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Economic Impact of Local Immigration Regulation: An Empirical Analysis

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THE ECONOMIC IMPACT OF LOCAL IMMIGRATION REGULATION: AN EMPIRICAL ANALYSIS

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ABSTRACT

A wave of local anti-immigration laws has swept the country, triggering contentious debate and raising significant legal and policy issues. One critical dimension that has been largely ignored, however, is the economic impact of these laws: Are jurisdictions with them better off economically than those without them?

In the first empirical study of this issue, we analyze the economic impact of local anti-immigration laws. The laws take different forms—some authorize local police to enforce federal immigration laws, some restrict benefits like housing and employment to those with legal immigration status, and some require all government transactions to be conducted in English only. Applying statistical analysis to economic data from the U.S. Census Bureau, we find that such laws resulted in a 1 to 2% drop in employment, or 337 to 675 lost jobs for the average county, with payroll dropping between 0.8 and 1.9%. This drop in employment includes both authorized and unauthorized workers. We also find that the laws hurt some industries, such as the restaurant industry, while helping others, such as the grocery and liquor store

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industry. This suggests that affected workers may be switching jobs, rather than leaving a particular jurisdiction altogether.

Because local immigration regulation has such a profound policy impact, local governments considering the efficacy of these laws need to base their decisions on empirical evidence—not assumptions—about the laws' effects. This Article provides crucial information for that decision making.

INTRODUCTION

The rise of subfederal immigration regulation is one of the most significant trends in modern immigration law. In increasing numbers, states, cities and counties have enacted laws that negatively affect immigrants within their jurisdictions. These laws have taken three basic forms: agreements for state and local police to enforce federal immigration laws; restrictions on benefits like housing and employment unless applicants can prove legal immigration status; and laws requiring that all government transactions be conducted only in English.[1]

The significance of subfederal regulation can be seen in the sweeping impact it has made on the immigration landscape. From a legal perspective, subfederal regulation has raised important, complex questions about the nature of the immigration power. The Supreme Court has established that only the federal government may establish an immigration regulation, "essentially a determination of who should or should not be admitted into the country, and the conditions under which a legal entrant may remain."[2] But short of that, what immigration-related authority may state and local governments exercise as part of their broad police powers, and what authority belongs exclusively to the federal government? The lack of legal clarity has entangled many subfederal immigration laws in litigation and has inspired much thoughtful analysis.[3]

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[1] *See infra* Part II for detailed information on these laws.

[2] De Canas v. Bica, 424 U.S. 351, 355 (1976) (upholding a state statute that fined employers who knowingly hired undocumented workers). The statute at issue in *De Canas* would be expressly preempted by the federal employer sanctions program enacted in the Immigration Reform and Control Act of 1986. *See* 8 U.S.C. § 1324a(h)(2) (2006) (stating that federal employer sanctions preempt state and local employer sanctions, other than licensing laws).

[3] *See, e.g.*, Michael A. Olivas, *Immigration-Related State and Local Ordinances: Preemption, Prejudice, and the Proper Role for Enforcement*, 2007 U. CHI. LEGAL F. 27 (opining that though subfederal laws aimed at regulating general immigration functions are constitutionally preempted, there should be an exception carved out for subfederal laws that govern only subfederal interests and do not trigger federal preemption powers); Cristina M. Rodriguez, *The Significance of the Local in Immigration Regulation*, 106 MICH. L. REV. 567 (2008) (arguing that because state and local governments are responsible for the integration of immigrants, they should have a significant role in immigration regulation); Michael J. Wishnie, *State and Local Police Enforcement of Immigration Laws*, 6 U. PA. J. CONST. L. 1084, 1091-95 (2004) (contesting the proposition that state and local police have inherent authority to enforce

Beyond legal issues, subfederal immigration laws also have significant policy implications. Numerous claims about their impact have been made, focusing on whether the laws affect the behavior and movement of undocumented immigrants. Advocates claim that vigorous subfederal regulation will force undocumented immigrants to leave the local jurisdiction, if not the United States entirely. By enlisting the assistance of state and local governments, the resources available for immigration enforcement are multiplied; more enforcement will, in turn, cause undocumented immigrants to "self-deport."[4]

Opponents argue that subfederal immigration laws have very little effect on the movement of undocumented immigrants; because these immigrants are here to work, they respond to the availability of jobs and not to other factors like increased enforcement of immigration laws. From this perspective, subfederal immigration laws only serve to harm rights: the rights of undocumented immigrants who will be more reluctant to report crimes to local police and the rights of those identified as immigrants, who will experience more racial profiling as a result of the laws.[5]

One crucial dimension that has been largely left out of the policy debate is the economic impact of the laws. Economic analysis is necessarily concerned with the laws' effect on undocumented immigrants' behavior and movement, but implicates other factors as well. Are jobs being lost or gained as a result of the laws, and if so, in what quantity? What kinds of jobs are affected and in what industries? Who is losing or gaining those jobs, and are there patterns based on immigration status? In sum, are jurisdictions with these restrictive laws doing economically better, worse, or the same as jurisdictions without the laws? Local government officials and their constituents should want to know the answers to these questions when considering the efficacy of

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civil immigration laws, beyond the authority specifically granted by Congress). For more on the legal debate, see Part I.A.

[4] *See, e.g.*, Kris W. Kobach, *Attrition Through Enforcement: A Rational Approach To Illegal Immigration*, 15 TULSA J. COMP. & INT'L L. 155, 157 (2008) (arguing that increased enforcement of employer sanctions and increased government enforcement of immigration laws would cause undocumented immigrants to self-deport); *Encouraged Reverse Migration: A Sensible Seven-Step Strategy for Promoting the Outbound Flow of Illegal Immigration*, FED'N FOR AM. IMMIGR. REFORM (2006), http://www.fairus.org/site/DocServer/research_backgrounder_may102006.pdf?docID=981 [hereinafter *Encouraged Reverse Migration*] (arguing that increased worksite enforcement and the elimination of state and local benefits, combined with current deportation efforts and other enforcement, will "cause the attrition (self-deportation) of the majority of those here illegally and greatly restrict the inbound illegal flow").

[5] *See, e.g.*, David A. Harris, *The War on Terror, Local Police, and Immigration Enforcement: A Curious Tale of Police Enforcement in Post-9/11 America*, 30 RUTGERS L.J. 1, 7-8 (2006) (suggesting that the reluctance of local police to enforce immigration laws stems from an understanding that successful community policing depends on maintaining trust with immigrants).

these laws in deciding whether to keep laws already on the books and whether to enact proposed laws.

In this Article, we take up the question of economic impact. We focus our analysis on local immigration legislation—laws enacted by cities and counties that negatively affect immigrants within their jurisdictions. Using a variety of sources, we compiled a list of local jurisdictions that have enacted restrictive immigration laws, coded by year of enactment and type of law (police enforcement, government benefits, housing, employment, or language). We looked specifically at high-immigrant industries—industries that have traditionally hired large numbers of undocumented workers—and compared the economic indicators of these industries located in restrictive jurisdictions with similar industries located in non-restrictive jurisdictions. We ran these regressions using government-collected data from the County Business Patterns (CBP) data set.[6] In order to focus on the effect of the laws, we used a unique statistical method called difference-in-difference estimation that allowed us to control for and subtract out the effects of macro-trends like economic recessions.[7]

Our results indicate that the restrictive laws had a negative but small economic effect on the jurisdictions in which they were enacted. Specifically, we find that these laws had a 1 to 2% negative effect on employment; for the average U.S. county, this translates to about 337 to 675 jobs (40 to 80 jobs for the median county). Consistent with the effect on employment, payroll was also negatively affected.[8]

What do these results mean? Contrary to claims made by opponents of these laws, our analysis shows that the laws are having an economic impact on the jurisdictions that enact them. However, in contrast to claims made by the laws' advocates, the economic impact is negative and small. Moreover, it should be emphasized that these results are *not* evidence that the laws are forcing undocumented immigrants to leave particular jurisdictions. Our data does not track immigration status or the movement of those who are losing jobs as a result of the restrictive laws. We believe that at least some of those losing jobs are undocumented immigrants, but job loss is likely affecting documented workers as well. And our industry-specific data suggesting that workers may be moving among high-immigrant industry jobs could indicate that affected workers are switching jobs, rather than leaving a particular jurisdiction altogether.

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[6] The CBP is economic data collected from employers, broken down by industry and geographical location. *County Business Patterns: Introduction*, U.S. CENSUS BUREAU, http://www.census.gov/econ/cbp/intro.htm (last visited Oct. 28, 2010).

[7] For more on our methodology, see Part II.

[8] For more on our results, see Part III.

In conducting this analysis, it is our goal to shed light on the effect of restrictive local immigration laws. The policy debate on these laws has been particularly fierce, fueled in large part by uncertainty about the laws' impact. For local governments that have enacted these laws or are considering adopting similar laws, it is crucial that they understand the effect that the laws are having. Negative economic impact may or may not be what local governments want when they enact these restrictive laws. In times of economic recession, cities and counties may be interested in more economic activity, not less. And even if negative economic impact is an acceptable outcome, local governments should know the small scale on which it is occurring and balance that impact against the costs of local immigration enforcement.

I. LOCAL IMMIGRATION REGULATION AND ITS SIGNIFICANCE

In recent years, the question of who enforces our immigration laws has become as significant as what the substance of those laws is. Increasing numbers of cities, counties, and states have become involved in the immigration debate, enacting laws that authorize them to enforce both federal immigration laws and their own laws affecting immigrants within their jurisdictions. For reasons explained in Part II, we focus our empirical analysis on regulation by cities and counties ("local regulation"), but the observations we offer here also apply to the larger trend of subfederal immigration regulation.

