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ABSTRACT

Assimilation via Prices or Quantities? Labor Market Institutions and Immigrant Earnings Growth in Australia, Canada, and the United States[∗]

How do international differences in labor market institutions affect the nature of immigrant earnings assimilation? Using 1980/81 and 1990/91 cross-sections of census data from Australia, Canada, and the United States, we estimate the separate effects of arrival cohort and duration of destination-country residence on immigrant outcomes in each country. Relatively inflexible wages and generous unemployment insurance in Australia suggest that immigrants there might improve themselves primarily through employment gains rather than wage growth, and we find empirically that employment gains explain *all* of the labor market progress experienced by Australian immigrants. Wages are less rigid in Canada and the United States than in Australia, with the general consensus that the U.S. labor market is the most flexible of the three. We find that wage assimilation is an important source of immigrant earnings growth in both Canada and the United States, but the magnitude of wage assimilation is substantially larger in the United States. These same general patterns remain when we replicate our analyses for two subsamples of immigrants – Europeans and Asians – that are more homogeneous in national origins yet still provide sufficiently large sample sizes for each country.

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I. Introduction

International differences in labor market institutions, such as unionization and income support policies, have recently been argued to cause international differences in a variety of economic outcomes. These outcomes include the degree of wage inequality (DiNardo, Fortin, and Lemieux 1996; Blau and Kahn 1996); the manner in which economies respond to adverse shocks to the demand for unskilled labor (Card, Kramarz, and Lemieux 1999; McDonald and Worswick 2000); the size of the gender wage gap (Blau and Kahn 2000); the magnitude of wage losses experienced by displaced workers (Kuhn 2002); youth unemployment (Abowd et al. 2000); work hours (Bell and Freeman 2001); technical progress (Moene and Wallerstein 1997); and the amount of labor reallocation across industries (Bertola and Rogerson 1997).

Perhaps surprisingly, one potentially important consequence of labor market institutions that has not yet been examined is the process via which immigrants are absorbed into a nation's economy (Chiswick 1978; Borjas 1985). The vast majority of existing studies of immigrant assimilation focus on a single country and restrict attention to a single dimension of immigrant assimilation, typically the wages or earnings of employed immigrants.[1] Since the precise definitions of samples, time periods, variables, and regression specifications can all affect assimilation estimates, a credible examination of the effects of institutions needs to incorporate multiple countries in a single paper. Further, since labor market institutions are as likely to affect

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[1] A notable exception is Borjas (1988). He considers two cross-sections of data for Canada and the United States (1970/71 and 1980/81) and a single cross-section for Australia. Aside from updating his study, the current paper expands on it in two main ways. First, we are able to distinguish assimilation effects from cohort quality changes in Australia. This turns out to be critical, because Australia is one of our "extreme" cases of institutional structure, and because Borjas' interpretation of the Australian data is based on an assumption (that wage assimilation could not be negative) that turns out to be violated. Second, we distinguish employment and wage assimilation and examine this distinction in the context of labor market institutions. Miller and Neo (2001) compare the United States and Australia

the *form* that assimilation takes (in particular, the distinction between wage and employment adjustments) as its overall level, it is critical that more than one dimension of the assimilation process be considered. Thus, the goal of this paper is to analyze the form and amount of immigrant assimilation in three countries—Australia, Canada and the United States—using (as far as possible) identical samples for the same period of time, and to consider the role that institutional differences play in explaining any international differences we see.[2]

We argue, first, that the main institutional differences likely to be relevant to the immigrant experience in these three countries involve wage-setting and income support. Next we hypothesize that differences in these two institutional dimensions should have the following effects on the immigrant assimilation process: 1. Relative to natives, newly-arrived immigrants should have the lowest employment rates in Australia, and the highest in the United States. 2. Largely as a consequence of the previous point, immigrant employment rates should rise most rapidly with time in the host country in Australia and least rapidly in the United States. 3. Relative to natives, newly-arrived immigrants who *are* employed should have the highest wages in Australia and the lowest in the United States. 4. Relative to natives, immigrant wage rates should rise most rapidly with time in the host country in the United States and least rapidly in Australia. 5. Decomposing the total earnings growth of a cohort of newly-arrived immigrants into the portion due to increased employment rates versus wage growth, we expect the share due to wage growth to be highest in the United States and the lowest in Australia, with Canada

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using a single cross-section in each country.
  [2] Angrist and Kugler (2003) investigate a different aspect of the interaction between immigration and labor market institutions: how the impact of immigrants on natives varies with labor market flexibility. Across European Union countries, they find that immigration tends to depress native employment more when institutions restrict flexibility.

between these two extremes.

In the main, our hypotheses are confirmed: new immigrants face by far the largest wage disadvantage in the United States, but also experience by far the greatest rate of wage growth after arrival. Also, wage growth accounts for the highest share of total earnings assimilation in the United States and the lowest in Australia. Thus, compared to the United States, the investment undertaken by immigrants to Australia and Canada consists disproportionately of "waiting" for a good job to open up rather than accumulating skills while on the job. Somewhat more surprisingly, wage assimilation in Australia is in fact *negative*, a result driven in part by the fact that some immigrant cohorts earn a positive wage premium upon arrival, and they then assimilate downwards towards the Australian norm. It follows that the lower rate of immigrant wage growth in Australia cannot be just a mechanical result of the smaller distance between the rungs of its "earnings ladder". Instead our results suggest that, as an optimizing response to the smaller gains to be had by climbing the ladder, immigrants to Australia choose not to make the investments required to climb it, i.e. immigrants to low-wage-dispersion countries advance less because there is "nowhere to go". Finally, and also somewhat unexpectedly, we do detect employment assimilation in all three countries, but do not find large differences in the rate of employment assimilation between the countries.

II. Labor Market Institutions and Immigrant Assimilation

The similarities between our three countries that make them, collectively, a good "laboratory" in which to compare the immigrant experience are well known; they include a high level of economic development; a common Anglo-Saxon cultural heritage, language and legal

system; a definition of citizenship that is based on country of birth rather than ethnicity; the
feature of being recently colonized by Europeans with only small aboriginal populations
remaining in the country; relatively low population densities; a long tradition of immigration; and
large immigrant population shares by international standards. From common roots, however,
the countries have diverged considerably in the institutions regulating their labor markets. The
goal of this paper is to look for effects of these emergent institutional differences on the
economic experiences of twentieth-century immigrants to Australia, Canada, and the United
States.

We argue that two main institutional differences are likely to have substantial effects on
immigrants to these three countries: wage-setting institutions and income support policies.[3]
Concerning the wage-setting process, Table 1 shows the well-known difference in union density
between the United States and Canada, as well as the well-known decline in U.S. union density
between 1980 and 1990. While union density in both countries is low by OECD standards, by
the end of our sample period union density in Canada was more than double that in the United
States (36 versus 16 percent). In both countries, coverage is only marginally greater than
density, and wage bargaining is extremely decentralized (among 19 OECD countries, only one
country ranks lower than Canada and the United States in terms of bargaining centralization).

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[3] On a third dimension that features prominently in some recent international labor market comparisons—
quantity-based restrictions such as maximum hours laws and employment protection laws (EPLs)—differences among
our three countries are much less extreme. If anything, Canada has the most stringent EPLs of these three countries (see
Kuhn 2002), but the restrictions in all three are very low by international standards. (In contrast, Australia's wage-
setting institutions are easily as stringent as many in Europe.) Another institution affecting the immigrant experience—
admissions criteria—does differ substantially among the three countries. However, Borjas (1993) and Antecol, Cobb-
Clark and Trejo (2003) show that this works almost exclusively by changing the mix of immigrant source countries, in
particular by changing the share of immigrants from Latin America. By controlling for region of origin we can thus net
out most of the effects of different admissions criteria.

Australia's wage-setting process differs dramatically from the North American norm. Union membership rates are higher than both Canada and the United States, and declining over our sample period, but the most dramatic difference is in union coverage: in both our sample years, 80 percent or more of Australian workers' wages were determined by collective bargaining agreements. Further, this wage-setting process is highly centralized and co-ordinated on the national level. In 1990, Australia was ranked first (tied with Austria, Belgium, Finland, Norway, Portugal and Sweden) among 19 countries in bargaining centralization by the OECD.[4]

The consequences of these different wage-setting institutions for wage dispersion can be seen in panel B of Table 1. As Blau and Kahn (1996) have argued, high levels of union coverage tend to be associated with low levels of wage dispersion, and this is certainly borne out in our data. By all measures—the 90/10 ratio (ratio of the 90th to the 10th percentiles of the weekly earnings distribution), 90/50 ratio, 50/10 ratio, or the standard deviation of log wages—Australia had the most compressed wage distribution in both years of our data, and the United States the most dispersed. Canada stands between these two extremes on most measures, though it is tied with the Unites States on two of these measures in 1990, perhaps reflecting a more severe recession at that time. All three countries exhibit increasing wage inequality between 1980 and 1990.

Concerning the income support available to unemployed workers, an aggregate, comparable index of benefit generosity computed by the OECD in Table 1 shows similar overall

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[4] During our sample period, the dominant institution in Australian wage-setting was the "awards" system, a system whereby unions, employers and government representatives met at the national level to negotiate wage rates specific to hundreds of occupations. Although firms were free to pay above-award wages, this was rare in practice. Thus, for all intents and purposes, Australian wages during our sample period were centrally administered at the occupation level. Statutory minimum wages were set at similar (low) fractions of the average wage in Canada and the

replacement rates in Canada and Australia, and a much lower rate in the United States. While

this probably summarizes overall generosity reasonably well, there are a number of reasons to

suspect that these figures understate the differences among the three countries, especially as it

affects immigrants. One such difference is the take-up rate of unemployment insurance (UI)

benefits: in 1990, the ratio of UI beneficiaries to the total number of unemployed was 34

percent in the United States, 82 percent in Australia, and 87 percent in Canada.[5] Thus it is

much less likely that an unemployed worker in the United States will actually receive UI benefits

than in Australia or Canada. Second, the Australian income support system has three features

that make it especially generous for immigrants: unlike the United States and Canadian systems,

eligibility does not require prior employment, recent immigrants are not explicitly disqualified

from receiving benefits, and benefits do not depend on previous wages. Furthermore, in

Australia these benefits are payable for an indefinite period, in contrast to maximum entitlement

periods of a year in Canada and 26 weeks in the United States. On balance, it appears that

Australia's income support system is the most generous to immigrants, and both Canada and

Australia are clearly more generous than the United States.

