Do Local Anti-Immigration Policies Slow Demographic Change?

Kevin O'Neil, Princeton University

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DISCUSSION DRAFT: Comments welcome to koneil@princeton.edu

In the last decade, more than 200 American municipalities and counties adopted or seriously considered policies intended to control the impact of immigration. These local policies ranged from restrictions on hiring unauthorized immigrants, to immigration enforcement by local police, to declarations of English as the official language. Case studies and media accounts suggest that immigrants, especially Hispanic immigrants, left or avoided these jurisdictions as a result. This paper examines whether these policies have in fact shaped the demographic makeup of these communities, using the ethnicity of students attending local schools as a proxy. Implementing a 287(g) immigration enforcement agreement is associated with substantially smaller increases in the percent of students who are Hispanic two years following the agreement. However, this association appears to result not from the policies alone, but from the interaction of the policies and increasing unemployment. I find no association between local immigration control policies other than a 287(g) agreement and changes in the percent of students who are Hispanic here.

1. Introduction

In the first decade of this century, a number of counties, cities and towns in the United States made laws or implemented policies intended to insulate their communities from the effects of immigration. In most cases these policies had the explicit goal of reducing the number of unauthorized immigrants settling or living in their community. The law passed in Hazleton, Pennsylvania that provided much of the inspiration for such efforts declared that its goal was to allow residents "to be free of the debilitating effects on their economic and social well-being imposed by the influx of illegal aliens." (City of Hazleton 2006)

Some of these laws sought to punish employers for hiring unauthorized workers or landlords for renting housing to unauthorized immigrants. Other policies involved local police in enforcing immigration law. Still others limited the use of foreign languages in civic services and governance or made symbolic declarations bout the use of English in public life. This broad collection of policies, somewhat imperfectly referred to here as "anti-immigration policies¹," embroiled many of these localities in furious political and legal debates over whether it is wise, or even Constitutional, to make immigration policy at the local level.

Media accounts and statements from advocates on either side of the issue give the impression that these laws and policies caused unauthorized immigrants to flee these localities, and perhaps legal immigrants and citizens as well. "Since the law went into effect, we had thousands of illegal aliens leaving the community" boasted one of the architects of a local immigration enforcement policy in Prince William County, VA (McCarren 2010). An immigrant resident in that county agreed that immigrants of all legal statuses were leaving: "A lot of people left their houses; they left their homes with most of their stuff in it. And it came to a point where, in my neighborhood, I only had about two neighbors on the block." (Tarabay 2010)

Similar reports have come from other jurisdictions. A headline in *The New York Times* referring to Riverside, NJ stated succinctly: "Town Battling Illegal Immigration is Emptier Now" (Capuzzo 2006). The article went on to imply that regrets over the exodus of immigrants were partially responsible for the repeal of Riverside's policy—which had not even been implemented at the time of repeal.

There is little quantitative evidence to place these anecdotes in context. The size of the immigrant population and especially the unauthorized immigrant population is difficult to measure precisely at the local level. As a result, local officials tend to use subjective measurements of population makeup. These

¹ The term "anti-immigration policy" is used here only as convenient shorthand for a law or official policy, or proposed law or policy, intended to control some aspect of the impact immigration has on a community. One might argue that many of these policies are not broadly anti-immigration (and are perhaps even supportive of legal immigration), but simply intended to improve immigration law enforcement, to control unauthorized immigration only, or to encourage immigrants to assimilate.

may be especially fallible: immigrants may make themselves less visible to officials, police, and others without actually leaving the area.

Measurement problems aside, it is unclear that a decrease—or drop in growth—in immigrant population in any one community is attributable directly or indirectly to these policies. Absent a more comprehensive assessment of these policies, the changes in any one locality could be produced by particular economic and social conditions unrelated to the immigration policy. Across localities, the effects of national conditions—especially the economic recession and associated slowdown in immigration—might be incorrectly attributed to local immigration policies. A study that assessed the 2007 immigration law in Prince William County, Virginia concluded that while "less than 5000 (not hundreds and not tens of thousands) immigrants" had indeed left that county from 2007 through the end of 2008, it was impossible to disaggregate the effect of the policy and that of economic conditions (Guterbock et al. 2010).

This study assesses the impact of local anti-immigration policies on Hispanic population growth using a nationwide perspective. It does so using a proxy outcome: growth of the Hispanic student population as a proportion of school enrollment. School enrollment data provides a way to precisely measure year to year changes in population makeup. It does not allow measurement of the immigrant population, or even of the full Hispanic population. However, because a large proportion of new immigrants (and especially unauthorized immigrants) are Hispanic and have children, this measure provides a useful, albeit indirect, indicator of the effects local anti-immigration policies are having on the larger immigrant population, as well as the broader Hispanic population.

My results show that 287(g) agreements, which deputize local police to enforce federal immigration laws, may have reduced net growth of the Hispanic share of the student population. However, this effect occurred beginning two years after these agreements were implemented and only in conjunction with rising unemployment.

On the other hand, passing other types of anti-immigration policies does not appear to reduce the growth of Hispanics as a share of all students. Considering anti-immigration policies, but not passing them, was also not associated with smaller increases in the Hispanic share of the student population.

These results fail to support the hypothesis that, in general, anti-immigration policies other than 287(g) agreements slow Hispanic population growth. 287(g) policies, on the other hand, appear to have some impact on Hispanic population growth, but this effect is moderated by local employment markets. Rather, 287(g) policies apparently combine with deteriorating economic conditions to slow the growth of the Hispanic student population.

Following this introduction, Section 2 discusses the anti-immigration policies under consideration, reviews existing evidence on their demographic impacts and places this analysis in a national demographic and economic context. Section 3 describes the data, discusses the problem of geographic unit of analysis and proposes the key hypothesis. Section 4 presents descriptive results comparing mean changes in population makeup in school districts that were affected by anti-immigration policies with a set of matched controls that were not. Section 5 builds on these descriptive results to elaborate formal

models for hypothesis testing. Section 6 presents the results and Section 7 concludes with thoughts on the policy implications of the results.

2. Context and Existing Research

2.1 History and Types of Policies Seeking to Control Immigration

Until early 2006, few localities had ever attempted to regulate immigration. In the spring of that year, the Riverside, California city council considered a proposal for an aggressive anti-immigration policy. The initiative would have declared English to be the town's official language, required landlords to verify the immigration status of their tenants and created penalties for hiring unauthorized workers, among other actions.

The Riverside initiative failed, but much of the proposal's language was taken up and passed into law in July of 2006, in Hazleton Pennsylvania. The passage of that law—unprecedented in its scope and severity—provoked extensive national media attention. It also set off an apparent flurry of copycat laws: newspapers reported imprecisely that "at least 80 town and cities" considered similar laws and that "as many as 100 other towns" had passed them in the months that followed (Preston 2007; Hurdle 2007).

