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The migration response to the Legal Arizona Workers Act

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Abstract

The 2008 Legal Arizona Workers Act (LAWA) requires all public and private employers to authenticate the legal status of their workers using the federal employment verification system known as E-Verify. With LAWA, Arizona became the first state to have a universal mandate for employment verification. While LAWA targets unauthorized workers, most of whom are Latino immigrants, other groups could experience LAWA's effects, such as those who share households with undocumented workers. In addition, employers may seek to minimize their risk of LAWA penalties by not hiring those who appear to them as more likely to be unauthorized, such as naturalized Latino immigrants and US-born Latinos. Existing research has found a reduction in foreign-born Latino employment and population in response to LAWA. This paper asks a different question: have groups that are most likely to be affected by the law migrated to other states? We find a significant and sustained increase in the internal outmigration rate from Arizona of foreign-born, noncitizen Latinos - the group most likely to include the unauthorized - after the passage of LAWA. There was no significant LAWA internal migration response by foreign-born Latino citizens. US-born Latinos showed some signs of a LAWA-induced internal migration response after the law went into effect, but it is not sustained. The results indicate that local and state immigration policy can alter the settlement geography of the foreign born. This leads us to speculate about how immigrant settlement may adjust in the coming years to the intersecting geographies of post-recession economic opportunity and tiered immigration policies.

Keywords

E-Verify; Undocumented Immigrants; Latinos; Arizona; Migration

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INTRODUCTION

Any summary of US immigration trends since 1990 would include these three observations: the doubling of the foreign-born population from 19.8 million in 1990 to 40 million in 2010; the rapid growth in immigrant settlement in “new destinations”, which are places that had previously been relatively untouched by the post 1960s upturn in immigration (e.g., Singer 2004; Singer, Hardwick, and Brettell 2008); and the emergence of local and state policy responses to both of these developments, particularly in reaction to the increase in unauthorized immigrant populations in new destinations (e.g., Varsanyi 2010; Walker and Leitner 2011). This article studies these new nonfederal immigration statutes, not from the perspective of why they emerged in certain places but rather their effects: in particular, do they spur the foreign born to move and thereby alter the geography of immigrant settlement?

Specifically, we investigate if immigrants disproportionately exited Arizona during the buildup to and after the implementation of the 2008 Legal Arizona Workers Act (LAWA). LAWA was the first all-employer implementation of E-Verify – the federally hosted database system for checking each worker’s legal right to work. Arizona pioneered such a universal verification scheme. A few other states had limited E-Verify requirements for government contracts or were starting to phase in E-Verify requirements, but none had Arizona’s comprehensive verification mandate in 2008 or 2009. Thus LAWA was singular in the timing of this enlarged scope of enforcement and, as such, presents a unique opportunity to measure if such state-wide exclusionary laws generated an interstate migration response.

Migration is not the only possible reaction to LAWA or to any of the other local and state exclusionary policies targeting unauthorized immigrants. Such policies further drive undocumented populations toward the fringes of society by finding unregulated or self-employment, or by limiting or changing daily travel patterns to minimize risk of apprehension (Coleman 2012a). Exiting the state, however, is the only alternative to becoming additionally marginalized in situ.

Unauthorized workers may not be the only group to leave Arizona because of LAWA. Other immigrants and the US-born who experience or fear the possibility of discrimination based on their appearance or ethnicity may also opt to migrate because of this law or because they share their lives in households or as partners with undocumented workers. With these possibilities in mind, we investigate the interstate migration response to LAWA’s implementation across various US- and foreign-born groups.

The analysis proceeds with a review of the recent rise in local and state immigration policy-making and the effects of these laws on immigrant lives. We set these statutes in historical context, outlining how the scale of their application marks a break from the past but arguing that their motivation aligns with the forces that have promoted nativist movements and legislative action in the nineteenth and twentieth centuries. This frames a discussion of E-Verify and its adoption by states, the passage and implementation of LAWA, and the findings of other studies on its effects and those of E-Verify more generally. Arizona’s law went far beyond the employment enforcement regimes in other states, which leads us to

hypothesize a greater migration response in Arizona compared with other states at the time LAWA came into effect. Then we turn to the analytics, reviewing data and measurement issues, modeling strategies, and results. Here we speak to the complications posed by the Great Recession in measuring a LAWA migration push and our techniques for distilling the effect of the latter from the former (cf. Lofstrom, Bohn, and Raphael 2012, Bohn, Lofstrom and Raphael, 2014). We end with a discussion of the implications of our findings, speculating on how exclusionary policies, such as universal E-Verify within a state, may combine with the new geography of employment opportunity post-Great Recession to change the geographies of immigrant settlement and weaken the pull of new destinations.

IMMIGRANT EXCLUSION POLICIES: SPATIAL SCALE AND HISTORICAL CONTEXT

LAWA is by no means the first subnational exclusionary policy aimed at removing unauthorized immigrants from a place. In the decade or so prior to LAWA, various cities and counties across the country devised policies designed to make life difficult for this population and thereby discourage their presence (Walker and Leitner 2011; Leitner and Preston 2012). By 2008, most states had ramped up identification requirements for driving licenses, making it harder, if not impossible, for the unauthorized to obtain a driving permit. In addition, a number of local police departments developed 287(g) agreements with the federal government, which empowered local police to perform immigration enforcement tasks (Coleman 2009). LAWA, though, represented an expansion in the scope of these subnational exclusionary measures by mandating employee verification statewide. Since its enactment, which was bolstered by a 2011 US Supreme Court ruling that allowed LAWA and by extension similar E-Verify laws elsewhere to stand, other states have followed suit by passing LAWA-like all-employer E-Verify requirements.

Arizona itself attempted to expand its enforcement regime by enacting SB1070 in 2010, which criminalized the unauthorized for being present in the state. In June 2012, the US Supreme Court struck down much of SB1070 on the grounds that some of its measures undermine federal authority to regulate immigration. This ruling, *Arizona v. the United States*, helped undo similar “attrition through enforcement” legislation that had subsequently been enacted in Alabama, Georgia, Indiana, South Carolina, and Utah. Alabama’s SB58, for example, would have required K-12 public schools to collect information about the immigration status of their students and, in addition, criminalized noncitizens who failed to carry their alien registration documents. SB58 also made renting housing to an unauthorized immigrant a criminal offense (Chishti and Hipsman 2013).

This eruption of state-scale legislation is not the first time states have tried to influence immigration. Prior to the assertion of federal authority over immigration in the late nineteenth century, states regulated and taxed immigration for the purposes of screening out paupers, convicts, and others deemed undesirable, and to cover social costs when those procedures failed (Klebaner 1958, Zolberg 2006). California’s Proposition 187, a 1994 referendum designed to exclude undocumented immigrants from a wide variety of public services, was, in many respects, the first modern-day variant of these nineteenth-century policies. But California’s “Save Our State” initiative, which is how Proposition 187 was

packaged to the public, emerged during a period of much greater federal authority over immigration matters than in the earlier era. The law was never enforced because of an immediate court injunction and was voided in 1999 after the US District Court had previously ruled most of it unconstitutional on the grounds that it infringed on the authority of the federal government to regulate immigration. California agreed to mediate rather than appeal this decision.

