THE GEOGRAPHICAL MARKET FOR UNDOCUMENTED WORKERS: A LAW AND ECONOMICS ANALYSIS

Brenda E. Knowles, Indiana University South Bend
Paul Kochanowski, Indiana University South Bend

ABSTRACT

The Pew Center for Hispanic Studies estimates that approximately 12 million undocumented individuals reside in the United States. Of those 12 million individuals, approximately seven million participate in the U.S. labor market, mostly in low to unskilled jobs. This study hypothesizes that the geographical distribution of undocumented workers mirrors geographical differences in the demand for and supply of such workers. Statistical analysis reveals that demand and supply variables account for about 80 percent of the state-to-state variation in the percentage of a state's workforce represented by undocumented workers. Conclusions based on the statistical analysis imply a critical need for a national immigration-reform policy.
JEL classification: J61

INTRODUCTION

The Pew Center for Hispanic Studies estimates that approximately 12 million undocumented individuals reside in the United States. Of this 12 million, approximately seven million participate in the U.S. labor market, mostly in low to unskilled jobs. The distribution of undocumented workers varies considerably from state to state. Labor markets in states such as California, Arizona, and New Mexico provide jobs to the largest number of such workers. For example, of the estimated seven million undocumented workers, about 40 percent work in just three states, California, Arizona, and Texas. This simply reflects the proximity of these states to the Mexican border.[1] Yet, border proximity provides no clues for uncovering the reasons that large numbers of undocumented workers staff many low and semi-skilled jobs in New York, Illinois, Georgia, Colorado, and Maryland. While some of these states have international airports that provide points of entry, many undocumented workers who reside in these states illegally crossed borders far removed from their ultimate locations.[2]

Virtually all the research on undocumented workers has concentrated on the macro view of illegal migration. Clearly, a powerful set of push-pull factors exists to push persons out of poverty-ridden, desperate conditions and pull them into the much more affluent environment of the United States. When considering illegal migration from Mexico, the macro view often stresses:
   a) the relative wage differences in the United States versus Mexico.
   b) the inability of the Mexican economy to absorb its rapidly growing labor force.

c) the demand in the United States for low-skilled workers to offset the decline of low-skilled domestic workers stemming from the aging of the population and the increased education of the population.

Although receiving far less attention, large numbers of undocumented workers in the United States emigrated from other areas such as Latin America, Asia, and Europe.[3] Many of the same push-pull forces drive these individuals to enter the United States illegally. Those ascribing to the macro view of illegal immigration further stress that the problem exists throughout much of the developed world. Simply put, the same push-pull factors that entice poor persons from the rest of the world to the United States also drive less-advantaged individuals from Africa, India, China, and the Middle East to affluent countries such as Italy, Germany, France, and England, to name a few.[4]

Unfortunately, the macro approach does not help us understand the geographical distribution of undocumented persons or workers. In part, the lack of a more micro perspective stems from the difficulty of obtaining data on the geographical distribution of undocumented workers. Indeed, in this paper we create a data series that allows us to undertake a more disaggregated micro analysis by combining state-by-state estimates of labor-force participation rates for international workers with other estimates of state-by-state numbers of undocumented persons. Although the data set is far from perfect, inasmuch as it at best allows ranges of estimates of each state's undocumented workers, it does provide a starting point for an analysis of the labor-market and political factors that potentially influence the location choices of undocumented workers.

We hope to demonstrate in this paper that an analysis of the geographical distribution of undocumented workers might shed light on a number of factors, some of which potentially have significant policy implications. For example, simply understanding how various exogenous demand and supply factors influence the location decisions of undocumented workers might help in understanding their geographical dispersion. States differ as to climate, age, education, union activity, the industries that employ undocumented workers, wage rates, proximity to the Mexican border, and language and cultural characteristics. We hypothesize that each of these differences will influence the demand for and supply of undocumented workers and, hence, their geographical distribution. For example, other things remaining equal, the demand for such workers presumably would be greatest in states with large concentrations of industries—such as agriculture, construction, meat packing, and hospitality—that depend heavily on an unskilled workforce. In addition, by controlling for such demand and supply factors, we address several other questions about the distribution of undocumented workers: (1) Do state differences in the level of the provision of public goods influence the distribution? (2) Do so called "sanctuary cities" and other state laws affecting the hiring of undocumented workers play a part? (3) Do sanctions in one area influence the distribution of undocumented workers in that locale? (4) Do differences in state minimum wage laws, unemployment compensation insurance rates, and the like have an impact? (5) Does the political climate in a state (e.g., attitudes toward granting drivers' licenses to undocumented persons) influence where undocumented workers locate? and (6) Do labor market and political variables provide information about the future geographical distribution of undocumented workers?

The paper is organized as follows. In the next section, we provide a model of the local labor market for undocumented workers. Based on this theoretical model,

we describe the data needed to estimate the model's reduced form equations. Then we present estimating strategies and various results. A final section offers some conclusions and directions for future research.

THE MARKET FOR UNDOCUMENTED WORKERS

The model tested in this paper hypothesizes that the distribution of undocumented workers mirrors the demand for and the supply of such workers in a particular market, in this case the state. Research into the demand for undocumented workers suggests that employers hire undocumented workers at wage rates 40 percent lower than that paid to documented workers.[5] The attractiveness of undocumented workers results not only from the lower wages they will accept but, in addition, from the growing shortages of relatively low-skilled domestic workers. For example, the near-retirement of baby boomers has caused a spike in the median age of U.S. workers. According to Department of Labor projections, this median age will increase from 36.6 to 40.6 years in the 20-year period of 1990-2010.[6] Correlating with this upturn is a concomitant decrease in the number of native-born men who have failed to earn a high school diploma. In 1960, 53.6 percent of such men were within this cohort; but, by 1998, that number had plummeted to nine percent.[7] During that same period, the number of those who had earned college degrees almost tripled, spiraling upward from 11.4 percent to 29.8 percent.[8] While educational-attainment levels were on the rise, the number of low-skilled jobs skyrocketed, increasing by more than 700,000 per year.[9] Given that the age and educational demographics of states exhibit wide variation, undocumented workers may be much more in demand in some places versus others. State minimum wage laws that in some cases differ significantly from the federal minimum wage, as well as the non-uniformity of state workers' compensation insurance costs, further increase the relative attractiveness of undocumented workers in some areas. Similarly, unions dominate some state labor markets much more so than others, thus increasing the relative wage of domestic to undocumented workers and consequently the demand for undocumented workers. Complementary relationships also exist between domestic workers, domestic capital, and undocumented workers. Indeed, immigrants frequently create jobs (witness the recent boom in lawn-care services and nail-manicure businesses) that reflect this new complementary workforce's attracting capital and deploying it to raise productivity in innovative ways.[10] The demand for undocumented workers further derives from industries that employ large numbers of low or unskilled workers. Inter alia, such industries include agriculture, furniture and textile manufacturing, meatpacking, construction, and hospitality. The importance of such industries varies from state to state and may constitute an important determinant of the geographical dispersion of undocumented workers. In addition to the traditional demand factors listed above, some states have enacted their own legislation prohibiting the hiring of undocumented workers. Other things remaining constant, such legislation, by increasing the relative cost of undocumented workers to domestic workers, would shift the distribution of undocumented workers toward states that have refrained from enacting such sanctions.

