IMMIGRATION, LEGAL STATUS, AND PUBLIC AID MAGNETS: EVIDENCE FROM THE U.S. CENSUS

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INTRODUCTION

PREVIOUS STUDIES HAVE DEMONSTRATED statistically and economically significant responses to public aid differentials across locations, or welfare migration, by low-income immigrants and natives (Buckley, 1996; Borjas, 1999; Dodson, 2001; McKinnish, 2007). California, known for high real values of public aid payments, often is suspected to attract a disproportionate number of migrants and therefore to be a "welfare magnet." Figure 1 illustrates monthly cash welfare plus food stamps values for California in comparison with other common immigrant destinations of interest. Using 1980 and 1990 U.S. Census data, Borjas (1999) finds support for the California welfare magnet claim: immigrant welfare participants are more likely to reside in California than are U.S. born persons and immigrants who do not use welfare.

In 1996, the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) increased immigrant eligibility requirements for means-tested benefits. States in the post-1996 welfare reform period experimented with welfare policies by choosing generosity levels and availability criteria at various levels above federal standards (Kaushal, 2005). Furthermore, while nominal benefit levels in California have increased over time, real benefits have decreased (Figure 1). In contrast, real benefits in other states have remained more constant. These dynamics in addition to cited programmatic changes may have affected expectations and generated disparities between original welfare migration results and those relevant for the current policy period. The 2000 Census is the first available decennial Census post-PRWORA and allows for empirical examination of whether previously identified patterns persist and are robust across worker groups of interest.

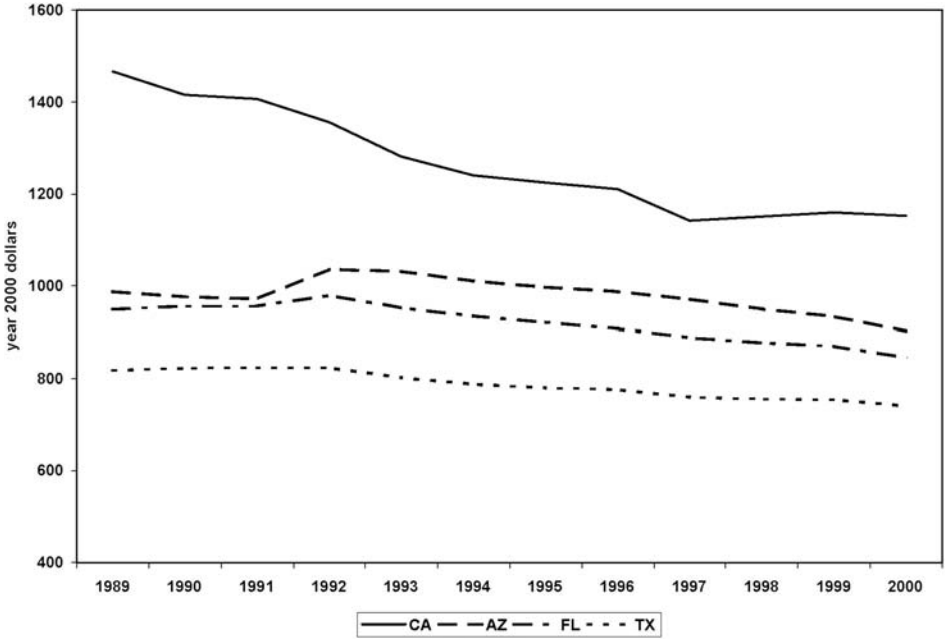
The contributions of this paper are (1) to update the literature examining welfare migration dynamics to the post-1996 welfare reform period, and (2) to illustrate that the original findings based on U.S. Census data that support welfare migration, though persistent, are occupation-specific. Of particular interest, there is no evidence that California is a welfare magnet for occupations hypothesized to have high percentages of illegal immigrants (e.g., agriculture, construction, other labor). This is notable given continuing state level attention to the denial of public services to new illegal immigrants. Documenting the existence (or absence) of welfare migration for different occupational and legal status groups is of both welfare and immigration policy interest and contributes to a better understanding of the effect of state and local public finance on the locational distribution of migrants.

WELFARE MIGRATION

The immigrant welfare migration literature has not reached a consensus. While Buckley (1996), Borjas (1999), and Dodson (2001), for example, present evidence supportive of immigrant welfare migration, other authors (e.g., Zavodny, 1999; Kaushal, 2005) present evidence against this type of immigrant migration dynamic. This paper, however, shows that data may be consistent with welfare migration for some but not all immigrant populations and therefore differences in previous results may be at least partially attributable to differences in data sources and contexts selected for study.