As explained in more detail below, these subfederal laws have had a significant legal and policy impact. The impact stems, in part, from the relative newness of the phenomena. This is not to say that subfederal governments have had *no* role in the regulation and enforcement of immigration laws. We have seen instances, both recent and historical, where subfederal governments have become involved in immigration regulation, either by enacting their own laws or by enforcing federal laws.[9]

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[9] For example, Professor Gerald Neuman argues convincingly that from 1776-1875, the movement of people across our nation's borders was primarily regulated by state laws, supplemented by federal laws. Gerald L. Neuman, *The Lost Century of American Immigration Law (1776-1875)*, 93 COLUM. L. REV. 833 (1993). Even after 1875, when the federal government first enacted restrictive immigration legislation and placed federal controls on immigration, we still see state governments occasionally inserting themselves into the immigration debate, enacting laws that negatively affect immigrants within their jurisdiction. Some prominent examples in the post-federalization period include Texas' unsuccessful attempt to deny K-12 education to undocumented immigrant children, *see* Plyler v. Doe, 457 U.S. 202 (1982), California's law (upheld by the Supreme Court) to penalize employers who hire undocumented workers, *see* De Canas v. Bica, 421 U.S. 907 (1975), and Pennsylvania's law (struck down by the Supreme Court in a unanimous decision) that restricted state welfare benefits to U.S. citizens, *see* Graham v. Richardson, 403 U.S. 365 (1971). For a historical overview of

But the regulations studied here (from 2005 to the present) are unique for several reasons. First, we see a remarkable level of involvement from cities and counties—rather than just states—in subfederal regulation. City councils and county commissions have taken up the issue of immigration regulation and have carved out a role for themselves in this policy debate, enacting laws that reach many different areas of governance.[10] As described in more detail in Part III, local governments enacted only two restrictive immigration regulations in 2005 but greatly increased the number of enacted laws in subsequent years (50 in 2006 and 55 in 2007).[11]

Second, the local immigration regulations that we analyze are being undertaken with an unprecedented level of federal support and cooperation. In 2002, the Department of Justice (DOJ) issued an invitation to state and local police, asking them to help enforce immigration laws.[12] Under the direction of Attorney General John Ashcroft, this invitation reversed previous DOJ legal positions and opined that state and local governments have "inherent authority" to enforce both civil and criminal immigration laws.[13] In tandem with this legal position, the federal government has put substantial resources into partnering with subfederal police departments, largely through the signing of 287(g) agreements that authorize local and state police to enforce various aspects of federal immigration laws.[14] Though express federal support has been limited to police enforcement laws, the fact that the federal government is supporting *any* local role at all has changed the tenor of the subfederal immigration debate.

American immigration policy (including this post-1875 period), see CHARLES GORDON, STANLEY MAILMAN & STEPHEN YALE-LOEHR, 1 IMMIGRATION LAW AND PROCEDURE §§ 2.02-2.04 (2004).

10 Professor Rick Su suggests that local immigration laws are less a response to immigration problems and more a natural byproduct of traditional localist debates about community character, the cost of services like education and crime control, and economic and demographic changes in the community. *See* Rick Su, *A Localist Reading of Local Immigration Regulations*, 86 N.C. L. REV. 1619, 1624 (2008).

11 *See infra* Figure 1.

12 John Ashcroft, U.S. Att'y Gen., Prepared Remarks on the National Security Entry-Exit Registration System (June 6, 2002), *available at* http://www.usdoj.gov/archive/ag/speeches/2002/060502agpreparedremarks.htm.

13 Memorandum from U.S. Dep't of Justice to Omar Jadwat, ACLU Immigrant Right's Project (July 22, 2005), *available at* http://www.aclu.org/files/FilesPDFs/ACF27DA.pdf (transmitting a redacted memo from the DOJ's Office of Legal Counsel that opines on the authority of subfederal governments to enforce immigration laws).

14 The term "287(g)" is taken from the numbered provision in the Immigration and Nationality Act that authorizes the federal-subfederal agreements. 8 U.S.C. § 1357(g) (2006). Under these agreements, DOJ provides training to local and state police officers; it is, however, the responsibility of the subfederal police departments to pay these officers, both during training and actual enforcement duties. *See infra* Part II.A.

A. *Legal Significance*

This new trend of local immigration regulation has had a significant legal and policy impact. Legally, these laws have raised complex questions about the nature of the immigration power.[15] Since the federal government's enactment of restrictive immigration laws in 1875, the Supreme Court has emphasized the exclusively federal nature of this power. In upholding the infamous Chinese exclusion laws, the Court characterized the immigration power as belonging exclusively to the federal government, a power "incapable of transfer to any other parties."[16] The federal nature of this power means that subfederal governments may not set terms for entry into and exit from the United States; less obviously, it also prohibits subfederal governments from restricting the conditions under which immigrants live in this country, if those conditions contravene federal policy.[17]

However, the Supreme Court has given more leeway to subfederal governments when it comes to their regulation of undocumented immigrants. Because subfederal governments have such broad police powers, the Court has expressed limited willingness to uphold these laws, even if they have some impact on immigration. "States," the Supreme Court said, "do have some authority to act with respect to illegal aliens, at least where such action mirrors federal objectives and furthers a legitimate state goal."[18] Even with these guidelines, it is still very difficult to discern the legal boundaries of subfederal immigration authority. Adding to the murky legal landscape is the 2002 federal invitation to state and local police to enforce immigration laws.[19] This federal invitation would seemingly clarify the legal situation by removing preemption concerns (at least in the area of police enforcement), but as applied, the federal-subfederal cooperation has raised legal concerns of its own.[20] Finally, apart from federal

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15 We provide only an overview of these legal issues. For more in-depth analysis, see the articles referenced in note 3.

16 Ping v. United States (The Chinese Exclusion Case), 130 U.S. 581, 609 (1889) (upholding the Chinese exclusion laws that prohibited Chinese laborers from entering the United States, even in those cases where the laborers had left the country with official government permission to return).

17 Graham v. Richardson, 403 U.S. 365, 378-89 (1971).

18 Plyler v. Doe, 457 U.S. 202, 225 (1982).

19 For more on this federal invitation, see *supra* notes 12-13 and accompanying text.

20 Concerned by reports that the Maricopa County Sheriff's Office in Arizona was violating civil rights in its enforcement of immigration laws, Immigration & Customs Enforcement (ICE) revoked its previous cooperation agreement that granted the department broader enforcement powers. The current agreement limits the sheriff's department to jailhouse immigration enforcement (for more on the different types of 287(g) agreements, see *infra* notes 45-48).

constitutional concerns, these local government laws must also comply with their respective states' laws as well.

This tangled legal thicket has ensnared many subfederal immigration laws in litigation, with varying results.[21] For example, laws enacted by Hazleton, Pennsylvania that barred the employment and harboring of undocumented immigrants and required renters to prove legal residency in order to obtain occupancy permits were struck down on preemption grounds.[22] Valley Park, Missouri tried to enact similar laws in 2007, but these laws were struck down in state court for, among other things, violating the state's housing laws.[23] Because of these legal challenges, the city eventually abandoned its renter law; however, the most recent version of its employer sanction law was upheld in federal court.[24]

Results have also varied in litigation involving state immigration laws. In 2010, the Tenth Circuit struck down employer sanction provisions in the Oklahoma Taxpayer and Citizen Protection Act on preemption grounds.[25] The Tenth Circuit held that Oklahoma's laws penalizing employers who hire unauthorized workers and requiring employers to verify the lawful immigration status of independent contractors were preempted by federal laws.[26] But in 2009, the Ninth Circuit upheld the Legal Arizona Workers Act, ruling that its employer sanction provisions were not preempted by federal law.[27] The Arizona law authorizes state courts to suspend or revoke the business licenses of employers who hire unauthorized workers and requires employers to

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However, Sheriff Joe Arpaio is contesting the legality of this reduction, claiming that his department has authority under state law to enforce immigration laws, even beyond the authority delegated by the federal government. Nicholas Riccardi, *Crusading Sheriff Takes on His Foes, Critics of Joe Arpaio's Immigration Tactics Have Now Become the Targets*, L.A. TIMES, Dec. 12, 2009, at A1.

21 Laws that are the subject of litigation or that have been revoked are not considered in our statistical analysis.

22 Lozano v. City of Hazleton, 496 F. Supp. 2d 477, 555 (M.D. Pa. 2007), *aff'd in part, vacated in part*, No. 07-3531, 2010 WL 3504538 (3d Cir. Sept. 9, 2010); *see also infra* notes 62-64 and accompanying text.

23 Reynolds v. City of Valley Park, No. 06-CC-3802, 2007 WL 857320 (Mo. Cir. Ct. Mar. 12, 2007).

24 The district court ruled that the employer sanction law was not preempted because it fell into the licensing exception provided for by federal law. Gray v. City of Valley Park, No. 4:07CV00881, 2008 WL 294294 (E.D. Mo. Jan. 31, 2008), *aff'd*, 567 F.3d 976 (8th Cir. 2009) (upheld on jurisdictional grounds); *see also infra* note 64 and accompanying text.

25 Chamber of Commerce of U.S. v. Edmondson, 594 F.3d 742, 747 (10th Cir. 2010).

26 Specifically, the Oklahoma law provides that an employer who terminates a legally authorized worker while retaining an unauthorized worker subjects itself to claims from the terminated employee for back pay, reinstatement, and attorney's fees. OKLA. STAT. ANN. tit. 25, § 1313 (West 2009).

27 Ariz. Contractors Ass'n v. Candelaria, 534 F. Supp. 2d 1036, 1048-49 (D. Ariz. 2008) (rejecting a preemption challenge to the state's employer sanctions law), *aff'd sub nom.* Chicanos Por La Causa, Inc. v. Napolitano, 558 F.3d 856, 866 (9th Cir. 2009), *cert. granted sub nom.* Chamber of Commerce v. Candelaria, 78 U.S.L.W. 3762 (U.S. June 28, 2010).

participate in the federal E-Verify program, whereas federal law makes such participation voluntary.[28] The Supreme Court has granted certiorari in this case and may provide some much-needed clarity on the legal boundaries of subfederal immigration regulation.

