

Individual Preferences over High-Skilled Immigration in the United States*

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Abstract. In this paper, we examine individual preferences toward skilled immigration in the United States. We ask whether individuals are less opposed to immigration in states with more-skilled immigrant populations. Previous literature suggests that attitudes about immigration depend on an individual's skill level, the size of the immigrant population in an individual's state, and the exposure of an individual to the fiscal consequences to immigration. We investigate the consequences of the skill composition of immigrants on policy opinions. Our main finding is that skill composition does matter, but not across the board. Less-skilled natives are less opposed to immigration when living in states with a relatively skilled mix of immigrants. The sensitivity of less-skilled natives' opinions to the skill composition of immigrants resonates with earlier findings that the labor-market pressures of immigration are an important determinant of policy opinions about immigration restrictions.

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1. Introduction

In the United States, immigration is a source of intense political conflict. Despite widespread criticism of U.S. immigration practices, there is little consensus about how to change the management of immigrant inflows. Current immigration policy is viewed as allowing a large number of illegal aliens to enter the United States, increasing the supply of low-skilled labor in the country, and admitting individuals who place large demands on public expenditure. These outcomes, in turn, are blamed for expanding the underground economy, hurting low-income U.S. workers, and increasing fiscal deficits.

Among the more sweeping proposals for reforming U.S. immigration is the suggestion to replace the current system, in which legal admissions of permanent immigrants are based primarily on family reunification, with one in which admissions are instead based on the skill set that an individual possesses (Borjas, 1999; Huntington, 2004). Shifting from a family-based to a skills-based admissions criterion, the reasoning goes, would allow the United States to select individuals who have high earnings potential, good prospects for succeeding in the U.S. economy, and a low likelihood of drawing on public benefits.¹

It is unclear, however, whether there is sufficient political support to shift U.S. policy towards favoring high-skilled immigrants. The public is sharply divided over immigration. When asked about the level of U.S. immigration, nearly half of survey respondents would prefer to see the numbers admitted reduced (Scheve and Slaughter, 2001a). This opposition is surely conditional on the nature of U.S. policies. But would changing admissions criteria reduce opposition to immigration sufficiently to make reform of U.S. immigration feasible?

¹ Presumably, the United States would also have to strengthen enforcement against illegal immigration. Otherwise, any change in legal admissions would likely be undone by a change in illegal inflows. See Hanson (2005).

Previous research offers many reasons to think the answer may be, “yes.” Skilled immigrants have been shown to be a source of entrepreneurial activity. For example, during the 1990s information-technology boom in Silicon Valley, Chinese and Indian immigrants started new companies at an accelerating rate and accounted for 25% of the senior executives at all start-up firms (Saxenian, 1999). Firms started by and/or populated by immigrants forge a wide range of international networks with home countries and elsewhere, which may foster economic growth by facilitating cross-border flows of ideas, capital, and goods and services (Rauch, 2001; Rauch and Trindade, 2002; Saxenian, 2002b). More generally, in recent decades skilled immigrants—many of whom were educated at American universities—have accounted for sharply increasing shares of very highly skilled segments of the U.S. labor force that are critical for supporting highly productive, highly compensated jobs. By 2000, 38% of all American PhDs in science and engineering occupations were foreign born—up from only 23% in 1990 (National Science Foundation, 2004). This evidence on the potential dynamic benefits from skilled immigrants might make natives more inclined to favor liberalization of immigration policy where they are more exposed to skilled immigration.

In this paper, we examine individual preferences toward skilled immigration in the United States. In particular, we ask whether individuals are less opposed to immigration in states with more-skilled immigrant populations. To implement the analysis, we combine micro data on public attitudes toward immigration with data on the size and composition of U.S. immigrant populations across regions and over time.

That opinions about immigration vary is not surprising. Immigration, like international trade, foreign investment and other aspects of globalization, changes the distribution of income within a country. In the United States, a disproportionate number of immigrants have low skill levels,

concentrating the negative labor-market effects of immigration on less-skilled U.S. residents. In 2003, 33% of foreign-born adults in the U.S. had less than 12 years of education, compared with only 13% of native-born adults. By increasing the relative supply of low-skilled labor, immigration puts downward pressure on the wages of low-skilled native-born workers. Borjas (2003) finds that between 1980 and 2000 immigration had the largest effect on the low-skilled, reducing the wages of native-born high-school dropouts by 9%.²

Consistent with these labor-market repercussions, Scheve and Slaughter (2001c) find that opposition to immigration is higher among less-educated U.S. workers. Less-skilled laborers' skepticism about immigration mirrors their skepticism about globalization in general.³

A second source of opposition to immigration relates to its consequences for public finances. Low-skilled immigrants tend to earn relatively low wages, to contribute relatively little in taxes, and to enroll in government entitlement programs with relatively high frequency. There is abundant evidence that immigrants make greater use of welfare programs than natives (Borjas and Hilton, 1996; Borjas, 1999a; Fix and Passel, 2002). This has remained true even after the 1996 reform of U.S. welfare law, which restricted immigrant access to many types of government benefits (Zimmerman and Tumlin, 1999; Fix and Passel, 2002). In U.S. states with large immigrant populations, such as California, immigration appears to increase net burdens on native taxpayers substantially (Smith and Edmonston, 1997).

The fiscal impact of immigration is reflected in public attitudes toward immigration policy. Hanson, Scheve, and Slaughter (2007) find that U.S. natives who are more exposed to immigrant fiscal pressures (i.e., individuals living in states that have large immigrant populations and that

² While many early studies of the labor-market consequences of immigration found that its wage impacts were small (Borjas, 1999b), recent studies find that immigration depresses wages for native workers who are likely to substitute for immigrant labor (Borjas, Freeman, and Katz, 1997; Borjas, 2003).

³ See Rodrik (1997, 1998), Scheve and Slaughter (2001a, 2001b, 2001c, 2004), O'Rourke and Sinnott (2001, 2003), Mayda and Rodrik (2005), Hainmueller and Hiscox (2004), and Mayda (2006).

provide immigrants access to generous public benefits) are more in favor of reducing immigration. This public-finance cleavage is strongest among natives with high earnings potential (e.g., the college educated or individuals in the top income quartile), and its substantive magnitude is as large as the labor-market cleavage cited above.

In short, previous literature suggests that individual attitudes about immigration depend on an individual's skill level, the size of the immigrant population in an individual's state, and the exposure of an individual to the fiscal consequences to immigration. In this paper we add to this discussion the possibility that individuals also care about the skill composition of immigration.

In section 2, we develop a simple framework of voter preferences toward immigration. One channel through which the skill composition of immigration may affect individual policy preferences is through knowledge spillovers or other non-pecuniary externalities. As discussed above, high-skilled immigrants may bring new technology, new information about foreign markets, or new ways of doing business, any of which would increase U.S. labor demand. A second channel is through its impact on the fiscal consequences of immigration. Individuals may expect higher-skilled immigrants to generate positive net fiscal transfers to native households. If either of these channels is operative, individuals may be less opposed to immigration the more skilled is the immigrant population in their region.

This reasoning depends, of course, on holding constant other individual and regional characteristics. Obviously, high-skilled immigrants are likely to compete with high-skilled natives in the labor force, which may temper the enthusiasm of high-skilled natives for high-skilled immigrant admissions. Indeed, the documented opposition of low-skilled U.S. natives to immigration appears to reflect their concerns about downward wage pressures from low-skilled immigrants. However, if high-skilled immigration creates positive fiscal benefits and/or non-

pecuniary externalities, the opposition of more-skilled natives to high-skilled immigration may be weaker than the opposition of less-skilled native to low-skilled immigrant inflows.

Data for the analysis, described in section 3, come from several sources. We combine the 1992 and 2000 American National Election Studies (NES) surveys (Sapiro, et al, 1998) with data on immigrant and native populations, labor-force participation, and use of public assistance from the 1990 and 2000 U.S. Censuses of Population and Housing. Additional data includes information on state fiscal policies, in particular their welfare generosity in general and towards immigrants in particular. Our data allow us to exploit variation both across states and over time, such as the fact that some high-immigrant states (Massachusetts, New Jersey) have highly skilled immigrant populations while other high-immigrant states (Texas, Arizona) do not.

To preview the empirical results, reported in section 4, our main finding is that skill composition does matter, but not across the board. Less-skilled natives tend to support freer immigration more when living in states with a relatively skilled mix of immigrants. The sensitivity of less-skilled natives' opinions to the skill composition of immigrants resonates with earlier findings of concern over the labor-market pressures of immigration. By way of conclusion in section 5, we consider the implications of our results for political prospects of proposals to reform U.S. immigration policy.

2. Theoretical Framework

In this section we develop a simple framework of voter preferences to examine how cleavages regarding immigration vary across jurisdictions. While our focus is on individual economic welfare, there are surely many non-economic determinants of attitudes towards

globalization.⁴ These non-economic determinants we set aside for now, but they will be an important consideration in our empirical analysis.

Let $V(\mathbf{p}, I_i)$ be the indirect utility enjoyed by individual i , which depends on the vector of prices for consumption goods and services, \mathbf{p} , and also on after-tax income available for consumption, I_i . In turn, after-tax income depends on the pre-tax wage income, y_i , the income-tax rate, t_i , and government transfers, g_i , such that

$$I_i = y_i(1 - t_i) + g_i. \quad (1)$$

Tax rates and government transfers vary across individuals by both state of residence and level of income. Equation (1) assumes all income is from labor earnings and only labor earnings are taxed. Neither assumption is essential, but they simplify the presentation.

First consider the impact on individual welfare of an increase in immigration. By differentiating the indirect utility function we obtain the following,

$$\Delta V_i = \frac{\partial V}{\partial \mathbf{p}} \frac{\partial \mathbf{p}}{\partial M} \Delta M + \frac{\partial V}{\partial I_i} \frac{\partial I_i}{\partial M} \Delta M, \quad (2)$$

where ΔM is the change in immigration in the state in which person i resides. It is useful to re-express this change in welfare in monetary terms. This can be done by using equation (1) to solve for $\partial I_i / \partial M$ in terms of the components of after-tax income, and then dividing equation (2) by $\partial V / \partial I_i$, the marginal utility of income:

$$\frac{\Delta V_i}{\partial V / \partial I_i} = \frac{\partial V / \partial \mathbf{p}}{\partial V / \partial I_i} \frac{\partial \mathbf{p}}{\partial M} \Delta M + \frac{\partial y_i}{\partial M} (1 - t_i) \Delta M + \left(\frac{\partial g_i}{\partial M} - y_i \frac{\partial t_i}{\partial M} \right) \Delta M. \quad (3)$$

Consider the three terms on the right-hand side of equation (3). The first term is the monetary value of the utility change associated with immigration's impact on product prices. To the extent immigration lowers the price at which goods are available in individual i 's state

⁴ See, for example, Citrin, Green, Muste, and Wong (1997), Scheve and Slaughter (2001a, 2001b, 2001c), Kessler (2001), O'Rourke and Sinnott (2001, 2003), Mayda and Rodrik (2005), Mayda (2006), and Hainmueller and Hiscox (2004).

(relative to labor income), this term will be positive. If the share of individual spending on non-traded services (e.g., construction, housekeeping, yard care, restaurants, lodging) is increasing in income and if these services are intensive in immigrant labor, the price impact of immigration may be largest for higher-income individuals, making them relatively more supportive of freer immigration. Looking ahead to our empirical analysis, we do not have data on individual expenditure patterns. But we do have data on other individual characteristics that may proxy for these patterns, such as age and schooling. We will also control for any state-specific components of this price channel, due to the size of immigrant inflows or other state characteristics.