Immigrant rights groups have also challenged the LAWA. This law, however, was never going to face the same level of legal difficulties as Proposition 187 – or Arizona’s SB1070, for that matter - because LAWA is an application of an existing federal workplace detection scheme with added state sanctions for employers who hire unauthorized workers. Sanctions for employing unauthorized immigrant workers have been part of US law since the 1986 Immigration Reform and Control Act. LAWA expanded the application of this existing statute rather than proposing qualitatively different enforcement regimes that challenged or exceeded federal law.

While the geography of contemporary immigration policies might be new, the underlying forces that generated them are the same as those that have motivated immigration restriction in the past. John Higham’s (1955) classic study of US nativism examined the ebb and flow of anti-immigration sentiment from the mid nineteenth century through to the passage of the restrictive quota acts of the 1920s. In this period, targeted groups included Catholics, Jews, and others deemed unassimilable, as well as suspected radicals. The tides of nativism, however, waxed during economic downturns. American nativism in any era is always bound up with racism and xenophobia but the receptivity of the larger population to anti-immigration campaigns often hinges on the state of the economy. Immigrants can be more easily scapegoated during economic hard times when good jobs, or any jobs, are much harder to come by for residents.

The mapping of recent economic cycles onto the rise of contemporary anti-immigration movements is beyond the scope of this paper. While we await a Higham-like dissection of these events, the high rates of immigration, both documented and unauthorized, combined with recession surely amplified the clamor for restriction in the last decade. While the surge in the enactment of state immigration legislation coincides with the acceleration of job loss beginning in 2007, the timing is not precise. A handful of counties and municipalities passed anti-immigrant measures before the crash, and the regime of enforcement at the federal level that militarized the border and accelerated deportations has its roots in events that predate the current crisis (Nevins 2010).

The five states that followed Arizona’s lead and passed LAWA-style universal employment verification laws were new immigrant destinations; no major immigrant gateway state had such a law.¹ At the county and municipal scales, 88.5% of immigration-oriented policies in southern jurisdictions were exclusionary compared to 69% nationally (Walker and Leitner 2011). New destinations, or places with rapid growth in immigrant populations, appear more

¹The six states with the largest immigrant populations – California, Texas, New York, Florida, Illinois, and New Jersey – are the major gateways. These states are where the majority of the immigrant population lives and were the almost exclusive destinations of post WWII immigrants until the emergence of new destinations in the 1990s.

likely to adopt these policies than established immigrant destinations. These categorizations alone, however, are unable to account fully for variations in policy response among neighboring localities experiencing broadly similar immigration events (Walker and Leitner 2011). The adoption of local anti-immigrant policies appears to also depend on whether the area has experienced an influx of immigrants at a time in which the national political climate is particularly hostile to immigration and if it has a Republican majority (Hopkins 2010, Ramakrishnan and Wong 2010).

Our focus in this paper is not to investigate further the causes of the geography of these local policies but to contribute to the growing literature on the implementation and effects of these laws on the lives of immigrant populations (e.g., Coleman 2007, Coleman 2009, Coleman and Kocher 2011, Coleman 2012b, Varsanyi 2008, Varsanyi et al. 2012). Unsurprisingly, these programs serve to create insecurity in the daily lives of immigrants. The denial of driving licenses to unauthorized immigrants elevates their chances of contact with local police who work with federal immigration authorities through programs such as 287(g) (Coleman 2012). In places with such programs, immigrants worry more about detection and deportation than in other, more welcoming, places (Garcia et al. 2011).

If everyday life becomes more difficult amid a general climate of fear, some people may move to places where local and/or state laws are less hostile. Unauthorized immigrants and those who employ or provide services to them speak of such departures when these laws or programs come into effect, but these anecdotal accounts do not match up with survey-based results. Garcia et al. (2011), for example, report that there were several such accounts of migrant departure from Oklahoma after the 2007 passage of a law that limited immigrant access to state services and ramped up state law enforcement requirements to detect the unauthorized. Survey data, however, suggest that immigrants in Oklahoma did not change location or make migration decisions because of the law, despite their clearly articulated fear of the law's effects. Other research aligns with this result, finding that anti-immigrant laws at county or state level do not spur the spatial redistribution of unauthorized populations away from these areas (Parrado 2012, Amuedo-Dorrantes, Puttitanum, and Martinez-Donate 2013, Garcia 2013, Leerkes, Bachmeier and Leach 2013).

The absence of any migration or population redistribution response, at least at the scales and locations analyzed in these studies, is hard to square with the punitive and climate-of-fear generating effects of these laws, as Menjivar (2013) and Orrenius (2013) state in their responses to Amuedo-Dorrantes, Puttitanum, and Martinez-Donate (2013). We hypothesize these laws generate an outmigration response in tandem with unauthorized workers preserving in place. Hunkering down may be manageable if one can still obtain or hold a job, even if that work is increasingly marginalized. Previous research finds that anti-immigrant hostile environments drive unauthorized workers further underground in situ, such as shifting from formal wage employment to self-employment to avoid detection at the workplace (Lofstrom, Bohn, and Raphael 2011).

At the national scale, unauthorized immigrants continued to come to the US, or stayed in the country, after enforcement expanded in the late 1990s and before the Great Recession started. They did this even though enhanced enforcement further marginalized their position

in the US labor market by undermining their rights as workers and making them avoid some types of work to minimize detection (Gentsch and Massey 2011, Orrenius and Zavodny 2009). Despite these accruing labor market disadvantages, many local labor markets absorbed unskilled immigrant workers in most years during this period. The allure of employment remained sufficient to overcome any reluctance to move to the US despite new and tougher immigration enforcement regimes. So perhaps it is no surprise there is scant evidence for an effect of these policies at state and local levels on immigrant redistribution within the country. LAWA, however, took the policing of labor markets in Arizona for unauthorized workers to another level compared to any other state at the time. We want to know if LAWA and its universal employment verification requirements generated immigrant redistribution via outmigration from Arizona. Before we discuss the analytical strategies for answering this question we briefly review E-Verify, LAWA, and what is known about their impacts.

E-VERIFY AND THE LEGAL ARIZONA WORKERS ACT

The 1986 Immigration Reform and Control Act (IRCA) marks the beginning of the current phase of immigration enforcement through the workplace.² The employment authorization section of this law required employers to check the documents of employees to determine their eligibility to work. It was part of a larger deal to grant amnesty to a significant fraction of the unauthorized population as well as to penalize employers who hired unauthorized workers. Verification of these documents against centralized databases was not part of the original scheme but pressure to tighten workplace enforcement led Congress in 1996, as part of the provisions of the Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA), to instruct the then Immigration and Naturalization Service (INS) to pilot an electronic record-checking program, which became “E-Verify” in 2007. E-Verify is now a partnership between the INS’s successor in the Department of Homeland Security and the Social Security Administration. Employers are invited to enroll in the system and then submit, via the internet, employee information for checking against agency databases. The program has grown from its initial pilot years. Employer enrollment in the electronic scheme expanded from 24,463 in 2007 to 353,822 in March 2012, but participation is not mandatory (US Citizen and Immigration Services 2013). If they prefer, most employers, with some notable exceptions such as companies and organizations that contract with the federal government, can opt to use paper document checking as allowed by IRCA.

