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Convergence in Employment Rates of Immigrants

Edward Funkhouser

Recent papers (Fry 1996a for males, Schoeni 1998 for females, and Funkhouser and Trejo 1998 for males and females) have used the 1980 and 1990 censuses to document a pattern of employment rates for immigrants in which employment is lower by about 10 percentage points during the first years following entry into the United States. After 6–10 years in the United States, most of the difference in employment rates between immigrant arrival cohorts is eliminated with little subsequent change relative to natives. This concentration of convergence in the initial years following migration contrasts with the pattern for hourly earnings documented by Borjas (1994, 1995) in which convergence is more gradual over a longer period of time. While many of the determinants of employment convergence and wage convergence differ, reservation wages determining employment rates are likely to be based on home country labor market participation or earnings. Many other explanations for low employment rates are also likely to explain subsequent wage convergence as well, but perhaps at different rates—disruption effects, acquisition of human capital, or search in which transferability of skills must be learned may affect employment rates initially until any job is found, but may affect underemployment and wages for a longer period of time. In this paper, I explore several possible explanations for the employment patterns. I use both the 1980 and 1990 census data and, using the empirical techniques utilized extensively for wages of males, follow immigrant arrival cohorts between these two years.

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I consider four potential explanations for the lower employment rates of immigrants following migration and the rapid convergence to the levels of earlier arrivals during the 1980s.¹ First, employment rates may be related to changes in household demographics—disruption from fertility, child care, or marriage before or after migration. Second, the initial years following migration may be associated with a transition from the culture of labor force participation in the source country toward the culture of labor force participation in the United States. Third, the initial period following migration may be a period of formal or informal investment in skills and substitution away from market activity. These investments could include language acquisition, on-the-job training, and additional years of education, among other things. And finally, skills may not be transferable across countries, and the development of country-specific labor market skills, including the development of labor market networks, contacts, and general knowledge, may be important for immigrants.

For each of the explanations, the approach of this paper is to compare the employment disruptions of groups that are more likely to be affected with the disruption of groups that are less likely to be affected. The organization of the paper is as follows. In the following section, I describe the data and document the pattern of employment disruption in which I am interested. In sections 4.3 through 4.5, I consider the three main explanations that can be examined with these data—household composition, source country characteristics, and skills acquisition. In section 4.6, I summarize the interpretation of my findings. And in section 4.7, I discuss the implications of the findings for estimates of earnings convergence.

4.1 Data

I analyze microlevel data from the 1980 and 1990 U.S. censuses. The sample includes 1 percent of natives and 5 percent of immigrants.² To study employment rates following school years and before retirement, the sample is restricted to persons aged 25–59. With these restrictions, there are 664,512 observations for females (190,916 immigrants) and 617,365 observations for males (167,638 immigrants). In 1990, there are 824,549 observations for females (275,378 immigrants) and 788,517 observations for males (265,846 immigrants). In order to follow the same age cohorts, much of the analysis restricts the sample to those between the ages of 25 and 49 in 1980 and those between the ages of 35 and 59 in 1990. With this additional restriction, there are 1,037,347 observations for females and 974,742 observations for males.

1. Previous literature has tried to explain differences in levels in employment rates and labor force participation, especially for females. See, for example, MacPherson and Stewart (1989) and Duleep and Sanders (1993).

2. The sample includes 5 percent of persons born in outlying areas of the United States. Persons born abroad of U.S. parents are not included in the sample.

The census questionnaire asks questions related to employment during the previous week and the previous calendar year. For the preceding week, the survey asks about labor force status and, for those who were employed, hours worked. For the preceding calendar year, the survey asks whether the respondent worked and, for those who did, the number of weeks worked and the usual weekly hours. The number of annual hours worked during the preceding calendar year can be approximately calculated as the number of weeks worked multiplied by the usual weekly hours.³

In table 4.4 below, I utilize data from the 1 percent Public Use micro sample of the 1960 census and the 1 percent sample (5 percent questionnaire) neighborhood file from the 1970 censuses. In order that the estimates be comparable to those for the 1980–90 period, the sample is restricted in similar ways for the earlier years—persons aged 25–49 in the initial comparison year and 35–59 in the second.⁴ In 1960, there is no question on year of arrival, though immigrants that identify their place of residence five years previous to be abroad are members of the 1955–59 arrival cohort to the United States. In the comparison between 1960 and 1970, therefore, employment growth of recent immigrants must be compared to all other immigrants. In the 1970 census, five-year bracket year of arrival is asked of all immigrants.

4.2 Basic Patterns in Employment Outcomes between 1980 and 1990

In this section, I document the convergence in employment rates that occurs for immigrants following their first five years in the United States. In table 4.1, these patterns are shown for several employment outcomes—employment during previous week, employment during previous year, annual hours of work (weeks worked during previous year multiplied by usual hours of work), weeks worked, and usual hours. For each outcome, I calculate the change between the 1980 and 1990 censuses relative to the change for similar natives during the same period. As noted above, the sample is restricted to persons aged 25–49 in 1980 and to persons aged 35–59 in 1990.

The focus of the table is on the change in employment outcomes, and

3. The hourly wage sample includes 697,879 females and 876,761 males. Below, I also utilize two other questions from the census questionnaire. First, in 1980, the census asked the respondent about labor market status in 1975. Second, in both years, the census asked basic earnings information in the preceding year. In the concluding section, I use this information and the information on annual hours to calculate hourly earnings, maintaining consistency in the top codes between the two years.

4. In 1960, the sample includes 296,401 females and 282,878 males between the ages of 25 and 49. In 1970, there are 306,940 females and 288,854 males between the ages of 25 and 49 and 280,593 females and 260,193 males between the ages of 35 and 59 that did not arrive in the United States after 1960 (for comparison with persons aged 25–49 in 1960). In 1980, with the same 1 percent sampling of natives and 5 percent sampling of immigrants, there are 418,382 females and 378,593 males between the ages of 35 and 59 (for comparison with persons aged 25–49 in 1970).

Table 4.1 Employment Outcomes of Recent Immigrants Relative to Natives, Persons Aged 25–49 in 1980 (35–59 in 1990)

	Change between 1980 and 1990 Relative to Change for Natives		
	1975–79 Arrival Cohort (1)	1970–74 Arrival Cohort (2)	1965–69 Arrival Cohort (3)
A. Females			
Percent employed previous week	.085 (.004)	–.010 (.004)	–.017 (.004)
Labor force participation previous week	.091 (.004)	–.008 (.004)	–.012 (.004)
Percent employed last year	.103 (.004)	–.002 (.004)	–.005 (.004)
Annual hours	233.880 (8.835)	–15.383 (8.333)	–15.908 (8.879)
Weeks worked prior year	3.280 (.159)	–.099 (.143)	–.333 (.147)
Usual weekly hours	–.035 (.126)	–.038 (.116)	–.010 (.124)
B. Males			
Percent employed previous week	.132 (.003)	.022 (.003)	.002 (.003)
Labor force participation previous week	.136 (.003)	.030 (.002)	.015 (.001)
Percent employed last year	.142 (.003)	.026 (.002)	.015 (.003)
Annual hours	477.117 (7.887)	121.952 (7.615)	32.924 (8.482)
Weeks worked prior year	4.042 (.109)	.275 (.094)	–.183 (.102)
Usual weekly hours	1.545 (.105)	1.404 (.105)	.315 (.115)

convergence relative to natives, of the most recent immigrants. To emphasize these patterns, I present the change in employment outcomes relative to the change for natives for the three most recent five-year arrival groups that can be observed in both the 1980 and 1990 censuses. The patterns for all cohorts—shown in appendix table 4A.1—reveal that nearly all of the significant changes relative to natives can be seen from these comparisons. In column (1) of table 4.1, the relative change for immigrants who arrived between 1975 and 1979—and therefore had 0–5 years of experience in the United States in 1980 and 11–15 years of experience in 1990—is shown. In column (2), the relative change for immigrants who arrived between 1970 and 1974—and therefore had 6–10 years of U.S. experience in

1980—is shown. And finally, the relative change for the immigrant group that arrived between 1965 and 1969 is shown in column (3).

To see how these calculations were made, consider the entry .085 in the first column of the first row for females. From appendix table 4A.1, the employment rate of females in the 1975–79 immigrant arrival cohort aged 25–49 was .484 in 1980. In 1990, the employment rate of females in the 1975–79 immigrant arrival cohort aged 35–59 was .651. This is a change of .167. During the same period, the employment rate of native females aged 25–49 in 1980 and 35–59 in 1990 changed from .613 to .695, or a change of .082. The employment rate of immigrant females in the 1975–79 immigrant arrival cohort grew .085 more than the change for natives.

Appendix table 4A.1 demonstrates the increase for the 1975–79 immigrant arrival cohort in all employment outcomes. Between 1980 and 1990, the proportion of the 1975–79 immigrant cohort employed in the previous week increased .085 more than natives for females and .132 more than natives for males. In contrast, the 1970–74 and 1965–69 arrival cohorts each had changes in employment rates less than those for natives for females and small (.022 and .002) changes greater than those for natives for males.⁵ A similar pattern occurs for each employment outcome except usual weekly hours. For each of employment during previous year, weeks worked during the previous year, and annual hours, there is a large increase in employment outcomes for the most recent immigrant group that is not observed for any other immigrant arrival cohort. The different pattern for hours is worth noting. For females, there is no jump in hours for the most recent arrival cohort. For males, there is an increase in hours relative to natives for both the 1975–79 arrival cohort and the 1970–74 arrival cohort.

The contrast of the 1975–79 arrival cohort with earlier arrivals, including those that arrived before 1965, is easily seen in figure 4.1, which demonstrates the pattern for employment rates during the previous week. The change in employment rates relative to natives is shown on the vertical axis for each immigrant arrival cohort along the horizontal axis. The convergence in employment rates between 0–5 years and 11–15 years of U.S. experience is seen for the 1975–79 arrival cohort. For both males and females, there is little change in employment rates relative to natives for all arrival cohorts other than the 1975–79 arrival cohort.

Taken together, these data suggest that an important part of the integration of immigrants into the labor market concerns employment (rather than hours of work) and that, unlike more common views of integration over a long period of time, this integration takes place between the first five years in the United States and the second five years in the United States. Moreover, most of the convergence is the result of the low initial employment rates during the first five years following immigration.

