

Table A.1. Data for Figure 2.1, Index of real output per hour of all persons, business sector: 1947-94

| Year | Index of Output per Hour, Business Sector (1977 = 100) |
|------|---|
| 1947 | 44.9 |
| 1948 | 47.2 |
| 1949 | 47.7 |
| 1950 | 51.7 |
| 1951 | 53.8 |
| 1952 | 55.4 |
| 1953 | 57.5 |
| 1954 | 58.4 |
| 1955 | 60.1 |
| 1956 | 60.9 |
| 1957 | 62.5 |
| 1958 | 64.4 |
| 1959 | 66.5 |
| 1960 | 67.6 |
| 1961 | 70.0 |
| 1962 | 72.5 |
| 1963 | 75.4 |
| 1964 | 78.7 |
| 1965 | 81.0 |
| 1966 | 83.2 |
| 1967 | 85.5 |
| 1968 | 87.8 |
| 1969 | 87.8 |
| 1970 | 88.4 |
| 1971 | 91.3 |
| 1972 | 94.1 |
| 1973 | 95.9 |
| 1974 | 93.9 |

Table A.1 (continued)

| Year | Index of Output per Hour, Business Sector (1977 = 100) |
|------|---|
| 1975 | 95.7 |
| 1976 | 98.3 |
| 1977 | 100.0 |
| 1978 | 100.8 |
| 1979 | 99.6 |
| 1980 | 99.3 |
| 1981 | 100.7 |
| 1982 | 100.3 |
| 1983 | 103.0 |
| 1984 | 105.5 |
| 1985 | 107.7 |
| 1986 | 110.1 |
| 1987 | 111.0 |
| 1988 | 112.1 |
| 1989 | 111.3 |
| 1990 | 112.1 |
| 1991 | 113.6 |
| 1992 | 117.0 |
| 1993 | 118.5 |
| 1994 | 121.3 |

NOTES: Figures for years after 1988 were originally based on 1982=100. They were multiplied by a factor of 1.013 for use in the 1977=100 index. Hours of all persons include hours of employees, proprietors, and unpaid family workers. Output is the constant-dollar market value of final goods and services produced. For the business sector, the index relates to gross domestic product less general government, output of nonprofit institutions, output of paid employees of private households, and rental value of owner-occupied dwellings. Business output was about 78 percent of GDP in 1992.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, based on data from the Current Employment Statistics, the Current Population Survey, and the national income and produce accounts produced by the U.S. Department of Commerce, Bureau of Economic Analysis..

Table A.2. Data for Figure 2.2, Real GDP per worker in G-7 nations (dollars, based on 1985 international prices): 1950-90

| Year | United States | Canada | Italy | France | West Germany | United Kingdom | Japan |
|------|---------------|----------|---------|---------|--------------|----------------|---------|
| 1950 | \$20,496 | \$16,113 | \$6,286 | \$8,772 | \$7,339 | \$11,665 | \$2,595 |
| 1951 | 21,396 | 16,537 | 6,772 | 9,273 | 7,886 | 12,071 | 2,901 |
| 1952 | 21,433 | 17,323 | 7,072 | 9,564 | 8,548 | 11,951 | 3,115 |
| 1953 | 22,087 | 17,739 | 7,603 | 9,778 | 9,097 | 12,501 | 3,255 |
| 1954 | 21,703 | 17,015 | 7,874 | 10,159 | 9,736 | 12,937 | 3,376 |
| 1955 | 23,345 | 18,156 | 8,431 | 10,684 | 10,943 | 13,403 | 3,596 |
| 1956 | 23,449 | 19,470 | 8,780 | 11,461 | 11,478 | 13,516 | 3,804 |
| 1957 | 23,410 | 19,336 | 9,141 | 11,994 | 11,928 | 13,719 | 4,023 |
| 1958 | 22,876 | 19,072 | 9,514 | 12,258 | 12,211 | 13,705 | 4,179 |
| 1959 | 24,157 | 19,483 | 10,136 | 12,637 | 13,004 | 14,211 | 4,477 |
| 1960 | 24,433 | 19,484 | 11,063 | 13,478 | 13,919 | 14,754 | 4,998 |
| 1961 | 24,431 | 19,316 | 11,987 | 14,111 | 14,527 | 15,077 | 5,630 |
| 1962 | 25,318 | 20,050 | 12,757 | 14,857 | 15,061 | 15,105 | 5,929 |
| 1963 | 25,882 | 20,581 | 13,541 | 15,462 | 15,382 | 15,639 | 6,435 |
| 1964 | 26,794 | 21,354 | 13,814 | 16,406 | 16,413 | 16,409 | 7,140 |
| 1965 | 28,051 | 22,245 | 14,163 | 17,027 | 17,282 | 16,645 | 7,333 |
| 1966 | 29,152 | 23,145 | 15,037 | 17,848 | 17,593 | 16,895 | 7,983 |
| 1967 | 29,369 | 23,294 | 16,143 | 18,573 | 17,507 | 17,303 | 8,722 |
| 1968 | 30,192 | 23,973 | 17,140 | 19,261 | 18,675 | 17,916 | 9,714 |
| 1969 | 30,637 | 24,746 | 18,244 | 20,554 | 20,104 | 18,063 | 10,599 |
| 1970 | 30,468 | 24,906 | 19,355 | 21,598 | 21,251 | 18,559 | 11,526 |
| 1971 | 30,690 | 25,534 | 19,476 | 22,323 | 22,371 | 18,739 | 11,874 |
| 1972 | 31,463 | 26,264 | 19,838 | 22,957 | 23,067 | 19,345 | 12,713 |
| 1973 | 32,488 | 27,426 | 21,267 | 24,002 | 23,956 | 20,629 | 13,568 |
| 1974 | 31,402 | 27,740 | 22,322 | 24,386 | 23,664 | 20,134 | 13,212 |
| 1975 | 30,134 | 27,350 | 21,359 | 23,818 | 23,342 | 19,843 | 13,381 |
| 1976 | 31,042 | 28,241 | 22,757 | 24,803 | 24,722 | 20,269 | 13,892 |
| 1977 | 31,869 | 28,268 | 23,329 | 25,419 | 25,406 | 20,654 | 14,436 |
| 1978 | 32,773 | 28,704 | 24,067 | 25,997 | 26,145 | 21,341 | 15,025 |
| 1979 | 32,796 | 29,191 | 25,522 | 26,673 | 27,257 | 21,895 | 15,733 |
| 1980 | 31,698 | 28,725 | 26,847 | 26,810 | 27,273 | 21,246 | 16,284 |
| 1981 | 32,023 | 29,481 | 26,571 | 26,635 | 26,733 | 20,842 | 16,745 |
| 1982 | 30,672 | 27,733 | 26,335 | 26,990 | 26,138 | 21,166 | 17,117 |
| 1983 | 31,379 | 28,376 | 26,249 | 26,763 | 26,520 | 21,916 | 17,408 |