The empirical framework presented here follows Borjas (1999) who presents an extended Roy model of migration in which welfare generous states induce those immigrants at the margin (who may have stayed home or located elsewhere in absence of welfare) to make locational decisions based on social safety net availability. Using the 1980 and 1990 Censuses, Borjas examines whether the interstate dispersion of public service benefits influences the locational distribution of immigrants overall relative to the distribution of U.S. born citizens. In this framework, he finds evidence consistent with welfare-induced migration. Specifically, Borjas demonstrates that immigrant program participation rates overall are more sensitive to benefit level changes than are native participation rates. His study, however, does not allow for differential treatment along margins of legal status, labor force participation, and occupation.

Figure 1: **Real Maximum Monthly AFDC/TANF plus FSP for Family of Four**



Sources: U.S. House of Representatives and author's calculations. Real value series deflated using the state level CPI2000 from Berry et al. (2003). Values linearly imputed for unreported years.

EMPIRICAL FRAMEWORK

Borjas (1999) uses a descriptive linear probability model in which the probability of residing in California, his welfare magnet candidate, is regressed on an immigrant indicator, a welfare participation indicator, their interaction, and socioeconomic controls. His regression is of the form:

$$\textbf{(1)} \quad CA_i = X_i'\gamma + \alpha_1 \text{Immigrant}_i + \alpha_2 B_i + \alpha_3 \text{Immigrant}_i \times B_i + \varepsilon_i,$$

where CA_i is a dummy variable equaling one if the survey respondent was observed in California; X_i is a vector of socioeconomic characteristics; and B_i indicates if an individual *i* (or individual *i*'s family) reported being a public aid participant. Borjas argues that the coefficient on the interaction term, α_3, has the interpretation as an estimator of the "welfare clustering gap" in California. This welfare clustering gap measures the difference between public aid participants and nonparticipants for immigrants relative to this difference for the U.S. born population. While the regression does not claim a causal relationship, it does describe the equilibrium relationship between state choice and program participation. The broadest definition of welfare benefits available in the Census is used here, which is based on usage of Temporary Assistance for Needy Families (TANF), Food Stamp Program (FSP), or Supplemental Security Income (SSI) within the last year.

Borjas runs this regression on U.S. Census data separately for 1980 and 1990. He finds that the coefficient α_3 is significant in the positive direction (robust across years) and argues that this is consistent with a welfare migration story in which immigrants who are welfare participants are more likely to be observed in high-benefit California than elsewhere in the country, even after controlling for differences in socioeconomic characteristics. Based on these results, Borjas argues that welfare recipients cluster in benefit-generous California.

Post-PRWORA Period

Table 1 presents an update of Borjas' welfare clustering gap analysis to the year 2000 Census data from IPUMS-USA (Ruggles et al., 2008).

Table 1
Year 2000 Census Clustering Gap Test (Dependent variable: Probability of California)

	(1)	*(2)*	*(3)*	*(4)*
	Full sample	*In labor force*	*Unemployed*	*Not in labor force*
Immigrant	0.123***	0.119***	0.178***	0.153***
	(0.004)	(0.005)	(0.030)	(0.009)
Used public aid	0.024***	0.027***	0.043***	0.021***
	(0.002)	(0.003)	(0.008)	(0.002)
Immigrant*used public aid	0.070***	0.079***	0.048*	0.060***
	(0.006)	(0.014)	(0.029)	(0.008)
Male	0.002***	–0.000	0.013***	0.008***
	(0.001)	(0.001)	(0.005)	(0.001)
Age	0.000***	0.001***	0.001***	0.001***
	(0.000)	(0.000)	(0.000)	(0.000)
Married	–0.029***	–0.032***	–0.033***	–0.023***
	(0.001)	(0.001)	(0.006)	(0.002)
Household size (persons)	0.015***	0.015***	0.013***	0.014***
	(0.001)	(0.001)	(0.003)	(0.001)
number under 18	–0.010***	–0.012***	–0.008**	–0.002
	(0.001)	(0.001)	(0.004)	(0.001)
number over 65	0.002**	–0.002	0.003	0.003**
	(0.001)	(0.001)	(0.008)	(0.001)
Education (years)	0.013***	0.014***	0.008***	0.012***
	(0.000)	(0.000)	(0.001)	(0.000)
Years in the U.S.	0.001***	0.002***	0.003***	0.001***
	(0.000)	(0.000)	(0.001)	(0.000)
Hispanic	0.174***	0.175***	0.176***	0.173***
	(0.002)	(0.003)	(0.011)	(0.004)
Asian	0.155***	0.154***	0.174***	0.158***
	(0.005)	(0.005)	(0.030)	(0.009)
Black	–0.026***	–0.028***	–0.036***	–0.026***
	(0.001)	(0.001)	(0.005)	(0.002)
Constant	–0.054***	–0.059***	–0.030**	–0.057***
	(0.002)	(0.003)	(0.015)	(0.004)
Observations	1054372	685641	26022	342709
R–squared	0.07	0.06	0.09	0.07

Source: 2000 U.S. Census, 1 percent sample of full population, restriction to household heads.
Notes: Robust standard errors in parentheses. Regressions also include controls for world region or country of origin.
***Significant at the 1 percent level.
**Significant at the 5 percent level.
*Significant at the 10 percent level.

