The Changing Educational Attainment of Ethnic Groups in the United States, 1980-2000

by

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Introduction

Considerable scholarly attention has been paid to the integration and socioeconomic attainment of the turn-of-the-century European immigrants and their descendants in the United States. A predominant expectation has been suggested that second and subsequent generations merge with the more homogeneous social structure of America's "core society" (see Alba and Nee, 1997). This trajectory, whether "linear" (Warner and Srole, 1945) or "bumpy line" (Gans, 1992), including the second generation "success-orientation" (Kao and Tienda, 1995) or "revolt" (Perlmann and Waldinger, 1997) depictions, is consistent with the classical model of assimilation along Anglo-American middle-class patterns (Blau and Duncan, 1967; Park, 1950). Initial ethnic inequalities are thus bound to erode and eventually disappear, albeit at a varied pace by each group, with the descendants of immigrants becoming structurally and behaviorally indistinguishable from the majority group. Structural assimilation would inevitably cause old cultural traditions and values to fade (Gordon, 1964).

This assimilationist theory was not accepted unquestionably. A contrasting pluralistic perspective, which began to flourish around the mid-1960s, stressed the importance of structural attributes associated with ethnic extraction in determining the way people confront and adjust to new opportunities (Glazer and Moynihan, 1963; Greeley, 1972; Novak, 1972; Yancey et al., 1976). Continuity of the social structure produces interest groups with political goals and, more generally, informal social networks as well as ethnic homogeneity in primary groups. Human-capital differences of European immigrants have resisted middle-class Anglo-American patterns far into

native-born children and grandchildren (Borjas, 1994). A somewhat ambivalent perspective points to complicated and varying process largely depending on the specific socioeconomic measures some of which, such as fertility and education, have become very similar while others, such as occupation, residence and intermarriage, can still be "traced to their immigrant beginnings" (Lieberson and Waters, 1988: 248). What remains significant is the White – non-European division with the latter including blacks, Hispanics, and Asians (Lieberson and Waters, 1988).

This debate has evolved following the large waves of post-1965 nonwhite non-European immigrants from developing countries in Latin America, Asia and the Caribbean (Portes and Zhou, 1993). These newcomers arrived in the country with initially significant socioeconomic gaps both within and across ethnic groups. Being non-white, and especially dark-skinned non-Caucasian immigrants, may have caused them to be treated with more permanent ethnic and racial discrimination than their counterparts of the Great European migration encountered. Similarly, the economic restructuring of the second half of the twentieth century diminished the demand for large numbers of physical workers; the immigrants' children, who became "sufficiently Americanized in their work and status expectations" (Gans, 1992: 182), when they could not obtain mainstream economic levels, were likely to turn down, or be incapable to engaging, in poor working conditions. Thus, they were at risk for downward mobility which placed them into inner-urban poverty and underclass economic niches (Portes and Zhou, 1993).

The notion of "segmented assimilation" also noted the potential for socioeconomic improvement of residential structure and economic attainment within

ethnically segregated immigrant communities (Jensen and Chitose, 1996; Portes, 1995; Portes and Zhou, 1993). This modification of the classical perspective of assimilation implies within- and between-group differentials in the process of assimilation which are affected both by ascribed characteristics of race and color or "visibility", and achieved characteristics including the type of immigrants, whether human capital or labor immigrants, indicating their socioeconomic starting point and legal status (Alba and Nee, 2003; Scott et al., 2005; Zohu, 1997).

In fact, even those who are faithful to the prospect of assimilation recognize the complication of adaptation among contemporary immigrants and their descendants. In comparison with the earlier European and East Asian immigrants, accounts of the acclimatization of more recent immigrants describe a longer process and substantial inter-group variation in socioeconomic outcomes. Besides the challenging of social mobility, educational and occupational attainment will be difficult because of racially-based prejudice. Despite the mixed and often contradictory process, U.S.-born generations will gradually moved from transnational ties and ethnic economies to acknowledge the wider and more promising opportunities in the general labor market. Coupled with growing institutional empathy towards ethnic minorities "assimilation will turn out to be as predominant in the future as it has been in the American past" (Alba and Nee, 2003: 273).