Table A.2 (continued)

| Year | United States | Canada | Italy | France | West Germany | United Kingdom | Japan |
|------|---------------|--------|--------|--------|--------------|----------------|--------|
| 1984 | 33,247 | 29,980 | 26,745 | 26,832 | 27,015 | 22,370 | 18,010 |
| 1985 | 33,783 | 31,147 | 27,189 | 27,064 | 27,252 | 22,981 | 18,820 |
| 1986 | 34,342 | 32,037 | 27,849 | 27,645 | 27,879 | 23,931 | 19,130 |
| 1987 | 35,023 | 33,196 | 28,589 | 28,084 | 28,239 | 25,016 | 19,772 |
| 1988 | 36,083 | 34,521 | 29,623 | 29,130 | 29,152 | 26,359 | 20,873 |
| 1989 | 36,859 | 35,069 | 30,321 | 29,879 | 28,505 | 26,858 | 21,691 |
| 1990 | 36,771 | 34,380 | 30,797 | 30,357 | 29,509 | 26,755 | 22,624 |

SOURCE: Penn World Table (Mark 5.6), distributed by the National Bureau of Economic Research. For a description, see Robert Summers and Alan Heston, "The Penn World Table (Mark 5): An Expanded Set of International Comparisons, 1950-1988," *Quarterly Journal of Economics* (May 1991): 327-368.

Table A.3. Data for Figure 2.3, Coefficient of variation of real GDP per worker among the G-7 nations: 1950-90

| Year | Coefficient |
|------|-------------|
| 1950 | 0.5429 |
| 1951 | 0.5290 |
| 1952 | 0.5132 |
| 1953 | 0.5032 |
| 1954 | 0.4738 |
| 1955 | 0.4741 |
| 1956 | 0.4623 |
| 1957 | 0.4433 |
| 1958 | 0.4229 |
| 1959 | 0.4193 |
| 1960 | 0.3903 |
| 1961 | 0.3609 |
| 1962 | 0.3573 |
| 1963 | 0.3450 |
| 1964 | 0.3341 |
| 1965 | 0.3404 |
| 1966 | 0.3348 |
| 1967 | 0.3160 |
| 1968 | 0.2988 |
| 1969 | 0.2807 |
| 1970 | 0.2557 |
| 1971 | 0.2518 |
| 1972 | 0.2448 |
| 1973 | 0.2338 |

Table A.3 (continued)

| Year | Coefficient |
|------|-------------|
| 1974 | 0.2294 |
| 1975 | 0.2200 |
| 1976 | 0.2175 |
| 1977 | 0.2136 |
| 1978 | 0.2096 |
| 1979 | 0.1980 |
| 1980 | 0.1862 |
| 1981 | 0.1873 |
| 1982 | 0.1668 |
| 1983 | 0.1652 |
| 1984 | 0.1741 |
| 1985 | 0.1700 |
| 1986 | 0.1683 |
| 1987 | 0.1652 |
| 1988 | 0.1591 |
| 1989 | 0.1569 |
| 1990 | 0.1433 |

NOTE: The coefficient of variation is equal to the standard deviation of productivity divided by the mean.

SOURCE: Penn World Table (Mark 5.6), distributed by the National Bureau of Economic Research. For a description, see Robert Summers and Alan Heston, "The Penn World Table (Mark 5): An Expanded Set of International Comparisons, 1950-1988," *Quarterly Journal of Economics* (May 1991): 327-368.

Table A.4. Data for Figure 3.1, Unemployment rates of high school graduates and dropouts not enrolled in college, by educational attainment (percent): 1960-94

| Year | Recent School Dropouts | Recent High School Graduates |
|------|------------------------|------------------------------|
| 1960 | 18.2 | 15.2 |
| 1961 | 26.8 | 17.9 |
| 1962 | 28.6 | 14.1 |
| 1963 | 31.7 | 18.0 |
| 1964 | 24.8 | 18.7 |
| 1965 | 21.4 | 12.4 |
| 1966 | 17.4 | 14.2 |
| 1967 | 21.0 | 16.2 |
| 1968 | 21.8 | 13.5 |
| 1969 | 16.8 | 11.4 |
| 1970 | 25.5 | 18.1 |
| 1971 | 26.4 | 17.2 |
| 1972 | 26.5 | 14.7 |
| 1973 | 22.2 | 12.3 |
| 1974 | 28.3 | 17.0 |
| 1975 | 34.0 | 19.9 |
| 1976 | 30.8 | 18.1 |
| 1977 | 26.7 | 15.7 |
| 1978 | 27.6 | 14.1 |
| 1979 | 26.0 | 16.5 |
| 1980 | 31.5 | 19.0 |
| 1981 | 36.2 | 21.4 |
| 1982 | 41.6 | 26.3 |
| 1983 | 31.6 | 25.5 |

Table A.4 (continued)

| Year | Recent School Dropouts | Recent High School Graduates |
|------|------------------------|------------------------------|
| 1984 | 33.3 | 22.9 |
| 1985 | 35.6 | 24.6 |
| 1986 | 27.9 | 19.9 |
| 1987 | 37.8 | 17.8 |
| 1988 | 26.6 | 15.1 |
| 1989 | 28.1 | 14.7 |
| 1990 | 32.3 | 19.0 |
| 1991 | 40.2 | 25.2 |
| 1992 | 38.9 | 19.0 |
| 1993 | 26.4 | 23.7 |
| 1994 | 29.8 | 20.3 |