On the supply side of the undocumented workers' market, the huge disparity in wage rates between the United States and the home countries of illegal entrants provides a powerful magnet for attracting unskilled workers to the United States. For example, the minimum *daily* wage in Mexico ranges from a low of $4.33 to a high of

$4.60 per day, depending on location. According to the 2007 *Country Reports on Human Rights Practices,* "only a small fraction of the [Mexican] workers in the formal workforce received the minimum wage. An unskilled worker in the United States thus earns more in one hour of work than a low-skilled Mexican worker earns in an entire day."[11]

Although some differences probably exist from state to state in the wage rates paid undocumented workers, non-wage exogenous supply factors potentially explain much more of the state-to-state supply variability. For instance, other things being constant, more Mexican undocumented workers emigrate to states proximate to the Mexican border (e.g., Arizona, California, New Mexico, and Texas), thereby increasing the supply of such workers in those states. Similarly, international points of entry (e.g. New York City, Miami, Atlanta, Houston, and Chicago) expand the supply of non-Hispanic undocumented workers at those locations, since many such workers tend to remain in these point-of-entry cities. Moreover, research into the location of migrants universally finds that they initially locate in areas where other migrants speak the same language and/or have similar cultural characteristics.[12] Migrants (both legal and illegal) who are already in the U.S. can -- and do -- provide information about how to emigrate, the resources needed to support the emigration, and assistance in finding employment and housing.[13] This self-perpetuating "chain migration" is so extensive that one commentator suggests that the majority of undocumented nannies in Los Angeles comes from a single village in El Salvador. [14]

States differ in other ways that potentially impact the distribution of undocumented workers. For example, climate often plays a role in the location decisions of migrants so that, hypothetically, other things remaining constant, states enjoying more temperate climates tend to attract more undocumented workers from warmer regions such as Mexico and Central America. State governments also offer bundles of public goods that theoretically make some states relatively more attractive to undocumented workers than others. As an illustration, Peter Roskom, an Illinois Representative from the 6th Congressional District, recently attributed the large number of illegal immigrants in the state of Illinois to the state's "Health Care for All Kids" program.[15] This program requires no proof of residency status or any other documentation, such as a social security number, that might verify legal status. Likewise, disparities in state-to-state bilingual education programs, housing programs, drivers' licensing programs, and the like theoretically influence the location-decisions of undocumented workers and their families.

Indeed, state and local lawmaking bodies have enacted numerous measures reflecting a wide range of enforcement and integration approaches that serve to make their locales more or less attractive to undocumented households and workers. In fact, as of June 30, 2008, 45 state legislatures had considered 1267 bills, resulting in the passage of 175 laws and resolutions in 39 states.[16] The top three policy areas addressed in such bills are identification/drivers' licenses, employment, and law enforcement.[17] This 2008 level of activity continues the dramatic increase in state laws related to immigration that has occurred since 2005. Mirroring these state-level initiatives, municipalities ranging from Hudson, New Hampshire, to Escondido, California, have similarly used their authority to pass a broad spectrum of ordinances aimed at ameliorating the problems associated with the growing population of undocumented persons. Such communities typically cite as reasons for such measures the job displacement of native-born Americans by undocumented persons, the financial drain on the communities that results from this influx of illegal

immigrants, and the lowered quality of life (rises in crimes, nuisances, reckless behaviors, and unsanitary conditions) attributable to this burgeoning population.[18] The experience of Hazleton, Pennsylvania, which in 2006 passed ordinances that, among other things, prohibited the employment and harboring of undocumented aliens within the city and required apartment dwellers to obtain an occupancy permit (a precondition of which was proof of U.S. citizenship or lawful status), is instructive. Under the city's ordinances, landlords faced fines of $1,000 per day for each illegal immigrant living on their properties and $100 per day for each day the owner allowed such tenancies after having been given notice of a violation of the ordinance.[19]

Offering a diametrically opposite approach to the issue of how to treat the undocumented population is the number of cities -- 32 in 16 states, including San Francisco, Austin, Houston, and Seattle -- that has adopted "sanctuary policies." Based largely on humanitarian and public-safety concerns, such initiatives typically involve granting undocumented persons access to schools and other publicly provided benefits, issuing drivers' licenses or similar governmental identification to such undocumented persons, and prohibiting law-enforcement personnel from investigating the residency of any individuals.[20] At least one state, Colorado, has answered these protectionist policies by enacting an "anti-sanctuary" law.[21] On the other hand, Illinois's passage of a law that effectively forbids employers from enrolling in E-Verify (formerly known as the Basic Pilot/Employment Eligibility Verification Program) presumably makes that state attractive to undocumented workers who lack valid social security numbers.[22]

Based on the above discussion, the structural demand and supply functions for State i are given as:

$$D_i = D(W_i, Q_i, D_{1i} \dots D_{Ni}) \text{ and } S_i = S(W_i, Q_i, S_{1i} \dots S_{Mi})$$

where W and Q are the equilibrium wage and quantity of undocumented workers in State i and $D_{1i} \dots D_{Ni}$ are various exogenous demand factors in State i, and $S_{1i} \dots S_{Mi}$ are various exogenous demand factors in State i. The above equations have the following reduced form equilibrium solutions:

$$W_{ei} = W(D_{1i} \dots D_{Ni}, , S_{1i} \dots S_{Ni})$$

$$Q_{ei} = Q(D_{1i} \dots D_{Ni}, , S_{1i} \dots S_{Ni})$$

Since the reduced form equations are entirely a function of the exogenous demand and supply shifters, they can be estimated using ordinary least squares.

THE DATA USED IN ESTIMATING REDUCED FORM EQUATION

The number of undocumented workers in a state represents the dependent variable in this study. Data do not exist on the exact number of such workers, however. To overcome this deficiency, we create an undocumented-workers data series for the year 2005 by multiplying the labor force participation rates for non native-born workers in each state times the number of undocumented persons in that state. This series provides a low, high, and mid-point estimate of each state's undocumented workers. The study's main results use the midpoint of the series, but

tests of the sensitivity of the results to low and high extremes of the series also are undertaken. Since the number of undocumented workers differs considerably from state to state, the regression results very likely will possess heteroscedasticity, a violation of the assumption in ordinary least squares that the error terms are homoscedastic. To overcome this problem, the undocumented worker series is normalized by dividing it by the number of private-sector workers in each state and converting this to a percentage. As noted earlier and shown in Figure 1, the distribution of undocumented workers as a percentage of a state's workforce exhibits a high degree of skewness. The states with the largest number of undocumented workers fall in the range of one to two percent with the mean percentage for all states being 3.6 percent. But undocumented workers make up between nine and 11 percent of the workforce in a few states such as Arizona, California, Nevada, and Texas.

