

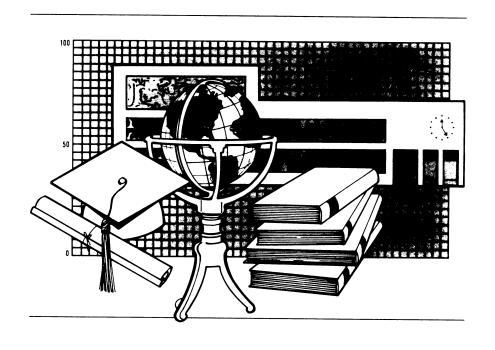
### **CURRENT POPULATION REPORTS**

### **Population Characteristics**

Series P-20, No. 462

Robert Kominski and Andrea Adams

# Educational Attainment in the United States: March 1991 and 1990



U.S. Department of Commerce Economics and Statistics Administration BUREAU OF THE CENSUS

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This report was prepared in the Education and Social Stratification Branch of the Population Division, under the general direction of **Robert Kominski**, Chief. Overall direction was provided by **Arthur J. Norton**, Assistant Chief, Population Division.

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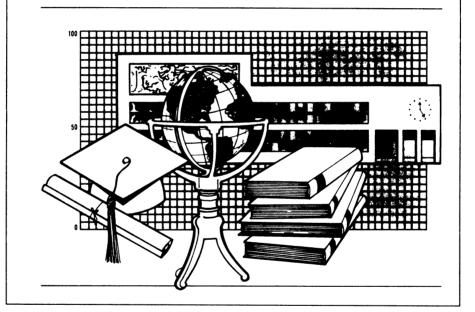
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Issued May 1992

by Robert Kominski and Andrea Adams

# Educational Attainment in the United States: March 1991 and 1990





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# Educational Attainment in the United States: March 1991 and 1990

(NOTE: The estimates for 1990 and 1991 in this report are inflated to national population controls by age, race, sex, and Hispanic origin. The population controls are based on results of the 1980 census carried forward to 1990 and 1991. The estimates in this report, therefore, may differ from estimates that would have been obtained using 1990 census results brought forward to the survey date. Population controls incorporating 1990 census results will be used for survey estimation beginning in 1993.)

### INTRODUCTION

This report contains data on the educational attainment of persons in the United States from the Current Population Surveys (CPS) conducted by the Bureau of the Census in March 1990 and 1991. Summary data on years of school completed by age, sex, race and Hispanic origin are shown for 1990 and 1991 in Table 1. Other detailed data are shown for 1991 in tables 2 through 16. These data allow for the continuation of the biennial series of detailed tables as presented in previous reports. Tables 17 and 18 contain time series of data collected from 1940 to 1991 in the decennial censuses and CPS (1947-1991). This report is designed to provide published detailed tabulations of the data along with a short discussion of basic trends and attainment levels across many segments of the population.

The detailed tables present data on years of school completed by persons 15 years old and over, by age, sex, race, Hispanic origin, marital status, household relationship, education of spouse, labor force status, occupation, income, earnings, and region of residence. Summary data are also presented for all states and large metropolitan areas, as well as detailed data for the 25 largest states and 15 largest metropolitan areas.

### **HIGHLIGHTS**

(Figures shown in parentheses define 90 percent confidence intervals. For details of calculation, see "Appendix B, Source and Accuracy of the Estimates.")

- Over three-fourths (78.4 ±.3) of all adults age 25 and over have completed high school; over one-fifth (21.4 ±.3) have completed four or more years of college. Both levels represent all-time national highs.
- Educational attainment levels for young adults (ages 25 to 29) in 1991 are not different from those recorded in the late 1970's. High school: 85.4 (±.6) vs. 85.4 (±.6) in 1977. College: 23.2 (±.7) vs. 23.3 (±.8) in 1978.
- Among persons 25 and over, there is no statistical difference in the proportion of men and women who have completed high school (78.5 ± .4 vs. 78.3 ± .4 percent). However, larger proportions of men (24.3 ±.4) than women (18.8 ±.3) have completed 4 or more years of college.