The second term on the right of (3) is the immigration-induced change in pre-tax labor income. If immigration increases the relative supply of low-skilled labor, we expect this term to be positive for high-skilled natives and negative for the low-skilled. If the only impact of skilled immigration is on the supply of labor, we would expect the opposite signs if immigrants are predominantly high-skilled. However, to the extent that high-skilled immigrants are also a source of knowledge spillovers, $\partial y_i / \partial M$ will be more positive for low-skilled individuals and less negative (or even positive) for high-skilled natives.

The third term on the right of equation (3) is the change in the net fiscal transfer received by individual i . This net fiscal transfer, $g_i - y_i t_i$, contains state and federal components. We assume the federal component can be expressed as a reduced-form function of individual characteristics. The state component of the net fiscal transfer will depend on the interaction of individual characteristics and state tax and spending policies. In states with generous benefits and progressive taxation, we expect the net fiscal transfer an individual receives to be decreasing in individual income. In states with less generous benefits and less progressive taxation, we expect the correlation between fiscal transfers and income to be less negative.

How will immigration change net fiscal transfers received by natives? We assume that the arrival of immigrants is accommodated through a combination of reduced government transfers to and increased taxation of native state residents.⁵ If immigrants are primarily low-skilled, then immigration is likely to reduce the net fiscal transfer received by natives, with this reduction being larger (a) in states that have larger immigrant populations and that are more generous in the public benefits they provide, and (b) for high-income individuals (at least in states with progressive income taxation) (Hanson, Scheve, and Slaughter, 2007).

If immigrants are primarily high-skilled, these immigrants may make positive net fiscal transfers to U.S. native taxpayers. If increased revenues from high-skilled immigrants are not fully offset by decreased taxes or reduced borrowing, then their arrival may expand transfers received by low-income residents (especially in more-generous states). For low-skilled natives, we thus expect $\partial g_i / \partial M \geq 0$ in the case of high-skilled immigration. In states with progressive taxation, low-income individuals pay relatively little in taxes, which makes the impact of immigration on their tax payments, $\partial t_i / \partial M$, small. Thus, for low-income individuals we expect the impact of high-skilled immigration on net fiscal transfers to be weakly positive (particularly for generous states with progressive taxation).

Now consider high-income individuals. They are likely to receive little in state transfers, making $\partial g_i / \partial M$ small. But they are likely to bear a relatively large share of the state tax burden (especially in states with progressive income taxes). If the gain in tax revenues associated with high-skilled immigration is partially offset by a reduction in state tax rates, then $\partial t_i / \partial M$ will be negative (their tax rates fall). Combining terms, we expect that for high-income individuals the impact of high-skilled immigration on net fiscal transfers to be weakly positive, as well.

⁵ Although in principle fiscal impact of immigration could also be accommodated through increased borrowing, all states but Vermont self-impose balanced-budget requirements of some type.

Finally, consider middle-income individuals. They are likely to receive less in state transfers than low-income individuals. They are also likely to pay less of their income in taxes than high-income individuals. Accordingly, we might expect immigration to affect the net fiscal transfers of middle-income individuals least of all.

In states that lack generous public benefits and progressive taxation, the impact of immigration on net fiscal transfers is likely to be relatively small for either low-income or high-income individuals. For individuals in these states, the after-tax fiscal term in (3) is thus likely to be dominated by the pre-tax price and labor-income terms.

Equation (3) offers a framework for how immigration cleavages may differ across individuals and fiscal jurisdictions. The pre-tax labor-income pressures from immigration are likely to cleave across skill groups within all jurisdictions. But there should also be after-tax fiscal pressures that vary with both skill type and the state taxing/spending regime. The perceived effects of high-skilled immigration on labor markets and public finances depend, in addition, on whether individuals expect high-skilled immigration to generate knowledge spillovers or positive net fiscal transfers to natives.

3. Data and Summary Statistics

The main objective of our empirical work is to provide evidence evaluating the claim that individual policy preferences about immigration are associated with the skill composition of the immigrant population. The data for our analysis come from four sources. We measure individual attitudes regarding immigration using the 1992 and 2000 American National Election Studies (NES) (Sapiro, et al, 1998). Data on U.S. immigrants come from the 1990 and 2000 U.S. Census of Population and Housing and the 1994-2003 U.S. Current Population Survey. Finally, data on state fiscal policies come from the U.S. Censuses of Governments.

3.1 Immigrant Populations in U.S. States

We begin our discussion of the data by showing that states vary both in their exposure to immigration and in the skill composition of their immigrant populations. Figure 1 shows the distribution of natives and immigrants by schooling category, based on U.S. census data. As is well-documented, immigrants are concentrated at the extremes of the skill distribution. Immigrants are heavily over-represented among those with less than a high-school education, under-represented among those with a high-school degree or some college, equally represented among those with a college degree, and slightly over-represented among those with an advanced degree. Not surprisingly, educational attainment is strongly correlated with the economic performance of immigrants. Figure 2 shows that immigrants with at least a high-school degree have substantially higher earnings than the immigrant population overall. Immigrant earnings potential, as summarized by the level schooling, may influence native perceptions of the economic consequences of immigration. Schooling affects both with whom immigrants compete in the labor market and the likelihood that immigrants draw on public benefits.

Also well known is that states vary in the size and composition of their immigrant populations. Figure 3, which plots the share of immigrants in the state working-age adult population, reproduces the familiar fact that immigrants are geographically concentrated. For the United States as a whole, the immigrant adult population share rises sharply from 1990 to 2000. In 2000, the immigrant population ratio is between 30% and 40% in two states (California, New York) and above the national average of 16.5% in eleven others.⁶

⁶ These states are New Jersey, Hawaii, Florida, Nevada, Texas, Connecticut, Massachusetts, Arizona, Rhode Island, Illinois, and District of Columbia.

More-educated immigrants appear to concentrate where skilled native workers are in relatively short supply. Figures 4a and 4b plot the relative supply of high-skilled workers for state immigrant and native populations, where we measure the relative supply of skilled labor as the ratio of college graduates (individuals with 16 or more years of schooling) to high-school dropouts (individuals with less than 12 years of schooling and no high-school diploma). There is a negative relationship between the relative supply of immigrant and native college graduates across U.S. states. This suggests that high-skilled (low-skilled) immigrants may be drawn to regions where the size of this labor group is relatively small among the native population. In both 1990 and 2000, U.S. states in the southwest and on west coast stand out as having a relatively abundant supply of low-skilled immigrants.

Heterogeneity in state immigrant populations is also reflected in the economic performance of immigrants. Figures 5a and 5b plot the ratio of immigrant to native per capita income against the immigrant ratio of college graduates to high school dropouts over the native ratio of college graduates to high school dropouts. There is a strong positive relationship between the relative supply of skilled immigrants and immigrant relative incomes. Immigrants have high incomes relative to natives in states in which high-skilled immigrants are relatively abundant.

Differences in schooling between immigrants and natives affect the likelihood with which the two groups use public assistance. Table 1 shows immigrant and native usage of different types of public assistance for the period 1994 to 2002. In 2002, immigrant-headed households were much more likely than native-headed households to participate in welfare programs.⁷ Among

⁷ When considering immigrant use of public assistance, we take households (rather than individuals) as the unit of analysis. We define as an immigrant household a unit in which the household head is foreign born. This definition thus includes in immigrant households U.S.-born children of immigrants who live with their parents. Households are the units on which government agencies assess income taxes, property taxes, and other levies. For determining individual eligibility for means-tested benefit programs, it is typically the characteristics of the household that are evaluated (Zimmermann and Tumlin, 1999).

immigrant households, 24.2% had at least one member who used some type of social assistance, compared to 14.9% of native households. Immigrant households were thus 9.3% more likely than native households to receive public benefits (Figure 6). Since the early 1990's, researchers have consistently found that immigrants are more likely than natives to receive social assistance (Borjas, 1999a and 2002). Given that immigrants are more likely to earn low incomes and that participation in welfare programs is means tested, this is hardly surprising.

Figure 6 shows that the immigrant-native differential in overall welfare use has fluctuated over time, but does not show a consistent trend. In 1994, the share of households receiving welfare was 24.6% for immigrants and 15.3% for natives, which is the same differential (9.3%) as in 2002. This stability is perhaps unexpected in light of important recent changes in U.S. welfare policy. In 1996, Congress undertook a major overhaul of federal welfare programs. Among other changes, the reform excluded non-citizens from access to many benefits. Congress also substituted state entitlements to federal funds with block grants, leaving states wide discretion over individual eligibility criteria. For legal immigrants arriving before 1996, states have the option of whether to use their federal block grants to provide this group with benefits. For legal immigrants arriving after 1996, states may not use federal block grants to provide non-citizens with benefits, but they are free to use other state funds to create substitute programs.

While the immigrant-native differential in overall welfare use hasn't changed over time, the *composition* of benefits received by immigrants and natives has changed. In 1994, immigrant households were 5.2% more likely than native households to receive some type of cash benefit (general assistance, AFDC, SSI) (Figure 6). By 2002, this differential had fallen to 2.0%. Similarly, between 1994 and 2002 the differential between immigrant and native use of food stamps declined from 5.3% to 1.0%. Medicaid is the only major category in which the

immigrant-native welfare differential didn't fall (and in fact increased from 9.1% to 9.6%). The share of immigrant households using of all types of social assistance *except* Medicaid has declined, both in absolute terms and relative to natives. What appears to explain immigrants continued access to Medicaid is that it is a program for which U.S.-born children are eligible, regardless of the citizenship of their parents. Many immigrant-headed households may have retained their access to Medicaid by virtue having children that are U.S. citizens.⁸

Underlying national patterns in welfare usage, there is considerable variation across states in immigrant uptake of public assistance. Zimmerman and Tumlin (1999) categorize U.S. states according to the relative generosity of their welfare programs and immigrant access to these programs. We categorize states as providing immigrants with high access to benefits if they both provide generous welfare benefits and make these benefits relatively available to immigrants. While the level of benefits available to immigrants has changed markedly over time, the ranking of states in terms of their generosity toward immigrants has been relatively stable. Figures 7a and 7b plot the fraction of immigrant and native households receiving cash assistance in 1990 and 2000. During the 1990's, the ranking of states in terms of immigrant uptake of welfare changed relatively little, with the northeast, northern Midwest, and far west having the highest fraction of immigrant households receiving cash assistance.

To summarize immigrant access to public benefits, we use Zimmerman and Tumlin's categorization.⁹ Table 1 shows that in 2002 the immigrant-native differential in welfare use was 11.8% in high-immigrant-access states and 4.7% in low-immigrant-access states. This compares to 1994, when the differential was 11.9% in high-access states and 6.1% in low-access states,

⁸ See Leighton Ku, Shawn Fremstad, and Mathew Broaddus, "Noncitizens' Use of Public Benefits Has Declined since 1996: Recent Report Paints Misleading Picture of Impact of Eligibility Restrictions on Immigrant Families," Center for Budget and Policy Priorities, <http://www.cbpp.org/4-14-03wel.htm>.

⁹ A state is considered to offer immigrants high access to benefits if the state offers generous welfare benefits and makes these benefits relatively available to immigrants.

suggesting that over time welfare use by immigrants has fallen by more in low-access states. Changes in welfare use over time are more pronounced at the level of individual programs. For cash programs over 1994-2002, the immigrant-native differential in benefit use declined from 6.7% to 2.2% in high-access states and from 0.5% to -1.5% in low-access states; for food stamps, the decline in the immigrant-native differential was from 6.3% to 2.2% in high-access states and from 4.6% to -0.5% in low-access states. Thus, in low-access states, immigrant households actually have become less likely than native households to use public benefits associated with either cash transfers or food programs. Again, it is only for Medicaid that the immigrant-native differential in welfare uptake appears to be stable over time.