The Legal Arizona Workers Act, passed in March 2007 and implemented at the beginning of 2008, made E-Verify mandatory for all employers in Arizona. Business license suspension is the penalty for non-compliance. At that time, a small number of states had limited E-Verify requirements in place for public employers and contractors but no other state had a mandatory enrollment requirement for all employers. Mississippi passed a LAWA-like law in July 2008 but it had the mandatory requirement phase in over three years instead of becoming fully active immediately. As of 2012, five states in addition to Arizona had

²It also contains a provision requiring the US Attorney General to expeditiously deport non-citizens convicted of removable offenses. This is the taproot of the current system of expedited removal. Noncitizens convicted of aggravated felonies, for example, can now be removed from the US without process (Inda 2013).

LAWA-style laws but, unlike LAWA, none of these were operational for all employees in 2008 and 2009 (Feere 2012).³ Soon after passage, business and immigration rights groups challenged LAWA by claiming it preempted federal immigration law. Lower courts affirmed the legality of LAWA in 2008 and 2009 and the US Supreme Court did the same in the 2011 *Whiting* decision (Chishti and Bergeron 2011).

LAWA's impact on E-Verify enrollment in Arizona was dramatic. Only 300 employers in Arizona were enrolled in E-Verify in March, 2007, the month the law was passed. By mid-2008, six months after it took effect, that number was 15,000 (38% of all employers enrolled *nationwide*), growing to 36,000 by January 2011 (Westat 2009, Rosenblum 2011). In early 2011, 26% of Arizona's employers were enrolled in E-Verify, almost twice the percentage in the next highest enrollment state, Missouri (Rosenblum and Hoyt 2011).⁴

Did this LAWA surge in E-Verify enrollment have any effects on the employment of immigrants, particularly the unauthorized? LAWA is the product of a broad, hostile cultural and political environment for immigrants in Arizona and so its measurable effects are, in a general theoretical sense, inseparable from the anti-immigrant context in which it emerged. Nevertheless, LAWA very likely contributed to the reduction of the population of non-citizen Latinos in the state by 92,000 (17% of the pre LAWA population of this subgroup) by the end of 2009 (Lofstrom, Bohn, and Raphael 2011, Bohn, Lofstrom and Raphael, 2014). The employment of that same group fell by 56,000 and a substantial number had shifted into informal self-employment, presumably to avoid E-Verify (see also Bachmeier et al. 2011). In addition, Leerkes, Leach, and Bachmeier (2012) place Arizona in a league of its own relative to other states in the severity of its restrictive policies around the time of LAWAs passage. They show a negative association between the severity of these restrictions and change in the unauthorized population between 2008 and 2009 at the state scale. Leerkes, Leach, and Bachmeier, however, concede that their analysis is simply bivariate and cannot account for other factors, such as differences in state economic health.

Critically, all prior research measures the impact of restrictive policies on state-level employment or population change among the unauthorized; the outmigration response *per se* has not been studied (Leerkes, Bachmeier, and Leach 2013). This is an important distinction. The identification of employment declines could reflect reactions in situ (e.g., leaving the workforce, informalization of work). Population change among the unauthorized has multiple dimensions, including births and deaths, internal in- and outmigration, new immigration, voluntary international return migration, and deportation. The timing of an increase in outmigration begins to isolate the effect of LAWA on voluntary relocation within the country.

Accordingly, this analysis develops a strategy that assesses if LAWA prompted the unauthorized, or the population most likely to be unauthorized, to leave Arizona for other states in the US. We build a multivariate model that accounts for local and national

³These states were Mississippi, South Carolina, Alabama, Georgia, and North Carolina.

⁴While there is no doubting the effects of LAWA on employer participation in E-Verify, even during a period when the law was potentially subject to judicial repeal, there is some question about whether the state, or its county prosecutors, have vigorously pursued enforcement of businesses. The state listed only two companies charged under the law by mid-2012 (Feere 2012).

economic cycles and changes in employment patterns, as well as individual-level characteristics. We advance the work of Leerkes and colleagues (2012, 2013) by comparing Arizona, not with clusters of other states, but directly with California, Nevada, and Florida. These four states had similar employment concentrations in construction, a sector that provides work for many unauthorized immigrants, and were hit hardest by the construction employment declines in the Great Recession. In doing so, we evaluate whether exclusionary laws such as LAWA, controlling for other factors, have the potential to redistribute immigrants within the US.

DATA AND ANALYTICAL STRATEGY

The most comprehensive data on migration before, during, and after the period of LAWA's enactment are the microdata files of the American Community Survey (ACS). They record state of residence one year prior to the survey, which means we can observe the interstate flows of migrants by the socio-demographic characteristics of ACS respondents, such as age, nativity, ethnicity, and citizenship. As LAWA and other exclusionary policies likely induced some unauthorized immigrants to leave the country, we would ideally also like to use comparable information on emigration from the US. Such data, however, do not exist. We do know that a significant decline in net Mexican immigration occurred between 2005-10 (Passel, Cohn, and Gonzalez-Barrera 2012). Estimates of a specific return migration to Mexico, for example, suggest 1.4 million moved back in the 2005-10 period, twice that of the 1995-2000 period. Perhaps as much as 35 percent of the total return migration in the late 2000s resulted from involuntary deportation (Passel, Cohn, and Gonzalez-Barrera 2012). In any event, we should expect to see an internal migration response to state-scale exclusionary policies, especially considering that conditions in the home country of the majority of unauthorized migrants – Mexico – are not especially favorable and when the cost of returning to the US across the militarized border is high. Further, it is vital to know whether such local laws might alter the geography of immigrant settlement for those who remain in the US.

ACS data do not identify who is in the US without authorization. They do, however, separate the foreign born into two categories: those who are naturalized citizens and those who are not. The latter includes both authorized and unauthorized immigrants. According to census data, 37% of the foreign born are naturalized and the Pew Hispanic Center estimates that the unauthorized comprise just under half of the non-citizen foreign-born population (Passel and Cohn 2011). Mexicans are by far the largest group of unauthorized immigrants being 56% of the total. Mexicans and Central Americans together comprise 73% of the unauthorized immigrant population but supply only 36.9% of the total foreign-born population (Hoefler, Rytner, and Baker 2012, Grieco et al. 2012; Passel, Cohn, and Gonzalez-Barrera 2012). Thus the non-citizen foreign-born Latino population has a higher percentage of unauthorized immigrants than other non-citizen foreign-born subgroups. Hence, we treat non-citizen foreign-born Latinos as the closest approximation to the unauthorized population and expect that members of this group will be more likely than any other to experience LAWA's effects and opt to leave the state as a consequence. This approximation means that our estimate of the migration response is probably on the low side because some members of this group have the right to work.

While non-citizen foreign-born Latinos should be the group most likely to leave Arizona post-LAWA, naturalized and US-born Latinos may also migrate if they experience or fear discrimination by employers (and others) because of the law. As unauthorized immigrants frequently form households with citizens and documented immigrants, such mixed-status households may choose to move as a unit for the sake of a family member and to keep the household intact. In either of these circumstances, rates of departure from Arizona for these two groups would increase post LAWA, although we would expect them to be of a smaller magnitude than those for non-citizen foreign-born Latinos.