5. The results for females presented here are very similar to table 6 of Schoeni (1998).

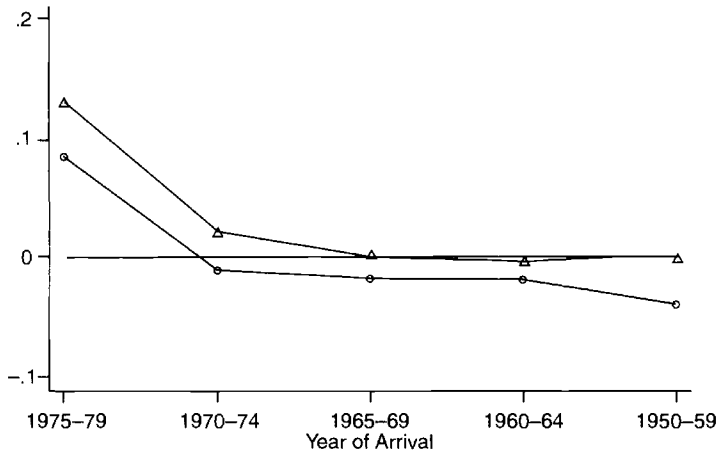


Fig. 4.1 Change in employment rates between 1980 and 1990 relative to natives, males (*triangles*) and females (*circles*)

4.2.1 Detailed Patterns for Employment during Previous Week

In the remainder of the paper, I focus on employment rates during the previous week. This choice is made for two reasons. First, as table 4.1 demonstrates, there are very similar patterns for all of the employment outcomes except hours, and in hours there is no rapid convergence to explain. Second, this is the cleanest measure for comparisons that involve the most recent immigrants. Because the census does not distinguish immigrants that arrived during the census year when asking about employment outcomes during the previous year, there may be confusion regarding to what location these questions refer. For all immigrants, though, employment during the previous week refers to employment outcomes in the United States.

The basic pattern is very robust and is found in a wide variety of subsamples of the data. The pattern is also found in the Current Population Survey for the 1980s, shown in appendix table 4A.4.⁶ In table 4.2, I present the results for several subsamples of the census data—based on age, education, and region of origin—using the data for employment during the previous week. The columns are organized as in table 4.1.⁷ Without exception, the relative change in employment rates for the 1975-79 arrival

6. In November 1979, April 1983, June 1986, and November 1989, the Current Population Survey included a supplement on immigrants. In appendix table 4A.4, employment rates for males aged 25-49 in 1979 are presented for each of these surveys. The one exception to the pattern is that the 1970-74 arrival cohort has low employment rates in both 1979 and 1983.

7. The employment rates from which the entries to table 4.2 are calculated are presented in appendix table 4A.2.

Table 4.2 Change in Employment Rates Previous Week Relative to Natives, Persons Aged 25–49 in 1980 (35–59 in 1990)

	Change between 1980 and 1990 Relative to Change for Natives		
	1975–79	1970–74	1965–69
	Arrival Cohort (1)	Arrival Cohort (2)	Arrival Cohort (3)
A. Females			
Total	.085 (.004)	–.010 (.004)	–.017 (.004)
Age 25–39 (35–44)	.065 (.001)	–.023 (.005)	–.020 (.006)
Age 40–49 (50–59)	.092 (.009)	–.020 (.005)	–.003 (.007)
High school or less	.055 (.006)	–.021 (.004)	–.017 (.006)
Some college or more	.165 (.006)	.035 (.004)	.004 (.007)
Europe	.136 (.013)	–.004 (.011)	.008 (.008)
Eastern Europe	.122 (.019)	–.042 (.019)	.002 (.024)
Latin America and Caribbean	.076 (.010)	–.030 (.009)	–.020 (.009)
Mexico	.023 (.010)	–.016 (.008)	–.009 (.012)
Asia	.164 (.009)	.052 (.009)	.019 (.012)
B. Males			
Total	.132 (.003)	.022 (.003)	.002 (.003)
Age 25–39 (35–49)	.123 (.003)	.010 (.003)	–.009 (.004)
Age 40–49 (50–59)	.112 (.007)	.029 (.006)	.036 (.005)
High school or less	.091 (.004)	.023 (.004)	.005 (.004)
Some college or more	.192 (.004)	.046 (.004)	.019 (.004)
Europe	.062 (.009)	.015 (.008)	.005 (.006)
Eastern Europe	.121 (.014)	.030 (.017)	–.001 (.017)
Latin America and Caribbean	.111 (.009)	.017 (.007)	.004 (.007)
Mexico	.044 (.007)	.004 (.007)	–.010 (.007)
Asia	.159 (.006)	.013 (.007)	–.020 (.008)

cohort is large in magnitude and significantly larger than the change for the 1970–74 arrival cohort. The change relative to natives for the 1970–74 cohorts is small in magnitude for both males and females and positive only for males. Moreover, the change in employment rates for this cohort is significantly different from that for the 1965–69 arrival cohort in only three of the eight subsamples for women (college, Eastern Europe, and Asia) and four of the eight subsamples for males (age 25–39, high school or less, some college or more, and Asia).

Though the pattern is qualitatively similar across subsamples, the magnitude of the employment growth relative to natives does vary, and these differences might point to potential explanations for the patterns. In particular, the change in employment rates for the 1975–79 cohort relative to natives is high for those with more education and those from Asia. The change in employment rates of the 1975–79 cohort relative to natives is low for those with less education and for immigrants from Mexico. For females, immigrants from Europe have a larger magnitude change, while immigrant males from Europe have a lower magnitude change.

4.2.2 Detailed Patterns with Controls

In table 4.3, I present estimates of the convergence in employment rates between 0–5 years of U.S. experience and 6–10 years of U.S. experience derived from pooled regressions of the full sample of persons aged 25–59 in both 1980 and 1990. The regressions include controls for age (five-year brackets), education, race, region of origin of immigrants, year of arrival to the United States (five-year brackets), and a dummy variable for 1990 data in addition to the five-year bracket years of U.S. experience:

$$E_{it} = \alpha + \beta X_{it} + \gamma Y_{it} + \gamma_c C_i + \gamma_o O_i + \pi_t T_{it} + \varepsilon_{it},$$

where the vector X includes age, education, and race variables; Y includes the years of U.S. experience variables; C includes arrival cohort variables; O includes country of origin variables; T includes year of survey variables; and ε_{it} is a random component. The U.S. experience coefficients of interest are identified by the assumption of a common period effect for immigrants and natives, and the assumption that the 1960–64 and 1965–69 cohorts have the same experience effect in 1990. Each entry in the table is the coefficient reported from a separate regression using the indicated sample restrictions.

The results of this estimation confirm the findings of table 4.2 and indicate that the included controls do not much alter the convergence in employment rates of recent immigrants. For females, those with 6–10 years of U.S. experience are predicted to have employment rates 8.9 percentage points higher than those with 0–5 years of U.S. experience. For males, the difference is 11.1 percentage points. The estimates for the subsamples

Table 4.3 **Difference in Employment Rates Previous Week of Immigrants with 0–5 Years of U.S. Experience and Immigrants with 6–10 Years of U.S. Experience, with Controls**

	Females	Males
Total ^a	.089 (.014)	.111 (.011)
Age in 1980		
25–39	.091 (.018)	.103 (.014)
40–49	.096 (.030)	.094 (.023)
Education		
High school or less	.066 (.018)	.060 (.016)
Some college or more	.128 (.021)	.156 (.013)
Europe (vs. white natives)	.117 (.026)	.065 (.027)
Eastern Europe (vs. white natives)	.156 (.022)	.060 (.062)
Latin America and Caribbean (vs. Hispanic natives)	.071 (.022)	.087 (.019)
Mexico (vs. Hispanic natives)	.021 (.027)	.048 (.019)
Asia (vs. Asian natives)	.145 (.019)	.130 (.015)

Note: Entries are the coefficient on 6–10 years in the United States relative to 0–5 years in the United States. Other controls include five-year age bracket dummy variables for age, four dummy variables for education (some high school, high school graduate, some college, college graduate; no high school omitted), six race dummy variables (black, Asian, Mexican, Puerto Rican, other Hispanic, and other race), five-year arrival cohort dummy variables for immigrants, a dummy variable for those born in outlying areas, five dummy variables for region of origin (Europe, Eastern Europe and former Soviet Union, Latin America and the Caribbean, Asia, and other countries; Mexico omitted), and a dummy variable for data from the 1990 census.

^aTotal sample size is 1,489,013 for females and 1,405,826 for males.

based on the predicted convergence profile are similar to those in table 4.2 following cohorts over time.

4.2.3 Is the Convergence in Employment Rates an Artifact of Immigrant Visa Policy?

Because many nonimmigrants to the United States enter the United States under visas in which they are not eligible to work and later adjust their immigration status allowing them to work, it is possible that the observed change in employment rates is an artifact of these changes. During the first five years following entry to the United States, some immigrants do not work, but by the second five years, they report being employed. To

examine this possibility, I calculate an approximation of the number of immigrants in the 1975–79 entry cohort that may have entered under a nonwork visa and adjusted status between 1980 and 1984 (6–10 years following immigration). Immigrants in this arrival cohort that adjusted status prior to 1980 would not report lower employment rates at the time of the 1980 census.

The Immigration and Naturalization Service (INS) reports year of arrival for immigrants that adjust their immigration status during any given year. From the data for persons who adjusted their status during the years 1980–84, the number of persons that arrived between 1975 and 1979 can be calculated.⁸ During each of these years, the type of entry visa is also reported, though not separately by year of arrival. Approximately 95,000 persons per year adjusted status from the following entry visas: temporary visitors for pleasure (B2), transit aliens (C), students (F1/M1), student spouse or child (F2/M2), exchange visitors (J1) and spouses (J2), and fiancées and children of citizens (K). Applying the calculated distribution of year of entry to these potential adjusters, there are approximately 219,585 immigrants that arrived in the 1975–79 arrival cohort and adjusted status between 1980 and 1984. To make the sample restrictions similar to those utilized for the census, I calculated the proportion of each immigrant arrival cohort between the ages of 25 and 49 for males (20.24 percent) and females (21.39 percent) and assume that this distribution is the same for those who adjusted their status.⁹ Thus, approximately 91,412 immigrants—44,453 males and 46,959 females—arrived between 1975 and 1979 between the ages of 25 and 49 and subsequently adjusted status between 1980 and 1984. These are the immigrants that might bias the conclusion from table 4.1.

These 91,412 immigrants represent 6.4 percent of male immigrants in the 1975–79 arrival cohort and 7.3 percent of the female immigrants in this cohort. This is the extreme upper bound to potential bias since all of these persons would have to be not working in 1980 and would have to be working in 1990. Whether this is viewed as a large proportion or a small proportion depends on the proportion of immigrants in this group that change employment status after adjustment. A more reasonable upper bound might be a 50 percentage point increase in the employment rates of these persons between 1980 and 1990. In this scenario, changes in visa status would explain at most 3.2 percent of employment rate changes for males and 3.7 percent for females. Though a sizable group, these adjusters do not explain most of the observed change in employment rates during the first 10 years in the United States.

