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Abstract

How do inflows of unauthorized immigrants shape elections? If unauthorized immigrants lower native-born wages or increase unemployment, an influx of unauthorized immigration may lead to more votes for the Democrats. On the other hand, higher numbers of unauthorized immigrants may entice feelings of individual and/or group-level threat. Competition over jobs and welfare spending and perceptions of racial threat may then encourage Republican votes, the party that supports stricter immigration policy. The main hurdle of empirically evaluating the impact of unauthorized immigrants on election outcomes is finding reliable data that can measure unauthorized immigration flows over time. Using a unique methodology for identifying undocumented workers across counties in the state of Georgia, we find a negative relationship between the share of the county's workforce that is unauthorized and the share of votes going to Democrats in elections. Furthermore, we show that this effect is more pronounced for the presence of unauthorized immigrants than Hispanics; is stronger in counties with higher median household income; and is substantively larger in state Congressional elections than Gubernatorial or Senatorial elections. We discuss which theories are most consistent with this set of results.

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Unauthorized Immigration and Electoral Outcomes

1 Introduction

The Pew Hispanic Center estimates that roughly over 11.7 million unauthorized immigrants live in the United States illegally and comprise approximately 4 percent of the total population (Passel, Cohn, and Gonzalez-Barrera, 2013). Even without the right to vote, the presence of unauthorized immigrants poses significant economic, demographic, and welfare spending related challenges to the native, voting population. These challenges may translate into changes in election outcomes. Some GOP members argue that an increase in populations of unauthorized immigrants may actually lead to an increase in Republican support, especially among native-born, white voters, who, because of their fears, will align themselves with the party that is strict on immigration policies. On the other hand, Georgia Republican Representative Paul Broun recently claimed that if the state of Georgia were to give voting rights to illegal immigrants, the state would turn blue, leading to a Democratic landslide. Beyond the political rhetoric, however, there is little empirical evidence connecting the presence of unauthorized immigrants to electoral outcomes. To our knowledge, this paper provides the first empirical investigation of co-variation between flows of unauthorized immigrants and electoral outcomes in the U.S. over time.

When it comes to immigration policy in the U.S., the Republican and Democratic parties align themselves on opposite sides of the political spectrum. The 2012 Republican Platform argues that, "Illegal immigration undermines [economic] benefits and affects U.S. workers," and, "States efforts to reduce illegal immigration must be encouraged, not attacked" (www.gop.com). The Democratic Platform, meanwhile, calls for, "comprehensive immigration reform that supports our economic goals and reflects our values as both a nation of laws and a nation of immigrants" (www.democrats.org). Most acknowledge that "comprehensive" means a plan that includes amnesty
for unauthorized immigrants who are currently residing in the U.S. The Republicans, however, have no such plan and some, like Georgia Republican Representative Paul Broun, worry about a Democratic shift due to changing demographics in Southern states. Broadly speaking, the Republicans support stricter immigration policies, such as border controls and deportation, whereas Democrats support more liberal, inclusive, immigration policies.

Because of their proximity to the Mexican border, immigration is a hot topic in Southern states. Southern states receive a larger share of unauthorized immigrants and as a consequence, Southern politicians focus more on immigration in elections and spend more time legislating immigrant-relevant policies than their northern-counterparts. For example, inflows from Mexico alone make up more than half of all unauthorized immigrations to the U.S. (Passel, Cohn, and Gonzalez-Barrera, 2013). Although immigration is a federal level issue, starting as early as 2005, states (especially Southern states -- see Ozden, Neagu, and Mattoo, 2008) began passing their own immigration laws (NCSL, 2005). State level policies that target unlawful immigrants include requiring employers to use e-verify, an electronic program that checks the immigration status of new workers; legislation restricting drivers license; and enacting higher barriers for public benefits including housing, retirement benefits, and school registration. The policy domains targeted by the state imply that threats to jobs, demographics, and welfare spending concerns are at the forefront of the immigration debate within Southern states.

In order to determine whether a larger population share of unauthorized immigrants is associated with changes in election outcomes, we make use of a unique employee-employer matched data set that identifies the number of undocumented workers by county in the state of Georgia between 1990 and 2011. Using these data, we examine whether the share of the work force that is undocumented helps to explain changes in the Democratic vote share. Unfortunately, we do not have
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individual voting records for each county in Georgia over the twenty years and counties that we consider. What this means is that our statistical analysis only uncovers aggregate co-variation between the presence of unauthorized immigrants and county level election results. It cannot tell us about actual individual level voting behavior. An important limitation of our analysis, therefore, is that cannot make inferences about individual voters. The main problem with drawing inferences across units of analysis is that multiple causal mechanisms at the individual level may yield the same aggregate pattern we observe. In order to make sure that we are identifying the correct causal mechanism, we offer additional analyses, however. Our supplemental analysis suggests that changes in support for the Democrats best explains the effect of unauthorized immigration on election outcomes rather than alternative explanations such as in and out migration.

While our analysis certainty has limitations, using observational data we can tell whether or not Democrats receive more or less support in counties where the number of undocumented workers is higher, and can control for county-level and election-level characteristics we know are important for election outcomes. In particular, we can control for the size of the black population who, on average, are more likely to cast a ballot for the Democrats, and we can control for average aggregate country level income, which we know is an important determinant in elections. We can also control for the partisan-composition of the county by including results from the previous election, taking into account important features of partisan alignment within counties.

