

The Threat from Within

Recent shifts in California's economy have made higher education more significant than ever. Industrial jobs, once the backbone of the economy, are dwindling—in 1990 they provided employment for less than 17 percent of the workforce. The service-related jobs taking their place in today's economy require a level of knowledge and skill that, for the most part, can be best gained through programs offered at California's colleges and universities. Californians not prepared by higher education will be unable to attain the proficiency levels needed to master new technologies and enter new occupations.

This shift in the educational requirements demanded by the

workplace has put great pressure on the educational system. At a time when California must educate a larger and more diverse population than ever before, it must also educate to levels never before required. Those who stop at a high school diploma or before completing high school are likely to face a bleak economic future, a fact attested to by the growing disparity in the incomes of the rich and poor. If current trends persist, economic disparities in California by 2015 will pose a grave danger to society:

- A much larger proportion of the population will fall below the standard of living considered average today.
- The real hourly wages of the average male worker will decline by about 50 percent

compared to what they were in the 1970s. For those near the bottom of the wage distribution, hourly earnings will slip by about 60 percent.

- The proportion of immigrants in California's workforce will continue to grow, and most of the new immigrants will be from Mexico and Central America, a group with historically low levels of education and thus limited prospects for economic success.
- Ethnic/racial groups will not participate equally in college education, creating little chance for underrepresented groups to improve their standard of living. As a result, the educational and economic fault lines in the

state will be drawn increasingly in terms of ethnicity and race.

This portrait of the future is not a prediction. It is simply an extrapolation of the earning patterns, described more fully below, of the 20-year period from 1976 to 1995 (the most recent year for which data were available). We believe the growing gap between the rich and the poor is one of the greatest threats to California's—and the nation's—economy. At the heart of this problem is the profound change that has taken place in the level of knowledge and skill required to be a productive worker in today's economy. Improving the education and training of all Californians is, in our view, the

best way to combat this threat and reduce the growing divide.

Trends in Wages

As has been well documented in research, wage disparities have

been growing. Figure 1 shows the distribution of hourly wages among all male workers in California, in real terms, adjusted for inflation and indexed to 1976.¹ (In other words, 1976 is shown as a base, and wages

estimated for subsequent years are shown as a percentage of what they were in 1976.) The figure shows only male wages, but disparities in female wages are growing at about the same rate.² The top line represents changes in earning levels for workers at the 90th percentile of all male wage earners. It shows slow growth over the 20 years extrapolated out to the future.

The message here is that the highest paid workers will hold

their own to 2015. Those in the 50th percentile—workers right in the middle of the distribution—have lost about 25 percent in real wages over the last 20 years; by 2015, they will be earning about 50 percent of what they earned in 1976. And those workers in the bottom 10 percent will fare even worse if current trends continue: They will be earning only about 40 percent of what they earned in 1976.

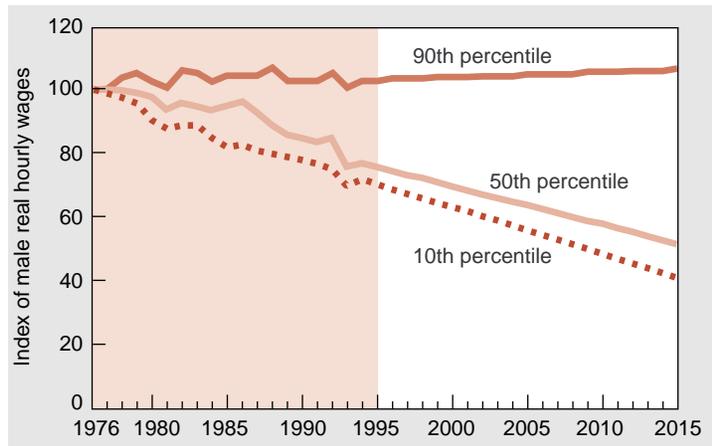


Figure 1—Long-Term Trends in Hourly Wages of California Male Workers

¹These RAND calculations are based on data in Deborah Reed, Melissa Glen Haber, and Laura Mameesh, *The Distribution of Income in California*, San Francisco: Public Policy Institute of California, 1996, p. 41. More detail about the historical data and techniques used to project future trends in all the figures of this report can be found in a separate technical appendix to this report, *Breaking The Social Contract: The Fiscal Crisis in California Higher Education: Technical Appendix*, DRU-1799-CERT, Santa Monica, Calif.: RAND, 1998.