B. *Policy Significance*

Even if the Supreme Court does address the legal questions, that intervention is unlikely to resolve important questions in the policy debate. The legal debate focuses, for the most part, on whether subfederal governments have legal authority to enact immigration legislation; assuming that some authority exists, the policy debate focuses on whether subfederal governments *should* enact these laws. Reflecting the larger immigration debate, there is little consensus about what the goal of subfederal immigration laws should be. Advocates of the laws believe that the goal should be to force undocumented immigrants to leave the subfederal jurisdiction specifically or the United States altogether. By enlisting the aid of subfederal jurisdictions and of private parties like employers and landlords within those jurisdictions, advocates argue that the laws multiply the enforcement and effectiveness of federal immigration laws. Some undocumented immigrants will be directly removed (e.g., those who are referred to Immigration and Customs Enforcement through subfederal police cooperation), but the majority of removals will be voluntary as undocumented immigrants respond to the increased enforcement pressure and "self-deport."[29] Among the laws' advocates are groups and organizations that favor restrictive national immigration policies.[30]

On the other side, opponents of these laws argue that subfederal governments should have no role in immigration enforcement. Not surprisingly, among the laws' opponents are advocates for immigrants, who are primarily interested in protecting the rights of immigrants and in pushing for more liberal immigration policies.[31] They point to studies that show increased racial and ethnic profiling when immigration enforcement duties are placed in subfederal and private hands as evidence that subfederal immigration laws are bad policy.[32]

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[28] ARIZ. REV. STAT. ANN. § 23-214 (2010).

[29] *See* Kobach, *supra* note 4.

[30] *See, e.g.*, *Encouraged Reverse Migration*, *supra* note 4.

[31] See, for example, the National Immigration Law Center, with a mission to "defend and advance the rights and opportunities of low-income immigrants and their family members," arguing against the 287(g) program and other subfederal immigration law enforcement. NAT'L IMMIGR. L. CENTER, http://nilc.org/index.htm (last visited Oct. 28, 2010).

[32] *See, e.g.*, Trevor Gardner III & Aarti Kohli, *The C.A.P. Effect: Racial Profiling in the ICE Criminal Alien Program*, POL'Y BRIEF (The Chief Justice Earl Warren Inst. on Race, Ethnicity, &

These advocates argue that the goal of subfederal governments should be to protect the rights of all their residents, regardless of legal immigration status.[33]

But the coalition of opponents also includes other, less obvious parties whose interests focus on minimizing the negative effects of subfederal immigration laws, not on liberalizing immigration policies generally. For example, police departments across the country have been reluctant to enforce immigration laws because this enforcement would undermine their community policing programs in immigrant communities.[34] Employers, business owners, and landlords have also spoken out against subfederal immigration laws, because of the potential negative economic effects. For example, a report requested by the U.S. Chamber of Commerce, the National Association of Home Builders, and the National Roofing Contractors Association suggested that states with restrictive immigration laws might expect to see more workers leaving their jobs (both voluntarily and involuntarily), less demand for goods and services typically sold to Latino communities, and possible interruptions in business operations, both for companies under investigation and for other companies doing business with the investigated companies.[35]

It is this last question of economic impact that we take up in this Article. If the restrictive laws do have an economic effect on their respective jurisdictions, we can hypothesize about the possible manifestations of that effect. On the supply side, the laws might be expected to decrease the availability of workers; by increasing

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Diversity, Berkeley, CA), Sept. 2009, http://www.law.berkeley.edu/files/policybrief_irving_FINAL.pdf (finding that the discretionary arrests of Hispanics for petty offenses rose dramatically after the Irving, Texas police department started cooperating with federal immigration authorities and suggesting that the increased arrests resulted from racial profiling, in order to screen the Hispanics for possible deportation).

33 *See, e.g.*, Press Release, National Immigration Law Center, NILC Joins Calls for an End to Controversial Program Allowing State and Local Police to Act as Immigration Agents (Aug. 27, 2009), http://nilc.org/immlawpolicy/LocalLaw/locallaw006.htm (arguing that local police enforcement of immigration laws makes immigrants distrustful of police and increases dangers to public safety).

34 *See, e.g.*, Press Release, Houston Police Department, Major Cities Chiefs Statement on Immigration (June 8, 2006), http://www.houstontx.gov/police/nr/2006/june/nr060806-1.htm (expressing concern that local police enforcement of immigration laws undermines trust between police and immigrant communities and thus threatens the success of community policing); *see also* Scott H. Decker, Paul G. Lewis, Doris Marie Provine, & Monica W. Varsanyi, *On the Frontier of Local Law Enforcement: Local Police and Federal Immigration Law*, *in* IMMIGRATION, CRIME, AND JUSTICE 261-77 (William F. McDonald ed., 2009) (finding, based on a national survey of municipal police chiefs, substantial differences in the way that local police departments are approaching immigration law enforcement and attributing the differences to a lack of clear policy guidance and models for enforcement).

35 PETER A. CRETICOS, ASSESSING THE ECONOMIC EFFECTS OF STATE LAWS ADDRESSING THE EMPLOYMENT OF FOREIGN-BORN UNAUTHORIZED WORKERS 16-17 (2007), *available at* http://www.stateimmigrationlaws.com/wp-content/uploads/2010/03/ImmigrationReport12.11.pdf.

enforcement, the laws could make it more costly for undocumented immigrants to stay in that particular jurisdiction. If this were to happen, we would expect to see employment decrease and wages increase in the restrictive jurisdictions. On the demand side, the laws might make it more costly for employers to hire undocumented workers, either because the employers themselves face penalties (as is the case with employer sanction laws) or because there are more possible business disruptions resulting from enforcement (e.g., losing employees who are picked up by local police and deported). If this were to happen, we would similarly expect to see lower employment, lower payroll, and lower average wages.

We kept these and other possible economic effects in mind as we analyzed the data. As the policy and legal debates continue, it is our goal to provide empirical information about the economic effects of subfederal immigration regulation. With this information, we hope that decision makers in these debates, particularly the subfederal governments that have enacted or are considering the enactment of these laws, will make thoughtful policy decisions based on evidence, rather than on conjecture about the laws' effects.

II. SCOPE AND METHODOLOGY

Our analysis uses two sets of data: a legal data set of restrictive immigration laws enacted by cities and counties, and the CBP economic data set compiled by the U.S. Census Bureau. The essence of our analysis was to compare economic indicators in restrictive counties against economic indicators in non-restrictive counties over time to determine the economic impact of the restrictive laws. In compiling the legal data set, we decided to focus on local immigration laws for several reasons. First, this is a fascinating phenomenon that many have observed, but no one has analyzed from an economic perspective. Second, analyzing the effect of restrictive laws is easier at the local level than at the state level. Because states implement many more policies,[36] some of which are implemented contemporaneously with the immigration laws, disentangling the effect of immigration laws is much more difficult.

The presence of state immigration laws raises the question of whether our analysis might be picking up the economic effect of state laws, rather than of local laws. There are several factors that lessen this possibility. First, because our analysis focuses on the 2005-2008 time period, we would not see the economic effects of state laws that were

[36] Examples include taxes, environmental laws, and insurance laws.

enacted either before or after that period. Second, our analysis is structured so as to lessen the effect of any state immigration laws that may have been enacted contemporaneously with local laws. As explained in more detail in Part III, our analysis compares counties with restrictive laws ("treatment counties") against counties without similar laws ("control counties"); in one specific regression, we compare treatment counties against geographically surrounding control counties ("border county regression").[37] In these regressions, because the control county group will include counties in the same state as the treatment counties, the effects of any state immigration laws should be experienced by both groups and thus netted out in the analysis.

A. *Legal Data*

We marked 2005 as the beginning year for our analysis because this was the first year that local governments enacted restrictive immigration laws in a noticeable volume.[38] We started with lists of restrictive local governmental entities compiled by the American Civil Liberties Union, the Mexican American Legal Defense and Education Fund, and the Puerto Rican Legal Defense and Education Fund (now LatinoJustice PRLDEF). We combined these lists with DOJ information about local governments that signed 287(g) agreements. We also conducted our own searches using electronic news databases to find other local governments that enacted restrictive immigration laws. From these sources, we created a master list and then contacted each local governmental entity to confirm that it had enacted the restrictive law(s); wherever possible, we obtained a written copy of the law(s). Once confirmed, the local governments were entered into our legal database, with notations about the types of laws enacted, the year of enactment, and the year of revocation, if any. Then the local governmental entities were given Census Bureau county code identifiers based on their geographical location.[39]

In compiling our final list of restrictive jurisdictions, we recognize that a law's enactment does not guarantee its enforcement, but we believe that enactment is the correct dividing line for our analysis. Simply stated, the impact that an immigration law may have on a jurisdiction's economy can come from actual enforcement, but it can

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37 The border county regressions are discussed *infra* note 87.

38 For more on the timing of these laws, see *infra* notes 41-43 and accompanying text.

39 If a governmental entity is located in more than one county (e.g., a city located in two counties), then the entity was assigned the county code in which 50% or more of its population resides, according to U.S. Census data. *See* City-County Finder, STATS IND., http://www.stats.indiana.edu/uspr/a/us_profile_frame.html (last visited Oct. 28, 2010) (giving county and population information for cities and towns in the United States).

also come from reputational effect as well. So, for example, a 287(g) agreement may have an economic impact when undocumented immigrants are arrested by local police and placed into removal proceedings (and thus involuntarily separated from their jobs). But even in the absence of rigorous enforcement, the agreement may still have an economic effect if the local jurisdiction is perceived to be anti-immigrant, and immigrants or immigrant-serving businesses avoid that jurisdiction because of the perceived reputation.

Our study analyzed three types of laws: laws authorizing local police to enforce federal immigration laws; laws requiring proof of legal status to access benefits like employment or housing; and English-only laws.[40] When we looked at the legislative efforts of local governments to become involved in the immigration debate, these are the types of laws that we saw over and over again. Of course, there are variations among these laws, even among laws in the same category; yet the laws share important characteristics that justify categorization. In the following paragraphs, we seek to give an overview of these laws—their general content, and some of the specific legal and policy issues that have arisen in their implementation.