Finally, the analysis in this paper offers several methodological advantages over previous studies. Instead of focusing on immigrants at large, we focus on unauthorized immigrants. Because unauthorized immigrants do not have voting rights, we do not have to account for their voting patterns and party preferences in elections. What this means is that an increase in the number of unauthorized immigrants in a given county should, holding all else constant, increase economic,
demographic, and welfare spending threats to natives without increasing the number of votes cast in an election. This allows for better identification of threats than other studies that examine the threat effects of populations with voting rights such as blacks or Hispanics. A second advantage is that by focusing on the share of the workforce that is undocumented, rather than the total share of immigrants in a county, we hope to isolate the economic threats that would be expected to accrue to low-skilled voters and the potential benefits that might accrue rich voters (as owners of capital).

Finally, a further limitation is that voting is an indirect measure of voters' policy preferences over immigration (Scheve and Slaughter, 2001). Other features, such as institutions or other salient election issues may intervene in the mapping between voters' policy preferences over immigration and voting in an election. By examining the relationship between undocumented workers and electoral outcomes across counties and within a state where immigration is a salient electoral issue, we hope to limit some of the possible conditioning effects of institutions, while still exploiting important variation in across county and across time election results.

2 Theoretical Foundation and Previous Findings

There are several theories that can link the presence of a new, large, minority population with changes in elections. Each of those are detailed here as they specifically relate to the presence of unauthorized immigrants, in particular.

2.1 Income Threats

Income is a key predictor of elections. As early as 1987, Hibbs (1987) finds that an increase in disposable income is positively associated with political support for the Republicans. A decade later, Brooks and Brady (1999) confirm that changes in average household level income increase support for the Republicans. Recent evidence by Gelman et al. (2007) also finds that poorer people are more likely to vote for the Democrats and that income more strongly predicts party support in
Southern states than in non-Southern states. If poorer people are more likely to vote for the Democrats, and if an increase in unauthorized workers lowers natives’ wages, an increase in unauthorized immigrants can lead to a shift towards the Democrats as voters, made poorer by newcomers, and align with the Democrats. In addition to individual effects of changes to income, we may also expect contextual effects of living in rich and or poor districts. In the aggregate, this theory would predict a stronger shift toward Democrats in poorer counties, which is where we would find voters most likely to have their incomes affected by the arrival of unauthorized immigrants.

There is some evidence that suggests that immigrants depress natives' wages (Borjas, 2003; Borjas, Freeman, and Katz, 1992). Other studies, however, dispute these finding. Work by Mayda (2006) finds the effect of immigration on wages is close to or at zero, while other studies find a small positive impact on wages (Hotchkiss, Quispe-Agnoli, and Rios-Avila, forthcoming) or report inconclusive findings (Hainmueller and Hiscox, 2010).

2.2 Job Threats

An influx of people, like other international factor flows, can lead to distributional changes in factor-returns among the native-born, with some winning more from immigration than others. Factor models that depict the effects of immigration on returns to factors of production expect that an increase in undocumented workers will increase the returns to owners of capital and highly-skilled workers and threaten jobs of competing low-skilled workers (see, for example, Scheve and Slaughter, 2001). Economic threat would lead low-skilled workers (more likely to be Democrats) to shift their vote to protectionist Republicans. Context may also be important here, as well. Since poorer counties are more likely to have voters whose jobs are threatened by the arrival of (mostly low-skilled) unauthorized immigrants, this theory would predict the threat to be felt most acutely in poor counties. In contrast to low-skilled workers living in poorer counties, however, those that benefit from a
plentiful and cheap labor force may shift their vote to the Democrats, the party more likely to support immigration. Furthermore, we might expect that this would especially be the case in richer counties where we are likely to find a concentration of owners of capital.

Empirical evidence here is also mixed, however. Some authors find that the poor are no more likely to have anti-immigrant opinions (Citrin, Reingold, and Green, 1990; Espenshade and Calhoun, 1993). Alternatively, other authors find that vulnerable labor market conditions increase anti-immigration support (Borjas, Freeman, and Katz, 1992; Muller and Espenshade, 1985). Ramakrishnan (2005) finds that Republican areas are twice as likely to propose restrictive legislation than areas controlled by Democrats, especially for those voters in majority white areas. Examining across-countries, Mayda (2006) finds that on average, higher skilled workers are more likely to be pro-immigration. In the U.S., Facchini and Mayda (2011) find that higher levels of high-skilled workers are positively associated with more openness to immigration. Finally, moving away from observational studies, Hainmueller and Hiscox (2010) provide an experiment that directly tests the relationship between skill-level and attitudes on immigration. They find that both low-skilled and high-skilled workers prefer high-skilled immigrants over low-skilled immigrants. Even more recently, Malhotra, Margalit, and Mo (2013) find persuasive evidence that job competition amongst hi-tech workers make natives much more likely to support restrictive immigration policy.

2.3 Racial and Ethnic Threats

As suggested above, where you live and who you live around matters for how you vote (Schelling, 1969). In addition to how much income you and your neighbors make, the race and ethnicity of the newcomers may also play a role in shaping electoral outcomes. Power theories and theories of group threat argue that in the face of incoming minority groups, lower income groups, especially dominant racial majority groups, are more likely to defect from the Democrats and switch
their preferences to the Republicans. Furthermore, white voters in the South seem particularly
electorally sensitive to demographic changes (see for example Giles and Buckner 1994 Giles and
Hertz, 1994). Consequently, we would expect that an increase in unauthorized immigrants would
pose a racial and ethnic threat and shift elections toward Republicans. In addition, we might expect to
find a similar, or stronger, reaction to Mexican immigrants, generally. This is because more than half
of all unauthorized immigrants to the U.S. are from Mexico (Passel, Cohn, and Gonzalez-Barrera,
2013). Furthermore, if less educated people, "are on average more nativist and culturally intolerant of
foreigners" (Malhotra et al. 2013, p. 3), we might also expect to see a more intense reaction to racial
and ethnic threats in poorer counties.