The Great Recession further complicates the identification of a LAWA migration effect. As we argued earlier, there is reason to believe that the timing of the implementation of restrictive actions depends on the economic cycle. Any analysis of the effect of such legislation must therefore distinguish the impact of changing legal regimes from what may be produced by shifts in prevailing economic conditions. LAWA became law just after the recession officially started in late 2007. Employment losses were concentrated in construction – the sector in which unauthorized immigrant workers frequently find employment. Nationally, 4.9% of the US workforce was unauthorized in 2005 whereas 14% of all construction workers were so categorized (Passel 2006). For some construction occupations, such as insulators, roofers, drywallers, and general construction laborers, the unauthorized worker share of total employment at that time was 25 percent or greater. Regardless of an expansion of E-Verify, the rapid loss of these jobs within a housing-boom state, such as Arizona, is very likely to have spurred some outmigration of affected workers.

Arizona's housing-market crash was significant but its employment losses were not exceptional. For example, Figure 1 charts the annual percentage change in total jobs in Arizona and two comparison states in the region, California and Nevada. Arizona's pattern resembles its neighbors, rising growth rates through to the mid-part of the decade leading to slower growth by 2007 and then a substantial employment decline in 2009 that moderated in 2010. This similarity suggests that any distinctiveness in Arizona's outmigration profile, if it exists, cannot be attributed to a unique recessionary effect there.

Trends in construction employment losses reinforce this conclusion (Table 1). The focal points of the collapse of construction employment were in four states: Arizona, California, Nevada, and Florida. The location quotients in this table, which are the ratio of annual percentage construction job loss in a state to annual percentage construction job loss nationally, make it clear that from the peak of the boom in 2006 through to 2008, the first full year of the recession, construction jobs hemorrhaged from these four states at a much faster rate than in other states with significant Latino populations. Florida and Nevada's job losses in construction were almost five times the national rate of decline; Arizona's loss was closer to four times. Between 2008-9, construction job loss deepened considerably across the country and the geographical unevenness of this decline, captured by the diminished range of the location quotients, became less pronounced than a year earlier. The recession had spread from the four states at its epicenter in 2008 but they remained the hardest hit states.

This similarity of Arizona to California, Florida, and Nevada in recessionary job-loss profile is important and makes it possible to differentiate an enforcement push from a recessionary effect. An increase in outmigration by LAWA-targeted populations in Arizona but not by those same populations in these three related states without a similar law would suggest that LAWA, not the recession, is responsible, at least in part, for this elevated rate of departure to other states.

Descriptive Outmigration Trends

Using weighted ACS data to approximate population trends, Figure 2 charts outmigration rates from 2006-2009 for four groups – US-born whites, US-born Latinos, foreign-born Latinos with citizenship, and foreign-born Latinos without citizenship – for Arizona and the three comparison states: California, Nevada, and Florida. We restricted the samples for these rate calculations to those of workforce age, 18-65, to focus on the migratory response of people who would most likely be subject to an E-Verify check. Before we focus on the outmigration of the group of interest – non-citizen foreign-born Latinos – we draw attention to patterns shared by all four states.

US-born whites are the most migratory group and foreign-born Latino citizens the least migratory. Note also that rates for US-born whites decline in each state as the recession deepens, a trend that matches the dampening effect of recessions on migration observed in previous economic downturns (e.g., Clark 1982, Greenwood, Hunt, and McDowell 1986, Long 1988). In addition, we observe some differences among states across all groups. California had relatively low outmigration rates; Arizona and especially Nevada had higher outmigration rates. After 2006, Arizona was the only state in which foreign-born Latino non-citizen outmigration was markedly higher in every year. The pattern in other states varied. In California foreign-born Latino non-citizen outmigration declined post 2006; in Nevada it fell then spiked in 2009; in Florida it rose in 2007 then fell back to 2006 levels by 2009. Nevada's 2009 spike was the largest absolute increase in outmigration rate for this group in any of the four states.

Arizona's increases in 2007 and 2009 were larger in relative terms, however, when measured as a percentage change from the rate observed in 2006 (see Figure 3). The 2008 percentage increase was smaller but exceeded the same percentage increase in the other three states. This relative-change perspective plus the consistently higher rate of outmigration post 2006 lends credence to the idea that something happened to outmigration from Arizona when LAWA passed that did not happen in the other three states. Note also that the group most affected by the law in Arizona exhibits the strongest and most consistent increase in outmigration. The increases in US-born Latino outmigration in 2008 and foreign-born Latino citizen outmigration in 2007 and 2008 in Arizona were relatively small compared to those of non-citizen foreign-born Latinos. This contrasts with Nevada where the relative magnitude of the post 2006 increase in outmigration was greater for foreign-born Latino citizens than for non-citizens – a pattern inconsistent with the idea that enforcement targeting the unauthorized is driving foreign-born Latino outmigration from that state.

Difference in Differences Models of Outmigration

The descriptive data suggest a distinctive migration response to LAWA in Arizona by the subgroup most likely to be unauthorized. The increase in outmigration from Arizona by non-citizen foreign-born Latinos after LAWA's passage is not large in absolute terms and the migratory propensity for this group remained well below that for US-born whites two years after LAWA came into effect. In relative terms, however, this group's migration rate increase post 2006 is certainly larger in Arizona than in any of the comparison states. To determine if this increase is statistically significant we estimated a series of difference in differences models that measure differential change in the outmigration rate for the key groups of interest. These models test whether the difference between the migration propensity of the key group of interest (non-citizen foreign-born Latinos in Arizona) and a baseline group is constant over time after controlling for other relevant variables that may affect migration rates.

Following Lofstrom, Bohn, and Raphael (2012), we identify if there was a LAWA outmigration push in two ways. The first is a within-state comparison over a pre- and post-LAWA time period of the migration propensity of relevant groups. The baseline group in this formulation is the population least likely to be affected by LAWA – US-born whites. The estimated coefficients in these models measure differences in outmigration rates and, crucially, changes in those differences between them and three other groups – non-citizen foreign-born Latinos, naturalized foreign-born Latinos, and US-born Latinos. The model is restricted to those who live within a single state producing a situation in which state economic conditions are implicitly controlled for. Thus any differential change in group outmigration rates must derive from non-economic factors affecting specific groups, which in Arizona's case we expect to be LAWA disproportionately increasing the non-citizen foreign-born Latino outmigration rate relative to US-born whites. The following general formulation represents this within-state version of our difference in differences model:

$$p_{ikt} = f(\beta X_{it} + \gamma g_k + \tau b_t + \delta g_k b_t) \quad (1)$$

This model estimates the probability that person i in group k in year t (p_{ikt}) migrates from a specific state as a function of a vector of personal characteristics (X_{it}), group-fixed effects (g_k), year-fixed effects (b_t), and the interaction of group membership and year ($g_k b_t$). The group-fixed effects measure the difference in migration rates between group k and the baseline group after controlling for individual characteristics. If migration rates change year-to-year but this group difference from the baseline is constant then the year-fixed effects coefficients, τ , will be greater or less than zero, depending on the time trend, and δ will be zero. If the difference changes over time (i.e., there is a difference in differences) then δ will not equal zero. We hypothesize these difference in differences coefficients will be positive for the group most affected by LAWA, non-citizen foreign-born Latinos (i.e., we expect their outmigration to increase relative to US-born whites, the baseline group).

This modeling strategy depends on the selection of an appropriate time-span to capture migration before and after the implementation of LAWA. As in the earlier analysis, we use four years of annual outmigration data from 2006-9 to estimate this model. Our pre-LAWA year is 2006 and the δ coefficients measure the change in group differences in outmigration

rates during the year of LAWA's passage, 2007, and in the first two years of its implementation, 2008 and 2009. We estimate the model for Arizona and to check the robustness of our results we also estimate it for the three comparison states – California, Florida, and Nevada.