8. The INS data do not report year of arrival for those who adjust in 1980 and 1981. The distribution of arrival years was calculated based on the years between entry and adjustment observed in the data for 1982–84. The details of the following calculation are available from the author.

9. This age distribution is calculated at year of adjustment, not year of the 1980 census.

4.2.4 Has the Convergence in Employment Rates Changed over Time?

An interesting aspect of the convergence in employment rates is the trend in relative employment rates of immigrants between the 1960s and the 1980s. Previous research by Fry (1996a) reports employment rates by arrival cohort in the 1960, 1970, 1980, and 1990 censuses. Using the sample of all not-in-school males aged 16–59 in the census year, he finds that the most recent immigrant arrival cohorts have employment rates above those of natives with labor market experience similar to the time since immigration of immigrants in both the 1960 and 1970 censuses. He finds that with increased time in the United States, employment rates of the recent arrivals converged downward toward those of natives over the 1960s and 1970s.¹⁰ The pattern above in which recent arrivals have low employment rates relative to natives is similar to that found by Fry for males in the 1980 and 1990 censuses, though he does not find the same convergence over the 1980s. Though Fry focused on changes in entry cohort quality, his findings suggest a change in the pattern of convergence between the 1960s and 1980s as well.

To examine whether Fry's conclusion is present with the same restrictions as those in tables 4.1–4.3, in table 4.4 I provide estimates consistent with those in table 4.2. (The underlying employment rates upon which this table is based are shown in appendix table 4A.3.) In columns (1) and (3), I follow the relative employment rates of the most recent arrival cohort in the 1960 census (1955–59 arrivals) to the 1970 census. As noted above, because the 1960 census does not report year of arrival of immigrants, these recent immigrants are those that resided abroad five years ago in the data for that year. The relative employment rates of all previous immigrants are also reported. In columns (2) and (4), the relative employment rates of the most recent arrival cohort in the 1970 census (1965–69 arrivals) are followed to the 1980 census. The employment rates of the 1960–64 arrival cohort are also reported.

For males (shown in cols. [1] and [2]), the relative increase in employment rates of the most recent immigrant arrival cohort as the level of U.S. experience increases from 0–5 years to 11–15 years is present in the 1960–1970 comparison in column (1) and the 1970–1980 comparison in column (2). Employment rates of recent immigrants increased slightly

10. In a companion paper that focuses on relative inactivity, Fry (1996b) focuses on the cohort effects and finds that more recent cohorts are more likely to be inactive than earlier cohorts. A pattern that may be more similar to that for the 1960 and 1970 censuses in the United States is found by Baker and Benjamin (1997) in their study of female immigrants to Canada. They find little difference between the annual hours of female immigrants and the annual hours of native females. In their study that includes controls and is not directly comparable to either table 4.1 or the paper by Fry, increased time following immigration is associated with an increase in hours of work, all else equal, from the direct effect and a reduction in hours of work as husband income increases. As can be seen from table 4.1, in the U.S. data, there is an important distinction between hours and other employment outcomes.

Table 4.4 Employment Rates during Previous Week, 1960–80

	Males		Females	
	1960–70 (1)	1970–80 (2)	1960–70 (3)	1970–80 (4)
<i>Change Relative to Natives</i>				
Recent immigrants	.034 (.009)	.075 (.006)	-.054 (.012)	.020 (.013)
Previous immigrants	-.002 (.004)	.018 (.006)	-.004 (.007)	.029 (.013)
<i>Change of Most Recent Cohort Relative to Previous Immigrants</i>				
Europe	.034 (.014)	.030 (.014)	-.109 (.022)	-.025 (.020)
Eastern Europe	.028 (.026)	.029 (.044)	-.006 (.048)	.082 (.061)
Mexico	-.051 (.033)	.036 (.030)	-.006 (.055)	.026 (.040)
Latin America and Caribbean	.023 (.040)	.048 (.018)	-.065 (.054)	-.024 (.024)
Asia	.068 (.045)	.073 (.028)	.080 (.052)	-.001 (.033)

Note: Sample includes persons aged 25–49 in initial year and persons aged 35–59 in final year of comparison.

Recent immigrant is defined as follows: 1960 data, immigrants that resided abroad five years ago; 1970 data (cols. [1] and [3]), 1955–59 arrival cohort; 1970 data (cols. [2] and [4]), 1965–69 arrival cohort; and 1980 data, 1965–69 arrival cohort.

Previous immigrant is defined as follows: columns (1) and (3), all immigrant arrivals before 1955; and columns (2) and (4), 1960–64 arrival cohort.

more than 4 percentage points during each 10-year period, while those of natives remained constant between 1960 and 1970 and declined slightly between 1970 and 1980. The pattern for the 1970–1980 comparison is similar to that observed in table 4.1 for the comparison of 1980 to 1990: Recent immigrants have lower employment rates than natives, while those with 6–10 years of experience have similar or higher employment rates than natives. Over time, the employment rates of recent immigrants catch up to or surpass those of natives.

There is an important difference in the pattern in employment rates prior to the 1980s. Though the relative increase in employment rates for the most recent immigrant arrival cohort is present in the 1960–1970 comparison, the initial employment rate is higher than that of natives. This is because the higher employment rates of recent immigrants from Europe and Mexico offset employment rates that are lower than those of natives for recent immigrants from Latin America and Asia. Over this period, there is overall divergence in the relative employment rates of the recent arrivals; the subsequent increase relative to natives results in employment rates that are even higher than those of natives after 11–15 years of U.S. experience. This aggregate comparison masks wage convergence and re-

sulting employment rates lower than those of natives for recent immigrants from Mexico and Asia during the 1960s and 1970s.

For females (shown in cols. [3] and [4]), the pattern observed in table 4.1 is not present in the earlier periods. In both 1960 and 1970, recent immigrants have higher employment rates than natives or earlier immigrants and the change in the employment rate is less than or equal to that of these other groups. This is especially true for recent immigrants from Eastern Europe and Latin America, while recent immigrants from Mexico and Asia had lower initial employment rates than natives. For recent immigrants from each of the country of origin except Asia, there is a decrease in the magnitude of negative gain relative to natives or a change in sign to positive gain relative to natives between the 1960s and the 1970s.

Over time, there is a consistent pattern in which recent male immigrants have more rapid growth in employment rates than other immigrants or natives. The deficit in employment rates for recent male immigrants has increased since 1960, with the level of employment rates of recent immigrants in each census year falling further below those of natives.¹¹

For females, the pattern is not consistent over time. Up until the 1980s, female immigrants had higher employment rates than female natives and lower growth in employment rates. The female pattern, while starting out quite different from males in the decade of the 1960s, looks similar to the pattern for males during the decade of the 1980s.

Though the increase in growth relative to natives and the changing pattern for females do suggest changes over time as a possible source of changes in employment growth, in the remainder of this paper, I focus on explaining the convergence in employment rates between 1980 and 1990.

4.3 The Role of Fertility, Children, and Marital Status in Change in Labor Market Outcomes

In this section, I explore the potential role of fertility, children, and marital status on employment rates. At first glance, these issues would appear to be especially important for females.¹² The evidence in table 4.2,

11. Additional evidence supporting this shift is found in the questions on employment status in 1975 in the 1980 census. In this question, for the 1970–74 arrival cohort, there is little change in the employment rate relative to natives between 1975 and 1980. This contrasts with the lower initial employment rates—and subsequent convergence—of the 1975–79 cohort in 1980 and the 1985–89 cohort in 1990. Though selective emigration could explain this pattern, taken together with the evidence from Fry, it is also consistent with a shift in pattern of relative employment rates between the 1970–74 and 1975–79 arrival cohorts. Another possible explanation for the low growth of the 1970–74 cohort between 1975 and 1980 is that employment rates of this cohort took longer to converge to that of natives. This view would be supported by the evidence from the data from the Current Population Survey presented in table 4A.4

12. The paper by Blau (1992) provides evidence on fertility of immigrant females using the 1970 and 1980 U.S. censuses. She shows that that recent immigrants have lower fertility measured by total number of children ever born during the initial years following migration

though, does not support explanations that are particular to females in the childbearing years. First, the patterns are very similar for males and females of all age groups. Second, the pattern for females in the childbearing years (25–39 in 1980) is similar to that for females that are beyond the childbearing years (40–49 in 1980). For each of these comparisons, selection into each sample, based on gender or age, is independent of the fertility or employment outcome. Together, these patterns suggest little potential explanatory role for fertility or child rearing in directly explaining the lower employment rates during the first years following immigration.

But to be certain that household demographics are not explaining the patterns for females and that something else is explaining the pattern for males, I examine two other factors related to household composition for females—presence of children and marital status—using two approaches. First, I use the approach of table 4.1 to follow two samples of the same females over time based on the age of children. The first group consists of those females who had no children in 1980. In 1990, these females either had no children or all of their children were between the ages of zero and nine. The second group consists of those women who only had children aged zero to seven in 1980. These females had children with ages less than 17 in 1990.¹³ If disruption from children was a primary determinant of the employment rates of recent immigrants, women without children in 1980 would not experience disruption, while those with children would. Because the same females are followed between 1980 and 1990, there is no selection between the samples.

I also separate the two groups—those with no children in 1980 and those with children aged zero to seven in 1980—into subgroups corresponding to their possible outcomes in 1990. For those with no children in 1980, this includes females with no children in 1990 and those with children in 1990. For those with children aged zero to seven in 1980, this includes those with no additional children in 1990 and those with additional children in 1990. Though these subsamples are self-selected, they may provide additional evidence on the potential role of children in the initial disruption following immigration.

The results of these calculations, shown in table 4.5, strengthen the argument against children playing a large role in the change in relative employment rates of recent immigrants. Female immigrants in the 1975–79 arrival cohort with no children at the time of the 1980 census have employment rates .152 lower than 1970–74 arrivals. By 1990, the two groups have the same employment rates. Similarly, female immigrants in the 1975–79

compared to natives. As time in the United States increases, immigrant female fertility approaches that of natives. Funkhouser and Trejo (1998) find similar patterns using the 1980 and 1990 censuses. The results from each of these papers suggest that disruption from the migration process may be more important than assimilation following migration.