Early research by Matthews and Prothro (1963) find that an increase in the number of blacks
causes an increase in white voter registration in the South. Similarly, an increase in the number of
blacks also affects white partisanship. Research by Giles and Hertz (1994) find that, in Louisiana
between 1975 and 1990, an increase in the number of blacks is positively associated with the number
of whites voting Republican (also see Giles and Buckner 1993). More recent research by Enos (2013)
shows that racial enclaves and electoral outcomes in the face of minorities persist. He finds that not
only the number of blacks but also the concentration of ethnic minorities predicts the 2008
presidential elections. In addition, Hainmueller and Hiscox (2010), making use of experimental data,
find that non-economic reasons, such as xenophobia better predicts voters' immigration preferences.

2.4 Welfare and Spending Threats

The expense of social service provision is often raised as a reason why unauthorized
immigration must be arrested (for example, see Becerra et al. 2012). Indeed, Tolbert and Hero (1996)
find evidence that restricting access to social services is popular in those counties with either a mix
of ethnic groups, counties with above average Hispanic population, or counties with a dominant
white majority. If concern about the added burden that unauthorized immigrants place on the social safety net is important to voters, we would expect to find a higher level of unauthorized immigrants resulting in stronger support for Republicans. Furthermore, this effect should also be larger for the presence of the unauthorized, as opposed to immigrants, or Hispanics, in general, as the unauthorized are likely to make even greater demands on the system than immigrants with proper documentation.¹

Milner and Tingley (2013) find that support for immigration policies depends on fiscal redistribution, where richer people are more likely to support immigration when welfare spending is low and less likely to support immigration when welfare spending is high. We would, therefore, expect to see a stronger reaction the presence of unauthorized immigrants in richer counties, in which tax-payers face a larger burden of supporting the social safety net (in the presence of a progressive tax system). To the extent that social services are supported by tax payments at the local level (e.g., police, hospitals, schools, welfare programs etc.), we also expect to see a stronger effect the more local the elections. In fact the Congressional Budget Office (CBO 2007) document that most of the fiscal burden of unauthorized immigrants falls on local, rather than Federal, coffers.

2.5 Summary

Table 1 shows how these different theories lead to different predicted relationships between unauthorized immigrants and election outcomes. As a preview to the results, we find that a greater presence of unauthorized immigrants reduces support for Democrats. This is consistent with theories of job threat, racial and ethnic threat, and theories based on concerns over welfare spending. We also find, however, threat effects from the unauthorized are stronger than threat effects from the Hispanic populations. This suggests that demographic changes alone are not the main cause of electoral

¹ For example, the unauthorized rarely have health insurance and, therefore, make use of emergency rooms and public hospitals for the treatment of nonemergency health-related problems (Goldman et al. 2005, and Passel 2005). In addition, children of unauthorized immigrants often need additional resources in school to overcome their lack of English fluency (CBO 2007).
support for the Republicans. Furthermore, we also find that richer rather than poorer counties are more likely to turn to the Republicans even when we control for county level income, race, and previous election results. This helps to distinguish between theories based on job threats and theories based on welfare spending. Our findings provide the most consistent support for a welfare spending threat effect. The Republicans receive the most electoral support when the population of unauthorized immigrants is high and simultaneously, the county is relatively wealthy. In addition, we suggested that the welfare and spending threat theory was the only one in which we would observe a stronger impact on election outcomes at the local (Congressional) level, than in elections for higher office, since much of the fiscal impact of unauthorized immigration is felt at the local level (CBP 2007).

[Table 1 about here]

3 Data and Analysis

As far as we are aware, this is the first paper to examine the relationship between unauthorized immigration and electoral support for Democrats in the U.S. over time. This paper estimates the effect of unauthorized immigrants on the share of the Democratic vote at the county level in Gubernatorial, Senatorial, and Congressional elections in the state of Georgia between 1990 and 2011. Undocumented workers are used as a proxy for unauthorized immigration. Undocumented workers are likely to best capture the economic threat (through the labor force) of a larger unauthorized presence.

We find evidence that a greater number of undocumented workers decrease the share of Democratic support. Furthermore, the negative relationship between the number of undocumented workers and support for the Democrats is robust to many controls including county median household income, racial and ethnic composition of the county, county population size, partisan
alignment, as well as election and county fixed effects. The decline in Democratic support is more pronounced for the presence of undocumented workers than for the presence of Hispanics, generally; is more pronounced in richer counties; and is more pronounced in local elections, relative to state or national elections.

3.1 Undocumented Workers in Georgia

Georgia is an excellent place to test the relationship between electoral outcomes and unauthorized immigrants. Firstly, unauthorized immigration is a prominent and state wide political issue. In Georgia, Republican legislators have initiated several laws designed to combat the growing number of unauthorized immigrants. Secondly, there is an estimated 425,00 unauthorized immigrants living in Georgia, ranking Georgia as the 7th largest host-state of unauthorized immigrants (Passel, Cohn, and Gonzalez-Barrera, 2013). The large numbers of the unauthorized and their growth in recent years makes Georgia a state where immigration policy is salient in Georgia elections. For example, the most recent bill to become law is HB87, or "Illegal Immigration Reform and Enforcement Act of 2011." This legislation reforms investigation, verification, enforcement and penalties related to immigrants in the state of Georgia. In light of the political activity surrounding immigration and the activist role that Georgia politicians play, we have good reason to believe that immigration broadly, and unauthorized immigrants specifically, are important across the state of Georgia. Finally, Georgia is also a relatively poor state, ranking 33 in median household income (www.census.gov/acs), making voters particularly sensitive to changes in income (Gelman et al., 2007) and less tolerant of foreigners (Malhotra et al. 2013).

