



PPIC

PUBLIC POLICY
INSTITUTE OF CALIFORNIA

Lessons from the 2007 Legal Arizona Workers Act

March 2011

Magnus Lofstrom, Sarah Bohn, and Steven Raphael
with research support from Eric Schiff

Supported with funding from the Russell Sage Foundation

Summary

Federal legislators have been unable to pass comprehensive immigration reform, resulting in increased legislative efforts by individual states to address the issue of unauthorized immigrants working illegally. The unauthorized population, about 11 million in 2009, is concentrated in a few large immigration states including California, Texas, Florida, and New York. However, some states that have not historically been a destination for immigrants, such as Arizona, Georgia, and North Carolina, have seen an increased reliance on unauthorized immigrant labor.

Not surprisingly, given the federal government's inability to pass effective legislation, several states have reacted by enacting their own. The most comprehensive and restrictive of such efforts so far is Arizona's 2007 Legal Arizona Workers Act (LAWA). It attempts to reduce the reliance on unauthorized workers by mandating the use of a national identity and work authorization verification system called E-Verify, and by imposing sanctions on employers who continue to hire such workers. A recent PPIC report supports the contention that current federal employer sanctions, which do not mandate the use of the E-verify system, have been ineffective. What remains unknown is the effectiveness of state-level sanctions and the labor market impact of E-Verify mandates—the focus of this report.

Our research indicates that mandating E-Verify in Arizona achieved the intended goal of reducing the number of unauthorized immigrants in the state. However, it also had the unintended consequence of shifting unauthorized workers into less formal work arrangements. Specifically, we find that the population of non-citizen Hispanic immigrants—a high proportion of whom are unauthorized immigrants—in Arizona fell by roughly 92,000 persons, or approximately 17 percent, because of LAWA over 2008–2009. This decline is greater than those observed in comparison states, and was not caused by the recent recession.

Regarding the employment outcomes of the unauthorized, LAWA reduced employment opportunities in the wage and salary sector for unauthorized immigrants, with many of these workers shifting into self-employment. Our estimates suggest that wage and salary employment of Hispanic non-citizens dropped by approximately 56,000 while non-citizen Hispanic self-employment increased by about 25,000. This indicates an unintended consequence: unauthorized workers being pushed into informal or underground employment. This could impose other substantial economic and societal costs. We found no strong evidence that LAWA, as of yet, either harms or benefits competing authorized workers.

Arizona's experience contains important lessons for other states enacting, or considering, similar legislation. Because the initial effectiveness of LAWA appears to operate through a high rate of employer E-Verify compliance, other states may wish to pay particular attention to ensuring employer participation in their efforts. Furthermore, the initial effects of the legislation are unlikely to persist if actors in the labor market learn that there are no consequences from violating these laws. Hence, for long-term effectiveness, policymakers should also consider the role of employer sanctions, which have not played a large role in Arizona's results so far. However, policymakers must weigh the sought-after drop in unauthorized employment against the costs associated with shifting workers into informal employment.

Contents

| | |
|----------------------------------|-----------|
| Summary | 2 |
| Tables | 4 |
| Figures | 5 |
| Introduction | 6 |
| LAWA and the Labor Market | 11 |
| Evaluating LAWA Effects | 13 |
| The Role of the Recession | 14 |
| LAWA's Population Effects | 17 |
| LAWA and the Rental Market | 21 |
| LAWA and Employment | 23 |
| LAWA and Self-Employment | 24 |
| Conclusion | 26 |
| References | 27 |
| About the Authors | 29 |
| Acknowledgements | 29 |

Technical appendices to this paper are available on the PPIC website:
http://www.ppic.org/content/pubs/other/311MLR_appendix.pdf

Tables

| | |
|---|----|
| Table 1. Arizona Population Changes, by Nativity, 2000–2008 | 17 |
| Table 2. Arizona Population Changes Relative to Comparison States | 18 |
| Table 3. Estimated LAWA Effects on the Unauthorized Population | 19 |
| Table 4. Migration In and Out of Arizona, 2001–2008 | 20 |

Figures

| | |
|--|----|
| Figure 1. E-Verify legislation by state | 8 |
| Figure 2. Change in estimated unauthorized populations | 10 |
| Figure 3. Employment growth in Arizona and bordering states, 1999–2009 | 15 |
| Figure 4. Employment growth in construction in Arizona and bordering states, 1999–2009 | 16 |
| Figure 5. Foreign-born population trends, Arizona and comparison states, 1998–2009 | 18 |
| Figure 6. Rental vacancy rates in Arizona and comparison states | 22 |
| Figure 7. Employment rates, selected groups, 1998–2009 | 23 |
| Figure 8. Employment rates, Hispanic non-citizen men, high school or less education, 1998–2009 | 24 |
| Figure 9. Self-employment rate, non-citizen Hispanic men, high school or less education, 1998–2009 | 25 |

Introduction

The United States is home to a large number of unauthorized immigrants, the most recent estimates showing that this population increased from about 3 million in the late 1980s to 11 million in 2009 (although 2009 was a decline from 2007) (Passel and Cohn 2010).¹ The size and long-run growth of the unauthorized immigrant population is the source of much controversy within immigration policy circles. Efforts in Congress to address this issue and to reform the country's immigration policy failed in 2006 and 2007, and its failure to pass the Dream Act in 2010 was the most recent example of Congressional gridlock on immigration. In both the recent efforts and the last major immigration reform, the 1986 Immigration Reform and Control Act (IRCA), policymakers recognize that employment is the primary draw for most unauthorized immigrants. Instituting employer sanctions for hiring unauthorized immigrants was a key component of IRCA. However, the sanctions were rarely enforced, and this contributed to the failure of IRCA to curtail the flow of unauthorized workers. Policymakers indicate that employment enforcement that is both fair and effective must be included in future reform.

While the reform efforts appear to have stalled at the federal level, states have increasingly instituted their own measures for controlling unauthorized immigration. In 2010, state legislatures passed 346 immigration-related pieces of legislation; 38 such bills passed in 2005. Although most of these bills do not directly target the employment opportunities of unauthorized immigrants, some do. In 2010, 20 states enacted 27 laws related to the employment of immigrants, up from only five such laws enacted in 2005; in total, 118 laws were enacted in 37 states.² A predominant feature of the state policies intended to curtail the hiring of unauthorized immigrant workers is a mandate for employers to use E-Verify, a federally developed identity and work authorization verification system. Although the California Legislature has not passed such measures, several cities—including Mission Viejo and Lancaster—have, and others are considering following suit.

¹ In this report, we refer to immigrants in the United States without proper documentation as “unauthorized” immigrants. This term is used instead of “undocumented” or “illegal” immigrants for its precision and neutrality. The terminology is also used by the Department of Homeland Security, the Pew Hispanic Center and the Migration Policy Institute, among others.

² State level legislation statistics cited here are obtained from National Conference of State Legislatures (2006-2011).

E-Verify

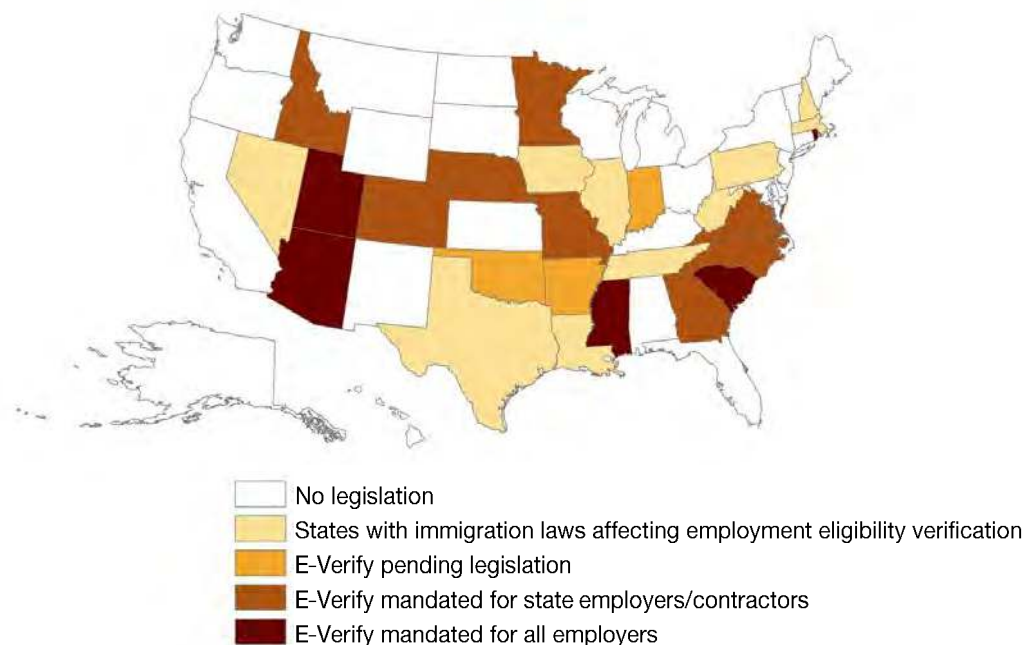
E-Verify is an online system created and managed by the federal government to provide information to employers about whether an individual is authorized to work in the United States. E-Verify is intended to verify workers' Form I-9 information against Social Security Administration (SSA) and Citizenship and Immigration Services (USCIS) databases. E-Verify completes two verification tasks: authentication of identity and verification of work authorization. The system functions for all workers, citizens and non-citizens, and is intended for authorizing new hires only. Employers are not permitted to use E-Verify to check authorization of individuals until they have been hired and submit an I-9.

The federal government does not require employers to use E-Verify, except for firms with certain federal government contracts (administrative order instituted September 8, 2009). As of February 2009, more than 100,000 businesses were registered with E-Verify. E-Verify provides fast results, if identity and work authorization are confirmed—which, according to Westat (2009), occurs about 95 percent of the time. When confirmation is not granted (“tentative non confirmation” or TNC), the employee may appeal. While a TNC is being contested, employers are not allowed to dismiss the worker solely on the basis of the record. If an employee fails to or is unable to correct his or her TNC, after a relatively short period of time employers must terminate the employee.