- While Whites and persons of races other than White or Black have the highest level of high school completion for those age 25 and above, persons of races other than White or Black have the highest college completion level. High school: White 79.9 (±.3), Black 66.7 (±1.1), other races 78.7 (±1.7) College: White 22.2 (±.3), Black 11.5 (±.7), other races 33.5 (±1.9)
- Both high school (80.4 ±.3) and college completion (23.7 ±.3) levels are higher in metropolitan than nonmetropolitan areas.

#### TRENDS IN EDUCATIONAL ATTAINMENT

The educational level of the adult population continued to rise in 1991, following a general trend that has been noted in the Current Population Survey data since first produced in 1947. Over three-quarters (78.4 percent) of all adults age 25 or older reported completing at least 4 years of high school, the highest level measured in the history of the survey. The level of high school completion in 1991 reached a peak not only for the entire population, but also for each sex, and White persons. For Blacks the last statistical change was in 1990, while for Hispanics a detectable statistical difference last occurred in 1987.

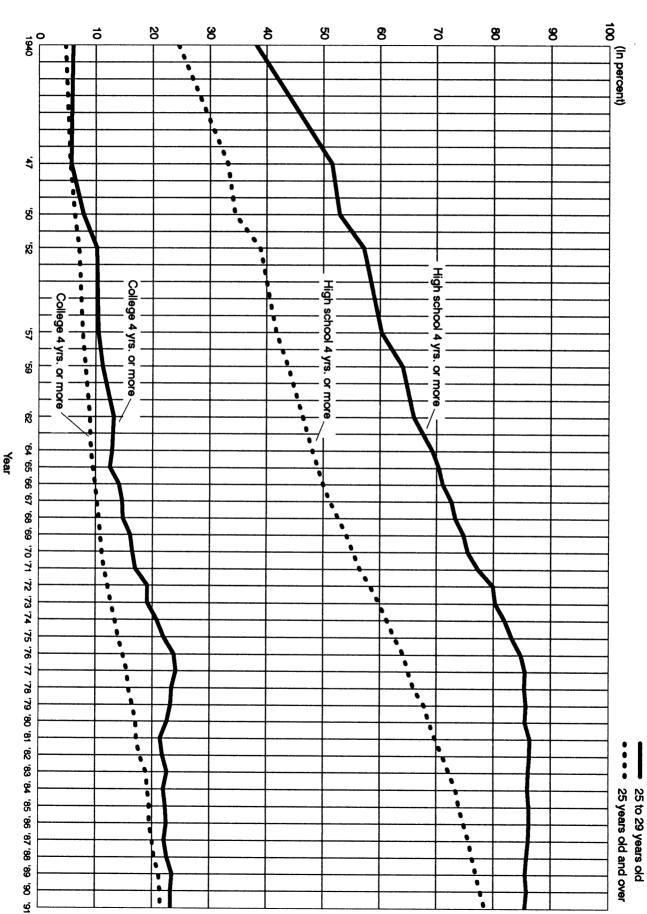
Another basic measure of educational attainment is the proportion of persons who have completed four or more years of college. As with high school completion, this figure is also at a record-high level (although it is not statistically different from that recorded in 1989 or 1990). Over one-in-five adults (21.4 percent) age 25 or above have completed four or more years of college.

Figure 1 (based on Table 18) shows the proportion of persons having completed high school and four or more years of college for both the age 25 and over population and for persons ages 25 to 29. The latter group is often used to get a better idea of recent attainment levels. In general, the long-term rise in educational attainment for the general adult population is driven principally by the replacement of older less-educated persons by younger persons who have completed substantially more education.

This graph documents the general trend of rising educational attainment levels for the population, but also indicates that the increase in attainment among younger persons has slowed considerably, and may be

Figure 1.

Percent of Persons 25 Years Old and Over Who Have
Completed High School or College: Selected Years 1940 to 1991



levelling off. For example, the proportion of 25 to 29 year olds who had completed high school for 1991 was no different than that recorded for 1977 (85.4 percent). While there has been some variation over this period, yearly point estimates have been in the range of 85-86 percent. Similarly, the estimated proportion of young persons completing 4 or more years of college has been in the low 20's since the mid-1970's. Given the very large differences in education between young and old age groups (table A), however, the attainment level of the total adult population will continue to rise for some time, as younger age groups replace older age groups, even if attainment levels for young persons remain constant.