Given that during our sample period Australia had a much more compressed wage

distribution and more generous income support for unemployed immigrants than the United

States, with Canada between these extremes on both these dimensions, how might one expect

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United States, and they did not exist in Australia because they were superseded by the awards system.

[5]OECD, 1994, Table 8.4, plus CANSIM Series v384773 [the OECD's table includes UI *and* welfare cases for Canada; thus we retrieved our own beneficiary counts from Statistics Canada's CANSIM database]. Australian figures refer to 1991. For Canada, our figures include regular UI beneficiaries only (thus they exclude UI benefits for job training, maternity, sickness, etc.). As noted, Australia has only a means-tested program—these figures refer to it. US figures, like Canada's include UI claimants only (thus excluding welfare). In all cases the count of beneficiaries refers to an annual average stock (not to the total number of persons receiving benefit at any time during the year).

the immigrant assimilation process to differ between these countries? Most obviously, one

would expect a minimum-wage effect: to the extent that high, centrally-administered wage

floors prohibit employment below a certain wage, unskilled (or poorly-connected) workers may

not be able to find employment as easily. As in the Harris-Todaro (1970) model of rural-urban

migration, immigrants will have to wait in a queue before finding higher-wage jobs. Thus we

expect a higher incidence of unemployment on arrival, and a greater decline in unemployment

with time in the country. A second effect, reinforcing the first, is a reservation-wage effect: more

generous income support while unemployed should make immigrants more selective about new

jobs, choosing to remain unemployed longer. Thus, economic assimilation should consist more

of "waiting" in a queue for a good job to arrive, and less of acquiring skills while employed.

A third effect of institutions is a purely mechanical effect of national wage compression

on the relative wage growth rates of immigrants. Suppose that, over the course of his first ten

years in the country, an immigrant to Australia advances five percentiles in the native wage

distribution, and the same is true of an immigrant to the United States. Simply because the rungs

of the U.S. wage "ladder" are farther apart, the immigrant to the United States will experience

greater wage growth (even relative to natives) than the immigrant to Australia.[6] Another

expected effect of wage compression is not so mechanical: suppose that the investment

required to rise one rung on the ladder (e.g. learning English) is equally costly in the United

States and Australia. Then—for the same reason that Bell and Freeman (2001) argue that

Americans work harder than Germans—immigrants to Australia will be less inclined to make

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[6] For the United States, this "mechanical" effect of wage structure on the immigrant-native wage gap has been
explored by Butcher and DiNardo (1998) and Lubotsky (2001).

these investments because there is less to be gained in a compressed-wage economy.[7]

In sum, given the institutional differences between these three countries during the time period in question, we expect the following differences in the immigrant assimilation process: relative to natives, immigrant employment rates should be lowest on arrival, but grow most rapidly with time in Australia. In contrast, immigrant wage rates should be highest on arrival, but grow least rapidly with time in Australia. Results for the United States should be the opposite of this, with Canada between the two extremes. Overall, decomposing the total earnings growth of a cohort of newly-arrived immigrants into the portion due to employment versus wage growth, we expect the share due to wage growth to be highest in the United States and lowest in Australia, with Canada between these two extremes.

III. Data

We analyze individual-level data from the 1981 and 1991 Australian and Canadian censuses and the 1980 and 1990 U.S. census. For each country, these censuses provide comparable cross-section data at two points in time on demographic characteristics and labor force behavior, as well as the requisite information on country of birth and year of arrival for foreign-born individuals (henceforth referred to as immigrants). Having at least two cross-sections of data for each country is advantageous for estimating immigrant assimilation effects, as we explain in the next section, and the large samples of individuals available in census data produce relatively precise estimates. The Australian data constitute one-percent samples of the

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[7] While we do not incorporate income taxes explicitly into our analysis, income tax differentials across the countries reinforce this effect: the much-higher marginal rates in Canada than the United States, for example, reduce the

population, the Canadian data are three-percent samples, and the U.S. data are five-percent samples.[8]

We restrict our analysis to men between the ages of 25 and 59 who are not institutional residents. We exclude women in order to minimize biases arising from selective labor force participation, and we choose this age range so as to focus on men who have completed their formal schooling and who have a strong attachment to the labor market. By comparing outcomes for immigrants with those for natives who reside in the same destination country, natives can serve as a control for cross-country differences in social or economic conditions or in how the census data were collected. To increase comparability of the native samples across countries and improve their usefulness as a control group, we exclude non-whites from the native (but not the immigrant) samples.[9] In addition, residents of the Atlantic Provinces and the Territories are excluded from the Canadian samples, because for these individuals the information about country of birth and year of immigration is not reported in sufficient detail.

Finally, in order to avoid complications that arise with immigrants who arrived as children, we exclude all foreign-born individuals whose age and arrival cohort imply any possibility that they entered the destination country prior to age 16. Immigrants who arrive as children, and who therefore acquire much of their education and all of their work experience in the destination country and who are more likely to speak the destination-country language

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incentive to acquire host-country-specific skills even more.

[8] The U.S. samples are much larger than the samples from the other two countries. To lighten the computational burden, we employ 0.1-percent (or one in a 1000) samples of U.S. natives, but we use the full five-percent samples of U.S. immigrants, and we use the full samples of natives and immigrants available in the Australian and Canadian data.

[9] In particular, we exclude blacks, Asians, Hispanics, and aboriginals from the native samples for each

fluently, often enjoy greater economic success than immigrants who come as adults (Kossoudji

1989; Friedberg 1991). Given the age and other restrictions typically used to construct analysis

samples, the average age at arrival within the extracted subsample of a cohort falls with duration

of residence in the destination country, because as an immigrant arrival cohort ages, its youngest

members enter the sample and its oldest members leave the sample. These factors combine to

produce a spurious correlation between immigrant outcomes and duration of destination-country

residence. Because the inclusion of immigrants who arrived as children can bias estimates of

assimilation effects, we exclude child immigrants from our samples.[10]

IV. Empirical Framework

Our goal is to compare the relative importance of employment versus wage adjustments

in accounting for the labor market assimilation of immigrants to Australia, Canada, and the

United States. We start with the identity $E = pw$, where E denotes the expected earnings of

an immigrant, p is the probability that the immigrant is employed, and w is the wage paid to the

immigrant when he is employed. It is perhaps most natural to think of p as the fraction

employed in a cohort of immigrants, w as the mean earnings of the employed members of the

cohort, and E as the mean earnings of all members of the cohort (including those who are not

employed and therefore have zero earnings). Consider how the cohort's earnings potential

evolves over time as its members adapt to the destination country's labor market. To a first-

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destination country.

[10] In their analysis of the unemployment experiences of Australian immigrants, McDonald and Worswick (1999b) find it important to distinguish between immigrants who arrived as children and those who arrived as adults.

order approximation, the identity implies that

(1) $\%\,\Delta E = \%\,\Delta p + \%\,\Delta w$.

In percentage terms, the growth in expected earnings arising from immigrant assimilation is equal to the sum of assimilation's impacts on employment rates and wages. Equation (1) provides a useful decomposition of the labor market assimilation of immigrants into employment and wage components. To implement equation (1) empirically, we need estimates of how assimilation affects the employment and wage opportunities of immigrants. In this context, assimilation represents the independent effect of duration of destination-country residence on immigrant outcomes. In other words, how do immigrant outcomes change with greater exposure to the host country?

We adopt the regression framework developed by Borjas (1985, 1995) for estimating the separate effects of arrival cohort and duration of destination-country residence on immigrant outcomes. This framework exploits the availability of comparable cross-section data from at least two different points in time. Without strong restrictions, it is impossible to distinguish immigrant cohort and assimilation effects using just a single cross-section of data because, at any given point in time, variation across immigrants in years of destination-country residence arises only from differences in immigrants' dates of entry. With repeated cross-sections, however, outcomes for immigrant arrival cohorts can be tracked over time, and the trick then becomes to isolate changes due to assimilation from changes caused by different economic conditions in the survey years being compared (i.e., period effects). The most popular solution to this problem, and the one adopted here, is to estimate period effects from the outcome changes experienced by natives. After netting out these estimates of the period effects, remaining changes for

immigrant cohorts are attributed to assimilation.[11]

To be explicit, let y_j^g represent the outcome for individual j, where the superscript g takes on the values I for immigrants and N for natives. Pooling data from the 1981 and 1991 censuses,[12] immigrant outcomes are determined by the equation

$$(2) \qquad y_j^I = C_j \mathbf{1}^I + A_j \mathbf{d}^I + \mathbf{p} T_j + (1 - T_j) X_j \mathbf{b}_{81}^I + T_j X_j \mathbf{b}_{91}^I + \mathbf{e}_j^I ,$$

where the vector C is a set of mutually exclusive dummy variables identifying immigrant arrival cohorts, the vector A is a set of mutually exclusive dummy variables indicating how long an immigrant has lived in the destination country, T is a dummy variable marking observations from the 1991 census, the vector X contains other determinants of outcomes, $\mathbf{e}$ is a random error term, and the remaining parameters are the objects of estimation. This specification gives each immigrant arrival cohort its own intercept, and differences in these intercepts represent permanent outcome differentials between cohorts. The coefficients of the duration of destination-country residence dummies measure the effects of immigrant assimilation on the outcome variable. In addition, the coefficients of the variables in X are allowed to vary across census years, with the subscripts 81 and 91 indicating the survey year of a particular parameter vector.