The main problems with E-Verify are delays in correcting tentative non-confirmations, erroneous confirmations, and insufficient capacity as more employers enroll. Intensive refinement of the system in recent years has led to a decline in E-Verify error rates. For authorized workers, the accuracy rate of E-Verify is at least 99 percent, and unlikely to get much better. For unauthorized workers the error rate may be as much as 54 percent (Westat 2009). The costs – primarily time and energy – of correcting errors fall on the new hires as well as on local DHS and SSA offices where individuals must go to correct errors. Verification can be circumvented through employers avoiding using the system or through identity theft and falsifying documents by applicants. Thus, federal law and current state law supplement verification tools with enforcement.

The results of E-Verify at this time are not reported to any agency responsible for immigration enforcement. That is, even if a new hire is found to be unauthorized, these results are not transmitted to DHS or ICE for investigation, detention, or deportation of the individual.

FIGURE 1
E-Verify legislation by state



SOURCE: LawLogix (2010).

NOTE: As of May 2010. Of the four states with E-Verify mandates as of May 2010, only Arizona’s has been in place since 2008.

The increased efforts by states to address employment of unauthorized immigrants—an issue historically in the federal domain—represent an important shift in national immigration policy. State laws vary greatly in their restrictiveness and implementation of laws related to employment of unauthorized immigrants. Most of the comprehensive laws mandate use of E-Verify and penalties for immigrants working illegally and for the employers who hire them (Figure 1). Colorado was the first state to pass such legislation. Colorado’s law requires any person or entity that has entered into a public contract with the state on or after August 2006 to certify that it has verified the legal status of all new hires using the E-Verify program. Similar laws or executive orders were enacted in Georgia in 2007, Rhode Island and Minnesota in 2008, Missouri and Utah in 2009. South Carolina, Utah, and Mississippi have recently passed legislation that phases in E-Verify use according to business size. In South Carolina, employers of all sizes were required to use E-Verify by July 2010. In Mississippi, all employers are legislated to be phased in by July 2011. The penalties for hiring unauthorized workers are stringent under the Mississippi law, and include loss of public contracts and suspension of business licenses. Utah’s mandate covers all employers with 15 or more employees as of July 2010. Oklahoma constitutes a special case. While the first phase of the legislation was scheduled to go into effect in November 2007, a court challenge has held up implementation. To date, Oklahoma has yet to implement the provisions of its bill.

Arizona’s Legal Arizona Workers’ Act (LAWA), signed into law in July 2007 and effective January 1, 2008 is at the time the most comprehensive and restrictive.³ It imposes sanctions on employers who “knowingly”

³ LAWA has faced a number of legal challenges, but has been upheld by the federal district and appellate courts. The U.S. Supreme Court heard arguments in the case, *Chamber of Commerce et al v Whiting*, (09-115) on December 8, 2010. The challenges to LAWA focus on the right of states to legislate on immigration enforcement.

hire unauthorized immigrants: a business license suspension for the first offense and license revocation upon a second. LAWA is also unique among recent state legislation on the employment of unauthorized immigrants in that it covers all firms, not just public agencies or those with state government contracts. It also mandates that all employers located in the state use E-Verify. Its broad range makes LAWA a good example of state legislation that mimics federal reform proposals.

In this report, we focus on Arizona, analyzing whether LAWA is achieving its primary aims of reducing the state's population of unauthorized immigrants, deterring their employment opportunities, and improving employment outcomes of competing authorized workers. To do so, we look for changes in Arizona's immigrant population and employment trends attributable to LAWA. We disentangle the effects of Arizona's legislation from exogenous factors such as the recent severe recession. Our methodologies involve controlling for a wide variety of factors while comparing outcomes in Arizona to outcomes in other states, and comparing outcomes for various ethnic and nativity groups of workers.

Currently, the enforcement of sanctions in LAWA has been minimal. As of April 2010, more than two years after LAWA's enactment, at most three prosecutions against employers had been pursued, and all of those in a single county, Maricopa (Santa Cruz 2010). Indeed, the hurdles for proving an employer "knowingly" hired an undocumented immigrant are quite high. It may be that local prosecutors, responsible for investigating claims, do not have the resources to devote to prosecution. However, few claims or prosecutions may also indicate a high degree of compliance with LAWA on the part of employers.⁴

Figure 2 shows the unauthorized population decreases in the United States and in California, with the decline greatest in Arizona. Although this reduction suggests LAWA may have had its intended impact, to conclude this without addressing numerous other factors would be premature. We examine these to isolate the effect of LAWA.⁵

E-Verify is already required of firms across the country with federal government contracts, and broader mandates are likely to be included in federal reforms. It is also required of firms with state government contracts in a number of different states. Despite a lack of enforcement, employers in Arizona are increasingly using E-Verify. In the state, the number of employers registered with E-Verify increased from fewer than 300 in March 2007 to more than 38,000 in January 2010.⁶ Arizona's enrollment is estimated to represent over one-third of all employers *nationwide* registered in the system and at least one-quarter of all employers in the state.⁷ Arizona's employers are more than twenty times more likely to enroll than employers in California (Rosenblum 2009). Thus LAWA appears to have had an initial, sizeable impact on employer enrollment in E-Verify. Recent reports suggest that at least 700,000 new hires made between October 2008 and September 2009 were subject to E-Verify checks in Arizona (Arizona Republic 2010). This correlates to roughly 50 percent of all new hires. Given this relatively high rate of usage as well as the high rate of enrollment, the potential effects of LAWA are considerable.⁸

⁴ However, it is unlikely (or impossible) that compliance is 100 percent or that it would continue at a high rate indefinitely. So, if few sanctions are ever imposed, and employers observe that, we would expect that compliance would decline. This could be an instance of history repeating itself; IRCA employer sanctions were rarely enforced.

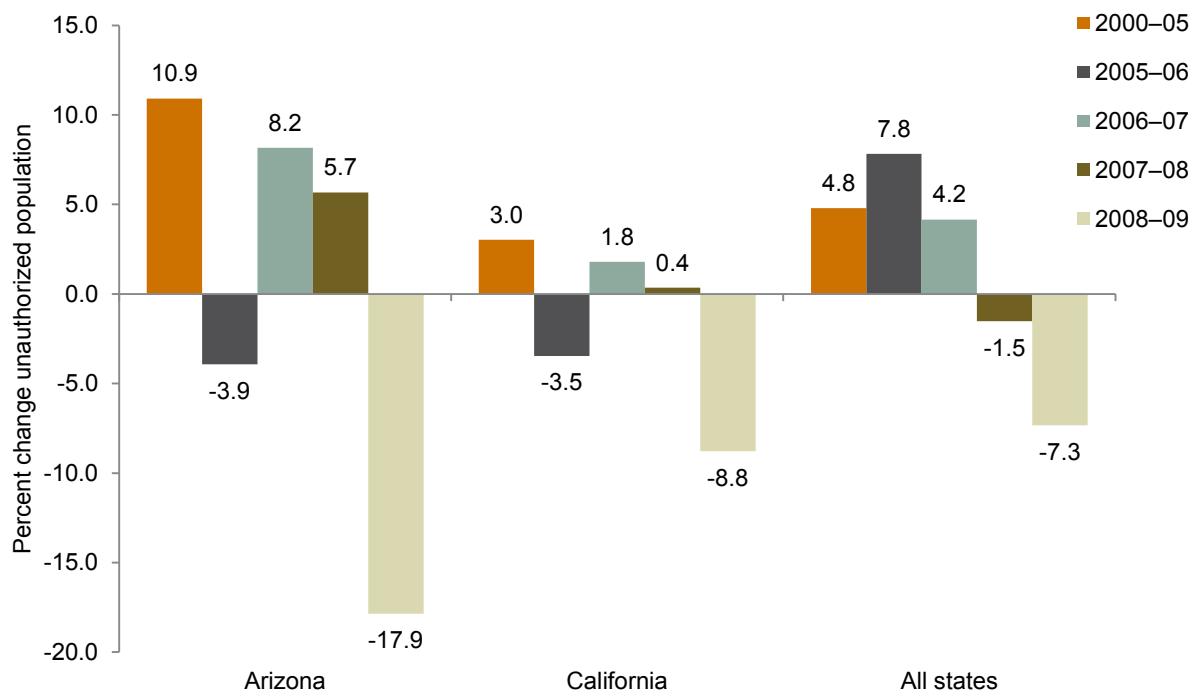
⁵ An early report on LAWA suggested that the effects of the legislation were limited but noted that it was too early draw any strong conclusions (Gans, 2008).

⁶ Westat (2009) and Arizona Attorney General's Office (2010), respectively.

⁷ Westat (2009), fraction nationwide as of June 2008, and Rosenblum (2009), fraction in Arizona as of February 2009.

⁸ If LAWA has an impact on the labor market, it is likely to operate through deterrence rather than sanctions, given the few sanctions imposed despite the high enrollment of employers. If E-Verify is an efficient way of verifying workers' authorization and if the registered employers

FIGURE 2
Change in estimated unauthorized populations



SOURCE: Department of Homeland Security (2010).

NOTE: The Pew Hispanic Center’s estimates (Passel and Cohn 2008, 2010) indicate a larger decline in Arizona (25%) and smaller decreases in California (5.6%) and the United States (4.3%) between 2008 and 2009. See the [Technical Appendices](#) for more details.