An injuction stopped implementation of most parts of Hazleton's policy while the federal district court debated its legality. Many of the other towns and counties that had been considering passing similar laws tabled or abandoned their efforts to await the results of the Hazleton lawsuit. Others did pass similar ordinances, and some of these jurisdictions found themselves embroiled in lawsuits as well.

Most aspects of Hazleton's lawsuit were indeed found unconstitutional in July of 2007, a decision that has thus far been successfully upheld. Successful proposals for local laws based on the Riverside/Hazleton format became less common after the 2007 court ruling, but several examples of similar policies exist. In June of 2010, voters in Fremont, Nebraska approved a proposal for a policy that would require residents to obtain a permit to rent housing and mandate that the town's employers use the federal "e-Verify" database to verify employment eligibility.

Other localities targeted only the employment of unauthorized workers, often by requiring businesses or subsets of business to take additional steps to verify that their employees were work-eligible. A number of localities sought to prohibit day laborers from soliciting work in public places.

Other than employment and housing, the other major approach to controlling immigration at the local level involved the enforcement of federal immigration laws by local police. Most, but not all, communities that took this route did so under "287(g)," a federal program that trains and deputizes state and local law enforcement agencies to enforce immigration laws. Originally authorized by Congress in 1996, the program did not begin enrolling participating agencies until 2002.

Finally, a number of localities took actions whose effects were largely symbolic. "Official language" or "English only" laws prohibiting the use of other languages in certain government functions were

popular, but often had little demonstrated practical effect on immigrants: in part this was because many critical bilingual services were either protected by federal law or exempted from the laws.

A number of localities also prohibited providing government services to unauthorized immigrants. These measures, too, seemed to have little practical impact: federal law already prohibits unauthorized immigrants from receiving federal and state benefits welfare, and access to the locally controlled services that immigrants make most use of—primary education and emergency health care—are protected by federal law or jurisprudence.

Even for the most muscular of these policies, it is often difficult to assess to what degree they were implemented. Some, like Hazleton's, were blocked by court injunction. It appears that an unknown number of others once passed were never implemented by local executives who were fearful of lawsuits or simply uninterested in strongly enforcing the laws once the political fury surrounding the law's passage had calmed.

I thus have no data on the degree to which most anti-immigration policies were actually implemented. The notable exception is the 287(g) agreements: although different local agencies may be more or less aggressive in enforcing immigration law once enrolled, this federal program requires an extensive application process and a baseline of participation by the local enforcement agency in training and reporting (Capps et al. 2011).

2.2 Characteristics of Communities with Anti-Immigration Policies

Two studies have investigated what characteristics may predispose localities to consider, pass and/or implement anti-immigration policies. Hopkins (forthcoming) finds that Census places (a geographic entity usually corresponding to a municipality) that considered anti-immigration ordinances are more populous, and faster growing than Census places in general. They also had higher proportions foreign born in 2000 and faster growth of the foreign born population from 1990 to 2000. In multivariate analysis, the change in proportion foreign-born from 1990 to 2000 positively predicts an anti-immigration policy proposal, as does growth of the unemployment rate in those places with higher proportions foreign born.

Ramakrishnan and Wong (2008), in multivariate analysis of Census places, also find associations between the risk of an anti-immigration policy proposal on one hand and the proportion of votes cast for the Republican Presidential candidate and the black poverty rate relative to that of Latinos on the other. Conditional on proposing an anti-immigration policy, passing a restrictive policy is positively associated with Republican electoral support and the growth rate of the Latino population.

2.3 Impact

Relatively little social science scholarship addresses the impacts of sub-national anti-immigration policies. Pham and Van (Forthcoming) study effects of local anti-immigration policies (at both the town and county level) on county-level employment. Their study estimates that passing an anti-immigration law between 2005 and 2007 was associated with 1% to 2% lower employment in that county in that

year. Some immigrant-dominated industries appeared to be especially hard hit, while others appeared to benefit. Anti-immigration policies were associated with a 5.3% decline in employment in the food services and restaurant business, but with gains of around 1% in other immigrant-dominated industries. The authors interpreted this last observation as a sign that some immigrants in these counties might be switching sectors of employment in response to the policies, while others were leaving.

Pham and Van provide important evidence to support the hypothesis that anti-immigration policies have an effect on the employment of immigrants. However, their analysis warrants some qualifications that are relevant to this paper. First and most importantly, macroeconomic changes might not impact the various sets of comparison counties used in the analysis in the same way as the counties where policies were implemented². If the counties passing anti-immigration laws suffered disproportionately large declines employment for other reasons, for example, these results could overstate the effects of the policies. Declining employment growth could even be a cause of, rather than a result of, antiimmigration policies. Second, the outcome is measured at the county level, while many of the policies were enacted at the sub-county level. Third, the analysis looks at the employment effects of policies only in the year the policy was enacted, without considering effects in later years. Fourth, the analysis in Pham and Van looks at employment and does not attempt to assess changes in population.

Guterbock, et al. (2010) study a package of local policies, including a 287(g) agreement, implemented by Prince William County, Virginia in 2007. They conclude that the number of unauthorized immigrant residents declined by "probably by no more than 5,000 persons overall, but certainly by more than a thousand" between 2006 and 2008. This conclusion was based primarily on estimates from the American Community Survey showing that the number of Hispanic non-citizens had dropped by 7,700 persons—about 22% of the estimated 2006 Hispanic non-citizen population—between 2006 and 2008. Further, a disproportionate share of this decrease was in the single male Hispanic population. This led to the authors' assertion that the county's Hispanic population composition had shifted as a result of the policy, away from young, male, limited English proficiency (and presumably unauthorized immigrant) noncitizens toward more established Hispanic immigrants and natives.

The overall Hispanic population in Prince William County grew by 3.8% between 2006 and 2009, while the Hispanic population of the Washington DC metropolitan area grew by 18.8% in the same period, according to ACS estimates. The proportion of non-citizens and Limited English Proficient immigrants among Hispanics also dropped between 2006 and 2008 in the ACS estimates for Prince William County, but not in estimates for other counties in the region (Guterbock et al. 2010). The evaluation also noted that the percent of enrolled schoolchildren in Prince William counties declined between the school year beginning in 2007 and in 2008, after years of steady increase. However, Hispanic school enrollments partially recovered in 2009. Assessments of the county's desirability as a place to live fell among Hispanics, but remained stable for other groups.

Two limitations are inherent to any study of a single case and to estimates from survey data. First, the possibility that the policy in question distorted responses to the ACS in Prince William County, by

² The comparison counties used by Pham and Van are all counties, large-population counties, and counties bordering counties with an anti-immigration policy.

discouraging respondents from responding at all or from reporting non-citizen status or limited English proficiency deserves consideration. Second, the authors note that it is impossible to fully disentangle the effects of the policy on immigrant and Hispanic populations from that of economic conditions within a single case (Guterbock et al. 2010).

