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Catalina Amuedo-Dorantes
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Catalina Amuedo-Dorantes
San Diego State University and IZA

Fernando A. Lozano
Pomona College and IZA

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ABSTRACT

Interstate Mobility Patterns of Likely Unauthorized Immigrants: Evidence from Arizona

A growing literature has documented the displacement effects of tougher interior immigration enforcement measures; yet, we still lack an understanding of where the displaced populations are choosing to relocate. In this paper, we address this question using Arizona as a case study. Specifically, we examine the destinations of Mexican non-citizens leaving Arizona for other states in the union following the adoption of tougher enforcement measures using two different groups of control states: one consisting of all states that had not adopted similar measures, and another one derived using the synthetic control method. We find that Mexican non-citizens who migrated from Arizona to other U.S. states went, primarily, to New Mexico and California. Other destination states differed with the control group being used, underscoring the sensitivity of this type of analysis to the choice of control group. Furthermore, the trajectories of Mexican non-citizens leaving Arizona overlapped with those of non-Hispanic natives, hinting on the role that socioeconomic and political factors, in addition to potential complementarities between immigrants and natives, might have played in explaining the destinations of Mexican non-citizens leaving Arizona after 2007.

Corresponding author:
Catalina Amuedo-Dorantes
Department of Economics
San Diego State University
5500 Campanile Drive
San Diego, CA 92182
USA

E-mail: camuedod@mail.sdsu.edu

I. Introduction

Under the upcoming President Trump Administration, many of the immigration enforcement initiatives that states have adopted during the past two decades might be extended nationwide. Yet, we still lack a good understanding of many of the consequences that such measures are having on the population they are intended to target. In particular, while the literature has noted a flight of likely unauthorized immigrants away from states enacting employment verification (E-Verify) mandates or omnibus immigration laws (*e.g.* Amuedo-Dorantes and Bansak 2012, 2014; Amuedo-Dorantes *et al*. 2015: Amuedo-Dorantes and Lozano 2015; Bohn *et al*. 2014, 2015; Good 2013; Orrenius and Zavodny 2015), very little attention has been paid to where that population is relocating to. Have unauthorized migrants leaving states that have enacted harsher immigration enforcement measures –as exemplified by a combination of E-Verify mandates *and* police-based measures responsible for higher deportation rates, such as omnibus immigration laws– gone back to Mexico? Or, rather, have they moved to less punitive U.S. states? And, in the latter case, which states are receiving these migrant outflows? Learning about the migration trajectories of unauthorized immigrants leaving states that intensify immigration enforcement is crucial, especially from a policy perspective. After all, knowledge of such mobility patterns is essential in assessing the effectiveness of tougher interior immigration enforcement, in deciding how much enforcement is needed and where, as well as in assessing the hidden costs or benefits to other states of a piecemeal approach to immigration enforcement.

In this study, we address the questions formulated above using Arizona as a case study. During the past decade, Arizona heightened its immigration enforcement with two widely publicized measures: a) The 2007 Legalized Arizona Workers Act (LAWA hereafter), which

instituted a universal E-verify mandate that applies to employers in both the public and private sectors; and b) the State Bill 1070 (SB1070 hereafter), which allowed law enforcement agents to stop individuals on presumption of unlawful presence in the United States to check their immigration status. Previous studies have found that LAWA altered the internal demographic composition of the resident population of the state by reducing the shares of likely unauthorized immigrants residing in Arizona (*e.g.* Bohn *et al*. 2014, 2015), even if SB1070 did not add much to LAWA's impact (Amuedo-Dorantes and Lozano 2015). Where did that population go? Did it go back to Mexico or did it relocate to other U.S. states? And, in the latter case, which states became the recipients of Arizona's outflows? To the extent that destinations are likely to be shaped, at least in part, by the motive causing someone to flee a location in the first place, the destinations of likely unauthorized migrants leaving Arizona following the enactment of tougher immigration measures might have differed from the destinations chosen by earlier likely unauthorized movers leaving the state.

We answer those questions using data from the 2001-2012 American Community Surveys, along with data on removals from Customs Border Patrol (CBP) over that time period of intensified immigration enforcement. After assessing the reliability of our measurement of the likely unauthorized population, we identify the states to which likely unauthorized migrants leaving Arizona following the enactment of LAWA and SB1070 have relocated to. Subsequently, using two different control groups: (1) one constituted by U.S. states that did not adopt similar immigration enforcement measures to the ones adopted in Arizona, and (2) a second one derived using the synthetic control method, we examine the degree to which the trajectories of likely unauthorized immigrants leaving Arizona differed from those of their counterparts departing from other U.S. states using a quasi-experimental approach. We arrive to

two main findings. First, the choice of control group matters. While, regardless of control group, Mexican non-citizens leaving Arizona for another U.S. state appear more likely to have moved to New Mexico or California than their counterparts leaving other states, other destination states differ depending on the control group being used. Thus, the results underscore the potential sensitivity of analyses exploring the response of migratory flows to tougher state level immigration enforcement policies to the choice of control group.