Consider the demographic changes taking place in Georgia's schools, such as in Gwinnett County, which contains Georgia's largest school district. According the Report Card of Georgia schools, between 2010-2011 25 percent of students are Hispanic compared to 2004-2005 when 18
percent of students are Hispanic (gaosa.org/report.aspx). While the federal government controls immigration and naturalization policy, much of the practical ways in which issues over illegal immigration occur are within the state, such as school policy. Furthermore, immigration also affects other state level policies such as employment verification, health care, and language policy. This is especially true in the state of Georgia, as well as other states close to the U.S.-Mexican border. Finally, even having a driver's license is political in Georgia. Within state law enforcement activities aimed at cracking down on illegal aliens include laws restricting drivers permits. For example, Senate Bill 160 signed by Georgia's Governor in April 2013, blocks undocumented workers from state driver's licenses, grants, public housing and retirement benefits. All of these examples and more help to illustrate that immigration is an important issue within the state of Georgia and across Southern states.

3.2 Dependent Variable

A decrease of support for Democrats within a county can occur for a number of reasons: (1) Voters can leave the Democrats to vote for either a Republican candidate or a candidate in another party, (2) Democrats can become less likely to vote, (3) Republicans can become more likely to vote, and (4) Democrats can move out or Republicans can move into the county. The first three sources of declining support for Democrats results from changes in voting -- either voting differently or voting more or voting less. The fourth potential source does not result from changing voter behavior and can confound our interpretation. We specifically address the possibility of this confounding effect.

The dependent variable, election outcome, measures the total share of Democratic votes cast relative to the total number of votes cast for either the Democrats or the Republicans. As an alternative estimation, we also used share of the total vote going to the "liberal" candidate, where we classify Green party candidates as liberal and Libertarian votes as conservative. We find no
appreciable differences in results when using this measure. The election data are obtained from the Georgia Secretary of State website (www.sos.ga.gov/elections). The analysis in this paper considers Gubernatorial, Senatorial, and Congressional elections by county in the state of Georgia.

3.3 Independent Variable

As a measure of the impact of unauthorized immigrants, we use the share of workers in a county that is undocumented. Using either the concurrent or lag value of the independent variable separately produce similar results, so we report results from the regression with the lagged values in order to avoid concerns about reverse causation (the possibility that the unauthorized move to counties more sympathetic to their cause, i.e., more Democratic). In addition, we estimate the model including both concurrent and lagged value together (essentially producing a measure of growth in undocumented workers). Only the lagged value was consistently significantly different from zero.

One of our key contributions is that we use a new and unique method to measure the county level share of undocumented workers. The primary data used to construct the independent variable used in this paper are the Employer File and the Individual Wage File, compiled by the Georgia Department of Labor for the purposes of administering the state's Unemployment Insurance program. These data are highly confidential and strictly limited in their distribution. The Employer File provides an almost complete census of firms in Georgia, covering approximately 99.7 percent of all wage and salary workers (Committee on Ways and Means, 2004). The firm-level information includes the number of employees, and the worker file includes the worker's Social Security Number (SSN) from which we determine whether the worker is authorized to legally work or not.

There are some easily identifiable ways in which a SSN is determined to be invalid. Some invalid SSNs are errors or the result of incomplete record keeping by the firm and some are not. We
identify undocumented workers as those workers with invalid SSNs that are likely generated by the worker or his or her employer.

Every quarter, employers file a report with the state Department of Labor detailing all wages paid to workers who are covered under the Social Security Act of 1935. Each worker on this report is identified by his/her social security number (SSN). There are several known characteristics of a valid social security number, so we check whether each number conforms to these characteristics. The first three numbers of the SSN are the Area Number. This number is assigned based on the state where the SSN application was made. The lowest Area Number is 001 and the highest Area Number ever issued, as of December 2006, is 772. Using information provided by the SSA, we can determine the dates at which area numbers between 691 and 772 are first assigned. Any SSN with an Area Number equal to 000, greater than 772, or which shows up before the officially assigned date, is considered invalid. The second piece of a SSN consists of the two-digit Group Number. The lowest group number is 01, and they are assigned in non-consecutive order. Any SSN with a Group Number equal to 00 or with a Group Number that appears in the data out of sequence with the Area Number is considered invalid. The last four digits of a SSN are referred to as the Serial Number. These are assigned consecutively from 0001 to 9999. Any SSN with a Serial Number equal to 0000 is invalid.

In 1996 the Internal Revenue Service (IRS) introduced the Individual Tax Identification Number (ITIN) to allow individuals who had income from the U.S. to file a tax return (the first ITIN was issued in 1997). It is simply "tax processing number," and does not authorize an individual to work in the U.S. Employers are instructed by the IRS to "not accept an ITIN in place of a SSN for employee identification for work." An ITIN is only available to resident and nonresident aliens who are not eligible for U.S. employment and need identification for tax purposes. ITIN numbers have a

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2 Starting in June 2011, the Social Security Administration began constructing SSNs in a random fashion, so this identification of whether a SSN is valid or not is no longer possible.
"9" in the first digit of the Area Number and a "7" or "8" in the first digit of the Group Number.

Anyone with this numbering scheme we identify as having an invalid Area Number. Interestingly, the percent of SSNs with high area numbers that also match the ITIN numbering scheme has risen from about one percent in 1997 to over 60 percent by the end of 2006.