A multi-site evaluation of the 287(g) program in counties in Virginia (including Prince William County), Georgia, and Maryland by the Migration Policy Institute cautiously supported the hypothesis that 287(g) programs led immigrants to leave communities that implemented them (Capps et al. 2011). That study noted that counties that implemented 287(g) in 2007 and 2008 had lost of up to 61% of their Hispanic non-citizen populations between the 2007 and 2009 ACS estimates, while that population continued to grow in the ACS estimates for most neighboring counties that did not start 287(g) agreements. That study also found that the growth of Hispanic school enrollments slowed and in some cases declined slightly in the two years following implementation of 287(g) agreements, before rebounding in 2009. The school districts of counties that did not implement 287(g) agreements, by comparison, saw more steady growth of their enrolled Hispanic student populations.

Analysis at the state level has also provided evidence of important effects from immigration-related policies on population composition. Lofstrom, Bohn, and Raphael (2011) estimate that Arizona's 2007 state employer sanctions law reduced the proportion of persons who were foreign-born Hispanics by about 2.7 percentage points between 2007 and 2009, relative to a weighted set of control states matched on the changes in proportion foreign-born in previous years³. They estimate a 1.4 percentage point decline in the percent of children under age 16 who are foreign-born Hispanics as a result of the law.

2.4 National Economic and Immigration Context

A few important demographic and economic changes preceded and accompanied the burst of antiimmigration ordinances in the past decade. The first was the robust growth of the foreign-born population of the United States, boosting it from 7.9 percent of the population in 1990 to 12.5 percent of the population in 2006 according to ACS estimates. A second was the extraordinary dispersal of the foreign-born population and especially the Hispanic foreign-born population, towards suburbs, smaller cities and the states of the South and Midwest accompanied this growth, creating "new immigrant destinations" (Parrado and Kandel 2008).

The growth of the foreign-born population began to slow beginning in 2005, largely due to a slowdown in growth of the unauthorized immigrant population (Passel and Cohn 2009b). In fact, the estimated Mexican-origin unauthorized immigrant population actually began to decline slightly after 2007 (Passel and Cohn 2008). This apparently resulted from a reduction in the number of Mexicans entering the United States, while departures continued at a relatively steady rate.

³ Note that this reference does not investigate Arizona's more widely known immigration enforcement law, signed in 2010.

Changes in immigration were driven in large part by changes in macroeconomic conditions. A minor recession at the beginning of the decade was followed by a major national recession officially beginning in December of 2007. As in other downturns, the Hispanic unemployment rate rose further and showed notable increases earlier than did the overall employment rate (see Figure1). Hispanic unemployment rates began a secular growth trend in 2007, after declining and drawing close to the overall national unemployment rate in 2006. Modest declines in the size of the Hispanic workforce and more precipitous declines in construction-sector employment—a major source of employment for unskilled Hispanic immigrants—began shortly thereafter (see Figure 2).

3. Hypotheses, Data and Analytic Strategy

3.1 Hypotheses

This analysis tests two hypotheses. The first, primary hypothesis is that jurisdictions considering or passing anti-immigration ordinances experienced slower growth (or declines) in their Hispanic populations than would have been the case without such a policy. There are a number of reasons to expect this demographic response, and they vary according to the type of policy proposal, and whether it was implemented, passed or merely considered.

Even in cases where a policy was considered, but never passed or implemented, the controversy surrounding the policy proposal may make immigrants and/or Hispanics feel unwelcome or anticipate discrimination, causing them to leave the area or refrain from settling there in the first place. In cases where policies are passed and/or implemented, unauthorized immigrants may credibly fear apprehension, deportation, or difficulty in finding a job as a direct result. Authorized immigrants and Hispanic natives, too, may fear being mistakenly affected by the policy or feel the impact indirectly through unauthorized friends and family. The media accounts cited at the beginning of the paper make the potential for such an indirect effect clear.

However, there are also reasons to expect that population movements would not respond to local policies. Unauthorized immigrants are already at risk of apprehension and face barriers to employment under federal law. Immigration flows have been shown to follow employment and other economic opportunities, as well as social networks, while resisting many efforts to stop or control them (Massey et al. 1998; Massey, Durand, and Malone 2002; Donato, Durand, and Massey 1992).

This leads to my second hypothesis: that Hispanic population growth slows (or even declines) as a result of anti-immigration policies, but only when local economic conditions are deteriorating. In places where there are ample and attractive employment opportunities, immigrants (and their employers) may be willing to overlook legal risks and/or discrimination. When economic conditions deteriorate, however, immigrants (or Hispanics) may be less willing to move into or stay in a hostile local environment. This hypothesis is motivated, too, by the need to include in the analysis the impact of the historic deterioration of the US economy in the years immediately following most of the local policies.

I consider all proposals that entered official debate before a local government body, whether they passed or not, for two reasons. First, even the threat of an anti-immigration ordinance and the campaign to pass it may have an intimidating effect on Hispanic residents, as discussed above. Secondly,

in many jurisdictions where there was strong support for the most aggressive policies, legislative bodies tabled the proposal awaiting the outcomes of litigation in Hazleton and elsewhere. In other places, policies were passed but it cannot be readily confirmed whether they were actually enforced. The substantive difference between an unpassed and passed proposal is thus not clear *ex ante*.

In hypothesis testing, I distinguish between three types of policy proposals, while referring in the text to all three types as "policies": those that passed (excluding 287(g) programs), those that did not, and 287(g) programs. The 287(g) programs are separated for two reasons. As a federal-local collaboration, 287(g) agreements represent a distinct and popular approach to regulating immigration at the local level. 287(g) agreements are the only type of program for which implementation can be broadly confirmed. I consider only those 287(g) agreements involving local law enforcement and only those where the agreement allows the local agency to investigate immigration status prior to arrest for other reason—a more controversial aspect of the program. 287(g) agreements with state police and "jailhouse enforcement only" arrangements are thus not considered here.

3.2 Key Predictor Variable: Laws and Policies

The primary source information on local immigration ordinances was a full-text search of the Dow Jones Factiva database of US newspapers for a set of keywords commonly associated with local efforts to control immigration, during the period from January 1, 2000 to December 1, 2009. The Factiva database contains articles from 605 major and minor US newspapers, as well as Reuters and Associated Press newswires.