Second, it is unclear the extent to which tougher immigration enforcement in Arizona might have been responsible for the observed migration trajectories given that: (a) in some instances, states that had also adopted a universal E-Verify mandate and an omnibus immigration law, as was the case with Utah, proved likely destinations of Mexican non-citizens leaving Arizona, and (b) regardless of the methodology being used, some of the destinations of Mexican non-citizens were also popular among non-Hispanic natives. Given their U.S. citizenship, this group is not likely to have been the primary target of intensified enforcement. In fact, because of their distinct ethnicity, they are also not likely to be members of the same households as Mexicans non-citizens. Therefore, any immigration enforcement impacts should be of second order. In conclusion, we are unable to rule out the importance of other macroeconomic or political factors in the mobility exhibited by Mexican non-citizens or, alternatively, the possibility of complementarities between immigrants and natives.

II.   Background of Interior Immigration Enforcement and Mobility Patterns

Naturally, one of the most examined consequences of immigration enforcement in the literature has been its impact on the mobility decisions and migratory patterns of the population for whom it is intended –namely, unauthorized immigrants. Yet, most of this literature has focused on *border* enforcement (*e.g.* Espenshade 1994, Angelucci 2012, Bohn and Pugatch

2013, or Amuedo-Dorantes and Pozo 2014, among many others), as opposed to *interior* enforcement. Nevertheless, a rapidly growing literature has examined the impact of a variety of local and state-level interior immigration enforcement measures. For instance, Watson (2013) analyzes the effect of the local and state-level 287(g) agreements on the location choice of foreign-born migrants. Using a difference-in-difference approach, she concludes that the policy does not deter the entry nor induces the return to their home countries of Hispanic non-citizens once Maricopa County is excluded.[1]

Most commonly, studies have documented the displacement effects of state-level employment verification (E-Verify) mandates intended to curtail the employment of unauthorized immigrants. For example, Bohn *et al*. (2014, 2015) show that LAWA reduced the share of Hispanic non-citizens residing in the state of Arizona. Similar displacement effects are found by Amuedo-Dorantes and Bansak (2012, 2014), Amuedo-Dorantes *et al*. (2015) and Orrenius and Zavodny (2015) when they examine the impact of E-Verify mandates across all U.S. states. And, even though their impact is harder to gauge owing to their limited full implementation, some authors have also documented population movements in response to state-level omnibus immigration laws. For instance, Good (2013) finds evidence of outflows of groups more likely to contain undocumented immigrants from states enacting these laws.

Yet, to our knowledge, less attention has been paid to where immigrants impacted by an overall tougher immigration enforcement environment –as exemplified by a combination of E-Verify mandates *and* police-based measures, such as omnibus immigration laws– have relocated to. While some studies argue that most have gone back to Mexico in recent years (*e.g.* Camarota and Jensenius 2009, Passel *et al*. 2012), others have found no increase in return migration or

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[1] Maricopa County and its sheriff, Joe Arpaio, have been at the forefront of aggressively pursuing unauthorized immigrants through workplace raids and the profiling of Latinos (Santos, 2014).

even a decline (*e.g.* Fix *et al*. 2009, Rendall *et al*. 2011). Have undocumented migrants relocated to other U.S. states? And, in the latter case, which states are receiving the new migrant inflows? And, can we conclude that these interstate mobility patterns are driven by the desire to evade tougher immigration enforcement? Or could they possibly be motivated by other state-level traits affecting other demographic gropus, such as economic conditions?

III.   Data and Population Movement Statistics

To address the aforementioned questions, we use a pooled sample of the 2001-2012 American Community Survey (ACS) –a time span encompassing the period of tougher interior immigration enforcement. We take advantage of the battery of migration questions asking whether the reference person moved in the last year, whether this move was across states, and which state s/he moved to, allowing us to track individuals across interstate migrations.[2]

Unfortunately, the ACS lacks sensitive information on immigrants' legal status. Hence, following the literature, we look at a population with traits predictive of immigrants' undocumented status, such as lack of citizenship and Mexican ethnicity (Passel and Cohn 2009, 2010).[3] Figure 1 displays changes in the share of Mexican non-citizens in high immigration states in the years before and after the enactment of LAWA and SB1070. A couple of findings are worth noting. Most states experienced growth in their populations of Mexican non-citizens

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[2] We construct this artificial panel by taking advantage of three sets of variables in the American Community Survey: (1) Migration status during the last year, (2) State or country of residence one year ago, (3) Current state of residence. That way, we can observe where an observation lives in year *t+1* and where an observation lives in year *t,* allowing us to identify interstate movements in the ACS.

[3] Our estimates of the Mexican non-citizen population in our sample are fairly close to the estimates for the unauthorized Mexican population in each state gathered by the Center for Migration Studies (CMS) of New York. See: http://data.cmsny.org/state.html. At any rate, we also experiment with alternative definitions of the likely unauthorized population that further restrict the sample to those less than 45 years of age and to those with no more than a high school diploma. Results prove robust to the use of these smaller samples.

between 2004 and 2007. Yet, there were widespread reductions thereafter. In particular, nowhere was the drop as large as in Arizona, where that population dropped by 20 percent.[4]

Where did Mexican non-citizens leaving Arizona move to? The ACS does not allow us to track individuals if they move abroad. However, it helps us gather some insights on population movements within the United States. With that purpose, Figure 2 details the origins/destinations of Arizona's Mexican non-citizen inflows/outflows during 2004-2006, 2007-2009 and 2010-2012 periods. We break our sample in three time periods of equal duration prior to the enactment of LAWA (which mandated the use of E-Verify by all employers in the state in 2007), post-LAWA and pre-SB1070, and post-SB1070. Even during periods of large outflows (*e.g.* 2007-2009 and 2010-2012), there were ongoing inflows. Nonetheless, a comparison of the inflows of Mexican non-citizens arriving to Arizona from Mexico (by far the largest source of inflows) during 2004-2006 to those arriving during 2010-2012, reveals a drop from 76 percent to 63 percent. Simultaneously, Mexican non-citizen outflows to nearby states, especially Colorado, Texas and New Mexico –all of them states without a universal E-Verify mandate or omnibus immigration law,[5] experienced a significant growth. Outflows to Colorado practically tripled, outflows to Texas doubled, and outflows to New Mexico increased by roughly 41 percent.