Immigrant usage of public assistance is closely related to immigrant schooling. Figures 8a and 8b plot the share of immigrant households on public assistance against the relative supply of immigrant labor that is high skilled (the ratio of immigrant households headed by someone with 16 or more years of schooling to immigrant households headed by someone with less than 12 years of schooling).¹⁰ There is a strong negative relationship. Before or after welfare reform, states with more skilled immigrant populations have lower immigrant uptake of welfare.

3.2 Public Opinion about Immigration

To evaluate differences in individual policy preferences about immigration, a key ingredient is a measure of policy opinion. The NES is an extensive survey of individual political opinions, including opinions about immigration, based on a stratified random sample of the U.S. population. These surveys also report details on respondent characteristics including age,

¹⁰ The Census of Population and Housing collects information on pre-tax income in the form of supplemental security income (SSI), aid for families with dependent children (AFDC, which has become temporary assistance for needy families, or TANF), and general assistance. This is a partial list of means-tested entitlement programs, as the Census does not measure non-cash benefits provided through programs such as food stamps, Medicaid, public housing, etc. (Borjas and Hilton, 1996).

gender, educational attainment, location of residence, and other details on political views. To evaluate preferences toward immigration, we use the following question from the NES.

"Do you think the number of immigrants from foreign countries who are permitted to come to the United States to live should be increased a little, increased a lot, decreased a little, decreased a lot, or left the same as it is now?"

For the main analyses of immigration in the paper, we set the variable *Immigration Opinion* equal to 1 for those individuals favoring immigration to be decreased a little or a lot and 0 for those individuals favoring immigration be maintained or increased. This question requires respondents to reveal their general position on the proper direction for U.S. immigration policy. In 2000, 44.8% of respondents favored decreasing immigration (15.0% by a little, 29.8% by a lot), 44.5% favored leaving immigration unchanged, and 9.8% favored increasing immigration (5.8% by a little, 4.0% by a lot).

Our theoretical discussion in Section 2 focused on two motivations for opposition to immigration. One is the concern is that immigration put downward pressure on pre-tax wages for less-skilled workers. A number of recent papers have found evidence consistent with this prediction.¹¹ Another motivation for opposition to immigrants is the concern that immigration imposes a fiscal burden on native taxpayers. Hanson, Scheve, and Slaughter (2007) find evidence consistent with this prediction. The focus of this paper is on how the skill-composition of the immigrant population affects the labor-market and public-finance consequences of immigration that individuals perceive. In the estimation, we will examine these considerations, as well as non-economic factors possibly correlated with an individual's stance on immigration (e.g., political beliefs, ethnicity). But before turning to these estimates, it is instructive to see if simple summary statistics reveal patterns consistent with these two considerations.

¹¹ Scheve and Slaughter (2001a, 2001c), Kessler (2001), O'Rourke and Sinnott (2003), Mayda (2006). But also see Citrin, Green, Muste, and Wong (1997), and Hainmueller and Hiscox (2004).

Table 2 shows the fraction of native-born individuals favoring new restrictions on immigration in the 1992 and 2000 NES surveys by three levels of education (less than high school, high school or some college, college graduate) and by whether an individual's state has relatively a large immigrant population.¹² In both 1992 and 2000, the least-educated natives (those with less than high school) are more opposed to immigration in states with larger immigrant populations. Since low-schooling natives are the group most exposed to labor-market competition from immigrants, it makes sense that their opposition to immigration is strongest where this competition is likely to be the most intense.

In either year, the most-educated natives (those with a college degree) are the least opposed to immigration. However, they are somewhat more opposed to immigration in states with larger immigrant populations (where this difference is larger in 1992 than in 2000). In high-immigrant states, natives with high income potential are the group most exposed to the public-finance consequences of immigration. This is suggestive evidence that individual opposition to immigration is strongest where the fiscal burden associated with immigration is likely to be greatest. However, since Table 2 does not control for individual characteristics, other than education, or for state characteristics, other than the size of the immigrant population, we should be cautious in interpreting these results. In section 4, we introduce additional controls.

To attempt to separate the labor-market versus public-finance motivations for opposition to immigration, Table 3 adds to Table 2 a breakdown of native public opinion according to whether an individual lives in a state in which immigrants have high access to public benefits.¹³ In 1992 both low-educated natives and high-educated natives are more opposed to immigration in states

¹² High-immigrant states are defined to be those with a ratio of immigrants to natives of at least 0.12 (the national mean in 1990). Figure 3 shows this value identifies states that are spread out from the mass of states in the bottom left with low immigrant populations in both years.

¹³ In 1992, before welfare reform, high-access states are those Zimmerman and Tumlin (1999) identify as having generous public benefits. In 2000, after welfare reform, high-access states are those providing generous public benefits *and* relatively high availability of these benefits to immigrants.

in which immigrants have high access to public benefits. The same is again true for high-educated natives in 2000. These findings, which replicate Hanson, Scheve, and Slaughter (2007), are consistent with the theoretical framework in section 2, in which low-income natives oppose immigration due to the perception that immigrants will crowd out their access to benefits and high-income natives oppose immigration due to the perception that immigrants will increase their net tax burden. The differential in opposition to immigration between high-access and low-access states declines between 1992 and 2000, after welfare reform was implemented (and many non-citizens lost access to welfare benefits). Again, Table 3 does not control for many other characteristics and so should be taken as suggestive only.

To see whether the skill composition of the immigrant population matters for attitudes about immigration policy, Tables 4 and 5 reproduce Tables 2 and 3, adding an additional breakdown for whether a state has a high-skilled or a low-skilled immigration population. We define a high-skilled immigration population as one in which the share of immigrants with 16 or more years of schooling in a state is above the national average in a given year.

Table 4 shows some evidence—especially for less-skilled natives—that opposition to immigration is weaker where the immigrant population is more skilled. For more-skilled natives the reverse generally holds: in two of the three comparisons of college-graduate opinions across low-skill and high-skill immigrant states, opposition is stronger in the high-skill states. These patterns suggest that the skill composition of immigrants matters for considerations of labor-market pressures, as high-skilled immigrants presumably complement less-skilled natives but substitute for their more-skilled counterparts.

We see a similar pattern in Table 5, which breaks down states according to immigrant access to public benefits and the skill composition of the immigrant population. In both years and both

public-finance regimes, high-school dropouts are less opposed to immigration when living in states where the state immigrant population is more educated. The opposite is true for college graduates in three of the four rows of Table 5.

Were a primary economic consequence of immigration to increase labor-market competition for natives, we would expect low-skilled natives to be more opposed to low-skilled immigration and high-skilled natives to be more opposed to high-skilled immigration. Tables 4 and 5 offer some support for this prediction. In states where the immigrant population is more skilled, low-skilled natives are less opposed and more-skilled natives are more opposed to liberalizing immigration. In section 4, we extend the analysis to a regression framework.

Before moving forward, however, it is important to discuss why we think correlations between education and opinions over immigration policy reflect labor-market issues rather than non-economic considerations such as cultural attitudes. This issue was considered in some detail in Scheve and Slaughter (2001a,c); here we highlight two important reasons for this interpretation.

One reason is that the education-opinion cleavage is robust to including a wide range of direct measures of non-economic considerations such as racial tolerance and attitudes towards the proper role of the United States in the world. A second reason is that the education-opinion cleavage is replicated when replacing educational attainment with alternative measures of labor-market skills, such as actual earnings (e.g., average occupational wages). We prefer education over earnings because income is well known to be poorly measured, nonrandomly missing in surveys, and sensitive to transitory shocks (e.g., illness or bonuses) that do not reflect permanent earnings power.

3.3 Individual Heterogeneity and Public Opinion

To this point, we have been treating individual location decisions and state fiscal and welfare policies as exogenous or at least pre-determined. It is instructive to consider how endogenizing these characteristics might affect the interpretation of the results. Suppose there is an unobserved characteristic of individuals (e.g., ancestry, family history, personal experience) that is correlated with individual policy preferences regarding immigration. All else equal, we would expect individuals more opposed to immigration to be more likely to reside in states with smaller immigrant populations. In Table 2, this would lead us to *understate* differences in public opinion between high-immigrant and low-immigrant states (since individuals less opposed to immigration would be more likely to live in high-immigrant states). Suppose also that states whose native population is more opposed to immigration tend to enact welfare policies that are less generous toward immigrants. In Table 3, this would again lead us to *understate* differences in public opinion between high-immigrant and low-immigrant states (since individuals less opposed to immigration would be more likely to live in high-immigrant-access states). It appears, then, that likely patterns of correlation between unobserved individual characteristics and state immigrant populations and welfare policies would tend to dampen regional variation in public opinion, making it harder for us to find any systematic variation in attitudes toward immigration, across either individuals or regions.

We attempt to control for non-economic factors that may affect individual attitudes toward immigration by checking the robustness of the results to the inclusion of a large set of individual characteristics as regressors. This is by no means a perfect solution to how unobserved characteristics of individuals might affect the state in which they reside, but it will give a sense of how robust the estimates are to additional covariates. We attempt to control for how heterogeneity in state native populations might have affected state welfare policies by accounting

for state fixed effects in the regression. In so doing, we are assuming that changes in the state native population do not have a large effect on state welfare policies over the eight-year period that our sample covers. Given that the ranking of states in terms of their generosity toward immigrants changes relatively little over the 1990's (see Figure 7), this assumption does not seem to be without merit. Our results are silent, however, on sources of state variation in welfare policies. By controlling for state fixed effects, identification will come from the *interaction* between individual characteristics and state characteristics, as we explain below.

A final issue related to unobserved sources of variation in public opinion has to do with measurement error. Bertrand and Mullainathan (2001) argue that individual responses to subjective questions are likely to contain errors in measurement, complicating their use in econometric analysis. They are particularly suspect about using subjective responses as dependent variables, since how individuals interpret questions or the precision and sophistication with which they answer questions may be correlated with observed characteristics, such as age, education, gender, race, etc. In the NES, one may be particularly concerned that individuals at different education levels may have different interpretations of what it means to reduce immigration by a little or a lot. There is no simple solution to this problem. We check the robustness of the results to the inclusion of individual characteristics, where we try to use characteristics that appear likely to be correlated with how individuals interpret questions (but hopefully uncorrelated with opinions about immigration). However, this approach only partially addresses the issue. The possibility of measurement error in the qualitative responses we examine suggests it is important to exercise caution in interpreting the regression results.

4. Empirical Results

4.1 Empirical Specification

Our theoretical discussion in Section 2 highlighted that immigration is likely to affect an individual's economic well-being via pre-tax income, post-tax net fiscal transfers, and—the main argument of this paper—perhaps by the skill mix of immigrants. Guided by this discussion, we specify a reduced-form estimating equation for individual preferences over immigration policy.

Let I_{ist}^* be a latent variable indicating opposition to immigration by a native individual i living in state s at time t . We model the determinants of I_{ist}^* as follows,

$$I_{ist}^* = \alpha_0 + \beta_j 1(Educ_{istj}) + \delta_k 1(Educ_{istk}) 1(Imm_{st}) + \gamma_k 1(Educ_{istk}) 1(FE_{st}) + \lambda_k 1(Educ_{istk}) 1(ImmMix_{st}) + \theta X_{ist} + \pi Z_{st} + \mu_{ist} \quad (4)$$

where j is an index from 1 to 3; k is an index from 1 to 4; $1(Educ_{istj})$ and $1(Educ_{istk})$ are a series of dichotomous variables indicating individual educational attainment; $1(ImmMix_{st})$ is the dichotomous variable *Immigrant Mix* indicating whether the immigrant mix in the state in which the respondent lives is highly skilled; $1(Imm_{st})$ is the dichotomous variable *High Immigration* indicating whether the state in which the respondent lives is a high-immigration state; $1(FE_{st})$ is a dichotomous variable, *Fiscal Exposure*, indicating whether the state in which the respondent lives faces a high level of fiscal exposure to immigration; X is a vector of individual-level control variables, Z is a vector of state-level control variables; α , β , δ , γ , λ , θ , and π are parameters to be estimated; and μ_{ist} is a mean-zero random error term that reflects unobserved factors associated with individual preferences over changes in immigration policy, including the impact of immigration on unobserved determinants of wage income and fiscal transfers.