13. This age group was chosen so that all children would be living at home in 1990.

Table 4.5 Employment Rates, 1975–79 Cohort and 1970–74 Cohort, Females

	Females Aged 25–49 in 1980 (1)	Females Aged 35–59 in 1990 (2)	Change 1980 to 1990 (3)
<i>No Children in 1980 and No Children or All Children aged 0–9 in 1990</i>			
1975–79 cohort	.620 (.005)	.749 (.008)	.129 (.009)
1970–74 cohort	.772 (.006)	.740 (.008)	–.032 (.010)
No children			
1975–79 cohort		.754 (.008)	
1970–74 cohort		.742 (.008)	
All children 0–9			
1975–79 cohort		.656 (.008)	
1970–74 cohort		.659 (.011)	
<i>All Children Aged 0–7 in 1980 and 10–17 in 1990</i>			
1975–79 cohort	.337 (.005)	.640 (.005)	.303 (.007)
1970–74 cohort	.468 (.005)	.647 (.005)	.179 (.007)
All children 10–17			
1975–79 cohort		.710 (.009)	
1970–74 cohort		.702 (.007)	
Also with children 0–10			
1975–79 cohort		.576 (.007)	
1970–74 cohort		.580 (.007)	

Note: Entries are employment rates in columns (1) and (2), and change in column (3).

arrival cohort with children only between the ages of zero and seven have employment rates .129 below those of 1970–74 arrivals with children of the same age. By 1990, these two arrival groups also have similar employment rates. Moreover, the employment rates in 1990 are similar between the two arrival cohorts for each of the subgroups reported in column (2).

The second approach is to classify women into four groups—unmarried/no children, married/children, married/no children, and unmarried/children—and look at women of the same age who migrated at different calendar years in each of these groups. Though this comparison is not as clean because it is not possible to follow the same females over time, the result is similar. The main finding from this exercise—not presented in a

table—is that the most recent five-year cohort has lower employment rates for each group except the relatively small group of unmarried females with children for all age groups.

Taken together, the evidence in tables 4.2, 4.3, and 4.5 suggest that though household factors may play a role in the level of employment rates, they do not explain the change in relative employment rates as time in the United States increases. This finding contrasts somewhat with the literature, which has focused on these factors to explain the levels of employment and labor force participation rates for females.

4.4 Effect of Source Country Characteristics

I now consider two possibilities related to characteristics in the source country. First, it is possible that the low employment rate following migration and the subsequent jump in employment rates is a phenomenon for immigrants from a small number of countries. Second, it is possible that employment rates upon arrival to the United States are related to labor market activity prior to arrival and, in particular, labor force participation in the country of origin. Figure 4.2 addresses these possibilities.

In the figure, the difference between the growth in employment rates for the 1975–79 arrival cohort and the growth in employment rates for the 1970–74 arrival cohort (without controls) is plotted against the labor force participation in the source country and is shown for both females (fig. 4.2A) and males (fig. 4.2B).¹⁴ Each point represents the data for immigrants from one of the main source countries to the United States denoted by two digit abbreviations. For example, the point for Mexico (ME) shows that the 1975–79 cohort experienced a change in employment rates of .035 for females and .047 for males.¹⁵ The labor force participation, calculated over the entire nonchild population, is .184 for females and .496 for males.

First, examining only the vertical distance of each point, nearly all countries have convergence in employment rates as time in the United States increases. Though immigrants from the main source country, Mexico, experience an increase in employment rates, they are not the only immigrants to do so. In fact, the increase for Mexicans is low relative to that for other countries. Second, there is no clear relationship between the jump in employment rates and the labor force participation in the source country. Though there is a relationship between source country characteristics and the level of labor force participation rates, the lower employment rates of the most recent arrivals relative to earlier arrivals is not related to the source country characteristics. In general, female labor force participation rates are higher in the developed source countries than among immigrants after

14. The labor force participation and GNP per capita in the source country around 1990 are taken from World Bank (1990).

15. These numbers differ slightly from those reported in table 4.2 since these calculations do not include the same age restrictions.

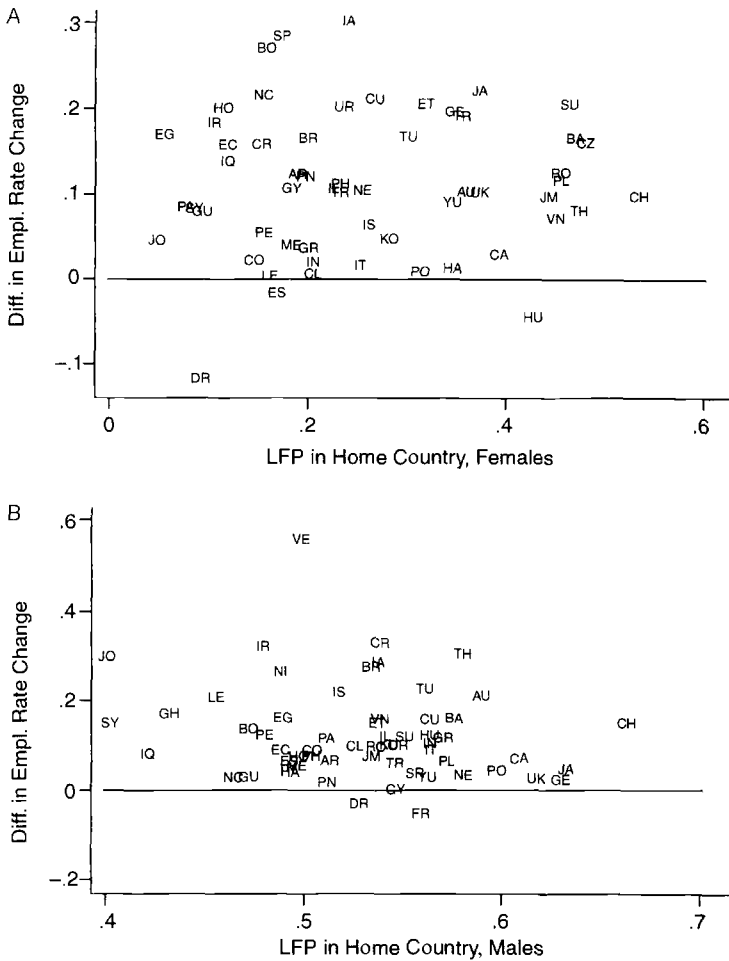


Fig 4.2 Difference in growth in employment rate between 1970–74 and 1975–79 arrivals and labor force participation in home country, females (A) and males (B) aged 25–59

Note: AR = Argentina; AU = Australia; BA = Barbados; BO = Bolivia; BR = Brazil; CA = Canada; CH = China; CL = Chile; CO = Colombia; CR = Costa Rica; CU = Cuba; CZ = Czechoslovakia; DR = Dominican Republic; EC = Ecuador; EG = Egypt; ES = El Salvador; ET = Ethiopia; FR = France; GE = Germany; GH = Ghana; GR = Greece; GU = Guatemala; GY = Guyana; HA = Haiti; HO = Honduras; HU = Hungary; IA = Indonesia; IL = Ireland; IN = India; IQ = Iraq; IR = Iran; IS = Israel; IT = Italy; JA = Japan; JM = Jamaica; JO = Jordan; KO = Korea; LE = Lebanon; ME = Mexico; NC = Nicaragua; NE = Netherlands; NI = Nigeria; PA = Pakistan; PE = Peru; PH = Philippines; PL = Poland; PN = Panama; PO = Portugal; RO = Romania; SP = Spain; SU = USSR; SY = Syria; TH = Thailand; TR = Trinidad; TU = Turkey; UK = United Kingdom; UR = Uruguay; VE = Venezuela; VN = Vietnam; YU = Yugoslavia.

arrival and are lower in the developing source countries. For males, labor force participation rates are higher in all source countries than among immigrants following migration.

I next examine the potential role of source country characteristics more formally in a regression framework. There are two dependent variables reported in these regressions. First, the level of employment rates in 1990 is reported in columns (1) and (2). Second, the difference in the change in employment rates between the 1975–79 arrival cohort and the 1970–74 arrival cohort is shown in columns (3) and (4). These data correspond to those in figure 4.2. Columns (1) and (3) report the results for female employment rates, and columns (2) and (4) report the results for male employment rates. There are 49 countries with complete data for females and 52 countries with data for males.

The two main source country characteristics are labor force participation of nonmigrants of the same gender and the gross national product per capita, each in a year close to 1990.¹⁶ In addition, dummy variables for region of origin are also included. The results are reported in table 4.6. The main finding of the table is that though country characteristics are related to employment levels, they are not correlated with the relative change of employment rates for females. For males, there is a relationship between the level of development and country of origin and the change in employment levels. This pattern in which source country characteristics have no effect on the relative growth in employment rates for females and have an effect for males is the reverse of that that would be expected from an explanation for the change in employment rates based on accumulation of labor market culture.

Though most of the evidence does not suggest a large role for labor market culture in the source country to explain the convergence in employment rates, there are three pieces of evidence that do suggest that the source country is important. First, there is weak correlation (.167, significant at the 80 percent level) between the employment rate jump for females and the employment rate jump for males from the same country of origin. Second, the significance of the region variables in table 4.6 suggests that aspects of the source countries not captured by labor force participation or level of development do have an effect on employment rates subsequent to migration. Third, GNP per capita is a significant determinant of convergence in employment rates for males.

4.5 Role of Skills

There are several pieces of evidence that suggest a potential role for skill in explaining the change in employment rates. First, it was observed in

16. Though the immigrants reported in the 1980 and 1990 censuses did not arrive in the United States in 1990, there is consistency across countries in the selection of the data.

Table 4.6 Relationship between Employment Rates in United States and Source Country Characteristics

	Employment Rate, Most Recent Five-Year Arrival Cohort		Difference in Growth between 1980 and 1990 for Two Most Recent Arrival Cohorts	
	Females	Males	Females	Males
	1990 (1)	1990 (2)	1980–90 (3)	1980–90 (4)
Female labor force participation	.572 (.149)		.052 (.129)	
Male labor force participation		.155 (.279)		-.040 (.358)
Log GNP per capita	-.021 (.018)	.003 (.013)	-.003 (.016)	.236 (.016)
Region (OECD omitted)				
Asia	-.038 (.070)	-.086 (.049)	-.015 (.061)	.179 (.063)
Latin America	.099 (.054)	-.018 (.040)	-.010 (.047)	.113 (.051)
Mexico	-.067 (.113)	.009 (.084)	-.075 (.098)	.042 (.108)
Eastern Europe	-.061 (.090)	.023 (.062)	-.091 (.078)	.082 (.080)
Other	-.110 (.060)	-.64 (.047)	.004 (.052)	.208 (.060)
Constant	.502 (.165)	.720 (.171)	.120 (.143)	-.150 (.220)
Adjusted R^2	.39	.09	-.11	.17
N	49	52	49	52

table 4.2 that the change in employment rates relative to natives is larger for immigrants with more education than for immigrants with less education. Second, the change is greatest for immigrants from Latin America and Asia and is lowest for immigrants from Mexico. Third, there is a correlation in the magnitude of the change relative to natives for male and female immigrants from the same source country. Fourth, GNP per capita is a significant determinant of the change for males, but not for females.¹⁷

I consider three mechanisms through which skills may be important. First, immigrants may acquire observable skills subsequent to migration, including education and language, during which time employment is lower. Second, labor supply of immigrants may have been responsive to

17. Further evidence is provided by the finding from appendix table 4A.3 that recent immigrants at the time of the 1960 and 1970 censuses—those that arrived before the change in immigration law favoring family reunification—did not experience lower employment immediately following immigration.

the change in the reward to skill in the U.S. labor market during the 1980s. And third, a residual explanation is that skills may not be perfectly transferable between the source country and the United States.