Before discussing specific categories of laws, it is helpful to have some quantitative data on the laws. The laws that we studied were enacted between 2005 and 2007,[41] in different parts of the country. As illustrated by Figure 1, there was an enormous spike in the enactment of these laws in 2006, a trend that continued in 2007.[42] But in 2008, the

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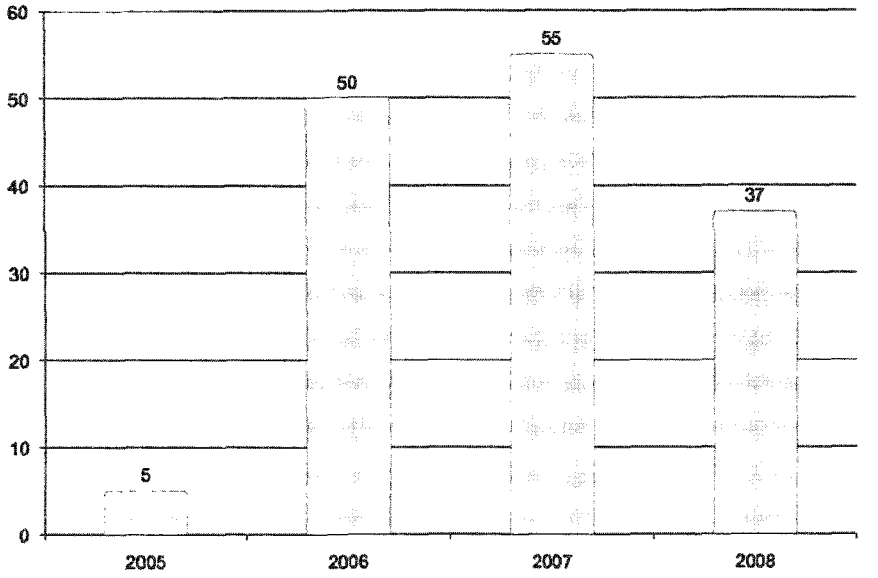
[40] Local governments have enacted other types of restrictive laws as well. For example, some local jurisdictions have enacted anti-solicitation laws—laws that limit solicitation by workers or employers. We do not include anti-solicitation laws in our analysis because these laws were enacted, for the most part, before our period of study. *See, e.g.*, Arturo Gonzales, *Day Labor in the Golden State*, CAL. ECON. POL'Y (Pub. Policy Inst. of Cal., San Francisco, CA), July 2007, *available at* http://www.ppic.org/content/pubs/cep/EP_707AGEP.pdf (listing day laborer ordinances that have been enacted in California, with only 3 of 54 enacted during the 2005-2007 period).

[41] To give a more complete picture of the legal landscape, we include in Figures 1-3 laws that were enacted in 2008, as well as laws that are the subject of litigation. In our statistical analysis, we do not include 2008 laws because of the 18-month lag in the collection of economic data. *See infra* notes 75, 77 and accompanying text. We also do not include laws under legal challenge because they have not been enforced. *See supra* note 21.

[42] The timing of local governmental interest in immigration laws roughly mirrors state governmental interest. According to the National Conference of State Legislatures, from 1999-2004, there were approximately 50-100 immigration-related bills introduced by state legislatures. E-mail from Ann Morse, Program Dir., Immigrant Policy Project, Nat'l Conference of State Legislature, to Huyen Pham, Professor of Law, Texas Wesleyan Univ. Sch. of Law (Aug. 12, 2009, 11:47 EST) (on file with author). In subsequent years, that number increased substantially: 2005 (300 bills introduced, 38 enacted, 6 vetoed), 2006 (570 bills introduced, 84 enacted, 6 vetoed), 2007 (1562 bills introduced, 240 enacted, 12 vetoed), 2008 (1305 bills introduced, 206 enacted, 3 vetoed), and 2009 (1500 bills introduced, 222 enacted, 20 vetoed). *2009 State Laws Related to Immigrants and Immigration*, NAT'L CONF. ST. LEGISLATURES, http://www.ncsl.org/default.aspx?tabid=19232 (last visited Oct. 28, 2010). The NCSL uses a broader definition of immigration-related bills than we do, counting both bills that help immigrants (e.g., establishing

number of enacted laws dropped 33%, from 55 to 37. With an economic recession beginning in December 2007,[43] one possible explanation for this decrease is that local governments had to focus on more pressing concerns like budget shortfalls.

Figure 1. Laws Enacted by Year 2005-2008



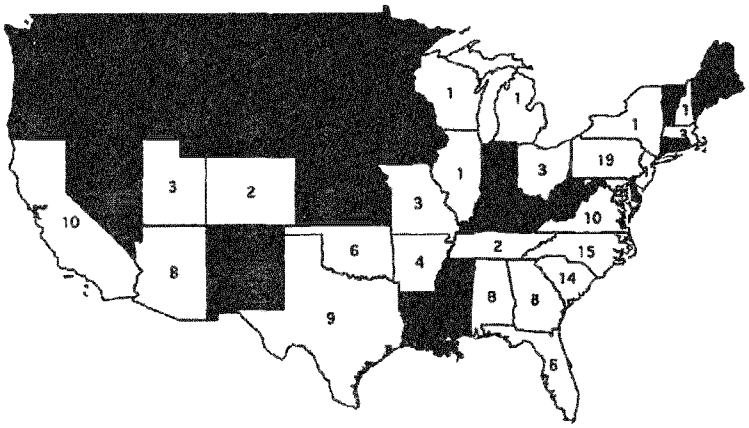
The geographical location of these laws is also noteworthy (see Figure 2). Conventional wisdom suggests that areas with large immigrant communities, and large undocumented communities specifically, would enact more restrictive laws. On that basis, it is not surprising to find that California and Texas, border jurisdictions with the largest undocumented populations, each have a sizeable number of restrictive laws. But the geographical concentration of these laws cannot be explained by undocumented population size alone. For example, several east coast jurisdictions (Pennsylvania, North Carolina,

English as a Second Language programs), as well as bills that hurt immigrants (e.g., restricting state benefits to those who can prove lawful presence). Still, that the timing and growth of local and state governmental interest in immigration issues are similar reflects a growing sense that immigration issues are appropriate for legislation at the subfederal level.

[43] The National Bureau of Economic Research, a nonprofit economic research organization based in Cambridge, Massachusetts, that is often cited for its research on business cycles, marks this current economic recession as starting in December 2007. *U.S. Business Cycle Expansions and Contractions*, NAT'L BUREAU ECON. RES., http://www.nber.org/cycles/cyclesmain.html (last visited Oct. 28, 2010).

and South Carolina) have high numbers of laws but relatively low numbers of undocumented immigrants.[44]

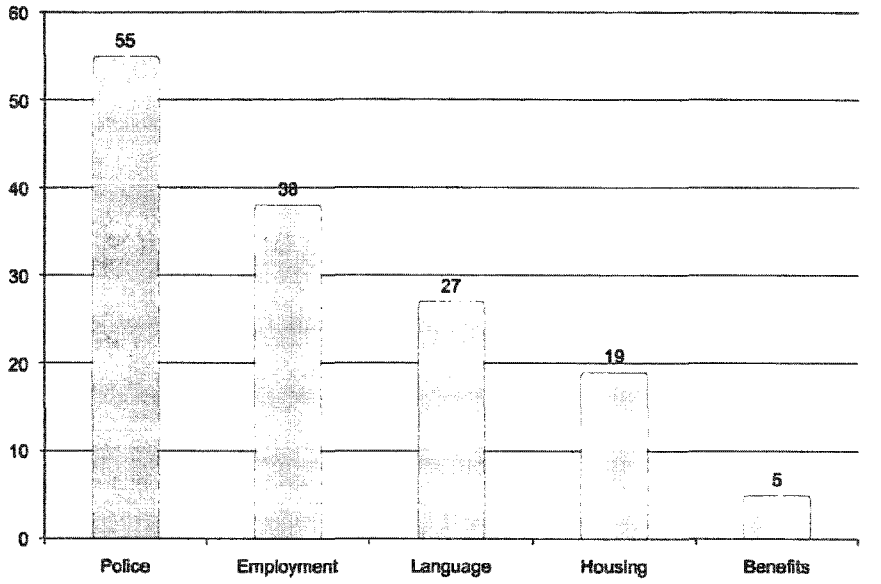
Figure 2. Laws Enacted by Geographical Location



Finally, as illustrated by Figure 3, some categories of laws are more popular than others. Police enforcement laws are by far the most numerous; employment laws are a notable second, followed by language and housing laws in decreasing numbers. Only a handful of jurisdictions have enacted laws restricting government benefits based on immigration status.

[44] JEFFREY S. PASSEL & D'VERA COHN, PEW HISPANIC CTR., A PORTRAIT OF UNAUTHORIZED IMMIGRANTS IN THE UNITED STATES i-ii (2009) [hereinafter PEW UNAUTHORIZED PORTRAIT], *available at* http://pewhispanic.org/files/reports/107.pdf (listing undocumented population by state); *see also* S. Karthick Ramakrishnan & Tom Wong, Immigration Policies Go Local: The Varying Responses of Local Governments to Undocumented Immigration (Nov. 9, 2007) (unpublished manuscript), *available at* http://www.law.berkeley.edu/files/RamakrishnanWongpaperfinal.pdf (finding, in an empirical study, that Republican areas are twice as likely to propose restrictive laws than Democratic areas).

Figure 3. Laws Enacted by Type 2005-2008



1. Police Enforcement Laws

Though there are other federal programs that provide for local police cooperation, we studied 287(g) agreements because they are the most visible form of local involvement in immigration law enforcement and because they actually transfer immigration enforcement authority to state and local police departments.[45] Under agreements that have to be approved by both local and federal authorities, local police officers have direct access to Immigration and Customs Enforcement (ICE) databases and are authorized to act in the place of ICE agents by processing non-citizens for removal. Specifically, local police officers have authority to prepare a notice to appear (that initiates removal proceedings in immigration court) and to transport suspected non-citizens to ICE-approved detention facilities for further processing.[46]

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[45] For more information about other police cooperation programs, see Melissa Keaney & Joan Friedland, *Overview of the Key ICE ACCESS Programs: 287(g), the Criminal Alien Program, and Secure Communities*, NAT'L IMMIGRATION LAW CTR. (Nov. 2009), http://www.nilc.org/immlawpolicy/LocalLaw/ice-access-2009-11-05.pdf.

[46] U.S. GOV'T ACCOUNTABILITY OFFICE, GAO 09-109, IMMIGRATION ENFORCEMENT: BETTER CONTROLS NEEDED OVER PROGRAM AUTHORIZING STATE AND LOCAL ENFORCEMENT OF FEDERAL IMMIGRATION LAWS 7 (2009), *available at* http://www.gao.gov/new.items/d09109.pdf.