IV.   Empirical Methodology

The descriptive statistics in Figures 1 and 2 uncover two important facts: 1) the decreasing number of Mexican non-citizens in most U.S. states from 2009 to 2012, especially in Arizona; and 2) the increasingly popular destinations of most of Arizona's Mexican non-citizen

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[4] Furthermore, this drop appears in contrast to what is observed for the share of non-Hispanic natives, which grew by 6 percent between 2007 and 2012 (figures, not shown, are available from the authors).
[5] See Table C in the appendix for a list of states with universal E-Verify mandates or omnibus immigration bills alike LAWA and SB1070 in Arizona.

outflows from 2007 onwards –namely Colorado, Texas and New Mexico. However, one might question: a) the extent to which the migratory patterns and destinations of likely unauthorized migrants leaving Arizona differed from the ones of Mexican non-citizens leaving other U.S. states and, consequently, b) the degree to which LAWA and SB1070 contributed to the trajectories of those interstate migrants relative to, say, the economic downturn that hard hit Arizona's economy.

To address those two inquiries, we first look for a suitable control group of states. We do this in a couple of different ways:

(1)   First, we consider a more traditional control group consisting of all states that had not passed measures similar to LAWA and SB1070 –that is, a universal E-Verify mandate or an omnibus immigration law. Hence, we exclude from the control group states that passed similar immigration measures during the period being examined –namely: AL, GA, IN, LA, MS, NC, SC, TN and UT. [6]

(2)   Second, we use the data-driven methodology proposed by Abadie *et al.* (2010) – henceforth: synthetic control method. This methodology relies on finding affinities between the treatment and control units based on pre-intervention outcomes –in this case, the probability that a Mexican non-citizen moves to a different state– and their predictors in order to generate a convex combination of states that serves as a better control group.

The first step in constructing a synthetic control group is identifying a 'donor pool' or group of states potentially used as control. Because our treatment is LAWA and SB1070, we omit from the donor pool states that passed similar immigration measures during the period

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[6] Table A in the appendix details the states with omnibus immigration laws or universal employment verification mandates affecting all employers –public and private, as in the case of LAWA and SB1070 in Arizona.

being examined –namely: AL, GA, IN, LA, MS, NC, SC, TN and UT. Consequently, our donor pool coincides with the broader control group of states detailed above in point (1).

Next, we identify a convex combination of states from that donor pool that most closely resembles Arizona in terms of pre-intervention outflows of Mexican non-citizens and a number of predictors. The latter include a battery of descriptors of the state's population composition, *i.e.* its share of foreign-born and its share of high school dropouts. Additionally, we incorporate state-level variables informative of the state's economy, such as the share of the state's labor force that is employed, as well as its distribution across the five industries hiring most immigrants, *i.e.* agriculture, construction, administrative support, retail trade and food services. In that manner, we compare Arizona to states that exhibited similar labor market trends, including a thriving construction sector, prior to LAWA and SB1070. The combination of states that most closely resembles Arizona in terms of pre-intervention outflows of Mexican non-citizens *and* their predictors –what we refer to as our synthetic control group– is given by the following states (weights): Nevada (0.45), California (0.17), New Mexico (0.13) and Texas (0.24). The weights assigned to each state in the control group reveal the contribution of each state to the counterfactual.

To double check whether the broader control group and Arizona's synthetic control appear to be suitable controls, Table 1 shows the average share of Mexican non-citizen interstate movers before the enactment of LAWA and SB1070, along with its predictors, for Arizona, the donor pool (our broader control group) and Arizona's synthetic control group. The average values of the series of Mexican non-citizens interstate movers in Arizona hovers around 4 percent, whereas the share in the donor pool (our broader control group) and Arizona's synthetic control group prior to the passage of both immigration measures is approximately half (2

8

percent). In other words, there are unavoidable pre-intervention differences between Arizona and the two control groups. Nonetheless, Arizona and the two control groups being used are rather similar when it comes to the relevance of the construction sector –an industry that experienced a significant boom in Arizona prior to 2007. Indeed, the shares of the labor force employed in the construction sector in Arizona, the broader control group and Arizona's synthetic control group fluctuated between 4 and 5 percent. Yet, the average values for the share of foreign-born and the share of high school dropouts in the broader control group prior to 2007 resemble those of Arizona more than the average values of Arizona's synthetic control during that same time period. Altogether, the broader control group appears to be a more reasonable approximation of Arizona prior to 2007.