FIGURE 1
DISTRIBUTION OF UNDOCUMENTED WORKERS

Mean =3.6333
Std. Dev. =2.6577
N =50

Midpoint Undocumented Workers as a Percentage of the Labor Force
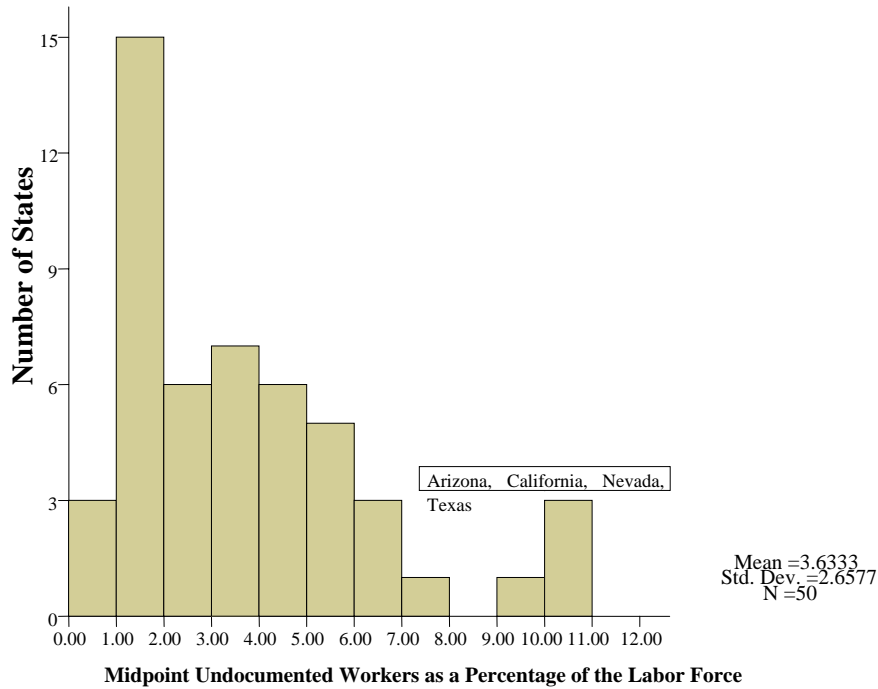
Exogenous demand factor s fall into three categories: 1) the prices of substitute and complementary inputs; 2) the derived demands for undocumented workers; and 3) other cost pressures that might influence the demand for exogenous workers. To proxy the relative price of substitute native-born, unskilled workers, we include for each state measures on the age distribution of the population[23], information on educational attainment, unemployment insurance costs, workers' compensation costs, the state minimum wage rate, and the percentage of private-sector workers who are unionized. Other things remaining constant, any factor that

increases the costs of using native-born workers is expected to increase the demand for undocumented workers. We attempt to capture the complementary relationship between labor and capital by including variables representing the ratio of firm births to deaths and the number of employer-owned firms. For example, other things being constant, the higher the firm birth to death rate, a proxy for the price of capital complements, the greater the demand for all types of workers, including undocumented workers. We also test to determine if various categories of native-born workers act as complements to undocumented workers.

The derived demand for undocumented workers in each state stems from the levels of outputs produced by such workers. To depict these demand forces, variables representing industries (such as agriculture, construction, and hospitality) typically associated with undocumented workers, as well as manufacturing sectors, such as textiles and furniture, meatpacking, and the like, are included in the model. Theory hypothesizes that, other things remaining constant, greater demand will take place in states having larger percentages of economic activity in industries heavily populated by undocumented workers. Here again the lack of actual industry price data at the state level forces us to proxy the prices of output by quantity measures.

Finally, we test the sensitivity of the demand for undocumented workers to cost pressures and state-mandated ordinances that prohibit the hiring of undocumented workers. Although the costs of substitute input variables subsume many of the cost-pressure measures (e.g., unemployment compensation insurance, unionization, etc.), bankruptcy rates potentially pick up other types of cost pressures that might differ by state. In addition, some states have enacted specific ordinances against hiring undocumented workers. Other things being constant, demand should be lower in states that have chosen this legislative path.

Exogenous supply factors cover three main areas: 1) locational factors, such as proximity to points of illegal entry, and climate; 2) cultural factors, such as the percentage of the population speaking English as a second language and the percentage of the foreign-born population; and 3) governmental factors, such as sanctuary cities, public-goods provision, and per-capita state taxes. Changes in any of these supply factors shift the supply curve for undocumented workers. For example, once in the United States, many undocumented workers ultimately relocate, oftentimes far from where they first entered the country. Nonetheless, undocumented persons initially arrive in those states bordering Mexico, as well as those states having major international airports. Our working hypothesis posits a positive undocumented-worker supply impact (i.e., a rightward shift of the supply curve for undocumented workers) stemming from proximity to points of illegal entry. A one-zero dummy variable is included to model these effects. Other things remaining constant, we hypothesize that supply will increase in states possessing point-of-entry advantages. In addition to proximity advantages for undocumented workers, climate may also represent a drawing force. To measure this effect, the model includes the difference between heating and cooling degree days in a state. While undocumented workers come from many countries with a variety of climates, about 57 percent come from Mexico. If undocumented workers attempt to relocate to areas similar in climate from those they left, then, other things remaining constant, the supply of such workers would be greater in states with higher average temperatures.

TABLE 1
EXOGENOUS DEMAND AND SUPPLY VARIABLES HYPOTHESIZED
TO INFLUENCE THE GEOGRAPHICAL DISTRIBUTION
OF UNDOCUMENTED WORKERS

Exogenous Demand factors	Exogenous Supply Factors
State Variables Representing the Prices of Substitute and Complementary Inputs	**Locational Factors**
% of population 18-24	Proximity to the Mexican border (1 if a state
% of population 25-34	borders Mexico, 0 otherwise)
% of adults with no high school degree	Presence of a major international airport (1 if a
% of adults with a college degree	state has a major international airport, 0 otherwise)
% of private workforce unionized	Difference between heating and cooling degree
State minimum wage	days
Unemployment compensation per worker	Housing costs
Unemployment insurance per worker	
Derived Demand from Demand for Output of Undocumented Workers	**Public Goods, Taxes, and Political Factors**
% of gross state product in construction	Per-capita state taxes
% of gross state product in manufacturing	State sales tax
% of gross state product in hospitality	State gasoline excise tax
% of employment in meat packing	% on public aid
% of employment in textile manufacturing	Number receiving TANF
% of employment in furniture manufacturing	Dollars for TANF
Acres of farm land per employed worker	Number on food stamps
% of employment in construction	Dollars for food stamps
% of employer-owned firms	% voting Democratic for President
Ratio of firm births to deaths	Number of "sanctuary cities" in a state
Other Exogenous Demand Factors	**Cultural Factors**
Business bankruptcies	% of Hispanic or Latino population
State ordinances and laws prohibiting the hiring of undocumented workers	% change in Hispanic or Latino population
	% of non English-speaking persons

Sources of data: The exogenous demand and supply variables are for the years 2004 and 2003. The main source of the data is the *State and Metropolitan Data Book: 2006*, specifically, Tables A-4: Age Distribution of the Population; A-5: Race and Hispanic Origin; A-17: Health Insurance; A-22: Public High School Graduates and Educational Attainment; A-28: Civilian Labor Force; A-30: Employed Civilians by Occupation; A-31: Private Industry Employment and Pay; A-33: Union Membership; A-40: Cost of Living Indicators; A-41: Gross State Product; A-46: Employer Firms Births and Terminations; A-50: Farms and Farm Earnings; A-61: Major Manufacturing Industries; A-72: Leisure and Hospitality Industries; A-80: Social Security, Food Stamps, and School Lunch Programs; A-83: Medicare, Medicaid and State Children Health Programs; and A-85: Elections. The Bureau of Labor Statistics's January issue of the *Monthly Labor Review* provides information on state minimum wage rates. Weather information is taken from the U.S. National Oceanic and Atmospheric Administration, National Environmental Satellite, Data and Information Services (NESDIS). A list of so-called sanctuary cities is found on The Ohio Jobs & Justice PAC website.