Advancement in educational attainment has played a pivotal role in assessing the incorporation of immigrants and their descendants into American society (Hirschman, 1983; Lieberson and Waters, 1988; Mare, 1995). Previous research clearly documents improvement in educational attainment, mainly over generations, as a major avenue to accessing broader occupational opportunities, higher wages, and the acquisition of norms,

values, and cultural traditions of the host population (Becker, 1993; Card, 1995; Chiswick, 1988). In some instances, the achievement of parity in educational attainment has taken generations, or did not converge, both because of low initial levels of education, and the difficulties in overcoming barriers erected by the host population to limit access to opportunities and resources, including discrimination of economic rewards (Cardelia, 1985; Portes and Rumbaut, 1990). Due to changes in occupational opportunities geared toward higher levels of schooling, it is very likely that the relative socioeconomic success of recent immigrants and their native-born descendants will depend considerably more on educational achievement than it did in the past.

Hence, our research agenda is motivated by the need to monitor trends in educational attainment and assess implications for ethnic (ancestry) group differences in labor market outcomes. We seek to advance previous work by giving greater attention to the contribution of population change on changes in the educational distribution of individual ethnic populations. The availability of large samples of individual ethnic populations with varying shares of immigrants and descendents provides a unique opportunity to estimate the sources of change in the educational attainment of these ethnic populations. In pursuing this objective, we employ a synthetic age cohort approach to decompose changes in educational attainment into components reflecting mortality distinguished by nativity; educational upgrading; and immigration. We calculate estimates of the impact of each of these components on changes in the education distribution of each ethnic group in our sample, taking into account variations across synthetic age cohorts stratified by gender. In subsequent research, we will add

estimates of emigration as a component of change, then estimate multivariate models to assess the impact of these components on the educational distribution of each group.

The remainder of the paper is structured as follows: In the next section we review the literature on educational attainment of ethnic populations and develop some working hypotheses. Then we discuss data and methodology implemented in the paper and present descriptive findings. This is followed by analytical results from the synthetic age cohort approach and multivariate analysis. In the concluding section we attempt to put our findings within the competing models of ethnic incorporation and discuss research and policy implications.

Previous Research

Education, as a tool for transference of knowledge, skills, values and habits, plays a major role in determining the status of people in the society and preparing people for positions which are rewarded by economic well-being and standard of living (Morgan, 2005). Thus, educational attainment contributes to the integration of newcomers and their descendants into a host population. Opportunities for educational attainment vary across ethnic groups in aspects such as the timing of arrival, immigrants' initial characteristics, the value they attach to formal education, as well as ethnic-specific discrimination in schools and in economic returns (Mare, 1995). The extent and pace of convergence with the core society vary also between men and women, since the traditional gender inequality in family commitments are aggravated under conditions of immigration and separation from relatives limiting the time and energy available to women for social mobility which includes learning the new host language and attaining necessary education (Hoffman-Nowotny, 1978).

A comparative examination of data from the 1980 census for American-born men and women from a large number of ethnic and racial groups revealed a clear distinction between groups of European origin with high levels of education, and non-European populations which ranked lower on the educational ladder (Lieberson and Waters, 1988). Only one non-European group, with combined descents from several Southeast Asian countries including, among others, Chinese, Filipinos, and Japanese, exceeded most of the specific European groups. A detailed educational distribution points to the existence of some substantial variations also within European ethnic groups with the largest gap, for both genders, being between Russians and Portuguese. However, there has been a meaningful decline of the differences from the first to the second generation in America and the current variations in educational attainment are unrelated to the once widely perceived division between northwestern European groups and those who arrived from south-central European countries.

This process of convergence is further documented in findings from the 1990 decennial census (Alba and Nee, 2003). The uneven basic and university educational attainment among older cohorts from major southern and eastern European and East Asian ancestry groups has largely faded away among younger cohorts with some, such as the Japanese, exceeding that of all non-Hispanic whites or people of British Isles origin. Given their initial levels, especially in ancestry groups with heavy representations from rural areas, the observed achievements are even more salient among women then among men. Expansion of this observation to Hispanics and Blacks shows convergence at the lower levels of schooling, but at the higher stages of college completion, ethnic differentials continue to persist particularly among recent birth cohorts (Mare, 1995).