In addition, lists of proposed policies were also obtained from the Fair Immigration Reform Movement (FIRM) and the Latino Justice PRLDEF, as well as the websites of organizations representing different political perspectives on immigration: the American Civil Liberties Union (ACLU) and Mexican American Legal Defense and Education Fund (MALDEF), the Immigration Reform Law Institute, US English, and ProEnglish (LatinoJustice PRLDEF n d; Fair Immigration Reform Movement 2007).⁴ A list of successful applications to the federal government's 287(g) program was obtained from the Immigration and Customs Enforcement website (US Immigration and Customs Enforcement 2008).⁵

Importantly, only policy proposals that received serious, formal, consideration by a public government body were included in this analysis. Policies that were suggested by citizens but not introduced into formal debate as concrete, actionable proposals were not included. Each proposal and its outcome (whether it was passed into law or not) was then confirmed through newspaper accounts or public records and the month it was first formally proposed was recorded.

⁴ Latino Justice PRLDEF, ACLU and MALDEF litigate against local anti-immigration policies, while FIRM is an umbrella organization of immigrant advocacy organizations. The Immigration Reform Law Institute (a branch of the Fair Immigration Reform Movement) advocates and litigates in favor of legislation to reduce immigration, while US English and ProEnglish advocate on behalf of official English legislation.

⁵ Note that I tabulate each jurisdiction with an agency participating in a 287(g) agreement as a separate policy. More than one agency can participate in a single agreement, thus the number of 287(g) policies counted here is not equal to the number of 287(g) agreements actually signed.

Each proposal was then tied to the county (for county-level jurisdictions), Census place or county subdivision (for sub-county jurisdictions) containing the jurisdiction and coded for the year in which they passed. The search yielded 259 proposed polices considered by localities from 2000 to late 2009, representing 215 distinct jurisdictions.

3.3 Additional and Control Variables

One critical objective of this exercise is to separate the effects of changing local employment conditions from those anti-immigration policies. County-level unemployment data was obtained from the US Bureau of Labor Statistics. Additional county and school district-level demographic data, presented to provide context and in creating matched control groups but not used in hypothesis testing, are from the 2000 and 1990 Census summary file estimates.

3.4 Dependent variables: Hispanic and overall student population

Estimating year-to-year changes in population composition for counties and sub-county jurisdictions presents a challenge. The sampling design of the Current Population Survey does not allow for sub-state estimates. The most commonly used source of year-to-year demographic estimates for localities, the American Community Survey, is only available for geographic areas with population of 65,000 persons or more. Even at this level, precise estimates are not possible. The 90% confidence bounds for single-year estimates of the foreign-born population at the county level average more than 30% of the estimated local foreign-born population. To produce yearly population estimates from the ACS, the Census Bureau also uses information other than responses to that year's survey, including survey responses from previous years, new housing starts and housing vacancy rates, among other variables (Schechter 2010:11-10). These factors limit the ACS's utility for evaluating short-term changes in population composition at the local level. Additionally, there exists the possibility that anti-immigration laws, or the clamor surrounding them, may lead immigrants to fail to respond to the ACS at higher rates or to selectively change their answers.

Administrative data from local schools provides an alternative data source. Each year, the US Department of Education collects data on school districts and schools from the states. While this data does not include the place of birth of either students or their parents, it does include the Hispanic ethnicity status of students as reported by the school district. This data comes close to a census of the US primary and secondary school student population, allowing more precise statistical tests and estimates for smaller geographical units. Unlike the American Community Survey and other population surveys, there is less possibility for bias from additional survey nonresponse that might be introduced when Hispanics or immigrants are intimidated by a local anti-immigration policy.

The Department of Education does not specify a method for establishing whether a student is Hispanic or not, leaving states and school districts to report based on their own methods. School districts are required to report their student populations as of October of each year. For the purposes of this analysis, only unified school districts that participated in the Census's School District Demographics System were used. This limits the sampled universe to school districts that had a specific geographic coverage area and excludes some private schools and specialized education agencies, as well as school districts created after the 2000 Census.

Although certainly not a perfect proxy, changes in size of the Hispanic student population provide useful information about the Hispanic, foreign-born and unauthorized immigrant populations. In the 2000 US Census, 45.5% of the foreign-born were Hispanic, while 40.2% of Hispanics were foreign-born. In 2000, the correlation coefficient between the proportion of people who were foreign-born in a county subdivision, for example, and proportion of students who were Hispanic in that subdivision was 0.58 About half of unauthorized immigrants are estimated to be couples with children. About 6.8% of the country's K-12 students were estimated to have at least one unauthorized parent (Passel and Cohn 2009a).

I use year-to-year point change in the percent of students who are Hispanic as my key dependent variable. The growth rate of the Hispanic student population, expressed as a percent change, would provide an arguably more intuitive and familiar measure. However, growth rates depend on the base population: school districts with only a few Hispanic children can thus have huge percent changes resulting from very small changes in the population composition itself. As a result, linear statistical models do a poor job predicting untransformed year-to-year growth rates in applications such as this one. The year-to-year percent point change in percent Hispanic thus provides a more substantively meaningful and easily modeled outcome.

3.5 Unit of analysis

The unit of analysis used here is the school district, the smallest unit of analysis for which yearly ethnicity data for the enrolled student population is available. School districts are thus coded as having been affected by an anti-immigration policy proposal if they intersect or are contained by a county or municipality that proposed such a policy. Analyzing population change at the school district level thus allows for some study of sub-county variation. This has two advantages. First, it allows the study of the impact of municipal (sub-county) level policies and county-level policies simultaneously. Second, because the foreign born (and Hispanic) population tends to be clustered, choosing a sub-county unit of analysis provides a more sensitive measure of changes in population makeup. Some school districts are county-wide—in these cases, the school district offers no additional information about sub-county variations in population makeup.

At the same time, this unit of analysis presents some difficulties. School districts vary greatly in geographic and population size across the country, and counties contain a widely varying number of school districts. Thus, a naïve analysis using the school district as the unit analysis could be disproportionately influenced by large counties containing many school districts (Los Angeles County, California, for example), relative to an analysis using the county as the unit of analysis. In general, county-level policies will also generally have more influence on the results than sub-county level ordinances simply because counties contain more school districts on average. Accordingly, in robustness testing I repeat my analysis excluding the few counties containing more than 40 school districts.

4. Exploratory Analysis: Strategies and Results

I begin by comparing the mean year-to-year change in percent Hispanic in school districts affected by anti-immigration policies against that in districts that were not affected by such a policy.

4.1 Creating matched comparison groups

In order to make a meaningful comparison between the school districts that were affected by antiimmigration policies, and those that were not, I first construct a set of matched school districts with comparable characteristics. This matching process is necessary because localities within the United States are extremely heterogeneous with respect to the ethnicity and place of birth of their populations. Many areas of the country have large and/or quickly growing Hispanic or foreign-born populations, while the majority of counties and municipalities have almost no immigrants or Hispanics. Prior research (Hopkins forthcoming; Ramakrishnan and Wong 2008) shows that places with no foreign born population and a slowly-growing foreign-born population are at extremely low risk of proposing an antiimmigration ordinance. These places constitute a large proportion of US school districts and are largely irrelevant to the analysis.