The first term in this expression, α_0 , is simply a constant. The second and third terms evaluate the pre-tax income channel for how immigration and trade affect economic well-being. The second term is indexed by j because for $1(Educ_{istj})$ we include three indicator variables,

High School, *Some College*, and *College*, with *No High School* as the omitted category. The third term is indexed by k because we interact all four educational categories with the variable *High Immigration*, indicating whether the respondent lives in high immigration state.

This parameterization provides a pre-tax labor-market interpretation of $\beta_{1...3}$ and, when its interactions are included, $\delta_{1...4}$. In the presence of low-skilled immigration, we expect opposition to immigration to be decreasing in respondent skill levels because of its effect on earnings across skills. Thus the coefficient for *College*, β_3 , should be less than zero, and perhaps the same will hold for *Some College*, β_2 . If immigrants alter wages locally rather than nationally, then correlations between skills and opinion should be stronger in states with higher immigration levels. This implies that the coefficient on the interaction between *No High School* and *High Immigration*, δ_1 , should be greater than zero and/or that the coefficient on the interaction between *College* and *High Immigration*, δ_4 , should be less than zero.¹⁴

The fourth term in equation (4), $\gamma_k \mathbb{1}(\text{Educ}_{\text{istk}}) \mathbb{1}(\text{FE}_{\text{st}})$, evaluates if the consequences of immigration for post-tax net fiscal transfers have an important effect on policy opinions. We interact all four educational variables (our proxy for different income groups) with *Fiscal Exposure*, a dichotomous indicator equal to one for state-years that meet two conditions: (1) that have relatively high welfare generosity, measured as above the national median welfare spending per native; and (2) that have relatively high immigration populations defined as those states with a ratio of immigrants to natives above the national average. See Hanson, Scheve, and Slaughter (2007) for details on *Fiscal Exposure*.

¹⁴ The interactions between schooling and whether the respondent lives in a high-immigration state may also control for the price channel through which immigration affects individual utility. If consumption patterns vary by income and education, then the effect of immigration on prices in a state will depend on the relative size of the immigrant population in the state.

The parameters $\gamma_{1...4}$ indicate whether respondents with *No High School*, *High School*, *Some College*, and *College* in high fiscal-exposure states are more or less likely to oppose immigration. Our theoretical discussion suggests that all respondents should be more opposed to immigration in states with high fiscal exposure to immigrants, and that this should be especially true for high income/educated individuals due to the progressivity of state tax and transfer systems. We therefore expect parameters $\gamma_{1...4}$ to be positive and increasing in magnitude.

The fifth term in equation (4), $\lambda_k 1(\text{Educ}_{\text{st}k})1(\text{ImmMix}_{\text{st}})$, evaluates the main argument of this paper: that the skill mix of local immigrants has an important effect on individual economic well-being and thus policy opinions. To test this idea we interact all four measures of educational attainment with *Immigration Mix*, a dichotomous indicator equal to one for state-years whose share of immigrants accounted for by college graduates exceeds the national average. If all natives perceive skilled immigrants to generate important dynamic and/or non-pecuniary benefits, then the parameters $\lambda_{1...4}$ should all be negative. Alternatively, if the skill mix of immigrants matters as a dimension of labor-market concerns, then we expect these parameters to be negative only for respondents with *No High School* or (perhaps) *High School*.

The last terms in equation (2), θX_{ist} and πZ_{st} , estimate the effect of various individual-level and state-level control variables including *Age*, *Age Squared*, dichotomous indicator variables *Female* and *Hispanic*, *State Unemployment*, a year indicator variable for 2000, and a full set of state dummy variables to account for time-invariant features of states that may influence individual attitudes towards immigration. Some of these control variables account for the price channel through immigration affects individual utility, which depends on consumption patterns not measured in our data. Importantly, these controls may also capture some non-economic influences on policy opinions. We will report results with many additional control variables that

measure tolerance, isolationist sentiment, ideology, and partisanship, all which more directly attempt to account for non-economic determinants of policy opinions.

In equation (4), the latent variable I_{ist}^* is unobserved. Let I_{ist} , *Immigration Opinion*, be an indicator variable equal to one if an individual favors decreasing immigration (restricting trade) and zero otherwise, in which case $\Pr(I_{ist}^* > 0) = \Pr(I_{ist} = 1)$. Assuming that the idiosyncratic component of individual preferences, μ_{ist} , is normally distributed, then the following applies:

$$\Pr(I_{ist} = 1) = \Phi(\alpha_0 + \beta_j 1(\text{Educ}_{istj}) + \gamma_k 1(\text{Educ}_{istk}) 1(\text{Imm}_{st}) + \lambda_k 1(\text{Educ}_{istk}) 1(\text{FE}_{st}) + \theta X_{ist} + \delta Z_{st}) \quad (5)$$

where $\Phi()$ is the standard normal cdf. We will estimate various specifications of equation (5) as a probit and report robust standard errors clustered on states. All estimations use NES data for native-born individuals pooled across 1992 and 2000.

4.2. Estimation Results

Our baseline specification results are reported in Table 6. Each column of Table 6 corresponds to a different specification of equation (5). We first note that the results across all four specifications replicate the finding in the literature that more-skilled natives are less likely to support immigration restrictions. Here, opposition to immigration is weakest among college graduates. The coefficients on *College* across all four models imply that college graduates are 17 to 26 percentage points less likely to prefer fewer immigrants than high-school dropouts.

Our main result of interest is whether support for immigration is greater in states with higher skill mixes of immigrants. Model 1 examines this idea by including as a regressor *Immigration Mix*; here, we implicitly restrict to be equal all four parameters $\lambda_{1...4}$. The coefficient estimate on *Immigration Mix* is significantly negative. An individual living in a state with an above-average

share of college graduates in its immigrant population is 5.9 percentage points less likely to support immigration restrictions than is a comparable person living in a below-average state.

Model 2 interacts *Immigration Mix* with our full set of education indicators, to look for variation in the impact of immigrant skill mix on native opinions. It is clear that the restrictive Model 1 masked important differences across education groups. The coefficients on the interactions between *Immigration Mix* and *No High School* and *High School* are negative, large in magnitude, and statistically significant. But the coefficients on the interactions between *Immigration Mix* and both *Some College* and *College Graduate* are smaller and not significantly different from zero. Only less-skilled natives are more supportive of immigration in the presence of more-skilled immigrants—the estimates in Model 2 imply by 18.4 and 8.3 percentage points for high-school dropouts and high-school graduates, respectively.

This is the main finding of our paper. It is inconsistent with the hypothesis that more-skilled immigrants elicit more support for freer immigration in all natives thanks to perceived dynamic and/or non-pecuniary benefits. Instead, it resonates with earlier findings of concern over the labor-market pressures of immigration. The opposition of less-skilled natives to freer immigration is ameliorated when exposed to more-skilled immigrants that likely complement rather than substitute for them in the labor market.

Models 3 and 4 in Table 6 examine the robustness of this interaction between native skills and immigrant skill mix by expanding the specification of equation (5) to include other regressors found to matter in earlier research. Model 3 adds the interactions of individual skills with the indicator *High Immigration*, for high levels of immigration. As in Hanson, Scheve, and Slaughter (2007), we find that native high-school dropouts living in high-immigration states are significantly more likely to oppose freer immigration. This is consistent with immigrant inflows

having local rather than national labor-market impacts. Results for *Immigration Mix* are attenuated for high-school dropouts, with a fall in magnitude and significance for its coefficient estimate. But results for *Immigration Mix* interacted with *High School* are now stronger.

Finally, Model 4 adds the interactions of individual skills with the indicator *Fiscal Exposure*, to capture states with high fiscal pressures from immigrant inflows. As in Hanson, Scheve, and Slaughter (2007), college graduates are much less supportive of freer immigration when living in states with high fiscal pressures from immigrants. For these highly skilled natives, pre-tax labor market benefit of immigrant inflows may be offset by post-tax fiscal costs. But as in Model 3, our results for *Immigration Mix* interacted with individual skills are largely unchanged. As in Model 2, here in Model 4 the coefficients on the interactions between *Immigration Mix* and *No High School* and *High School* are negative, large in magnitude, and statistically significant.

In Table 7 we examine the robustness of our Table 6 findings by adding to equation (5) additional control regressors in X_{ist} . Consistent with many earlier studies showing an important role for non-economic considerations in shaping opinions over immigration policy, we add control regressors *Government Employee* (dichotomous indicator); *Ideology*, *Isolationism*, and *Tolerance* (continuous, each constructed from various NES survey responses); and *Union Member* (dichotomous indicator). These regressors may also be correlated with Bertrand-Mullainathan measurement errors in qualitative responses about immigration.

These additional control regressors somewhat attenuate our results for our key regressor of interest, *Immigrant Mix*. In Model 1 the coefficient estimate on *Immigrant Mix* is now smaller and not significantly different from zero. In Models 2 through 4 the coefficient on the interaction of *Immigrant Mix* and *High School* remains negative but is now again smaller and not significantly different from zero. In Models 2 and 4, the coefficient on the interaction between

Immigration Mix and *No High School* remains negative, large in magnitude, and statistically significant. We conclude from Table 7 that the broad pattern of Table 6 remains, but that the role for the skill mix of immigrants in shaping policy opinions is less clear.

The attenuation of the results controlling for these other factors has at least three possible interpretations. First, including measures such as *Ideology*, *Isolationism*, and *Tolerance* risks introducing endogeneity into the analysis. For example, ideology may simply be a summary statistic of individuals' policy preferences including those about immigration policy. Second, the attenuation of these estimates may indicate that the effect of skilled-immigration on policy opinions is through these attitudinal variables. Respondents exposed to skilled immigration may, for example, develop less isolationist and more tolerant attitudes that are correlated with less restrictionist immigration policy positions. Finally, to extent that the attitudinal variables are exogenous and well measured, the attenuation of the estimates may indeed reflect that the effect of skill-immigration on policy opinions is weaker than reported in Table 6.

In unreported results, we examined additional factors that may shape individual opinions about immigration policy. Huntington (2004) argues that opposition to immigration may be rooted not just in the skill mix of immigrants but also in the perceived negative affects that increasing cultural, ethnic, and linguistic diversity may have on the United States. He singles out immigration from Latin America, which accounts for over 50% of new immigrant inflows since 1990, as having particularly weakened American identity. To the extent there are individuals in our data who share Huntington's views, opposition to immigration as expressed in the NES may simply be proxying for opposition to Latino immigration. To examine this idea, we included controls for the share of the state immigrant population that is from Latin America. In no

specification did the inclusion of this variable affect the results reported in Tables 6 and 7. Additionally, the variable was statistically insignificant in most regressions.

5. Conclusions

Voters today remain sharply divided over the proper direction for U.S. immigration controls. In this paper we have built on earlier research examining which cleavages underlie opinions over immigration policy. We have examined whether individual opinions vary with the skill mix of state immigrant inflows, above and beyond the pre-tax labor-market and post-tax fiscal cleavages found in earlier work.

Our main finding is that skill composition does matter, but not across the board. Less-skilled natives tend to support freer immigration more when living in states with a relatively skilled mix of immigrants. The sensitivity of less-skilled natives' opinions to the skill composition of immigrants resonates with earlier findings of concern over the labor-market pressures of immigration. It does not resonate with arguments that more-skilled immigrants will be preferred because of perceived dynamic and/or non-pecuniary benefits.