When a local police department signs a Memorandum of Agreement with ICE, the two sides agree about the type(s) of immigration enforcement authority that the department will receive. Under the jail enforcement model, local police only have authority to screen for immigration status at local jails, when persons are arrested or convicted of other crimes. Under the broader task force model, police officers working on gang, drug, or other task forces are authorized to screen the immigration status of any individual they arrest during the course of their investigations. And some police departments operate under a joint model, in which both types of authority are exercised concurrently.[47] Before participating, designated officers must receive ICE training and are subject to ICE supervision in their enforcement duties; local police departments are responsible for paying the officers, though the departments may apply for federal grants to pay some of their 287(g)-related costs.[48]

Though the general policy debate about subfederal immigration laws has been discussed previously,[49] it is worth noting here the controversy concerning 287(g) agreements specifically. More than any other subfederal law, 287(g) agreements are lauded by advocates for multiplying the enforcement power of federal immigration authorities. ICE reports that since 2006, the 287(g) program has lead to the identification of over 70,000 individuals who are suspected of being in the country illegally.[50] Congress has expressed its support for the program by steadily increasing its funding: in 2007, the program received $15.5 million in federal funds; in 2008, that amount increased to $39.7 million; and in 2009, Congress provided $54.1 million in federal funding.[51]

But critics charge that the 287(g) program provides cover for local police departments to engage in racial and ethnic profiling. Though the program promotes itself as targeting dangerous criminal aliens,[52] critics

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47 *Id.* at 8.

48 *Id.* at 9.

49 *See supra* notes 29-35 and accompanying text.

50 U.S. IMMIGR. & CUSTOMS ENFORCEMENT, SECURE COMMUNITIES: QUARTERLY REPORT 15 (2009), *available at* http://www.ice.gov/doclib/foia/secure_communities/congressionalstatusreportfy091stquarter.pdf.

51 U.S. GOV'T ACCOUNTABILITY OFFICE, *supra* note 46, at 9.

52 The ICE website states:

> The cross-designation between ICE and state and local patrol officers, detectives, investigators and correctional officers allows these local and state officers necessary resources and latitude to pursue investigations relating to violent crimes, human smuggling, gang/organized crime activity, sexual-related offenses, narcotics smuggling and money laundering. In addition, participating entities are eligible for increased resources and support in more remote geographical locations.

Fact Sheet: Delegation of Immigration Authority Section 287(g) Immigration & Nationality Act, U.S. IMMIGR. & CUSTOMS ENFORCEMENT, http://www.ice.gov/news/library/factsheets/287g.htm (last visited Oct. 28, 2010).

argue that many of those arrested are arrested for minor offenses. For example, in May 2008, 83% of immigrants arrested in Gaston County, North Carolina under its 287(g) program were charged with traffic violations.[53] The General Accountability Office also found that, in the absence of clear federal controls, some jurisdictions were using their 287(g) authority to process individuals arrested for minor offenses such as carrying an open container of alcohol or speeding.[54] When minor offenses are used to trigger removal proceedings, the arrests appear pretextual; instead of measures to control serious crime, the arrests look like excuses to oust unwanted immigrants and to "enforce local practices of racism and racial bigotry."[55]

2. Employment, Housing, and Other Benefit Laws

After police agreements, the most popular local immigration laws are those regulating the distribution of benefits like employment and housing. The laws prohibiting the employment of unauthorized workers have taken different forms: Some jurisdictions require businesses receiving government contracts to certify that they do not hire unauthorized workers,[56] while other jurisdictions require that certification from all businesses as a prerequisite to receiving a business license.[57]

The popularity of employment sanction laws reflects the conventional wisdom that undocumented immigrants come to the United States to work; if this is true, then restrictions on employment should discourage undocumented immigrants from settling in the United States (or at least in the specific jurisdiction with the restriction).[58] Whether the laws are having this effect is just not known, based on current data. As we emphasize in Part III, our analysis of the

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[53] *The Policies and Politics of Local Immigration Enforcement Laws: 287(g) Program in North Carolina*, AM. CIVIL LIBERTIES UNION OF N.C. LEGAL FOUND. & IMMIGRATION & HUMAN RIGHTS POLICY CLINIC, UNIV. OF N.C. AT CHAPEL HILL, 29 (Feb. 2009), http://www.law.unc.edu/documents/clinicalprograms/287gpolicyreview.pdf.

[54] U.S. GOV'T ACCOUNTABILITY OFFICE, *supra* note 46, at 10-11.

[55] Keaney & Friedland, *supra* note 45, at 2.

[56] *See, e.g.*, Sycamore Village, Ohio, Resolution 2007-40 (2007) (imposing financial penalties on vendors who hire undocumented workers and authorizing the township to void those contracts).

[57] *See, e.g.*, Payson, Ariz., Ordinance 709A (Apr. 5, 2007) (requiring all businesses to certify that they do not hire undocumented workers; those who do face a license revocation and fines up to $20,000).

[58] One of the motivating factors for enacting federal employer sanctions was to decrease the "pull" factor of higher-wage jobs that Congress believed was drawing undocumented immigrants to the United States. *See* STAFF OF S. SUBCOMM. ON IMMIGRATION & REFUGEE AFFAIRS OF THE S. COMM. ON THE JUDICIARY, 102D CONG., OPTIONS FOR AN IMPROVED EMPLOYMENT VERIFICATION SYSTEM (Comm. Print 1992).

laws' effect does not track movement of individuals in and out of jurisdictions; nor are we aware of any data that does so. It is worth noting that the ability of federal employer sanctions to discourage undocumented immigration has been severely criticized.[59]

The legal debate surrounding subfederal laws generally has been discussed;[60] it is worth noting here that employer sanction laws are particularly vulnerable to preemption challenges. Congress, in enacting federal employer sanctions in 1986, expressly preempted most subfederal regulation in the area: "The provisions of this section preempt any State or local law imposing civil or criminal sanctions (other than through licensing and similar laws) upon those who employ, or recruit or refer for a fee for employment, unauthorized aliens."[61] The question then is whether particular local employer sanction laws fall within the licensing exception.

On this preemption issue, we have seen mixed rulings. As mentioned previously, the employer sanction law in Hazleton, Pennsylvania that threatened to revoke an employer's business license if the employer hired unauthorized workers was struck down.[62] Even this narrowly crafted law, the federal district court held, was preempted by federal law; because the revocation of a business license would force an employer to go out of business, Congress could not have intended to allow local jurisdictions to enforce this "ultimate sanction" while barring them from imposing other sanctions.[63] On the other hand, the employer sanction law enacted in Valley Park, Missouri, which also threatened to revoke business licenses for the hiring of unauthorized workers, was upheld by a federal district court. According to the court, this law (which essentially operated in the same manner as the Hazleton law) fell into the licensing exception allowed by Congress.[64]

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[59] *See, e.g.*, THOMAS ALEXANDER ALEINIKOFF, DAVID A. MARTIN & HIROSHI MOTOMURA, IMMIGRATION AND CITIZENSHIP: PROCESS AND POLICY 1140 (5th ed. 2003) ("Whatever the goals (and hopes) of the Congress that put the employer sanctions regime in place in 1986, the statutory provisions have plainly failed of their purpose."); U.S. GOV'T ACCOUNTABILITY OFFICE, IMMIGRATION ENFORCEMENT: WEAKNESSES HINDER EMPLOYMENT VERIFICATION AND WORKSITE ENFORCEMENT EFFORTS 21 (2006), *available at* http://www.gao.gov/new.items/d06895t.pdf (warning that "ongoing weaknesses" in the employer sanction system undermine its effectiveness); Huyen Pham, *The Private Enforcement of Immigration Laws*, 96 GEO. L.J. 777, 803-09 (2008) (describing the inability of federal employer sanctions to deter illegal immigration because they are rarely enforced, difficult to prosecute, and often circumvented with fraudulent documents).

[60] *See supra* Part I.A.

[61] 8 U.S.C. § 1324a(h)(2) (2006).

[62] Lozano v. City of Hazleton, 496 F. Supp. 2d 477, 519 (M.D. Pa. 2007), *aff'd in part, vacated in part*, No. 07-3531, 2010 WL 3504538 (3d Cir. Sept. 9, 2010); *see also supra* note 22 and accompanying text.

[63] *Id.*

[64] Gray v. City of Valley Park, No. 4:07CV00881, 2008 WL 294294 (E.D. Mo. Jan. 31, 2008). For more on the *Valley Park* litigation, see *supra* notes 23-24.

The other private benefit that local governments have tried to regulate in the immigration context is access to housing. The essence of these laws is to try to limit rental housing to those with legal immigration status. Although American communities have long used housing restrictions to try to force out "undesirables," the housing laws at issue here are noteworthy in that they link housing to immigration status. In doing so, the laws brought the immigration debate to a new front—access to housing, expanding the traditional discussions about immigrant access to employment, education, and medical care.[65]

Some laws have tied housing access directly to immigration status by requiring landlords to verify the legal immigration status of tenants before renting to them. These laws have received enormous amounts of media attention and have also been ensnarled in lengthy litigation. For example, Farmers Branch, Texas changed its housing ordinance three times, in response to lawsuits; its most recent version, which required tenants to prove legal immigration status in order to obtain mandatory certificates of occupancy, was recently struck down on preemption grounds.[66] Other jurisdictions, such as Valley Park, Missouri, responded to litigation by dropping their verification laws entirely.[67] Currently, only seven of the thirteen verification laws that were initially enacted are actually being enforced.

In addition to these high-profile verification laws, jurisdictions have also enacted other laws that place indirect limits on immigrants' access to housing. A handful of jurisdictions have enacted maximum occupancy laws that limit the number of adults who can live in any particular rental home.[68] Though these laws do not mention immigration status explicitly, we included them in our analysis because we found information linking the laws' enactment with concern about undocumented immigrants (e.g., the law was enacted with other restrictive immigration laws).[69]

Finally, a handful of jurisdictions have limited access to their government benefits based on immigration status. Unlike states, local governments are not rushing to enact laws restricting the distribution of

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[65] *See* Rigel C. Oliveri, *Between a Rock and a Hard Place: Landlords, Latinos, Anti-Illegal Immigrant Ordinances, and Housing Discrimination*, 62 VAND. L. REV 55 (2009) (arguing that because of the special nature of housing, the federal government should intervene to prevent local governments from restricting housing access based on immigration status).