Intergenerational trends, however, vary by ethnic groups. For example, the large gaps in completion of elementary and secondary education between foreign-born and native-born Asians of the early cohorts have significantly blurred for more recent cohorts. The opposite is true for Hispanics among whom the similar rates of school completion for foreign and native-born have given way to a significant advantage of natives in the more recent cohorts. Based on the educational experience during the 1980-1990 period for estimating school continuation probabilities from one level to the next, Mare (1995) argues that racial-ethnic differences evolve mainly during high school and increase in the transition to and within college. Asians have the highest probabilities to attain improvement through their schooling followed, at some distance, by non-Hispanic whites. Between 1980 and 1990, progression probabilities for these two ethnic groups grew while those of Blacks, Hispanics and American Indians maintained fairly stable. Hence, "as schooling becomes nearly universal at the elementary and secondary levels, inequalities are eliminated there, but inequalities persist or even increase at the postsecondary level" (Mare, 1995: 176).

Also analyzing the 1990 census data, Hirschman (2001) controlled for the influence of family composition, residential patterns, and socioeconomic status in an attempt to evaluate the inter-group variations in high-school enrollment of foreign-born youths (ages 15 to 17). His findings show Asian immigrants more likely than their native-born peers to be enrolled. The opposite is true for many immigrant groups from Latin America and for some from European countries. This educational deficit is partly explained by poor environmental and family resources; another important determinant is duration in the new country. Nevertheless, the introduction of the many background

covariates did not eliminate the above-average attrition of some Caribbean groups, Mexicans and Germans. This disadvantage in enrollment rates is only modestly affected by visible phenotype difference of race. Relying on the National Longitudinal Survey of Youth (of the 1979 to 1990 waves), Wojtkiewicz and Donato (1995) show that family background and nativity do not fully account for the lower rates of high school graduation among Mexicans and Puerto Ricans relative to native-born whites. Both foreign and U.S.-born Puerto Ricans were less likely to complete high-school than non-Hispanic whites; among Mexicans, foreign birth reduces the likelihood to complete high-school while U.S.-born Mexicans had chances similar to those of non-Hispanic whites. Nevertheless, high-school completion among Mexicans does not progress linearly; rather, U.S.-born Mexicans with parents also born in the U.S. had lower chances of graduation than U.S.-born Mexicans with foreign-born parents.

These conclusions are largely supported by later findings for the 1990s. Although background characteristics such as parents' socioeconomic status, duration in the United States, and hours devoted to homework have positive effects on school performance they do not eliminate the significant role of ethnic belonging (Portes and MacLeod, 1996). Second-generation eighth and ninth graders of Haitian, and particularly Mexican, origin scored lower than average in mathematics and reading. In some of the models, the effect of ethnicity increased after introducing the other controlled factors emphasizing the negative ethnic effect on educational achievements. Mixed results were found for groups considered advantaged from Vietnam and Cuba: while the Vietnamese attach significant importance to the ethnic community net of familial and individual or immigration characteristics, Cubans do not. In addition, school environment, including the average

socioeconomic status of the school's population, the proportion of pupils of ethnic minorities, and the school's location (inter-city vs. suburban), has no significant effect on children from advantaged ethnic backgrounds. At the same time it stimulates better educational performance on the part of disadvantaged groups. According to Farley and Alba (2002), while the children of human-capital immigrants, from countries in east Asia and Africa, achieve educational records which are on the average higher than those of white Americans, their counterparts, descendants of labor migrants who arrived in the United States from central America and Mexico, though surpassing the educational attainments of their parents, nevertheless lag behind third and later generation non-Hispanic whites. This is most salient among second-generation Mexicans who failed to attain the "norm" of the white majority even in rates of high school completion.

Looking at both ends of the of the educational hierarchy, namely less than high school completion and bachelor's degree or more, the Children of Immigrants Longitudinal Study indicates that third-generation whites do significantly better than their non-white counterparts (Jensen, 2001). Country-specific differences, though they attest to advancement between first and second generations, nevertheless reveal lower educational attainment among native-born individuals of Mexican, Jamaican and Dominican origin than third-generation whites. The lower Mexican-American achievement is only partially associated with background characteristics (Lopez and Stanton-Salazar, 2001).

The existing literature leads us to conclude that ethnic groups of European origins as well as those with Asian backgrounds share similar – and sometimes even higher - levels of education with non-Hispanic whites. The evidence on trends among Latin American immigrants and their U.S.-born descendants is more complicated, and though it

points to long-range and intergenerational improvement the smoothness and pace of convergence with the social mainstream is somewhat ambivalent. This stems in part from the still-young age profile of the population studied which has not yet reached the stage of life-cycle typical for acquiring higher education. Using data from three consecutive censuses since the question on ancestry was first introduced in 1980, we attempt to trace detailed cohorts of ancestry groups by age, gender and nativity and assess the changing determinants of educational attainment over the period 1980 to 2000.