Next, we use information on respondents' current and last year's states of residence to assess the degree to which the destinations of Mexican non-citizens leaving Arizona following the intensification of immigration enforcement significantly differed from those of Mexican non-citizens leaving other U.S. states in our two distinct control groups. To that tend, we estimate equation (1) as a multinomial logit:

(1) $\quad Prob(Y_{ist} = j) = \dfrac{e^{Z'_{ist}\beta_j}}{\sum_{k=0}^{7} e^{Z'_{ist}\beta_k}}, \quad \text{for: } j = 0, 1, \dots 7.$

where j takes the values from 0 to 7 to represent the main destinations of Mexican non-citizens moving across states: CA, TX, NM, UT, NV and CO, followed by 'all other U.S. states',[7] and where 0 represents Mexican non-citizens who do not move. In other words, the model in equation (1) provides a set of probabilities for the 8 mobility choices of Mexican non-citizens

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[7] We group all other U.S. states with smaller populations of Mexican non-citizens to minimize measurement errors concerns (Aydemir and Borjas 2011).

with traits specified in Z_{ist}. Because the probabilities sum to one, only 7 parameter vectors are needed to determine the 8 probabilities. Therefore, we can rewrite equation (1) as follows:

$$(2) \quad Prob(Y_{ist} = j | Z_{ist}) = \frac{e^{Z'_{ist}\beta_j}}{1 + \sum_{k=1}^{7} e^{Z'_{ist}\beta_k}}, \quad \text{for: } j = 1, 2, \ldots 7$$

and compute the following 7 log-odds ratios: $ln(P_{ij,st}/P_{ik,st})$.[8]

In addition to standard individual and state-level characteristics potentially impacting individuals' interstate mobility patterns,[9] the vector Z_{ist} includes a dummy equal to 1 if the individual lived in Arizona a year prior $(AZ_{i,t-1})$ measuring the likelihood with which Mexican non-citizens residing in Arizona relocated elsewhere within the United States, as well as a $Post\ 2007_t$ dummy capturing the extent to which Mexican non-citizens moved to specific locations in the country after 2007, and their interaction, *i.e.* $AZ_{i,t-1} * Post\ 2007_t$. Our interest is on the coefficient of that term, which gauges the extent to which the destinations of Mexican non-citizens leaving Arizona in the aftermath of LAWA and SB1070 differed from those of their counterparts originating from other states in the control group. Thus, it reveals the states that, as destinations, are being impacted by the piecemeal approach to immigration enforcement.[10]

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[8] The multinomial logit assumes that adding another destination (*e.g.* Mexico) does not affect the relative odds of choosing any of the U.S. destinations (*i.e.* the independence of irrelevant alternatives or IIA). Note, however, that the IIA refers to choices that might be considered close substitutes –an unlikely assumption in the case of Mexico as opposed to other U.S. states.

[9] Individual level characteristics (such as age, gender, and dummies for whether the respondent is married, has less than a high school education, employed and, in the latter case, for whether s/he is a wage and salaried worker) and characteristics of the state *s* the *i*th respondent is leaving at time *t*, such as the shares of the state's total population in industries with the highest concentration of immigrant labor (*i.e.* agriculture, construction, retail, food services and administrative support) are included as controls. In that manner, we address uneven impacts of the past recession on Arizona's labor market given the boom of the construction sector prior to the downturn in Arizona and the large share of Mexican non-citizens employed in that industry.

[10] At this point, it is worth pointing out that this coefficient could be potentially capturing the effect of increased border enforcement or local immigration enforcement initiatives adopted in the state after 2007, as was the case with some 287(g) agreements and, more importantly, Secure Communities. Note, however, that border enforcement and local initiatives were not unique to Arizona. Border enforcement should have impacted other states in the synthetic control group, such as California or Texas. Similarly, 287(g) agreements and, especially, Secure Communities were adopted by many counties and states in our control groups. Therefore, their role in the interaction coefficient

V.   Main Findings

Table 2 displays the odds ratios from the multinomial logit regression. Panel A displays the results from estimating the multinomial model using Arizona's synthetic control group, whereas Panel B shows the results from estimating the same model using the broader control group. In all cases, the omitted category is Mexican non-citizens who do not engage in interstate migration. The first row in each panel presents the odds of moving from Arizona into another U.S. state *before* 2007, whereas the second row in Table 2 further reveals which states became popular destination for *all* Mexican non-citizen interstate movers, not just those leaving Arizona, after 2007. Of greater interest to us is the odd ratio in the third rows of Table 2, Panels A and B, which informs about the likely destinations of Mexican non-citizens leaving Arizona, as opposed to Mexican non-citizens leaving other control states, after 2007.

If we look at Panel A, New Mexico, Texas, Nevada and California became the most popular destinations of Mexican non-citizens moving out of Arizona in the aftermath of LAWA and SB1070. Specifically, Mexican non-citizens leaving the state of Arizona after 2007 became 7 times more likely to relocate to New Mexico than Mexican non-citizens leaving other U.S. states. The next most common destinations were Texas, Nevada and California.

In contrast, if we look at the estimates in Panel B, we find that the most popular destinations of Mexican non-citizens leaving Arizona after 2007 were New Mexico, Colorado, California and Utah. While two of the destinations are the same regardless of the control group being used (namely: New Mexico and California), the remaining ones differ.

