The Employment of Low-Skilled Immigrant Men in the United States[†]

By Brian Duncan and Stephen J. Trejo*

Over the last several decades, two of the most significant developments in the US labor market have been: (i) rising inequality (Card and DiNardo 2002; Autor, Katz, and Kearney 2008), and (ii) growth in both the size and the diversity of immigration flows (Borjas 1999; Card 2005). Because a large share of new immigrants arrive with very low levels of schooling, English proficiency, and other skills that have become increasingly important determinants of success in the US labor market, an obvious concern is that such immigrants are a poor fit for the restructured American economy. Here, we assess this concern by examining how the employment rates of foreign-born and US-born men vary with education.

I. Basic Patterns

To set the stage regarding immigrant skills, we first describe the educational distributions of native and immigrant men in US Census microdata for the year 2000.¹ Fully a third of foreignborn men have less than 12 years of schooling, compared to only 9 percent of US-born men.

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The contrast is even more striking for men with less than nine years of schooling; this group represents 24 percent of the immigrant population and less than 3 percent of the native population. Looking at this same phenomenon from a slightly different perspective, immigrants make up only about 13 percent of the overall sample of men, but they make up 35 percent of the men with less than 12 years of schooling and almost 60 percent of the men with less than nine years of schooling. Clearly, immigrants are disproportionately concentrated among US workers with the lowest education levels.

At the same time, however, immigrants are well represented among US workers with the highest education levels. Completion of a bachelor's degree is about equally common for foreign-born men (27 percent) as for US-born men (28 percent), whereas a higher fraction of foreign-born than US-born men earn postgraduate degrees (13 percent versus 10 percent). Immigrants are overrepresented at the bottom and, to a lesser extent, the top of the US educational distribution, and they are underrepresented in the middle (with 40 percent of immigrants, compared to 63 percent of natives, completing 12–15 years of schooling).

The backdrop for resurgent US immigration has been an economy in which earnings inequality and the labor market rewards to education and other indicators of worker skill have increased dramatically (Levy and Murnane 1992; Katz and Autor 1999). How well has the US labor market been able to absorb the large inflows of immigrants received in recent years, especially the immigrants from less developed

¹Though not described here, the educational distributions of women are similar. Our calculations are for men ages 25–59 who do not reside in institutions. We choose this age range so as to focus on men in their prime working years who likely have completed their formal schooling. Persons born abroad of American parents are excluded, because the distinction between immigrants and native is fuzzy for such

individuals. Also excluded are foreign-born individuals who may have been younger than age 16 when they arrived in the United States, in order to avoid complications that arise with immigrants who arrived as children. The sample sizes are reported in Table 1, and sampling weights were used in the calculations.

	All education levels	Completed years of education:				
		<12	12	13–15	16+	
US Natives	90.8	72.6	88.5	93.3	96.5	
	(0.02)	(0.09)	(0.03)	(0.03)	(0.02)	
US Immigrants	88.5	84.9	87.7	90.3	92.5	
	(0.05)	(0.10)	(0.11)	(0.12)	(0.08)	
0–5 Years in US	82.7	78.5	81.8	83.3	86.5	
	(0.13)	(0.25)	(0.27)	(0.34)	(0.20)	
6+ Years in US	90.3	86.6	89.5	92.1	95.1	
	(0.06)	(0.11)	(0.12)	(0.12)	(0.08)	

TABLE 1—MALE EMPLOYMENT RATES (%), BY NATIVITY, YEARS IN US, AND EDUCATION LEVEL

Notes: The reported statistics give the percentage of individuals who were employed at any time during the calendar year preceding the census, with standard errors shown in parentheses. The sample includes men ages 25-59 who do not reside in institutions. Excluded are persons born abroad of American parents and foreign-born individuals who may have been younger than age 16 when they arrived in the United States. The sample sizes are 2,746,581 for natives and 374,785 for immigrants. Sampling weights were used in the calculations.

Source: 2000 US Census data.

countries who often arrive with little education and few skills? An important indicator of the answer to this question is the ease with which these immigrants find gainful employment in the United States. We therefore compare the employment rates of foreign-born and US-born men, focusing in particular on how these comparisons vary by education and by the amount of time immigrants have had to adjust to their new country of residence.²

For the same sample of men from the 2000 US Census just described (see footnote 1), Table 1 reports employment rates for US natives and immigrants. Here, the employment rate represents the percentage of men who were employed at any time during the calendar year preceding the census. Standard errors are shown in parentheses. For each nativity group, employment rates are reported separately by education group, as well as separately for recent immigrant arrivals (who have been in the United States for at most five years) and for earlier immigrants (who have lived in the United States for six or more years).