Although this report evaluates a single policy in a single state, gaining a good understanding of the impacts of Arizona’s legislation can help guide much wider policy debates. Federal policymakers can better understand the effects of E-Verify mandates proposed in their own reform packages. States such as Mississippi, South Carolina, and Utah, which have instituted similar laws more recently, may learn what to expect in the near future. Other states considering similar policies can glean information on the equity and efficiency of enacting their own E-Verify mandates. Arizona is also the only place where all employers have been required to use E-Verify for a sufficient period of time to allow for a reliable empirical evaluation. California, with the largest unauthorized immigrant population in the country—about 2.6 million—could learn much from Arizona’s experience. Understanding the effects of reform targeting the unauthorized population is key to anticipating broader labor market impacts. It is important to note that given LAWA’s brief existence, the recession, and a lack of data that can precisely identify unauthorized immigrants, our results probably represent a lower bound of the long-run effects of state level legislation.⁹

actually utilize the system, then the deterrent effect is likely to be large. That is, LAWA’s E-Verify mandate could achieve the goal of preventing employment of the unauthorized without requiring extensive use of sanctions. However, E-Verify use and compliance with LAWA is likely to vary across industries and employers with different levels of formality. Both authorized and unauthorized workers affected by LAWA may be driven towards informal or underground work arrangements.

⁹ If the policy were to be implemented nationwide, the migration effects may be smaller than estimated from state legislation changes. For example, the costs of leaving Arizona are smaller to an unauthorized immigrant than for leaving the country.

We proceed with a discussion of the likely impacts of legislation like Arizona’s LAW A from an economic labor market perspective, followed by our findings. We conclude with a discussion of implications for state and federal policymakers.

LAW A and the Labor Market

The intent of LAW A is to reduce Arizona’s unauthorized immigrant population by deterring the hiring of unauthorized workers—employment being the chief motivator for movement into the state. The legislation can potentially achieve this goal by affecting both the supply and demand side of the labor market. On the demand side, employer sanctions increase the cost to employers of hiring unauthorized immigrants. On the supply side, the E-Verify requirement for all new hires makes it more difficult for unauthorized immigrants to find work. The legislation may affect both the inflow and outflow of unauthorized workers and hence, the unauthorized population may decline for dual reasons: unauthorized workers leaving the state and fewer unauthorized workers moving in. Also, the legislation could shift unauthorized immigrants into unemployment, underground employment, or push them out of the labor force altogether. The employment and population effects may also spill over to authorized immigrants and even native-born persons.¹⁰

LAW A and similar legislation affect authorized workers differently depending on how closely they compete with unauthorized workers for jobs. Employers in compliance with LAW A must turn to substitute workers—workers with similar skills who also meet the job requirements—to fill the positions otherwise granted to unauthorized workers. Substituting for unauthorized workers with legal immigrants or U.S. citizens is possible, where there is a match between the skills and abilities of such workers. Also, the availability and desire of authorized workers to fill these jobs may limit employers. Authorized workers stand to gain labor market opportunities from LAW A to the extent that they are willing and able to fill the jobs of unauthorized workers.¹¹

However, there are also authorized workers whose opportunities may be hampered by LAW A. In particular, native and other authorized workers whose skills are complementary to those of unauthorized workers tend to be hired in tandem with the unauthorized for the purpose of carrying out work that requires a wide range of skills. For example, more Spanish-speaking laborers on a construction site may increase the demand for native-born bilingual Hispanics to serve in supervisory positions that require translation skills. Thus, if the hiring of the unauthorized declines, so may the hiring of these complementary authorized workers. If LAW A caused a decrease in the number of unauthorized construction workers, these types of complementary authorized workers could find it more difficult to stay in Arizona and obtain employment.

Further, authorized workers may also be hindered in the labor market due to changes in employers’ hiring decisions. If employers cannot tell with certainty whether a job applicant is authorized, they may infer legal status through external signals such as physical features, accent, or surname. Some employers wishing to reduce the costs associated with following the E-Verify mandate may avoid hiring applicants from specific groups altogether (known as “statistical discrimination”).¹² Hence, employers may avoid hiring workers who appear most like the average unauthorized worker. In Arizona, Hispanic or foreign-born applicants, in

¹⁰ We provide a detailed discussion of the theoretic labor market effects of state level legislation such as LAW A in the *Technical Appendices*.

¹¹ In terms of the potential benefits authorized workers may experience, the lower the degree of substitutability, the lower are the labor market gain.

¹² LAW A only holds employers who “knowingly” hire unauthorized workers responsible. Thus if an employer uses E-Verify, regardless of the result (employee verified or not) the employer is not in violation of LAW A.

particular those with less education, are most likely to be negatively impacted by this potential employer behavior. Even an accurate verification system may lead some employers to avoid hiring individuals from these groups because of the additional legal requirements of the system: in the event that a new worker turns out to be unauthorized, he or she has a period of time in which to correct the finding through the federal Department of Homeland Security (DHS) or the Social Security Administration (SSA) — during which time the employer cannot fire the worker except for some unrelated cause. Thus, hiring an employee with some probability of eventually being found unauthorized can impose costs on employers even if they run no risk of penalties through LAWA, mainly productivity losses during the waiting period and additional hiring costs.

There are also individual worker costs associated with E-Verify even if they are authorized. Westat (2007) found that less than 1 percent of natives but almost 10 percent of foreign-born U.S. citizens were erroneously identified as unauthorized. Correcting such errors falls on the shoulders of the individual workers. The costs associated with that—primarily in terms of time and effort—may make it more difficult or less desirable to find and hold employment in Arizona. Thus, the E-Verify system itself may create problems for legal workers and may give them an incentive to move elsewhere. The impacts are not necessarily limited to the unauthorized immigrants but may also extend to authorized workers and even to those who do not work.¹³ Low-skilled workers, both unauthorized and authorized, are the ones most likely to be affected by LAWA, but the effects may differ across nativity and ethnicity.

Though there are thus many potential impacts of LAWA, we focus our examination primarily on unauthorized workers and those most similar to them in terms of ethnicity and skill. Beyond the labor force effects on these groups, there may be impacts of this legislation on other dimensions of society, such as involvement in the public sphere, reporting crime, use of health care or other services, or enrolling children in school. There are also likely to be impacts on employers in the state stemming from the increased costs of hiring and changes in the availability of suitable or affordable workers. Furthermore, there may be impacts on the overall scale of economic activity, output, and consumer prices if LAWA indeed has a large effect. While these are important topics for investigation, in this study we focus on the population and labor market impacts of the workers in the state who are most likely affected. In the current period, LAWA's effects may be complicated by the labor market effects of the recession, which is also likely to have a negative impact on workers. Our methodology attempts to separate the effects of the recession from those of LAWA.

¹³ LAWA is likely to have migration impacts that affect both unauthorized and other residents, expanding the potential effects on the overall population. If unauthorized workers choose to leave Arizona, they are likely to migrate with other household members. For many unauthorized immigrants, these other household members include authorized individuals and/or non-working individuals (e.g. children and the elderly). Thus household-driven migration could lead to (1) larger impacts on the population than on the labor force and (2) impacts on individuals other than the unauthorized workers.

Evaluating LAW A Effects

To assess the impact of LAW A on the population and employment in Arizona, we analyze the most recent comprehensive data sources from the U.S. Census Bureau. These sources include the Current Population Survey (CPS) for 1998–2009, the American Community Survey (ACS) for 2005–2008, and the Decennial Census for 2000. (All data sources are discussed in detail in the [Technical Appendices](#).) These data provide detail on the employment of individuals in each state as well as information on race/ethnicity, education, age, and other demographic characteristics including immigration status (native-U.S. born or foreign-born naturalized citizen, or not a citizen). Our analysis primarily focuses on the impacts on the population targeted by LAW A: unauthorized immigrants. Ideally, we would like to examine directly the changes in the population and employment of unauthorized workers in Arizona. But neither the Current Population Survey (CPS) nor any other suitable data allow for precise identification of unauthorized immigrants at the individual level.¹⁴ Nonetheless, among certain identifiable population groups, the likelihood of being unauthorized is substantially elevated. In particular, there should be no unauthorized immigrants among those who report being “naturalized immigrant” or U.S.-born.¹⁵ Further, unauthorized immigrants are more likely to be men, to be of working age (58% are between the ages of 18 and 39), of Hispanic origin (80% of unauthorized nationwide), and to have fewer years of formal education.¹⁶ Thus we expect a significantly higher portion of the subgroup Hispanic non-citizen immigrants of working age with no more than a high school diploma to be unauthorized than in any other group.¹⁷ We refer to this group as “likely unauthorized,” and estimate that at least 90 percent of this group in Arizona were unauthorized immigrants.¹⁸

We compare population and employment trends of Hispanic non-citizen immigrants in Arizona to those of Hispanic non-citizen immigrants in states that have *not* passed legislation against the hiring of unauthorized immigrants and, importantly, states that display very similar pre-LAW A trends. If LAW A had its intended effect, we expect the outcomes for Hispanic non-citizen immigrants in Arizona to change relative to Hispanic non-citizen immigrants in other states and relative to those of other groups such as Hispanic naturalized citizens and U.S.-born non-Hispanic whites.

To assess spillover effects of LAW A on workers other than the unauthorized, we do a similar analysis. We compare the trends for white U.S.-born workers in Arizona to white U.S.-born workers in other states.

¹⁴ To address the limitation of the data in identifying unauthorized immigrants precisely, we examine estimates of this population from other sources, who have refined methods for measuring the size of the unauthorized populations. The Department of Homeland Security and the Pew Hispanic Center have each produced widely respected and cited estimates of the population in recent years. Although they differ somewhat, we validate our estimates of LAW A’s impact on unauthorized immigrants in Arizona in the context of the full range of overall population estimates.

¹⁵ Given the potential of reporting error, we expect that at a minimum there is a lower percentage of unauthorized workers in these two groups than among the group that reports being “non-citizen immigrant”.

¹⁶ As of 2009, from Passel and Cohn, 2010.