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capturing differences in the behavior of Mexican non-citizens leaving Arizona, as opposed to those leaving other states in the control group, should be of second order.

One might wonder if other demographic groups not targeted by the intensified immigration enforcement measures were reacting similarly. If so, it would be harder to attribute the observed interstate mobility patterns among Mexican non-citizens to the toughening of immigration enforcement. To assess if that was the case, Table 3 displays the results from estimating the model for non-Hispanic natives using, as well, the two different control groups. To the extent that they are citizens, they should not be impacted by intensified enforcement measures. In addition, since they are not Hispanic, we likely avoid the possibility that they might be tangentially impacted by the policy, as it is often the case with naturalized Hispanics or Hispanic natives in mixed-status households.[11] Perhaps the most noticeable finding is the fact that non-Hispanic citizens became more likely to move from Arizona to either New Mexico (when using Arizona's synthetic control) or California (when using the broader control group) after 2007 –states to which Mexican non-citizens appear to have also migrated to.

VI.   Summary and Conclusions

We examine the destinations of likely unauthorized immigrants leaving Arizona in the aftermath of the adoption of intensified immigration enforcement. Learning where these displaced population flows chose to reside is important, not only from the perspective of assessing the effectiveness and planning the implementation of immigration enforcement, but also in understanding the spillover effects of a piecemeal immigration enforcement approach on other states.

We find that Mexican non-citizens leaving the state of Arizona after 2007 were more likely to move to New Mexico, as well as California. However, the sensitivity of the findings to the choice of control group precludes us from concluding much more. Indeed, when we use a

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[11] Mixed-status households are those with some undocumented members and some legal residents/U.S. citizens.

broader control group of states, we find that Colorado and Utah were also likely destinations of such migrant flows. In contrast, when we use Arizona's synthetic control, other states, such as Texas and Nevada, seem to join the list of destination states. A similar pattern is observed for non-Hispanic natives leaving Arizona after 2007, when compared to their counterparts leaving other states in the control group. When we use Arizona's synthetic control group, the most common destination of that demographic was New Mexico. However, it switches to California and Texas when using the broader control group.

In addition, regardless of the control group being used, the destination states for non-Hispanic citizens, for whom the response to the intensification of immigration enforcement should be, if existent, of second order, seem to overlap with those of Mexican non-citizens. Hence, in addition to potential complementarities between immigrants and natives, socioeconomic and political factors unrelated to intensified immigration enforcement might have also played a role in destination choices of Mexican non-citizens leaving Arizona after 2007.

To conclude, it is worth noting that our analysis strictly looks at the impact that increased immigration enforcement has had on the migration trajectories of Mexican non-citizens leaving Arizona following the adoption of LAWA and SB1070. However, the piecemeal approach to state-level immigration enforcement raises an interesting general equilibrium question; namely: what the interstate mobility patterns would look like if all other states were to adopt similar enforcement measures or, alternatively, if comprehensive immigration reform were to expand these policies nationwide in exchange for a path towards legalization. Given the promised toughening of immigration enforcement by President-elect Donald Trump, further research on its consequences, not only on population outflows from states implementing such measures, but also on states receiving those displaced, is well warranted.

References

Amuedo-Dorantes, Catalina, Cynthia Bansak and Allan A. Zebedee. 2015. "The Impact of Mandated Employment Verification Systems on State-Level Employment by Foreign Affiliates" *Southern Economic Journal*, 81(4): 928-946.

Amuedo-Dorantes, Catalina and Cynthia Bansak. 2014. "Employment Verification Mandates and the Labor Market Outcomes of Likely Unauthorized and Native Workers" *Contemporary Economic Policy*, 32(3): 671-80.

Amuedo-Dorantes, Catalina and Cynthia Bansak. 2012. "The Labor Market Impact of Mandated Employment Verification Systems" *American Economic Review*, 102(3): 543-48.

Amuedo-Dorantes, Catalina and Fernando Lozano. 2015. "On the Effectiveness of SB1070 in Arizona" *Economic Inquiry*, 531): 335-351.

Amuedo-Dorantes, Catalina and Susan Pozo. 2014. "On the Intended and Unintended Consequences of Enhanced Border and Interior Immigration Enforcement: Evidence from Deportees." *Demography*, 51(6):2255-79.

Angelucci, Manuela. 2012. "US Border Enforcement and the Net Flow of Mexican Illegal Migration," *Economic Development and Cultural Change*, 6 (2): 311-357.

Aydemir, Abdurrahman and George Borjas. 2011. "Attenuation Bias in Measuring the Wage Impact of Immigration" *Journal of Labor Economics,* 29(1): 69-112.

Bohn, Sarah, Magnus Lofstrom and Steven Raphael. 2014. "Did the 2007 Legal Arizona Workers Act Reduce the States Unauthorized Immigrant Population?" *The Review of Economics and Statistics* 96 2): 258–69.

Bohn, Sarah, Magnus Lofstrom and Steven Raphael. 2015. "Do E-Verify Mandates Improve Labor Market Outcomes of Low-Skilled Native and Legal Immigrant Workers?" *Southern Economic Journal*, 814): 960–979.

Bohn, Sarah and Todd Pugatch. 2013. "U.S. Border Enforcement and Mexican Immigrant Location Choice" *Demography*, 52(5): 1543-1570.