One possible research extension of our study would be to examine the skill mix of local immigrants in finer detail. Our analysis uses state-level data. It might be that immigration opinions are especially sensitive to immigrant skill compositions far closer to home—e.g., by counties or metropolitan areas, rather than entire states. For geographically large and ethnically diverse states such as California, this finer focus might strengthen our somewhat mixed results.

We close with one possible policy implication suggested by our study. As discussed in the introduction, today there are many calls for a reform of U.S. immigration policy with the broad goal of overhauling admission rules to favor more-skilled immigrants. For various economic goals (e.g., maximizing the boost to national output) such an overhaul might make sense. Our

findings in this paper suggest that this sort of policy reform may increase support for immigration among the native constituency most opposed to liberalization—less-skilled workers.

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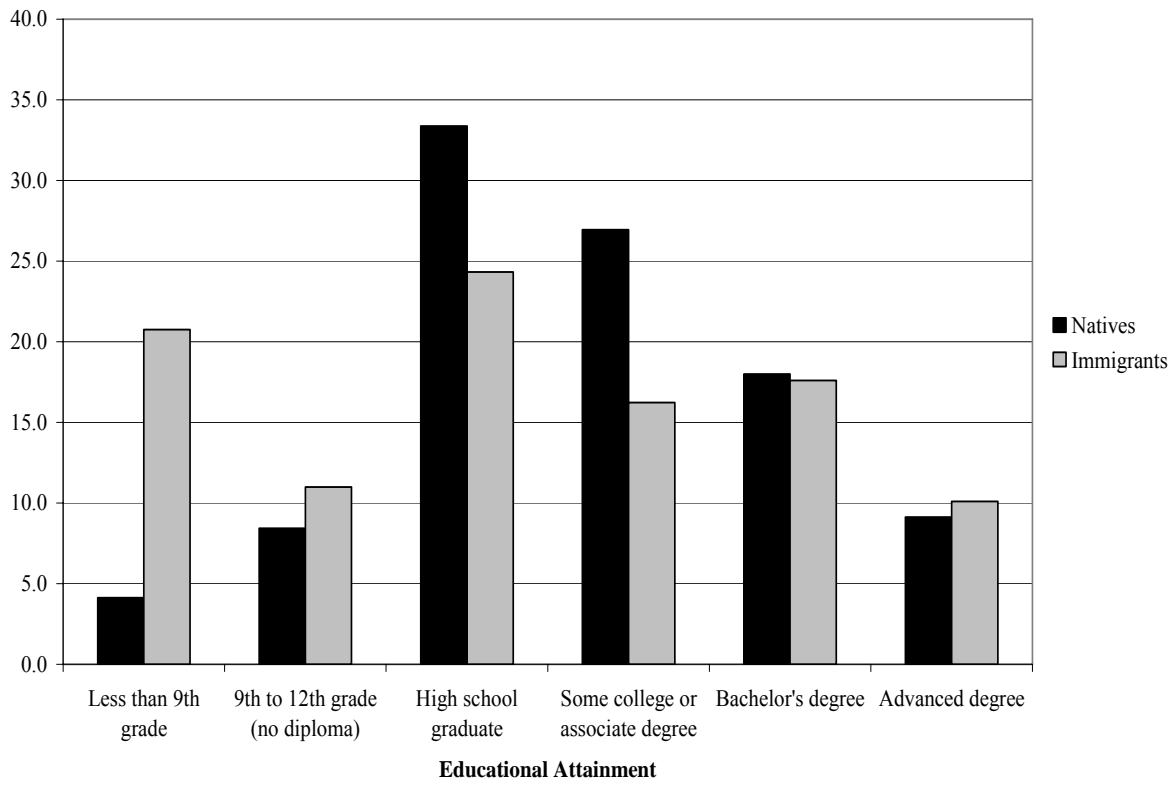