### **EDUCATIONAL ATTAINMENT IN 1991**

Traditionally, differences in educational attainment have been noted across many different dimensions; in 1991 this continued to be true. Tables A and B show three basic measures of educational attainment: completion of high school or more; completion of 1 or more years of college; and completion of 4 or more years of college. These measures are presented for the population ages 25 and older, cross-classified by a series of sociodemographic factors, in order to illustrate some of these differences. Data shown in these tables summarize the more detailed tabulations in this report

Gender: Educational attainment levels are higher for men than for women for two of the three measures shown in table A. In terms of high school completion,

Table A. Summary Measures of the Educational Attainment of the Population, Ages 25 and Over: March 1991

(Numbers in thousands)

			Percentage with—		
Age, sex, race, region, residence, and Hispanic origin	Number of persons	4 years of high school or more	1 or more years of college	4 or more years of college	
All persons	158,694	78.4	39.8	21.4	
Sex: Male Female	75,487	78.5	42.5	24.3	
	83,207	78.3	37.4	18.8	
Race: White Black. Other	136,299	79.9	40.8	22.2	
	17,096	66.7	29.0	11.5	
	5,299	78.7	49.0	33.5	
Hispanic origin: <sup>1</sup> Hispanic Non-Hispanic	11,208	51.3	22.0	9.7	
	147,486	80.5	41.2	<b>22</b> .3	
Age group:     25 to 34 years old	42,905	86.1	45.3	23.7	
	38,665	87.7	50.2	27.5	
	25,686	81.2	41.1	23.2	
	21,346	71.9	31.4	16.9	
	18,237	63.5	25.3	13.2	
	11,855	49.0	20.8	10.5	
Marital status:  Never married	22,091	81.6	47.4	27.7	
	101,706	81.4	41.7	23.0	
	5,820	66.8	28.8	12.3	
	4,349	68.2	27.8	10.9	
	13,665	53.6	19.6	8.3	
	15,413	80.5	38.7	17.1	
Region: Northeast	33,293	80.3	39.7	23.7	
	38,230	80.7	38.0	20.0	
	54,217	74.2	36.9	19.4	
	32,954	80.9	46.9	24.3	
Metropolitan residence:  Metropolitan area Nonmetropolitan area Farm	123,097	80.4	42.9	23.7	
	35,597	71.8	29.3	13.8	
	3,164	77.1	32.8	15.9	

<sup>&</sup>lt;sup>1</sup>May be of any race.

there is no statistical difference between men and women (78.5 vs. 78.3 percent). Differences are present at the college level, where 24.3 percent of men but only 18.8 percent of women have completed four or more years of college. About 37.4 percent of women and 42.5 percent of men have completed one or more years of college.

Race: Comparison of educational attainment among Whites, Blacks and persons of other races shows sizable differences. Among Whites, 79.9 percent have completed high school, not statistically different from the 78.7 percent recorded for persons of other races (which includes Asians and Pacific Islanders, and American Indians, Eskimos and Aleuts). The proportion for each of these groups is higher than the Black proportion of 66.7 percent.

Differences are also evident at the college completion level, with the highest levels reported by persons of other races: 33.5 percent have completed four or more years of college, compared to 22.2 percent of Whites, and 11.5 percent of Blacks. A similar ordering exists among these groups in the completion of one or more years of college.

Hispanic origin: At all three levels of attainment shown, persons of Hispanic origin (who may be of any race) have the lowest proportions of completed education, in comparison to Whites, Blacks, and persons of other races. About one-half of Hispanic adults have completed high school, 22 percent have completed 1 or more years of college, and about one in ten have completed four or more years of college.

Age: One dimension which shows great variability in measures of educational attainment is age. While half (49.0 percent) of those age 75 and above have completed high school, 87.7 percent of persons ages 35 to 44 have attained this level. In terms of postsecondary schooling, 10.5 percent of the age 75 and older population, as opposed to 27.5 percent of persons ages 35 to 44, have completed college. In general, for each education measure, attainment levels are lowest for the oldest age group, and rise across successively younger groups. Only the youngest age group shown in table A (ages 25 to 34) deviates from this pattern, primarily because some of these individuals have not completed their schooling, particularly at the postsecondary level.