NOTE: Recent high school graduates include individuals ages 16-24 years who graduated during the survey year and were not enrolled in college. Recent high school dropouts include individuals ages 16-24 who did not graduate and who were in school 12 months earlier, but who were not enrolled in the survey month.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *The Condition of Education, 1995*; U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table A.5. Data for Figure 3.2, Unemployment rates of recent high school graduates not enrolled in college, by race (percent): 1973-94

| Year | Black | White |
|------|-------|-------|
| 1973 | 28.8 | 10.0 |
| 1974 | 38.8 | 14.1 |
| 1975 | 46.7 | 16.4 |
| 1976 | 47.0 | 15.3 |
| 1977 | 41.8 | 12.8 |
| 1978 | 39.3 | 10.2 |
| 1979 | 38.5 | 14.0 |
| 1980 | 51.4 | 14.8 |
| 1981 | 54.3 | 16.4 |
| 1982 | 57.6 | 19.9 |
| 1983 | 54.1 | 18.8 |
| 1984 | 38.7 | 18.0 |
| 1985 | 55.1 | 16.5 |
| 1986 | 39.1 | 16.2 |
| 1987 | 36.4 | 14.3 |
| 1988 | 24.5 | 11.3 |
| 1989 | 24.5 | 12.1 |
| 1990 | 35.8 | 14.8 |
| 1991 | 51.8 | 20.6 |
| 1992 | 39.3 | 13.5 |
| 1993 | 34.5 | 20.1 |
| 1994 | 50.7 | 11.4 |

NOTE: Recent high school graduates include individuals ages 16-24 years who graduated during the survey year and were not enrolled in college. Recent high school dropouts include individuals ages 16-24 who did not graduate and who were in school 12 months earlier, but who were not enrolled in the survey month.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *The Condition of Education*, 1995; U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table A.6. Data for Figure 3.3, Median earnings for wage and salary workers ages 25 to 34 years by educational attainment and sex: 1993 (in 1994 constant dollars)

| Educational Attainment | Male | Female |
|---------------------------|--------|--------|
| Grades 9 to 11 | 13,961 | 7,674 |
| High School diploma only | 20,924 | 13,097 |
| Some college | 23,435 | 17,157 |
| Bachelor's degree or more | 32,708 | 26,043 |

SOURCE: U.S. Department of Education, National Center for Education Statistics, *The Condition of Education*, 1995; U.S. Department of Commerce, Bureau of the Census, March Current Population Survey 1994.

Table A.7. Data for Figure 3.4, Estimated returns to education, workers with 1 to 5 years of work experience (percent increase over average wages of high school nongraduates): 1963-86

| Educational Attainment | 1963-68 | 1969-74 | 1975-80 | 1981-86 |
|------------------------|---------|---------|---------|---------|
| High school | 18.8 | 14.2 | 17.2 | 19.3 |
| Some college | 33.9 | 24.4 | 26.9 | 37.0 |
| College | 69.6 | 62.2 | 55.6 | 83.7 |
| Graduate school | 88.1 | 82.9 | 75.2 | 106.8 |

NOTE: Estimates of the returns to education control for differences between educational groups in race-ethnicity, age, and sex.

SOURCE: Kevin Murphy and Finis Welch, "Wage Premiums for College Graduates: Recent Growth and Possible Explanations," *Educational Researcher* (May 1989): 17-26, U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Table A.8. Data for Figure 3.5, Median annual income, full-time workers age 25 years and older by sex (1991 dollars): 1980 and 1990

| Educational Attainment | Males | | Females | |
|-----------------------------------|----------|----------|----------|----------|
| | 1980 | 1990 | 1980 | 1990 |
| Fewer Than 4 Years of High School | \$24,380 | \$20,306 | \$15,103 | \$14,338 |
| 4 Years of High School | 32,202 | 27,629 | 19,082 | 19,093 |
| 1-3 Years of College | 34,583 | 32,892 | 21,393 | 23,161 |
| 4 or More Years of College | 42,754 | 44,310 | 27,063 | 31,668 |

SOURCE: Alan Eck. "Job-Related Education and Training: Their Impact on Earnings." *Monthly Labor Review* (October 1993): 21-38; U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys, 1980 and 1990.

Table A.9. Data for Figure 3.6, High school completion rates for 18- to 24-year-olds not enrolled in high school, by race-ethnicity (percent): 1972-94

| Year | Total | White | Black | Hispanic |
|------|-------|-------|-------|----------|
| 1972 | 82.8 | 86.0 | 72.1 | 56.2 |
| 1973 | 83.7 | 87.0 | 71.6 | 58.7 |
| 1974 | 83.6 | 86.7 | 73.0 | 60.1 |
| 1975 | 83.8 | 87.2 | 70.2 | 62.2 |
| 1976 | 83.5 | 86.4 | 73.5 | 60.3 |
| 1977 | 83.6 | 86.7 | 73.9 | 58.6 |
| 1978 | 83.6 | 86.9 | 73.4 | 58.8 |
| 1979 | 83.1 | 86.6 | 72.6 | 58.5 |
| 1980 | 83.9 | 87.5 | 75.2 | 57.1 |
| 1981 | 83.8 | 87.1 | 76.7 | 59.1 |
| 1982 | 83.8 | 87.0 | 76.4 | 60.9 |
| 1983 | 83.9 | 87.4 | 76.8 | 59.4 |
| 1984 | 84.7 | 87.5 | 80.3 | 63.7 |
| 1985 | 85.4 | 88.2 | 81.0 | 66.6 |
| 1986 | 85.5 | 88.8 | 81.8 | 63.5 |
| 1987 | 84.7 | 87.7 | 81.9 | 65.1 |
| 1988 | 84.5 | 88.7 | 80.9 | 58.2 |
| 1989 | 84.7 | 89.0 | 81.9 | 59.4 |
| 1990 | 85.6 | 89.6 | 83.2 | 59.1 |
| 1991 | 84.9 | 89.4 | 82.5 | 56.5 |
| 1992 | 86.4 | 90.7 | 82.0 | 62.1 |
| 1993 | 86.2 | 90.1 | 81.9 | 64.4 |
| 1994 | 85.8 | 90.7 | 83.3 | 61.8 |