Figure 1

Earnings Distribution of Immigrants and Natives, 2002

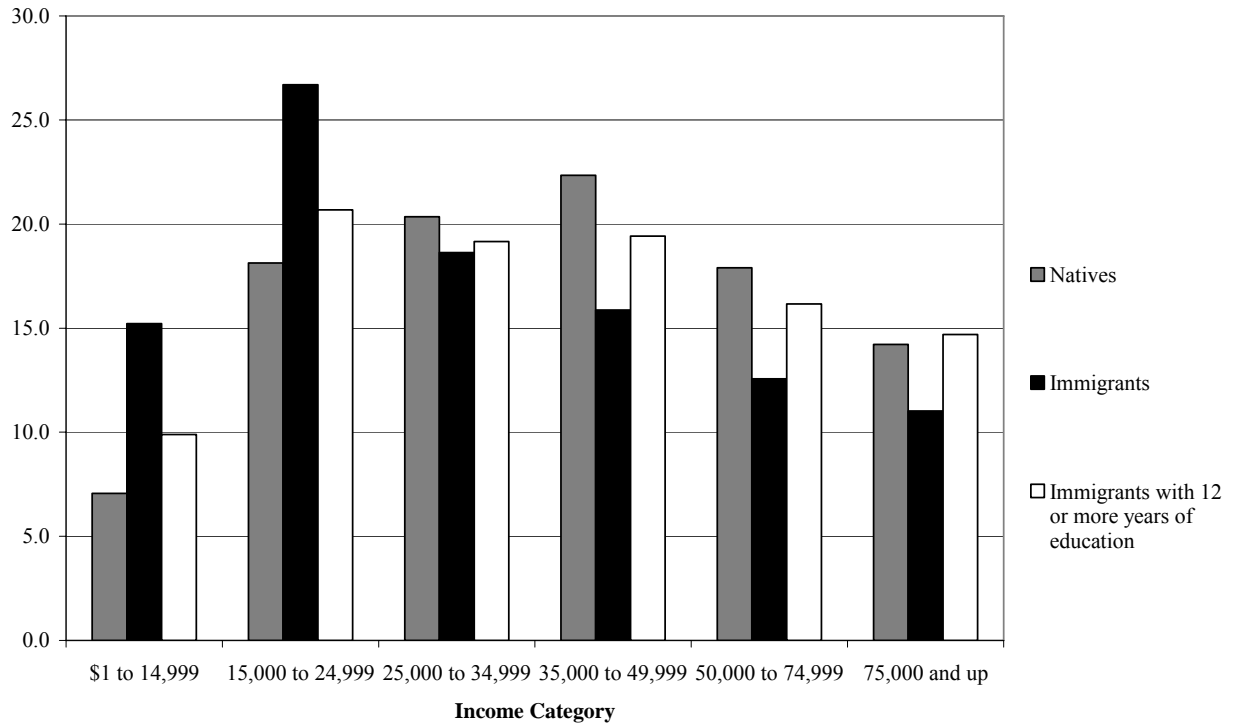


Figure 2

Figure 3

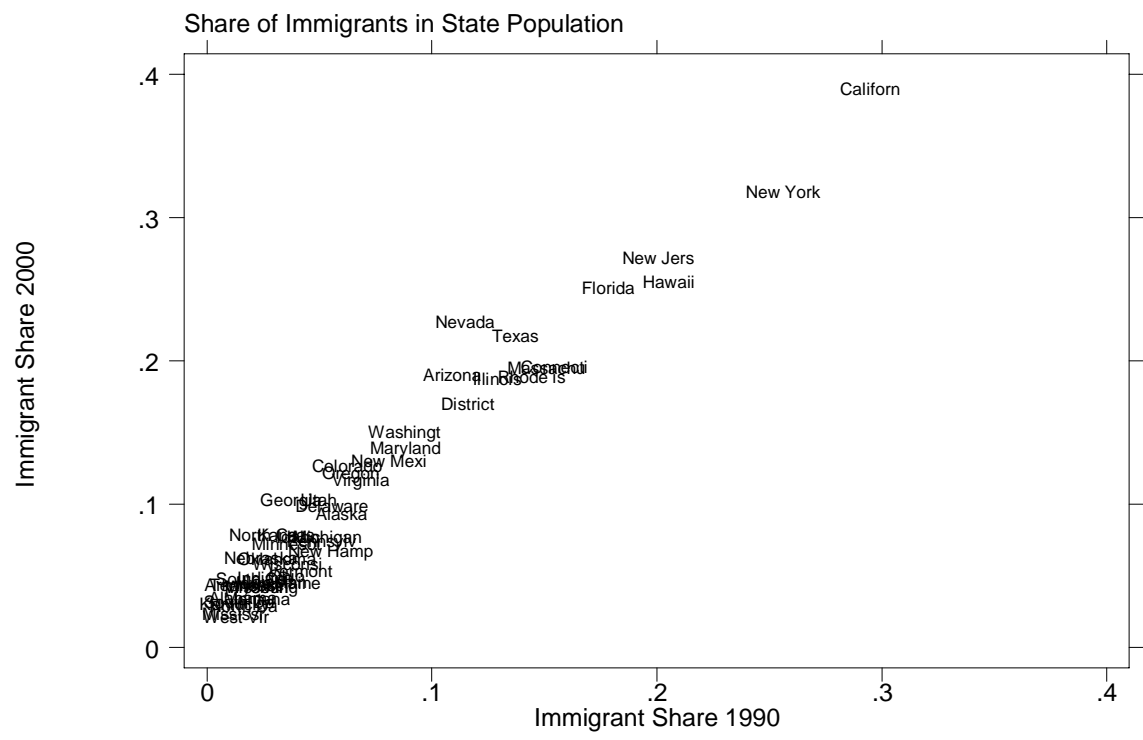


Figure 4a

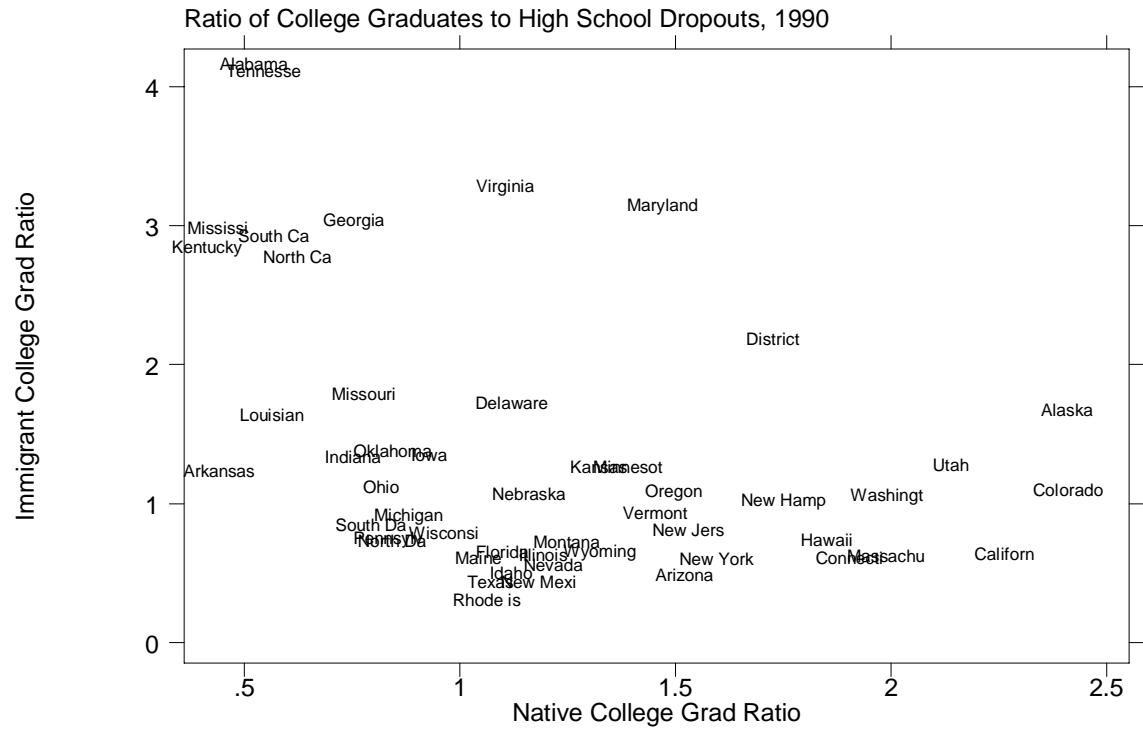


Figure 4b

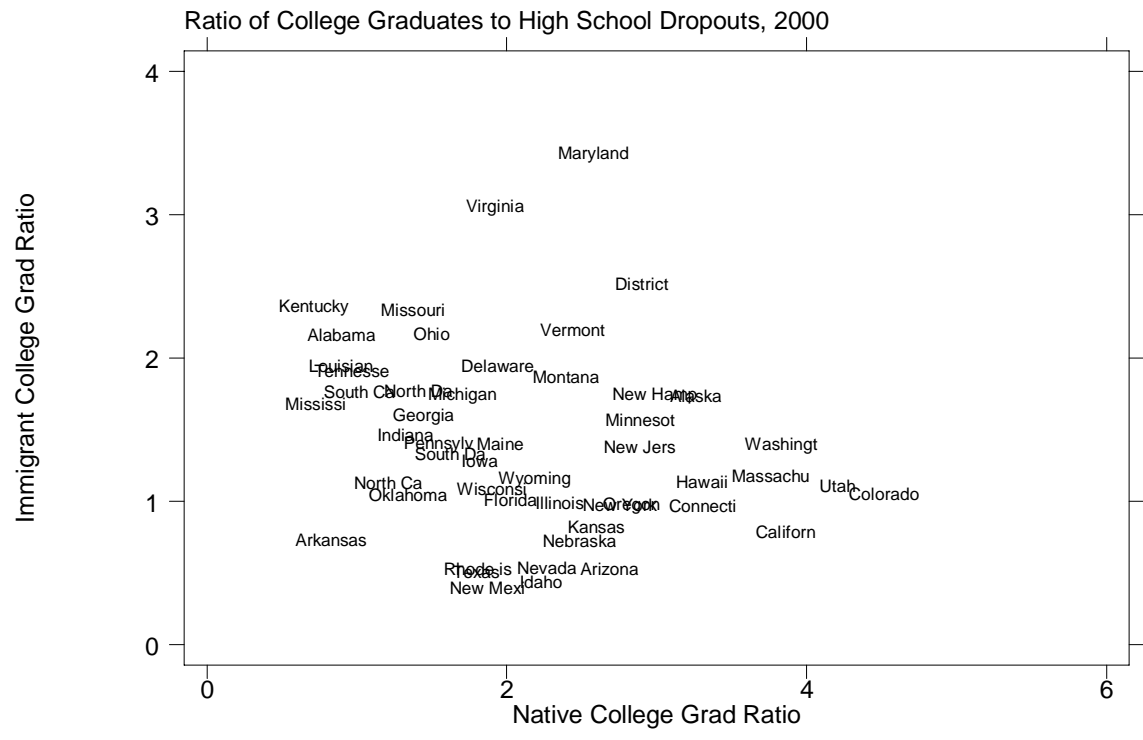


Figure 5a

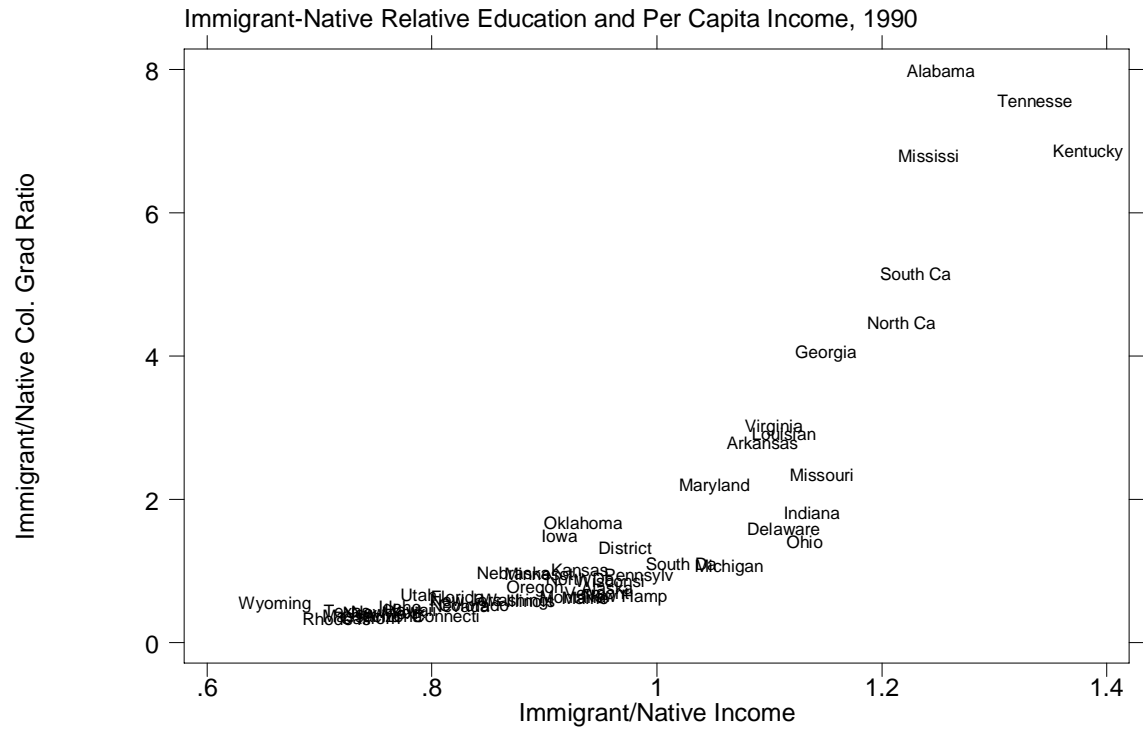
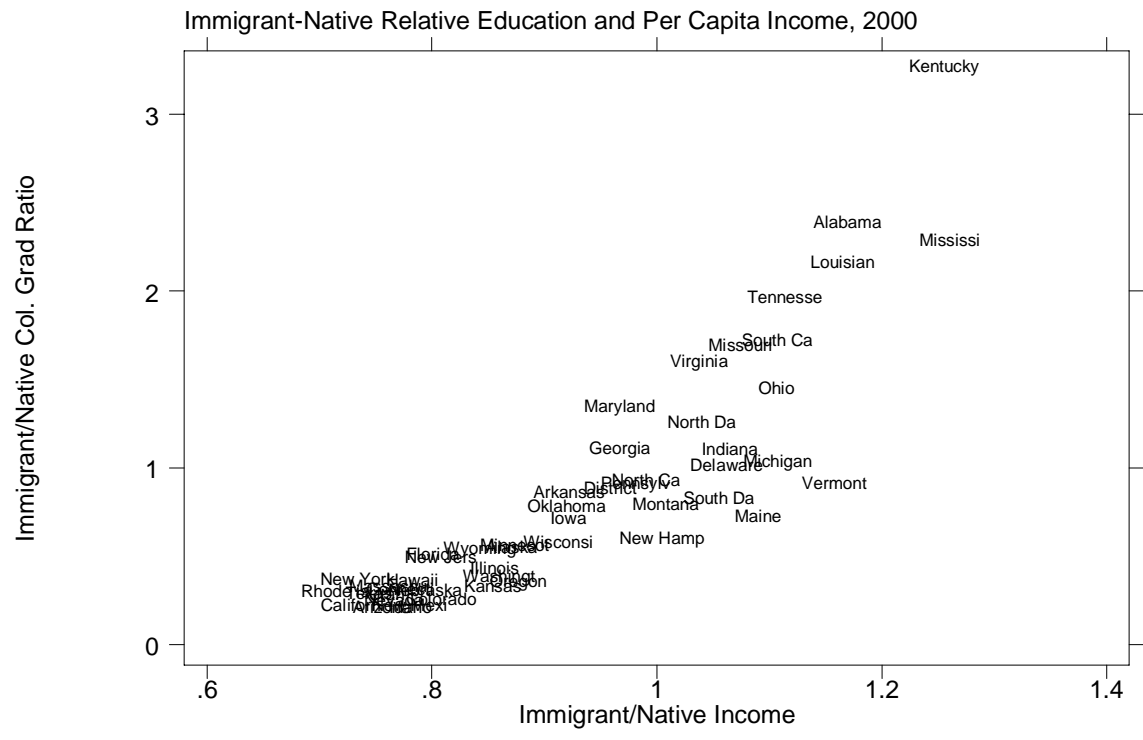