[66] Dianne Solis, *Federal Judge Strikes Down Farmers Branch Ordinance Against Renting to Illegal Immigrants*, DALLAS MORNING NEWS, Mar. 25, 2010, at B1.

[67] *See supra* note 24 and accompanying text.

[68] Acting on the assumption that immigrants, particularly undocumented immigrants, often live together because of economic necessity, these laws seek to limit access to housing by restricting the density of these living arrangements. Examples of maximum occupancy laws include those enacted in Cobb County, Georgia, Cobb County, Ga., Ordinance 134-1 (2007), and East Union, Pennsylvania, East Union, Pa., Ordinance 2008-7 (July 7, 2008).

[69] *See, e.g.*, Gaston, N.C., Resolution 2006-414 (Nov. 9 2006).

their governmental benefits, in large part because cities and counties do not exercise exclusive control over many types of benefits. In Prince William County, Virginia, for example, the restricted benefits include access to homeless assistance, substance abuse counseling, and programs to assist the elderly (including in-home care).[70]

3. English Language Laws

The third type of immigration law that local governments have enacted are language laws that either establish English as the official language[71] or require that all written government transactions be conducted in English only.[72] Like the maximum occupancy laws, the language laws do not directly mention immigrants or immigration. However, we believe that they implicate immigration concerns for several reasons. First, to the extent that the laws prohibit government documents from being translated or government transactions from being conducted in other languages, the laws will have an impact on the lives of immigrants, many of whom do not speak English fluently. Second, and more significantly, the laws send strong anti-immigrant messages. Because those who are most likely to be affected by these laws are immigrants from non-English speaking countries, the laws signal that the enacting jurisdictions are hostile to immigrants and immigrant concerns.[73] That anti-immigrant sentiment is particularly apparent when the language laws are enacted together with other immigration laws like housing and employment restrictions.[74]

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[70] Kristen Mack, *Immigration Initiative is Left Out of Budget: Chairman Says Funds Will Be Found*, WASH. POST, Jan. 22, 2008, at B8; *see also* Prince William County, Va. Resolution 07-894 (Oct. 16, 2007) (listing as Attachment services recommended for restriction based on immigration status).

[71] *See, e.g.*, Dare County, N.C., Resolution 08-04-6 (Apr. 7, 2008).

[72] *See, e.g.*, Carpentersville Village, Ill., Resolution R07-84 (June 19, 2007).

[73] Others have connected English-only laws with anti-immigrant sentiment. *See, e.g.*, Richard Delgado, *The Law of the Noose: A History of Latino Lynching*, 44 HARV. C.R.-C.L. L. REV. 297, 307-08 (2009) (linking English-only laws and anti-bilingual education movements to anti-immigrant fervor); Kevin R. Johnson, *A Handicapped, Not "Sleeping," Giant: The Devastating Impact of the Initiative Process on Latina/o and Immigrant Communities*, 96 CALIF. L. REV. 1259, 1289-90 (2008) (arguing that English-only laws are a form of discrimination against racial minorities and immigrants); Rick Su, *A Localist Reading of Local Immigration Regulations*, 86 N.C. L. REV. 1619 (2008) (suggesting that English-only ordinances have been used to broadcast local resistance to immigrants).

[74] *See, e.g.*, Gilberton, Pa., Illegal Immigration Relief Act Ordinance 2006-7 (Aug. 24, 2006) (enacting employer sanctions, housing restrictions, and English-only law).

B. *Economic Data*

For our analysis, we used economic data from the Census Bureau's CBP database. The CBP's data is collected annually from the nation's employers and provides important information such as payroll size, number of workers employed, and number of business establishments, all broken down by industry and geographic location.[75] So, for example, we can find from the CBP data how many workers were employed by the food services industry in DeKalb County, Illinois in 2006. The CBP is able to provide this high level of detail because much of its information is provided directly through administrative data like tax records, supplemented by surveys of employers.[76] Thus, because it does not depend solely on surveys, which can vary in response rates, the CBP is considered a reliable source of data.

There are, however, some limitations to using CBP data. First, the data is only available eighteen months after the end of the referenced year, so this is the first meaningful opportunity to analyze the effect of local immigration laws that were enacted between 2005 and 2007.[77] Second, though the CBP data includes economic data for agricultural support activities, it does not report data for crop production or harvesting by hand.[78] According to the Pew Hispanic Center, approximately 3.8% of undocumented immigrants work in the agricultural, forestry, and mining industries.[79] Even without further breakdown of the Pew statistic, we can safely conclude that a small number of undocumented immigrants work in the unreported agricultural sectors and are thus not included in CBP data. Finally, the CBP data does not include undocumented immigrants who work for cash and therefore do not show up in tax records. Various sources estimate that 25 to 50% of undocumented workers belong to this category.[80] Still, even with these limitations, the CBP database

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75 *County Business Patterns: About the Data*, U.S. CENSUS BUREAU, http://www.census.gov/econ/cbp/overview.htm (last visited Oct. 28, 2010).

76 *County Business Patterns: Coverage and Methodology*, U.S. CENSUS BUREAU, http://www.census.gov/econ/cbp/methodology.htm (last visited Oct. 28, 2010).

77 *County Business Patterns: About the Data*, *supra* note 75.

78 The agricultural and forestry support industry (NAICS code 115) includes crop harvesting by machine, soil preparation, plowing and fertilizing. *North American Industry Classification System (NAICS): Introduction*, U.S. CENSUS BUREAU, http://www.census.gov/eos/www/naics (last visited Oct. 28, 2010). CBP data also excludes self-employed persons, employees of private households, railroad employees, and most government employees. *County Business Patterns*, U.S. CENSUS BUREAU, http://www.census.gov/econ/cbp/index.html (last visited Oct. 28, 2010).

79 PEW UNAUTHORIZED PORTRAIT, *supra* note 44, at 34.

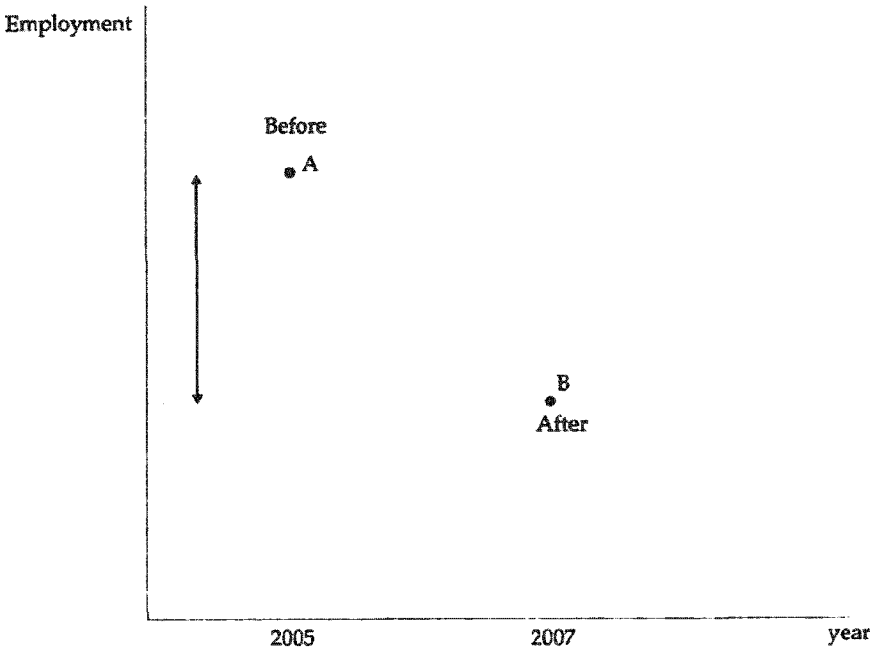
80 *See, e.g.*, CONG. BUDGET OFFICE, THE IMPACT OF UNAUTHORIZED IMMIGRANTS ON THE BUDGETS OF STATE AND LOCAL GOVERNMENTS 6-7 (2007), *available at* http://www.cbo.gov/

provides important, detailed economic information that is the best resource for our analysis.

C. *Statistical Method*

To measure the economic impact of local immigration laws, we used a statistical method called difference-in-difference (DID) estimation. The best way to understand how DID estimation works is to consider alternative approaches. As an illustration, let's say that a county enacted a restrictive law sometime between 2005 and 2007; during this time period, we observe that employment has decreased in that county (in Figure 4, the decrease from point A in 2005 to point B in 2007).

Figure 4. Before-After Analysis of Impact

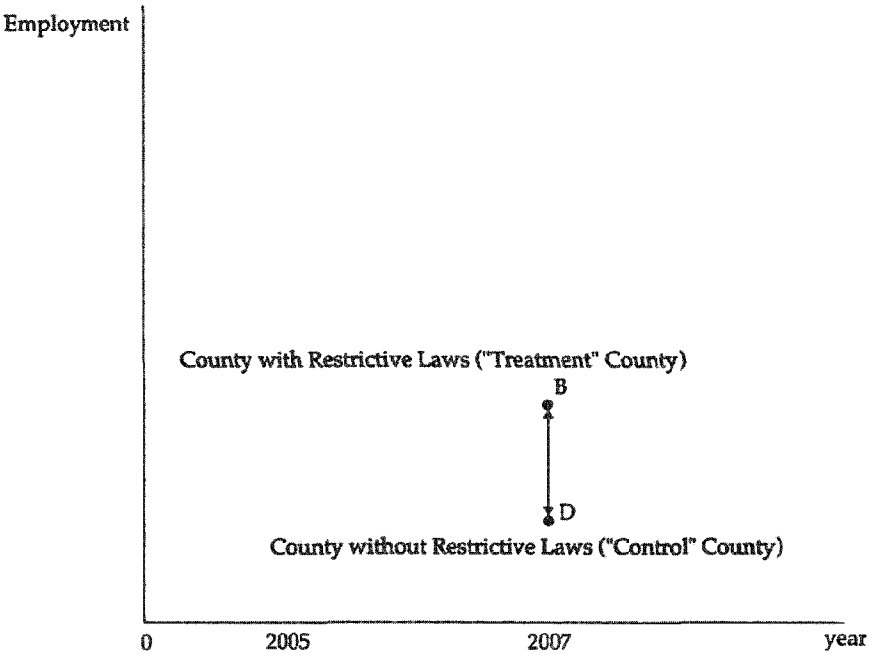


ftpdocs/87xx/doc8711/12-6-Immigration.pdf (citing different sources estimating that 25-50% of undocumented immigrants pay income and payroll taxes); RANDY CAPPS, EVERETT HENDERSON, JEFFERY S. PASSEL & MICHAEL FIX, CIVIC CONTRIBUTIONS: TAXES PAID BY IMMIGRANTS IN THE WASHINGTON, DC, METROPOLITAN AREA 24 (2006), *available at* http://www.urban.org/UploadedPDF/411338_civic_contributions.pdf (estimating that 55% of undocumented immigrants pay income and payroll taxes).