The second strategy is a within-group analysis of outmigration across a set of comparison states. Here the focus is on estimating the difference in differences between outmigration rates for a particular subgroup (such as non-citizen foreign-born Latinos) in the specific state of interest, Arizona, and a set of other states that mirror Arizona in key ways. These difference in differences models take the following general form:

$$p_{ijt} = f(\beta X_{it} + \gamma AZ + \tau b_t + \delta AZb_t) \quad (2)$$

This model estimates the probability (p_{ijt}) of individual i migrating from state j in year t as a function of a vector of individual characteristics (X_{it}), an Arizona dummy (AZ), a vector of year fixed effects (b_t), and a vector of interactions between the Arizona state dummy and year dummies to measure any difference in differences between outmigration from that state and the comparison states over the years in which the model is estimated. As before, we use outmigration in 2006 as our base and compare it to outmigration in 2007, 2008, and 2009. The choice of comparison states is key to this estimation strategy. We want to compare the change in outmigration in Arizona to the change in outmigration that occurs in a pooled set of states that, like Arizona, have a large foreign-born Latino population and a similar recessionary profile. As we have already demonstrated, California, Nevada, and Florida resemble Arizona on these dimensions, most notably in terms of the intensity of their construction employment crash, and so these three states comprise our comparison set. They serve as our counterfactual, if you will, for what would have happened in Arizona absent LAWA. Thus the dataset for this model is restricted to these three states plus Arizona; the Arizona dummy and its interaction by year measure differences pre- and post-LAWA between Arizona and the pooled set of California, Nevada, and Florida. We estimate this across-state model for each of the four groups – US-born whites, US-born Latinos, naturalized foreign-born Latinos, and non-citizen foreign-born Latinos. If there is a LAWA effect we expect to see significant positive effects of δ for the latter group, perhaps some positive effects for the other Latino groups if there is some discrimination spillover, but no effect for US-born whites.

We estimate both types of models using the same age restriction as the rates charted in Figure 2 and 3 (i.e., 18-65). The individual characteristics in both within and across state models include gender, four categories of age, four categories of education, and four categories of family type. Human capital theory predicts that age and education condition migration (e.g., Schultz 1961, Sjaastad 1962); family migration studies show that couples with children are less likely to move than single-person households (e.g., Mincer 1978). Some migration events are associated with gender so we include this variable. Including all these characteristics as regressors controls for differences in age, education, gender, and family structure across groups or states. These socio-demographic characteristics, however, are the basis for weighting in the ACS. Estimating models with independent variables related to the weighting structure of the sample can cause difficulties in interpretation of the

estimated coefficients (Winship and Radbill 1994). Accordingly, our estimation uses unweighted data.

We calibrated both types of difference in differences models using ordinary least squares, correcting standard errors for heteroscedasticity. Linear probability models yield estimates of δ directly interpretable as the change in the probability of outmigration for the group in question. In a logit formulation, the estimated δ coefficients measure change in the log-odds of outmigration. The conversion of an interaction term in the log-odds metric to a marginal effect in the probability metric comparable to the coefficients in the linear probability model requires a nonlinear transformation. In this transformation, the marginal effect of the interaction term is dependent on the value of the other regressors in the model, which is not the case for linear probability model estimates (Ai and Norton 2003). Hence, logit estimates are complicated to interpret in terms of the marginal probability effects of relevance to the primary measurement goals of this paper. An objection to linear probability models is that they run the risk of predicting probabilities outside the 0-1 range. This, however, is not a concern for us. Our interest lies in estimates of the marginal effect of δ on the probability of migration and rather than on the accuracy of the predicted probabilities. Besides, our linear probability models never predict outside the 0-1 bound because all of our regressors are categorical variables.

Model Results

To recap, we expect the effect of LAW A on the outmigration of non-citizen foreign-born Latinos from Arizona to be greatest in 2008, when the law went into effect. Their relative propensity to leave the state, however, could have increased in 2007 in anticipation of its effects, after the law was passed in March of that year but before it came into effect. Employers might have begun to change employment decisions in 2007 in anticipation of the law; workers may have seen the writing on the wall. More likely perhaps, LAW A's effect may have strengthened over time because of the limited take-up of E-Verify by Arizona's employees in 2008. In this case, we could expect the outmigration push to be greater in 2009 than in 2008. Push effects may also have occurred for naturalized foreign-born Latinos and US-born Latinos; to be consistent with the idea of a LAW A push, the model coefficients for these groups should be smaller than for non-citizen foreign-born Latinos. If these patterns of effects only exist in Arizona then we have strong evidence that LAW A promoted the domestic outmigration and redistribution of unauthorized immigrants.

Table 2 contains the results of the within-state models for Arizona and the three comparison states. The coefficients on the socio-demographic variables are in line with expectations in all four states. The probability of migration decreased with age, was highest for the college educated, and was lower for those who are partnered, especially if they had children. Gender had no effect. Consistent with the trends charted in Figure 1, the coefficients for the three Latino groups are negative, meaning that their migration propensity was lower than for US-born whites, the baseline excluded category. Overall, the year-fixed effects are negative, which accords with the downward trend in outmigration rates for US-born whites (and depicted in Figure 2).

The nine interaction coefficients are estimates of the difference in differences in outmigration probability (i.e., δ) for the three Latino groups. For non-citizen foreign-born Latinos, these coefficients are positive and significant in Arizona all three years. They also increase over time; relative to US-born whites, the out-migration of non-citizen foreign-born Latinos from Arizona increased by 0.85 percentage points in 2007, 1.03 percentage points in 2008, and 1.84 percentage points in 2009. US-born Latinos in Arizona experienced a significant jump in outmigration in 2007 and 2008 but the effect was smaller than for non-citizen foreign-born Latinos and it was not sustained into 2009. Positive and significant coefficients for non-citizen foreign-born Latinos also show up in Nevada in 2009 and in Florida in 2008 and 2009. The Nevada case is inconsistent with an enforcement push that targeted the unauthorized; specifically, the non-citizen foreign-born Latino coefficient is only significant in 2009 and in previous years it was naturalized foreign-born Latinos whose outmigration rate jumps, not non-citizen foreign-born Latinos. The Florida pattern is more ambiguous although the significant rise in non-citizen foreign-born Latino outmigration there was about half the magnitude recorded in Arizona.⁵

The across-state models make a stronger case for a LAW A effect (Table 3). Recall that these models compare change in outmigration rates in Arizona for a specific subgroup to change in outmigration rates for the same subgroup in a pooled set of counterfactual states that had similar recessionary profiles and significant foreign-born Latino populations. Each column in the table is a version of the model in equation 2 estimated using a sample restricted to one of these subgroups. Coefficients on the socio-demographic regressors vary across groups in these models but the pattern for each is similar: decreasing mobility with age and if children are present; increasing mobility with education.