Camarota, Steven A. and Karen Jensenius. 2009. "A Shifting Tide: Recent Trends in the Illegal Immigrant Population, Backgrounder" Washington DC: Center for Immigration Studies.

Espenshade, Thomas J. 1994. "Does the Threat of Border Apprehension Deter Undocumented U.S. Immigration?" *Population and Development Review*, 20(4): 871-92.

Fix, Michael M., D. G. Papademetriou, J. Batalova, A. Terrazas, S. Y. Lin and M. Mittelstadt. 2009. *Migration and the Global Recession.* Washington DC: MPI.

Good, Michael. 2013. "Do Immigrant Outflows Lead to Native Inflows? An Empirical Analysis of the Migratory Responses to U.S. State Immigration Legislation", *Applied Economics*, 4530): 4275-4297.

Orrenius, Pia M, and Madeline Zavodny. 2015. "Do State Work Eligibility Verification Laws Reduce Unauthorized Immigration?". Mimeo.

Passel, Jeffrey and D'Vera Cohn. 2009. *Mexican Immigrants: How Many Come? Home Many Leave?* Washington DC: Pew Hispanic Center.

Passel, Jeffrey, D'Vera Cohn and Ana Gonzalez-Barrera. 2012. *Net Migration from Mexico Falls to Zero –and Perhaps Less*, Washington DC: Pew Research Hispanic Center.

Rendall, Michael S., Peter Brownell and Sarah Kups. 2011. "Declining Return Migration from the United States to Mexico in the late-2000s Recession", *Demography*, 483): 1049-1058.

Santos, Fernanda. 2014. "Angry Judge Says Sheriff Defied Order on Latinos," *New York Times*, March 24, 2014.

Sterling, Terry Greene. 2013. "Adiós, Arizona" *The Daily Beast*, July 31.

U.S. Department of Homeland Security (DHS). 2013. *2012 Yearbook of Immigration Statistics*, Office of Immigration Statistics, September 2013, Washington DC.

U.S. Immigration and Customs Enforcement (ICE). 2013. "Fact Sheet: Delegation of Immigration Authority Section 287(g) Immigration and Nationality Act."

Warren, Robert. 2014. "Democratizing Data about Unauthorized Residents in the United States: Estimates and Public-Use Data, 2010 to 2013." *Journal on Migration and Human Security*, 24: 305-328.

Watson, Tara. 2013. "Enforcement and Immigrant Location Choice" NBER Working Paper No. 19626.

Figure 1

Change in the Share of Mexican Non-citizens
by State of Residence

Source: Authors' tabulations using Mexican non-citizens in the 2004-2012 ACS.