A series of SSNs were de-commissioned by the Social Security Administration because they had been put on fake Social Security Cards used as props to sell wallets. Apparently, some people who purchased the wallets thought the fake Social Security Cards were real and started using them as their own. If any of these 21 "pocketbook" SSNs appear in the data, they are considered invalid, although their frequency is so low as to be inconsequential. In addition, a number of SSNs are exactly equal to the employer identification number. These are invalid, primarily because they have too few digits. In any instance where a SSN is used for more than one person on a firm's UI wage report or does not have the required number of digits (including zeros), the SSN is marked invalid.

The possibility that someone fraudulently uses a valid SSN assigned to someone else poses a special problem. First of all, the SSN will show up multiple times across firms in one quarter for workers with different surnames (the wage report includes the first three characters of the workers' surnames). With this information alone, it is not possible to know which worker is using the SSN fraudulently and who the valid owner of the number is. If one of the SSN/surname pairs shows up in the data initially in a quarter by itself, this is the pair that is considered valid and all other duplicates (with different surnames) are marked invalid.

This measurement strategy clearly undercounts the actual number of undocumented workers in Georgia, but we can draw on a couple of sources of external data to show that our sample of undocumented workers closely represents the presence of unauthorized immigrants in the state of Georgia. First of all, the rate of growth seen in both the number and percent of undocumented
workers identified in Georgia matches closely the rate of growth in the Social Security Administration’s (SSA) earnings suspense file (ESF). The ESF is a repository of Social Security taxes paid by employers that cannot be matched to a valid name or SSN. It is widely believed that this growth in the ESF reflects growing incidence of unauthorized work in the United States (Bovbjerg, 2006). Figure 1 plots the number of workers (panel a) and the percent of workers (panel b) identified as undocumented along with the size of the ESF (we plot numbers only through 2006, since that is the last year for which the ESF data are available). This figure shows a remarkable consistency between the growth seen in workers identified as undocumented and the ESF.

As mentioned earlier, data suggest that between 40 and 60 percent of Mexicans in the United States are undocumented, and that 61 percent of unauthorized immigrants come from Mexico. Clearly not all Hispanics are undocumented, or vice versa; however, using weighted data from the Current Population Survey (CPS), we calculate the average annual growth in total workers and total number of foreign-born, Hispanic workers in the United States and in Georgia to compare growth rates to those in our sample in order to provide a second validity test for our measure of the presence of unauthorized immigrants in Georgia. These results are reported in Table 2. The work force in GA grew faster over the period than the U.S. work force (2.9 vs. 1.5 percent, respectively). In addition, the number of foreign-born, Hispanic workers in the United States grew faster (8 percent per year) than the overall work force; other researchers have also documented this phenomenon (see Passel & Cohn, 2009). But most importantly for our purposes is that the growth rate of foreign-born, Hispanic workers in Georgia (roughly 27 percent per year), which is much larger than in the United States overall (also see Passel and Cohn, 2009), is similar to the growth in the number of workers in Georgia we classify with our measurement strategy as undocumented. We also observe a similarly large growth rate in the number of foreign-born, Hispanic workers with less than a high school
degree (21 percent), among which we might expect a larger share of undocumented workers than among foreign-born, Hispanics in general.

[Figure 1 and Table 2 about here]

In addition to the total number of undocumented workers, we also want to account for the fact that some counties are wealthier than others. In order to do this, we include data for average county median household income. These data are gathered from the U.S. Census, Small Area Income and Poverty Estimates. We match median household income in a given county for an election year. Each variable contains one observation for each Georgia County for each year between 1989 and 2011, with the exception of the years 1990, 1991, 1992, 1994, and 1996.

For observations for each of these five missing years for each county, we impute the missing data and recover estimates of median household income. Imputations are performed for the 159 counties individually. County per capita personal income, which has no missing values, is used as the main predicting independent variable for the imputed value. A time trend variable is also included in the imputed estimate of median household income. We also use year as an independent variable for all imputations, expecting that these variables will conform to some trend over time. Our variable for county per capita personal income is complete for all counties and years between 1989 and 2011 and is correlated with the imputed variables. We also use the Urban CPI (base year 2011) to convert median household income to real (inflation adjusted) values.

3.4 Methodological Details

Figure 2 shows the Democratic vote share for Gubernatorial, Senatorial, and Congressional elections in the state of Georgia between 1990 and 2011. While the decline in Democratic vote share in Georgia over time is slight, it is observable. Next to this, Figure 3 shows the dramatic growth in the share of undocumented workers in Georgia during this time period. The question is whether there
is a systematic relationship between these two variables that will hold up across counties while controlling for other characteristics of the counties at the same time.

[Figures 2 and 3 about here]

The statistical analysis involves estimating the following linear relationship via Ordinary Least Squares (OLS). The reason we use a linear probability model is that interpretation of the parameter coefficients is more straight-forward than models for proportions. Furthermore, other studies find that results are nearly identical using OLS and proportional regression, especially when the proportional data is not close to 0 and or 1 (Newman, Brown, and Fraas, 2004; Pohlman and Leitner, 2003). The estimating equation takes the following form,

$$DemShare_{i,j} = \beta_0 + \beta_1 PerUndoc_{i,j-1} + \beta_2 X_{i,j} + \beta_3 DemShare_{i,j-1} + \epsilon_{i,j} \quad (1)$$

The dependent variable, $DemShare_{i,j}$, as described above, is the share of the vote in county $i$ in election $j$ that accrues to the Democrats. The regressor of interest, $PerUndoc_{i,j-1}$, is the share of employment in the county that is undocumented during the previous election cycle. Other regressors, $X_{i,j}$, include real median household income in the county in the election year and the share of the population that is black. In addition, both election and county fixed effects are included to control for election specific (county invariant) and county specific (time invariant) determinants of the Democratic share of the vote. We also include a lagged value of the dependent variable to account for serial correlation. An alternative specification that includes the lagged dependent variable but allows the error term to follow an AR(1) process yields essentially the same results.