The three interactions coefficients are key. They are the difference in differences, measuring change in the difference in outmigration rates between Arizona and the pooled comparison states. The outmigration rates for non-citizen foreign-born Latinos from Arizona significantly increased relative to the same group in the comparison states in 2008 and 2009. The coefficient for 2007 is just shy of $p < .05$ significance (a t-score of 1.94). The 2008 coefficient suggests an increase of 0.8 percentage points relative to the comparison set; this grows to 1.25 percentage points in 2009, in line with the idea that the LAW A push grew as more employers enrolled in E-Verify. In relation to the group's baseline outmigration rate (the constant + the Arizona fixed effect), these increases indicate that the non-citizen foreign-born Latino outmigration rate from Arizona more than doubled between 2006 and 2009. US-born Latinos are the only other group to show a significant difference in differences. In 2008, all else being equal, their outmigration increased by 0.9 percentage points. This was a larger increase than for non-citizen foreign-born Latinos in the same year but it was not sustained into the next year. Both across and within state models identify an effect for this group in 2008, suggesting perhaps a limited LAW A push for this group. The absence of any significant interaction coefficients for US-born whites underscores the distinctiveness of the findings for non-citizen foreign-born Latinos. Something boosted the

⁵These findings are robust to functional form. Average marginal effects calculated from a logit model with the same specification as the linear probability model are similar in sign, magnitude, and significance to the estimates of δ reported in Table 2.

outmigration of non-citizen foreign-born Latinos from Arizona starting in 2008 relative to similar states but did not do the same for US-born whites.⁶

SUMMARY AND DISCUSSION

The evidence suggests that those whose employment is most at risk from an E-Verify expansion – non-citizen foreign-born Latinos – left Arizona for other states at relatively higher rates after LAWA mandated universal employment verification beginning in 2008. The departure rate for this group increased further in the second year after LAWA's passage as enrollment in E-Verify swelled. There is weaker evidence of an effect on other Latino groups who might experience, fear, or resent LAWA's requirements. US-born Latinos do leave Arizona at higher rates in 2008 but naturalized foreign-born Latinos do not.

The results align with prior research that showed LAWA reduced the employment of unauthorized immigrants in Arizona. We find that some immigrants subject to LAWA's employment consequences left the state for other regions of the US. This migration response demonstrates that enforcement has the capacity to shift targeted immigrant populations to other parts of the country net of recessionary impacts. This, of course, is likely not the only migration response to LAWA. Given that Arizona and Mexico share a border and that over half of all undocumented workers in the US are Mexican, some of the targeted population will have left for Mexico. We also expect that fewer unauthorized immigrants, and possibly authorized immigrants as well, will have moved into the state, both from other parts of the US and directly from abroad. As migration is always a selective process, with some people being more able to move than others, these migration responses likely complement in situ reactions to the law: i.e., LAWA also helped drive unauthorized populations further into the margins and shadows of Arizona's society. The fact that the phase in of E-Verify as well as its enforcement in Arizona took time and varied geographically within the state likely serves to enhance such selectivity.

Since LAWA's passage several other states, mostly in the southeast, have enacted similar mandatory E-Verify laws. Arizona attempted to extend its enforcement push beyond the workplace with SB1070 in 2010, which gave local police powers to check for immigration status. Although the US Supreme Court vacated much of SB1070 in 2012, it endorsed the ability of states to mandate employee verification and employer penalties along the lines of LAWA. The LAWA migration-push effect we find for Arizona could now have spread to a set of states with similar verification and enforcement policies. LAWA's migration push could be even greater now than in the two years after it came into effect because of the

⁶As in the within state models, functional form does not change the findings. Average marginal effects for the difference in differences estimated from logit models are of the same sign, order of magnitude and have the same pattern of significance as in the linear probability models. We also tested the across state models with a larger set of comparison states that includes the original three states plus Colorado, Georgia, and North Carolina – all states with more than 200,000 foreign-born Latinos. Like California and Nevada, Colorado is a border state to Arizona and so is an additional southwestern state counterfactual in regional economic and ethnic history terms. Georgia and North Carolina are so-called “new destination” states that by 2009 ranked 5th and 6th in construction job loss (i.e. just after Arizona and the three original comparison states). Georgia and North Carolina enacted laws with universal verification requirements similar to LAWA but not until 2011. Thus, in addition, to the fact that their construction job loss profile is similar to the main housing crash states, they also represent an emerging exclusionary environment similar to Arizona pre LAWA, but one without a LAWA-style law during the 2007-9 period of the analysis. Estimates from these expanded comparison set models are very similar to those from the smaller comparison set (i.e. they are consistent with a LAWA push from Arizona of the subset of people most likely to include the unauthorized).

growth in employer enrollment and the Supreme Court decision affirming its constitutionality. An interesting question is whether SB1070, even when in legal limbo between its passage and its 2012 partial affirmation, added energy to the migration impulse likely triggered by LAWA. We suspect that the earlier outmigration that followed LAWA's implementation will have muted SB1070's effect on migration. Those who would have left because of SB1070 might have already left the state because of LAWA.

The fact that an SB1070-outmigration effect might be hard to distinguish from the prior effects of LAWA highlights a broader explanatory challenge associated with attributing outcomes to specific policy changes. Considerable cultural and political hostility toward immigrants in Arizona existed prior to the passage of these laws and provided the context for their enactment. From this perspective LAWA is an outcome of this hostile environment and thus migration effects (or population or employment effects for that matter) that appear directly attributable to it are indirectly a function of the cultural and political context that produced the law. Nevertheless, as a discrete policy change with targeted labor market aims, LAWA fundamentally altered the hiring environment for unauthorized immigrants in Arizona. As far we can tell, this change generated a significant increase in the internal outmigration of the unauthorized from the state.

Other important questions concern where these outmigrants from Arizona choose to go. Some must have left the country, but certainly not all. For those who remained in the US, are immigrants making destination choices to avoid places with hostile environments? The geography of job opportunity and the channeling effect of networks that guide immigrants to particular places surely play a role in immigrant destination choice. The geography of state and locality immigrant policies may also affect the pattern of these migrations. Immigrants, especially the unauthorized, may be moving from places with exclusionary policies to places where policies are inclusionary or less exclusionary. A question of particular interest is whether the rising tide of state-level enforcement practices in new destination states in the south has increased outmigration from these states and reduced their attraction for particular subgroups of immigrants. This redistribution may be selective not only in terms of legal status but also by age, education, and family status. Those who are young, single, and more educated are more migratory in general; they may also be more likely to move from environments of exclusion to places where they feel more welcome. Such redistributive selectivity will enhance the labor supply at low social cost in the places they choose to move to. Where they come from will have older immigrant populations with families that will consume more state and local resources.

As we write, the idea of immigration reform has gained some traction in the period after President Obama's reelection. Immigration reform may have a greater chance of passage through Congress in the next few years than at any time in the past decade. It seems likely that any deal would require enhanced border security and internal enforcement in exchange for some form of amnesty for the unauthorized. Nationwide, mandatory E-Verify enrollment along the lines of LAWA is a possibility in this horse-trading. Such an extension is likely to run into opposition from states opposed to the compulsory implementation of E-Verify. Resistance to a nationwide rollout of universal employment checks is broad, spanning the political spectrum from immigrant rights advocates to ultra-conservative Republicans who

object to “forcing businesses to become policemen” (Rand Paul, quoted by Associated Press, March 18, 2013). A more probable outcome is greater resources and incentives for workplace enforcement and greater federal penalties for failure to comply. In this scenario, the landscape of workplace enforcement will still be uneven post immigration reform and this differentiation may continue to shift patterns of settlement away from places with more harsh policies. If a more extreme option comes about and a LAWA-style law becomes national, the incentives for relocation within the country should diminish. Even in this instance, some places are very likely to have more welcoming environments than others. Thus, regardless of any federal law, we will continue to need more investigations of the effect of local and state policies on where immigrants, whether authorized or not, settle.