¹⁷ As a robustness check, we utilize additional characteristics about unauthorized immigrants in the U.S. to more closely define a group of unauthorized immigrants. Utilizing ACS data in a traditional difference-in-difference framework (discussed in the [Technical Appendices](#)) we use information on reported English proficiency and arrival in the U.S. We cannot utilize these variables in our analysis of CPS data because (1) it does not include information on English proficiency and (2) although it does include year of arrival, the sample is too small to draw conclusions from those variables. The limitation with the ACS data is that it is currently only available for one post-LAW A year, 2008. However, the larger sample size of the ACS allows us to conduct a more detailed analysis at the individual level. The results using the alternative approach and group definition are consistent with those presented in the report and are presented in the [Technical Appendices](#).

¹⁸ For example, our calculations from Census data indicate roughly 517,000 non-citizen Hispanic immigrants resided in Arizona in 2008. For this same year, Passel and Cohn (2009) estimate that there were 475,000 unauthorized immigrants in the state. Similarly, for our finer definition of likely unauthorized *workers* used in the alternative methodology (see [Technical Appendices](#)), we estimate 229,000 likely unauthorized in Arizona in 2008 whereas Passel and Cohn (2009) estimate 240,000 unauthorized immigrants in Arizona’s labor force in the same year.

Whether the difference is negative, zero, or positive can shed light on the presence and direction of any unintended effects of LAWA on authorized populations.

There are several strategies for constructing appropriate comparison states or areas. One is to select states that share similar population and economic characteristics and trends as Arizona; for example, the states bordering Arizona. Another would be to employ a data-driven search for comparison states based on pre-LAWA population and employment characteristics and trends. We use both, but focus on the latter, because it is arguably the most reliable and essentially incorporates the first strategy. It allows the data to tell us which states best match Arizona's pre-LAWA experience. (This synthetic control method is described in detail in the [Technical Appendices](#).) We also implement the alternative strategy of using only neighboring areas (Nevada, New Mexico, Utah, and inland California). This approach generates very similar results to those presented in the report and are also discussed further in the [Technical Appendices](#). The data-driven comparison for Arizona is based on a combination of the trends in any number of other states that match Arizona's characteristics up to 2006 (the year before LAWA was passed, and hence not affected by the legislation).¹⁹ It illustrates what would have happened in Arizona without LAWA in the years following its actual passage.²⁰

One factor we are concerned about is whether federal immigration enforcement actions increased at the same time LAWA was enacted. After a review of DHS data and information, nothing suggests that federal enforcement increases at the border or in internal investigations happened differentially in Arizona than it did in other border states, or that they occurred simultaneously. The federal Arizona Border Control Initiative, which did build up infrastructure specifically in Arizona, predated LAWA by a few years. Further, our review of DHS arrest and apprehension data indicates that a similar percentage of border apprehensions occurred in the Tucson sector, which covers most of Arizona's border, before and after LAWA; the number of arrests resulting from ICE investigations actually fell during this period (Office of Immigration Statistics 2010).

Another concern is the Sheriff Joe Effect. The sheriff of Arizona's Maricopa County, Joe Arpaio, has for many years been known nationally for pursuing aggressive measures against unauthorized immigrants. Maricopa County is home to a large share of Arizona's population, and to the immigrant population in particular. If the sheriff's efforts increased or became more widely known among unauthorized immigrants concurrently with LAWA enforcement, our estimated impacts could be overstated. We employ two strategies to isolate LAWA effects from Sheriff Joe's efforts, and find little change in our estimates.²¹

The Role of the Recession

The recession of December 2007 to June 2009 is our most worrisome external factor because it encompassed the period of LAWA's implementation. There is evidence that the recession reduced the inflow of new immigrants to both the United States and Arizona.²² Our approach comparing trends in Arizona to those of other states already accounts for any recession-based changes that affect the country as a whole (or the

¹⁹ All states are considered except for the four states with broadly applied (in terms of employer coverage) restrictions on the employment of undocumented immigrants (Mississippi, Rhode Island, South Carolina, and Utah). We also need to exclude some states for some of the subgroups analyzed due to small state level sample sizes in the CPS. The exclusion of the latter states is unlikely to be of importance since the limited sample size suggests that the sub group of interest is a very small group in those states and hence unlikely to be a good counterfactual for Arizona.

²⁰ The [Technical Appendices](#) provides evidence that the legislation can be interpreted as an unanticipated effect to the labor market conditions in the state and hence be used to derive causal effects of LAWA.

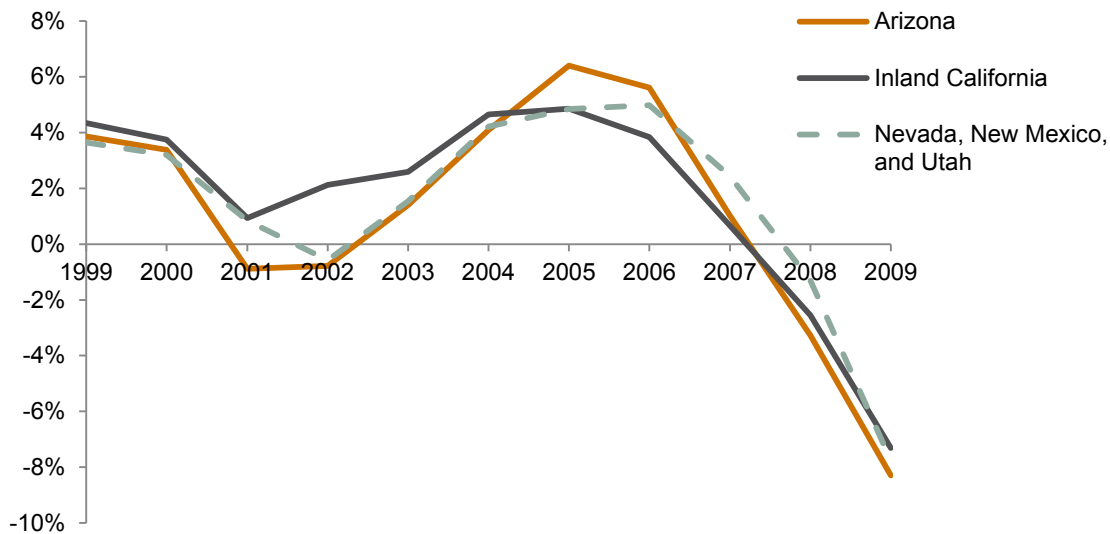
²¹ See the [Technical Appendices](#). Our difference-in-difference estimates include MSA fixed effects and we re-run our models excluding Maricopa County.

²² Passel and Cohn, 2009b.

selected comparison states). The recession had large, adverse impacts on employment overall, and even stronger effects on certain industries. One of these was construction, a leading employer of unauthorized immigrants and one of the biggest industries in Arizona, representing close to 11 percent of total private employment in 2006.²³ To ensure that we do not attribute changes in population and employment to LAWA if they were in fact driven by the decline in construction and real estate in Arizona specifically, and to validate our empirical approach, we assess official statistics on employment trends in Arizona and neighboring states during the recession.

The recession caused a clear reduction in Arizona’s workforce. Figure 3 shows strong employment growth from 2003 to 2006, with a noticeable slowdown in 2007, followed by 3- and 8-percent decreases in 2008 and 2009, respectively. Figure 3 also shows that the negative employment effects of the recession on employment were not any stronger in Arizona than in neighboring areas, including inland California.

FIGURE 3
Employment growth in Arizona and bordering states, 1999–2009



SOURCE: Authors’ calculations from the 1998–2009 Quarterly Census of Employment and Wages (QCEW), United States Bureau of Labor Statistics.

Central to the distinction between LAWA effects and recession effects is the fact that the recession was precipitated by a housing crisis that brought new housing construction to a near standstill. Many unauthorized immigrants employed in the construction sector could have been particularly affected, but construction employment data reveals no evidence that Arizona’s construction industry fared much differently in the recession than did neighboring areas (Figure 4).

²³ Authors’ calculations based on the 2006 Quarterly Census of Employment and Wages (QCEW).

FIGURE 4
Employment growth in construction in Arizona and bordering states, 1999–2009



SOURCE: Authors' calculations from the 1998–2009 Quarterly Census of Employment and Wages (QCEW), United States Bureau of Labor Statistics.

Overall, the data indicate that while Arizona's labor market was strongly affected by the recession, so were other states', including its neighbors.

LAWA's Population Effects

Our data show that the enactment of LAWA coincided with a shift in the demographics of the Arizona population. After a period of continuous strong growth in Arizona's immigrant population, the foreign-born population decreased by 4.6 percent between 2007 and 2008 (Table 1). The rates of decline for the Hispanic foreign-born and non-citizen population in Arizona are even larger. The non-citizen Hispanic immigrant population, the demographic group that comprises the bulk of unauthorized immigrants, fell 8.4 percent between 2007 and 2008. Over the same period, the native-born population in Arizona was increasing. These changes suggest that something unique was happening to the immigrant population of the state.

TABLE 1
Arizona population changes, by nativity, 2000–2008.

| Year | U.S.-born | | Foreign-born | | Foreign-born Hispanic | | Foreign-born Hispanic non-citizen | |
|------|-----------|------|--------------|-------|-----------------------|-------|-----------------------------------|-------|
| 2000 | 4,425,746 | | 707,965 | | 473,590 | | 362,280 | |
| 2005 | 4,894,299 | 2.1% | 911,967 | 5.8% | 637,596 | 6.9% | 483,244 | 6.7% |
| 2006 | 5,180,187 | 5.8% | 986,131 | 8.1% | 681,393 | 6.9% | 530,692 | 9.8% |
| 2007 | 5,287,895 | 2.1% | 1,050,860 | 6.6% | 719,410 | 5.6% | 564,340 | 6.3% |
| 2008 | 5,497,634 | 4.0% | 1,002,546 | -4.6% | 670,626 | -6.8% | 517,212 | -8.4% |

SOURCE: Authors' calculations from the U.S. Census and American Community Survey (ACS).