SOURCE: U.S. Department of Education, National Center for Education Statistics, Dropout Rates in the United States, 1994; U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table A.10. Data for Figure 3.7, Percentage of high school graduates enrolled in college in October following graduation, by type of college: 1968-93

| Year | All Colleges | 2-Year Colleges | 4-Year Colleges |
|------|--------------|-----------------|-----------------|
| 1968 | 53.6 | NA | NA |
| 1971 | 51.4 | NA | NA |
| 1972 | 49.2 | NA | NA |
| 1973 | 46.6 | 14.9 | 31.7 |
| 1974 | 47.6 | 15.2 | 32.4 |
| 1975 | 50.7 | 18.2 | 32.6 |
| 1976 | 48.8 | 15.6 | 33.3 |
| 1977 | 50.6 | 17.5 | 33.1 |
| 1978 | 50.1 | 17.0 | 33.1 |
| 1979 | 49.3 | 17.5 | 31.8 |
| 1980 | 49.3 | 19.4 | 29.9 |
| 1981 | 53.9 | 20.5 | 33.5 |
| 1982 | 50.6 | 19.1 | 31.5 |
| 1983 | 52.7 | 19.2 | 33.5 |
| 1984 | 55.2 | 19.4 | 35.8 |
| 1985 | 57.7 | 19.6 | 38.1 |
| 1986 | 53.8 | 19.3 | 34.5 |
| 1987 | 56.8 | 18.9 | 37.9 |
| 1988 | 58.9 | 21.9 | 37.1 |
| 1989 | 59.6 | 20.7 | 38.9 |
| 1990 | 60.1 | 20.1 | 40.0 |
| 1991 | 62.5 | 24.9 | 37.7 |
| 1992 | 61.9 | 23.0 | 38.9 |
| 1993 | 61.5 | 22.4 | 39.1 |
| 1994 | 61.9 | 21.0 | 40.9 |

SOURCE: U.S. Department of Education, National Center for Education Statistics, *The Condition of Education*, 1995; U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

NA = not available.

Table A.11. Data for Figure 3.8, Percentage of high school graduates enrolled in college in October following graduation, by race-ethnicity, 1973-1992

| Year | White | Black | Hispanic |
|------|-------|-------|----------|
| 1973 | 48.2 | 41.4 | 48.7 |
| 1974 | 48.7 | 40.5 | 53.0 |
| 1975 | 49.0 | 44.4 | 52.5 |
| 1976 | 50.2 | 45.2 | 53.8 |
| 1977 | 50.0 | 46.8 | 48.5 |
| 1978 | 50.4 | 47.5 | 45.9 |
| 1979 | 50.1 | 45.3 | 46.4 |
| 1980 | 51.4 | 44.0 | 49.8 |
| 1981 | 52.3 | 40.4 | 49.0 |
| 1982 | 54.1 | 38.9 | 49.8 |
| 1983 | 55.6 | 37.9 | 47.2 |
| 1984 | 58.0 | 40.1 | 49.8 |
| 1985 | 58.6 | 39.6 | 46.4 |
| 1986 | 58.5 | 43.8 | 42.8 |
| 1987 | 58.8 | 44.5 | 44.9 |
| 1988 | 60.1 | 50.0 | 48.6 |
| 1989 | 61.6 | 48.2 | 51.6 |
| 1990 | 63.0 | 48.9 | 51.7 |
| 1991 | 64.2 | 47.1 | 51.6 |
| 1992 | 64.2 | 50.1 | 58.1 |

NOTE: Data shown are three-year averages. The three-year average for 1992 is the average percentage of graduates enrolled in college in 1991, 1992, and 1993.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *The Condition of Education*, 1995, U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table A.12. Data for Figure 3.9, Percentage of high school graduates ages 25-29 years who have completed four years of college or more, by race-ethnicity: 1965-94

| Year | All Graduates | White Graduates | Black Graduates | Hispanic Graduates |
|------|---------------|-----------------|-----------------|--------------------|
| 1965 | 17.7 | NA | NA | NA |
| 1966 | 19.7 | NA | NA | NA |
| 1967 | 20.1 | NA | NA | NA |
| 1968 | 20.1 | NA | NA | NA |
| 1969 | 21.5 | NA | NA | NA |
| 1970 | 21.7 | NA | NA | NA |
| 1971 | 22.0 | 23.1 | 11.5 | 10.5 |
| 1972 | 23.7 | 24.9 | 13.1 | 7.8 |
| 1973 | 23.6 | 24.8 | 12.7 | 10.8 |
| 1974 | 25.3 | 27.2 | 11.5 | 10.1 |
| 1975 | 26.3 | 27.5 | 14.7 | 16.6 |
| 1976 | 28.0 | 29.3 | 17.6 | 12.7 |
| 1977 | 28.1 | 29.8 | 16.9 | 11.5 |
| 1978 | 27.3 | 28.9 | 15.2 | 17.1 |
| 1979 | 27.0 | 28.6 | 16.6 | 12.9 |
| 1980 | 26.3 | 28.0 | 15.0 | 13.2 |
| 1981 | 24.7 | 26.3 | 14.9 | 12.5 |
| 1982 | 25.2 | 26.7 | 15.6 | 15.9 |
| 1983 | 26.2 | 27.4 | 16.2 | 17.8 |
| 1984 | 25.5 | 27.0 | 14.8 | 18.1 |
| 1985 | 25.7 | 27.3 | 14.4 | 18.2 |
| 1986 | 26.0 | 28.1 | 14.2 | 15.3 |
| 1987 | 25.6 | 27.6 | 13.8 | 14.5 |
| 1988 | 26.4 | 28.0 | 14.8 | 18.1 |

Table A.12 (continued)

| Year | All Graduates | White Graduates | Black Graduates | Hispanic Graduates |
|------|---------------|-----------------|-----------------|--------------------|
| 1989 | 27.3 | 29.5 | 15.4 | 16.5 |
| 1990 | 27.1 | 29.3 | 16.4 | 14.0 |
| 1991 | 27.2 | 29.7 | 13.4 | 16.3 |
| 1992 | 27.3 | 30.0 | 13.7 | 15.6 |
| 1993 | 27.3 | 29.8 | 16.1 | 13.6 |
| 1994 | 27.0 | 29.7 | 16.2 | 13.3 |