The comparison population was created by matching the localities that were not affected by any antiimmigration policies (cases) with those that were affected by the relevant type of anti-immigration policy (controls) using three variables: percent of population foreign born in 2000, percent Hispanic of the student population in 2000, and change in the percent Hispanic of the student population between 1999 and 2000. Observations were grouped according to values of each variable, with cutpoints at the highest fifth percentile, tenth percentile, twenty-fifth percentile, and median of each variable. This division of three variables into five distinct categories created 125 distinct cells.

Observations in cells containing no cases were dropped from the analysis sample. Control observations in cells that contained cases were retained, and assigned a weight equal to the ratio of cases to controls within that cell. Cases, on the other hand, have a weight of one. Thus, for the purposes of generating weighted estimates of means or weighted regressions, the controls in each cell have a total weight equal to that of the total number of cases in that cell.

This matching and weighting process was performed separately for each of the three categories of antiimmigration policy proposals (all proposed policies, those that did not pass, those that did pass, and 287(g) policies) for both school districts and counties using the "coarsened exact matching" package for STATA (Blackwell et al. 2009) It produces control populations whose weighted characteristics closely resemble their case populations on the three variables used for matching, as well as other variables. (See Table 2). Most importantly, the weighted control groups have no statistically different mean changes in percent Hispanic between 2000 and 2004 from their respective case groups, indicating that they had similar growth trajectories even after the time period used for matching. There were statistically significant differences, however, in unemployment rates and changes in unemployment rates between the control and case groups, although the groups were still quite similar relative to the entire population of school districts unaffected by such policies (Table 2.)

4.2 Results: Comparing means

Figure 3 presents the mean change from the previous year in the percent of students who are Hispanic for the years 2000 to 2008, for districts that were affected by an anti-immigration policy proposal that was not passed into law and a set of matched, weighted control school districts. Separate charts are presented for districts whose policies were proposed in each of the years 2005 to 2008, although the comparison group in each chart is the full set of control counties, matched to districts affected by unpassed policies in all years. Figures 4 and 5 do the same, but for districts affected by anti-immigrant policies that were actually passed and for 287(g) programs, respectively.

As Figure 3 shows, the mean proportion of students who were Hispanic grew steadily from 2000 to 2006 in districts affected by unpassed anti-immigration policies and their control group. For districts with policies proposed in 2006, 2007, and 2008 and the control group, the share of students who were Hispanic rose between around 0.5 and 1.0 percentage points each year in that period. The exception was where an unpassed policy was proposed in 2005—in that group of districts, the proportion of students who were Hispanics remained essentially unchanged across the 2000 to 2008 period.

The mean year-to-year change in the proportion Hispanic remains positive, but does decline from 2005 to 2008 in the districts where policies were proposed but not passed in 2006, 2007, and 2008 (Figure 3). However, there is no clear indication that these unpassed policies are responsible for the slowdown: the control group of districts also saw annual increase in the Hispanic share of student decline after 2005. Further, the relationship between the timing of the proposal and the beginning of the slowdown in gains in Hispanic population share varies.

Figure 4 presents the mean year-to-year change in percent Hispanic for districts affected by policies that passed, as well as the matched control group. In this case, the subjective pattern lends some support to the claim that changes in student population makeup are related to anti-immigration policies. For policies passed in 2005, 2006, and 2007, there are decreases in the mean year-to-year change in percent Hispanic, beginning in the same year, or the year before, the policy was passed. These decreases are sizeable—half a percentage point or more—and not observed in the matched control school districts.

The districts affected by 287(g) agreements, presented in Figure 5, show still more dramatic drops in the mean year-to-year increase in percent of students who are Hispanic. In the case of 287(g) agreements signed in 2005, 2006 and 2007, the mean annual increase in percent Hispanic drops peaks at above one percent per year before the 287(g) agreement. After the 287(g) agreements, the mean change in percent Hispanic then drops to near or below 0 percent per year by 2008. Although the control group also sees a decline in the mean year-to-year increase in the Hispanic share of their student bodies after 2003, the decline is more gradual and smaller.

However, while the districts affected by 287(g) agreements undergo dramatic swings in their annual change in Hispanic share, the relationship between the timing of those drops and the 287(g) agreements is unclear. For agreements made in 2005, the decrease in year-to-year changes in the Hispanic share does not begin until a year later. For those made in 2007 and 2008, the decrease begins a year and two years (respectively) before the 287(g) agreements.

The expected relationship between the enaction of an anti-immigration policy and any impact it has on population changes is unclear—a policy might take time to take effect, or immigrants might anticipate a policy or be affected by the controversy preceding it. Further, another aspect of timing complicates this analysis. The two year-long periods ending in October of 2007 and October of 2008 are a critical part of the evidence that 287(g) agreements had an impact on the growth of the Hispanic student population. However, in employment conditions began to weaken for Hispanics beginning in 2007. In October of 2006, nationwide Hispanic unemployment was 4.4%, extremely low. It increased to 5.3% by October of 2007 and reached 8.4% in October of 2008.

A subjective look at changes in the student populations in districts that were affected by the three types of anti-immigration policies thus provides some evidence that passed anti-immigration policies might be associated with modest slowdowns in the growth of the Hispanic population as a proportion of the overall student population. 287(g) agreements may be associated with even greater decreases. However, in both cases I cannot distinguish between the impact of the law and those of the economy or other factors with only descriptive results.

5. Formal Modeling

The descriptive results suggest that certain types of anti-immigration policies may slow Hispanic population growth, but fail to rule out the possibility that economic changes (or another factor) are responsible. Although growth of the Hispanic student population slowed much more in the typical district affected by a 287(g) agreement than in the matched control group, for example, the affected districts had slightly larger increases in unemployment rates in the critical years (see Table 2). The first task in this section is thus to develop a formal model that accounts for the impact of local economic conditions, in order to rule out a competing explanation.

There is also the possibility that changes in economic conditions may be similar across the different types of districts, but that employment changes may have a much larger impact on growth of the Hispanic population in the districts affected by anti-immigration policies than in other districts. This hypothesis suggests that anti-immigration policies may make immigrants less likely to settle or stay in an area, but only when the draw of employment opportunities is weak. I thus also elaborate a second model that adds a term for the interaction between policy and the unemployment rates, allowing the effects of changes in the unemployment rate to differ between districts affected by policies and the matched controls.