By using a lagged value of $PerUndoc$, we avoid the possibility of reverse causality (the share of undocumented workers in $j-1$ being affected by the election outcome in the future $j$. As suggested in the introduction, the potential for the voting behavior of the population group of interest (Unauthorized immigrants) affecting the outcome $DemShare$ is not a concern here, as unauthorized
immigrants do not vote. However, the data are not a panel of individual voting behavior. As a consequence, we only know the share of votes going to Democrats at each election conditional on the composition of voters in the county during that election. In addition, out-migration of voters may occur as the result of the presence of undocumented workers, so that the results reflect changes in composition of voters within the county, rather than a change in voting behavior within a county. Analysis on in and outmigration described below addresses this specific concern.

Relating this empirical model to the theories detailed earlier, the job threat theory would predict a positive estimate of $\beta_1$, and the rest of the theories surveyed would predict a negative estimate of $\beta_1$. We will estimate equation (1) replacing $PerUndoc$ with $PerHispanic$ (percent Hispanic population in the county) in order to test predictions of the racial and ethnic and welfare and spending threat theories. Differential effects across median county incomes and types of election will also help us distinguish between these two theories, which predict differential intensities of the threat based on income and election level.

4 Results

Table 3 contains the main results of the paper. Equation (1) is estimated for Gubernatorial, Senatorial, and Congressional elections. The results in columns 1-3 suggest that there is a threat effect from undocumented workers: as the share of undocumented workers grows in a county, support for the Democrats decreases. On average, a one percentage point increase in the share of undocumented workers in a county results in a 0.6 percentage point decline in Democrat share of the vote in the next election. The average share of the Democrat vote in Gubernatorial elections varies from over 50 percent in the 1990s to roughly 43 percent in the 2000s. In addition, while there is not enough power to produce statistically significant results separately for Gubernatorial and Senatorial elections, the point estimates suggest that the threat effect is stronger as it relates to Congressional
(more local) candidates. We also see that the Democratic share of the vote is higher in counties with a greater share of black voters and with lower median household income, which is consistent with findings in Gelman et al. (2007) and elsewhere in the literature. As might also be expected, there is inter-temporal dependence in Democratic vote share, evidenced by the positive and significant coefficient on the lagged dependent variable.

[Table 3 about here]

The impact of a growing share of undocumented workers on the Democratic share of the vote is statistically significantly different from zero and is reasonable given the high levels of partisan alignment in the United States. Passel, Cohn, and Gonzalez-Barrera (2013) estimate that the unauthorized population in Georgia increased from 3.1 percent in 2000 to 4.4 percent in 2010 (a 1.3 percentage point increase). Based on the estimates in Table 3, this might account for about 0.8 of the percentage point decline in the share of votes going to the Democratic candidate over this time period.

We also estimate a number of variations on the model specification in equation (1) and obtain essentially the same results. Rather than use Democratic share of the (majority party) votes, we also constructed a supplemental liberal vote share measure, combining the Green party votes with the Democratic votes and the Libertarian votes with the Republican votes. There are no appreciable differences in the results. We also explore a model that included both the current and lagged values of the undocumented worker share (essentially resulting in a growth analysis). Only the lagged value is statistically significant in this specification, suggesting that the level of undocumented workers, rather than the growth in undocumented workers, is important to voters. In addition to including a lagged value of the dependent variable, we estimate the model allowing the error term to follow an AR(1) process. The results are essentially the same.
The results in Table 3 indicate a decline in support for Democrats with a greater presence of unauthorized immigrants. The negative effect is counter to the income threat theory and favors the other three theories detailed in Table 1. The next sections detail the estimations designed to disentangle which of the remaining three theories is most supported.

4.1 Unauthorized versus Hispanic

The job threat and racial and ethnic threat theories suggest that we should see as much of a decline in support for the Democrats when we estimate equation (1) with percent Hispanic in place of percent undocumented. A greater presence of any immigrants is theorized to threaten jobs of natives, and, as mentioned earlier, the majority of unauthorized immigrants are Hispanic; many natives, it could be argued, often do not distinguish between Hispanics and the unauthorized. The welfare and spending theory, however, suggests that we should see a larger reaction by voters to percent undocumented than to percent Hispanic in the county, since the unauthorized are expected to be more of a local fiscal burden. The coefficients on percent Hispanic are negative, as well, but significantly smaller than the impact estimated from percent undocumented, lending support for the welfare and spending threat prediction as opposed to the job or racial and ethnic threat predictions. These results are potentially in contrast with findings by Market (2010) who claims voters respond more strongly to the arrival of Latinos in the U.S. than they do the arrival of blacks.

4.2 Local versus State and National Representatives

Native-born voters concerned about welfare spending should produce a stronger effect in local elections, which is what we see. The lack of significance of the coefficient on \( \text{PerUndoc} \) in the Senatorial and Gubernatorial elections likely results from lack of power, but even if they were significantly different from zero, the magnitude is significantly reduced as the election moves from Congressional to Gubernatorial to Senatorial. To the extent that voters are concerned that their local
tax dollars are going to support the unauthorized (through schools and hospitals, for example), or simply that the issue of unauthorized immigration is mobilizing Republicans, the much larger impact in Congressional elections makes sense. This very well could be because the electorate is more likely to expect local representatives to respond to threats (real or perceived) by unauthorized immigrants (see Fennon, 1979 and Arnold, 1990).

4.3 Rich versus Poor Counties

We also check whether or not our results are driven by differences across poor, middle, and rich counties by looking at income by terciles adjusted for inflation. Our results (found in Table 4) indicate that reduced support for Democrats is more pronounced the wealthier a county. We argued earlier that this result would support the welfare and spending threat theory, as more wealthy voters, who are in a higher tax bracket, will object more strongly to the perception that unauthorized immigrants are straining social safety nets. We also see that the stronger impact of the undocumented versus Hispanics, in general, holds across county median income levels.