NA = not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *The Condition of Education*, 1995; U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Table A.13. Data for Figure 4.1, Unemployment rate for civilian workers ages 19-31 years, by age-adjusted ASVAB score quartile (percent)

| Mathematics | | | | | | | | |
|-------------------------|--------------|----------------|-----------------|----------------|----------------|----------------|-----------------|----------------|
| Age | Top quartile | Standard error | Second quartile | Standard error | Third quartile | Standard error | Bottom quartile | Standard error |
| 19 | 8.33 | 0.96 | 17.83 | 1.12 | 21.19 | 1.03 | 29.25 | 1.11 |
| 20 | 6.40 | 0.76 | 11.77 | 0.86 | 17.12 | 0.89 | 25.47 | 0.97 |
| 21 | 7.47 | 0.74 | 9.18 | 0.71 | 15.86 | 0.81 | 23.93 | 0.87 |
| 22 | 6.85 | 0.65 | 8.53 | 0.65 | 13.89 | 0.73 | 20.83 | 0.81 |
| 23 | 5.97 | 0.58 | 8.52 | 0.63 | 12.74 | 0.70 | 17.07 | 0.74 |
| 24 | 4.29 | 0.49 | 6.64 | 0.55 | 11.48 | 0.67 | 13.86 | 0.67 |
| 25 | 3.91 | 0.46 | 6.34 | 0.55 | 8.83 | 0.60 | 13.50 | 0.67 |
| 26 | 2.68 | 0.39 | 4.37 | 0.47 | 8.14 | 0.58 | 13.62 | 0.69 |
| 27 | 2.78 | 0.40 | 4.44 | 0.49 | 7.28 | 0.57 | 11.70 | 0.65 |
| 28 | 2.86 | 0.41 | 4.80 | 0.51 | 6.73 | 0.56 | 11.47 | 0.66 |
| 29 | 3.08 | 0.44 | 4.38 | 0.50 | 5.26 | 0.51 | 9.43 | 0.62 |
| 30 | 2.59 | 0.44 | 4.79 | 0.56 | 6.33 | 0.61 | 11.21 | 0.73 |
| 31 | 2.63 | 0.49 | 3.82 | 0.57 | 5.44 | 0.64 | 10.36 | 0.77 |
| Science | | | | | | | | |
| Age | Top quartile | Standard error | Second quartile | Standard error | Third quartile | Standard error | Bottom quartile | Standard error |
| 19 | 12.23 | 1.10 | 14.27 | 1.07 | 21.15 | 1.11 | 29.09 | 1.03 |
| 20 | 8.18 | 0.84 | 12.63 | 0.92 | 15.03 | 0.88 | 25.19 | 0.92 |
| 21 | 8.39 | 0.78 | 10.65 | 0.80 | 14.65 | 0.80 | 22.54 | 0.82 |
| 22 | 7.75 | 0.69 | 10.06 | 0.73 | 11.65 | 0.69 | 20.56 | 0.77 |
| 23 | 6.51 | 0.61 | 9.48 | 0.69 | 10.97 | 0.66 | 17.15 | 0.71 |
| 24 | 5.01 | 0.53 | 6.65 | 0.58 | 9.24 | 0.61 | 15.22 | 0.67 |
| 25 | 4.60 | 0.51 | 6.19 | 0.56 | 8.38 | 0.59 | 13.18 | 0.64 |
| 26 | 4.28 | 0.50 | 4.73 | 0.50 | 6.53 | 0.53 | 12.90 | 0.64 |
| 27 | 3.91 | 0.49 | 4.54 | 0.51 | 5.89 | 0.52 | 11.53 | 0.62 |
| 28 | 3.57 | 0.47 | 4.05 | 0.49 | 6.43 | 0.55 | 11.48 | 0.62 |
| 29 | 3.29 | 0.47 | 3.86 | 0.49 | 5.38 | 0.52 | 9.47 | 0.59 |
| 30 | 3.90 | 0.55 | 3.51 | 0.51 | 7.01 | 0.65 | 10.11 | 0.65 |
| 31 | 3.39 | 0.58 | 3.87 | 0.58 | 4.67 | 0.60 | 10.29 | 0.73 |
| Paragraph Comprehension | | | | | | | | |
| Age | Top quartile | Standard error | Second quartile | Standard error | Third quartile | Standard error | Bottom quartile | Standard error |
| 19 | 11.55 | 1.06 | 14.76 | 1.07 | 21.27 | 1.07 | 29.89 | 1.09 |
| 20 | 8.75 | 0.84 | 11.67 | 0.90 | 14.86 | 0.84 | 26.19 | 0.96 |
| 21 | 8.66 | 0.75 | 10.94 | 0.83 | 13.57 | 0.76 | 23.69 | 0.86 |
| 22 | 8.10 | 0.67 | 9.62 | 0.74 | 10.92 | 0.66 | 21.61 | 0.80 |
| 23 | 6.54 | 0.59 | 8.82 | 0.68 | 10.93 | 0.66 | 17.99 | 0.74 |
| 24 | 4.88 | 0.50 | 6.12 | 0.58 | 9.14 | 0.60 | 16.07 | 0.70 |
| 25 | 5.02 | 0.51 | 5.25 | 0.54 | 7.32 | 0.54 | 14.78 | 0.68 |
| 26 | 3.41 | 0.43 | 4.71 | 0.52 | 6.80 | 0.54 | 13.57 | 0.66 |
| 27 | 3.08 | 0.42 | 4.91 | 0.54 | 6.02 | 0.52 | 12.08 | 0.64 |
| 28 | 3.59 | 0.46 | 4.16 | 0.50 | 6.27 | 0.54 | 11.46 | 0.63 |
| 29 | 3.29 | 0.46 | 3.79 | 0.49 | 4.73 | 0.48 | 10.16 | 0.62 |
| 30 | 3.59 | 0.52 | 3.35 | 0.51 | 7.05 | 0.63 | 10.34 | 0.68 |
| 31 | 2.78 | 0.50 | 3.85 | 0.61 | 4.82 | 0.60 | 10.67 | 0.76 |

NOTE: Respondents who were out of the labor force at any given age were excluded from the sample for that age. To control for differences in age at testing, individuals were assigned to age-specific performance quartiles for each subject area based on their age at testing.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, National Longitudinal Survey of Youth 1979-93.