The corresponding equation for natives is

$$(3) \qquad y_j^N = \mathbf{a}^N + \mathbf{p} T_j + (1 - T_j) X_j \mathbf{b}_{81}^N + T_j X_j \mathbf{b}_{91}^N + \mathbf{e}_j^N ,$$

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[11] A key assumption of this approach is that compositional changes in the subsample of an immigrant cohort observed—such as those caused by emigration, mortality, and labor force entry and exit—do not bias measured outcome changes.

[12] These are the years relevant for the Australian and Canadian census data. For the U.S. census data, the corresponding years are 1980 and 1990.

where a^N is the intercept for natives, and the arrival cohort and duration of destination-country

residence variables are excluded from this equation because they are not relevant for natives.

To see the identification problem in equation (2), it is easiest to think of C, A, and T as

being scalar variables denoting, respectively, an immigrant's year of arrival in the destination

country, years since arrival, and survey year. In this case, $C + A = T$, which implies that we

cannot estimate the separate effects of these variables without imposing some type of restriction.

 An analysis of immigrant outcomes must confront the classic problem of distinguishing cohort,

age, and period effects. The identifying restriction imposed in equations (2) and (3) is that the

period effect p is the same for immigrants and natives, as indicated by the absence of a

superscript on this parameter. In essence, the period effect is estimated from natives, and this

information is used to identify cohort and assimilation effects for immigrants. To estimate the

parameters of equations (2) and (3), we pool observations on immigrants and natives from both

years of census data into a single regression, and then impose the restrictions implicit in these

equations by introducing the appropriate interaction terms between nativity, the 1990/91 census

dummy, and the other explanatory variables.

V. Estimation Results

In this section, we use the empirical approach just described to estimate the impact of

assimilation on the employment and wage opportunities of immigrants to Australia, Canada, and

the United States. Interpreting these estimates in the context of equation (1), we then compare

the relative importance of employment versus wage adjustments in accounting for immigrant

labor market assimilation in these three countries. Before discussing the regression results,

however, we first introduce our two outcome variables and describe how they vary with nativity
and immigrant arrival cohort.

Table 2 presents employment rates for our samples of native and immigrant men in the
two census years for each of the three countries. Recall that our samples include men ages 25-
59, with non-whites excluded from the native but not the foreign-born samples, and with the
additional exclusion of immigrants who arrived in the destination country as children. Standard
errors are shown in parentheses and cell sample sizes are in brackets. The reported rates
represent the percentage of men in each cell who were employed during the census survey
week. Here, and throughout the paper, the intervals listed for immigrant arrival cohorts are
those defined in the Australian and Canadian data; the slightly different immigrant cohorts
defined in the U.S. data are as follows: pre-1960, 1960-64, 1965-69, 1970-74, 1975-79,
1980-84, and 1985-90.[13] The 1991 Australian census does not distinguish 1960s arrivals from
earlier immigrants, and therefore "pre-1971" is the most precise arrival cohort that can be
defined consistently across censuses for Australian immigrants. For Canada and the United
States, however, immigrants arriving during these years are disaggregated into "1966-70,"
"1961-65," and "pre-1961" cohorts.

Overall, native men tend to have higher employment rates than their foreign-born
counterparts, with the only exception occurring in the 1981 data for Canada. In 1990/91, for
example, employment rates were 86 percent for natives versus 80 percent for immigrants in
Australia, 86 percent for natives versus 83 percent for immigrants in Canada, and 89 percent

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[13] For ease of exposition, we will refer to particular immigrant cohorts using the year intervals that pertain to
the Australian and Canadian data, with the implied understanding that in the U.S. data the actual cohort intervals begin

for natives versus 85 percent for natives in the United States.[14] In all three countries, male

employment rates fell for both natives and immigrants between 1980/81 and 1990/91, although

the declines were much smaller in the United States (drops of less than a percentage point) than

elsewhere (drops of 4-6 percentage points for natives and 7-9 points for immigrants).

Within a given cross-section, immigrants in all three countries display a marked jump in

employment rates between the two most recent arrival cohorts, and then employment

propensities are relatively stable across the remaining cohorts. Consider, for example, the 1981

Australian data. The employment rate is below 80 percent for men who immigrated within the

last five years (1976-80 arrivals), but it shoots up to 90 percent for immigrants who have spent

between five and ten years in Australia (1971-75 arrivals), and it holds steady at 89 percent for

immigrants with over ten years of Australian residence (pre-1971 arrivals). A qualitatively

similar pattern emerges in each of the other cross-sections, regardless of country or survey year.

 This pattern could indicate that immigrants experience a substantial amount of employment

adjustment during their initial five or ten years in the destination country, but an alternative

explanation is that the cross-sectional data reflect permanent employment differences between

immigrant cohorts.

The availability of a second cross-section for each country allows us to follow immigrant

cohorts through time, and this type of longitudinal analysis reveals that the depressed

employment of recent arrivals primarily represents an immigrant adjustment process rather than

permanent cohort differences. Consider, for example, the 1976-80 cohort of immigrants to the

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and end one year earlier.

[14] It should be noted that our exclusion of non-whites from the native but not the immigrant samples raises

United States. In 1980, shortly after arrival, the employment rate of this cohort (78 percent) was about 10 percentage points below that of natives or earlier immigrant cohorts. Over the next decade, however, the employment rate of 1976-80 arrivals rose by 11 percentage points, whereas employment propensities either remained constant or fell for natives and the other immigrant cohorts. By 1990, the 1976-80 cohort had the same employment rate as natives (89 percent) and the highest rate of any immigrant cohort. The same sort of convergence occurs in Australia and Canada, where the 1976-80 arrival cohorts experienced rising employment rates over the 1980s even as natives and all other immigrant cohorts suffered noticeable declines. These employment gains for the most recent immigrant arrivals relative to natives and earlier immigrants suggest that a discrete jump in immigrant labor force activity occurs during the first decade of adaptation to the destination-country labor market. To accommodate the apparent nonlinearity of immigrant employment adjustment, the regressions reported below will employ a flexible specification of immigrant assimilation effects.

Table 3 presents the same type of information for the natural logarithm of wages, our other outcome variable. In addition to the sample restrictions that pertain to Table 2, we now further limit attention to employed men. For Canada and the United States, we use weekly earnings to represent wages. Unfortunately, the Australian census does not distinguish an individual's earnings from his other sources of income, so for Australia we are forced to use weekly personal income as our proxy for wages.[15] To facilitate comparisons across years within each country, the figures in Table 3 have been converted to 1990 dollars for Australia

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the relative employment rates of natives.

[15] For all three countries, our measure of wages includes self-employment earnings as well as wage and salary

and Canada and to 1989 dollars for the United States. No attempt was made to adjust for the rate of exchange between the various currencies, however, so it is not meaningful to compare across countries the *levels* of log wages reported in Table 3.

In Australia and Canada, immigrants as a group have average wages that are quite close to those of native workers (immigrant-native wage differentials of less than 5 percent), whereas in the United States immigrants earn substantially less than natives (the wage advantage for U.S. natives is 16 percent in 1980 and 24 percent in 1990).[16] Real wages fell slightly over the 1980s for native workers in all three countries and for foreign-born workers in Australia, but Canadian and U.S. immigrants suffered larger declines of about 10 percent. In Australia, average wages vary remarkably little by nativity or across immigrant arrival cohorts. Wage gaps between the highest-paid and lowest-paid cohorts of Australian immigrants are just 5 percent in 1981 and 6 percent in 1991, and in each year the average wages of Australian natives fall within the relatively narrow range of mean wages observed across immigrant cohorts. In contrast, wages vary enormously across immigrant cohorts in Canada and the United States, with more recent arrivals typically earning much less than earlier immigrants and natives. In 1990/91, for example, the newest Canadian and U.S. immigrants (1986-91 arrivals) earned roughly 30 percent less than immigrants who came ten years earlier (1976-80 arrivals) and at least 50 percent less than immigrants who came twenty years earlier (1966-70 arrivals).

These cross-sectional comparisons suggest that immigrant wage assimilation is minimal

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earnings.

[16] For expositional convenience, throughout the paper we will treat log wage differences as representing percentage wage differentials, although we recognize that this approximation becomes increasingly inaccurate for log differences on the order of .25 or more in absolute value. In such instances, one can calculate the implied percentage

in Australia and substantial in Canada and the United States, but, as discussed above, only a longitudinal analysis can hope to distinguish true assimilation from permanent differences between arrival cohorts. The longitudinal evidence in Table 3 confirms the qualitative patterns of assimilation suggested by cross-sectional wage differences between immigrant cohorts. In Australia, wage growth between 1981 and 1991 is close to zero for each of the arrival cohorts and for natives, so there is no indication that these additional ten years of Australian residence produced wage gains for immigrants relative to natives. In Canada and the United States, however, all post-1960 arrival cohorts experienced rising real wages over the 1980s, in contrast to the wage declines suffered by natives. These wage gains are largest for the most recent immigrant cohorts, as one would expect if assimilation were the underlying cause. Nevertheless, even Canadian and U.S. immigrants who arrived in the 1960s enjoyed wage gains relative to natives during 1980s, which suggests that in these countries wage assimilation continues well beyond an immigrant's first decade in his adopted homeland. This gradual and drawn out process of wage assimilation differs from the more sudden and discrete employment adjustment documented in Table 2.