Figure 5b



Difference in Immigrant and Native Welfare Participation Rates

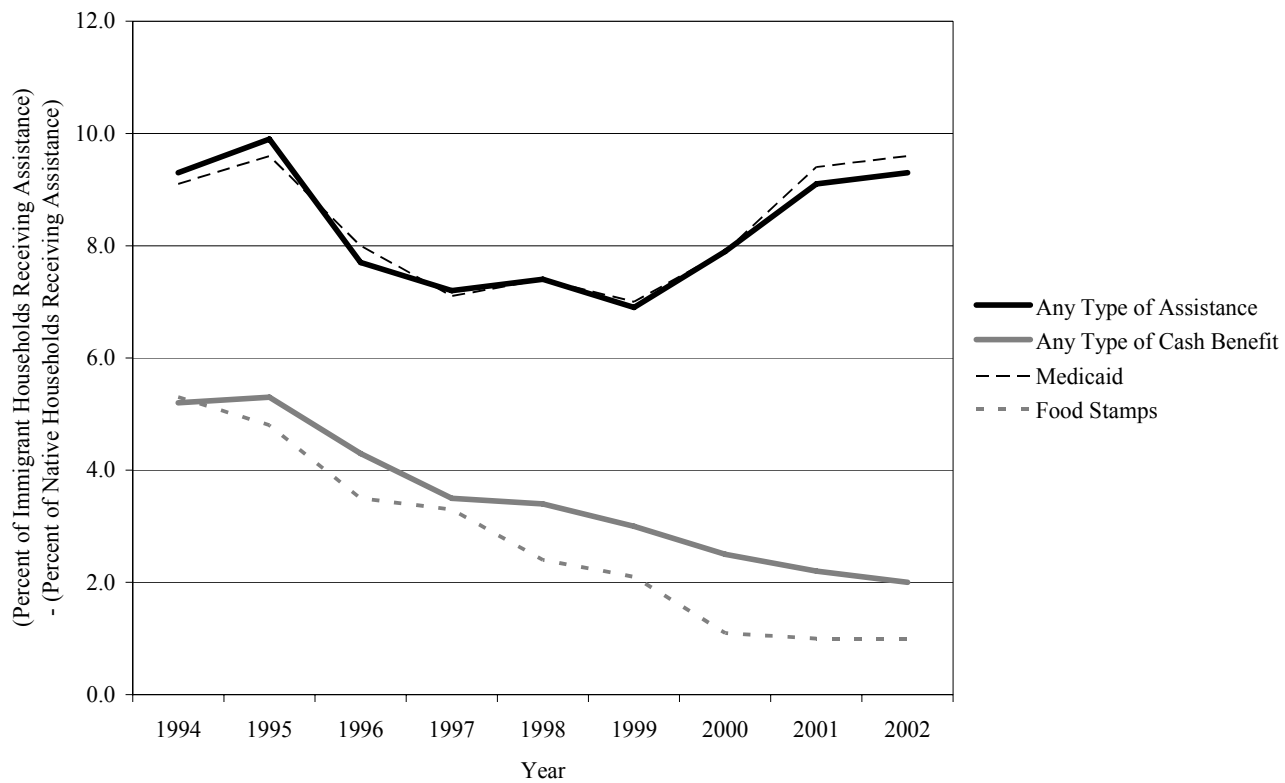


Figure 6

Figure 7a

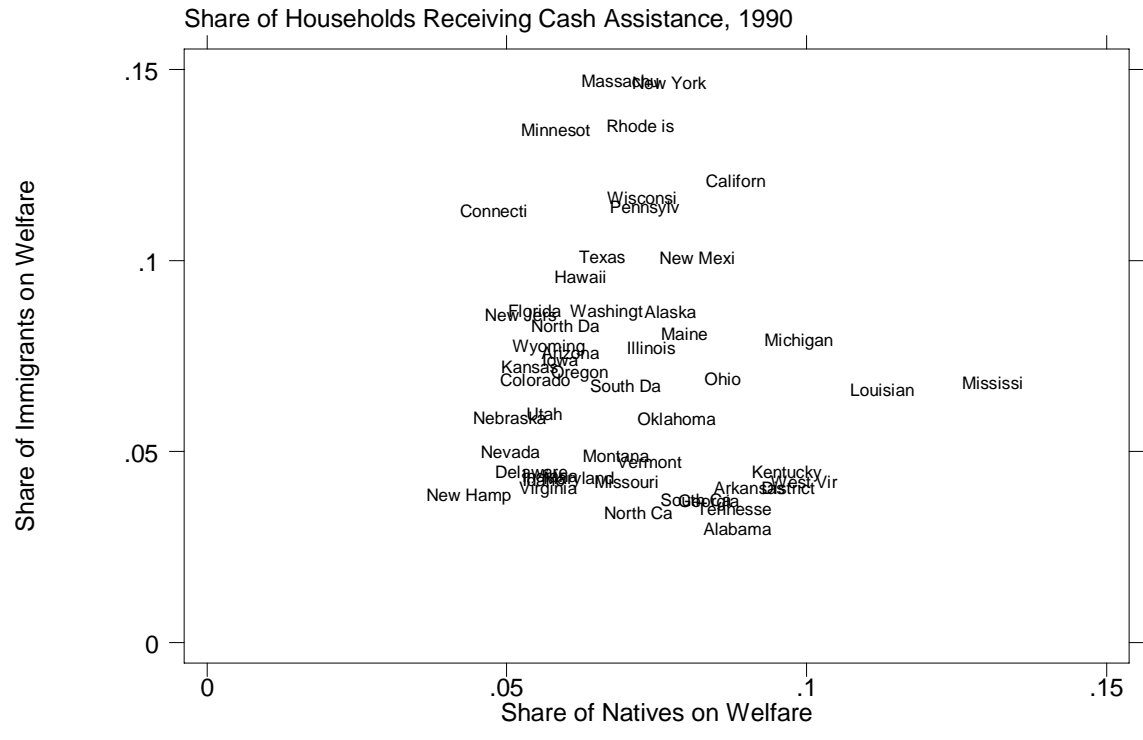


Figure 7b

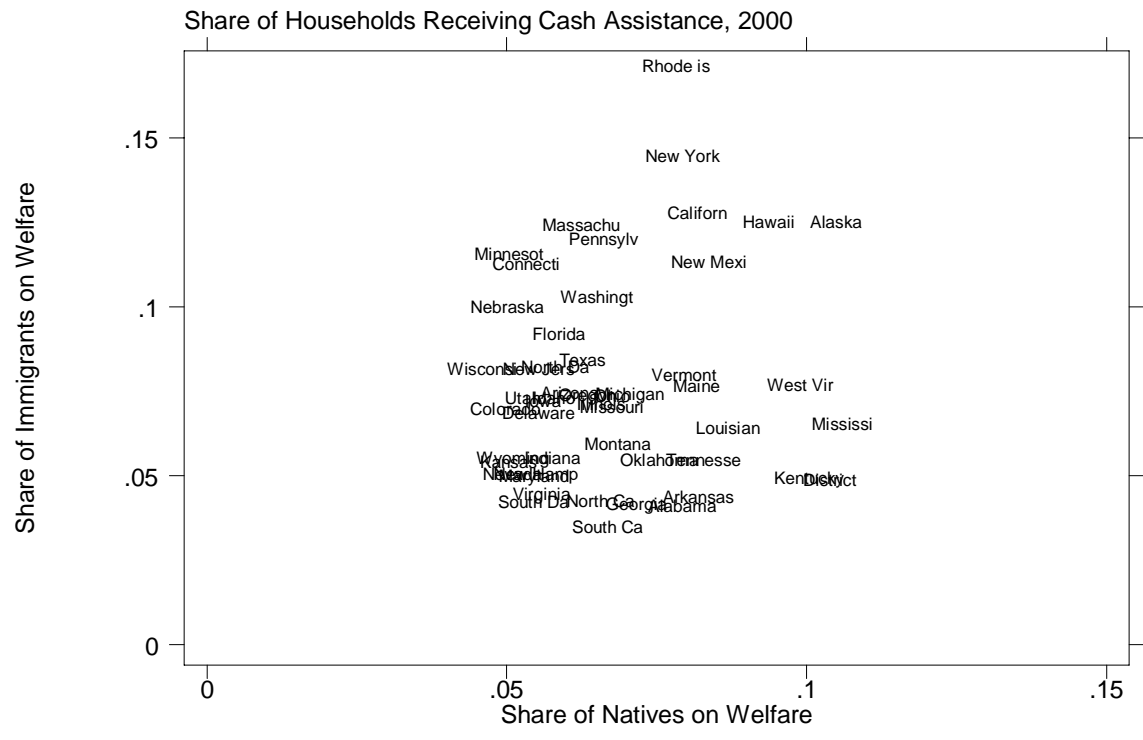


Figure 8a

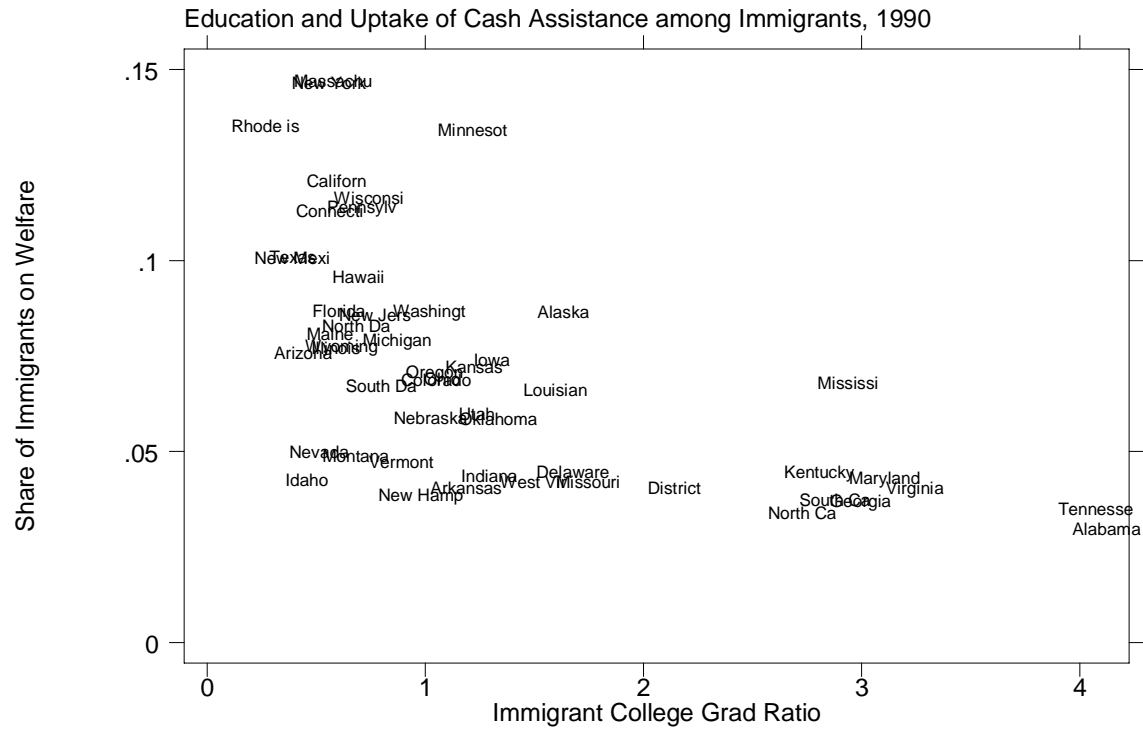


Figure 8b

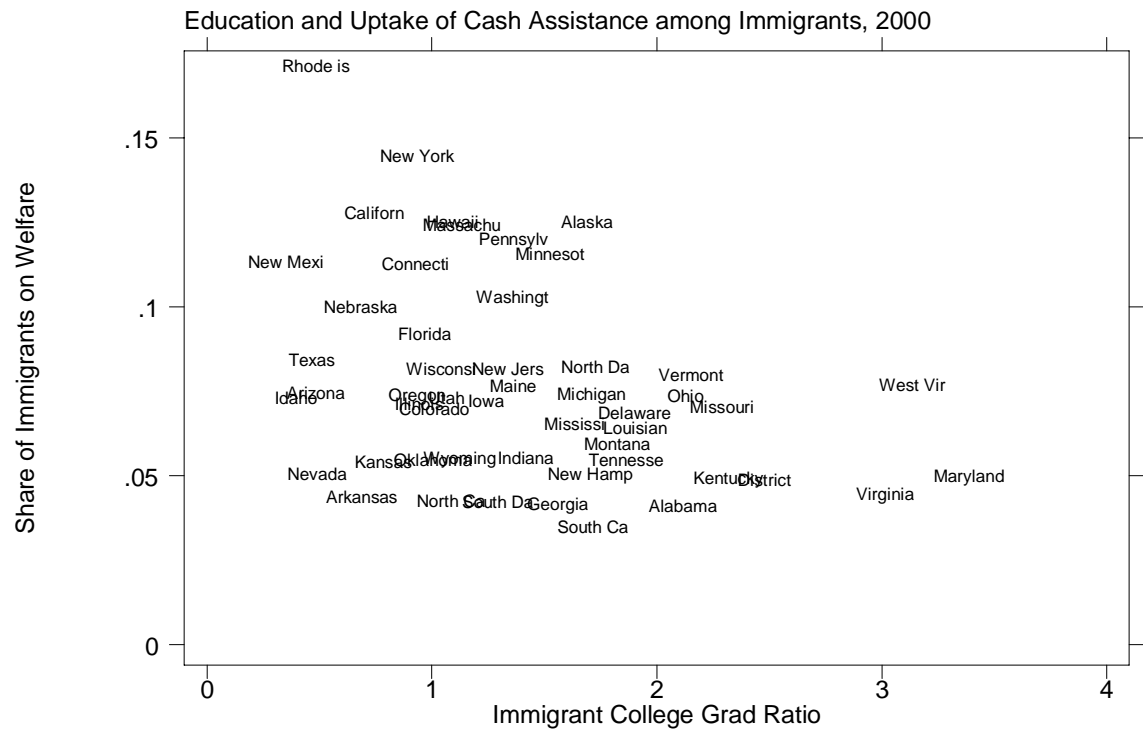


Table 1: Welfare Participation in More and Less Generous States

| A. Welfare Participation Rates (% of Households Receiving Some Type of Assistance) | | | | | B. Cash Program Participation Rates (% of Households Receiving Cash Assistance) | | | |
|--|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|---|-------------------------------------|-------------------------------------|-------------------------------------|
| Year | Less Generous States | More Generous States | Less Generous States | More Generous States | Less Generous States | More Generous States | Less Generous States | More Generous States |
| | Natives | | Immigrants | | Natives | | Immigrants | |
| 1994 | 16.7 | 13.9 | 22.8 | 25.2 | 7.7 | 7.6 | 8.2 | 14.3 |
| 1995 | 15.8 | 13.7 | 22.9 | 25.2 | 7.2 | 7.5 | 8.2 | 14.0 |
| 1996 | 16.2 | 13.9 | 19.3 | 24.0 | 7.0 | 7.6 | 7.4 | 13.1 |
| 1997 | 14.7 | 12.9 | 17.1 | 22.4 | 6.6 | 6.4 | 6.1 | 11.3 |
| 1998 | 13.9 | 12.6 | 16.9 | 21.9 | 5.7 | 6.0 | 5.6 | 10.5 |
| 1999 | 13.6 | 12.6 | 15.5 | 21.5 | 5.4 | 5.6 | 4.7 | 9.9 |
| 2000 | 14.0 | 12.9 | 15.4 | 23.7 | 5.1 | 5.1 | 3.4 | 9.1 |
| 2001 | 15.2 | 13.4 | 18.5 | 25.3 | 5.1 | 4.9 | 3.5 | 8.6 |
| 2002 | 16.0 | 13.7 | 20.7 | 25.5 | 4.9 | 4.9 | 3.4 | 8.3 |