Table A.14. Data for Figure 4.2, Unemployment rate for civilian workers ages 19-31 years, by educational attainment and age-adjusted ASVAB score quartile (percent)

| High school graduates | | | | | | | | |
|-------------------------|--------------|----------------|-----------------|----------------|----------------|----------------|-----------------|----------------|
| Mathematics | | | | | | | | |
| Age | Top quartile | Standard error | Second quartile | Standard error | Third quartile | Standard error | Bottom quartile | Standard error |
| 19 | 9.2 | 1.2 | 18.2 | 1.3 | 18.5 | 1.3 | 23.3 | 1.6 |
| 20 | 6.8 | 1.4 | 12.7 | 1.2 | 13.7 | 1.0 | 23.4 | 1.3 |
| 21 | 5.5 | 1.3 | 8.5 | 0.9 | 15.0 | 1.0 | 21.6 | 1.2 |
| 22 | 9.0 | 1.6 | 8.6 | 0.9 | 13.7 | 0.9 | 18.9 | 1.1 |
| 23 | 4.2 | 1.1 | 9.8 | 1.0 | 12.7 | 0.9 | 15.4 | 1.0 |
| 24 | 5.9 | 1.4 | 7.5 | 0.8 | 12.2 | 0.9 | 11.5 | 0.9 |
| 25 | 4.5 | 1.3 | 7.5 | 0.9 | 8.2 | 0.8 | 10.8 | 0.8 |
| 26 | 2.8 | 1.0 | 5.8 | 0.8 | 7.7 | 0.8 | 12.4 | 0.9 |
| 27 | 2.5 | 1.0 | 5.2 | 0.8 | 7.1 | 0.7 | 10.8 | 0.9 |
| 28 | 2.7 | 1.1 | 6.7 | 0.9 | 6.7 | 0.7 | 10.5 | 0.9 |
| 29 | 5.1 | 1.5 | 4.4 | 0.8 | 5.2 | 0.7 | 7.9 | 0.8 |
| 30 | 4.4 | 1.6 | 4.6 | 0.9 | 7.8 | 0.9 | 10.3 | 1.0 |
| 31 | 4.0 | 1.8 | 3.9 | 0.9 | 6.3 | 0.9 | 9.2 | 1.0 |
| Science | | | | | | | | |
| Age | Top quartile | Standard error | Second quartile | Standard error | Third quartile | Standard error | Bottom quartile | Standard error |
| 19 | 13.6 | 1.4 | 14.0 | 1.3 | 19.2 | 1.3 | 23.3 | 1.4 |
| 20 | 8.8 | 1.4 | 12.7 | 1.2 | 14.2 | 1.1 | 22.7 | 1.3 |
| 21 | 9.2 | 1.4 | 9.9 | 1.1 | 14.3 | 1.1 | 19.9 | 1.1 |
| 22 | 11.4 | 1.4 | 11.1 | 1.1 | 11.5 | 0.9 | 18.3 | 1.1 |
| 23 | 7.3 | 1.2 | 11.0 | 1.1 | 11.4 | 0.9 | 15.4 | 1.0 |
| 24 | 8.6 | 1.3 | 7.3 | 0.9 | 10.3 | 0.9 | 13.1 | 0.9 |
| 25 | 5.8 | 1.1 | 7.9 | 1.0 | 7.8 | 0.8 | 10.9 | 0.8 |
| 26 | 8.3 | 1.3 | 6.1 | 0.9 | 6.9 | 0.8 | 11.1 | 0.8 |
| 27 | 5.2 | 1.1 | 6.9 | 1.0 | 5.5 | 0.7 | 10.6 | 0.8 |
| 28 | 3.4 | 0.9 | 5.2 | 0.9 | 8.0 | 0.8 | 10.8 | 0.9 |
| 29 | 4.5 | 1.1 | 3.8 | 0.8 | 5.5 | 0.7 | 8.4 | 0.8 |
| 30 | 7.5 | 1.6 | 4.1 | 0.9 | 7.3 | 0.9 | 10.4 | 0.9 |
| 31 | 5.5 | 1.6 | 5.3 | 1.1 | 4.7 | 0.8 | 9.7 | 1.0 |
| Paragraph Comprehension | | | | | | | | |
| Age | Top quartile | Standard error | Second quartile | Standard error | Third quartile | Standard error | Bottom quartile | Standard error |
| 19 | 13.5 | 1.4 | 13.8 | 1.2 | 19.9 | 1.3 | 23.9 | 1.6 |
| 20 | 10.9 | 1.4 | 11.4 | 1.2 | 14.1 | 1.1 | 23.4 | 1.4 |
| 21 | 7.5 | 1.2 | 11.1 | 1.2 | 12.8 | 1.0 | 22.4 | 1.2 |
| 22 | 8.5 | 1.2 | 11.5 | 1.1 | 11.6 | 0.9 | 19.8 | 1.1 |
| 23 | 8.4 | 1.2 | 9.2 | 1.0 | 11.1 | 0.9 | 17.1 | 1.0 |
| 24 | 6.6 | 1.1 | 7.3 | 0.9 | 9.4 | 0.8 | 15.4 | 1.0 |
| 25 | 6.6 | 1.1 | 6.4 | 0.9 | 6.7 | 0.7 | 13.1 | 0.9 |
| 26 | 4.2 | 0.9 | 7.2 | 1.0 | 7.0 | 0.8 | 12.2 | 0.9 |
| 27 | 3.3 | 0.8 | 5.7 | 0.9 | 6.5 | 0.7 | 11.6 | 0.9 |
| 28 | 4.7 | 1.0 | 6.1 | 1.0 | 7.0 | 0.8 | 10.5 | 0.9 |
| 29 | 4.6 | 1.1 | 3.9 | 0.8 | 5.0 | 0.7 | 8.7 | 0.8 |
| 30 | 5.3 | 1.3 | 4.7 | 1.0 | 8.3 | 1.0 | 9.5 | 0.9 |
| 31 | 4.6 | 1.3 | 6.0 | 1.2 | 3.8 | 0.7 | 10.5 | 1.1 |