Though informative, Tables 2 and 3 do not adjust for differences between groups or changes over time in age, education, geographic location, and other factors that might bias estimates of immigrant assimilation. The regression framework described in the previous section provides a convenient way to control for extraneous factors and also to synthesize the experiences of the various arrival cohorts over the 1980s into a single assimilation profile.

Table 4 presents selected coefficients from estimating equations (2) and (3) for

wage differential as e^x -1, where x represents the difference in mean log wages between the relevant groups.

employment. The dependent variable is a dummy identifying whether the individual was

employed during the census survey week. The coefficients were estimated by least squares,

and robust standard errors are shown in parentheses. In addition to the variables listed in Table

4, all regressions include controls for age and geographic location.[17] Two specifications are

reported for each destination country. The first specification, in the columns labeled (1),

includes the independent variables mentioned so far, whereas the second specification, in the

columns labeled (2), also includes years of schooling as an additional independent variable. The

coefficients of the geographic controls are restricted to be the same for immigrants and natives,

but these coefficients can differ across survey years.[18] The coefficients of the age and education

variables are allowed to vary both by nativity and survey year.

Table 4 reports the immigrant cohort and assimilation effects, as well as the period

effects, from the employment regressions. The estimated period effects, which are the

coefficients on the 1990/91 census dummy, repeat the message from Table 2 that employment

opportunities deteriorated between 1981 and 1991 in Australia and Canada and did not change

much in the United States over the same decade.[19] The immigrant arrival cohort coefficients

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[17] The age variables are dummies identifying five-year age groups from 30-34 through 55-59, with 25-29 year-olds as the omitted reference group. The geographic variables indicate region of residence within each destination country (with eight regions defined for Australia, six regions for Canada, and nine regions for the United States) and whether the individual lives in a metropolitan area.

[18] One motivation for restricting the coefficients of the geographic variables to be the same for immigrants and natives is that these variables are meant to capture temporal and regional variation in the cost-of-living and labor market conditions, factors which may impact immigrants and natives to a similar extent.

[19] Note that the coefficients on the 1990/91 census dummy become more negative in specification (2), which controls for years of schooling. This pattern arises because specification (2) allows the effect of schooling on employment to vary over time, and in all countries the estimated schooling effect is more positive in the later survey year. When calculated for an individual with the average level of schooling, the declines in native employment rates between 1980/81 and 1990/91 implied by specification (2) are similar to the coefficients on the 1990/91 census dummy in specification (1).

reported in Table 4 have been normalized to represent immigrant-native employment differentials for men who are aged 25-29 (in both specifications) and who have 12 years of education in 1990/91 (in specification (2)). In addition, these differentials pertain to immigrants from the relevant arrival cohort when they have lived in the destination country for five years or less. For example, the estimated coefficient for 1976-80 Australian immigrants in column (1) indicates that, in their first five years after arriving, this cohort had an employment rate 14.5 percentage points below that of otherwise similar natives.

That the cohort coefficients are uniformly negative implies that, in all three countries, immigrants from every arrival period initially experienced lower employment than natives, but these employment deficits for new immigrants are much larger in Australia and the United States than in Canada. Within each country, the coefficients tend to be similar in magnitude for the various arrival cohorts. This finding suggests that, after controlling for years spent in the destination country, employment rates do not differ much across cohorts. The one important exception is the 1986-91 cohort of Canadian immigrants, whose employment rate is estimated to be permanently below that of other Canadian arrival cohorts by at least 6 percentage points.

We now turn to the assimilation effects that are the focus of our analysis. In Table 4, the coefficients of the "time in destination country" dummy variables indicate how employment rates change as an immigrant cohort becomes more familiar with its new surroundings. Australian and American immigrants display virtually identical patterns in which the bulk of employment assimilation takes place within the first decade after arrival.[20] In both Australia and

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[20] For the United States, several previous studies find this same pattern of immigrant employment adjustment. See Chiswick, Cohen, and Zach (1997) for men, Schoeni (1998) for women, and Funkhouser and Trejo

the United States, employment rates shoot up by 10 percentage points as immigrants pass from 0-5 to 6-10 years in the destination country, but thereafter employment increases only modestly (2-4 percentage points) with further exposure to the host labor market.

Employment assimilation for Canadian immigrants, by contrast, is a much more continuous process that takes longer to play out. For example, according to the estimates that do not control for education (specification (1)), immigrant employment rates rise (relative to their level during the initial five years of Canadian residence) by 4 percentage points after 6-10 years, 6 percentage points after 11-15 years, 8 percentage points after 16-20 years, and 10 percentage points after more than 20 years in Canada. Despite the fact that employment assimilation beyond the first decade of residence is strongest for Canadian immigrants, the much greater initial adjustments of Australian and American immigrants result in total employment growth, even after more than 20 years of assimilation, that is larger in Australia and the United States (12-14 percentage points) than in Canada (9-10 percentage points).

Finally, recall the negative cohort coefficients discussed earlier. These coefficients indicate that, upon arrival, all immigrant cohorts had employment rates lower than those of comparable natives. Employment growth from assimilation, however, eventually erases all or most of this initial employment deficit for every immigrant arrival cohort. Consider, for example, the 1971-75 cohort of U.S. immigrants. According to the specification (1) estimates that do not control for education, during its first five years in the United States this cohort had an

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(1998) for both genders. Funkhouser (2000) provides a detailed investigation of this phenomenon. Evidence for England (Wheatley Price 2001) and Denmark (Husted, Nielsen, Rosholm, and Smith 2001) also suggests that immigrant employment rates rise precipitously during the initial 5-10 years in the destination country. For Australia, McDonald and Worswick (1999b) report a similar finding for *unemployment*: the unemployment rates of immigrant men decline sharply, both in absolute terms and relative to native unemployment rates, during the first decade after arrival.

employment rate 14 percentage points below that of natives. After just 6-10 years of U.S. residence, however, assimilation narrows the employment gap of this cohort by 10 percentage points, and after 20 years in the United States the cohort's employment rate closes to within a percentage point of the rate for comparable natives. Immigrants from other arrival cohorts and in other host countries display the same basic pattern. With sufficient time for adjustment, male immigrants in these three countries attain employment rates similar to those of natives.[21]

Table 5 presents analogous estimates for the wage data introduced in Table 3. These log wage regressions are identical in structure to the employment regressions in Table 4, except that now the sample is restricted to employed men, and controls have been added for hours worked during the census survey week. These controls for weekly hours of work are included so that our estimates using the available information on *weekly* income (for Australia) or earnings (for Canada and the United States) more closely approximate the effects on *hourly* wages (i.e., the "price" of labor) that we seek.[22] The coefficients of the weekly hours indicators are allowed to vary across census years but not by nativity.

Unlike in Table 3, where wages were adjusted for price differences across years, the dependent variables in Table 5 represent nominal wages. Therefore, the estimated period effects (i.e., the coefficients on the 1990/91 census dummy) reflect whatever inflation occurred during the 1980s, as well as the effects on real wages of any changes in national economic

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[21] These comparisons ignore the fact that the regressions in Table 4 allow age effects to vary by nativity. The estimated age coefficients are roughly similar for natives and immigrants, however, so this general pattern of ultimate convergence in the employment rates of native-born and foreign-born men persists even when the comparisons account for differential age effects.

[22] For all three destination countries, the estimated patterns of immigrant wage assimilation are similar when we do not control for weekly hours of work. This suggests that assimilation in weekly earnings is driven by changes in hourly wages rather than by changes in weekly hours.

conditions that took place over the decade. For each country, the coefficient of the 1990/91 census dummy becomes smaller when controls for education are added in specification (2). The explanation for this pattern is the same as that discussed earlier for the employment regressions (see footnote 19 above).

In Table 5, the estimated coefficients of the arrival cohort dummies reveal the extent of permanent wage differences between immigrant cohorts. Such wage differences are relatively modest in Australia and somewhat larger in Canada and the United States. Wage profiles tend to be lower for more recent arrival cohorts, especially in Canada and the United States. For example, in the specification (1) regression that does not control for education, Canadian immigrants arriving in 1986-91 have a permanent wage disadvantage of about 30 percent relative to their predecessors who arrived before 1970. The corresponding wage deficit is smaller but still sizeable for the most recent cohort of U.S. immigrants. The pattern in Table 5 of a steady decline in wages for successive cohorts of male immigrants to Canada and the United States confirms the findings of previous studies (e.g., Baker and Benjamin (1994) and Bloom, Grenier, and Gunderson (1995) for Canada, and Borjas (1985, 1995) and Funkhouser and Trejo (1998) for the United States).

The estimated coefficients of the "time in destination country" dummy variables measure wage growth due to immigrant assimilation. Consistent with earlier research by Borjas (1988) and McDonald and Worswick (1999a), we find no evidence of wage assimilation for Australian immigrants. Although both Canadian and U.S. immigrants enjoy significant wage boosts arising from increased exposure to the destination country's labor market, the magnitude and duration of such wage assimilation is greater in the United States. For example, without controlling for

education, the estimates imply that wages grow by 11 percent as an immigrant cohort in Canada

extends its time in the country from 0-5 to 11-15 years, but additional exposure to Canada

beyond this point produces little wage improvement. For U.S. immigrants, the corresponding

wage growth is 14 percent after 11-15 years in the country and 24 percent after 20-plus years

of residence. Estimates of immigrant wage assimilation and the pattern of differences across

destination countries are similar in specification (2), which controls for education.