NOTE: Covers population with no age restriction. Growth rates are annualized.

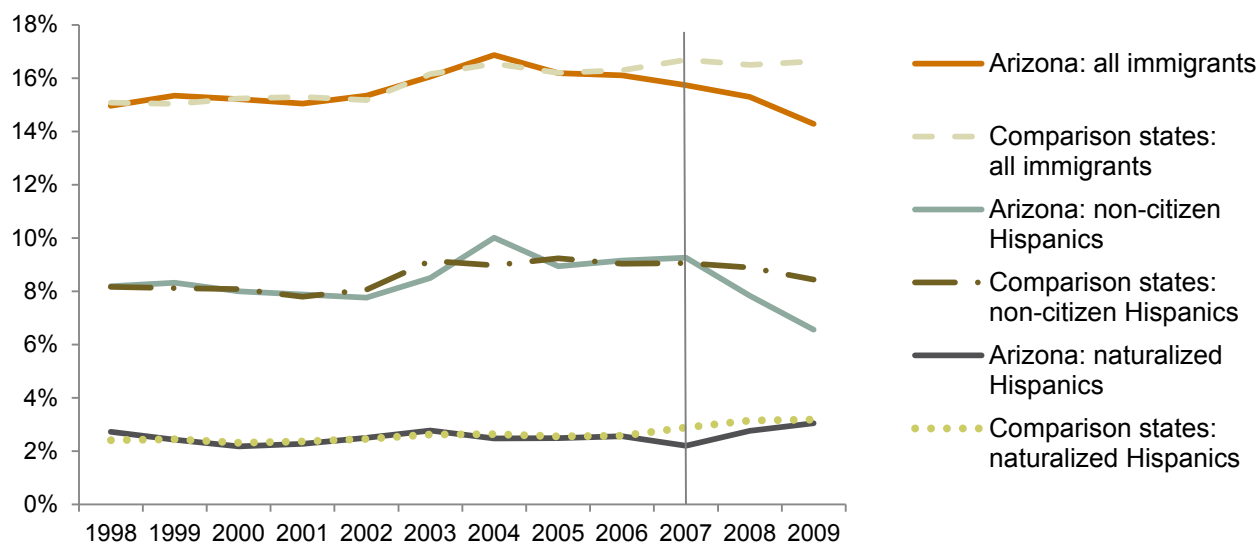
Figure 5 displays the population trends in Arizona and the comparison states. In the pre-LAWA period of 1998–2006, Arizona and the data-selected comparison states have population trends that match closely.²⁴

Following LAWA, during 2008–2009, there are notable declines in the proportion of the Arizona immigrant population and Hispanic non-citizen immigrants (i.e. the likely unauthorized). There is no similar decline among the population of naturalized Hispanic immigrants.

These data suggest that LAWA caused a decline in the proportion of Arizona's population that was immigrant, and further, that the change came primarily from a decline in the proportion that was likely unauthorized. We calculate no average difference before LAWA between Arizona and the comparison states for all of the population shares shown in Figure 5. After LAWA, we observe sizable and growing gaps (on the order of 1 to 2.5 percentage points) between Arizona and the comparison states in proportions of immigrants. For the share of all immigrants, the gap begins to open up in 2007 and widens in each year thereafter. For Hispanic non-citizen immigrants, the gaps do not widen until 2008, and are wider still by 2009. The trend in the share of Hispanic naturalized immigrants in Arizona remains close to that of the comparison states even after LAWA was enacted. Hence, LAWA has not—at least not yet—had a chilling effect on naturalized Hispanic immigrants in Arizona. This also shows that the decline in unauthorized immigration in Arizona is not driven by an overall decrease in the state's population of Hispanic immigrants.

²⁴ Indeed, this is the preliminary check on the validity of the empirical approach. Comparison states are chosen by the statistical technique so that pre-LAWA trends match Arizona. The fact that we are able to generate such a "synthetic Arizona" suggests that there is a set of states that can serve as an appropriate comparison to Arizona in terms of this outcome variable.

FIGURE 5
Foreign-born population trends, Arizona and comparison states, 1998–2009



SOURCE: Authors' calculations from CPS monthly data 1998-2009.

NOTE: Comparison states are the "synthetic Arizona" selected in a data-driven manner to best match Arizona's pre-LAWA population trends.

To obtain estimates of the magnitude of the LAW A effect, we calculate the average difference between Arizona and the comparison states before LAW A and compare it to the average difference after LAW A (omitting 2007, since it is not clearly a pre- or post-LAW A year). We then test whether the effect is statistically significant from zero. Table 2 presents the estimates that correspond to the trends plotted in Figure 5.²⁵

TABLE 2
Arizona population changes relative to comparison states

| | Percent decline relative to comparison states | Statistically significant? | LAW A effect rank compared to changes in other states |
|---------------------------------|---|----------------------------|---|
| Proportion Immigrants | -1.8 | Yes | Largest |
| Hispanic Non-citizen Immigrants | -1.5 | Yes | Largest |
| Hispanic Naturalized Immigrant | -0.3 | No | 5th |

SOURCE: Authors' calculations from CPS data using the synthetic control approach.

NOTE: Percentage point decline represents the average decline in proportion of the population over 2008 and 2009.

²⁵ Additional statistical details are available in the Technical Appendices

These estimates suggest that since 2008 the proportion of Arizona’s population that was likely unauthorized fell 1.5 percentage points further than it did in the comparison states, as a result of LAWA. This corresponds to a loss in Arizona of roughly 92,000 likely unauthorized immigrants by 2009 (Table 3).²⁶ Two caveats apply. This decline is measured relative to the hypothetical unauthorized population that *would have* resided in Arizona were it not for LAWA. Second, we re-emphasize that there is no precise measure of unauthorized immigrants, and we only examine the group—Hispanic non-citizen foreign-born—that is home to the largest proportion of unauthorized. Thus our estimated decline, like all estimates, includes some degree of error.

The effects of LAWA are strongest among working age (16–45) Hispanic non-citizens. We find no evidence of a LAWA impact on the proportion of Hispanic non-citizen immigrants among Arizona residents 46 years and older (see the [Technical Appendices](#)). This is consistent with other estimates suggesting a higher proportion of the unauthorized are of prime working age. It is also consistent with the presence of older unauthorized immigrants who have been in the country longer, and who have thus established stronger roots (including having children) and who are therefore less inclined to leave Arizona because of LAWA. This raises an important issue: the possibility that legislation against the hiring of unauthorized immigrants is ineffective in reducing the number of unauthorized immigrants with strong local ties.

TABLE 3
Estimated LAWA effects on the unauthorized population

| Year | Foreign-born | Unauthorized foreign-born (Pew) ² | Unauthorized foreign-born (DHS) ³ | Change in unauthorized foreign-born | Estimated decline in unauthorized population due to LAWA |
|-------------------|--------------|--|--|-------------------------------------|--|
| 2006 | 986,000 | | 490,000 | | |
| 2007 | 1,051,000 | | 530,000 | +40,000 | |
| 2008 | 1,003,000 | 500,000 | 560,000 | +30,000 | |
| 2009 ¹ | 999,000 | 375,000 | 460,000 | -100,000 to -125,000 | -92,000 |

SOURCES: ¹2009 estimate of population and foreign-born taken from United States Census Bureau American Fact Finder based on 2009 ACS. Other year estimates are authors’ calculations from ACS. The changes between 2008 and 2009 in the first two columns should be interpreted with some caution.²Unauthorized estimates: Passel and Cohn (2009 2010), ³Hoefner et al (2010).

NOTES: 2006, fully pre-LAWA, is used as a base year for the calculations in the last two columns. The estimated decline in population would be larger if 2007 were used as a base year. Also, estimates are rough since we assume the decline in unauthorized population does not affect the total population used as the base.

Table 3 shows the estimated change (using DHS and Pew Hispanic Center data) in the unauthorized population of Arizona and includes effects from the recession, LAWA, and any other reason immigrants may choose to leave Arizona or choose to avoid Arizona. Again, our estimate of a drop of approximately 92,000 in the unauthorized population reflects the net impact of unauthorized immigrants leaving Arizona and those who *would have* migrated to Arizona but chose not to.²⁷ Although not directly comparable, our estimate is consistent with population trends from other researchers. Given that the empirical approach accounts for the hypothetical increase in unauthorized immigrants were it not for LAWA, our estimates are an upper bound on the decline due to LAWA. Our estimate suggests that at most 74 to 92 percent of the decline in the unauthorized population estimated by other researchers can be attributed to LAWA.

²⁶ This is approximated using the estimate of Arizona’s 2006 population at 6.2 million.

²⁷ It also reflects any differential death rates of unauthorized in Arizona and comparison states, but we assume these differences are zero.

Measured against the estimated 2006 unauthorized working age population of 560,000, the LAW A effect represents roughly a 17-percent decline in Arizona’s unauthorized working age population.²⁸

The bottom row of Table 2 displays trends in the Hispanic naturalized immigrant group. Assuming accurate reporting, this group of individuals should contain *no* unauthorized immigrants. The LAW A effect on this group should be smaller than that estimated for the likely unauthorized group, if not zero. We find that although the effect is negative, it is one-fifth the size of the other groups and is not statistically significant: there is no evidence that the naturalized Hispanic population responded to LAW A by leaving Arizona in large numbers.

Lastly, the reduction of the immigrant population in Arizona, which we have shown is driven by non-citizen Hispanics, is attributable to an increased outflow and a decreased inflow. Table 4 indicates that at least in the year following the enactment of LAW A, a reduced immigrant inflow appears to be more responsible for the decline in the state’s unauthorized population than does increased numbers of immigrants leaving the state.²⁹ While more immigrants moved into Arizona than out between 2007 and 2008 (about 52,000 and 27,000, respectively), the net migration flow was much smaller than in previous years.