4.5.1 Investment in Skills

The finding that employment rates of more-skilled immigrants are low following migration is consistent with previous literature on human capital formation of immigrants, including the paper by Betts and Lofstrom (chap. 2 in this volume), which has suggested that more-educated workers are more likely to make subsequent investments in human capital. Theories of human capital investment also predict that older workers are less likely to make the investment than younger workers since there is less remaining time to recoup the costs of investment. If the observed change in employment rates for recent immigrants were the result of investment in human capital, the change should be greater for younger workers than for older workers. I examine the consistency of the data with this prediction in table 4.7.

The sample aged 25–49 in 1980 (and 35–59 in 1990) is divided into three age groups (25–34 in 1980, 35–44 in 1980, and 45–49 in 1980) and three education groups (some high school or less, high school graduate, and some college or more). The entries in the table are the change in employment rates of the 1975–79 and 1970–74 immigrant arrival cohorts relative to natives of the same age and education. Though persons can and do change between the education categories, the changes—shown in appendix table 4A.5—are not large enough to offset the patterns in changes in employment rates observed.

The pattern in which the change in employment rates is higher for more-educated workers is observed within each of the three age groups. For the youngest group, the change in employment rates for females in the 1975–79 arrival cohort, aged 25–34 in 1980, and with some college or more is .119 higher than that for similar persons in the 1970–74 arrival cohort. This is significantly greater than the change of .081 for those with exactly a high school diploma. For males in the same age group, the changes are .153 and .064, respectively.

The patterns are very similar for each of the three age groups, noting that the age group 45–49 in 1980 is more imprecisely estimated. They are also very similar across males and females. Though the magnitude of the change in employment rates of those with some college or more for the 25–34-year-olds is slightly higher than the 35–44-year-olds for males and each of the other groups for females, there is not much support for substantial investment in human capital explaining the change in employment rates.

Table 4.7 Change in Employment Rates Relative to Natives between 1980 and 1990, by Skill and Age Level

	Females		Males	
	1975-79 Arrival Cohort (1)	1970-74 Arrival Cohort (2)	1975-79 Arrival Cohort (3)	1970-74 Arrival Cohort (4)
Age in 1980				
Age 25-34 (35-44 in 1990)				
Some high school or less	.016 (.009)	-.032 (.009)	.088 (.009)	.021 (.008)
High school graduate	.061 (.010)	-.020 (.010)	.075 (.008)	.011 (.008)
Some college or more	.159 (.007)	.040 (.008)	.207 (.005)	.053 (.005)
Age 35-44 (45-54 in 1990)				
Some high school or less	.051 (.013)	-.058 (.012)	.091 (.011)	.040 (.009)
High school graduate	.108 (.015)	.012 (.014)	.089 (.013)	.017 (.010)
Some college or more	.129 (.012)	.008 (.010)	.123 (.008)	.020 (.006)
Age 45-49 (55-59 in 1990)				
Some high school or less	.064 (.022)	-.015 (.020)	.098 (.022)	-.014 (.016)
High school graduate	.077 (.030)	-.007 (.028)	.158 (.027)	.100 (.023)
Some college or more	.233 (.031)	.010 (.027)	.144 (.017)	.045 (.016)

Note: Entries are change in employment rates between 1980 and 1990 relative to change for natives in same education and age group.

4.5.2 Language Acquisition

I now turn to the role of language acquisition. Since immigrants with less ability to speak English have lower employment rates than those with greater English-speaking ability, if changes in English proficiency are large during the first 5-10 years following migration, this could explain much of the pattern. Moreover, immigrants that arrived in the United States with proficiency in English should not experience low employment during the first years following migration. Initial evidence that the latter may not be the case is the observation that the English-speaking countries in figure 4.2 have high changes in employment rates.

I first examine the relationship between English ability and employment rates without controls in table 4.8. In the census, respondents can be classified as speaking only English or, for those that do not speak only English, speaking English very well, well, not well, or not at all. Because most natives speak only English, I compare the change in employment

Table 4.8 Change in Employment Rates of 1975–79 Arrival Cohort Relative to 1970–74 Arrival Cohort, by English-Speaking Ability

	Females	Males
English only	.083 (.014)	.067 (.010)
English very well	.086 (.010)	.116 (.012)
English well	.122 (.010)	.147 (.012)
English not well	.123 (.011)	.095 (.012)
English not at all	.024 (.016)	.086 (.018)

Note: Entries are difference in change in employment rate between 1980 and 1990 for the 1975–79 arrival cohort relative to the 1970–74 arrival cohort calculated for persons with indicated English-speaking ability in each year. Sample is restricted to those aged 25–49 in 1980 and 35–59 in 1990.

rates of the 1975–79 and 1970–74 arrival cohorts directly. The numbers reported in table 4.8 are the difference in the change in employment rates between these two arrival cohorts. For all language levels except females who do not speak English at all, there is a relative increase in employment levels between 1980 and 1990 for the 1975–79 arrival cohort. This includes those who speak only English and those who speak English very well.

In the table, I compare the employment rates of persons of the same English-speaking level in 1980 and 1990. An issue, therefore, is the effect of changes in language ability between the two years, also shown in appendix table 4A.5. Though many immigrants do improve English language skills during the first years following immigration, many do not. Moreover, language acquisition continues well beyond the first 10 years after immigration for many immigrants.¹⁸ Comparison of the magnitudes reveals that the number of immigrants changing language status and the difference in employment rates across language groups are not large enough for the product of the two to explain much of the change in employment rates. The net change over 10 years is a .1 reduction of the 1975–79 arrival cohort in the not well/not at all group and an increase of the same amount in those who speak only English or speak very well. The difference in employment rates between these groups is about .2 for females and .1 for males. Though the within-group changes shown in the table are substantially larger in magnitude, the bias of the composition change is to underestimate the true employment change at the lower levels of English proficiency as immigrants move from lower English proficiency and lower employment rates to higher English ability and higher employment rates.

18. See for example, Funkhouser (1996).

Table 4.9 Determinants of Employment Rates

	Coefficient on 6–10 Years U.S. Experience Relative to 0–5 Years	
	Females	Males
	1. Restricted across years and nativity without English-speaking ability	.089 (.014)
2. Add English-speaking ability	.085 (.014)	.110 (.011)
3. Separate coefficients for age, education, and English across years	.090 (.014)	.111 (.011)
4. Separate coefficients across years and nativity	.083 (.014)	.099 (.011)
<i>N</i>	1,489,013	1,405,826

Note: Entries are coefficient on 6–10 years in the United States relative to 0–5 years in the United States. Other controls in row 1 include five-year age bracket dummy variables for age, four dummy variables for education (some high school, high school graduate, some college, college graduate; no high school omitted), six race dummy variables (black, Asian, Mexican, Puerto Rican, other Hispanic, and other race), five-year arrival cohort dummy variables for immigrants, a dummy variable for those born in outlying areas, five dummy variables for region of origin (Europe, Eastern Europe and former Soviet Union, Latin America and the Caribbean, Asia, and other countries; Mexico omitted), and a dummy variable for data from the 1990 census. In row 2, four dummy variables for English-speaking ability are included. In row 3, the age, education, and English-speaking ability variables are interacted with the year dummy variable. In row 4, these variables are also interacted separately with immigrant status. One additional age group is dropped for immigrants.

4.5.3 Extensions of Table 4.3 and the Changing Returns to Skill

During the 1980s, the return to skill in the United States increased. As a further check on the role of observed human capital formation on employment rates and the possibility that changes in the wage structure affected relative employment rates of immigrants, I extend the regression results of table 4.3. In table 4.9, I add more detailed controls for human capital, beginning with English-speaking ability. The entries in the table are the coefficients on the variable for 6–10 years of U.S. experience from regressions using specifications similar to those in table 4.3. In row 1 of the table, the coefficient from table 4.3 is reported. In row 2, four dummy variables for English-speaking ability are included. I continue the extensions for controls for skills by interacting the human capital variables—age, education, and language ability—with year and nativity. In row 3, separate returns to these variables are included by year of the census. In row (4), separate returns for immigrants and natives are also included.¹⁹

In the table, there is surprisingly little evidence that skills acquisition or the changing structure of rewards plays a role in the change in employment rates during the first years following arrival in the United States. The pre-

19. Two age group dummy variables are excluded for immigrants.

dicted change in employment rates between 0–5 years of U.S. experience and 6–10 years of U.S. experience ranges between .090 and .083 for females and between .111 and .099 for males.

4.5.4 Discussion

Though investment in skills by immigrants does take place subsequent to immigration, this investment alone does not explain the relative change in employment rates of recent immigrant arrivals. In addition, it is not likely that the changing structure of rewards to skill in the United States during the 1980s can explain the observed patterns. These findings point to a lack of transferability of human and social capital as being important during the initial years following migration. That this lack of transferability is not strongly related to language emphasizes the importance of social capital, including the development of labor market contacts and networks. Though this is a residual explanation, it is consistent with the findings based on the source countries.

4.6 Summary

In this paper, I have utilized the 1980 and 1990 U.S. censuses to examine employment outcomes of recent immigrants. A robust finding is that there is a large increase in employment rates during the initial years following immigration. The findings that the convergence is similar for males and females and for older and younger immigrants make explanations based on gender or age unlikely to explain these patterns. Though labor force culture in the source country—measured by labor force participation rates—is not an important determinant of the change in employment rates after migration, the correlation between the level of development and the change in employment rates and the correlation between the change for males and females from the same country indicate that source country labor markets may be important. The initial disadvantage and subsequent change in employment rates is larger for more-skilled immigrants. Changes in observed measures of skill—experience measured by age, education, or language ability—do not explain the observed patterns. This finding points to lack of transferability of human capital being important during the initial years following migration.