Given the estimates, from Tables 4 and 5, characterizing how immigrant employment

and wage opportunities evolve with greater exposure to the host country, we can now proceed

to implement equation (1). As discussed earlier, equation (1) decomposes the labor market

assimilation of immigrants into employment and wage components, where each component is

simply the percentage impact of assimilation on the relevant outcome. The log specification of

the dependent variable in the wage regressions implies that the assimilation coefficients from

these regressions already approximate percentage effects, but the corresponding coefficients in

the employment regressions do not. We transform the estimated employment effects of

assimilation into percentage terms by comparing these effects with the employment rates

(reported in Table 2) of the most recent arrival cohort in the 1990/91 data.

For each destination country, Table 6 reports the resulting estimates of the components

of equation (1), with standard errors in parentheses. The top panel of Table 6 presents

estimates based on the regressions that do not control for education, whereas the bottom panel

shows results from the alternative specification that conditions on education. As prescribed by

equation (1), "total" immigrant earnings growth due to assimilation is computed as the sum of the

estimates of earnings growth from employment assimilation and from wage assimilation. These

calculations are reported for the assimilation-induced growth that occurs for an immigrant cohort between its first five years in the destination country and each of the durations of residence ranging from "6-10 years" to "more than 20 years." Finally, in order to highlight differences across countries in the nature of immigrant labor market adjustment, Table 6 also shows the percentage of total earnings growth from assimilation that arises from employment assimilation rather than from wage assimilation.

Initially consider the estimates in the top panel of Table 6, which do not control for education. Employment assimilation is an important contributor to immigrant earnings growth in all three countries, but the timing of this contribution varies. In Australia and the United States, the vast majority of immigrant employment assimilation occurs during the first decade after arrival, whereas employment rates for Canadian immigrants rise more continuously with duration of residence. In addition, the ultimate impact of employment assimilation is somewhat less in Canada than in the other two countries. After more than two decades in the destination country, employment assimilation increases immigrant earnings by about 17 percent in Australia and the United States and by 13 percent in Canada. Earnings growth from wage assimilation, on the other hand, is largest in the United States, sizeable in Canada, and zero or negative in Australia. Summing together the effects of employment and wage assimilation, earnings grow with duration of residence the most for U.S. immigrants and the least for Australian immigrants. After more than 20 years in the destination country, for example, total earnings growth from immigrant assimilation is 40 percent in the United States, 25 percent in Canada, and 8 percent in Australia.

How does labor market flexibility affect the nature of immigrant earnings assimilation?

This question motivates our study, and we hope to learn something about the answer by comparing across host countries the relative importance of employment versus wage adjustments in accounting for total earnings growth from immigrant assimilation. Because Australian immigrants experience no wage assimilation, immigrant earnings growth in Australia comes entirely from employment gains. The top panel of Table 6 shows that, at almost any duration of residence, the earnings growth of Canadian immigrants derives in roughly equal parts from employment assimilation and from wage assimilation. For Canadian immigrants, employment and wages rise at about the same rate with greater exposure to their adopted country. For U.S. immigrants, however, wage assimilation proceeds continuously but employment gains are concentrated in the first decade after arrival. As a result, for the United States, the share of immigrant earnings growth attributable to employment assimilation falls from 71 percent after 6-10 years of residence to 41 percent after more than 20 years of residence. For the first 15 years after arrival, employment adjustments account for a larger share of immigrant earnings growth in the United States than in Canada, but the opposite pattern emerges at longer durations of residence.

The estimates in the top panel of Table 6 are consistent with our discussion in Section II about how labor market rigidities might influence immigrant assimilation. Relatively inflexible wages in Australia suggest that immigrants there might improve themselves primarily though employment gains rather than wage growth, and we find empirically that employment gains explain *all* of the labor market progress experienced by Australian immigrants. Wages are less rigid in Canada and the United States than in Australia, with the general consensus being that the U.S. labor market is the most flexible of the three. We find that wage assimilation is an

important source of immigrant earnings growth in both Canada and the United States, but the magnitude of wage assimilation is always substantially larger in the United States. For example, the assimilation associated with 16-20 years of residence in the destination country raises immigrant wages by 9 percent in Canada compared to 16 percent in the United States. Moreover, for sufficiently long periods of adjustment (at least 15 years), the share of immigrant earnings growth due to wage assimilation rather than employment assimilation is also larger in the United States.

The bottom panel of Table 6 reports analogous estimates that control for education. Overall, the patterns are very similar to those just described for the top panel of Table 6. For Canada and the United States, controlling for education generates somewhat lower estimates of immigrant employment assimilation and the share of total earnings growth arising from employment assimilation, but the comparisons across countries remain as described above.

VI. Robustness

This section explores the sensitivity of our findings to two potentially important critiques. One such critique is that Australia, Canada, and the United States differ markedly in the source country composition of their immigrant flows (Reitz 1998; Antecol, Cobb-Clark, and Trejo 2003), and national origins often exert a strong influence on immigrant outcomes. In particular, Borjas (1993) and Antecol, Cobb-Clark, and Trejo (2003) show that the skill deficit for U.S. immigrants relative to Australian and Canadian immigrants arises primarily because the United States receives a much larger share of immigrants from Latin America than do the other two countries. Consequently, an important concern is whether differences in national origins drive

the cross-country patterns of immigrant assimilation that we observe.

To investigate this issue, we replicated our analyses for two subsamples of the immigrant population that are fairly homogeneous in national origins yet still provide sufficiently large sample sizes for each country. In Tables 7-9, we report results when the immigrant samples include only men born in Europe (the left three columns of Tables 7-8 and the top panel of Table 9) and when the immigrant samples include only men born in Asia (the right three columns of Tables 7-8 and the bottom panel of Table 9). In both sets of analyses, the native samples remain the same as before (i.e., the same as in Tables 4-6). For brevity, we present only estimates from the specification that does not control for education; estimates that condition on education are similar.

In general, the patterns for European and Asian immigrants considered separately are similar to those discussed previously for immigrants from all source countries combined. Not surprisingly, however, estimates for particular national origin groups are less precise than the corresponding estimates for all immigrants combined. Standard errors are particularly large for Asian immigrants in Australia and Canada. Nonetheless, we still find that, regardless of national origin, employment growth drives immigrant earnings assimilation in Australia, whereas wage growth plays an important and often leading role for Canadian and American immigrants. Furthermore, the amount of assimilation-induced wage growth experienced by European or Asian immigrants tends to be highest in the United States, and, after at least 15 years in the destination country, the share of total earnings growth for these immigrants that derives from wage assimilation rather than employment assimilation also tends to be highest in the United States.

Despite the similar patterns *across* countries noted above, European and Asian

immigrants show some interesting differences in their patterns of labor market adjustment *within*

a particular country. In Australia, for example, Asian immigrants experience positive wage

growth from assimilation (exceeding 10 percent after 15 years of residence), whereas European

immigrants do not. In all three countries, initial employment and wage deficits (relative to

natives) are larger for Asian immigrants than for European immigrants, but assimilation tends to

produce more rapid employment and wage growth for Asians.[23] Consider, for example, the

1976-80 cohort of U.S. immigrants. Upon arrival, European immigrants from this cohort had

an employment rate about 7 percentage points below that of U.S. natives, whereas Asian

immigrants from the same cohort suffered a much larger initial employment gap of 22 percentage

points (Table 7). The corresponding wage deficits upon entry were 7 percent for Europeans

and 26 percent for Asians (Table 8). With 11-15 years of assimilation in the destination

country, however, the estimates imply that employment rates improve by 7 percentage points

for Europeans and by 17 percentage points for Asians, and that wages grow by 14 percent for

Europeans and by 29 percent for Asians. Consequently, for this particular cohort of European

and Asian immigrants to the United States, all or most of the sizeable initial employment and

wage gaps relative to natives were erased after 11-15 years of U.S. residence.

Concerning the total earnings growth associated with immigrant assimilation, Table 9

indicates that for European immigrants such earnings growth is similar in Canada and the United

States (exceeding 30 percent after 20-plus years in the destination country) and dramatically

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[23] Consistent with our results in Table 7 regarding employment rates, McDonald and Worswick (1999b) find
that Asian immigrants experience particularly high rates of *unemployment* when they initially enter Australia, but Asian

lower in Australia (less than 10 percent after 20-plus years). For Asian immigrants, Table 9

shows that total earnings growth from assimilation is highest in the United States (77 percent

after 20-plus years) and similar in Australia and Canada (around 35 percent after 20-plus

years).

A second critique of our results stems from the fact that universities in Australia,

Canada, and the United States host a sizeable number of foreign undergraduate and graduate

students who typically return to their home countries after completing their studies. Return

migration by these foreign students could cause immigrant employment rates to rise sharply after

an arrival cohort has spent 5-10 years in the destination country, even if employment rates were

stable for non-students in the cohort who did not return home. More generally, the presence of

temporary immigrants such as foreign students in our samples can bias estimates of assimilation

profiles, and the magnitude (or even the direction) of this bias might vary across destination

countries. To explore this issue, we redid our analyses after dropping from the samples anyone

currently enrolled in school. Excluding students does not materially affect the estimates of

immigrant wage assimilation in any of the destination countries, nor does it change the estimates

of employment assimilation in Australia and the Canada. For the United States, however,

dropping students yields a pattern of employment adjustment that is qualitatively similar but

somewhat more attenuated than what we saw in Table 4. In particular, the assimilation-induced

jump in immigrant employment rates during their first decade in the United States is now only 6

percentage points instead of 10 percentage points. But it is still the case that, after this initial

jump, further employment assimilation is minimal (about 2 percentage points). Consequently,

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unemployment declines sharply during the first decade after arrival.

when we exclude students, the only important change in our estimates is less employment growth for U.S. immigrants. This change strengthens our main finding that wage growth accounts for a larger share of immigrant earnings assimilation in the United States than in Australia or Canada.[24]

VII. Conclusion

As sparsely-populated, English-speaking countries in which immigration has always been an important source of demographic change, Australia and Canada share many social and economic features with the United States. Late twentieth-century immigrants to Australia, however, were entitled to unemployment compensation on arrival, and they faced a much more compressed wage distribution than immigrants to the United States. As a host for immigrants, Canada falls somewhere between these two extremes, though it is probably more similar to the United States than to Australia. Simple economic reasoning would then lead one to expect that new immigrants to Australia would spend more time unemployed, earn higher wages (relative to natives) when employed, and invest less in skills that foster wage growth than immigrants to the United States, and that Canadian immigrants would occupy a middle ground.