Table A.14 (continued)

| 1 to 3 years of college | | | | | | | | |
|-------------------------|--------------|----------------|-----------------|----------------|----------------|----------------|-----------------|----------------|
| Mathematics | | | | | | | | |
| Age | Top quartile | Standard error | Second quartile | Standard error | Third quartile | Standard error | Bottom quartile | Standard error |
| 19 | 5.5 | 1.4 | 8.3 | 2.2 | 11.4 | 3.4 | 22.3 | 6.1 |
| 20 | 6.3 | 0.9 | 8.6 | 1.2 | 16.7 | 2.2 | 16.7 | 2.8 |
| 21 | 8.3 | 0.9 | 9.2 | 1.1 | 14.0 | 1.7 | 15.1 | 2.2 |
| 22 | 7.1 | 0.9 | 6.9 | 0.9 | 9.6 | 1.4 | 11.8 | 1.8 |
| 23 | 6.9 | 1.1 | 7.0 | 1.0 | 10.9 | 1.5 | 10.1 | 1.7 |
| 24 | 5.1 | 1.0 | 5.3 | 0.9 | 9.5 | 1.4 | 7.1 | 1.4 |
| 25 | 4.1 | 0.9 | 4.7 | 0.9 | 7.7 | 1.2 | 10.4 | 1.7 |
| 26 | 3.3 | 0.8 | 2.8 | 0.7 | 7.1 | 1.2 | 9.6 | 1.6 |
| 27 | 2.4 | 0.7 | 3.8 | 0.8 | 5.8 | 1.1 | 7.5 | 1.4 |
| 28 | 4.3 | 1.0 | 3.5 | 0.8 | 6.9 | 1.2 | 5.4 | 1.2 |
| 29 | 5.1 | 1.1 | 3.6 | 0.8 | 4.0 | 1.0 | 8.4 | 1.5 |
| 30 | 3.1 | 1.0 | 5.6 | 1.1 | 5.6 | 1.2 | 8.2 | 1.6 |
| 31 | 3.6 | 1.1 | 5.0 | 1.2 | 3.0 | 1.0 | 4.8 | 1.4 |
| Science | | | | | | | | |
| Age | Top quartile | Standard error | Second quartile | Standard error | Third quartile | Standard error | Bottom quartile | Standard error |
| 19 | 5.6 | 1.6 | 6.7 | 2.1 | 9.8 | 2.7 | 20.3 | 4.6 |
| 20 | 7.3 | 1.1 | 9.2 | 1.4 | 9.3 | 1.5 | 16.3 | 2.3 |
| 21 | 7.8 | 1.0 | 10.1 | 1.2 | 11.4 | 1.4 | 14.7 | 1.8 |
| 22 | 6.4 | 0.9 | 7.8 | 1.1 | 8.8 | 1.2 | 10.8 | 1.5 |
| 23 | 5.4 | 1.0 | 7.3 | 1.1 | 10.2 | 1.3 | 12.2 | 1.6 |
| 24 | 4.3 | 0.9 | 5.3 | 1.0 | 6.6 | 1.1 | 11.7 | 1.5 |
| 25 | 4.6 | 1.0 | 4.1 | 0.9 | 7.3 | 1.1 | 9.6 | 1.4 |
| 26 | 3.1 | 0.8 | 4.1 | 0.9 | 4.1 | 0.9 | 10.8 | 1.5 |
| 27 | 3.5 | 0.9 | 2.8 | 0.8 | 5.0 | 1.0 | 7.5 | 1.3 |
| 28 | 4.3 | 1.0 | 4.6 | 1.0 | 5.6 | 1.0 | 4.6 | 1.0 |
| 29 | 3.7 | 1.0 | 4.9 | 1.1 | 4.3 | 0.9 | 7.5 | 1.3 |
| 30 | 4.5 | 1.2 | 3.7 | 1.0 | 6.5 | 1.2 | 7.3 | 1.3 |
| 31 | 3.4 | 1.2 | 4.2 | 1.2 | 3.1 | 1.0 | 6.7 | 1.4 |
| Paragraph Comprehension | | | | | | | | |
| Age | Top quartile | Standard error | Second quartile | Standard error | Third quartile | Standard error | Bottom quartile | Standard error |
| 19 | 3.3 | 1.2 | 11.1 | 2.5 | 11.7 | 2.9 | 18.2 | 5.7 |
| 20 | 6.6 | 1.0 | 8.9 | 1.3 | 13.1 | 1.6 | 13.2 | 2.5 |
| 21 | 8.9 | 1.0 | 9.3 | 1.2 | 12.0 | 1.4 | 11.4 | 1.9 |
| 22 | 7.8 | 1.0 | 7.8 | 1.1 | 6.4 | 1.0 | 12.1 | 1.8 |
| 23 | 5.0 | 0.9 | 9.0 | 1.3 | 8.3 | 1.2 | 14.6 | 1.9 |
| 24 | 3.7 | 0.8 | 6.8 | 1.2 | 7.7 | 1.1 | 9.2 | 1.5 |
| 25 | 4.3 | 0.9 | 5.0 | 1.0 | 6.5 | 1.0 | 10.5 | 1.6 |
| 26 | 3.8 | 0.9 | 3.4 | 0.8 | 5.3 | 1.0 | 9.6 | 1.5 |
| 27 | 3.8 | 0.9 | 3.8 | 0.9 | 3.7 | 0.8 | 8.2 | 1.5 |
| 28 | 4.3 | 1.0 | 4.1 | 0.9 | 5.9 | 1.0 | 4.8 | 1.1 |
| 29 | 3.7 | 1.0 | 4.9 | 1.0 | 3.3 | 0.8 | 9.7 | 1.6 |
| 30 | 3.3 | 1.0 | 4.4 | 1.1 | 6.8 | 1.2 | 7.8 | 1.6 |
| 31 | 1.8 | 0.8 | 4.8 | 1.3 | 5.5 | 1.2 | 5.3 | 1.5 |