In table 4.4, it was seen that the relative gain in employment rates of recent male immigrants increased between the 1970s and the 1980s. Much of this change is due to the lower initial employment rates of recent male immigrants in the 1980s and 1990s. For females, there was not relative gain during the decades of the 1960s or the 1970s. Though this paper has not provided an explanation for the change in pattern between the 1960s and 1980s, changes in immigration law that favored arrival with skills less transferable than earlier cohorts would be consistent with the main explanation for the pattern over the 1980s presented above.

4.7 Concluding Remark

One of the implications of this paper is that the nonrandom change in the composition of immigrant cohorts between census years may bias estimates of wage convergence for samples that consider only those with positive earnings.²⁰ Moreover, the recent debate over the possibility that entry earnings are correlated with earnings assimilation (Duleep and Regets 1996) may be the result of the changing composition of immigrant arrival cohorts.

Two pieces of evidence that may provide guidance for future research on this issue are seen from the 1980 question on employment status in 1975 and from reweighting the 1990 data to resemble the composition of 1980. First, though changes in the 1970–74 arrival cohort may not be representative of more recent arrivals because they did not start with a deficit in employment rates, the wage characteristics of those who were not working in 1975 but were working in 1980 can be compared to other earners. For both males and females, these persons have lower earnings than immigrants who worked in both 1975 and 1980.²¹ Second, when the 1990 data is reweighted to match the age and education distribution within each arrival cohort in the 1980 data, the growth in earnings is reduced considerably for females but does not change much for males. Together, this initial evidence suggests that changes in the composition of the immigrant population with positive earnings may not bias estimates of earnings convergence for males, though it—along with other labor force participation issues—may be important for females.

20. Friedberg (1993) proposes similar concerns about the composition of immigrant arrival cohorts based on age of arrival.

21. Each of these calculations uses hourly earnings data from the census calculated as annual earnings divided by weeks worked in the previous year and usual hours worked. Those with hourly earnings calculated at less than \$1 or greater than \$200 in 1980 dollars (\$1.66 and \$332, respectively, in 1990) were excluded. The 1990 data were recoded so that the top limits match those in 1980. Real dollars were calculated using the consumer price index.

Appendix

Table 4A.1 Labor Market Outcomes, 1980 and 1990

A. Females				
	Employment Week 1980	Employment Week 1990	Change	Change Relative to Natives
Natives	.613 (.001)	.695 (.001)	.082 (.001)	
Outlying areas	.382 (.004)	.477 (.004)	.095 (.006)	.013 (.006)
1985-89 ^a		.494 (.003)		
1980-84		.611 (.003)		
1975-79	.484 (.003)	.651 (.003)	.167 (.004)	.085 (.004)
1970-74	.576 (.003)	.648 (.003)	.072 (.004)	-.010 (.004)
1965-69	.594 (.003)	.659 (.003)	.065 (.004)	-.017 (.004)
1960-64	.584 (.003)	.648 (.003)	.064 (.004)	-.018 (.004)
1950-59	.583 (.003)	.627 (.003)	.044 (.004)	-.038 (.004)
	Participation Week 1980	Participation Week 1990	Change	Change Relative to Natives
Natives	.647 (.001)	.724 (.001)	.077 (.001)	
Outlying areas	.429 (.004)	.530 (.004)	.101 (.006)	.024 (.006)
1985-89		.560 (.003)		
1980-84		.669 (.003)		
1975-79	.532 (.003)	.700 (.003)	.168 (.004)	.091 (.004)
1970-74	.624 (.003)	.693 (.003)	.069 (.004)	-.008 (.004)
1965-69	.637 (.003)	.702 (.003)	.065 (.004)	-.012 (.004)
1960-64	.622 (.003)	.684 (.003)	.062 (.004)	-.015 (.004)
1950-59	.617 (.003)	.657 (.003)	.040 (.004)	-.037 (.004)

Table 4A.1 (continued)

	Employment Last Year 1980	Employment Last Year 1990	Change	Change Relative to Natives
Natives	.694 (.001)	.756 (.001)	.062 (.001)	
Outlying areas	.429 (.004)	.529 (.004)	.100 (.006)	.038 (.006)
1985-89		.534 (.003)		
1980-84		.672 (.003)		
1975-79	.546 (.003)	.711 (.003)	.165 (.004)	.103 (.004)
1970-74	.648 (.003)	.708 (.003)	.060 (.004)	-.002 (.004)
1965-69	.660 (.003)	.717 (.003)	.057 (.004)	-.005 (.004)
1960-64	.651 (.003)	.706 (.003)	.055 (.004)	-.007 (.004)
1950-59	.648 (.003)	.687 (.003)	.0039 (.004)	-.023 (.004)
	Usual Hours 1980	Usual Hours 1990	Change	Change Relative to Natives
Natives	35.642 (.023)	36.989 (.023)	1.347 (.033)	
Outlying areas	36.339 (.131)	37.261 (.121)	.922 (.178)	-.425 (.181)
1985-89		38.363 (.115)		
1980-84		38.716 (.094)		
1975-79	37.427 (.084)	38.736 (.088)	1.312 (.122)	-.035 (.126)
1970-74	37.410 (.073)	38.371 (.083)	1.309 (.111)	-.038 (.116)
1965-69	36.604 (.082)	37.941 (.088)	1.337 (.120)	-.010 (.124)
1960-64	35.904 (.098)	37.611 (.101)	1.707 (.141)	.360 (.145)
1950-59	35.373 (.087)	36.514 (.094)	1.141 (.128)	-.206 (.132)

(continued)

Table 4A.1 (continued)

	Weeks 1980	Weeks 1990	Change	Change Relative to Natives
Natives	41.752 (.030)	44.598 (.025)	2.846 (.039)	
Outlying areas	41.041 (.190)	43.589 (.164)	2.548 (.251)	-.298 (.254)
1985-89		39.982 (.143)		
1980-84		43.503 (.104)		
1975-79	38.001 (.121)	44.127 (.095)	6.126 (.154)	3.280 (.159)
1970-74	41.402 (.103)	44.149 (.092)	2.747 (.138)	-.099 (.143)
1965-69	42.258 (.105)	44.771 (.095)	2.513 (.142)	-.333 (.147)
1960-64	41.962 (.125)	44.987 (.106)	3.025 (.164)	.179 (.169)
1950-59	42.241 (.108)	44.759 (.099)	2.518 (.147)	-.328 (.152)
	Annual Hours 1980	Annual Hours 1990	Change	Change Relative to Natives
Natives	1,056.969 (1.610)	1,277.504 (1.659)	211.535 (2.312)	
Outlying areas	651.142 (7.316)	871.073 (8.471)	219.931 (11.929)	8.396 (12.151)
1985-89		838.127 (6.593)		
1980-84		1,151.900 (6.405)		
1975-79	793.628 (5.125)	1,239.043 (6.221)	445.415 (8.060)	233.880 (8.385)
1970-74	1,024.275 (5.413)	1,220.427 (5.899)	196.152 (8.006)	-15.383 (8.333)
1965-69	1,045.795 (5.767)	1,241.422 (6.343)	195.627 (8.573)	-15.908 (8.879)
1960-64	1,005.613 (6.589)	1,217.894 (7.127)	212.281 (9.706)	.746 (9.978)
1950-59	995.912 (5.778)	1,147.982 (6.367)	152.070 (8.598)	-59.465 (8.903)

Table 4A.1 (continued)

B. Males				
	Employment Week 1980	Employment Week 1990	Change	Change Relative to Natives
Natives	.887 (.001)	.857 (.001)	-.030 (.001)	
Outlying areas	.774 (.004)	.722 (.004)	-.052 (.006)	-.022 (.006)
1985-89		.789 (.003)		
1980-84		.851 (.002)		
1975-79	.783 (.002)	.885 (.002)	.102 (.003)	.132 (.003)
1970-74	.885 (.002)	.877 (.002)	-.008 (.003)	.022 (.003)
1965-69	.900 (.002)	.872 (.002)	-.028 (.003)	.002 (.003)
1960-64	.906 (.002)	.874 (.003)	-.032 (.004)	-.002 (.004)
1950-59	.902 (.002)	.872 (.002)	-.030 (.004)	-.000 (.004)
	Participation Week 1980	Participation Week 1990	Change	Change Relative to Natives
Natives	.933 (.001)	.896 (.001)	-.037 (.001)	
Outlying areas	.847 (.003)	.790 (.004)	-.057 (.005)	.020 (.005)
1985-89		.855 (.002)		
1980-84		.904 (.002)		
1975-79	.835 (.002)	.934 (.002)	.099 (.003)	.136 (.003)
1970-74	.938 (.001)	.931 (.002)	-.007 (.002)	.030 (.002)
1965-69	.946 (.001)	.924 (.002)	-.022 (.002)	.015 (.002)
1960-64	.949 (.002)	.919 (.002)	-.030 (.003)	.007 (.003)
1950-59	.943 (.002)	.913 (.002)	-.030 (.003)	.007 (.003)

(continued)

Table 4A.1 (continued)

	Employment Last Year 1980	Employment Last Year 1990	Change	Change Relative to Natives
Natives	.942 (.0004)	.910 (.001)	-.032 (.001)	
Outlying areas	.824 (.003)	.781 (.004)	-.043 (.005)	-.011 (.005)
1985-89		.815 (.003)		
1980-84		.899 (.002)		
1975-79	.823 (.002)	.933 (.002)	.110 (.003)	.142 (.003)
1970-74	.937 (.001)	.931 (.002)	-.006 (.002)	.026 (.002)
1965-69	.941 (.002)	.924 (.002)	-.017 (.003)	.015 (.003)
1960-64	.947 (.002)	.921 (.002)	-.026 (.003)	.006 (.003)
1950-59	.946 (.002)	.918 (.002)	-.028 (.003)	.004 (.003)
	Usual Hours 1980	Usual Hours 1990	Change	Change Relative to Natives
Natives	43.546 (.019)	44.454 (.020)	.908 (.028)	
Outlying areas	40.400 (.099)	41.819 (.105)	1.419 (.144)	.511 (.147)
1985-89		42.745 (.088)		
1980-84		43.286 (.078)		
1975-79	41.442 (.067)	43.895 (.075)	2.453 (.101)	1.545 (.105)
1970-74	42.048 (.067)	44.360 (.076)	2.312 (.101)	1.404 (.105)
1965-69	42.742 (.075)	43.965 (.083)	1.223 (.112)	.315 (.115)
1960-64	43.040 (.088)	44.256 (.095)	1.216 (.129)	.308 (.132)
1950-59	43.281 (.075)	44.345 (.082)	1.064 (.111)	.156 (.114)