In this paper we generate estimates of employment and wage assimilation among immigrants to these three countries using census data spanning the decade of the 1980s. Our empirical results largely confirm our expectations. Wage assimilation is greatest in the United States and least in Australia. Employment assimilation constitutes the largest share of total

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[24] Although excluding individuals enrolled in school may reduce biases arising from the return migration of foreign students, this approach could also miss legitimate facets of immigrant assimilation that involve acquiring additional schooling and educational certification in the destination country. Indeed, there is evidence that post-migration investments in education are substantial for adult immigrants to Australia (Chiswick and Miller 1994) and the United States (Khan 1997; Betts and Lofstrom 2000). Here, we are not arguing that excluding students produces better

earnings assimilation in Australia—in fact it is the *sole* source of earnings growth there—and the smallest share in the United States. Of course, it is certainly possible that these dramatic international differences in immigrant assimilation derive from idiosyncrasies of the countries other than the labor market institutions that we emphasize. After all, with only three countries, we have very few degrees of freedom which to distinguish among alternative hypotheses. Nonetheless, our results are consistent with the hypothesis that national labor market institutions—in particular those that influence the dispersion of wages and the incomes of the unemployed—can play a key role in the immigrant assimilation process.

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estimates of immigrant assimilation profiles, but only that our key results are not affected by such an exclusion.

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Table 1: Institutional Differences Among Australia, Canada, and the United States

	Australia		Canada		United States	
A. Indicators of Union Power	**1980**	**1990**	**1980**	**1990**	**1980**	**1990**
1. Density (%)	48	41	36	36	22	16
2. Coverage (%)	88	80	37	38	26	18
3. Centralization (ranking)	3	1	17	17	17	17
4. Co-ordination 1980 (ranking)	7	5	18	17	18	17
B. Indicators of Wage Dispersion						
1. 90/10 wage ratio, men	2.67	3.93	3.73	4.21	4.04	4.80
2. 90/50 wage ratio, men	1.78	2.00	1.78	1.82	1.89	2.08
3. 50/10 wage ratio, men	1.50	1.96	2.10	2.31	2.13	2.31
4. Standard deviation of log wages	.499	.596	.684	.797	.775	.797
C. Indicators of Income Support						
1. UI Benefit Replacement Rate Index (%)	24	26	25	28	13	13

Notes:
Rankings of bargaining centralization and co-ordination are among 19 OECD countries; 1 is highest, ties allowed.
Australian wage data refer to weekly income of employees.
Canadian and U.S. wage data refer to weekly earnings of employees.
UI replacement rate index is an average of replacement rates for two earnings levels, three family situations, and three durations of unemployment, computed by OECD.

Sources:
Union data from OECD, *Employment Outlook*, July 1997, Table 3.3.
Wage data from the 1981 and 1991 Australian and Canadian censuses and the 1980 and 1990 U.S. census. Sample is restricted to employed, white native-born men aged 25-59.

UI replacement rate index is from OECD *Employment Outlook*, July1996, Chart 2.2 (numerical rates estimated from graph).

Table 2
Employment Rates

	Australia		Canada		United States	
	1981	1991	1981	1991	1980	1990
Natives	92.3	86.1	89.2	85.7	89.4	88.9
	(0.2)	(0.2)	(0.1)	(0.09)	(0.2)	(0.2)
	[17,180]	[22,336]	[75,355]	[137,349]	[36,908]	[43,052]
All Immigrants	87.5	80.4	91.7	83.0	86.2	85.4
	(0.5)	(0.4)	(0.2)	(0.2)	(0.09)	(0.08)
	[5,136]	[8,012]	[18,535]	[28,538]	[140,999]	[211,220]
Immigrant Arrival Cohort:						
Pre-1961			91.5	80.0	87.5	83.1
			(0.3)	(0.7)	(0.2)	(0.4)
			[6,863]	[3,036]	[32,994]	[10,870]
1961-65			93.6	84.9	91.0	87.3
			(0.6)	(0.8)	(0.2)	(0.3)
			[1,722]	[1,829]	[15,350]	[10,425]
1966-70			94.4	88.8	90.6	88.2
			(0.4)	(0.5)	(0.2)	(0.2)
			[3,765]	[4,508]	[23,292]	[16,851]
Pre-1971	89.0	81.5				
	(0.5)	(0.6)				
	[3,430]	[3,647]				
1971-75	90.0	83.4	91.4	88.4	88.7	88.6
	(1.0)	(1.3)	(0.5)	(0.5)	(0.2)	(0.2)
	[858]	[842]	[3,769]	[5,040]	[31,844]	[26,339]
1976-80	79.4	84.0	86.8	86.9	78.2	89.0
	(1.4)	(1.3)	(0.7)	(0.5)	(0.2)	(0.2)
	[848]	[745]	[2,416]	[3,964]	[37,519]	[37,239]
1981-85		80.9		83.7		86.8
		(1.2)		(0.6)		(0.1)
		[1,019]		[3,562]		[56,349]
1986-91		74.7		73.2		78.9
		(1.0)		(0.5)		(0.2)
		[1,759]		[6,599]		[53,147]

Note: The reported statistics give the percentage of individuals who were employed during the census survey week, with standard errors shown in parentheses and cell sample sizes in brackets. The samples include men ages 25-59, with non-whites excluded from the native but not the foreign-born samples. The intervals listed above for the immigrant arrival cohorts are those defined in the Australian and Canadian data; the slightly different immigrant cohorts defined in the U.S. data are as follows: pre-1960, 1960-64, 1965-69, 1970-74, 1975-79, 1980-84, and 1985-90.

Table 3
Mean Log Wages

	Australia		Canada		United States	
	1981	1991	1981	1991	1980	1990
Natives	6.297	6.270	6.507	6.452	6.350	6.313
	(0.004)	(0.004)	(0.003)	(0.002)	(0.004)	(0.004)
	[15,299]	[17,958]	[65,119]	[114,079]	[32,490]	[37,653]
All Immigrants	6.272	6.267	6.506	6.406	6.186	6.077
	(0.007)	(0.007)	(0.005)	(0.006)	(0.002)	(0.002)
	[4,338]	[5,995]	[16,272]	[22,303]	[116,985]	[172,871]
Immigrant Arrival Cohort:						
Pre-1961			6.575	6.522	6.427	6.453
			(0.008)	(0.016)	(0.004)	(0.008)
			[6,080]	[2,343]	[28,178]	[8,799]
1961-65			6.546	6.565	6.358	6.450
			(0.018)	(0.022)	(0.006)	(0.008)
			[1,562]	[1,497]	[13,657]	[8,868]
1966-70			6.575	6.595	6.251	6.383
			(0.011)	(0.013)	(0.005)	(0.007)
			[3,471]	[3,888]	[20,553]	[14,496]
Pre-1971	6.261	6.290				
	(0.009)	(0.011)				
	[2,942]	[2,771]				
1971-75	6.308	6.275	6.410	6.499	6.060	6.257
	(0.016)	(0.022)	(0.012)	(0.013)	(0.005)	(0.005)
	[753]	[652]	[3,344]	[4,337]	[27,442]	[22,687]
1976-80	6.281	6.275	6.281	6.416	5.926	6.133
	(0.020)	(0.025)	(0.017)	(0.014)	(0.005)	(0.004)
	[643]	[589]	[1,815]	[3,336]	[27,175]	[32,182]
1981-85		6.234		6.286		5.924
		(0.019)		(0.016)		(0.003)
		[764]		[2,842]		[47,233]
1986-91		6.227		6.075		5.826
		(0.017)		(0.015)		(0.004)
		[1,219]		[4,060]		[38,606]

Note: The reported statistics are averages of the natural logarithm of weekly personal income (for Australia) or weekly earnings (for Canada and the United States), with standard errors shown in parentheses and cell sample sizes in brackets. To facilitate comparisons across years within each country, figures have been converted to 1990 dollars for Australia and Canada and to 1989 dollars for the United States. The samples include employed men ages 25-59, with non-whites excluded from the native but not the foreign-born samples. The intervals listed above for the immigrant arrival cohorts are those defined in the Australian and Canadian data; the slightly different immigrant cohorts defined in the U.S. data are as follows: pre-1960, 1960-64, 1965-69, 1970-74, 1975-79, 1980-84, and 1985-90.