Despite changes in political and economic environments, the general result remains. Overall data are consistent with immigrant welfare clustering in California. Particularly, the difference in probability of being located in California between immigrant participants and non-participants is 7 percent greater (column (1)) than that same difference for natives. Furthermore, the coefficient estimates indicate that immigrants and public aid participants in general (noninteracted terms) are positive and statistically significant factors associated with geographic clustering in California.

The U.S. Census is designed to be representative of both those in and out of the labor force. One hypothesis is that the welfare clustering pattern is driven by welfare use by the unemployed, and that among workers, results may be inherently different. Columns (2) and (3) of Table 1 restrict the U.S. Census sample to those active in the labor force.[1] The welfare clustering gap result still holds for both employed and unemployed categories. The welfare clustering gap for California between employed immigrants and natives is 7.9 percent, while this gap for unemployed immigrants relative to natives is only 4.8 percent. This suggests that the primary positive California welfare clustering result is not solely driven by differences between the unemployed and the employed. Column (4) presents the same exercise for those classified as not in the labor force. Again, the positive welfare clustering gap result remains evident.

Occupation (and Legal Status)

Since post-PRWORA eligibility requirements vary with immigrant and legal status groups, immigrants in this updated study are further divided into citizen and noncitizen categories to allow for heterogeneity in response across these groups as extension. The Census unfortunately does not distinguish illegal from legal immigrants. Instead, the only citizenship-related question asked to immigrants is whether they are naturalized citizens. Thus, naturalized citizens can be distinguished from noncitizens, but legal permanent residents cannot be distinguished from illegal immigrants, and within the legal permanent resident category, green card holders cannot be distinguished from those with other work authorization.[2] The extended regression of interest therefore becomes:

$$\textbf{(2)} \quad CA_i = X_i'\delta + \beta_1 \text{Naturalized}_i + \beta_2 \text{Noncitizen}_i + \beta_3 B_i + \beta_4 \text{Naturalized}_i \times B_i + \beta_5 \text{Noncitizen}_i \times B_i + \upsilon_i$$

Table 2 presents these results.

Column (1) of Table 2 once again confirms Borjas' overall result using the latest Census data along with the modified treatment of legal status. Welfare clustering gap coefficients of both natu-

Table 2
Year 2000 Census Clustering Gap Test (Dependent variable: Probability of California)

	(1) *Full sample*	*(2)* *In labor force*	*(3)* *Unemployed*	*(4)* *Not in labor force*
Naturalized citizen	0.118***	0.116***	0.169***	0.143***
	(0.004)	(0.005)	(0.032)	(0.009)
Noncitizen	0.130***	0.125***	0.190***	0.171***
	(0.005)	(0.006)	(0.032)	(0.009)
Used public aid	0.024***	0.027***	0.043***	0.021***
	(0.002)	(0.003)	(0.008)	(0.002)
Naturalized*used public aid	0.054***	0.084***	-0.013	0.053***
	(0.009)	(0.021)	(0.045)	(0.010)
Noncitizen*used public aid	0.088***	0.075***	0.083**	0.073***
	(0.009)	(0.018)	(0.036)	(0.012)
Observations	1054372	685641	26022	342709
R-squared	0.07	0.06	0.09	0.07

Source: 2000 U.S. Census, 1 percent sample of full population, restriction to household heads.

Notes: Robust standard errors in parentheses. Regressions also include controls for gender, age, spouse, household size, number under 18, number over 65, education, years in the United States, race, and world region or country of origin.

***Significant at the 1 percent level.

**Significant at the 5 percent level.

*Significant at the 10 percent level.

ralized citizens and of noncitizens relative to the U.S. born population are positive and significant. Naturalized citizens who used public aid were 5.4 percent more likely to be observed in California than were U.S. born welfare participants, and noncitizen participants were 8.8 percent more likely to be observed in California than were native participants. These patterns persist across labor force participation groups.