Table 4A.1 (continued)

	Weeks 1980	Weeks 1990	Change	Change Relative to Natives
Natives	47.886 (.017)	48.018 (.018)	.132 (.025)	
Outlying areas	46.170 (.112)	46.434 (.121)	.264 (.165)	.132 (.167)
1985-89		42.854 (.102)		
1980-84		46.390 (.071)		
1975-79	42.763 (.082)	46.937 (.067)	4.174 (.106)	4.042 (.109)
1970-74	46.504 (.063)	46.911 (.066)	.407 (.091)	.275 (.094)
1965-69	47.300 (.065)	47.249 (.075)	-.051 (.099)	-.183 (.102)
1960-64	47.688 (.074)	47.600 (.082)	-.088 (.110)	-.220 (.113)
1950-59	47.876 (.063)	47.975 (.070)	.099 (.094)	-.042 (.097)
	Annual Hours 1980	Annual Hours 1990	Change	Change Relative to Natives
Natives	1,979.644 (1.408)	1,958.240 (1.582)	-21.404 (2.118)	
Outlying areas	1,547.822 (8.381)	1,523.184 (9.365)	-24.638 (12.568)	-3.234 (12.745)
1985-89		1,511.020 (6.848)		
1980-84		1,820.980 (5.765)		
1975-79	1,479.570 (5.309)	1,935.283 (5.434)	455.713 (7.597)	477.117 (7.887)
1970-74	1,848.416 (4.840)	1,948.964 (5.485)	100.548 (7.315)	121.952 (7.615)
1965-69	1,917.474 (5.378)	1,932.994 (6.207)	15.520 (8.213)	32.924 (8.482)
1960-64	1,957.394 (6.232)	1,955.410 (7.132)	-2.064 (9.470)	19.340 (9.704)
1950-59	1,972.413 (5.384)	1,969.215 (6.340)	-3.198 (8.318)	-18.206 (8.583)

*Throughout the table, year ranges refer to immigrant arrival years.

Table 4A.2

Employment Rates Previous Week, Persons Aged 25–49 in 1980 (35–59 in 1990)

	Employment Week 1980	Employment Week 1990	Change	Change Relative to Natives
A. Females				
Age 25–39 (35–49)				
Natives	.615 (.001)	.737 (.001)	.122 (.001)	
Outlying areas	.378 (.005)	.520 (.005)	.142 (.007)	.020 (.007)
1985–89 ^a		.525 (.004)		
1980–84		.631 (.003)		
1975–79	.481 (.003)	.668 (.003)	.187 (.004)	.065 (.004)
1970–74	.561 (.003)	.660 (.003)	.099 (.004)	–.023 (.004)
1965–69	.578 (.004)	.680 (.004)	.102 (.006)	–.020 (.006)
1960–64	.584 (.005)	.695 (.005)	.111 (.007)	–.011 (.007)
1950–59	.606 (.004)	.715 (.005)	.109 (.006)	–.013 (.006)
Age 40–49 (50–59)				
Natives	.609 (.002)	.599 (.001)	–.010 (.002)	
Outlying areas	.390 (.007)	.378 (.008)	–.012 (.011)	–.002 (.011)
1985–89		.389 (.007)		
1980–84		.529 (.007)		
1975–79	.495 (.006)	.577 (.007)	.082 (.009)	.092 (.009)
1970–74	.632 (.006)	.602 (.006)	–.030 (.008)	–.020 (.008)
1965–69	.627 (.005)	.614 (.005)	–.013 (.007)	–.003 (.007)
1960–64	.585 (.005)	.594 (.005)	.009 (.007)	.019 (.007)
1950–59	.562 (.004)	.557 (.004)	–.005 (.006)	.005 (.006)
High school or less				
Natives	.555 (.001)	.613 (.001)	.058 (.001)	
Outlying areas	.337 (.004)	.399 (.005)	.062 (.006)	.004 (.006)
1985–89		.458 (.004)		
1980–84		.550 (.004)		

Table 4A.2 (continued)

	Employment Week 1980	Employment Week 1990	Change	Change Relative to Natives
1975-79	.461 (.004)	.574 (.004)	.113 (.006)	.055 (.006)
1970-74	.529 (.003)	.566 (.003)	.037 (.004)	-.021 (.004)
1965-69	.541 (.004)	.582 (.004)	.041 (.006)	-.017 (.006)
1960-64	.530 (.004)	.567 (.004)	.037 (.006)	-.021 (.006)
1950-59	.527 (.004)	.545 (.004)	.018 (.006)	-.040 (.006)
Some college or more				
Natives	.701 (.001)	.782 (.001)	.081 (.001)	
Outlying areas	.606 (.010)	.734 (.009)	.128 (.013)	.047 (.013)
1985-89		.554 (.005)		
1980-84		.718 (.005)		
1975-79	.518 (.004)	.764 (.004)	.246 (.006)	.165 (.006)
1970-74	.663 (.005)	.779 (.004)	.116 (.006)	.035 (.007)
1965-69	.692 (.005)	.777 (.005)	.085 (.007)	.004 (.007)
1960-64	.686 (.006)	.762 (.005)	.076 (.008)	-.005 (.008)
1950-59	.687 (.005)	.742 (.005)	.055 (.007)	-.026 (.007)
Europe				
White natives	.609 (.001)	.697 (.001)	.088 (.001)	
1985-89		.430 (.012)		
1980-84		.595 (.012)		
1975-79	.445 (.008)	.659 (.010)	.214 (.013)	.136 (.013)
1970-74	.536 (.007)	.620 (.008)	.084 (.011)	-.004 (.011)
1965-69	.558 (.006)	.654 (.006)	.096 (.008)	.008 (.008)
1960-64	.567 (.006)	.656 (.006)	.089 (.008)	.001 (.008)
1950-59	.581 (.004)	.634 (.004)	.053 (.006)	-.025 (.006)

(continued)

Table 4A.2 (continued)

	Employment Week 1980	Employment Week 1990	Change	Change Relative to Natives
Eastern Europe/Former USSR				
White natives	.609 (.001)	.697 (.001)	.088 (.001)	
1985-89		.491 (.013)		
1980-84		.722 (.014)		
1975-79	.560 (.013)	.760 (.014)	.200 (.019)	.122 (.019)
1970-74	.645 (.018)	.691 (.018)	.046 (.025)	-.042 (.019)
1965-69	.633 (.017)	.723 (.017)	.090 (.024)	.002 (.024)
1960-64	.602 (.018)	.707 (.018)	.105 (.025)	.017 (.025)
1950-59	.589 (.012)	.626 (.012)	.037 (.017)	-.051 (.017)
Latin America/Caribbean				
Hispanic natives	.522 (.003)	.579 (.002)	.057 (.004)	
1985-89		.589 (.007)		
1980-84		.651 (.006)		
1975-79	.556 (.007)	.689 (.007)	.133 (.009)	.076 (.010)
1970-74	.636 (.006)	.680 (.006)	.054 (.008)	-.003 (.009)
1965-69	.651 (.005)	.688 (.006)	.037 (.008)	-.020 (.009)
1960-64	.650 (.007)	.701 (.007)	.049 (.009)	-.009 (.010)
1950-59	.643 (.011)	.680 (.011)	.047 (.016)	-.010 (.016)
Mexico				
Hispanic natives	.522 (.003)	.579 (.002)	.057 (.004)	
1985-89		.387 (.009)		
1980-84		.454 (.008)		
1975-79	.387 (.007)	.467 (.007)	.080 (.009)	.023 (.010)
1970-74	.437 (.006)	.478 (.006)	.041 (.008)	-.016 (.008)
1965-69	.445 (.008)	.494 (.007)	.049 (.011)	-.009 (.012)

Table 4A.2 (continued)

	Employment Week 1980	Employment Week 1990	Change	Change Relative to Natives
1960–64	.441 (.009)	.485 (.009)	.044 (.013)	.013 (.014)
1950–59	.492 (.008)	.504 (.009)	.012 (.012)	–.045 (.013)
Asia				
Asian natives	.633 (.005)	.683 (.004)	.050 (.006)	
1985–89		.493 (.005)		
1980–84		.630 (.005)		
1975–79	.501 (.005)	.715 (.005)	.214 (.007)	.164 (.009)
1970–74	.650 (.005)	.752 (.005)	.102 (.007)	.052 (.009)
1965–69	.677 (.007)	.746 (.007)	.069 (.010)	.019 (.012)
1960–64	.678 (.010)	.670 (.010)	–.008 (.014)	–.058 (.015)
1950–59	.651 (.011)	.655 (.010)	.004 (.015)	–.046 (.016)
B. Males				
Age 25–39 (40–49)				
Natives	.885 (.001)	.882 (.001)	–.003 (.001)	
Outlying areas	.775 (.005)	.745 (.005)	–.030 (.007)	–.027 (.007)
1985–89		.796 (.003)		
1980–84		.861 (.002)		
1975–79	.775 (.002)	.895 (.002)	.120 (.003)	.123 (.003)
1970–74	.880 (.002)	.887 (.002)	.007 (.003)	.010 (.003)
1965–69	.891 (.002)	.879 (.003)	–.012 (.004)	–.009 (.004)
1960–64	.895 (.003)	.893 (.004)	–.002 (.005)	.001 (.005)
1950–59	.889 (.003)	.902 (.003)	.003 (.004)	.006 (.004)
Age 40–49 (50–59)				
Natives	.893 (.001)	.800 (.001)	–.093 (.001)	

(continued)

Table 4A.2 (continued)