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- The effect of the Legal Arizona Workers Act (LAWA) on Latino worker outmigration from Arizona
- Non-citizen Latino outmigration from Arizona rose during and after LAWA's passage in 2007
- Little descriptive evidence of a rise in non-citizen Latino outmigration from a set of comparison states
- Difference in differences models estimate significant LAWA effect on internal outmigration of non-citizen Latinos

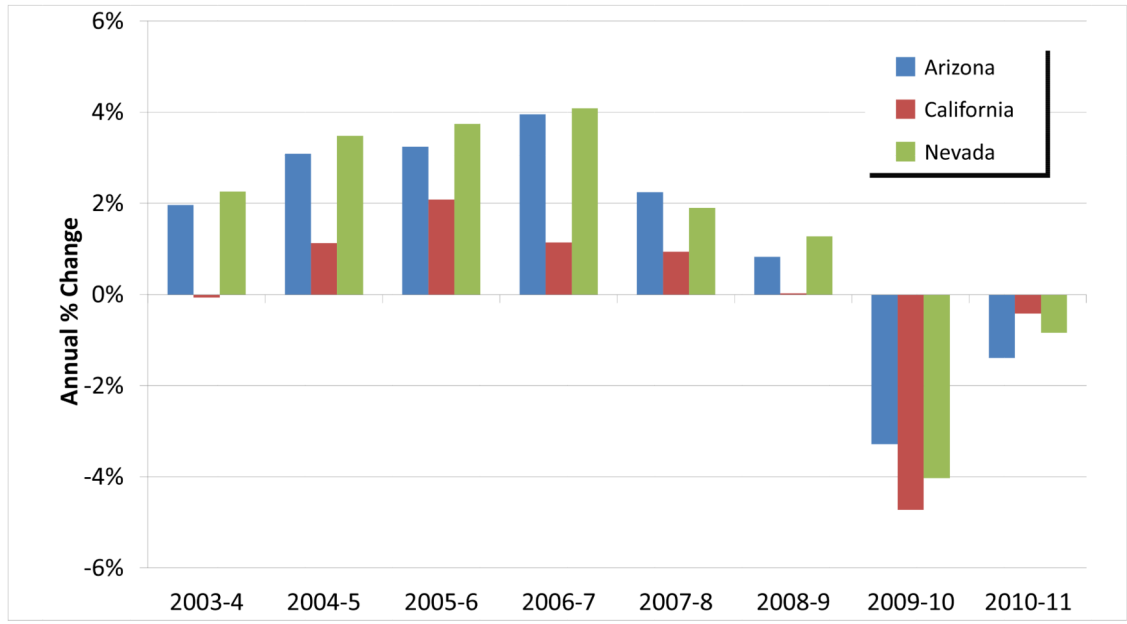


Figure 1.
 Annual percentage change in employment
 Source: Bureau of Labor Statistics, Local Area Unemployment Statistics

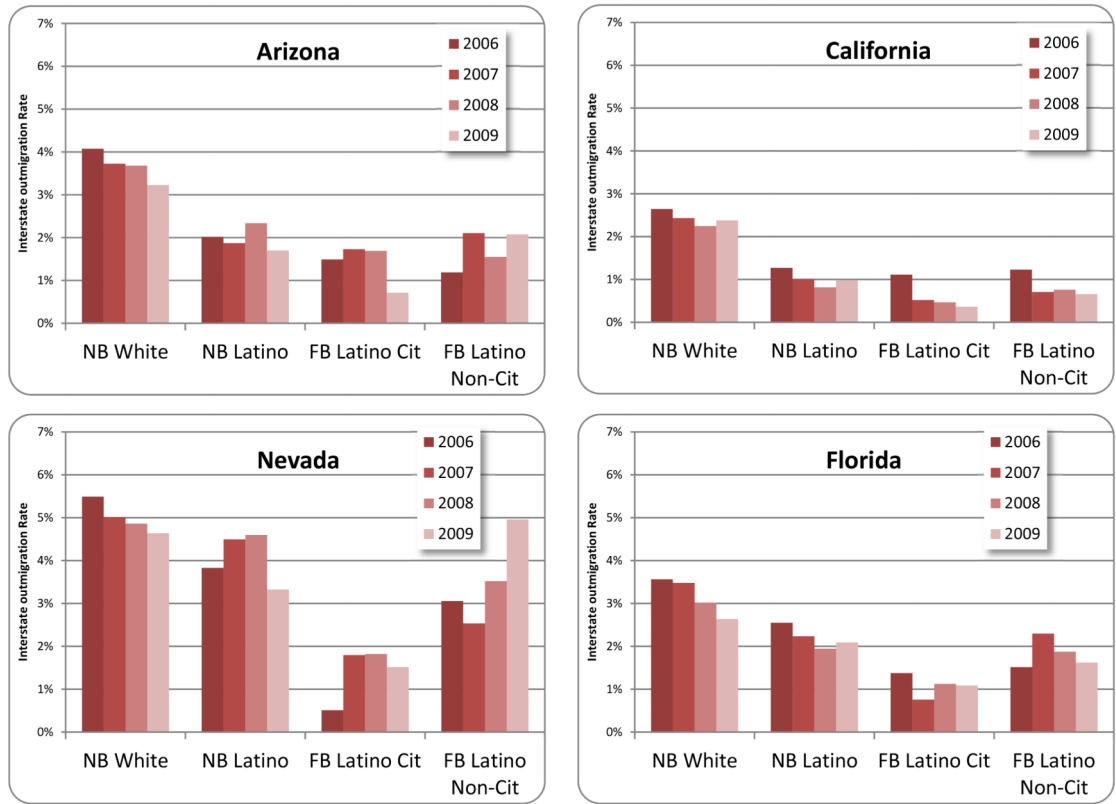


Figure 2.
 Outmigration rates for Arizona, California, Nevada, and Florida, 2006-9
 Source: American Community Survey