[Table 4 about here]

4.4 In and Out Migration

We find that as the share of undocumented workers in a county increases, the share of the vote going to the Democratic candidate in an election decreases. An alternative explanation is that, faced with an increase in the number of unauthorized immigrants, Democrats move out of the county. If Democratic voters experience greater economic threats than Republican voters (through job threat), then Democrats might flee areas with growing numbers of undocumented workers and that is why we see lower support in counties with higher shares of undocumented workers.

Since we do not have individual voting data, the best we can do to distinguish between possible alternative explanations is to investigate migration patterns. In order to do so, we make use
of the Internal Revenue Service (IRS) county-to-county Migration Data. These data contain residential location information for 95 to 98 percent of the individual income tax filing population. For each county in Georgia, for each year, we know the number of people who moved into the county (inflow), the number of people who moved out of the county (outflow), and the number of people who remained in the county (non-movers). Data are available from 2005 through to 2010.

We are interested in whether the outflow in one year is significantly related to the share of undocumented workers in the previous year. It is also feasible that owners of capital (likely to be Republicans) move to counties with higher numbers of undocumented workers as they offer a new source of inexpensive labor. Because of this, we also consider inflow migration.

If migration patterns are the mechanism at work behind the parameter estimates in Table 2, then we should observe a positive correlation between the share of undocumented workers in the previous year and the county's outflow percentage. Of course, we do not know whether those moving out of the county are more likely to vote Democratic or Republican, therefore a positive correlation is only a necessary condition. Additionally, if owners of capital (Republicans) are moving into counties with higher shares of undocumented workers to take advantage of economic opportunities, then we should observe a positive correlation between the share of undocumented workers and the inflow percentage. Again, a positive correlation is a necessary, but not sufficient, condition.

We find that the correlation across counties and years of the share of undocumented workers and the county's outflow percentage is -0.021 and the correlation with the inflow percentage is -0.025. Contrary to what would be necessary if migration were driving the results in Table 2, both correlations are negative, meaning that a higher share of undocumented workers in a county is related to a reduction in both outflows and inflows for that county. We also run a simple OLS regression, which allows us to control for other county characteristics and county and year fixed effects. The
The results of these regressions are found in Table 5. The coefficient on lagged undocumented workers is positive in the outflow equation and negative in the inflow equation, but neither is statistically significantly different from zero. These results suggest that as the share of undocumented workers increases, Democratic defection is not, at least primarily, being driven by migration patterns.

Conclusion

Because of a lack of data, no empirical study has been able to examine the influence of unauthorized immigration on electoral outcomes in the United States over time. By using estimates of the number of undocumented workers in counties across the state of Georgia over the last 20 years, we find a significant negative relationship between larger shares of undocumented workers and support for the Democratic candidate. We explore several potential explanations for this relationship and find the most support for concerns about welfare spending. Concerns, particularly among the richest voters, about the cost unauthorized immigrants are placing on the social safety net appear to be driving the results.

Since the results are stronger for the presence of unauthorized immigrants than for the presence of Hispanics, generally, we reject that demographic and job threat concerns are the most important explanation. The weaker impact of the presence of undocumented workers in poorer counties (where people whose jobs are threatened would most likely live) also leads us to reject the income threat as the dominant explanation for the results. We also provide evidence that the results are not being driven by composition bias of voters in the county, as the presence of undocumented workers is not statistically related to migration patterns.

Our research design has a number of important features that previous observational studies are unable to exploit. First, by examining county elections within a state, we are able to control for
many of the institutional features that make cross-country or cross-state comparisons difficult. Second, we know from previous work that the link between individual income and voting is particularly strong in the South (Gelman et al., 2007) and so an analysis using Georgia data is particularly well-suited. Third, because we are examining the effects of a non-voting population, we need not be concerned about problems of reverse causality. Finally, by exploiting a long time series instead of examining only a snapshot of the immigration sentiments of individuals in an experimental setting or in a one-shot opinion survey, we can make inferences about the political implications of immigration patterns over time. Previously, the lack of reliable data measuring the change in unauthorized immigrants made time series analysis difficult. Using a unique data-set that identifies undocumented workers in counties in Georgia, we are able systematically measure the threat effects of unauthorized immigration over time. That being said, our empirical analysis has some important limitations. Most notably, since we do not have individuals’ votes, we cannot be sure that we do not know whether the behavior change we have identified derives from voters changing their party affiliation, or whether they are changing their voting intensity. However, we believe that we've empirically established a significant systematic relationship between changes in immigration patterns and election outcomes.
Table 1. Theoretical predictions about the relationship between the presence of unauthorized immigrants and election outcomes.

<table>
<thead>
<tr>
<th>Expected Relationship</th>
<th>Income Threats</th>
<th>Job Threats</th>
<th>Racial and Ethnic Threats</th>
<th>Welfare Spending Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduced support for Democrats</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Impact greater for presence of unauthorized than for Hispanic</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Impact strongest in local elections</td>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Impact greater in richer counties</td>
<td>No</td>
<td>No</td>
<td></td>
<td>Yes</td>
</tr>
</tbody>
</table>

Table 2. Average annual growth, 1994-2008, in U.S. and GA employment, Hispanic workers, and workers identified as undocumented.