	Employment Week 1980	Employment Week 1990	Change	Change Relative to Natives
Outlying areas	.770 (.007)	.666 (.008)	-.104 (.011)	-.011 (.011)
1985-89		.711 (.006)		
1980-84		.807 (.005)		
1975-79	.815 (.005)	.834 (.005)	.019 (.007)	.112 (.007)
1970-74	.905 (.004)	.841 (.004)	-.064 (.006)	.029 (.006)
1965-69	.915 (.003)	.858 (.004)	-.057 (.005)	.036 (.005)
1960-64	.919 (.003)	.850 (.004)	-.069 (.005)	.024 (.005)
1950-59	.917 (.003)	.838 (.003)	-.079 (.004)	.014 (.004)
High school or less Natives	.848 (.001)	.787 (.001)	-.061 (.001)	
Outlying areas	.754 (.004)	.854 (.008)	.100 (.009)	.161 (.009)
1985-89		.755 (.004)		
1980-84		.807 (.003)		
1975-79	.816 (.003)	.846 (.003)	.030 (.004)	.091 (.004)
1970-74	.877 (.002)	.839 (.003)	-.038 (.004)	.023 (.004)
1965-69	.881 (.003)	.825 (.003)	-.056 (.004)	.005 (.004)
1960-64	.883 (.003)	.826 (.004)	-.057 (.005)	.004 (.005)
1950-59	.879 (.003)	.813 (.003)	-.066 (.004)	-.005 (.004)
Some college or more Natives	.929 (.001)	.915 (.001)	-.014 (.001)	
Outlying areas	.860 (.009)	.854 (.008)	-.006 (.012)	.008 (.012)
1985-89		.808 (.004)		
1980-84		.906 (.003)		
1975-79	.749 (.003)	.927 (.003)	.178 (.004)	.192 (.004)
1970-74	.897 (.003)	.929 (.003)	.032 (.004)	.046 (.004)

Table 4A.2 (continued)

	Employment Week 1980	Employment Week 1990	Change	Change Relative to Natives
1965-69	.925 (.003)	.930 (.003)	.005 (.004)	.019 (.004)
1960-64	.934 (.003)	.920 (.004)	-.014 (.005)	.000 (.005)
1950-59	.925 (.003)	.922 (.003)	-.003 (.004)	.011 (.004)
Europe				
White natives	.904 (.001)	.877 (.001)	-.027 (.001)	
1985-89		.878 (.010)		
1980-84		.931 (.008)		
1975-79	.879 (.007)	.914 (.006)	.035 (.009)	.062 (.009)
1970-74	.903 (.005)	.891 (.06)	-.012 (.008)	.015 (.008)
1965-69	.917 (.004)	.895 (.005)	-.022 (.006)	.005 (.006)
1960-64	.922 (.004)	.888 (.005)	-.034 (.006)	-.007 (.006)
1950-59	.915 (.003)	.893 (.004)	-.022 (.005)	.005 (.005)
Eastern Europe/Former USSR				
White natives	.904 (.001)	.877 (.001)	-.027 (.001)	
1985-89		.669 (.010)		
1980-84		.902 (.010)		
1975-79	.813 (.010)	.907 (.010)	.094 (.014)	.121 (.014)
1970-74	.903 (.011)	.906 (.013)	.003 (.017)	.030 (.017)
1965-69	.928 (.011)	.900 (.013)	-.028 (.017)	-.001 (.017)
1960-64	.909 (.011)	.911 (.014)	.002 (.018)	.029 (.018)
1950-59	.919 (.007)	.867 (.008)	-.052 (.011)	-.025 (.011)
Latin America/Caribbean				
Hispanic natives	.847 (.002)	.813 (.002)	-.034 (.003)	
1985-89		.795 (.006)		

(continued)

Table 4A.2 (continued)

	Employment Week 1980	Employment Week 1990	Change	Change Relative to Natives
1980-84		.837 (.004)		
1975-79	.785 (.006)	.862 (.005)	.077 (.008)	.111 (.009)
1970-74	.881 (.004)	.864 (.004)	-.017 (.006)	.017 (.007)
1965-69	.886 (.004)	.856 (.005)	-.030 (.006)	.004 (.007)
1960-64	.911 (.004)	.813 (.006)	-.098 (.007)	-.064 (.008)
1950-59	.901 (.007)	.860 (.006)	-.041 (.009)	-.007 (.009)
Mexico				
Hispanic natives	.847 (.002)	.813 (.002)	-.034 (.003)	
1985-89		.805 (.007)		
1980-84		.846 (.006)		
1975-79	.845 (.005)	.855 (.004)	.010 (.006)	.044 (.007)
1970-74	.877 (.004)	.847 (.004)	-.030 (.006)	.004 (.007)
1965-69	.873 (.004)	.829 (.005)	-.044 (.006)	-.010 (.007)
1960-64	.862 (.005)	.813 (.006)	-.049 (.008)	-.015 (.009)
1950-59	.880 (.005)	.814 (.006)	-.066 (.008)	-.032 (.009)
Asia				
Asian natives	.880 (.003)	.877 (.003)	-.003 (.004)	
1985-89		.769 (.005)		
1980-84		.846 (.004)		
1975-79	.754 (.004)	.910 (.003)	.156 (.005)	.159 (.006)
1970-74	.922 (.004)	.932 (.004)	.010 (.006)	.013 (.007)
1965-69	.947 (.005)	.924 (.005)	-.023 (.007)	-.020 (.008)
1960-64	.949 (.007)	.930 (.007)	-.019 (.010)	-.016 (.011)
1950-59	.912 (.007)	.908 (.008)	-.004 (.011)	-.001 (.012)

^aThroughout the table, year ranges refer to immigrant arrival years.

Table 4A.3 Employment Rates during Previous Week, 1960–80

	1960 Age 25–49 (1)	1970 Age 35–59 (2)	1970 Age 25–49 (3)	1980 Age 35–59 (4)
A. Females				
Recent immigrants	.401 (.009)	.456 (.008)	.484 (.008)	.603 (.003)
Previous immigrants	.385 (.005)	.490 (.005)	.449 (.008)	.577 (.003)
United States Possessions	.378 (.012)	.355 (.013)	.321 (.010)	.371 (.005)
Natives	.384 (.001)	.493 (.010)	.469 (.010)	.568 (.010)
Europe				
Recent immigrants	.420 (.014)	.425 (.014)	.434 (.013)	.562 (.007)
Previous immigrants	.382 (.007)	.496 (.007)	.411 (.012)	.564 (.006)
Eastern Europe				
Recent immigrants	.540 (.031)	.609 (.031)	.542 (.040)	.642 (.017)
Previous immigrants	.433 (.012)	.508 (.014)	.584 (.040)	.602 (.016)
Mexico				
Recent immigrants	.308 (.036)	.362 (.033)	.306 (.028)	.417 (.010)
Previous immigrants	.278 (.016)	.338 (.019)	.327 (.025)	.412 (.010)
Latin America and Caribbean				
Recent immigrants	.542 (.030)	.552 (.031)	.619 (.015)	.665 (.006)
Previous immigrants	.492 (.022)	.567 (.024)	.573 (.017)	.643 (.007)
Asia				
Recent immigrants	.216 (.024)	.458 (.032)	.455 (.018)	.670 (.008)
Previous immigrants	.348 (.021)	.510 (.026)	.426 (.024)	.642 (.010)
B. Males				
Recent immigrants	.881 (.006)	.922 (.006)	.858 (.006)	.905 (.002)
Previous immigrants	.916 (.003)	.921 (.003)	.917 (.005)	.907 (.002)
United States Possessions	.802 (.010)	.793 (.011)	.808 (.009)	.750 (.005)

(continued)

Table 4A.3 (continued)

	1960 Age 25–49 (1)	1970 Age 35–59 (2)	1970 Age 25–49 (3)	1980 Age 35–59 (4)
Natives	.886 (.001)	.893 (.001)	.893 (.001)	.865 (.001)
Europe				
Recent immigrants	.912 (.009)	.947 (.009)	.899 (.008)	.908 (.005)
Previous immigrants	.929 (.004)	.930 (.005)	.942 (.009)	.921 (.005)
Eastern Europe				
Recent immigrants	.904 (.016)	.933 (.017)	.915 (.027)	.920 (.012)
Previous immigrants	.918 (.007)	.919 (.008)	.907 (.029)	.883 (.016)
Mexico				
Recent immigrants	.933 (.015)	.888 (.023)	.883 (.020)	.864 (.008)
Previous immigrants	.890 (.010)	.896 (.015)	.907 (.020)	.852 (.007)
Latin America and Caribbean				
Recent immigrants	.850 (.020)	.926 (.024)	.862 (.011)	.899 (.004)
Previous immigrants	.885 (.016)	.938 (.019)	.929 (.013)	.918 (.005)
Asia				
Recent immigrants	.689 (.024)	.798 (.031)	.774 (.016)	.959 (.005)
Previous immigrants	.874 (.015)	.915 (.017)	.846 (.021)	.958 (.007)

Note: Recent immigrant is defined as follows: column (1), immigrants that resided abroad five years ago; column (2), 1955–59 arrival cohort; column (3), 1965–69 arrival cohort; and column (4), 1965–69 arrival cohort.

Previous immigrant is defined as follows: columns (1) and (2), all immigrant arrivals before 1955; and columns (3) and (4), 1960–64 arrival cohort.

Table 4A.4 Employment Rates of Males in Current Population Survey

	1979	1983	1986	1989
Natives	.856 (.002)	.816 (.003)	.803 (.003)	.808 (.003)
Pre-1960	.851 (.021)	.837 (.025)	.829 (.028)	.789 (.028)
1960-64	.873 (.030)	.781 (.031)	.742 (.035)	.790 (.033)
1965-69	.871 (.024)	.856 (.028)	.809 (.029)	.791 (.030)
1970-74	.808 (.021)	.784 (.023)	.807 (.024)	.827 (.026)
1975-79	.739 (.020)	.744 (.026)	.799 (.024)	.795 (.027)
1980-84			.665 (.025)	.775 (.026)
1985-89				.638 (.029)
<i>N</i> (immigrants)	1,452	1,504	1,589	1,580
<i>N</i> (natives)	21,472	21,784	20,308	19,543

Note: Sample is males aged 25-49 in 1979, 29-53 in 1983, 32-56 in 1986, and 35-59 in 1989.

Table 4A.5 Changes in Skill Level between Census Years (Proportion of Arrival Cohort)

	Females		Males	
	1980	1990	1980	1990
Some college or more				
1975-79	.396 (.003)	.405 (.003)	.503 (.003)	.479 (.003)
1970-74	.349 (.003)	.381 (.003)	.418 (.003)	.424 (.003)
High school or more				
1975-79	.617 (.003)	.651 (.003)	.660 (.003)	.677 (.003)
1970-74	.578 (.003)	.641 (.003)	.590 (.003)	.622 (.003)
English very well, or only English				
1975-79	.358 (.003)	.441 (.003)	.379 (.003)	.426 (.003)
1970-74	.421 (.003)	.492 (.003)	.433 (.003)	.486 (.003)
English well				
1975-79	.242 (.002)	.258 (.003)	.271 (.002)	.279 (.003)
1970-74	.262 (.002)	.247 (.003)	.293 (.003)	.274 (.003)
English not well or not at all				
1975-79	.399 (.003)	.301 (.003)	.349 (.003)	.259 (.003)
1970-74	.317 (.003)	.261 (.003)	.274 (.003)	.240 (.003)

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