Table 4
Employment Regressions
Assimilation, Cohort and Period Effects

Regressor	Australia		Canada		United States	
	(1)	(2)	(1)	(2)	(1)	(2)
Time in Destination Country:						
6-10 Years	.101	.099	.039	.031	.099	.100
	(.029)	(.029)	(.016)	(.016)	(.006)	(.006)
11-15 Years	.112	.120	.060	.055	.113	.110
	(.023)	(.025)	(.012)	(.013)	(.005)	(.005)
16-20 Years	.121	.130	.083	.070	.115	.113
	(.027)	(.029)	(.017)	(.019)	(.007)	(.008)
More than 20 Years	.126	.140	.096	.086	.130	.122
	(.031)	(.033)	(.019)	(.021)	(.009)	(.010)
Immigrant Arrival Cohort:						
Pre-1961			-.069	-.023	-.160	-.118
			(.021)	(.027)	(.010)	(.013)
1961-65			-.060	-.014	-.141	-.103
			(.019)	(.024)	(.009)	(.011)
1966-70			-.044	-.011	-.147	-.107
			(.016)	(.021)	(.007)	(.010)
Pre-1971	-.150	-.168				
	(.029)	(.038)				
1971-75	-.147	-.161	-.054	-.017	-.141	-.101
	(.030)	(.036)	(.017)	(.020)	(.007)	(.009)
1976-80	-.145	-.164	-.054	-.026	-.140	-.103
	(.018)	(.026)	(.009)	(.012)	(.004)	(.006)
1981-85	-.167	-.172	-.065	-.037	-.146	-.113
	(.033)	(.035)	(.018)	(.019)	(.007)	(.008)
1986-91	-.125	-.140	-.130	-.110	-.124	-.094
	(.017)	(.018)	(.008)	(.009)	(.004)	(.004)
1990/91 Census Dummy	-.086	-.188	-.053	-.128	.008	-.017
	(.010)	(.019)	(.004)	(.007)	(.006)	(.007)
R^2	.033	.045	.033	.059	.024	.034
Controls for Education	No	Yes	No	Yes	No	Yes

Note: The dependent variable is a dummy identifying whether the individual was employed during the census survey week. The coefficients were estimated by least squares, and robust standard errors are shown in parentheses. Data are from the 1981 and 1991 Australian and Canadian censuses and the 1980 and 1990 U.S. censuses. The samples include men ages 25-59, with non-whites excluded from the native but not the foreign-born samples. The sample sizes for these regressions are 52,664 for Australia, 259,777 for Canada, and 432,179 for the United States. In addition to the variables listed above, all regressions include indicators for age and geographic location. The coefficients of the geographic controls are restricted to be the same for immigrants and natives, but these coefficients can differ across census years. The coefficients of the age and education variables are allowed to vary both by nativity and census year. The reference group for the "time in destination country" dummies is 0-5 years. The intervals listed above for the immigrant arrival cohorts are those defined in the Australian and Canadian data; the slightly different immigrant cohorts defined in the U.S. data are as follows: pre-1960, 1960-64, 1965-69, 1970-74, 1975-79, 1980-84, and 1985-90. The immigrant cohort coefficients reported in this table have been normalized to represent immigrant-native employment differentials for men who are aged 25-29 (in both specifications) and who have 12 years of education in 1990/91 (in specification (2)).

Table 5
Wage Regressions
Assimilation, Cohort and Period Effects

Regressor	Australia		Canada		United States	
	(1)	(2)	(1)	(2)	(1)	(2)
Time in Destination Country:						
6-10 Years	.032	.009	.046	.052	.052	.070
	(.047)	(.046)	(.043)	(.042)	(.017)	(.015)
11-15 Years	-.063	-.086	.111	.139	.144	.183
	(.037)	(.039)	(.028)	(.031)	(.011)	(.012)
16-20 Years	-.061	-.087	.094	.115	.158	.203
	(.044)	(.046)	(.045)	(.047)	(.018)	(.018)
More than 20 Years	-.090	-.120	.123	.160	.236	.271
	(.049)	(.053)	(.046)	(.051)	(.020)	(.022)
Immigrant Arrival Cohort:						
Pre-1961			-.083	-.019	-.102	-.056
			(.052)	(.064)	(.023)	(.028)
1961-65			-.109	-.042	-.135	-.082
			(.047)	(.057)	(.020)	(.024)
1966-70			-.102	-.087	-.224	-.146
			(.038)	(.049)	(.017)	(.022)
Pre-1971	-.009	.065				
	(.046)	(.060)				
1971-75	-.058	.004	-.174	-.139	-.253	-.142
	(.048)	(.057)	(.045)	(.049)	(.018)	(.020)
1976-80	-.040	-.009	-.222	-.196	-.300	-.206
	(.025)	(.038)	(.021)	(.029)	(.009)	(.013)
1981-85	-.137	-.100	-.239	-.206	-.338	-.230
	(.053)	(.053)	(.048)	(.048)	(.018)	(.017)
1986-91	-.077	-.098	-.393	-.354	-.373	-.271
	(.023)	(.024)	(.021)	(.021)	(.008)	(.009)
1990/91 Census Dummy	.705	.560	.510	.337	.435	.354
	(.016)	(.031)	(.009)	(.018)	(.013)	(.016)
R^2	.334	.369	.148	.189	.184	.288
Controls for Education	No	Yes	No	Yes	No	Yes

Note: The dependent variable is the natural logarithm of weekly personal income (for Australia) or weekly earnings (for Canada and the United States). The coefficients were estimated by least squares, and robust standard errors are shown in parentheses. Data are from the 1981 and 1991 Australian and Canadian censuses and the 1980 and 1990 U.S. censuses. The samples include employed men ages 25-59, with non-whites excluded from the native but not the foreign-born samples. The sample sizes for these regressions are 43,590 for Australia, 217,773 for Canada, and 359,999 for the United States. In addition to the variables listed above, all regressions include indicators for age, geographic location, and hours worked during the census survey week. The coefficients of the controls for geographic location and weekly hours of work are restricted to be the same for immigrants and natives, but these coefficients can differ across census years. The coefficients of the age and education variables are allowed to vary both by nativity and census year. The reference group for the "time in destination country" dummies is 0-5 years. The intervals listed above for the immigrant arrival cohorts are those defined in the Australian and Canadian data; the slightly different immigrant cohorts defined in the U.S. data are as follows: pre-1960, 1960-64, 1965-69, 1970-74, 1975-79, 1980-84, and 1985-90. The immigrant cohort coefficients reported in this table have been normalized to represent immigrant-native wage differentials for men who are aged 25-29 (in both specifications) and who have 12 years of education in 1990/91 (in specification (2)).

Table 6
Components of Immigrant Earnings Growth from Assimilation

	Australia				Canada				United States			
	Percentage Earnings Growth from Assimilation in:			Percent of Total Due to	Percentage Earnings Growth from Assimilation in:			Percent of Total Due to	Percentage Earnings Growth from Assimilation in:			Percent of Total Due to
	Emp	Wage	Total	Emp	Emp	Wage	Total	Emp	Emp	Wage	Total	Emp
A. Without Education Controls												
Time in Destination Country:												
6-10 Years	13.5	3.2	16.7	80.9	5.3	4.6	9.9	53.7	12.5	5.2	17.7	70.7
	(3.9)	(4.7)	(6.1)		(2.2)	(4.3)	(4.8)		(0.8)	(1.7)	(1.9)	
11-15 Years	15.0	-6.3	8.7	>100	8.2	11.1	19.3	42.5	14.3	14.4	28.7	49.9
	(3.1)	(3.7)	(4.8)		(1.6)	(2.8)	(3.2)		(0.6)	(1.1)	(1.3)	
16-20 Years	16.2	-6.1	10.1	>100	11.3	9.4	20.7	54.7	14.6	15.8	30.4	48.0
	(3.6)	(4.4)	(5.7)		(2.3)	(4.5)	(5.1)		(0.9)	(1.8)	(2.0)	
More than 20 Years	16.9	-9.0	7.9	>100	13.1	12.3	25.4	51.6	16.5	23.6	40.1	41.1
	(4.1)	(4.9)	(6.4)		(2.6)	(4.6)	(5.3)		(1.1)	(2.0)	(2.3)	
B. With Education Controls												
Time in Destination Country:												
6-10 Years	13.3	0.9	14.2	93.6	4.2	5.2	9.4	44.9	12.7	7.0	19.7	64.4
	(3.9)	(4.6)	(6.0)		(2.2)	(4.2)	(4.7)		(0.8)	(1.5)	(1.7)	
11-15 Years	16.1	-8.6	7.5	>100	7.5	13.9	21.4	35.1	13.9	18.3	32.2	43.2
	(3.3)	(3.9)	(5.1)		(1.8)	(3.1)	(3.6)		(0.6)	(1.2)	(1.4)	
16-20 Years	17.4	-8.7	8.7	>100	9.6	11.5	21.1	45.4	14.3	20.3	34.6	41.4
	(3.9)	(4.6)	(6.0)		(2.6)	(4.7)	(5.4)		(1.0)	(1.8)	(2.1)	
More than 20 Years	18.7	-12.0	6.7	>100	11.7	16.0	27.7	42.3	15.5	27.1	42.6	36.3
	(4.4)	(5.3)	(6.9)		(2.9)	(5.1)	(5.9)		(1.3)	(2.2)	(2.5)	

Note: These calculations are based on the employment and wage regressions reported in Tables 4 and 5, with standard errors shown in parentheses. The results in panel A, which do not control for education, derive from regression specification (1), and the results in panel B, which do control for education, derive from regression specification (2). The estimated effects of assimilation on immigrant employment probabilities are converted into percentage terms using the employment rates (reported in Table 2) of the most recent immigrant arrival cohort in the 1990/91 data. Because the dependent variables of the wage regressions are in natural logarithms, the estimated coefficients of the "time in destination country" dummies represent the percentage effects of assimilation on immigrant wage growth. Total immigrant earnings growth due to assimilation is the sum of the earnings growth from employment assimilation and the earnings growth from wage assimilation.