Data and Methods

This study makes use of data from decennial censuses and CPS to estimates components of changes in educational attainment for ancestry population between 1980 and 2000, focusing specifically on the role of mortality and immigration. Specifically, we use PUMS files drawn from the 1980 (1 and 5 percent), 1990 (1 and 5 percent), and 2000 (1 percent) decennial censuses. From these data, we generate population counts by ethnicity, ancestry, age, sex, nativity, immigration, and education. We restrict the data to individuals who do not reside in group quarters. Data from the National Longitudinal Mortality Study (NLMS) are used to estimate mortality rates for the period between 1979-89 by ethnicity, sex, age, nativity, and education. The NLMS is a CPS based data file with supplemental data from the National Death Registry identifying respondents on the CPS samples that died during the 1979-89 period. These data were subsequently merged with the census based tabulations using ethnicity, sex, age, nativity, and education as linking variables. Although ancestry is not reported on the NLMS file, we were able to assign mortality indicators for ethnic groups, which were then assigned to ancestry groups based on their ethnic group status.

The set of steps that we follow to assign ancestry membership is as follows. First, we classify individuals by detail Hispanic origin. If a specific origin was not identified, we use place of birth, followed (if necessary) by first ancestry mentioned. Next, we use the detailed information available for Asians and American Indians, followed by place of birth and ancestry if necessary. Before this procedure could be applied to the 2000 census, a single racial classification had to be created. A single racial classification was assigned to individuals who identified themselves as being part black; followed by a single racial classification for Asians, then American Indians (if they indicated a tribal affiliation), and finally whites While these steps capture most people in our samples, it does not capture everyone. In particular, in households in which individuals do not report a specific ancestry group, if available, we assign them the ancestry reported by someone else in the household under the assumption that families and people that live together are likely to be of similar ancestry background.

In the cases where individuals report multiple ancestries, we choose to make use only of the one reported first. In 1980 PUMS, there are several multi-ancestry group classifications which we decided to breakup for the purposes of standardizing these categories across the remaining PUMs data files.

Results

The results seek to account for changes in the educational attainment of cohorts ages 15-64, at the beginning of a census decade by comparing observed and expected population distributions, summed across age and sex, for seven ancestry groups for 1990 and 2000. We apply survival probabilities to the observed populations in 1980 and 1990, classified by sex, age and educational attainment, and add immigrants who arrived during

the decade to estimate expected populations in 1990 and 2000. Since the National Longitudinal Study of Mortality only provides estimates of deaths occurring between 1979 and 1989, the survival probabilities applied to the 1980 and 1990 populations are the same. Thus, decade-change in the probability of survival is not a factor responsible for observed differences.

Table 1 reports observed and expected percentages of ancestry populations with one or more years of post-secondary schooling standardized for age and sex separately for each group. With respect to observed educational attainment levels for populations aged 15-64 in 1980, 1990, and 2000. In general, we find substantial increases in education levels for both decades (see Chart 1). During the twenty year period, the most notable increase, in the range of 15 to 22 percentage points, occurred for Middle-Easterners, Asians, and Canadians. For the other groups, the increases were smaller. The increase for Pacific Islanders was only 5 percentage points. In the case of Africans, who experienced a notable increase between 1980 and 1990, there was a 3 percentage points decline in the next decade. Latin Americans experienced about a 10 percentage point increase over the two decades.

With the exception of the groups ranked at the top and bottom of the distributions, there appears to be no consistency in the ranking of individual groups. Latin Americans and Caribbeans are consistently ranked at the bottom, and Middle-Easterners and Asians are similarly ranked at the top. Notable is the low ranking of Pacific Islanders for 1990 and 2000, after having the top rank in 1980.

The increases in educational attainment observed for all groups over the 1980-2000 decades reflect both educational upgrading and the impact of mortality. The entrance of new cohorts at the bottom with higher than average educational attainment, and the exit, through death, of less educated cohorts at older ages both increased the educational attainment of ancestry groups overall. Two other possibilities should also be noted. First educational upgrading can also be due to the increased educational attainment of young cohorts at the next census decade. Recall that the youngest age cohorts, ages 15-24 and 25-34, could have increased their educational attainment levels in the ten (1990, 2000) and/or twenty (2000) years from first being observed in 1980 and 1990 respectively. Another possibility is that an unknown fraction of the population may have artificially reported higher levels of schooling in subsequent censuses.