Given that undocumented workers often do not speak English and emigrate from a cultural background that differs considerably from that typically found in the United States, they generally attempt to locate in areas having large concentrations of other migrants with similar language and cultural characteristics. Because states vary in their ethnic diversity, some states pull in more undocumented workers than others. We incorporate these supply influences by using the percentage of various foreign-born populations in each state, as well as the percentage of population in each state speaking English as a second language. Other things being constant, theory predicts an increased supply of undocumented workers in states with larger concentrations of foreign-born populations.

Undocumented workers also theoretically respond to a state's political environment, public policies, and provisions of public goods. As mentioned earlier, some analysts submit that states such as Illinois, by providing medical insurance to children regardless of their legal residency, attract undocumented persons and undocumented workers. Furthermore, the influence of so-called sanctuary cities potentially plays a role in the geographical distribution of undocumented workers, as does the passage in some states of legislation aimed at eliminating illegal immigration. We attempt to capture these localized governmental influences by including variables representing per-capita state taxes, public goods that might be available to undocumented persons, and the number of sanctuary cities. Since some commentators have argued that the Democratic Party supports the needs of illegal immigrants more strongly than does the Republican Party, we include the percentage of a state's population voting for the Democratic presidential candidate in the 2004 election. We hypothesize that, other things being constant, a state offering lower taxes, higher levels of public goods, more sanctuary cities, and a higher percentage vote for the 2004 Democratic candidate will attract more undocumented workers than another state having the opposite characteristics. Table 1 contains details of the exogenous demand and supply variables included in the model.

STUDY RESULTS

The data we use to explain the geographical distribution of undocumented workers exhibit a high degree of intercorrelation. In some instances, several variables attempt to capture the same underlying factor. As an illustration, aid to individuals, food stamp payments, TANF, and similar welfare-type variables all try to capture whether the level of public goods significantly influences the geographical distribution of undocumented workers. Not surprisingly, states offering high (low) levels of one type of public aid generally also offer high (low) levels of other types of public aid, thereby generating high intercorrelation and a statistically thwarting multicollinearity problem among such sets of variables.

Researchers often employ factor analysis to deal with this type of data problem. We explore this method by estimating the principal components factor analysis variant. On the positive side, we successfully extract four principal components that explain about 85 percent of the variation in the geographical distribution of undocumented workers. On the negative side, we find ourselves incapable of assigning specific meaning to each of the extracted components. We had hoped that, for example, one component might represent a specific exogenous demand factor, such as the price of substitute domestic workers; another component some other exogenous demand factor; still another component some exogenous supply factor; and so on. Since each component contains all the original variables in the study, well-defined components require that subsets of variables are dominant in some components and not in others. The principal components we extracted failed to have these properties.

TABLE 2
DESCRIPTIVE STATISTICS: VARIABLES USED IN MODELS

	Mean	Std. Deviation	N
Midpoint Undocumented Workers as Percentage of Labor Force	3.633	2.658	50
% of Non English-speaking Individuals	12.476	9.222	50
% Change in Hispanic or Latino Population	23.515	8.248	50
% Construction Labor	5.127	1.181	50
Entry Points (1=entry point; 0 otherwise)	0.120	0.328	50
Food Stamps per Recipient (thousands of dollars)	1.016	0.105	50
Heating Degree Days Minus Cooling Degree Days	3703.520	3080.318	50
% No High School Degree	14.911	4.045	50
% of Population 18 to 34 Years Old	23.449	1.537	50
Sanctuary Cities in State	2.420	4.924	50
Unemployment Insurance Payment per Worker (000 of dollars)	0.265	0.118	50
Ratio of Firm Births to Firm Deaths	0.923	0.162	50
State Minimum Wage	4.719	2.084	50
% Voting Democratic for President	45.626	8.411	50

TABLE 3
PEARSON ZERO ORDER CORRELATIONS: VARIABLES USED IN MODELS

							Variables							
Variables	A	B	C	D	E	F	G	H	I	J	K	L	M	N
A	1.000	0.755	-0.027	0.498	0.572	0.133	-0.380	0.241	0.337	0.592	-0.001	0.350	-0.018	0.166
B	0.755	1.000	-0.451	0.212	0.652	0.340	-0.255	0.180	0.075	0.685	0.259	0.119	0.168	0.377
C	-0.027	-0.451	1.000	0.139	-0.304	-0.169	-0.059	0.121	0.086	-0.326	-0.362	0.132	-0.183	-0.209
D	0.498	0.212	0.139	1.000	0.054	0.102	-0.115	-0.022	0.291	0.000	-0.274	0.331	-0.130	-0.223
E	0.572	0.652	-0.304	0.054	1.000	0.265	-0.291	0.257	0.094	0.587	-0.002	0.001	-0.172	0.157
F	0.133	0.340	-0.169	0.102	0.265	1.000	-0.332	-0.044	0.062	0.143	0.098	0.055	0.035	0.061
G	-0.380	-0.255	-0.059	-0.115	-0.291	-0.332	1.000	-0.646	-0.170	-0.135	0.304	-0.106	0.565	0.065
H	0.241	0.180	0.121	-0.022	0.257	-0.044	-0.646	1.000	0.129	0.215	-0.187	-0.057	-0.440	-0.021
I	0.337	0.075	0.086	0.291	0.094	0.062	-0.170	0.129	1.000	0.172	-0.238	0.182	-0.113	-0.532
J	0.592	0.685	-0.326	0.000	0.587	0.143	-0.135	0.215	0.172	1.000	0.219	0.117	0.192	0.226
K	-0.001	0.259	-0.362	-0.274	-0.002	0.098	0.304	-0.187	-0.238	0.219	1.000	-0.123	0.488	0.502
L	0.350	0.119	0.132	0.331	0.001	0.055	-0.106	-0.057	0.182	0.117	-0.123	1.000	-0.069	0.006
M	-0.018	0.168	-0.183	-0.130	-0.172	0.035	0.565	-0.440	-0.113	0.192	0.488	-0.069	1.000	0.331
N	0.166	0.377	-0.209	-0.223	0.157	0.061	0.065	-0.021	-0.532	0.226	0.502	0.006	0.331	1.000