<table>
<thead>
<tr>
<th>Average Annual Growth Rate of:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of workers in the U.S.</td>
<td>1.43%</td>
</tr>
<tr>
<td>Total number of foreign born, Hispanic workers in the U.S.</td>
<td>7.26%</td>
</tr>
<tr>
<td>Total number of workers in Georgia</td>
<td>2.82%</td>
</tr>
<tr>
<td>Total number of foreign born, Hispanic workers in Georgia</td>
<td>20.74%</td>
</tr>
<tr>
<td>Total number of workers in GA identified as undocumented</td>
<td>29.65%</td>
</tr>
</tbody>
</table>

Source: Current Population Survey, Basic Survey (March), 1994-2008; and authors' calculations.
Note: 1994 is used as the base year since is the first year the Current Population Survey has a reliable indicator of Hispanic ethnicity.
Table 3. OLS regressions by type of election; DV: Share of vote going to Democrat candidate

<table>
<thead>
<tr>
<th>Variable</th>
<th>Percentage Undocumented as Regressor of Interest</th>
<th>Percentage Hispanic as Regressor of Interest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Senator</td>
<td>Gubernatorial</td>
</tr>
<tr>
<td>$PercentUndoc_{j-1}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-0.325</td>
<td>-0.671</td>
</tr>
<tr>
<td></td>
<td>(0.224)</td>
<td>(0.415)</td>
</tr>
<tr>
<td>$PercentHisp_{j-1}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$RealMHI_j$</td>
<td>-0.08</td>
<td>-0.389***</td>
</tr>
<tr>
<td></td>
<td>(0.063)</td>
<td>(0.101)</td>
</tr>
<tr>
<td>$PercentBlack_j$</td>
<td>0.439***</td>
<td>0.558***</td>
</tr>
<tr>
<td></td>
<td>(0.078)</td>
<td>(0.102)</td>
</tr>
<tr>
<td>$DemShareVotes_{j-1}$</td>
<td>0.473***</td>
<td>0.103*</td>
</tr>
<tr>
<td></td>
<td>(0.037)</td>
<td>(0.054)</td>
</tr>
<tr>
<td>Constant</td>
<td>7.778**</td>
<td>46.89***</td>
</tr>
<tr>
<td>Observations</td>
<td>954</td>
<td>795</td>
</tr>
<tr>
<td>Within $R^2$</td>
<td>0.838</td>
<td>0.746</td>
</tr>
</tbody>
</table>

Notes: Estimation also includes election and county fixed effects. Robust standard errors in parentheses. *** p <0.01, ** p <0.05, * p <0.1. Percentage variables expressed as percentage points (e.g. 12 percent entered as 12). An alternative specification excludes the lagged dependent variable and allows the error term to follow an AR(1) process; the results are essentially the same. Total number of unique counties is 159.
Table 4. OLS regressions; coefficients on Percent Undocumented and Percent Hispanic by county median household income terciles (inflation-adjusted values).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Low Income ≤$37,000</th>
<th>Middle Income &gt;$37,000, ≤$44,000</th>
<th>High Income &gt;$44,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>PercentUndoc</td>
<td>-0.710</td>
<td>-1.451**</td>
<td>-6.996***</td>
</tr>
<tr>
<td></td>
<td>(0.652)</td>
<td>(0.592)</td>
<td>(2.241)</td>
</tr>
<tr>
<td>PercentHisp</td>
<td>-0.248</td>
<td>-0.905*</td>
<td>-1.615***</td>
</tr>
<tr>
<td></td>
<td>(0.418)</td>
<td>(0.502)</td>
<td>(0.389)</td>
</tr>
</tbody>
</table>

Observations 568 | 486 | 536

Notes: Dependent variable is share of vote in Congressional elections going to the Democratic candidate. Robust standard errors in parentheses. Percentage variables expressed as percentage points (e.g., 12 percent entered as 12). Other regressors in estimation include median household income in county, percent of county population that is black, lagged dependent variable.

Table 5. OLS regressions of county outmigration and immigration, 2005-2010.

<table>
<thead>
<tr>
<th>Dependent Variable =</th>
<th>Outmigration</th>
<th>Immigration</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Percent Undoc.)j-1</td>
<td>0.0519</td>
<td>-0.0517</td>
</tr>
<tr>
<td></td>
<td>(0.070)</td>
<td>(0.104)</td>
</tr>
<tr>
<td>(Real MHI)t</td>
<td>0.033**</td>
<td>0.031</td>
</tr>
<tr>
<td></td>
<td>(0.015)</td>
<td>(0.031)</td>
</tr>
<tr>
<td>(Percent Black)t</td>
<td>-0.125**</td>
<td>-0.355***</td>
</tr>
<tr>
<td></td>
<td>(0.061)</td>
<td>(0.105)</td>
</tr>
<tr>
<td>(Dependent Variable)j-1</td>
<td>-0.313**</td>
<td>0.102</td>
</tr>
<tr>
<td></td>
<td>(0.132)</td>
<td>(0.110)</td>
</tr>
<tr>
<td>Constant</td>
<td>11577***</td>
<td>15.992***</td>
</tr>
<tr>
<td></td>
<td>(2.205)</td>
<td>(3.873)</td>
</tr>
</tbody>
</table>

Observations 795 | 795

Notes: Estimation also includes year and county fixed effects. Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Total number of unique counties is 159. Robust standard errors are estimated to correct for heteroskedasticity.
Figure 1. Growth in the earnings suspense file and the total number and percent of workers identified as undocumented in Georgia, 1990 to 2006.

(a) Growth in earnings suspense file and number of undocumented workers identified in Georgia, 1990-2006.

(b) Growth in earnings suspense file and percent of workers identified as undocumented in Georgia, 1990-2006.

Figure 2. Electoral Results by Democratic vote share and by election type

Figure 3. Growth in Unauthorized Workers in Georgia (authors’ classification)
References