For practically all of the selected ancestry groups, the predicted percentage with one or more years of post-secondary education (Col. 4 and 5) is greater then the observed values for 1990 and 2000 (see Chart 2). The percentage for Latin Americans in 1990 is the only group for which this observation does not hold, although note that the difference for Caribbean is within one percentage point. The gap between observed and predicted is much greater in the 2000 comparison, with the difference exceeding 10 percentage points, except for Latin Americans. The predicted percentages for 2000 (Col. 5) are also larger than those for 1990 (Col. 4) for all ancestry groups.

The explanation given for differences in observed percentages for 1980, 1990, 2000 are also appropriate here. As previously noted, however, the predicted values consist of populations that survived the 1980 or 1990 decades, plus immigrants who arrived during each decade. Since the survival probabilities used to project populations

to the end of the decade are constant across the two decades, only changes in population composition can play a major role.

We calculate several other predicated values, reported in columns 6 and 7, to evaluate the relative contribution of differential mortality and immigration on the percentage of the population of each ancestry group with one or more years of post high school education (see Chart 3). Column 6 provides estimates of the educational attainment of the population in 2000 assuming that the proportionate distribution of the estimated population for 1990, by sex and age, are constant for survivors and immigrants (considered separately). If these estimates differ from those present in Column 4, that would imply that the proportionate distribution of individuals across age and sex categories changed between the decades. When comparing the estimates in column 4 with those in column 6 there is only one instance in which there is a noticeable change; that difference is among persons of African ancestry. Educational attainment for Africans is 3.8 percentage points higher in 2000. This change in percentage corresponds with the 3.2 percentage point decline in the observed rates between 1990 and 2000. The percentages for the other groups clearly imply that the proportionate distribution of survivors and immigrants overall *did* indeed change in the 1990-2000 decade, implying that the proportion of ancestry populations with one or more years of post-secondary education did change for age and gender categories.

The estimates reported in column 7 uses the 1980-90 proportionate distribution of immigrants, holding constant the 1990-2000 proportionate distribution of survivors, to determine whether the education selection of immigrants changed between 1990 and 2000. If the estimates in column 7 are greater than those reported in column 5, then the

education attainment of immigrants arriving during the 1980 decade was higher than that of immigrants who arrived during the 1990 decade; lower values would indicate the opposite, that is, the education attainment of immigrants arriving during the 1990 decade was higher than that of those who arrived in the previous decade (see Chart 4). Since immigrants arriving during a decade will likely represent a small percentage of the population of an ancestry group, one would not expect large differences between columns 5 and 7 because the educational attainment of the larger group of survivors would carry greater weight. Indeed, with the exception of Pacific Islanders, the percentage point difference is about one percent or less. Two ancestry groups, Europeans and Africans have percentages in column 7 which are larger than those reported in column 5, indicating that the educational attainment of immigrants was less favorable than the educational attainment of immigrants in the previous decade. The differences for Latin Americans, Pacific Islanders, Asians, and Canadians are negative, indicating that immigrants in 1990-2000 had more favorable educational attainment levels, and thus contributed to the increased education attainment of these groups in 2000.

Summary

Because of the relatively small impact of differences in the proportion of survivors and immigrants with one or more years of post high school education, as indicated by the differences in estimates presented in columns 5-7, we conclude that changes in the relative proportion of surviving cohorts and immigrants across age and gender categories with higher levels of educational attainment is a major factor responsible for the substantial increase in the percentage with one or more years of post-secondary education. Although other factors undoubtedly played a role, insufficient

information is available to separately identify these factors. For example, compositional changes could easily include educational upgrading as a component, but we have no way of separately identifying this factor.

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Table 1. Observed and Predicted Levels of Post-secondary Education Among Eleven Ancestry Groups using 1980 to 2000 Census data.