Overall, male employment rates are similar for natives (91 percent) and immigrants (89 percent), but immigrant-native employment differences vary enormously by education level. Among high school dropouts, the employment rates of foreign-born men exceed those of US-born men by 12 percentage points, whereas employment rates are nearly identical (at around 88 percent) for immigrants and natives with 12 years of schooling. For those with more than a high school education, employment rates are 3-4 percentage points higher for natives than for immigrants. Immigrant men display high employment propensities, relative to native men, among those in the lowest education group, and the magnitude of this immigrant employment advantage is striking.

This pattern becomes even sharper once immigrants are disaggregated by their year of arrival in the United States. Immigrant employment rates are 7–10 percentage points lower for recent arrivals—men who have been in the country for five years or less at the time of the census—than for earlier arrivals. The single cross-section of census data analyzed here is incapable of distinguishing assimilation and cohort effects (Borjas 1985, 1995), but other studies that follow immigrant arrival cohorts across censuses show that the depressed labor

²The labor supply decisions of women are often more sensitive than those of men to competing responsibilities within the household. As a result, we view male employment rates as primarily reflecting labor demand and the market opportunities available to specific groups of workers, whereas this view is less tenable for female employment rates. For this reason, we report results only for men. The general patterns, however, are similar for women.

force activity of recent arrivals primarily represents an adjustment process that all immigrant cohorts experience during their first few years in the United States.³ In 2000 census data, the employment rate of immigrant men shoots up by almost 20 percentage points during the first few years following arrival, and thereafter employment rises more slowly with further time in the United States until after about 13 years the immigrant employment rate converges to the 91 percent rate of US-born men.

For our purposes, the key point is to disregard the recent arrivals and instead focus on the employment rates of immigrants who have been here long enough to be past the initial period of adjustment to the US labor market. Consider, for example, immigrant men who have lived in the United States for six or more years. Overall, the employment rate for these men exceeds 90 percent, and it is just half a percentage point below the corresponding rate for natives. In the lowest education group-those with less than 12 years of schooling-these immigrants hold a 14 percentage point employment rate advantage over US-born men (an employment rate of 87 percent for the relevant immigrants versus 73 percent for the corresponding native men). In all of the other education groups, employment rates do not differ much by nativity, once we focus on immigrants who have had some time to adjust to their new surroundings.

These data suggest that finding paid employment is not a major problem for US immigrants. After a period of adjustment during the first few years upon arrival, the overall employment rate of immigrant men quickly approaches that of US natives. Among those with the lowest education levels, immigrants exhibit substantially higher rates of employment than comparable natives. Despite ongoing structural changes in the US labor market—including the widening of earnings inequality and a steep rise in the reward associated with additional years of formal schooling—employer demand for low-skill immigrant workers has remained high.

II. Employment Regressions

The patterns in Table 1 might be due to differences in the characteristics of immigrant and native men that are correlated with employment. To explore this issue, we use regression analysis to estimate immigrant-native employment differences after controlling for some important determinants of employment propensities.

For the data and sample described in the previous section, Table 2 reports least squares estimates of the coefficients of two dummy variables, one identifying foreign-born men who have been in the United States for five years or less, and the other identifying all remaining foreign-born men (i.e., those who have lived in this country for at least six years).⁴ Separate regressions are run for each educational category. For comparison with later specifications, panel A of Table 2 shows estimates from regressions that do not include any control variables. These estimates simply reproduce the unadjusted immigrant-native employment differentials implicit in Table 1. For the reasons discussed above, we emphasize the comparisons between natives and immigrants who have been in the United States for at least six years.

As we saw previously in Table 1, among men in the lowest education group (i.e., high school dropouts), the employment rate is a remarkable 14 percentage points higher for such "nonrecent" immigrants than for natives. In sharp contrast, the employment rate is similar for nonrecent immigrants and natives within each of the other education groups (specifically, immigrants hold a 1 percentage point employment rate advantage over natives among high school graduates, but the differential is reversed, with a 1.2–1.4 percentage point advantage for natives, among men with some college or a bachelor's degree).

The remaining panels of Table 2 show how immigrant-native employment differentials change after conditioning on successively more control variables. The regressions reported in

³See, for example, Chiswick, Cohen, and Zach (1997); Funkhouser and Trejo (1998); Schoeni (1998); Funkhouser (2000); and Antecol, Kuhn, and Trejo (2006).

⁴Although the dependent variable in these regressions is a dichotomous indicator of employment status, we choose to report least squares estimates (i.e., linear probability models) because the coefficients are easier to interpret. Probit estimates, however, imply similar marginal effects. In order to account for the heteroskedasticity that arises with linear probability models, we report robust standard errors (White 1980) in parentheses for all regressions.