5.1 Estimating Effects of Anti-Immigration Policies

To test my primary hypothesis—that an anti-immigration ordinance slows the growth of Hispanics as a percent of the enrolled student population—I estimate the following equation 5.1.

$$Y_{t,i} - Y_{t-1,i} = \alpha_i + \beta_{POLICIES} POLICIES_{t,i} + \gamma YEAR_t + \delta X_{t,i} + \epsilon_{t,i}$$
[5.1]

Where $Y_{t,i} - Y_{t-1,i}$ is the point change in percent Hispanic for district *i*'s (or county *i*'s) student population from the previous year to the year *t*, measured in October of each year. α_i is a district (or

county)-specific fixed effect parameter. This term's role in the model can be thought of as measuring the influence of time-invariant characteristics of district *i* on $Y_{t,i} - Y_{t-1,i}$.

The term $POLICIES_{t,i}$ is a vector of four dummy variables $POLICY_{t,i}$, $POLICY_{t-1,i}$, $POLICY_{t-2,i}$, $POLICY_{t-2,i}$ coded 1 if a school district (or county) had been affected by the relevant type of policy in the year of the observation (*year t*), the previous year (*t*-1), two or more years previous (*<t*-2), respectively, and coded 0 otherwise. These variables are changed to match the relevant type of policy being tested.

 $X_{t,i}$ is a vector of time-varying control variables for each school district. These include the Hispanic share of students in year t-1, the growth rate, in percent, of the non-Hispanic student population between year t-1 and year t, the county-level unemployment rate in year t-1, and the percent point change in the county-level unemployment rate between year t-1 and year t.

YEAR_t is a vector of dummy variables indicating which year the observation was taken in. Year 2001 is the excluded category.

As described above, the equation is repeated separately for the three categories of anti-immigration policies being tested—policies that did not pass, passed policies, and 287(g) policies. The equation is estimated for district-year (or county-year) observations taken yearly from 2001 to 2008.

In each case, I estimate the regression on an analytic sample that consists only of districts affected by the relevant type of policies and their matched controls, using weights created as described in section 4.1. The goal is not to use matching to directly calculate a causal impact for hypothesis testing, but simply to limit the analysis sample to a more homogenous population for the regression analysis. Matching is thus used as a preprocessing technique in order to limit model dependence, following Ho, Imai, King and Stewart (2006).

5.2 Estimating Joint Effects of Policies and Economic Change

To test the second hypothesis—that the combination of an anti-immigration policy and poor economic conditions slows the growth of Hispanics as a percent of a district's student population—I estimate the following equation, again repeating it for the relevant categories of policies and units of analysis.

 $Y_{t,i} - Y_{t-1,i} = \alpha_i + \beta_{POLICIES} POLICIES_{t,i} + POLICIESX \Delta UNEMP_{t,i} + \gamma YEAR_t + \delta X_{t,i} + \epsilon_{t,i}$ [5.2]

Where $Y_{t,i} - Y_{t-1,i}$, α_i , $\beta_{POLICIES}POLICIES_{t,i}$, $\gamma YEAR_t$, $\delta X_{t,i}$, and $\epsilon_{t,i}$ are all unchanged from the equation presented above in section 5.1.

POLICIESX Δ UNEMP_{t,i} consists of four interaction variables generated by multiplying the vector POLICIES_{t,i} (which contains indicators for being affected by the relevant anti-immigration policies in each of the previous years) by the county-level change in unemployment from the previous year (time t-1) to the year of the observation (time t). These interaction variables thus allow the effects of the relevant anti-immigration policies within the model to vary according to current, local employment conditions. More specifically, this vector contains the following variables:

POLICYX Δ UNEMP_{t,i} = POLICY_{t,i} x (UNEMPLOYMENT_{t,i} UNEMPLOYMENT_{t-1,i})

POLICYXAUNEMP_{t-1,i} = POLICY_{t-1,i}x (UNEMPLOYMENT_{t,i}- UNEMPLOYMENT_{t-1,i})

POLICYXAUNEMP_{t-2,i} = POLICY_{<t-2,i}x (UNEMPLOYMENT_{t,i}- UNEMPLOYMENT_{t-1,i})

These interaction variables allow the effects of anti-immigration policies within the model to vary according to changes in local employment conditions in the year of the observation (not the year of the policy). The regressions are estimated separately for each policy type using the weighted analytic samples created by matching.

6. Results

6.1 Regression analysis results

Columns 1, 3 and 5 of Table 3 present the results of regressions of the year-to-year change in percent Hispanic of the district's student body on indicator variables for passing each of the three types of antiimmigration policy in the years preceding the observation (equation 5.1). The regressions include controls for employment rates at the time of the observation, changes in employment rate from the previous year, and other controls.

The pattern of associations for the unpassed policies and passed (non 287(g)) policies is similar (Columns 1 and 3 of Table 3). In both instances, there is a small but meaningful and significant positive association between a policy occurring in the year of the observation and the change from the previous year in a district's Hispanic share of students. There is no association significantly different from zero, however, between changes in the Hispanic share of a district's student population and policies proposed a year prior to the observation or two years prior to the observation. This is the case whether the policy passed (Column 3) or did not pass (Column 1).

These results are clearly inconsistent with the hypothesis that either unpassed or passed (non 287(g)) policies slow the growth of the Hispanic student population once economic conditions are controlled for. In fact, these policies are associated with greater growth of the Hispanic student population share in the year that these policies take place. A plausible substantive explanation might be that the causality runs the other way: these types of anti-immigration policies have no effect on Hispanic settlement, but that they are proposed in places and years in which Hispanic population growth is especially high.

The regression featuring 287(g) agreements (Column 5 of Table 3) presents a different picture. There is no significant association between the change in percent Hispanic and 287(g) agreements signed in the year of the observation or the year before the observation. A 287(g) agreement signed two or more years prior to the observation is associated with a point change in percent Hispanic of -0.787% in that year. This is a substantively important important association given that the mean district affected by a 287(g) agreement saw an increase in percent of students who were Hispanic of 0.99% in 2004, for example. In the mean district signing a 287(g) agreement, then, the annual increase of Hispanics as a

proportion of the student population would be expected to drop by almost four-fifths two years later, if other conditions did not change. Importantly, this association is observed in a model in which county-level employment rates and changes in employment rates are statistically controlled for.

These three models also yield insights about the relationship between other variables and the change in district Hispanic student share. As expected, the unemployment rate and change unemployment rate have significant and meaningful positive associations with Hispanic enrollment. For example, the mean district affected by a 287(g) agreement was in a county whose unemployment rate increased by 1.57% between 2007 and 2008. The model predicts an annual increase in percent Hispanic 0.157% lower than would be the case had unemployment remained steady. The growth of the non-Hispanic student population and the percent of students who were Hispanic in the prior year are also associated with decreases in the Hispanic share of the student population.