Evidence in Tables 1 and 2 suggests that immigrants, regardless of labor force participation, unemployment, and citizenship status, display locational clustering consistent with welfare migration even in the post-PRWORA period. A further question, however, is to what extent these results differ across occupations and especially occupational categories with tendencies to follow legal status lines. Illegal immigrants, for example, may be less likely to locate for welfare reasons than those in other legal status categories. Although this group cannot be isolated in the U.S. Census, questions related to occupation allow for analysis based on subpopulations of interest. Results for agricultural, construction, and nonconstruction laborers are presented in Table 3.

Because occupation groups in the Census are relatively small samples,[3] the Census 5 percent sample is used to repeat the welfare clustering gap exercise. Column (1) of Table 3 presents the results restricting to farmworkers. Notably, the California welfare clustering gaps for naturalized and noncitizen workers relative to natives are estimated to be negative (though statistically insignificant) using these data.

Agriculture as an occupation can be characterized by both large relative percentages of illegal immigrant workers and of seasonal, temporary, and migratory workers. Additional occupations that are often taken by illegal immigrants in the United States and that may have seasonal or temporary components also are considered with Census data in Table 3. Specifically, qualitatively similar conclusions result from restrictions to construction workers (Column (2)) and to nonconstruction laborers (Column (3)) in the Census. The interaction variables between program participation and

Table 3

2000 Census Clustering Gap Test – By Occupation (Dependent variable: Probability of California)

	(1)	*(2)*	*(3)*
	Farm Workers	*Construction laborers*	*Nonconstruction laborers*
Naturalized citizen	0.131***	0.139***	0.100***
	(0.045)	(0.024)	(0.022)
Noncitizen	0.227***	0.155***	0.124***
	(0.044)	(0.024)	(0.023)
Used public aid	0.039***	0.023**	0.024***
	(0.012)	(0.010)	(0.007)
Naturalized*used public aid	-0.011	0.002	0.012
	(0.051)	(0.063)	(0.052)
Noncitizen*used public aid	-0.013	0.036	0.059
	(0.030)	(0.039)	(0.038)
Observations	30228	46112	56818
R-squared	0.30	0.10	0.11

Source: 2000 U.S. Census, 5 percent sample of farm workers, construction laborers, and nonconstruction laborers, respectively, based on 1990 basis occupation codes.

Notes: Robust standard errors in parentheses. Regressions also include controls for gender, age, spouse, household size, number under 18, number over 65, education, years in the United States, race, and world region or country of origin.

***Significant at the 1 percent level.

**Significant at the 5 percent level.

*Significant at the 10 percent level.

immigration status also are insignificantly different from zero across destination state regressions, providing additional evidence that overall Census results of welfare migration are sensitive to occupation. Overall, Table 3 suggests that opposing conclusions between the full population results and those presented for subpopulations are related to fundamental differences in regards to welfare-induced migration between immigrant workers who have sorted into these occupations and those in the rest of the immigrant population.

Although the specified industries are significant players in the overall labor market for illegal workers, using observations from the U.S. Census restricting to these occupations in order to hypothesize about the often transparent population of illegal immigrants has its limitations. Pena (2011) examines the case of U.S. agriculture in detail using a representative survey of farmworkers that includes direct information on both legal status and participation in a number of public aid programs. Overall results parallel those reported here for the restriction to farmworkers and are robust across refined legal status groups including one corresponding to illegal immigrants specifically.

DISCUSSION AND CONCLUSIONS

A key finding of the paper is that the result of Borjas (1999) that legal immigrants who participate in welfare programs are geographically clustered in California continues to hold using the most recent U.S. Census data and that the result is not driven by the unemployed and those not in the labor force. The result, however, is shown here to be sensitive to occupation. It does not hold for those in agriculture, a traditionally low-skilled occupation and frequent employer of illegal workers, nor for construction and other industries where the presence of illegal workers is relatively common. One hypothesis is that these industries may serve as a "stepping stone" toward more permanent employment in the United States. This illustrates how continued analysis of assimilation dynamics is important to the literature. This paper further contributes to the literature by challenging notions of welfare migration for some immigrant groups and provides suggestive evidence that public sentiment that illegal immigrants respond in their locational choices to public aid programs may be misdirected.

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Notes

[1] In 2000, the reference period for this question was one week. Respondents were asked if they worked for pay last week. If the response was negative, additional questions examined if this was a temporary situation.

[2] Pena (2011) examines these additional legal status groups for a case study of U.S. agriculture and finds that all welfare clustering gap estimates for these groups are negative for this population with the largest gaps existing for illegal immigrant workers relative to natives.

[3] This is especially true for farmworkers and may be true due to undersampling of migratory (and undocumented) populations in traditional surveys such as the U.S. Census.

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