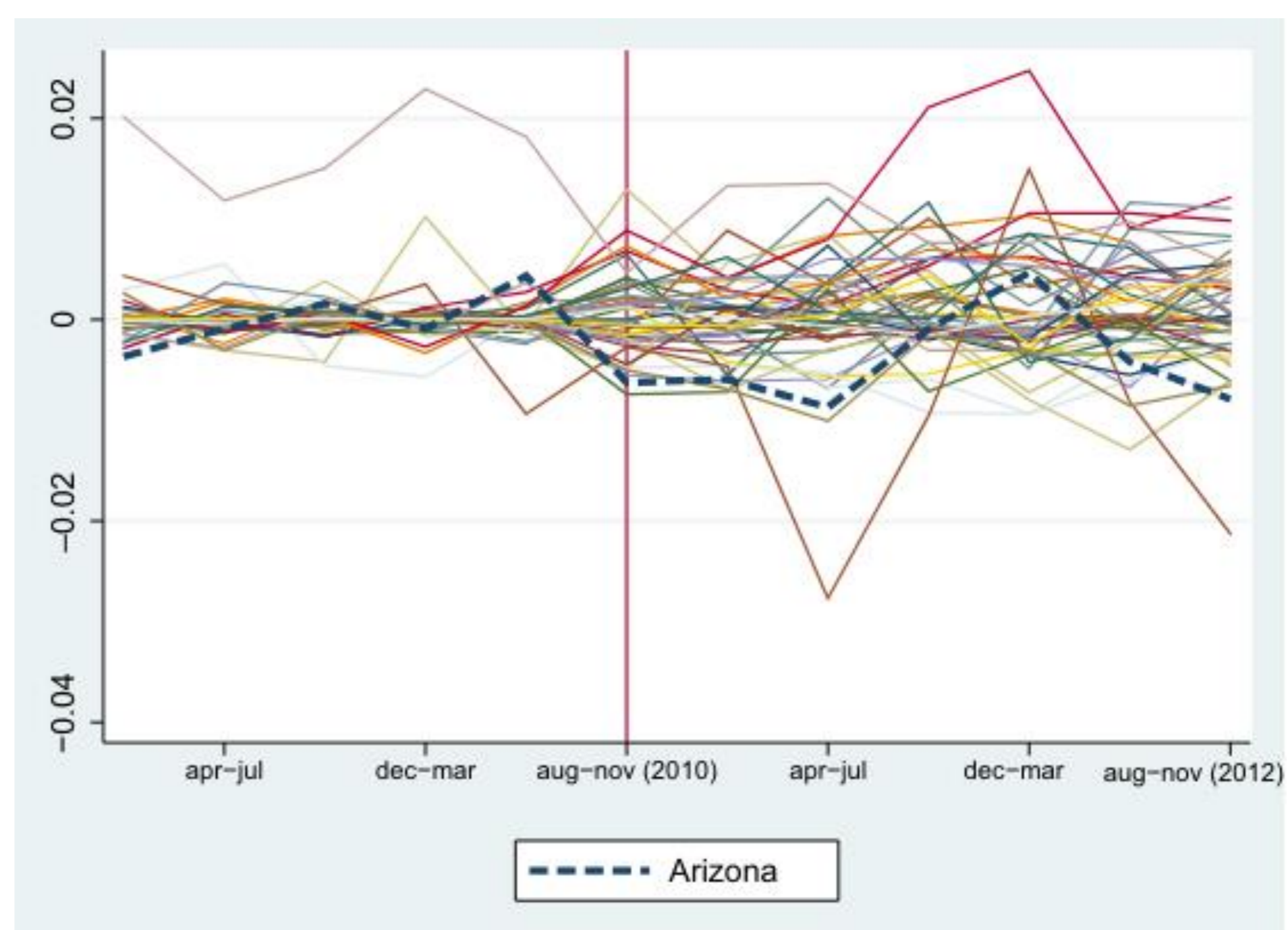


Figure 2. Permutation exercise – outcome variable: proportion of Hispanic noncitizens

Table 2. Estimated impact of the introduction of SB 1070 on the proportion of noncitizen Hispanics among Arizona residents

Specification	All	High school diploma or less (15-45 years old)
<i>Panel A. Average differences relative to the synthetic control</i>		
1. Pre-treatment (2009-Jul 2010)	0.000	0.000
2. Post-treatment (Aug 2010-Jul 2011)	-0.007	-0.014
3. Post-treatment (Aug 2010-Dec 2012)	-0.004	0.007
<i>Panel B. Diff-in-diff. (A2-A1)</i>		
Difference post-pre	-0.007	-0.015
Rank lowest to highest effect	4	2
Equivalent p-value (one-tailed test)	0.087	0.043
<i>Panel C. Diff-in-diff. (A3-A1)</i>		
Difference post-pre	-0.004	-0.007
Rank lowest to highest effect	7	6
Equivalent p-value (one-tailed test)	0.152	0.13

## CONCLUSIONS

- This law initially produced a significant reduction in the proportion of Hispanic noncitizens living in Arizona estimated to be between 10 and 15 per cent.
- Impact weakened one year after the implementation of Law.
- The short length of the effect could be partially explained by the decision of the US Court of Appeals to uphold the Distrcit Court’s decision to block the most controversial part of the law (“show me your papers” provision).
- The results suggests that the response of the undocumented population facing higher risk of deportation is to quickly move out.