Marital Status: Differences in educational attainment across marital statuses reflect to a large extent differences in the age composition of marital status groups. For example, the high level of high school completion among never married persons (81.6 percent) reflects the fact that this group is relatively young. Conversely, the low level among widowed persons (53.6 percent) is in part because this group consists primarily of older persons. A similar pattern is seen in college completion.

Region: Among the four Census regions (Northeast, Midwest, South and West) the proportion of persons who completed high school ranges from 74.2 in the

South to 80.9 in the West. The South is significantly lower than the other three regions, which are statistically indistinct from each other. In terms of college attainment the West is highest in the completion of 1 or more years (46.9 percent), but is not statistically different from the Northeast in the completion of four or more years (24.3 vs. 23.7 percent). The data also show that attainment levels are higher for each of the three measures in metropolitan areas than in nonmetropolitan areas.

Labor force: The first panel of table B presents educational attainment measures for the civilian labor force, ages 25 and older. Among employed persons, educational attainment is quite high, with 87.3 percent of those employed reporting high school completion, and 27.3 percent having completed four or more years of college. For all three summary measures, attainment is higher for the employed than for the unemployed population, who in turn generally have higher attainment than those persons who are not in the labor force (with the exception of four or more years of college, where the level for those not employed is not statistically different from those not in the labor force).

Occupation: Table B also shows the educational attainment of employed persons ages 25 to 64, by major occupational groups. There is great variation in educational attainment when examined even across this small set of summary occupational categories. While 99.1 percent of the workers in professional specialty occupations have completed high school, 56.5 percent of private household workers have achieved this level of education.

With respect to higher education, 76.3 percent of persons in professional specialty occupations have completed four or more years of college, the highest level across the major occupation groups. For many occupations, however, fewer than ten percent of the workers have completed college; this includes categories such as precision production workers and machine operators.

Income: Table C shows estimates of mean personal income in 1990 for all persons reporting income for that year, detailed by several general levels of educational attainment, sex, race and Hispanic origin. As can be seen, the relationship of education and income is strongly positive; income levels are higher at each progressively higher level of education. This relationship holds true not only for the total population, but for each of the subgroups examined as well.

Variation in income by gender, race and Hispanic origin within each specific education level is also apparent, and may result from a variety of factors, including such things as occupational composition, age structure, labor force experience, and other forces. The relationship between education and income is a well-studied phenomenon; the data shown in table C are intended

Table B. Educational Attainment by Labor Force Status and Occupation: March 1991

(Numbers in thousands)

		Percentage with			
Occupations	Number of persons	4 years of high school or more	1 or more years of college	4 or more years of college	
Civilian labor force					
Employed  Not employed  Not in the labor force	97,874 6,203 53,844	87.3 73.1 62.6	48.4 30.0 25.1	27.3 12.6 11.7	
Occupation of employed persons 25 to 64	94,393 13,495 14,487	87.9 96.5 99.1	48.8 69.8 91.4	27.4 46.7 76.3	
Technicians and related support occ	3,352 10,320 14,794	97.6 92.8 95.2	68.1 54.1 43.3	32.7 29.0 14.0	
Administrative support occupations including clerical	492 10,501	56.2 77.1	13.4 27.9	4.3 7.9	
Farming, forestry, and fishing  Precision prod., craft, and repair  Machine operators, assemblers, and inspectors	11,223	66.6 81.0 69.5	24.0 28.0 15.9	9.8 6.5 4.0	
Transportation and material moving	4,158	75.2 72.2	20.2 18.8	4.8 5.0	

Table C. Mean 1990 Income by Educational Attainment, Sex, Race and Hispanic Origin For Persons Ages 18 and Over

		1 45 4		College		
Characteristics	Total	Less than 4 years high school		1 to 3 years	4 years	5 years or more
Total	\$20,393	\$11,045	\$17,072	\$20,864	\$31,256	\$42,880
Male	\$26,833 \$14,259 \$21,126 \$14,624 \$14,628	\$14,240 \$7,859 \$11,489 \$8,901 \$10,281	\$22,521 \$12,406 \$17,520 \$13,878 \$14,644	\$27,009 \$15,258 \$21,364 \$17,553 \$18,739	\$40,636 \$21,549 \$31,854 \$26,610 \$25,911	\$52,429 \$29,477 \$43,466 \$33,683 \$36,201

<sup>&</sup>lt;sup>1</sup>May be of any race.

only to summarize the current level of that relationship, and do not address the more detailed issue of variations in income due to other social and demographic forces.