We may be tempted to conclude that the law caused the decrease (perhaps by raising labor costs and causing firms to reduce employment), but as a matter of common sense, we know that macro-trends (e.g., an economic recession) may also explain the decrease in employment.

An alternative approach to measuring the effect of restrictive laws is to compare employment figures of a restrictive county ("treatment county") with those of a non-restrictive county ("control county") at the same point in time. We might observe, for example, that in 2007, employment in the treatment county is higher than in the control county (in Figure 5, the vertical decrease from point B to point D).

Figure 5. Restrictive-Non Restrictive Comparison of Impact

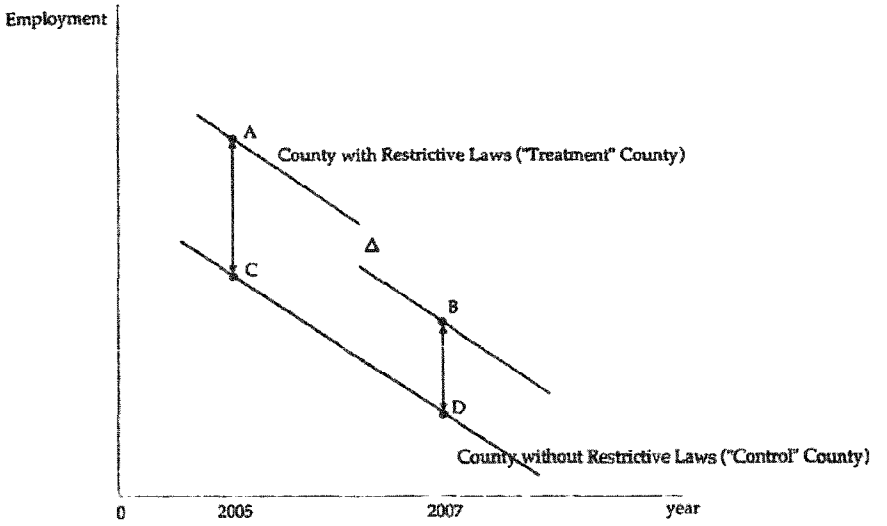


We might be tempted to attribute the different employment numbers to the restrictive law, but again, common sense suggests that the counties could have differing employment numbers for reasons entirely independent of the law (e.g., different sized populations).

The DID estimation method enables us to evaluate the effect of the restrictive laws by controlling for macro trends and for inherent differences across counties. As illustrated in Figure 6 below, DID

estimation introduces a control group (e.g., non-restrictive counties),[81] with the vertical difference between points A and C representing the difference between the two groups of counties in 2005 and the vertical difference between points D and B representing the same difference in 2007. Assuming that any macro shocks would affect all counties equally,[82] the difference in these two differences (BD-AC) captures Δ, the effect of the restrictive law.

Figure 6. Difference-in-Difference (DID) Estimation of Impact



The DID estimation is implemented by the following statistical model:

$$Y_{ct} = \alpha_c + \beta_t + \gamma Restrict_{ct} + e_{ct}$$

In this model, Y_{ct} denotes the economic variable we wish to evaluate observed in county c in year t; α_c represents the county fixed effects that allow us to control for time-invariant differences across counties; β_t are

81 Depending on the exercise, the control group can be defined more narrowly (e.g., non-restrictive counties geographically surrounding a restrictive county or high immigrant industries in non-restrictive counties).

82 The simplifying assumption of equal effect is not true in reality, as recessions or booms affect some counties more than others. But as long as the macro shocks do not affect the control and treatment counties in a systematically different way, then the DID estimation will still be a good estimation of the laws' effect. We also did this analysis for different industry subgroups, *see infra* Part III.C; though recessions and booms affect different industries differently, the same industry in different counties should be similarly affected by macro trends.

the year fixed effects that allow us to control for macro trends that affect all counties equally; $Restrict_{ct}$ is a dummy variable that equals 1 when a county c has enacted a restrictive law in year t; and e_{ct} represents random differences across observations of the economic variable in county c in year t. The coefficient γ is the difference-in-difference estimate of the effect of the restrictive laws on the economic variable Y_{ct}.

In our analysis, we focused specifically on high-immigrant (HI) industries—industries that have traditionally hired large numbers of undocumented immigrants (between 11 and 28% of their workforce).[83] Our intuition was that if these laws do have an economic impact, that impact would be felt in industries that rely, to a large degree, on undocumented workers. We compared high immigrant industries in restrictive counties with high immigrant industries in non-restrictive counties, looking at the variables of employment, payroll, and number of business establishments.

Implementing our statistical model, we ran three different sets of regressions, with Y_{ct} representing: employment in HI industries as a percentage of county total employment; total payroll in HI industries as a percentage of total county payroll; and the number of establishments in HI industries as a percentage of the total number of establishments in the county.

III. FINDINGS

A. *Comparison with All Counties*

In our initial set of regressions, we compared restrictive counties against the control group of all counties. As illustrated by Table 1,[84] the estimated effect of the restrictive laws (γ) on employment is -0.04. This estimate is statistically significant at the 1% level.[85] Our results also

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[83] PEW UNAUTHORIZED PORTRAIT, *supra* note 44, at 32. We matched industry descriptions from the Pew Hispanic Center report to three-digit NAICS industry classifications for which data are available in the County Business Patterns database. For more information on NAICS codes, see *North American Industry Classification System (NAICS): Introduction*, *supra* note 78.

[84] Table 1 gives the ordinary least squares (OLS) regression estimates for the above DID equation for all counties in the U.S. for years 2003-2007. OLS is a common method for regression analysis, formally defined as "a computational method for regression analysis calculating a line that minimizes the sum of the squares of the vertical distance between each actual data point and its predicted value (that is, the point falling on the line)." ROBERT M. LAWLESS, JENNIFER K. ROBBENNOLT & THOMAS S. ULEN, EMPIRICAL METHODS IN LAW 419 (2009). We include economic data from 2003-2004, before restrictive laws were enacted, in order to measure the laws' effect.

[85] Statistical significance refers to the probability that a result occurs by error or chance. So a result that is statistically significant at 5% means that there is a 5% probability that the result

show -0.026 effect on payroll, meaning that on average, the restrictive laws reduced the payroll share of HI industries by 2.6%. And finally, the estimated effect of the laws on the number of establishments is also negative, but very small (-0.002). Neither of these last two estimated effects is statistically significant.

These three results together suggest that restrictive laws have a negative effect on economic activity. However, we have some reason to be skeptical about the magnitude of the effects. Recall that with DID estimation, the key assumptions are that macro trends (like an economic recession) affect all counties in the sample *equally* (county invariant macro trend) and that differences between counties *do not change over time* (time invariant county differences). If these key assumptions do not hold, these regressions may over or understate the effect of the restrictive laws.

For example, suppose that restrictive counties tend to have more construction activity than non-restrictive counties during the period of study. Because the construction industry was one of the hardest hit during this economic recession, restrictive counties would be differently affected by a macro trend like the recession, violating the county invariant macro assumption. Moreover, the differences in economic variables between the two sets of counties would change over time, violating the time invariant county differences assumption. More specifically, in this hypothetical, the disproportionate effect of a construction slow-down in the restrictive counties (that have more construction) would contribute to Δ (the effect of the restrictive laws), though the slow-down is unrelated to the laws' effect.

occurred by error or chance. *See id.* at 426 (defining statistical significance as "the occurrence of a result that falls below the probability at which it is acceptable for a type I error (false positive) to occur; stated differently, a result is statistically significant if the probability of its occurring, referred to as the *p*-value, is less than a predetermined threshold, conventionally 5 percent").

Table 1. Ordinary Least Squares Regression Results for the Sample with All U.S. Counties from 2003-2007

	Establishments	Employment	Payroll
Restrictive County	-0.002	-0.040***	-0.026
	[0.002]	[0.013]	[0.017]
County Fixed Effects	YES	YES	YES
Year Fixed Effects	YES	YES	YES
Observations	15925	15648	15669
R-squared	0.95	0.648	0.691

NOTES: Each column is a separate regression. Independent variable names are in the column header. Robust standard errors are in brackets.

*** significant at 1%

B. *Comparison with Similar Counties*

To better support the DID assumptions of time-invariant county differences and county invariant macro trends, we run regressions using treatment and control counties that are not too fundamentally different from each other. In the following analysis, we perform three variations in our regressions.

Because the average restrictive county (average employment 220,000) is larger than the average non-restrictive county (average employment 15,000),[86] we re-run the analysis excluding control counties with less than 1000 employees and then excluding control counties with less than 10,000 employees ("no small county regressions"). The exclusions enable us to choose control counties that are more equal in size to the restrictive counties, which sharpens the DID estimates.

Also, because geographically proximate counties tend to be similarly affected by macro shocks, we re-run the analysis defining our

86 These are the authors' calculations, based on CBP data.

control group as those non-restrictive counties that share a physical border with restrictive counties ("border county regressions").[87]

Results from these three sets of regressions are shown in Table 2. Qualitatively, these results are similar to the results achieved when using all U.S. counties: Restrictive laws had a negative effect on economic activity, but now the effects are smaller. The estimated effect on employment is now between one and two percent; for the average U.S. county, this translates to about 337 to 675 jobs (40 to 80 jobs for the median county).[88] The estimated effect on payroll is now between 0.8 to 1.9%; and the effect on the number of establishments is negligible. For the no small county regressions, estimates of the effect on establishments, employment, and payroll are now all statistically significant.