A Midpoint Undocumented Workers as Percentage of Labor Force
B % of Non English-speaking Individuals
C % Change in Hispanic or Latino Population D. % of Construction Labor
E Entry Points
F Food Stamps per Recipient
G Heating Degree Days Minus Cooling Degree Days

H % No High School Degree
I % of Population 18 to 34 Years Old
J Sanctuary Cities
K Unemployment Insurance Payment per Worker
L Ratio of Firm Births to Firm Deaths
M State Minimum Wage
N % Voting Democratic for President

As an alternative to the principal components approach, we rely on a modified stepwise regression procedure. We allow the stepwise regression to select the original set of variables to include in the model. This method generally selects from a set of highly intercorrelated variables measuring a similar underlying factor the one or two variables that most significantly increase the explained variation in the dependent variable. Given the initial model, and in order to further lower the standard error of the estimate, we then add one at a time variables with t-values greater in absolute value than one. It is mathematically the case that including a variable with a t-value greater than one in absolute value lowers the standard error of the regression. The modified stepwise approach we undertake has two desirable outcomes: 1) the models estimated have relatively low levels of multicollinearity; and 2) the models estimated have the minimum standard error of the estimate. The data reduction method employed furthermore maintains the basic integrity of the underlying market model. One or more variables in the final model capture each exogenous demand

factor and each exogenous supply factor. For example, the percentage of workers in construction labor measures the derived demand for undocumented workers while the percentage of the population without a high school degree proxies the price of substitute inputs. Similarly, on the supply side, variables such as the percentage of the non English-speaking population and the percentage change in the Hispanic or Latino population assess the importance of cultural factors, while variables such as the number of sanctuary cities and per-capita food stamp expenditures appraise the role of the government factor. Tables 2 and 3 contain descriptive statistics and correlations for the final set of variables included in the various models.

In all, six models are estimated (see Table 4).[24] Our attempts to explain the geographical distribution of undocumented workers reveal some surprises. First, the agricultural variables failed to add to the explanatory power of the model even after several different transformations (acres of farm land, acres of farm land per worker, and acres of farm land per capita). Conceivably, our measures of agricultural output fail to adequately capture nuances in agricultural production that lead to the higher likelihood of some types of agriculture using undocumented workers than others.

Table 4

Regression Results: Dependent Variable - Undocumented Workers as a Percent of Labor Force

Variable	Expected Sign	Regression Model												Collinearity Measure
		1		2		3		4		5		6		
		Std. Beta	t-value	Std. Beta	t-value	Std. Beta	t-value	Std. Beta	t-value	Std. Beta	t-value	Std. Beta	t-value	VIF*
Percent Construction Labor	>0	0.233	3.510	0.260	3.953	0.292	4.350	0.268	3.974	0.280	4.135	0.291	4.268	1.588
Ratio of Firm Births to Firm Deaths	>0							0.097	1.603	0.104	1.722	0.093	1.517	1.279
Percent of Population 18 to 34 years old	>0	0.165	2.638	0.137	2.202	0.152	2.471	0.147	2.426	0.145	2.409	0.189	2.622	1.777
Percent no high school degree	<0	-0.163	-1.899	-0.183	-2.183	-0.192	-2.337	-0.167	-2.038	-0.154	-1.874	-0.156	-1.901	2.296
Unemployment Insurance payment per worker	>0					0.121	1.678	0.124	1.756	0.109	1.532	0.083	1.107	1.909
State Minimum Wage	>0									0.104	1.226	0.087	1.005	2.529
Percent non English speaking	>0	0.761	8.455	0.660	6.486	0.610	5.873	0.600	5.889	0.557	5.197	0.522	4.678	4.247
Percent Change Hispanic or Latino	>0	0.284	4.005	0.283	4.121	0.301	4.425	0.286	4.233	0.275	4.076	0.265	3.898	1.576
Entry Points	>0	0.168	2.100	0.132	1.661	0.169	2.083	0.182	2.286	0.224	2.598	0.219	2.549	2.525
Heating Degree Days Minus Cooling Degree Days	<0	-0.252	-2.844	-0.277	-3.191	-0.323	-3.618	-0.302	-3.408	-0.353	-3.623	-0.342	-3.502	3.258
Food Stamps Per Recipient	>0	-0.247	-3.499	-0.237	-3.462	-0.256	-3.774	-0.251	-3.767	-0.266	-3.952	-0.258	-3.814	1.558
Sanctuary Cities	>0			0.166	1.925	0.155	1.824	0.134	1.586	0.111	1.289	0.117	1.359	2.506
Percent Democrat for President	>0											0.093	1.106	2.419
Adjusted R-square		0.830		0.841		0.848		0.854		0.855		0.856		
F-Value		30.962		29.748		28.272		26.969		25.174		23.471		
F-Value significance		5.14175E-15		5.31388E-15		8.02692E-15		1.32405E-14		3.48523E-14		1.01005E-13		

* VIF represents the variance inflation factor a commonly used as a measure of multicollinearity. Values lower than five indicate a low level of multicolinarity.

Alternatively, the H-2A temporary worker program currently exists for agriculture, thereby negating the need to use undocumented workers. Second, our hospitality-industry variables never reach statistically significant levels in any of our formulations. The output measures of the hospitality and construction industries correlate at about 0.7. With this degree of intercorrelation, construction, which is significant in our models, may partially capture the influence of the hospitality industry. Unfortunately, data problems of this sort imply that the data are not rich enough in detail to separate out the hospitality-industry effect, assuming one does exist. However, an effect might not exist if major hotel chains, which presumably employ the largest number of hospitality workers, avoid hiring undocumented workers because of potential legal sanctions or public-relations backlashes. Third, the presence of a law in a state that requires English only for certain types of transactions has the wrong sign and little significance. A zero-one variable may be too crude a measure for this variable, since such a variable cannot do justice to describing the wide array of laws dealing with English only. Finally, the welfare variables (the percentage receiving public aid, TANF per recipient, and food stamps per recipient), hypothesized to have a positive exogenous supply impact, show just the opposite. Other things being constant, higher percentages of undocumented workers were

associated with lower food-stamp payments per recipient. Perhaps the measures used are not typical of the type of public aid received by undocumented persons.[25]

Yet, in spite of some surprises, exogenous demand and supply variables significantly explain much of the variation in the geographical distribution of undocumented workers. The models show adjusted R squares in excess of 0.8 and highly significant F values (e.g., 5.14 E-15). Exogenous demand variables generally have the expected direction of effect. Derived demand variables such as percentage of construction-sector labor and the ratio of firm births to deaths, other things remaining constant, have a positive impact on the percentage of undocumented workers in a state. We also find that higher prices of domestic substitute workers increase the demand for undocumented workers. For example, the domestic substitute worker variable proxies indicate that higher prices for domestic substitute workers, other things being equal, lower the percentage of undocumented workers in a state. States with lower percentages of persons 25 years of age or older with no high school degree (lower percentages of such persons lower the supply of domestic unskilled workers and raise their price) have higher percentages of undocumented workers. Similarly, other things remaining constant, states with higher unemployment compensation per worker and higher state minimum wages employ more undocumented workers as a percentage of their civilian labor forces. Furthermore, complementary input variable proxies, such as the ratio of firm births to deaths, suggest that a lower price of domestic complementary inputs, other things being equal, increases the percentage of undocumented workers in a state.