	Observed (pop. age 15-64)			Predicted (pop. age 25-74)			
	1980	1990	2000	1990[a]	2000[a]	2000[b]	2000[c]
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Europe	33.8	50.5	60.0	54.5	74.8	54.8	75.9
Latin America	17.1	25.5	28.0	23.0	35.4	23.1	34.1
Caribbean	20.7	31.3	37.4	32.4	48.1	32.1	47.9
Middle East	44.2	57.8	62.0	65.1	78.3	65.0	78.1
Sub-Sahara Africa	37.7	52.0	48.8	57.6	75.1	61.4	76.3
Asia	43.9	54.7	61.3	62.6	74.2	62.6	72.7
Pacific Islands	45.7	46.1	50.4	69.0	72.8	69.0	70.2
Canada	33.9	47.3	57.9	55.9	75.4	57.2	74.3

Source: U.S. Census Bureau 1980 - 2000 PUMS

[a] Individuals survived to age 25-74, aged 15-64 in 1980 and 1990 respectively; and individuals who immigrated since 1980 or 1990 aged 25-74 at reference census date.

[b] The proportionate distribution of the predicted population for 1990 by age, sex, and education attainment applied to the total predicted population for 2000.

[c] The proportionate distribution of 1980-1990 immigrants by age, sex, and education attainment applied to the total 1990-2000 immigrant population.

Chart 1 (col. 1-3):
Observed Levels of Post-Secondary Education Among Selected Ancestry Groups (pop. age 15-64)

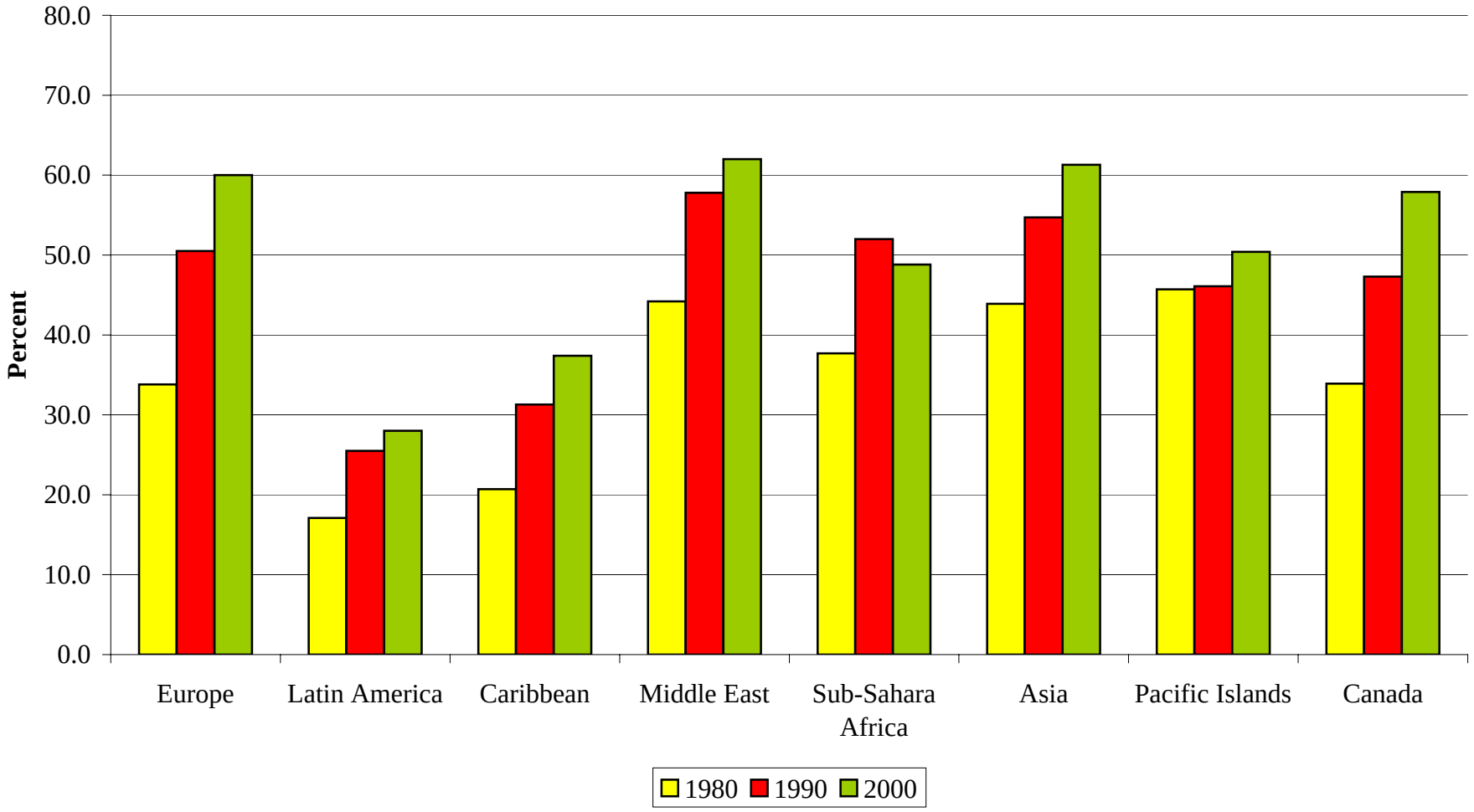

Chart 2 (col. 4 vs 5):