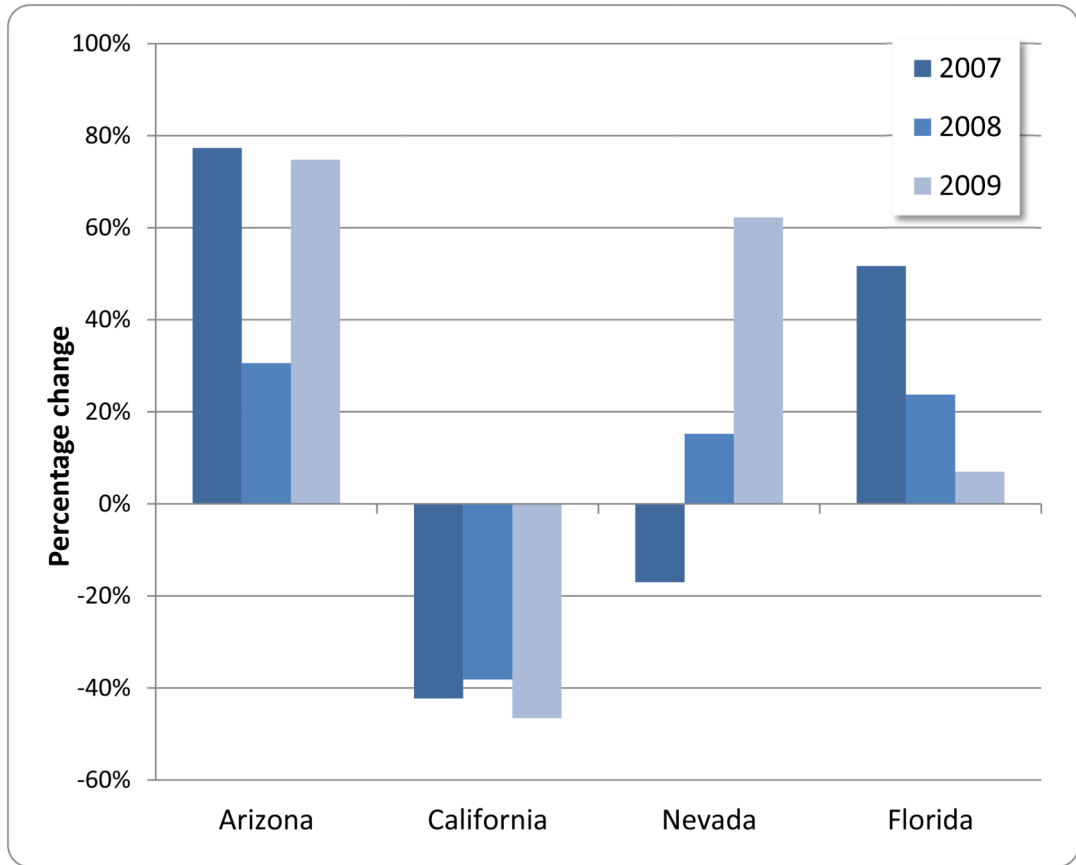


Figure 3. Annual percentage Change in the Outmigration Rate of non-citizen foreign-born Latinos in Arizona, California, Nevada, Florida

Table 1

Percentage Change in Construction Employment (states >200,000 foreign-born Latinos in 2008)
Source: County Business Patterns

	2006-8			2006-09	
	% Change	LQ % Change*		% Change	LQ % Change*
Florida	-19.85%	4.94	Nevada	-53.02%	2.84
Nevada	-19.35%	4.81	Arizona	-49.14%	2.63
Arizona	-16.50%	4.10	Florida	-41.72%	2.23
California	-12.24%	3.04	California	-36.47%	1.95
Virginia	-9.26%	2.30	Georgia	-32.80%	1.76
Illinois	-6.41%	1.59	North Carolina	-29.44%	1.58
New Jersey	-5.18%	1.29	Washington	-29.06%	1.55
North Carolina	-1.07%	0.27	Colorado	-26.95%	1.44
Georgia	-0.05%	0.01	Illinois	-25.42%	1.36
Colorado	2.98%	-0.74	New Jersey	-25.15%	1.35
Washington	7.65%	-1.90	Virginia	-23.66%	1.27
New York	9.97%	-2.48	Texas	-10.42%	0.56
Texas	14.30%	-3.55	New York	-8.34%	0.45
US	-4.02%		US	-29.06%	

* LQ % Change = state % change/US % change; LQ % Change > 1 means state is losing construction jobs at a faster rate than the US as a whole; LQ % Change < 1 means state is losing construction jobs at a slower rate than the US average, or is gaining construction jobs

Table 2

Within state models

	Arizona	California	Nevada	Florida
Constant	0.0509***	0.0306***	0.0561***	0.0473***
Female	-0.000798	0.0000810	0.000511	-0.000426
30-39	-0.0142**	-0.00612**	-0.0130***	-0.0130***
40-49	-0.0310***	-0.0151***	-0.0296***	-0.0248***
50-65	-0.0380***	-0.0184***	-0.0377***	-0.0319***
High School	0.00267	0.0000390	0.00414	-0.00255**
Some College	0.000233	-0.000600	0.00452	-0.00393***
College	0.00937***	0.00363***	0.0136***	0.00211*
Partnered - with kids	-0.0146***	-0.00760***	-0.0168***	-0.0120***
Partnered - no kids	-0.00738***	-0.00434***	-0.00963***	-0.00718***
Non partnered - with kids	-0.0122***	-0.00597***	-0.0109**	-0.00337**
2007	-0.00423*	-0.00146*	-0.00307	-0.000333
2008	-0.00257	-0.00241***	-0.00510	-0.00424***
2009	-0.00606***	-0.00304**	-0.00521	-0.00710***
NB Latino	-0.0240***	-0.0149***	-0.0133*	-0.0149***
FB Latino citizen	-0.0170***	-0.0101***	-0.0361***	-0.0163***
FB Latino non-citizen	-0.0283***	-0.0141***	-0.0216***	-0.0186***
2007 × NB Latino	0.00653*	-0.000948	0.00646	-0.000341
2008 × NB Latino	0.00851*	-0.00168	0.00533	0.00167
2009 × NB Latino	0.00284	-0.000934	-0.00393	0.00421
2007 × FB Latino citizen	0.00371	-0.00353**	0.0169*	-0.00280
2008 × FB Latino citizen	0.00677	-0.00262*	0.0178**	0.00380
2009 × FB Latino citizen	0.000133	-0.00319**	0.0170**	0.00669**

	Arizona	California	Nevada	Florida
2007 × FB Latino non-citizen	0.00853*	-0.00192	-0.000587	0.00318
2008 × FB Latino non-citizen	0.0103**	-0.000747	0.00646	0.00496*
2009 × FB Latino non-citizen	0.0184***	-0.000902	0.0205**	0.00683***
F	44.07	152.0	18.39	92.83
p	1.55e-215	0	3.98e-81	0
N	122088	631176	50222	344679

* p<0.05

** p<0.01

*** p<0.001

Table 3

Across state models

	US-born whites	US-born Latinos	Foreign-born Latinos - citizens	Foreign-born Latinos - non-cit
Constant	0.0549***	0.0209***	0.0172***	0.0228***
Female	0.0000181	-0.000245	-0.000871	-0.00156***
30-39	-0.0143***	-0.00166*	-0.00192	-0.00294***
40-49	-0.0291***	-0.00651***	-0.00414**	-0.00716***
50-65	-0.0342***	-0.00887***	-0.00760***	-0.00828***
High School	0.00117	0.000669	0.00154*	0.000689
Some College	-0.000794	-0.000338	0.000775	0.000824
College	0.00454***	0.00680***	0.00352***	0.00603***
Partnered - with kids	-0.0117***	-0.00632***	-0.00555***	-0.00851***
Partnered - no kids	-0.00568***	-0.00474***	-0.000643	-0.00696***
Single - with kids	-0.00713***	-0.00329**	-0.00379**	-0.00601***
Arizona	0.00879***	0.00325	0.00424	-0.000756
2007	-0.00105	-0.00184*	-0.00408***	-0.00238**
2008	-0.00329***	-0.00346***	-0.00342***	-0.00273***
2009	-0.00480***	-0.00372***	-0.00419***	-0.00300***
2007 × AZ	-0.00316	0.00391	0.00249	0.00604
2008 × AZ	0.000725	0.00949**	0.00575	0.00846**
2009 × AZ	-0.00125	0.000972	-0.00358	0.0125***
F	267.5	21.89	9.965	19.85
p	0	1.49e-68	3.96e-27	2.32e-61
N	746781	177099	78707	145578

* p<0.05

** p<0.01

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