Table 7
Employment Regressions, by Region of Origin
Assimilation, Cohort and Period Effects

Regressor	European Immigrants to:			Asian Immigrants to:		
	Australia	Canada	United States	Australia	Canada	United States
Time in Destination Country:						
6-10 Years	.105	.058	.060	.210	.048	.124
	(.037)	(.021)	(.013)	(.074)	(.046)	(.012)
11-15 Years	.101	.060	.070	.161	.090	.168
	(.031)	(.016)	(.009)	(.054)	(.021)	(.008)
16-20 Years	.109	.089	.073	.221	.120	.155
	(.036)	(.023)	(.013)	(.069)	(.047)	(.013)
More than 20 Years	.110	.095	.084	.173	.146	.189
	(.039)	(.025)	(.014)	(.083)	(.040)	(.016)
Immigrant Arrival Cohort:						
Pre-1961		-.065	-.087		-.094	-.221
		(.028)	(.017)		(.050)	(.019)
1961-65		-.061	-.075		-.059	-.192
		(.025)	(.015)		(.049)	(.015)
1966-70		-.042	-.084		-.059	-.208
		(.022)	(.013)		(.032)	(.013)
Pre-1971	-.147			-.196		
	(.038)			(.078)		
1971-75	-.145	-.057	-.088	-.259	-.063	-.180
	(.040)	(.023)	(.014)	(.074)	(.047)	(.012)
1976-80	-.107	-.002	-.072	-.231	-.093	-.219
	(.026)	(.013)	(.008)	(.042)	(.016)	(.006)
1981-85	-.148	-.020	-.063	-.340	-.083	-.217
	(.045)	(.025)	(.014)	(.081)	(.048)	(.013)
1986-91	-.086	-.072	-.116	-.193	-.141	-.199
	(.027)	(.015)	(.008)	(.029)	(.013)	(.006)
1990/91 Census Dummy	-.077	-.055	-.014	-.076	-.056	-.019
	(.011)	(.004)	(.008)	(.010)	(.004)	(.008)
R^2	.029	.030	.021	.035	.033	.052

Note: The dependent variable is a dummy identifying whether the individual was employed during the census survey week. The coefficients were estimated by least squares, and robust standard errors are shown in parentheses. Data are from the 1981 and 1991 Australian and Canadian censuses and the 1980 and 1990 U.S. censuses. The samples include men ages 25-59, with non-whites excluded from the native but not the foreign-born samples. In these particular regressions, the only immigrants included are those born in Europe (left three columns) or those born in Asia (right three columns). Sample sizes for the regressions with European immigrants are 48,018 in Australia, 238,166 in Canada, and 154,572 in the United States. Sample sizes for the regressions with Asian immigrants are 41,870 in Australia, 224,704 in Canada, and 175,346 in the United States. In addition to the variables listed above, all regressions include indicators for age and geographic location. The coefficients of the geographic controls are restricted to be the same for immigrants and natives, but these coefficients can differ across census years. The coefficients of the age variables are allowed to vary both by nativity and census year. The reference group for the "time in destination country" dummies is 0-5 years. The intervals listed above for the immigrant arrival cohorts are those defined in the Australian and Canadian data; the slightly different immigrant cohorts defined in the U.S. data are as follows: pre-1960, 1960-64, 1965-69, 1970-74, 1975-79, 1980-84, and 1985-90. The immigrant cohort coefficients reported in this table have been normalized to represent immigrant-native employment differentials for men who are aged 25-29.

Table 8
Wage Regressions, by Region of Origin
Assimilation, Cohort and Period Effects

Regressor	European Immigrants to:			Asian Immigrants to:		
	Australia	Canada	United States	Australia	Canada	United States
Time in Destination Country:						
6-10 Years	.085	.075	.041	.049	.118	.030
	(.063)	(.059)	(.033)	(.111)	(.125)	(.035)
11-15 Years	-.032	.146	.135	.017	.144	.290
	(.051)	(.044)	(.021)	(.082)	(.049)	(.018)
16-20 Years	-.026	.154	.173	.110	.217	.302
	(.059)	(.061)	(.033)	(.101)	(.127)	(.037)
More than 20 Years	-.066	.200	.226	.124	.135	.513
	(.064)	(.065)	(.034)	(.128)	(.096)	(.038)
Immigrant Arrival Cohort:						
Pre-1961		-.124	-.053		-.162	-.192
		(.071)	(.039)		(.114)	(.044)
1961-65		-.172	-.092		-.009	-.085
		(.065)	(.036)		(.122)	(.038)
1966-70		-.128	-.135		-.022	-.172
		(.056)	(.030)		(.077)	(.030)
Pre-1971	-.039			-.208		
	(.060)			(.123)		
1971-75	-.099	-.090	-.148	-.218	-.292	-.048
	(.063)	(.061)	(.034)	(.114)	(.125)	(.036)
1976-80	-.027	-.041	-.070	-.237	-.355	-.260
	(.033)	(.034)	(.017)	(.065)	(.036)	(.013)
1981-85	-.135	-.025	.020	-.346	-.413	-.197
	(.071)	(.067)	(.036)	(.120)	(.129)	(.037)
1986-91	.043	-.165	-.009	-.270	-.485	-.255
	(.037)	(.035)	(.016)	(.040)	(.032)	(.012)
1990/91 Census Dummy	.729	.506	.436	.733	.510	.507
	(.017)	(.010)	(.018)	(.017)	(.010)	(.017)
R^2	.337	.149	.190	.330	.150	.216

Note: The dependent variable is the natural logarithm of weekly personal income (for Australia) or weekly earnings (for Canada and the United States). The coefficients were estimated by least squares, and robust standard errors are shown in parentheses. Data are from the 1981 and 1991 Australian and Canadian censuses and the 1980 and 1990 U.S. censuses. The samples include employed men ages 25-59, with non-whites excluded from the native but not the foreign-born samples. In these particular regressions, the only immigrants included are those born in Europe (left three columns) or those born in Asia (right three columns). Sample sizes for the regressions with European immigrants are 40,119 in Australia, 200,869 in Canada, and 134,284 in the United States. Sample sizes for the regressions with Asian immigrants are 34,951 in Australia, 188,399 in Canada, and 148,132 in the United States. In addition to the variables listed above, all regressions include indicators for age, geographic location, and hours worked during the census survey week. The coefficients of the controls for geographic location and weekly hours of work are restricted to be the same for immigrants and natives, but these coefficients can differ across census years. The coefficients of the age variables are allowed to vary both by nativity and census year. The reference group for the "time in destination country" dummies is 0-5 years. The intervals listed above for the immigrant arrival cohorts are those defined in the Australian and Canadian data; the slightly different immigrant cohorts defined in the U.S. data are as follows: pre-1960, 1960-64, 1965-69, 1970-74, 1975-79, 1980-84, and 1985-90. The immigrant cohort coefficients reported in this table have been normalized to represent immigrant-native wage differentials for men who are aged 25-29.

Table 9
Components of Immigrant Earnings Growth from Assimilation, by Region of Origin

	Australia				Canada				United States			
	Percentage Earnings Growth from Assimilation in:			Percent of Total Due to	Percentage Earnings Growth from Assimilation in:			Percent of Total Due to	Percentage Earnings Growth from Assimilation in:			Percent of Total Due to
	Emp	Wage	Total	Emp	Emp	Wage	Total	Emp	Emp	Wage	Total	Emp
A. European Immigrants Only												
Time in Destination Country:												
6-10 Years	13.3	8.5	21.8	61.0	7.5	7.5	15.0	49.8	7.5	4.1	11.6	64.6
	(4.7)	(6.3)	(7.8)		(2.7)	(5.9)	(6.5)		(1.6)	(3.3)	(3.7)	
11-15 Years	12.8	-3.2	9.6	>100	7.7	14.6	22.3	34.6	8.7	13.5	22.2	39.3
	(3.9)	(5.1)	(6.4)		(2.1)	(4.4)	(4.9)		(1.1)	(2.1)	(2.4)	
16-20 Years	13.8	-2.6	11.2	>100	11.4	15.4	26.8	42.6	9.1	17.3	26.4	34.5
	(4.6)	(5.9)	(7.5)		(3.0)	(6.1)	(6.8)		(1.6)	(3.3)	(3.7)	
More than 20 Years	13.9	-6.6	7.3	>100	12.2	20.0	32.2	37.9	10.5	22.6	33.1	31.7
	(4.9)	(6.4)	(8.1)		(3.2)	(6.5)	(7.3)		(1.7)	(3.4)	(3.8)	
B. Asian Immigrants Only												
Time in Destination Country:												
6-10 Years	30.7	4.9	35.6	86.2	6.7	11.8	18.5	36.3	16.6	3.0	19.6	84.7
	(10.8)	(11.1)	(15.5)		(6.4)	(12.5)	(14.1)		(1.6)	(3.5)	(3.9)	
11-15 Years	23.5	1.7	25.2	93.3	12.6	14.4	27.0	46.6	22.6	29.0	51.6	43.7
	(7.9)	(8.2)	(11.4)		(2.9)	(4.9)	(5.7)		(1.1)	(1.8)	(2.1)	
16-20 Years	32.3	11.0	43.3	74.6	16.8	21.7	38.5	43.6	20.8	30.2	51.0	40.8
	(10.1)	(10.1)	(14.3)		(6.6)	(12.7)	(14.3)		(1.7)	(3.7)	(4.1)	
More than 20 Years	25.3	12.4	37.7	67.1	20.4	13.5	33.9	60.2	25.4	51.3	76.7	33.1
	(12.1)	(12.8)	(17.6)		(5.6)	(9.6)	(11.1)		(2.1)	(3.8)	(4.4)	

Note: These calculations are based on the employment and wage regressions reported in Tables 7 and 8, with standard errors shown in parentheses. The estimated effects of assimilation on immigrant employment probabilities are converted into percentage terms using the employment rates of the most recent arrival cohort of immigrants from the relevant region (Europe or Asia) in the 1990/91 data. Because the dependent variables of the wage regressions are in natural logarithms, the estimated coefficients of the "time in destination country" dummies represent the percentage effects of assimilation on immigrant wage growth. Total immigrant earnings growth due to assimilation is the sum of the earnings growth from employment assimilation and the earnings growth from wage assimilation.

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