Figure 2

Flows Into and Out of Arizona

| Out 2004-2006 | Out 2007-2009 | Out 2010 -2012 |

Out 2004-2006: CA 57%, NV 21%, UT 18%, NM 5%
CA CO TX NM NV UT

Out 2007-2009: CA 37%, TX 23%, NM 16%, UT 15%, NV 6%, CO 4%
CA CO TX NM NV UT

Out 2010-2012: CA 38%, TX 20%, NM 17%, NV 12%, CO 11%, UT 3%
CA CO TX NM NV UT

| In 2004-2006 | In 2007-2009 | In 2010-2012 |

In 2004-2006: MX 76%, CA 16%, NV 5%, TX 3%, UT 1%, CO 0%
CA CO TX NM NV UT MX

In 2007-2009: MX 73%, CA 19%, NV 2%, UT 1%, TX 1%
CA CO TX NM NV UT MX

In 2010-2012: MX 63%, CA 19%, NV 6%, CO 4%, TX 4%, UT 3%, NM 1%
CA CO TX NM NV UT MX

Source: Authors' tabulations of non-citizens, born in Mexico in the 2004-2012 ACS.
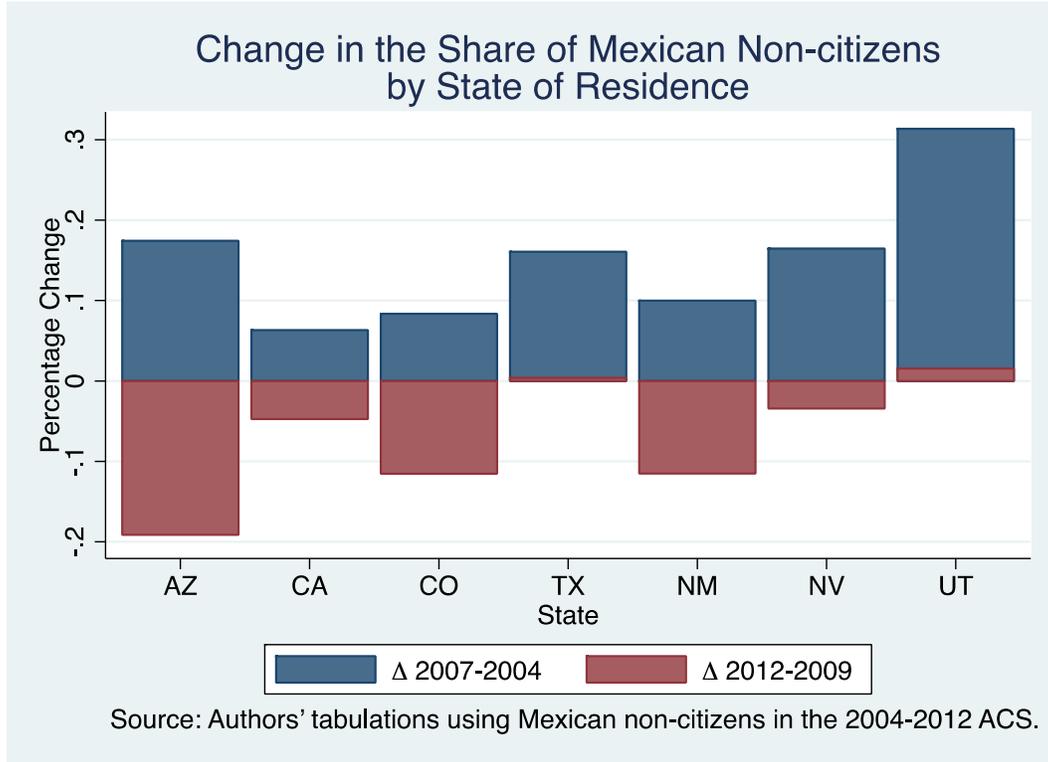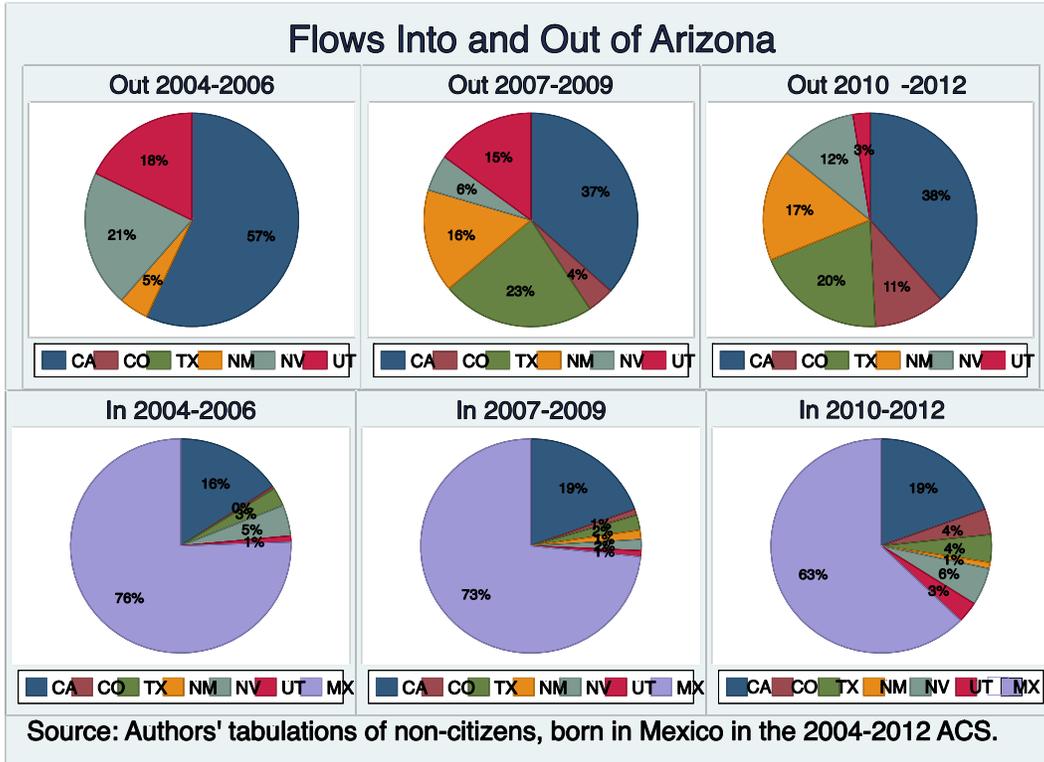
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Table 1: Demographic Characteristics of Treatment and Control Groups prior to 2007

AZ versus Control Groups	AZ		Control Group #1: Donor Pool		Control Group #2: Synthetic Control	
	Mean	**S.E.**	**Mean**	**S.E.**	**Mean**	**S.E.**
Share of Mexican Non-citizen Moving	0.038	0.001	0.018	0.003	0.022	0.001
Share of Foreign Born	0.133	0.001	0.121	0.000	0.206	0.003
Share Dropping out of High School	0.343	0.001	0.332	0.000	0.390	0.003
Share of the State's Population in:						
Employed	0.942	0.001	0.939	0.000	0.932	0.003
Agriculture	0.078	0.001	0.092	0.000	0.090	0.002
Construction	0.049	0.000	0.041	0.000	0.051	0.002
Food Services	0.030	0.000	0.031	0.000	0.033	0.001
Admin	0.060	0.000	0.058	0.000	0.060	0.001
Retail	0.071	0.001	0.071	0.000	0.069	0.001

Sample: Authors' calculations using ACS 2001-2012. Standard errors are in parentheses.