[87] By comparing restrictive counties with geographically proximate, non-restrictive counties, these regressions are likely comparing restrictive counties with counties in the same states, reducing the possibility that our analysis is picking up the economic effects of state, rather than local, immigration laws.

[88] According to CBP data, in 2007 average employment in all U.S. counties was about 33,000 (authors' calculation). Two percent of this number is 675.

Table 2. Ordinary Least Squares Regression Results for Different Subsamples of U.S. Counties from 2003-2007

Compared with Border Counties			
	Establishments	Employment	Payroll
Restrictive County	0	-0.021	-0.019
	[0.003]	[0.013]	[0.018]
County Fixed Effects	YES	YES	YES
Year Fixed Effects	YES	YES	YES
Observations	1755	1753	1753
R-squared	0.976	0.782	0.82
Compared with Counties with more than 1,000 Employees			
	Establishments	Employment	Payroll
Restrictive County	-0.004***	-0.020***	-0.008*
	[0.001]	[0.004]	[0.004]
County Fixed Effects	YES	YES	YES
Year Fixed Effects	YES	YES	YES
Observations	12300	12289	12291
R-squared	0.958	0.752	0.791
Compared with Counties with more than 10,000 Employees			
	Establishments	Employment	Payroll
Restrictive County	-0.004***	-0.010**	-0.008**
	[0.001]	[0.004]	[0.004]
County Fixed Effects	YES	YES	YES
Year Fixed Effects	YES	YES	YES
Observations	5440	5437	5437
R-squared	0.949	0.794	0.829

NOTES: Each panel shows regression results with a different set of control counties. Each column is a separate regression. Independent variable names are in the column header. Robust standard errors are in brackets.

* significant at 10%; ** significant at 5%; *** significant at 1%

C. *Comparison Among Industries*

Observing that the laws have an effect on high-immigrant industries generally, we drill deeper to see how the laws affect individual high-immigrant industries. In the following analysis, we calculate the independent variables (Y_{ct}) as: employment in a specific HI industry (e.g., Food Manufacturing or Construction of Buildings) as a percentage of the county total employment; payroll of a specific HI industry as a percentage of the county total payroll; and the number of establishments in a specific HI industry as a percentage of total establishments in the county.

Table 3 shows the results for these industry-specific regressions. Among the high-immigrant industries, there are three discernible groups. For the first group of industries, the laws had a negative but small effect. The biggest decline as a result of the restrictive laws occurred in the Food Services and Drinking Places industry (including restaurants). The estimated effect on employment was a decline of 5.3%, and the estimated effect on payroll was a decline of 2.9%. Both of these estimates are statistically significant. In Administrative and Support Services, employment declined by 0.6% and payroll declined by 0.7%. Construction of Buildings and Specialty Trade Construction (including concrete and mason work) also experienced slightly smaller declines in both employment and payroll.

For the second group of industries, the laws had no or negligibly small effects. This group includes Merchant Wholesalers, Passenger Ground Transport, Support Activities for Agriculture and Forestry,[89] Apparel Manufacturing, and Accommodation.

For the third group of industries, employment and payroll actually increased as a result of the restrictive laws. Food and Beverage Stores saw a 1.0% increase in both employment and payroll and a 0.1% increase in establishments (all statistically significant at 1%). Food Manufacturing, Repair and Maintenance, Personal and Laundry Services, and Heavy and Civil Engineering Construction all saw small increases in employment and payroll as a result of the laws.

These results are interesting for several reasons. First, it is worth noting that HI industries are not uniformly affected by restrictive laws; though they all traditionally hire large numbers of undocumented workers, some industries are gaining employment (though the gain is very small), while others are losing employment (again, the loss is also

[89] As detailed in note 78, this industry includes crop harvesting by machine, soil preparation, plowing and fertilizing. *North American Industry Classification System (NAICS): Introduction*, *supra* note 78.

very small).[90] The gains and losses by different industries may explain why the net employment effect on all HI industries is small. Second, the results suggest the possibility of migrating workers. In addition to the commonly offered hypothesis that the laws are causing workers to move out of restrictive jurisdictions, these results add another possible explanation: that workers are changing industries, rather than jurisdictions.

Table 3. Ordinary Least Squares Regression Results for Individual High-Immigrant Industries from 2003-2007

Industry Name (NAICS Code)	Establishments	Employment	Payroll
Food Services and Drinking Places (722)	0.001	-0.053***	-0.029*
	[0.001]	[0.012]	[0.017]
Administrative and Support Services (includes janitorial) (561)	-0.001**	-0.006*	-0.007***
	[0.001]	[0.003]	[0.002]
Construction: Specialty Trade Contractors (includes concrete, masonry) (238)	0	-0.003*	-0.004**
	[0.001]	[0.001]	[0.002]
Construction of Buildings (236)	-0.001	-0.001*	-0.004***
	[0.001]	[0.001]	[0.001]
Merchant Wholesalers, Durable Goods (423)	-0.001***	0	-0.003**
	[0.000]	[0.001]	[0.001]
Passenger Ground Transport (includes taxis and limousine services) (485)	0.000**	0	0
	[0.000]	[0.000]	[0.000]
Support Activities for Agriculture and Forestry (115)	0	0	-0.001*
	[0.000]	[0.000]	[0.001]
Apparel Manufacturing (315)	0	0	0.001
	[0.000]	[0.001]	[0.000]
Accommodation (721)	0	0.001	0.003*
	[0.000]	[0.001]	[0.002]
Food Manufacturing (311)	0	0.002*	0.003*
	[0.000]	[0.001]	[0.002]
Repair and Maintenance (includes car repair and car washes) (811)	-0.001***	0.003***	0
	[0.000]	[0.001]	[0.001]
Personal and Laundry Services (includes nail salons and dry cleaners) (812)	0	0.003***	0.001***
	[0.000]	[0.000]	[0.000]
Heavy and Civil Engineering Construction (includes highway construction) (237)	0	0.005**	0.004**
	[0.000]	[0.002]	[0.002]
Food and Beverage Stores (445)	0.001***	0.010***	0.011***
	[0.000]	[0.002]	[0.001]

NOTES: Each pair of numbers denotes a separate regression. Independent variable names are in the column header. Robust standard errors are in brackets.

* significant at 10%; ** significant at 5%; *** significant at 1%

[90] Perhaps this differential effect can be explained by varying levels of enforcement within different industries (that is, some industries may be more lax about verifying employees' lawful work status than other industries) or varying enforcement from outside law enforcement (that is, some industries—because of size, concentration, or social visibility—may be subject to more workplace raids or other immigration enforcement than other industries).

D. *Implications*

Looking at the big picture, these results show that restrictive laws have a negative but small effect on industries that traditionally hire large numbers of undocumented workers. Specifically, these industries experience a 1 to 2% decline in employment (translating to a loss of 337 to 675 jobs for the average county, 40 to 80 jobs for the median county), because of the laws. These results are consistent with the supply-side effect that we described earlier: By increasing enforcement and making it more costly for undocumented immigrants to remain in restrictive jurisdictions, the supply of workers has decreased, resulting in higher labor costs and decreased employment.

Decreased employment is also consistent with a demand-side effect, though with a twist. If restrictive laws are making it more costly for employers to hire undocumented workers (either because the employers themselves face penalties or because there are more possible business disruptions resulting from enforcement), then we would expect to see lower employment. However, our industry-specific analysis, showing that some industries gained employment while others lost employment, adds a twist to the conventional demand-side story. Our results suggest that the laws have not increased employer costs uniformly because some industries are actually gaining employment (albeit small gains) as a result of the laws. The industry-specific analysis also complicates the supply side picture: Instead of leaving the restrictive jurisdiction altogether, this analysis suggests that workers may simply be switching to other HI industries.

Finally, we emphasize that the employment decrease we find is likely to include authorized, as well as unauthorized workers. Because our economic data draws from tax records (among other sources), the majority of workers on these payrolls, even in high immigrant industries, are likely to be authorized.[91] Thus, the negative effects that the restrictive laws have on employment, through the channels that we described above, have likely spilled over into the market for authorized workers. Moreover, higher labor costs could also force employers to reduce hiring of authorized workers. Reduction in demand for goods and services from unauthorized workers could also affect the employment of authorized workers.

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[91] For more information on immigration status and tax payments, see *supra* note 80.

CONCLUSION

What is the economic impact of local immigration regulation? This crucial question has been largely ignored in the highly-charged debate about local immigration enforcement. To the extent that economic impact has been discussed, those discussions have been based on assumptions about the effects of the laws, not empirical analysis. Our goal in this Article is to provide that empirical analysis as a meaningful context for the policy debate.

Using difference-in-difference estimation, we found that the laws have a negative but small effect on the economies of the jurisdictions that enact them. Specifically, by running regressions that compare high immigrant industries in restrictive counties to those in non-restrictive counties over time, we found that the laws have a negative effect on employment of 1 to 2%.

Yet the complexity of economic impact cannot be reduced to this sound bite of analysis. In our study, we found that the laws affect specific high-immigrant industries differently; while some industries predictably lost employment as a result of the laws, other industries gained employment. Perhaps more significant to the public debate are the questions that economic analysis cannot answer: What is the immigration status of those losing jobs? Are undocumented immigrants leaving local jurisdictions (or the United States) as a result of the laws? Reliable economic data does not track immigration status, and so contrary to assumptions made by different sides in this debate, we simply do not know the answers to these questions. Undocumented immigrants are almost certainly among those losing jobs as a result of the law, but authorized workers are also likely affected, a negative side-effect of the laws. And unemployed workers may be leaving restrictive jurisdictions for non-restrictive jurisdictions, but as our industry-specific regressions suggest, they may also be switching from certain high-immigrant industries to other high-immigrant industries.

Cities and counties considering the efficacy of local immigration regulation must be able to base their decisions on information, not assumptions. The economic impact of these laws (in its known and unknown parameters) must be carefully weighed with other factors like the monetary costs of enforcement and the effects on community policing programs. With our study of economic impact, we hope to jumpstart that local analysis.