Predicted Levels of Post-Secondary Education Among Selected Ancestry Groups for 1990 and 2000

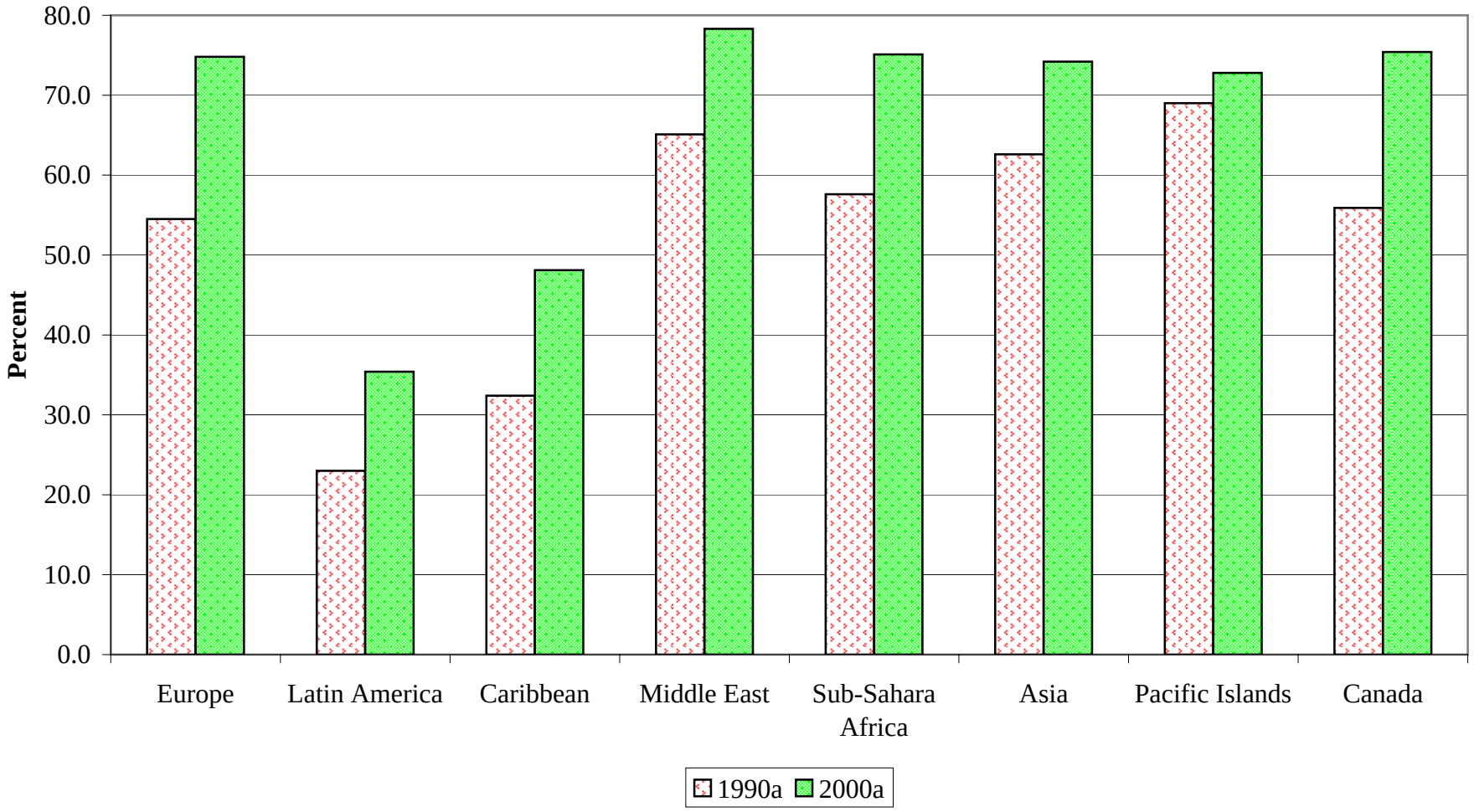

Chart 3 (col. 4 vs 6):
Predicted Levels of Post-Secondary Education Among Selected Ancestry Groups for 1990 and 2000