	Completed years of education					
	<12	12	13–15	16+		
Panel A. No control variables						
Immigrants with						
0–5 years in United States	0.059	-0.067	-0.100	-0.100		
	(0.003)	(0.003)	(0.004)	(0.002)		
6+ years in United States	0.140	0.010	-0.012	-0.014		
	(0.002)	(0.001)	(0.001)	(0.001)		
Panel B. Add controls for age and geograp Immigrants with	phic location					
0-5 years in United States	0.026	-0.078	-0.113	-0.106		
	(0.003)	(0.003)	(0.004)	(0.002)		
6+ years in United States	0.135	0.017	$-0.008^{-0.008}$	-0.014		
	(0.002)	(0.001)	(0.001)	(0.001)		
Panel C. Add control for marital status Immigrants with						
0–5 years in United States	0.040	-0.074	-0.108	-0.105		
	(0.003)	(0.003)	(0.004)	(0.002)		
6+ years in United States	0.106	0.006	-0.012	-0.016		
•	(0.002)	(0.001)	(0.001)	(0.001)		
Married, spouse present	0.171	0.117	0.074	0.045		
·	(0.002)	(0.001)	(0.001)	(0.001)		

TABLE 2---IMMIGRANT-NATIVE EMPLOYMENT DIFFERENTIALS, BY EDUCATION LEVEL

Notes: The reported figures are estimated coefficients from least squares regressions, run separately by education category, in which the dependent variable is a dummy identifying individuals who were employed at any time during the calendar year preceding the census. Heteroskedasticity-robust standard errors are shown in parentheses. The sample is the same as in Table 1. Sampling weights were used in the calculations.

Source: 2000 US Census data.

panel B add controls for age and geographic location.⁵ These controls have little effect on the pattern of immigrant-native employment differentials, especially for immigrants with at least six years of US residence.

Marital status is known to be a strong correlate of employment, with married men possessing much higher employment propensities than unmarried men. In our sample, the percentage of men who are married and living with their wives is the same (63 percent) for immigrants and natives overall, but among high school dropouts the marriage rate is noticeably higher

for immigrants (59 percent) than for natives (51 percent). Could this be driving the pattern of immigrant-native employment differentials by education group? The regressions reported in panel C of Table 2 add an indicator for men who are "married, spouse present" (i.e., married and living with their wives) to the age and geographic controls employed in panel B. Marital status does indeed exert a strong influence on employment rates, and this effect is particularly strong for men in the lowest education group. All else equal, married high school dropouts are 17 percentage points more likely to be employed than their unmarried peers, and the magnitude of the marriage effect declines monotonically with education level, falling all the way to 4.5 percentage points for college graduates.

Despite the strength of the relationship between marriage and male employment, however, conditioning on marital status weakens only slightly the empirical pattern that

⁵The controls for age are dummy variables identifying five-year age intervals (i.e., 30–34, 35–39,...,55–59, with 25–29 serving as the omitted reference group). The controls for geographic location are dummy variables identifying the nine census divisions (with the Pacific region serving as the omitted reference group) and whether the respondent lives outside of a metropolitan area.

immigrant-native employment differentials are particularly large and positive for unskilled men. In panel C, the employment advantage of nonrecent immigrants relative to natives is 11 percentage points among high school dropouts, whereas the corresponding differentials for other education groups are close to zero (ranging from an immigrant advantage of 0.6 percentage points). Clearly, nativity differences in the marriage rates of unskilled men come nowhere close to fully accounting for the pattern of immigrantnative employment differentials across education groups.

Another potentially confounding factor is the presence of disabilities that limit or prevent work. The 2000 census data identify individuals who-because of a physical, mental, or emotional condition lasting six months or more-have any difficulty working at a job or business. This definition of work disability seeks to exclude temporary health conditions such as broken bones. Overall, immigrant men report much higher rates of work disability than native men (20 percent for immigrants versus 13 percent for natives), but the differential almost vanishes among high school dropouts (25 percent for immigrants versus 24 percent for natives). At any rate, adding the indicator for work disability as another control variable in the employment regressions has little impact on the estimated nativity differentials, even though self-reports of a work disability are associated with sharp reductions in employment propensities (see Duncan and Trejo 2011).

III. Conclusion

Our empirical analysis points to the following striking result: among high school dropouts, foreign-born men are much more likely to work than US-born men, whereas among men with at least 12 years of schooling, the employment rates of immigrants and natives are similar. This result is not unique to the 2000 census data we present here, as the same pattern emerges in 1980 and 1990 census data and in 2005–2007 data from the American Community Survey (Duncan and Trejo forthcoming). Moreover, this result survives additional robustness checks not reported here, such as limiting both the immigrant and native samples to non-Hispanic whites, performing separate analyses for younger and older men, or distinguishing immigrants by their citizenship status (Duncan and Trejo 2011).