The models further indicate that exogenous supply variables have the anticipated impacts. Entry points appear important to the percentage of a state's civilian labor force represented by undocumented workers. Other things being constant, the presence in a state of one or more entry points (contiguous borders or major international airports) increases the percentage of undocumented workers in that state. In line with the findings of other studies, concentrations of various ethnic groups draw others with similar language or cultural characteristics. Other things remaining constant, undocumented workers tend to locate in states having higher percentages of non English-speaking people and higher percentages of Hispanics and Latinos. Geographical variations in climate also influence the geographical distribution of undocumented workers. Other things being constant, the warmer a state's climate, measured by heating degree days minus cooling degree days, the greater the percentage of a state's civilian labor force represented by undocumented workers. The political atmosphere of a state similarly appears to attract or repel undocumented workers. Other things remaining constant, the more sanctuary cities a state possesses, the greater the percentage of undocumented workers it will have. Moreover, other things remaining constant, the higher the percentage the Democratic vote for president in 2004, the higher the percentage of undocumented workers present in a state.

Two approaches provide information on the relative importance of the explanatory variables. One method measures the relative importance of the explanatory variables to accounting for the across-states variation in the geographical distribution of undocumented workers. This method relies on the part correlation that measures the correlation between the dependent variable and an independent variable when the linear effects of the other independent variables in the model have been removed from the dependent variable. The part correlation, sometimes called the semipartial correlation, is related to the change in R squared when a variable is added

to an equation. The other method evaluates the change in the dependent variable given a specific change in an independent variable. To utilize this second approach, we calculate elasticities at the means of the dependent and independent variables. Table 5 includes these two measures of relative importance.

TABLE 5:
PART CORRELATIONS AND ELASTICITIES CALCULATED T THE MEAN OF THE
DEPENDENT AND INDEPENDENT VARIABLES

Independent Variables	reg coeff	Mean	Elasticity	Part Correlation	Percentage Point Change in Undocumented Workers*
% Construction Labor	0.655574	5.127	0.925077	0.231	0.336
Ratio of Firm Births to Firm Deaths	1.526692	0.923	0.387881	0.080	0.141
% of Population 18 to 34 years old	0.327072	23.449	2.11111	0.134	0.767
% No High School Degree	-0.10245	14.911	-0.42048	-0.110	-0.153
Unemployment Insurance Payments per Worker	1.861449	0.265	0.13568	0.060	0.049
State Minimum Wage	0.110374	4.719	0.143374	0.054	0.052
% of Non English-speaking Individuals	0.150431	12.476	0.516574	0.253	0.188
% Change in Hispanic or Latino Population	0.085376	23.515	0.552599	0.211	0.201
Entry Points	1.775708	0.120	0.058653	0.138	0.021
Heating Degree Days Minus Cooling Degree Days	-0.0003	3703.520	-0.30104	-0.193	-0.109
Food Stamps per Recipient	-6.52983	1.016	-1.82659	-0.209	-0.664
Sanctuary Cities	0.06289	2.420	0.041892	0.073	0.015
% Voting Democratic for President	0.029426	45.626	0.369552	0.058	0.134

* Change is for a 10% increase in independent variable

Regardless of whether a variable's importance rests on its contribution to explained variations in the model or its impact on the value of the dependent variable, variables such as the percentage of construction workers, the percentage of non English-speaking persons, the percentage change in the Hispanic or Latino population, and climate dominate the results. Inasmuch as undocumented workers populate many segments of the construction industry, the derived demand for undocumented workers, other things being constant, will be higher in states showing relatively high percentages of their workforce in construction industries.[26] In addition, other things remaining constant, a larger supply of undocumented workers will emigrate into states with relatively large percentages of Hispanic or Latino persons and/or high percentages of non English-speaking individuals.[27] As an illustration of the importance of these variables, the five states with the highest percentage of undocumented workers (Arizona, Nevada, California, Texas, and Florida) had, on average, 2.0 percent more construction workers, 24.9 percent more non English-speaking persons, and 6221 fewer heating minus cooling degree days than the five states with the lowest percentage of undocumented workers (Vermont, South Dakota, Montana, Maine, and West Virginia).[28]

The part correlations and elasticities shown in Table 4 further reveal that the percentage of a state's population 18-34 years of age and the percentage of a state's adult population without a high school degree also contribute strongly to the geographical dispersion of undocumented workers across states. Other variables, such as the ratio of firm births to deaths, the percentage of the Democratic vote for president, and the like, though contributing to the explanatory of the model, play a less important part.

In order to uncover omitted variables and other potential model improvements, we analyze our modeling errors by investigating our model's

regression residuals. The model generates relatively large positive residuals (actual > predicted) for Arizona, Maryland, Iowa, New Jersey, and Georgia and relatively large negative residuals (actual < predicted) for South Carolina, Maine, California, New Mexico, and Utah. We suspect that recent border-security efforts that have reallocated resources more heavily to some border areas have potentially redistributed undocumented persons and undocumented workers among Arizona, California, New Mexico, and perhaps Utah.[29] Conceivably, the positive residual for New Jersey results from a large number of undocumented workers relocating to New Jersey but working in New York. If that were the case, then New Jersey's exogenous demand and supply characteristics would not adequately capture the demand and supply shifts affecting New Jersey's undocumented workforce. Finally, nothing obvious explains the forecasting errors for Maryland, Georgia, or Maine, though the large forecasting error for Maine may simply reflect our inability to estimate with accuracy the small number of undocumented workers present in that state.

Our scrutiny of modeling errors and other modeling failures leads us to propose several avenues of future modeling efforts. Presumably, the E-Verify system will deter employers from hiring undocumented workers or workers with forged credentials. As mentioned earlier, eight states have mandated that businesses use the E-Verify system; and one state has attempted to pass legislation prohibiting its use. Regrettably, our data set for undocumented workers ends at 2005, while these legislative attempts at controlling illegal hiring largely have taken place in 2007 and 2008. Nonetheless, once more current data become available, tests of the efficacy of this controversial program in curbing illegal hiring will be possible. Our models will also greatly benefit from better measures of some of the underlying exogenous demand and supply factors. For example, the model might be improved by finding better, more disaggregated and detailed measures of industry variables representing the agriculture, hospitality, meat packing, textile, and furniture sectors. Unfortunately, disaggregated data of the type needed are not readily available and would require estimation of data series from more aggregate information. We intend to investigate in our future work whether such data might be available from associations representing specific parts of these industries. Finally, we recognize that our measurement of public goods that potentially draw undocumented workers to locate in some states and not in others fails to adequately capture this exogenous supply factor. As mentioned earlier, some commentators view Illinois's state insurance program for children as acting as a magnet for undocumented persons. A detailed study needs to be undertaken to determine exactly which public goods and services in each state exist for undocumented workers (e.g., a list of other states offering programs similar to Illinois's children insurance plan that do not require proof of legal-residency status).