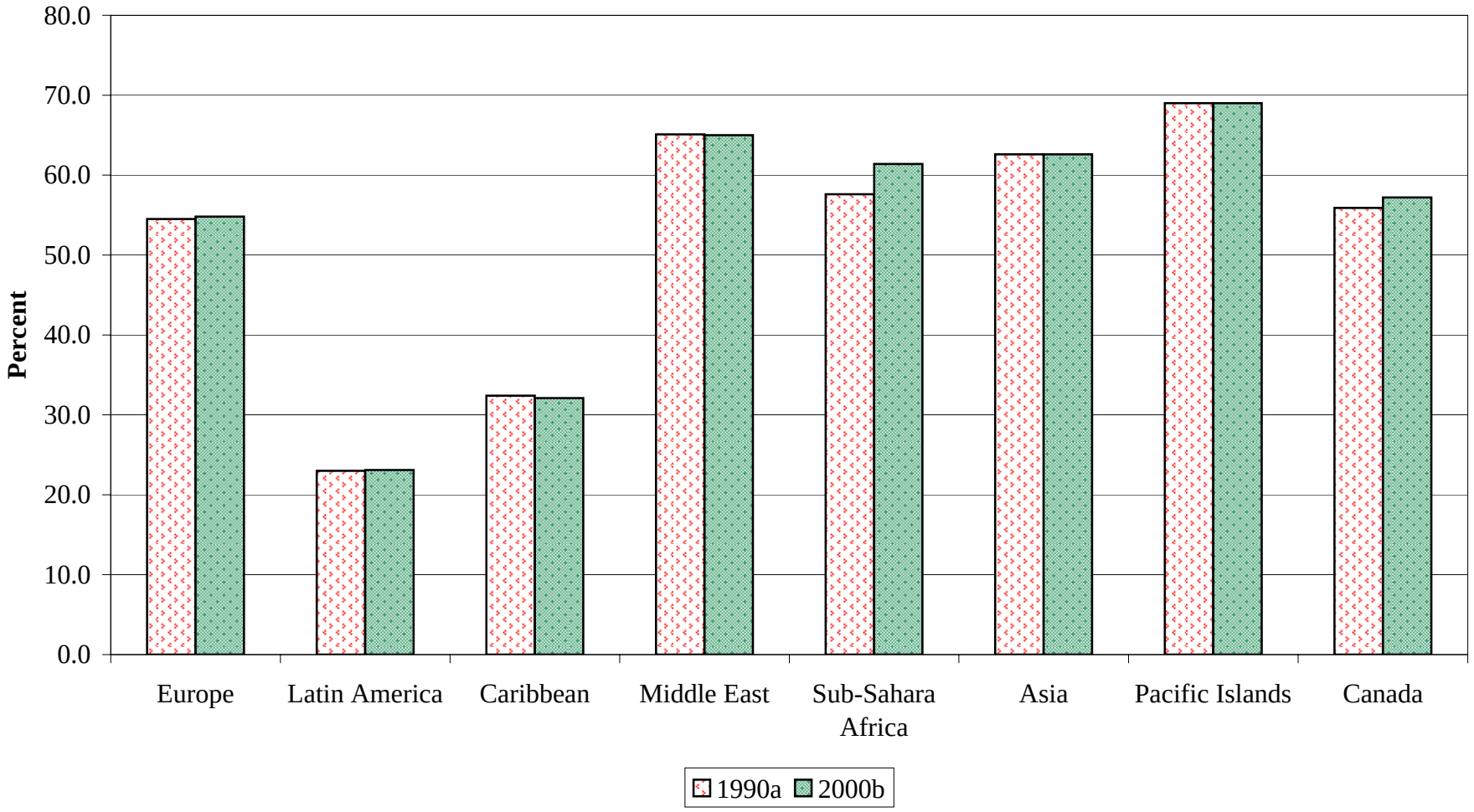

Chart 4 (col. 5 vs 7):
Predicted Levels of Post-Secondary Education Among Selected Ancestry Groups for 2000