We estimate that the drop in the net inflow of immigrants to Arizona comes from a slowing of international and domestic migration (Table 4). We see a roughly 50 percent decline in the number of new immigrants coming to Arizona from other countries.

TABLE 4
Immigrant migration in and out of Arizona, 2001–2008

| Year | Domestic Migration | | | International |
|------|--------------------|---------|--------|---------------|
| | Inflow | Outflow | Net | Inflow |
| 2001 | 16,200 | 11,800 | 4,400 | 41,000 |
| 2002 | 20,600 | 18,000 | 2,600 | 40,400 |
| 2003 | 25,300 | 15,500 | 9,800 | 31,300 |
| 2004 | 33,600 | 14,300 | 19,300 | 34,500 |
| 2005 | 35,300 | 18,200 | 17,100 | 42,900 |
| 2006 | 34,000 | 20,400 | 13,600 | 44,600 |
| 2007 | 31,600 | 21,300 | 10,300 | 44,500 |
| 2008 | 25,000 | 26,500 | -1,500 | 27,300 |

SOURCE: Authors’ calculations from ACS data 2001–2008.

NOTE: Net migration for international migrants cannot be calculated because there is no data available on the outflow of immigrants from Arizona out of the United States. These estimates are subject to error due to relatively small sample sizes and should be interpreted with appropriate caution.

There also seems to have been a turnaround in immigrants’ domestic migration to the state: following LAW A implementation, more immigrants left Arizona for other states than moved to Arizona from them. Further, 2008 was the first year that Arizona experienced a net domestic *outmigration* of immigrants since at least 2001. At the same time, native-born net migration into Arizona slowed but continued to be positive

²⁸ Passel and Cohn, 2009a.

²⁹ To shed light on which appears to be the dominating factor we turned to individual migration as it is reported in the ACS data. The CPS data we have relied on for our population analysis also contain internal migration information but is less reliable for relatively rare outcomes such as cross-state migration.

(from about 54,000 in 2007 to 44,000 in 2008). Comparing the magnitudes, we find that from 2007 to 2008 the drop in international migration to Arizona was larger than the drop in domestic migration of immigrants. International migration to the state fell by about twice as much as domestic migration. The outmigration of immigrants from the United States to other countries is not measurable in the available data, but may play an important role.³⁰

Due to small sample sizes, these international migration flow estimates are imprecise and only suggestive of trends underlying the population change and the data only allow analysis through 2008, the year LAWA was enacted. In that year, some of the decline in inflow is most certainly related to the macroeconomic effects of the recession, and can be observed in other states as well although we do note that in at least one comparison state—California—new immigration from abroad continued to increase even during 2007–2008.

LAWA and the Rental Market

Changes in the rental market provide further insight into relevant population changes in Arizona. Unauthorized immigrants are more likely than other groups to be renters, given their greater geographic mobility and number of constraints, such as the inability to qualify for a mortgage.³¹ The outflow of unauthorized immigrants noted in the previous section may be reflected in an increase in the state’s rental vacancy rate.³² If all of the population decline among immigrants that we estimated—between 1.5 and 1.8 percentage points—consists of renters (approximately 30 percent in 2006), then we would expect an increase in the rental vacancy rate of about 6 percentage points attributable to LAWA.³³

Figure 6 shows that after LAWA, the rental vacancy rate in Arizona did increase, more so than in the comparison states. Using the same methodology as for the changes in population share, we estimate specifically that the rental vacancy rate in Arizona was 5.8 percent higher due to LAWA. Among all states, this is the second largest increase; it is also statistically significant, and within the expected range. We find no evidence of a LAWA effect on owner-occupied housing vacancy rate (see [Technical Appendices](#)).

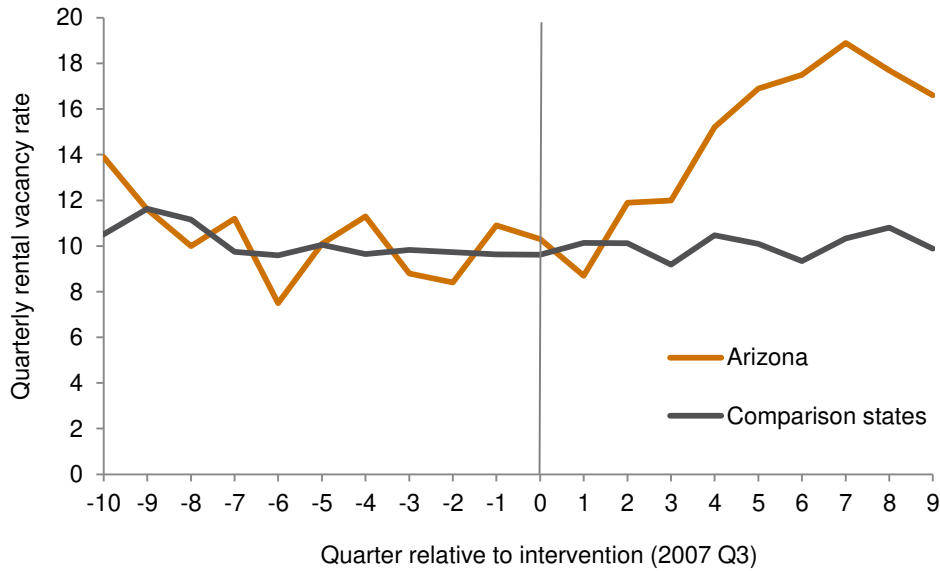
³⁰ The declining inflow of immigrants to Arizona assuages somewhat the concern that selective outmigration or spillover effects to other states may bias our empirical results. The [Technical Appendices](#) provides further discussions and results regarding in particular potential spillover effects. In sum, we do not believe that our results and conclusion are much influenced by the outmigration of unauthorized immigrants in response to LAWA, at least as shown in the data through 2008.

³¹ Passel and Cohn, 2009a. Also, we estimate from the 2006 ACS that among Arizona households headed by immigrants, roughly 41 percent resided in rental housing compared with 28 percent of households headed by native-born. Among households headed by a noncitizen, 53 percent rent, while the comparable figure among households headed by a Hispanic noncitizen is 56 percent. In addition, in 2006 immigrant-headed households occupy over one fifth of the state’s rental housing while they make up only 16 percent of the population. The comparable figures for noncitizen and noncitizen Hispanic households are 17 and 14 percent, respectively.

³² If so, the increase may not be long lasting as landlords are likely to react by decreasing rents and inducing increased demand for rental units.

³³ In 2006, ACS data show that 29.8 percent of Arizona households were renters. So, $[1.8/29.8]*100=6.04$

FIGURE 6
Rental vacancy rates in Arizona and comparison states



SOURCE: Authors' calculations from the Housing Vacancy Survey, Census Bureau.

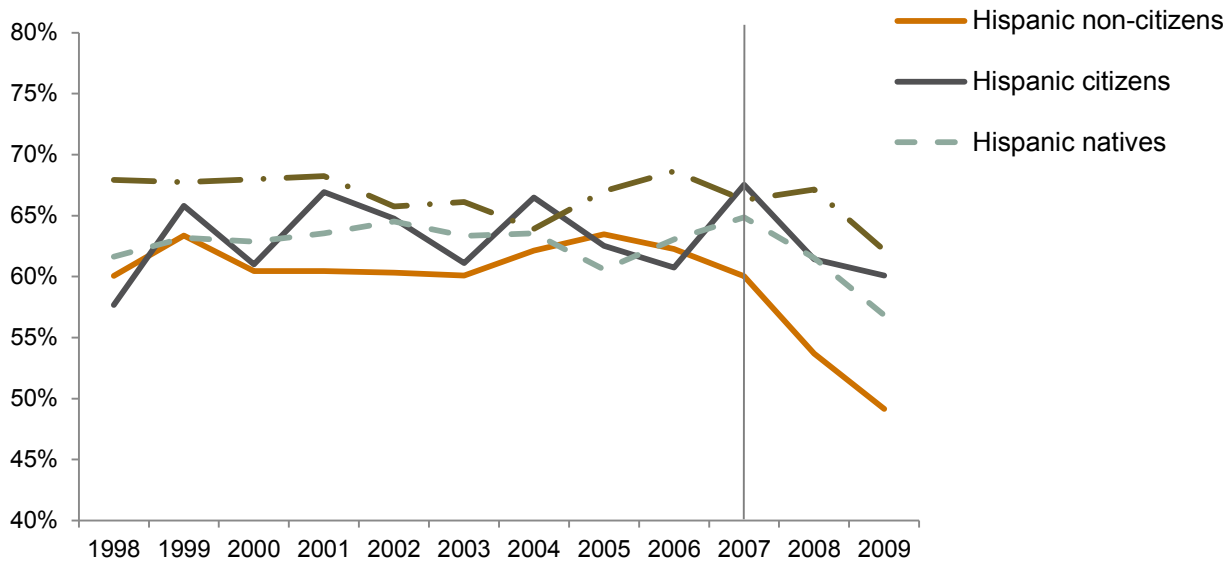
NOTE: Comparison states are the “synthetic Arizona” selected in a data-driven manner to best match Arizona’s pre-LAWA trends. In addition to quarterly vacancy rate, in this analysis we also match states to Arizona based on other characteristics that are predictors of housing market vacancy. This includes proportion in metropolitan areas, age distribution, proportion non-white, proportion Hispanic, proportion foreign-born, proportion poor, and proportion that rent. All these characteristics are obtained from the ACS 2005–2007.

These results all point towards a significant effect of LAWAs on the population in Arizona, concentrated on the unauthorized population. In all, we estimate that the working age unauthorized population fell by roughly 17 percent due to LAWAs.