### State and Metropolitan Area Estimates

In the last issue of this report, new tabulations showing educational attainment for all states and metropolitan areas were introduced.¹ Data for these areas are shown in tables 13 through 16 of this report. In using the data in these tables, readers are reminded that all estimates in the report are based on the CPS sample, and as such, have sampling variability associated with them. For this reason, the quantity needed to construct the 90-percent confidence interval is included with each

estimate provided in Tables 13 through 16, and readers are strongly encouraged to use these values. While each CPS file is weighted to national population controls of age, race, sex, Hispanic origin and total state population, the nature of the CPS sample within any given state (or metropolitan area) can mean that year-to-year estimates may fluctuate due simply to the changes in sample in that area over time, as well as the fact that the population weighting is not controlled in the higher order cross-classifications of the control factors. In short, readers are cautioned that year-to-year comparisons of educational attainment within areas may show moderately large fluctuations in point estimates. However, the relative position of areas (that is, high, moderate or low attainment levels) should be fairly stable.

Table 13, for example, shows the two states with the highest point estimates for high school completion to be Utah and Washington, just as in the 1989 report. While

<sup>&</sup>lt;sup>1</sup>Education Attainment in the United States: March 1989 and1988; Current Population Reports, Series P-20 No. 451.

these two states have the highest point estimates, however, their values are not statistically different from either each other or from a group of about 7 other states below them in a ranked list.<sup>2</sup> Many of these states were in a similar (high) position in the 1989 data. Likewise, many of the states at the lower end of the list are states in the South, just as in 1989. Thus, while one cannot make precise statements about exact rank, or changes in rank over time, the data do provide a general indication of the relative level of educational attainment across areas.

### **DETAILED TABULATIONS REDESIGN**

A new set of detailed tabulations was introduced with the March 1989/1988 issue of this report. These new tabulations were the first major change in the tables since the 1976-1977 report, and provide greater detail and scope while maintaining consistency with the prior tabulation series. Table D provides a guide for users who wish to compile time-series data from both sets of tabulations.

### **DATA FILES AVAILABLE**

The time series tabulations of attainment shown in tables 17 and 18 of this report are now also available on one low density floppy diskette. The tables are available as either two ASCII print files, or two LOTUS 1-2-3 © files (version 2.1). Users wishing to purchase files should specify which data format they prefer (ASCII or LOTUS), include a check for \$10 (make checks payable to "Commerce-Census") and send to:

Education and Social Stratification Branch Population Division U.S. Bureau of the Census Washington, D.C. 20233 (301)-763-1154

Table D. Relation of detailed tabulations in old and new reports

-		
Table N	lumber	
Old Reports (March 76/77 - March 86/87	New Report (Beginning March 88/89	Changes
1	1	
2	2	
3	3	Additional detail
4	4	Additional detail
5	5	
6	7	Additional detail
7	12	Additional detail
8	14	Additional detail
9	16	Additional detail
10	10	
11	17	
12	18	
-	6	New table - labor force status
-	8	New table - income
-	9	New table - earnings
•	11	New table - metro by region
-	13	New table - state summary measures
-	15	New table - metro summary measures

### **USER COMMENTS**

We are interested in your reaction to the usefulness of the information presented here and to the content of the questions used to produce these results. We welcome your recommendations for improving our survey work. If you have suggestions or comments, please send them to:

Current Survey Comments Population Division U.S. Bureau of the Census Washington, D.C. 20233

<sup>&</sup>lt;sup>2</sup>That is, Utah, at 88.3 percent is not statistically different from ordered point estimates down through Hawaii, at 85.7 percent, and Washington, at 88.1 percent, is not different from ordered point estimates down through Wyoming, at 85.3 percent.