6.2 Results with interactions between policies and changes in unemployment

Unemployment and changes in unemployment rates, by themselves, do not appear to explain the association observed between 287(g) agreements and the change in the Hispanic share of a district's student population. However, this does not eliminate the possibility that anti-immigration policies passed in earlier years could deter Hispanics from settling or cause them to leave only when current economic conditions are poor. This hypothesis is investigated in columns 2, 4, and 6 of Table 3, which add to the previous models the interactions between the policy indicator variables and the change in the local unemployment rate from the year preceding the observation (equation 5.2).

Estimates of model 5.2 for 287(g) policies (Column 6) is of most interest, given the results above. When the effect of changes in unemployment rate is allowed to vary in response to policy passage, the association between a policy proposal two years or more before the observation and the outcome is attenuated to -0.149 and becomes non-significant. A one-percent increase in the unemployment rate is associated with a 0.409% lower change in percent Hispanic when it occurs in a district affected by a previous 287(g) agreement, relative to a district with no agreement.

For example, in a district with a 287(g) agreement and a 1.57% increase in unemployment, the model predicts that year-to-year change in percent Hispanic would be reduced by 0.945 percentage points, relative to a district with steady unemployment and no anti-immigration policy. For a district with the same change in unemployment, but no 287(g) agreement, the model would predict change in percent Hispanic only 0.154% lower than a district with steady unemployment and no anti-immigration policy.

These models support the hypothesis that 287(g) anti-immigration policies are associated with a slowdown in growth of the Hispanic student population, but only when local economic conditions deteriorate. The coefficients on the policy indicator variables are not statistically different from zero once the interactions with changes in unemployment are introduced. To put this in perspective, the mean district affected by a 287(g) agreement was located in a county where unemployment decreased by 0.39% from 2005 to 2006, increased by less than 0.02% from 2006 to 2007, and then jumped by 1.57% from 2007 to 2008. However, changes in unemployment rates did not occur with lockstep timing across the country, or even across this group.

6.3 Robustness checks and limitations

A few critical robustness checks deserve mention. As observed above, the school district presents some challenges as a unit of analysis. Among them is the possibility that a few large jurisdictions (in practice, counties) containing a large number of school districts could disproportionately influence the results. Accordingly, I ran the regression models described above, excluding districts in counties that had more than 40 school districts. The key coefficients were substantively unchanged.

Another prominent challenge to the validity of these results is that the models described in Section 5 omit any measure of the composition of the Hispanic population. The pattern of associations described in sections 6.1 and 6.2 might unrelated to 287(g) policies if, for example, Hispanic residents of jurisdictions that sign 287(g) agreements are more likely to be immigrants (or unauthorized immigrants) than Hispanic residents. If Hispanic immigrant population growth also responds more strongly to economic conditions than Hispanic native population growth, the results above could then be unrelated to the 287(g) agreements. Accordingly, I ran the base model including terms for the percent of the district's overall Hispanic population that was foreign born in 2000 and its interaction with the change in unemployment. Again, the key coefficients were substantively unchanged.

Of course, there are other limits to this analysis. Even regression analysis with panel data is always limited in its ability to establish causality; the school districts passing anti-immigration policies may differ from others in unobserved ways that amplify the effects of changes in economic conditions. There are weaknesses in the data used. The lack of a single method for reporting the ethnicity of children in the base data source is problematic, although it is difficult to envision how this would substantially bias my results. Finally it is important to re-emphasize that these results speak only to changes in the ethnic makeup of the student population, without speaking directly to changes in the size of the overall Hispanic, immigrant, or unauthorized immigrant populations.

7. Conclusion

The current state of evidence on the reaction of Hispanic population growth to local anti-immigration lawmaking is largely based on useful case studies that are nonetheless based only a few cases. This paper seeks to analyze this question in a nationwide context while taking into account changes in economic conditions and other potentially confounding factors. I also seek to separate the effects of the social and political controversy surrounding local efforts to implement anti-immigration policies from the effects of the policies themselves by analyzing unpassed policies, passed policies and confirmed implemented (287(g)) policies separately.

To some extent, my results tell a clear story. On the one hand, when economic and other conditions are controlled for, school districts that were in jurisdictions that considered or passed anti-immigration policies other than 287(g) agreement witnessed changes in the percent of their students that were Hispanic that were comparable to a set of match controls. School districts in jurisdictions that passed 287(g) agreements, on the other hand, saw much smaller increases in the percent of students who were Hispanic, beginning two years after the agreements were signed. However, this modeled effect appears

to be generated by the combination of the policies and poor economic conditions, rather the policies by themselves.

Keeping in mind the limitations of the analysis, I can draw some preliminary conclusions: there is no empirical evidence from my analysis that, on average, local anti-immigration policies other than 287(g) agreements reduce the growth of the Hispanic student population when economic conditions are stable or improving. There is evidence, however, that growth of the Hispanic student population may slow in places that or implemented a 287(g) agreement, but only when unemployment is rising.

There are theoretical and substantive arguments that fit these results. Unlike other types of antiimmigration policies, 287(g) agreements require a certain level of institutional commitment and implementation by the local government. The empirical results of the model, suggesting that 287(g) agreements impact the growth of the Hispanic population, while other types of anti-immigration policies do not, are thus not surprising. The indication that this effect of 287(g) agreements occurs through interaction with locally economic conditions, on the other hand, is somewhat surprising. People may be less likely to take the legal risk or endure the real or perceived hostility presented by 287(g) agreements when employment prospects are drying up.

These results provide some national statistical context to cases like that of Prince William County and others discussed by Guterbock, et al (2010) and Capps, et al. (2011), where some advocates of greater restrictions on authorization immigration hailed the indications of a reduction in the Hispanic and foreign-born population as evidence of the success of a 287(g) agreement in reducing the unauthorized immigrant population. The evidence presented here, although it considers only the Hispanic student-age population, nonetheless suggests that any such population changes may be unlikely to continue, and could reverse, once employment conditions improve.

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Table 1. Number of anti-immigration policy proposals, by type and year of proposal.

	Not	Passed*	287(g)
Year	Passed*		
2000	1	0	0
2001	0	0	0
2002	0	1	0
2003	0	4	0
2004	0	3	0
2005	1	6	2
2006	37	39	3
2007	26	42	20
2008	12	16	29
2009	2	8	7

*Does not include 287(g) policies.

Figure 1. Monthly unemployment rates for the overall and Hispanic population (16+), 2000-2009. Source: Bureau of Labor Statistics





Figure 2. Monthly size of the Hispanic workforce and employment in construction industry, 2000-2010. Source: Bureau of Labor Statistics

Figure 3.Mean change from previous year in percent of students Hispanic 2000-8, districts affected by *unpassed* anti-immigration policy proposals and their matched controls, by year of policy.