Table 2: Multinomial Logit Odd Ratios
(Standard Errors of the Coefficients)

Panel A: Mexican Non-Citizens Synthetic Control Group						
Destinations:	**Other**	**CA**	**CO**	**TX**	**NM**	**NV**	**UT**
AZ	0.406***	2.111**	0.215	1.972	2.465	3.710*	0.504
	(0.07)	(0.67)	(0.21)	(1.16)	(1.76)	(2.90)	(0.36)
Post-2007	0.666**	3.970***	0.773	2.42	0.848	1.391	1.164
	(0.12)	(1.23)	(0.55)	(1.45)	(0.82)	(1.37)	(0.79)
AZ*Post-2007	0.492***	2.957***	2.068	5.748***	6.839***	5.321**	2.219
	(0.10)	(0.96)	(1.15)	(3.09)	(4.55)	(4.19)	(1.28)
Observations				26,608			

Panel B: Mexican Non-Citizens Control Group All States						
Destinations:	**Other**	**CA**	**CO**	**TX**	**NM**	**NV**	**UT**
AZ	0.578***	2.485***	0.448	0.392***	2.402**	1.155	1.93
	(0.08)	(0.45)	(0.29)	(0.13)	(0.84)	(0.41)	(0.79)
Post-2007	0.669***	1.01	1.826*	0.585***	0.505*	0.348***	0.365***
	(0.05)	(0.19)	(0.60)	(0.09)	(0.18)	(0.10)	(0.14)
AZ*Post-2007	0.591***	4.331***	5.658***	1.294	5.876***	1.043	3.041***
	(0.10)	(1.03)	(2.52)	(0.30)	(2.21)	(0.41)	(1.31)
Observations				341,041			

Source: 2001-2012 American Community Survey (ACS).

Sample Mexican high school drop-out non-citizens in Arizona or any other states in the control group, ages 17-65.

Notes: Standard errors of the coefficients are displayed in parentheses. All regressions include a constant term and controls for age, age squared, gender, marital status, education (less than a high school education), employment, salaried status, as well as state level characteristics of where the respondent is living at the time, *i.e.* the shares of the state's total population in five industries with the highest concentration of immigrant labor: agriculture, construction, retail, food services and administrative support. Additionally, the regressions include state-specific time trends. Robust standard errors are clustered at the state level. ***, **, * Represents statistically different to zero at 1%, 5%, and 10% confidence level, respectively.

Weights for the synthetic cohorts are: 17% CA, 45% NV, 13% NM and 24% TX.

Table 3: Multinomial Logit Odd Ratios
(Standard Errors of the Coefficients)

Panel A: Non-Hispanic U.S. Born Citizens Synthetic Control Group

Destinations:	Other	CA	CO	TX	NM	NV	UT
AZ	0.762***	0.604***	0.593*	0.806	8.308***	6.419***	0.89
	(0.07)	(0.12)	(0.18)	(0.17)	(5.48)	(3.58)	(0.34)
Post-2007	0.798**	1.005	0.395**	0.817	0.924	0.621	1.055
	(0.08)	(0.19)	(0.16)	(0.19)	(0.91)	(0.59)	(0.42)
AZ*Post-2007	0.588***	0.818	0.632	0.459***	6.407***	2.509	0.866
	(0.06)	(0.16)	(0.21)	(0.13)	(4.38)	(1.62)	(0.36)
Observations				39,015			

Panel B: Non-Hispanic U.S.-Born Citizens Control Group All States

Destinations:	Other	CA	CO	TX	NM	NV	UT
AZ	0.947	1.018	0.699	4.810***	0	0.335	0.297
	(0.07)	(0.30)	(0.36)	(0.65)	(0.00)	(0.27)	(0.35)
Post-2007	0.893***	0.809***	0.869	0.991	0.904	1.117	0.906
	(0.01)	(0.06)	(0.09)	(0.06)	(0.14)	(0.11)	(0.13)
AZ*Post-2007	0.942	1.875**	0.855	4.516***	0.651	0.661	0
	(0.08)	(0.50)	(0.50)	(0.76)	(0.69)	(0.46)	(0.00)
Observations				1,080,967			

Source: 2001-2012 American Community Survey (ACS).
Sample: Non-Hispanic high school dropouts citizens in Arizona or any other states in the control group, ages 17-65.
Notes: Standard errors of the coefficients are displayed in parentheses. All regressions include a constant term and controls for age, age squared, gender, marital status, education (less than a high school education), employment, salaried status, as well as state level characteristics of where the respondent is living at the time, *i.e.* the shares of the state's total population in five industries with the highest concentration of immigrant labor: agriculture, construction, retail, food services and administrative support. Additionally, the regressions include state-specific time trends. Robust standard errors are clustered at the state level. ***, **, * Represents statistically different to zero at 1%, 5%, and 10% confidence level, respectively.
Weights for the synthetic control group are: 7% CA, 9.5% CT, 2.5% DC, 1.5% MI, 46% NV, 0.2% NH, 28.5% NM, 4% TX

Appendix

Table A: Enactment Dates of Universal E-Verify Mandates and Omnibus Immigration Laws

State	Universal E-Verify Mandates	Enactment Year
AL	HB 56	2012
AZ	HB 2779	2007
GA	HB 87	2011
LA	HB 646	2012
MS	SB 2988	2008
NC	HB 36	2012
SC	HB 4400	2009
TN	HB 1378	2012
UT	SB 251	2010

State	Omnibus Immigration Laws	Enactment Year
AL	HB 56	2011
AZ	SB 1070	2010
GA	HB 87	2011
IN	SB 590	2011
SC	S 20	2011
UT	H 116, H 466, H 469, H 497	2011

Source: National Conference of State Legislatures website.