LAWA and Employment

As shown earlier, the impact of the recession is visible in Arizona’s employment rates. However, Hispanic non-citizens appear to have recently experienced unusually low employment rates.³⁴ Figure 7 shows that before LAWA, the employment rate of non-citizen Hispanics was relatively stable, around 60 to 63 percent—lower than non-Hispanic whites but similar to native and naturalized Hispanics. In the post-LAWA period, the employment rate of non-citizen Hispanics drops sharply in 2008, and by 2009 they have substantially lower employment rates than other groups.

FIGURE 7
Employment rates, selected Arizona groups, 1998–2009



SOURCE: Authors’ calculations from the 1998–2009 monthly Current Population Survey (CPS), U.S. Census Bureau.

NOTE: Includes working-age population and only those employed in wage and salary work.

To probe the employment changes further, we again use the comparison states, which mimic Arizona’s 1998–2006 employment trend. For those workers who remained in Arizona following LAWA, a variety of employment effects is plausible. To the extent that firms are hiring and are in compliance with LAWA, unauthorized immigrants are less likely to find employment. There are potential spillover effects on other workers, in both positive and negative directions.

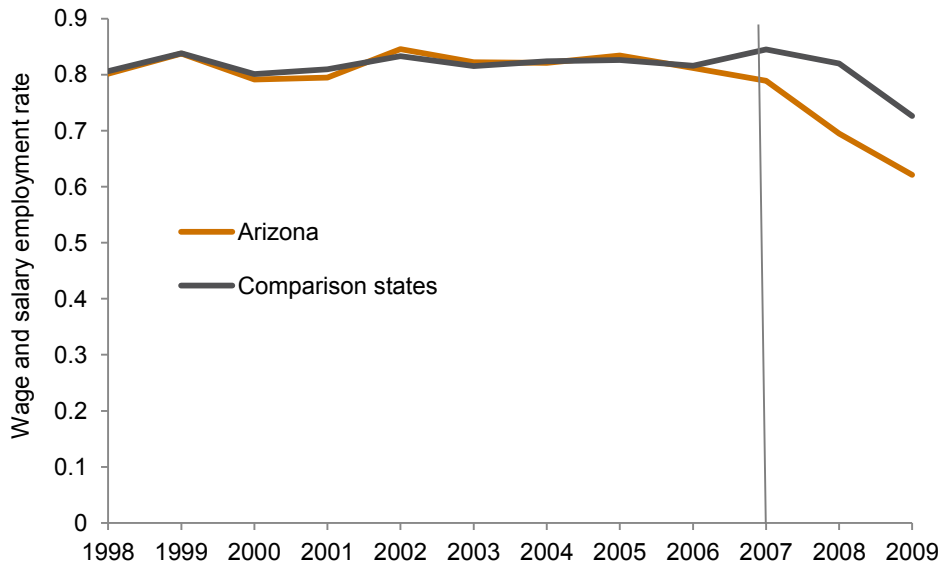
We focus on two different outcomes: the wage and salary employment rate and the self-employment rate. These are measured as the ratio of persons employed (in the respective work arrangements) to the state population. Because we want to focus on individuals who are likely to work, we focus on the employment rate trends for men 16 to 60 years old. Furthermore, in the results presented in the report, we restrict the analysis to less educated workers—those with a high school diploma or less. Doing so serves two purposes. First, it allows us to capture the effects on groups most likely affected by LAWA. Second, this focuses on the

³⁴ We define the employment rate as the proportion of the working age population who is employed in the wage and salary sector. This is different from the official definition that includes the self-employed. We use this definition because LAWA does not include a verification of work authority of business owners or independent contractors.

effect of LAWA on the target group: in general, unauthorized immigrants are more likely to be male, of working age, and less educated. We present results using less restrictive group definitions in the [Technical Appendices](#), including results for women.

Low-skilled non-citizen Hispanic men are the only group for whom we find convincing evidence of lower employment rates attributable to LAWA.³⁵ Figure 8 shows that before LAWA, the employment rates of non-citizen Hispanics matched those of non-citizens in the comparison states. In the two post-LAWA years, the non-citizen Hispanic employment rate was 11 to 12 percentage points lower than in the comparison states.³⁶ We do not find evidence that other groups experienced either increases or decreases in the employment rates that can be credited reliably to LAWA (see [Technical Appendices](#)). Using the size of the non-citizen Hispanic population and workforce in Arizona in 2006 as the base (about 531,000 and 308,000 respectively), our estimates suggest that LAWA caused a drop in employment of roughly 56,000 non-citizen Hispanic workers.

FIGURE 8
Employment rates, Hispanic non-citizen men, high school or less education, 1998–2009



SOURCE: Authors' calculations from CPS 1998–2009.

NOTE: Comparison states are the “synthetic Arizona” selected in a data-driven manner to best match Arizona’s pre-LAWA trends. Employment here includes only wage and salary work.

LAWA and Self-Employment

LAWA’s E-Verify mandate includes only licensed businesses within its employer definition, and also specifically excludes independent contractors from its definition of an employee.³⁷ Thus, one way to avoid

³⁵ We are also interested in the wage impact of LAWA for those who are employed. However, data limitations prevent us from drawing reliable conclusions at this time. Investigation of broader measures such as economic output or consumer prices is also of interest but out of the scope of this report.

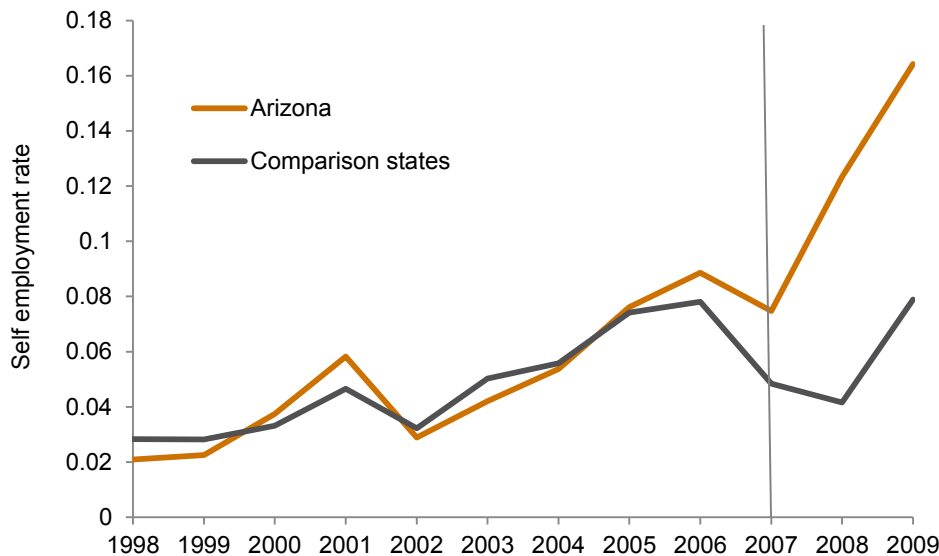
³⁶ Our ACS data show that the number of self-employed non-citizen Hispanics in Arizona increased from about 24,000 in 2006 to 32,300 in 2008. In other words, an increase of approximately 34 percent.

³⁷ Regulations regarding business licensure vary by city and county. At the state level, the Arizona Department of Revenue does not require licensing of businesses that employ withholding-exempt employees only. This includes seasonal workers and domestic help. (Telephone communication with Arizona Department of Revenue 7/13/2010).

E-Verify is to enter into independent contractor arrangements instead of formal wage and salary employment. We analyze whether LAWA also induced changes in the self-employment rate.

And indeed, LAWA appears to have substantially increased self-employment among non-citizen Hispanic immigrants. Figure 9 indicates that the self-employment rate among Hispanic non-citizen men was rising before LAWA in both Arizona and the comparison states. However, the rise between 2007 and 2009 is substantially greater in Arizona. Our estimate of the magnitude of LAWA’s self-employment effect is about 8 percentage points, roughly a doubling of the historical rate, or put differently, an increase of approximately 25,000 self-employed Hispanic non-citizens.³⁸

FIGURE 9
Self-employment rate, non-citizen Hispanic men, high school or less education, 1998–2009



SOURCE: Authors’ calculations from CPS data.

NOTE: Comparison states are the “synthetic Arizona” selected in a data-driven manner to best match Arizona’s pre-LAWA trends.

In sum, the employment analysis shows that for likely unauthorized men, the self-employment rate increased in Arizona relative to other states after LAWA, and that the rate of wage and salary work declined. Again, these changes are the only ones that can be statistically distinguished from a zero LAWA effect. It is clear that Arizona’s legislation induced a shift away from wage and salaried work towards self-employment. These effects are concentrated among unauthorized and we find no convincing evidence of spillover effects to competing low-skilled groups.

³⁸ Using the base of non-citizen Hispanic employment of 308,000 in 2006.

Conclusion

A previous PPIC report concluded that legalization of unauthorized immigrants would be unlikely to lead to upward economic mobility for low-skilled unauthorized workers because the threat of employer sanctions in the United States has been an empty one and because workers with low education levels have not fared well in the U.S. labor market for some time (Hill, Lofstrom, and Hayes 2010). In this report we find that one approach to employer sanctions—mandating employer use of E-Verify to confirm new employee work authorization—is likely to have both intended and unintended consequences. Mandating E-Verify in Arizona achieved the intended goal of reducing the number of unauthorized immigrants in the state. However, it also had the unintended consequence of shifting unauthorized workers into less formal work arrangements.

Our empirical analysis shows that the legislation reduced the population of unauthorized immigrants. We identify a decline in Hispanic non-citizen immigrants, the demographic group home to the highest proportion of unauthorized immigrants in Arizona. We estimate LAWA's impact to date to be a loss of approximately 92,000 unauthorized immigrants, representing a decline of about 17 percent. Furthermore, we observe corresponding increases in rental vacancy rates that are quite close to what one would expect based on our estimates of the net population loss.