| C. Medicaid Participation Rates (% of Households Receiving Medicaid) | | | | | D. Food Stamp Participation Rates (% of Households Receiving Food Stamps) | | | |
|--|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|---|-------------------------------------|-------------------------------------|-------------------------------------|
| Year | Less Generous States | More Generous States | Less Generous States | More Generous States | Less Generous States | More Generous States | Less Generous States | More Generous States |
| | Natives | | Immigrants | | Natives | | Immigrants | |
| 1994 | 14.1 | 12.4 | 18.6 | 23.6 | 9.6 | 7.3 | 14.2 | 13.6 |
| 1995 | 13.5 | 12.4 | 19.5 | 23.6 | 8.6 | 7.1 | 13.1 | 12.6 |
| 1996 | 14.0 | 12.6 | 17.2 | 22.7 | 8.3 | 7.2 | 11.0 | 11.4 |
| 1997 | 12.8 | 11.8 | 15.2 | 20.9 | 7.3 | 6.0 | 9.2 | 10.3 |
| 1998 | 12.2 | 11.6 | 15.4 | 20.7 | 6.4 | 5.2 | 5.7 | 9.1 |
| 1999 | 12.2 | 11.7 | 13.8 | 20.7 | 5.8 | 4.6 | 6.2 | 7.7 |
| 2000 | 12.5 | 12.2 | 14.0 | 22.6 | 5.8 | 4.3 | 4.8 | 6.7 |
| 2001 | 13.7 | 12.6 | 17.3 | 24.5 | 6.2 | 4.3 | 5.3 | 6.7 |
| 2002 | 14.5 | 12.8 | 19.4 | 24.7 | 6.3 | 4.6 | 5.8 | 6.8 |

Source: Current Population Survey, Annual Demographic Files, various years.

**Table 2: Support for Immigration Restrictions
by Education Group and Size of State Immigrant Population**

| Year | State Immigrant Population | No High School | High School or Some College | College Graduate |
|------|----------------------------|----------------|-----------------------------|------------------|
| 1992 | Low | 46.0% | 55.9% | 40.0% |
| | High | 56.2% | 53.7% | 41.0% |
| 2000 | Low | 49.7% | 55.3% | 35.3% |
| | High | 70.1% | 49.5% | 37.2% |

Notes: Table 2 reports the percent of native-born respondents stating they would prefer immigration to be decreased (by a little or by a lot) in the NES survey for a given year. No high school refers to those with up to 12 years of schooling but no high-school diploma, high school or some college refers to those with 12 to 15 years of schooling (with a high-school diploma), and college graduates refers to those with 16+ years of schooling. States with a high immigrant population have a ratio of immigrants to natives of at least 0.12 (the mean state immigrant/native population ratio for working-age adults in 1990). Summary statistics use NES sampling weights.

**Table 3: Support for Immigration Restrictions
by Education Group and Immigrant Access to Public Benefits**

| Year | Immigrant Access to Public Benefits | No High School | High School or Some College | College Graduate |
|------|-------------------------------------|----------------|-----------------------------|------------------|
| 1992 | Low | 46.2% | 54.7% | 37.6% |
| | High | 56.1% | 55.7% | 43.7% |
| 2000 | Low | 59.7% | 53.6% | 34.7% |
| | High | 56.0% | 50.5% | 38.8% |

Notes: States with high immigrant access to public assistances are those with generous welfare benefits (in 1992) or with generous welfare benefits and high availability of these benefits to immigrants (in 2000) (see Zimmerman and Tumlin, 1999). See Notes to Table 2 for other details.

**Table 4: Support for Immigration Restrictions by Education Group,
Size of State Immigrant Population, and Composition of Immigrant Population**

| Year | Size of State Immigrant Population | No High School State Immigrant Skills | | High School or Some College State Immigrant Skills | | College Graduate State Immigrant Skills | |
|------|---------------------------------------|--|-------|---|-------|--|-------|
| | | Low | High | Low | High | Low | High |
| 1992 | Low | 56.9% | 42.8% | 56.2% | 55.8% | 38.4% | 40.8% |
| | High | 56.2% | N.A. | 53.7% | N.A. | 41.0% | N.A. |
| 2000 | Low | 46.4% | 50.8% | 56.9% | 54.6% | 25.0% | 38.5% |
| | High | 70.6% | 67.7% | 48.6% | 53.7% | 37.8% | 35.0% |

Notes: High-skilled immigrant population refers to states with a share of immigrants who have a college education that is above the national average. N.A. indicates average could not be calculated due to too few underlying observations in that cell. See Notes to Table 2 for other details.

**Table 5: Support for Immigration Restrictions by Education Group,
Immigrant Access to Public Benefits, and Composition of Immigrant Population**

| Year | Immigrant Access to Public Benefits | No High School State Immigrant Skills | | High School or Some College State Immigrant Skills | | College Graduate State Immigrant Skills | |
|------|--|--|-------|---|-------|--|-------|
| | | Low | High | Low | High | Low | High |
| 1992 | Low | 53.8% | 42.9% | 54.4% | 54.9% | 31.7% | 42.3% |
| | High | 59.0% | 42.3% | 54.8% | 61.7% | 45.0% | 31.7% |
| 2000 | Low | 66.5% | 53.6% | 49.8% | 56.8% | 34.3% | 35.1% |
| | High | 57.2% | 54.4% | 51.8% | 47.3% | 36.3% | 43.4% |

Notes: See Notes to Table 4.

Table 6: Probit Results for Immigration-Policy Preferences, Baseline Specifications

| | Model 1 | Model 2 | Model 3 | Model 4 |
|--|-------------------|-------------------|-------------------|-------------------|
| <i>High School</i> | 0.039 (0.082) | -0.100 (0.097) | 0.230 (0.198) | -0.017 (0.147) |
| <i>Some College</i> | -0.143 (0.093) | -0.414 (0.088) | -0.147 (0.164) | -0.344 (0.113) |
| <i>College</i> | -0.440 (0.094) | -0.629 (0.102) | -0.459 (0.228) | -0.682 (0.168) |
| <i>Immigration Mix</i> | -0.149 (0.071) | | | |
| <i>No High School * Immigration Mix</i> | | -0.473 (0.136) | -0.255 (0.183) | -0.353 (0.150) |
| <i>High School * Immigration Mix</i> | | -0.223 (0.070) | -0.298 (0.089) | -0.230 (0.086) |
| <i>Some College * Immigration Mix</i> | | 0.093 (0.104) | 0.075 (0.104) | 0.076 (0.105) |
| <i>College * Immigration Mix</i> | | -0.110 (0.107) | -0.045 (0.162) | -0.017 (0.134) |
| <i>No High School * Additional Indicator</i> | | | 0.487 (0.184) | 0.382 (0.205) |
| <i>High School * Additional Indicator</i> | | | 0.008 (0.189) | 0.174 (0.142) |
| <i>Some College * Additional Indicator</i> | | | 0.106 (0.121) | 0.206 (0.140) |
| <i>College * Additional Indicator</i> | | | 0.231 (0.194) | 0.440 (0.163) |
| Observations | 3,117 | 3,117 | 3,117 | 3,117 |
| Log-likelihood | -2103.61 | -2095.81 | -2091.36 | -1997.26 |

Notes: This table reports coefficient estimates for probit regressions on native individuals from the 1992 and 2000 NES surveys. The dependent variable is *Immigration Opinion*, equal to one for respondents who support further restricting immigration and zero otherwise. *Immigration Mix* is a dichotomous indicator equal to one for state-years whose share of immigrants accounted for by college graduates exceeds the national average. *Additional Indicator* is *High Immigration* in Model 3 and *Fiscal Exposure* in Model 4. All specifications include the baseline control variables *Age*, *Age Squared*, *Female*, *Hispanic*, *State Unemployment*, a year indicator variable for 2000, and a full set of state fixed effects. Each cell reports a coefficient estimate and a state-clustered robust standard error in parentheses. Observations are weighted using sampling weights from the NES data.

Table 7: Probit Results for Immigration-Policy Preferences, Expanded Specifications

| | Model 1 | Model 2 | Model 3 | Model 4 |
|--|-------------------|-------------------|-------------------|-------------------|
| <i>High School</i> | -0.026 (0.114) | -0.215 (0.145) | 0.005 (0.280) | -0.150 (0.203) |
| <i>Some College</i> | -0.234 (0.130) | -0.560 (0.136) | -0.410 (0.229) | -0.497 (0.152) |
| <i>College</i> | -0.479 (0.126) | -0.729 (0.133) | -0.569 (0.234) | -0.763 (0.181) |
| <i>Immigration Mix</i> | -0.072 (0.124) | | | |
| <i>No High School * Immigration Mix</i> | | -0.563 (0.224) | -0.419 (0.264) | -0.494 (0.239) |
| <i>High School * Immigration Mix</i> | | -0.155 (0.128) | -0.199 (0.134) | -0.148 (0.130) |
| <i>Some College * Immigration Mix</i> | | 0.183 (0.114) | 0.193 (0.152) | 0.191 (0.148) |
| <i>College * Immigration Mix</i> | | -0.013 (0.146) | -0.006 (0.193) | 0.075 (0.161) |
| <i>No High School * Additional Indicator</i> | | | 0.402 (0.290) | 0.409 (0.276) |
| <i>High School * Additional Indicator</i> | | | 0.091 (0.146) | 0.266 (0.151) |
| <i>Some College * Additional Indicator</i> | | | 0.180 (0.146) | 0.261 (0.165) |
| <i>College * Additional Indicator</i> | | | 0.164 (0.204) | 0.456 (0.186) |
| Observations | 2,277 | 2,277 | 2,277 | 2,277 |
| Log-likelihood | -1478.91 | -1471.22 | -1469.68 | -1422.17 |

Notes: This table reports coefficient estimates for probit regressions on native individuals from the 1992 and 2000 NES surveys. The dependent variable is *Immigration Opinion*, equal to one for respondents who support further restricting immigration and zero otherwise. *Immigration Mix* is a dichotomous indicator equal to one for state-years whose share of immigrants accounted for by college graduates exceeds the national average. *Additional Indicator* is *High Immigration* in Model 3 and *Fiscal Exposure* in Model 4. All specifications include the baseline control variables *Age*, *Age Squared*, *Female*, *Hispanic*, *State Unemployment*, a year indicator variable for 2000, and a full set of state fixed effects. They also include the additional control variables *Government Employee*, *Ideology*, *Isolationism*, *Tolerance*, and *Union Member*. Each cell reports a coefficient estimate and a state-clustered robust standard error in parentheses. Observations are weighted using NES sampling weights.