Figure 4. Mean change from previous year in percent of students Hispanic 2000-8, districts affected by *passed* anti-immigration policy proposals and their matched controls, by year of policy.



Figure 6. Mean change from previous year in percent of students Hispanic 2000-8, districts affected by 287(g) agreements and their matched controls, by year of policy.



	Not Passed		Passed		287(g)		No
Variable	Cases	Controls	Cases	Controls	Cases	Controls	Proposal
Student Population							
% Hispanic, 2000	10.21	10.96	9.98	10.27	28.75	28.91	7.00
	[15.04]	[17.14]	[14.96]	[15.66]	[26.11]	[27.49]	[14.33]
% Hispanic, 2005	13.83	14.4	13.23	13.37	33.84	34.00	8.75
	[17.63]	[19.57]	[17.01]	[17.78]	[27.29]	[28.78]	[15.85]
% Hispanic, 2008	15.9	15.98	14.84	14.89	35.6	36.09	9.67
	[18.95]	[20.46]	[17.79]	[18.7]	[27.55]	[29.16]	[16.54]
Student Population, Chan	ge in % His	panic					
1999 to 2004	3.48	3.48	3.12	3.06	5.17	5.22	1.69
	[4.12]	[4.23]	[3.94]	[4.1]	[4.69]	[5.03]	[3.06]
2004 to 2005	0.87	0.65	0.85	0.62	0.99	0.94	0.37
	[1.18]	[1.27]	[1.22]	[1.26]	[1.26]	[1.52]	[1.11]
2005 to 2006	0.83	0.66	0.72	0.61	1.15	0.88	0.36
	[1.18]	[1.25]	[1.17]	[1.25]	[1.27]	[1.48]	[1.12]
2006 to 2007	0.80	0.58	0.67	0.56	0.73	0.79	0.34
	[1.2]	[1.19]	[1.47]	[1.22]	[1.01]	[1.32]	[1.12]
2007 to 2008	0.44	0.34	0.22	0.35	-0.12	0.42	0.23
	[.93]	[1.16]	[1.46]	[1.24]	[1.21]	[1.47]	[1.11]
General Population Chara	cteristics						
, % foreign-born, 2000	8.19	8.16	8.26	8.09	16.6	15.65	4.4
	[7.76]	[8.49]	[8.69]	[8.56]	[13.8]	[12.25]	[6.43]
Unemployment rate,	5.22	5.65	5.14	5.62	5.31	6.3	5.69
2004 ²	[.95]	[1.69]	[.99]	[1.66]	[1.01]	[2.34]	[1.67]
Unemployment rate, 2008 ²	5.37	5.85	5.36	5.82	5.94	6.36	5.8
	[1.4]	[1.9]	[1.02]	[1.84]	[1.38]	[2.64]	[1.9]
Change in unemp.	0.88	1.01	1.08	1	1.57	1.13	0.89
rate, 2007 to 2008	[.62]	[.67]	[.54]	[.65]	[.79]	[.74]	[.69]
% of Hispanics foreign-	33.67	32.93	32.69	32.64	38.47	39.03	25.41
born, 2000	[18.3]	[20.37]	[20.04]	[20.34]	[15.91]	[17.35]	[21.51]
% of workers in	7.24	6.83	6.82	6.81	7.51	6.73	7.06
construction, 2000	[1.28]	[1.93]	[1.61]	[1.93]	[1.99]	[1.9]	[1.97]
N (number of districts)	216	9654	259	9848	321	9867	10838

Table 2. School districts affected by *county or place-level* anti-immigration policies and control groups, by category of policy. Means and (standard deviations) of characteristics of the student and general population. ¹

1. Means and standard deviations for control groups are calculated using weights generated in the matching process.

2. Unemployment is measured at the county level. All other variables are measured at the school district level.

Table 3. Regression of change from previous year in percent of students Hispanic on indicators for policies at the county or municipal level and controls, for the years 2001-2008, with fixed effects at the school district level.

	Not passed		Passed		287(a)	
	1	2	3	4	5	6
Proposal occurring in:						
Current Year	0.293**	0.285**	0.233**	0.225**	0.003	0.008
	(0.076)	(0.078)	(0.076)	(0.077)	(0.078)	(0.079)
In PreviousYear	0.156	0.228*	0.073	0.125	-0.095	-0.006
	(0.086)	(0.110)	(0.078)	(0.081)	(0.094)	(0.109)
Two or More Years Prior	0.114	0.351	0.058	0.145	-0.787**	-0.149
	(0.143)	(0.261)	(0.082)	(0.103)	(0.112)	(0.192)
Interaction of change in unemployment rate and proposal in:						
Current Year		-0.313*		-0.212		0.003
		(0.147)		(0.158)		(0.076)
PreviousYear		0.100		-0.209*		-0.164
		(0.155)		(0.103)		(0.101)
Two or More Years Prior		-0.194		-0.093		-0.409**
		(0.196)		(0.096)		(0.102)
Controls						
	-0.085**	-0.085**	-0.078**	-0.078**	-0.028**	-0.027**
vear	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Change in unemployment	-0.111**	-0.110**	-0.101**	-0.100**	-0.100**	-0.098**
from prior year.	(0.008)	(0.008)	(0.009)	(0.009)	(0.009)	(0.009)
Growth in non Hispanic	-0.005**	-0.005**	-0.005**	-0.005**	-0.006**	-0.006**
student pop. from prior vear	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Percent of students	-0.202**	-0.202**	-0.208**	-0.208**	-0.217**	-0.217**
Hispanic, prior vear	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Year of observation: ¹						
2005	0.528**	0.529**	0.552**	0.552**	0.712**	0.713**
	(0.020)	(0.020)	(0.021)	(0.021)	(0.024)	(0.024)
2006	0.631**	0.631**	0.627**	0.627**	0.852**	0.852**
	(0.020)	(0.020)	(0.020)	(0.020)	(0.023)	(0.023)
2007	0.692**	0.691**	0.710**	0.710**	0.981**	0.978**
	(0.019)	(0.019)	(0.019)	(0.019)	(0.022)	(0.022)
2008	0.686**	0.687**	0.725**	0.727**	0.903**	0.904**
	(0.020)	(0.020)	(0.020)	(0.020)	(0.023)	(0.023)
Constant	3.331**	3.330**	3.116**	3.115**	7.507**	7.495**
	(0.045)	(0.045)	(0.046)	(0.046)	(0.074)	(0.074)
Observations	78,960	78,960	80,856	80,856	81,504	81,504
R-squared	0.193	0.193	0.232	0.232	0.199	0.199
Number of districts	9,870	9,870	10,107	10,107	10,188	10,188

1.2000 is reference category. Coefficients for 2002, 2003, 2004 not reported. * = p <.05, **= p <.01