CONCLUSIONS AND IMPLICATIONS
The model described above emphatically supports a market-oriented view of the distribution of undocumented workers as measured by the 2005 percentage of a state's workforce represented by undocumented workers. Using exogenous demand and supply factors for 2003 and 2004, our overall models exhibit a high degree of statistical significance with adjusted R square values in excess of 0.8. With few exceptions, conventional exogenous demand and supply variables have the expected directions of effect. Though demand variables such as the percentage of a state's

labor force in construction appear important, supply-pull exogenous variables, such as a state's climate, ethnicity, and non English-speaking population, exert a powerful force and as a group overshadow other variables. Political variables, as best we can capture them, while having some impact on the distribution of undocumented workers, emerge as relatively less important.

Our findings contain important implications with respect to immigration reform. Although undocumented workers have increasingly dispersed throughout the country, the distribution of undocumented workers remains highly skewed toward a few states. In the absence of meaningful and effective immigration reform, the distribution of undocumented workers will become more and more skewed over time. The immutable characteristics of a few states (large ethnic concentrations, entry points, climate, and the like) represent powerful drawing forces that each year add more and more undocumented workers, albeit at a slower pace, to the already large numbers present in these states. In the absence of immigration reform, the costs of undocumented workers will continue to fall disproportionately on relatively few states. This will lead these states to enact their own legislation, as many of them have already started to do.

This unfolding patchwork of state and local immigration-related initiatives results in numerous undesirable policy outcomes. First, such local regulatory regimes will inevitably generate high-priced legal challenges. The Hazleton municipal ordinances mentioned earlier spawned legal challenges that ultimately made their way to the United States Supreme Court.[30] Second, besides eroding the long-standing view of immigration-enforcement efforts as the exclusive domain of the federal government, such conflicting statutes and ordinances may lead to an immigration-fueled splintering of jurisdictions, as the creation of "sanctuary cities" and the resultant backlash against such enclaves demonstrate. Consequently, such fissures may lead to undesirable migratory patterns, as low and unskilled undocumented workers seek "safe havens." Third, the current unsettled state of the law is costly not only in terms of litigation but also may sacrifice predictability of results, one of the central linchpins of the U.S. legal system. Such uncertainty may, in turn, lead to conscious flouting of the law and the use of local laws as competitive economic strategies, yet other unwanted policy outcomes. Fourth, in addition to using employment- and housing-laws as the City of Hazleton did, state and local officials have begun to expand state criminal-law -- typically statutes and ordinances dealing with nuisance, trespass, and loitering -- to abate the presence of illegal aliens in their communities. Arrests made on the basis of these particular theories are especially susceptible to discriminatory applications of the law -- still another undesirable policy outcome.[31] Fifth, the new federal/state/local partnership recently sanctioned by the Department of Homeland Security and in which the DHS has delegated authority to state and local agencies to act as deputies in the enforcement of the immigration laws has been criticized as an unlawful grant of new immigration-related power that is preempted by federal law.[32] Sixth, such local enactments, if they continue to proliferate, could moreover result in our country's having thousands of "borders," an outcome that would clearly conflict with the constitutional mandate for uniformity in the immigration laws.[33] And lastly, while no one disputes the fact that state and local governments have authority to engage in the legitimate exercise of police powers aimed at promoting the general welfare, including the maintenance of their communities' quality of life, the unilateral creation of new immigration-related laws by local governmental units and the targeting of undocumented aliens have resulted in

a backlash against such individuals that is at odds with our nation's historical bent toward inclusiveness. Simply put, the steep societal price tags associated with these regimes not only exacerbate the aforementioned emerging undocumented-worker migratory patterns but, more important, are largely ineffectual in dealing with the complex issues associated with illegal immigration.   Hence, the proliferating hodgepodge of local and state legislation serves to underscore the compelling need for Congress to live up to its responsibilities to the nation by passing comprehensive immigration-reform legislation.

REFRENCES

Almonte, Michael J. 2007. "Note, State and Local Law Enforcement Responses to Undocumented Immigrants: Can We Make the Rules, Too?" *Brooklyn Law Review* 72: 655-687.

Bazar, Emily 2007. "Lawmakers Seek 'Sanctuary Cities' Crackdown; Bills Target Havens of Illegal Immigrants." *USA Today,* October 25, 2007: 3A.

Bureau of Democracy, Human Rights, and Labor, *Country Reports on Human Rights Practices - 2007* http://www.state.gov/g/drl/rls/hrrpt/2007/100646.htm, last accessed September 15, 2008.

Bureau of Labor Statistics. "State Minimum Wage Rates." *Monthly Labor Review,* January issue.

Corneilius, W. A. 2001. "Death at the Border: Efficacy and Unintended Consequences of U. S. Immigration Control Policy." *Population and Development Review* 27 (4): 661-685.

E-Verify,   http://www.dhs.gov/xprevprot/programs/gc_1185221678150.shtm,   last accessed September 15, 2008.

Hollander, Nancy Caro. 2006. "Negotiating Trauma and Loss in the Migration Experience: Roundtable of Global Women." *Studies in Gender and Sexuality* 7 (1): 61-70.

Jacoby, Tamar. 2006. "Immigration Nation." *Foreign Affairs* 85 (6): 50-65.

Jaksic, Verna. 2008. "Chamber Criticizes E-Verify." *The National Law Journal* August 18, 2008: 18.

Knowles, B. and P. Kochanowski. 2009. "Undocumented Aliens and Immigration Reform: A Law and Economics Analysis." *Southwestern Economic Review*, forthcoming.

Montorio, Nicholas R. 2007. "Note, The Issue of Mexican Immigration: Where Do We Go From Here?" *Journal of International Business and Law* 6: 169-201.

National Conference of State Legislatures. 2008. "*Immigration Policy Report*" p.1, http://www.ncsl.org, last accessed September 15, 2008.

Ohio Jobs & Justice PAC website http://www.ojjpac.org/santuary.asp, last accessed September 15, 2008.

Passel, Jeffrey S. 2006. *The Size and Characteristics of the Unauthorized Migrant Population in the U.S.: Estimates Based on the March 2005 Current Population Survey*, Pew Hispanic Center: 1-18.

Rivera-Batiz, Francisco L. 1999. "Undocumented Workers in the Labor Market: An Analysis of the Earnings of Legal and Illegal Mexican Immigrants in the United States." *Journal of Population Economics* 12 (1): 91-116.

Roskom, Peter. 2008. Interview by John Dempsey, *Connected to Chicago,* WLS AM, August 3, 2008.

Scolforo, Mark. 2006. "Hazleton Begins Enforcing, Defending Illegal-Immigration Measure." *The Associated Press*, July 14, 2006, Domestic News, www.washingtonpost.com, last accessed September 15, 2008.

U.S. Census Bureau, State *and Metropolitan Area Data Book: 2006* (6th edition). Washington, D.C., 2006.

U.S. National Oceanic and Atmospheric Administration, National Environmental Satellite, Data, and Information Services (NESDIS), National Climatic Data Center (NCDC) Temperature Extremes and Drought, last accessed September 15, 2008.
www.ncdc.noaa.gov/oa/climate/severeweather/temperatures.html,

Venbrux, Greg K. 2006. "Comment, Devolution or Evolution? The Increasing Role of the State in Immigration Law Enforcement." *UCLA Journal of International Law and Foreign Affairs* 11: 307-347.