We find strong evidence that LAWA significantly hampered formal employment opportunities among unauthorized workers. Hispanic non-citizen employment fell by about 11 percentage points, roughly equivalent to a reduction of 56,000 wage and salary workers. However, we find no convincing evidence that low-skilled *authorized* minority workers have yet benefitted from the LAWA-induced reduction in unauthorized immigrants. Nor do we find evidence of similar employment changes for other low-skilled workers, although overall trends go in the same direction. We find evidence that Arizona's legislation induced a shift towards self-employment among unauthorized immigrants. The self-employment rate increased by about 8 percentage points, translating into a LAWA-induced increase of roughly 25,000 self-employed Hispanic-non-citizens. Our findings raise questions about the unintended effect of LAWA in expanding underground economies.

There are a few caveats to extrapolating LAWA's effects to other states or time periods. As we noted, LAWA occurred at the time of the most severe recession in recent U.S. history; results could be different in a growing economy. Further, because LAWA is a state-level policy, unauthorized immigrants targeted by the law have the option of leaving for employment in other states. At the time of LAWA's enactment, no other state had a comprehensive E-Verify mandate, so migrating to another state was a plausible option. However, as more states enact mandates, the alternatives for unauthorized workers diminish; if the federal government enacted a full E-Verify mandate, there would be no such alternatives. With fewer options, broader E-Verify mandates would likely diminish unauthorized migration flows, lead to more emigration but also increase the shift toward less formal employment.

References

- American Immigration Lawyers Association. 2008 and 2009. *Navigating the Immigration Debate: A Guide for State and Local Policymakers and Advocates*.
- Arizona Attorney General. 2010. "Arizona Employers Enrolled in E-Verify." Available at www.azag.gov/LegalAZWorkersAct/EVerifyList.html. Accessed March 2010.
- Capps, R., R. M. Castañeda, A. Chaudry, and R. Santos. 2007. *Paying the Price: The Impact of Immigration Raids on America's Children*. Washington DC: Urban Institute and National Council of La Raza.
- Chaudry, A., R. Capps, J. Pedroza, R. M. Castañeda, R. Santos, and M. Scott. 2010. *Facing Our Future: Children in the Aftermath of Immigration Enforcement*. Washington DC: Urban Institute.
- Gans, Judith. 2008. "Arizona's Economy and the Legal Arizona Workers Act." Status report, Udall Center for Studies in Public Policy, University of Arizona. Available at http://udallcenter.arizona.edu/immigration/publications/2008_GANS_lawa.pdf.
- Hoefler, Michael, Nancy Rytina, and Bryan Baker. 2010. "Estimates of the Unauthorized Immigrant Population Residing in the United States: January 2009." Population Estimates, January 2010, Office of Immigration Statistics, Department of Homeland Security. Available at www.dhs.gov/xlibrary/assets/statistics/publications/ois_ill_pe_2009.pdf.
- LawLogix. 2010. E-Verify Federal and State Legislation. Available at www.lawlogix.com/i-9-and-e-verify-compliance/state-map. Accessed May 14, 2010.
- Meissner, D., and M. Rosenblum. 2009. *The Next Generation of E-Verify: Getting Employment Verification Right*. Washington DC: Migration Policy Institute.
- Moran, T. 2007. "New Arizona Law Requires Employers to Use Flawed Employment Eligibility Verification Basic Pilot." *Immigrants' Rights Update* 21 (6).
- National Conference of State Legislatures. 2006. "2006 State Legislation Related to Immigration: Enacted and Vetoed." Available at www.ncsl.org/default.aspx?tabid=13137.
- National Conference of State Legislatures. 2007. "A Review of State Immigration Legislation in 2005." Available at www.ncsl.org/default.aspx?tabid=13133.
- National Conference of State Legislatures. 2008. "2007 Enacted State Legislation Related to Immigrants and Immigration." Available at www.ncsl.org/default.aspx?tabid=13106.
- National Conference of State Legislatures. 2009. "State Laws Related to Immigrants and Immigration in 2008." Available at www.ncsl.org/default.aspx?tabid=13058.
- National Conference of State Legislatures. 2010a. "2009 State Laws Related to Immigrants and Immigration." Available at <http://lawprofessors.typepad.com/immigration/2010/05/2009-state-laws-related-to-immigrants-and-immigration-january-1-december-31-2009.html>.
- National Conference of State Legislatures. 2010b. 2010 Immigration-Related Bills and Resolutions in the States (January–March 2010). Available at www.ncsl.org/default.aspx?tabid=20244.
- National Conference of State Legislatures. 2011. "2010 Immigration-Related Laws and Resolutions in the States." Available at www.ncsl.org/default.aspx?tabid=21857.
- Office of Immigration Statistics. 2010. *Yearbook of Immigration Statistics: 2009*. Washington DC: Department of Homeland Security.
- Passel, Jeffrey, and D'Vera Cohn. 2010. "U.S. Unauthorized Immigration Flows Are Down Sharply Since Mid-Decade." Washington DC: Pew Hispanic Center.
- Passel, Jeffrey, and D'Vera Cohn. 2009a. "A Portrait of Unauthorized Immigrants in the United States." Washington DC: Pew Hispanic Center.
- Passel, Jeffrey, and D'Vera Cohn. 2009b. "Mexican Immigrants: How Many Come? How Many Leave?" Washington DC: Pew Hispanic Center.
- Rosenblum, M. 2009. "The Basics of E-Verify, the U.S. Employer Verification System." Migration Policy Institute. Available at www.migrationinformation.org/Feature/display.cfm?ID=726.

- Santa Cruz, Nicole. 2010. "Arizona Has Rarely Invoked Its Last Tough Immigration Law." *Los Angeles Times*, April 19.
- Westat. 2007. "Findings of the Web Basic Pilot Evaluation." Report submitted to Department of Homeland Security. Available at www.uscis.gov/files/article/WebBasicPilotRprtSept2007.pdf.
- Westat. 2009. "Findings of the E-Verify Program Evaluation." Report submitted to Department of Homeland Security. Available at www.uscis.gov/USCIS/E-Verify/E-Verify/Final%20E-Verify%20Report%2012-16-09_2.pdf.

About the Authors

Magnus Lofstrom is a research fellow at PPIC. He also holds appointments as research fellow at the Institute for the Study of Labor (IZA) at the University of Bonn and as research associate at the Center for Comparative Immigration Studies at the University of California, San Diego. His research expertise includes immigration, self-employment, and education. Prior to joining PPIC, he was an assistant professor of economics at the University of Texas at Dallas. He has also served as a researcher and taught at IZA and at the University of California, Irvine. He received his Ph.D. in economics from USC.

Sarah E. Bohn is a research fellow at PPIC, where she studies immigrants, immigration policy, and labor force issues. Her work focuses specifically on the effects of immigration on the labor market, immigration policy reform, and the economic progress of immigrants in the United States. She holds a Ph.D. in economics from the University of Maryland, College Park.

Steven Raphael is a professor of public policy at the University of California at Berkeley Goldman School of Public Policy. His research focus is on labor and urban economics, as well as the relationship between racial segregation in housing markets and the relative employment prospects of African-Americans. He has written on the economics of discrimination, the relationship between unemployment and crime, and homelessness. He received his Ph.D. in economics from UC Berkeley.

Acknowledgements

We gratefully acknowledge the support of the Russell Sage Foundation for this report. The authors would also like to thank Judith Gans, Hans Johnson, Ethan Lewis, Albert Liu, Marie Mora, David Neumark, Pia Orrenius, Jeffrey Passel, Karthick Ramakrishnan, Lynette Ubois, and participants at the San Francisco Federal Reserve Bank's 2010 Applied Micro Conference, the Population Association of America's 2010 Annual Meeting, the Association for Public Policy Analysis & Management's 2010 Annual Meeting, the American Economic Association's 2011 Annual Meeting and the IZA Workshop on Legal and Illicit Immigration for helpful feedback.

PUBLIC POLICY INSTITUTE OF CALIFORNIA

Board of Directors

John E. Bryson, *Chair*

Retired Chairman and CEO
Edison International

Mark Baldassare

President and CEO
Public Policy Institute of California

Ruben Barrales

President and CEO
San Diego Regional Chamber of Commerce

María Blanco

Vice President, Civic Engagement
California Community Foundation

Gary K. Hart

Former State Senator and Secretary
of Education
State of California

Robert M. Hertzberg

Partner
Mayer Brown LLP

Walter B. Hewlett

Director
Center for Computer Assisted Research
in the Humanities

Donna Lucas

Chief Executive Officer
Lucas Public Affairs

David Mas Masumoto

Author and farmer

Steven A. Merksamer

Senior Partner
Nielsen, Merksamer, Parrinello,
Gross & Leoni, LLP

Constance L. Rice

Co-Director
The Advancement Project

Thomas C. Sutton

Retired Chairman and CEO
Pacific Life Insurance Company

The Public Policy Institute of California is dedicated to informing and improving public policy in California through independent, objective, nonpartisan research on major economic, social, and political issues. The institute's goal is to raise public awareness and to give elected representatives and other decisionmakers a more informed basis for developing policies and programs.

The institute's research focuses on the underlying forces shaping California's future, cutting across a wide range of public policy concerns, including economic development, education, environment and resources, governance, population, public finance, and social and health policy.

PPIC is a private operating foundation. It does not take or support positions on any ballot measures or on any local, state, or federal legislation, nor does it endorse, support, or oppose any political parties or candidates for public office. PPIC was established in 1994 with an endowment from William R. Hewlett.

Mark Baldassare is President and Chief Executive Officer of PPIC.

John E. Bryson is Chair of the Board of Directors.

Short sections of text, not to exceed three paragraphs, may be quoted without written permission provided that full attribution is given to the source and the above copyright notice is included.

Research publications reflect the views of the authors and do not necessarily reflect the views of the staff, officers, or Board of Directors of the Public Policy Institute of California.

Copyright © 2011 Public Policy Institute of California
All rights reserved.
San Francisco, CA