In Duncan and Trejo (2011), we propose a simple theoretical model of migrant selectivity that is capable of explaining the observed pattern of immigrant-native employment differences by education level. The model jointly considers a potential migrant's decisions regarding where to locate and whether to work, and it demonstrates that the interaction between these decisions can limit the extent to which immigrants are negatively selected in terms of skills. In this model, individuals with average or above-average skills will seek market work regardless of where they choose to locate. It is among individuals with below-average skills, therefore, that employment rates are predicted to be high for immigrants relative to nonimmigrants, because less-skilled individuals who do not intend to work are better off staying in the source country and avoiding the substantial costs of migration. In this sense, the model predicts that immigrants, specifically low-skilled immigrants, are self-selected to have strong labor force attachment. Because US-born individuals did not pass through the same filter that immigrants did, low-skilled natives should not be self-selected for high employment propensities in the way that immigrants are.

REFERENCES

- Antecol, Heather, Peter Kuhn, and Stephen J. Trejo. 2006. "Assimilation via Prices or Quantities? Sources of Immigrant Earnings Growth in Australia, Canada, and the United States." *Journal of Human Resources* 41 (4): 821–40.
- Autor, David H., Lawrence F. Katz, and Melissa S. Kearney. 2008. "Trends in U.S. Wage Inequality: Revising the Revisionists." *Review of Economics and Statistics* 90 (2): 300–23.
- Borjas, George J. 1985. "Assimilation, Changes in Cohort Quality, and the Earnings of Immigrants." *Journal of Labor Economics* 3 (4): 463–89.
- **Borjas, George J.** 1995. "Assimilation and Changes in Cohort Quality Revisited: What Happened to Immigrant Earnings in the 1980s?" *Journal of Labor Economics* 13 (2): 201–45.
- Borjas, George J. 1999. "The Economic Analysis of Immigration." In *Handbook of Labor Economics Volume 3A*, edited by Orley Ashenfelter

and David Card, 1697–760. Amsterdam: Elsevier Science, North-Holland.

- Card, David. 2005. "Is the New Immigration Really So Bad?" *Economic Journal* 115 (507): F300–23.
- Card, David, and John E. DiNardo. 2002. "Skill-Biased Technological Change and Rising Wage Inequality: Some Problems and Puzzles." *Journal of Labor Economics* 20 (4): 733–83.
- Chiswick, Barry R., Yinon Cohen, and Tzippi Zach. 1997. "The Labor Market Status of Immigrants: Effects of the Unemployment Rate at Arrival and Duration of Residence." *Industrial and Labor Relations Review* 50 (2): 289–303.
- **Duncan, Brian, and Stephen J. Trejo.** 2011. "Selectivity and Immigrant Employment." Unpublished.
- Duncan, Brian, and Stephen J. Trejo. Forthcoming. "Low-Skilled Immigrants and the U.S. Labor Market." In *The Oxford Handbook of the Economics of Poverty*, edited by Philip Jefferson. New York: Oxford University Press.
- Funkhouser, Edward. 2000. "Convergence in Employment Rates of Immigrants." In *Issues* in the Economics of Immigration, edited by George J. Borjas, 143–84. National Bureau of

Economic Research Conference Report. Chicago: University of Chicago Press.

- Funkhouser, Edward, and Stephen J. Trejo. 1998. "Labor Market Outcomes of Female Immigrants in the United States." In *The Immigration Debate: Studies on the Economic, Demographic, and Fiscal Effects of Immigration*, edited by James P. Smith and Barry Edmonston, 239–88. Washington, DC: National Academy Press.
- Katz, Lawrence F., and David H. Autor. 1999. "Changes in the Wage Structure and Earnings Inequality." In *Handbook of Labor Economics Volume 3A*, edited by Orley Ashenfelter and David Card, 1463–555. Amsterdam: Elsevier Science, North-Holland.
- Levy, Frank, and Richard J. Murnane. 1992. "U.S. Earnings Levels and Earnings Inequality: A Review of Recent Trends and Proposed Explanations." *Journal of Economic Literature* 30 (3): 1333–81.
- Schoeni, Robert F. 1998. "Labor Market Assimilation of Immigrant Women." *Industrial and Labor Relations Review* 51 (3): 483–504.
- White, Halbert. 1980. "A Heteroskedasticity-Consistent Covariance Matrix Estimator and a Direct Test for Heteroskedasticity." *Econometrica* 48 (4): 817–38.

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