²Because the percentage of women in the workforce has been changing so dramatically over this period—and because trends in women's wages as a whole differ from those of men—it is complicated and misleading to combine men's and women's wage distributions over time. However, because disparities in women's wages are growing at a similar rate, the pattern exhibited in the figure is representative of all workers.

A doubling in the proportion of immigrants in the workforce since the 1970s (those foreign-born constituted 25 percent of the state's workforce in 1997) and the lower educational level of the more recent immigrants

are additional factors in the growth of income disparity. Figure 2 shows the growing share of California's workforce born in other countries.³ In 1990, almost 50 percent of the immigrant workforce came from

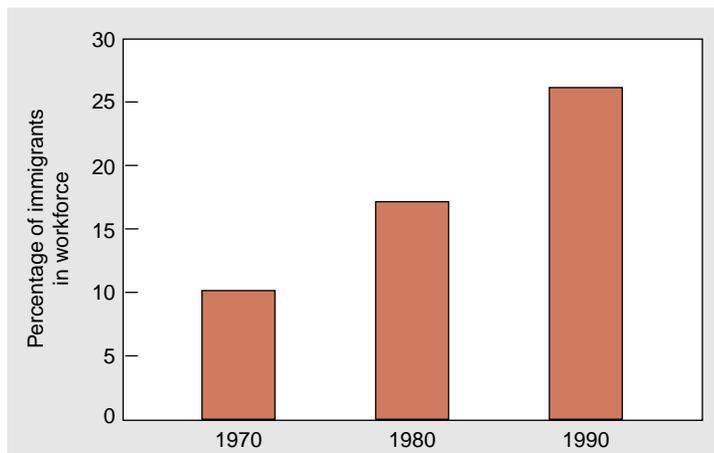


Figure 2—Immigrants in California Workforce

Mexico or Central America. Because the educational level of Mexican and Central American immigrants is generally lower than that of other immigrant groups, the earnings of these recent immigrants are lower than earnings of both native workers and earlier immigrants and are likely to remain low throughout their working lives. If these trends hold, a growing proportion of workers will have less than a high school diploma and will face declining earnings over their lifetimes, confirming the fears of those who argue that

California's preponderance of low-skilled immigrants will weaken its comparative advantage in an increasingly high-tech world economy.⁴

Education and Income: The Intimate Link

The single most important factor in determining level of income is level of education. Figure 3 shows the distribution of real hourly wages of male workers across the nation by education level.⁵ Men with a college education have kept pace with

³Data are from U.S. Department of Census, *1990 Census of Population: Social and Economic Characteristics, California*, Section 1, pp. 165–167, and *1970 Census of Population: Characteristics of the Population*, Part 6, Section 1, p. 382. See also Robert F. Schoeni, Kevin F. McCarthy, and Georges Vernez, *The Mixed Economic Progress of Immigrants*, MR-763-IF/FF, Santa Monica, Calif.: RAND, 1996.

⁴It should be noted that education levels of native-born Americans have increased dramatically in recent decades, thus making the bar for recent immigrants even higher.

⁵Economic Policy Institute, "Hourly Wage for Men by Education," <http://epinet.org/fids20.html> (22 January 1998).

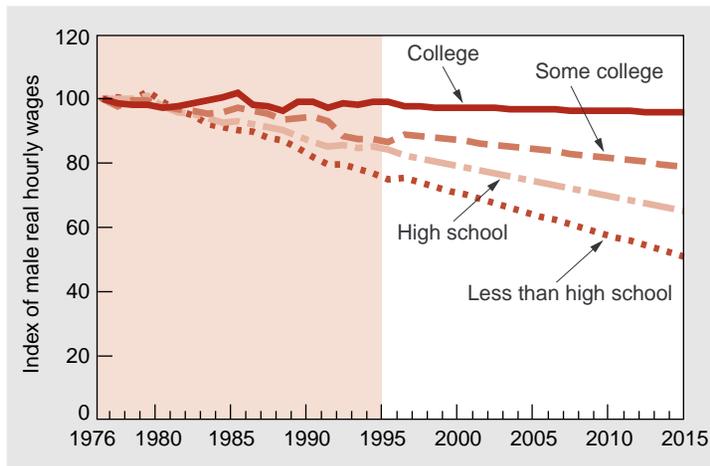


Figure 3—National Distribution of Real Mean Hourly Wages for Male Workers by Education Level