Wilson, Matthew C. 2007. "Symposium, Immigration: Both Sides of the Fence: the Economic Causes and Consequences of Mexican Immigration to the United States." *Denver University Law Review* 84: 1099-1120.

Zavodny, Madeline. 1997. "Welfare and the Locational Choices of New Immigrants." *Economic Review* Federal Reserve Bank of Dallas, second quarter: 2-10.

ENDNOTES

[1] These estimates are based on information found in Passel, 2006.

[2] Pew Hispanic Center, 2006. About one-half of the undocumented persons in the United States entered the country legally but overstayed their visas.

[3] Passel, 2006

[4] See Knowles and Kochanowski, 2009 for a more in-depth discussion of the macro forces influencing illegal entry.

[5] Rivera-Batiz, 2006. About one-half of the differential between legal and undocumented workers is explained by less education and experience. Thus, the difference after controlling for such characteristics thus is about 20 to 30 percent.

[6] Jacoby, 2004.

[7] Jacoby, 2004.

[8] Jacoby, 2004.

[9] Jacoby, 2004.

[10] Jacoby, 2006.

[11] The Mexican law provides for a daily minimum wage, which is set each December for the coming year. For the year, the minimum daily wages, determined by zone, were: $4.60 (51 pesos) in Zone A (Baja California, Federal District, State of Mexico, and large cities); $4.46 (49 pesos) in Zone B (Sonora, Nuevo Leon, Tamaulipas, Veracruz, and Jalisco); and $4.33 (48 pesos) in Zone C (all other states).

[12] Zavodny, 1997 finds that new immigrants are attracted to areas with large immigrant populations.

[13] Montorio, p. 180

[14] *See* Nancy Caro Hollander, 2006 for an analysis of the political and economic reasons that underlie such Central and South American women's migration and the trauma caused by such forced exile.

[15] Roskom, 2008. *See also* Wilson, 2007.

[16] National Conference of State Legislatures, 2008.

[17] National Conference of State Legislatures, 2008.

[18] Almonte, 2007, pp. 658-659.

[19] *See* Scolforo, 2006.

[20] *See* the National Conference of State Legislatures's Web site.

[21] *See* Bazar, 2007.

[22] *See* Jaksic, 2008 and the Department of Homeland Security's website concerning E-Verify. E-Verify, which allows participating employers to check to see if a worker's name and social security number match and, if the worker is a non-citizen, whether his or her work status is valid, was launched in 1994 as a voluntary online tool for employers' use. The DHS presently operates the program in conjunction with the Social Security Administration. Approximately 69,000 employers have enrolled in E-Verify, with over four million queries handled as of August 2008. Cited by its supporters as a potent tool for stopping both the employment of undocumented workers and the associated problem of document- and identity-fraud, E-Verify's critics nonetheless point to what they perceive as the system's unacceptably high error-rate percentage. Apropos of this objection, a 2007 DHS-sponsored study found that 4.1 percent, or 17.8 million records -- 12.7 million of which covered U.S. citizens -- contained discrepancies concerning names, dates of birth, or citizenship status. This lack of reliability has thus far precluded the DHS's making the program compulsory for all employers. Indeed, Illinois based its recent law on its reservations about the database's accuracy and the lack of privacy and antidiscrimination protections. Tennessee, on the other hand, encourages the use of this online system by according employers who use E-Verify a safe harbor from state penalties that otherwise could be imposed.

[23] Although we have tried other worker age cohorts, the younger cohorts of domestic workers more closely coincide with the age distribution of undocumented workers. According to Passel (2006) of the Pew Hispanic Center, about 85 percent of the undocumented workers are under 45 years of age.

[24] The estimates of undocumented workers for each state represent a range of values from low to high. Estimates found in Table 4 utilize the midpoint of that range. To test the sensitivity of the models to other values in the range, 12 other models were estimated, six using the lower ranges of the percentage of undocumented workers and six using the higher ranges. Though some of the values change slightly, the adjusted R squares remain about the same. Further, all the variables shown in Table 4 maintain their same level of statistical significance, as well as their relative importance.

[25] Zavodny, 1997 reports similar findings with respect to the impact of welfare variables on the migration decisions of various ethnic groups emigrating to the United States. As supported in this study, she finds that migrants locate near others of similar culture, language, and ethnic background who reside in high welfare-payment areas. Thus, the location of migrants to high welfare-payment areas is simply coincidental to their desire to locate near others of similar backgrounds.

[26] Williams, 2006, pp. 761-762, notes that construction workers in drywall and ceiling tile installers are four times as likely to be undocumented workers as citizen workers.

[27] The percentage change in the Hispanic or Latino population appears more important to the overall model than it is to separating the five states with the highest percentage of undocumented workers from the five states with the lower percentage. Indeed, the percentage change in the Hispanic or Latino population is slightly higher in the five states with the lowest percentage of undocumented workers than it is in the states with the highest percentage. However, this may simply reflect the bases used in making the 2000 to 2004 percentage change calculations. States such as Vermont, South Dakota, Montana, Maine, and West Virginia start with much smaller bases upon which the calculation is made than do states such as Arizona, Nevada, California, Texas, and Florida.

[28] Although entry points (contiguous to the Mexican border and/or a major international airport) do not represent one of the dominant variables by either the part correlation or elasticity measure, they do appear to play a role in explaining the difference between states with the highest and lowest percentages of undocumented workers. For example, not one of the five states with the lowest percentage of undocumented workers has an entry point. In contrast, four of the five states having the highest percentage of undocumented workers have one or more entry points.

[29] *See* Corneilius, 2001 for a more in-depth discussion of the impacts of border patrol reallocations on immigrant border crossings and safety.

[30] *See Lozano v. Hazleton,* 496 F. Supp. 2d 477 (M.D. Pa. 2007). The plaintiffs, who ranged from illegal aliens to the Hazleton Hispanic Business Association, sued on a variety of constitutional theories, namely, federal preemption, procedural due process, equal protection, and privacy, as well as on federal grounds -- the Fair Housing Act and U.S.C. Section 1981. The plaintiffs also alleged violations of Pennsylvania state law, including the theory that, in enacting the ordinances, the city had exceeded its legitimate police powers. After engaging in an exhaustive analysis, the court ruled for the plaintiffs on virtually every theory, most notably the fact that federal immigration law preempted such local ordinances. Hence, the *Lozano v. Hazleton* decision serves as a powerful bellwether for municipalities bent on stemming illegal immigration through the political process. As *Hazleton* demonstrates, such local regulatory regimes will inevitably spawn costly legal challenges and, in addition, may lead to a balkanization of ostensibly pro- or anti-immigration jurisdictions, thus creating "pull" factors that will entice certain illegal aliens but push others even further into the shadows.

[31] *See* Almonte, 2007, p.682.

[32] *See* Venbrux, 2006, pp. 315-321.

[33] Almonte, 2007, p.682.