inflation in the last two decades, men with some college education have seen a decline of 14 percent in real income, and men with only a high school diploma have lost 18 percent.

Meanwhile, real wages of high school dropouts have declined by 25 percent.

If these lines are drawn out another 20 years using the same

rates, the result is devastating. By 2015, male workers with only a high school education will have lost 38 percent of what comparable male workers earned in 1976. And those without a high school diploma will have lost 52 percent in real earnings over the same period. If the California economy continues to place a high value on a college-educated workforce, which we believe it will, then only college graduates will be able to hold their own economically out to 2015. Those who attend some college will not do too badly, but those who stop pursuing an education before or upon graduating from high school are likely to lose ground over their working lives.

This economic polarization is particularly troublesome because a growing proportion of the poor will be African American and Hispanic. As is true for Asian Americans and non-Hispanic whites, African Americans and Hispanics will suffer lifelong economic consequences if they do not pursue higher education. Because larger proportions of these two groups fail to go beyond high school, larger proportions of these groups are among the poor. Figure 4 shows an index that conveys the ratio of the number of students in higher education for various ethnic/racial groups to the total number of 18- to 29-year-olds in those groups.⁶ The figure plots

⁶Enrollment data are from National Science Foundation CASPAR database; population data are from the U.S. Census. The spike in the trends for all ethnic groups in 1992–1993 reflects a change in the definition of participation rates in postsecondary education.

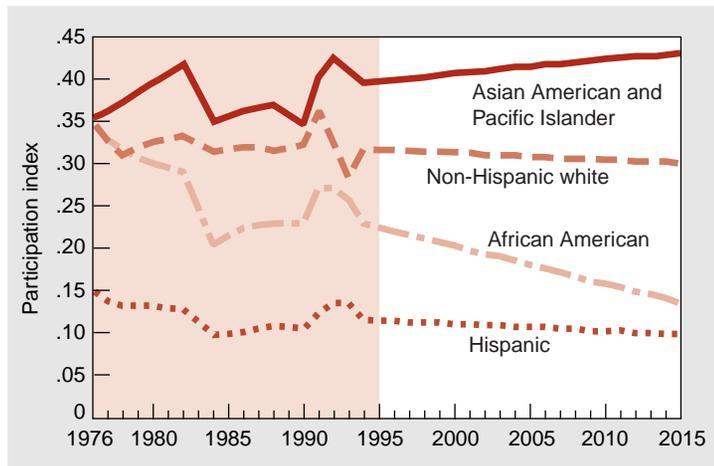


Figure 4—Participation of Different Ethnic/Racial Groups in California Higher Education

changes in that index over the past 20 years and extrapolates the rates out to 2015.

As of 1995, Asian Americans and Pacific Islanders scored over 40

on this index, and non-Hispanic whites scored just over 30. In contrast, African Americans and Hispanics scored about 20 and 18, respectively. If current trends persist, participation by Asian

Americans and Pacific Islanders will increase over the next 20 years while participation by non-Hispanic whites will remain steady. Participation by Hispanics is likely to also remain steady, at a level well below those of Asian Americans and Pacific Islanders and non-Hispanic whites. Absent policy or program interventions or improvements, the educational gaps between Hispanics and the other groups are projected to continue through the foreseeable future. For African Americans, the picture is even worse. The past two decades have seen this group's participation fall dramatically. If this trend is not reversed, the educational gap between African Americans and other groups will grow even wider.

Those who are rapidly losing earning power need higher levels of education and training. An educated California workforce generates greater incomes for individuals and greater revenues for public services. In contrast, low levels of education are powerful predictors of welfare dependency, unemployment, and incarceration, all of which are costly. ♦