Table A.14 (continued)

| 4 to 5 years of college | | | | | | | | |
|-------------------------|--------------|----------------|-----------------|----------------|----------------|----------------|-----------------|----------------|
| Mathematics | | | | | | | | |
| Age | Top quartile | Standard error | Second quartile | Standard error | Third quartile | Standard error | Bottom quartile | Standard error |
| 19 | * | * | * | * | * | * | * | * |
| 20 | * | * | * | * | * | * | * | * |
| 21 | * | * | * | * | * | * | * | * |
| 22 | 3.9 | 1.1 | 8.0 | 2.4 | 1.4 | 2.0 | * | * |
| 23 | 5.1 | 0.8 | 6.0 | 1.4 | 5.6 | 2.5 | * | * |
| 24 | 3.1 | 0.6 | 5.9 | 1.2 | 9.2 | 2.8 | 3.6 | 3.1 |
| 25 | 3.6 | 0.6 | 4.7 | 1.1 | 5.1 | 2.0 | 2.0 | 2.2 |
| 26 | 2.1 | 0.5 | 2.1 | 0.7 | 4.0 | 1.7 | 3.9 | 2.9 |
| 27 | 2.9 | 0.6 | 3.4 | 0.9 | 2.3 | 1.3 | 9.5 | 4.3 |
| 28 | 2.1 | 0.5 | 2.5 | 0.8 | 3.7 | 1.6 | 3.4 | 2.7 |
| 29 | 2.1 | 0.5 | 5.7 | 1.3 | 6.0 | 2.1 | 5.9 | 3.3 |
| 30 | 2.2 | 0.6 | 3.3 | 1.1 | 1.1 | 1.0 | 2.2 | 2.2 |
| 31 | 2.6 | 0.7 | 2.0 | 0.9 | 4.6 | 2.1 | 6.4 | 3.9 |
| Science | | | | | | | | |
| Age | Top quartile | Standard error | Second quartile | Standard error | Third quartile | Standard error | Bottom quartile | Standard error |
| 19 | * | * | * | * | * | * | * | * |
| 20 | * | * | * | * | * | * | * | * |
| 21 | * | * | * | * | * | * | * | * |
| 22 | 4.7 | 1.3 | 4.5 | 1.9 | 3.5 | 2.0 | | |
| 23 | 5.3 | 0.9 | 6.6 | 1.4 | 4.5 | 1.5 | 3.9 | 2.5 |
| 24 | 3.1 | 0.7 | 6.3 | 1.2 | 3.9 | 1.3 | 4.7 | 2.3 |
| 25 | 3.9 | 0.8 | 4.0 | 1.0 | 2.7 | 1.1 | 6.7 | 2.6 |
| 26 | 2.7 | 0.6 | 1.2 | 0.6 | 2.3 | 1.0 | 3.8 | 1.9 |
| 27 | 3.1 | 0.7 | 2.2 | 0.7 | 4.7 | 1.4 | 4.5 | 2.0 |
| 28 | 3.3 | 0.7 | 1.0 | 0.5 | 1.3 | 0.8 | 4.5 | 2.0 |
| 29 | 2.8 | 0.7 | 3.7 | 1.0 | 4.0 | 1.3 | 6.4 | 2.3 |
| 30 | 2.2 | 0.7 | 2.4 | 0.9 | 4.0 | 1.5 | 0.3 | 0.5 |
| 31 | 3.4 | 0.9 | 1.4 | 0.7 | 3.5 | 1.5 | 2.8 | 1.9 |
| Paragraph Comprehension | | | | | | | | |
| Age | Top quartile | Standard error | Second quartile | Standard error | Third quartile | Standard error | Bottom quartile | Standard error |
| 19 | * | * | * | * | * | * | * | * |
| 20 | * | * | * | * | * | * | * | * |
| 21 | * | * | * | * | * | * | * | * |
| 22 | 5.9 | 1.4 | 3.5 | 1.6 | 4.3 | 2.4 | * | * |
| 23 | 5.1 | 0.9 | 5.7 | 1.3 | 7.2 | 2.0 | 2.7 | 2.6 |
| 24 | 4.4 | 0.8 | 2.9 | 0.9 | 5.9 | 1.6 | 6.3 | 3.2 |
| 25 | 4.2 | 0.8 | 2.8 | 0.8 | 5.1 | 1.4 | 5.9 | 3.0 |
| 26 | 2.5 | 0.6 | 1.0 | 0.5 | 3.0 | 1.1 | 8.2 | 3.3 |
| 27 | 2.5 | 0.6 | 3.4 | 0.9 | 4.9 | 1.4 | 3.7 | 2.2 |
| 28 | 2.3 | 0.6 | 1.7 | 0.7 | 2.2 | 1.0 | 9.9 | 3.4 |
| 29 | 3.0 | 0.7 | 3.3 | 0.9 | 4.2 | 1.3 | 7.6 | 3.1 |
| 30 | 3.0 | 0.8 | 1.0 | 0.6 | 3.1 | 1.2 | 3.5 | 2.3 |
| 31 | 3.0 | 0.9 | 0.3 | 0.3 | 5.9 | 1.8 | 5.3 | 2.9 |

*Too few observations to provide reliable estimates.

NOTE: Respondents who were out of the labor force at a given age were excluded from the sample for that age. Data based on fewer than 30 observations are excluded from the tables.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, National Longitudinal Survey of Youth 1979-93.

Table A.15. Data for Figure 4.3, Estimated relationship between test scores and unemployment probability for 28-year-old workers

| Subject and test quartile | Percent difference in unemployment probability compared with those in the bottom quartile | Standard error |
|--------------------------------|---|----------------|
| Mathematics | | |
| Top quartile | -2.1 | 1.1 |
| Second quartile | -1.6 | 1.0 |
| Third quartile | -2.1* | 0.8 |
| Science | | |
| Top quartile | -0.8 | 1.1 |
| Second quartile | -2.0* | 1.0 |
| Third quartile | -1.7 | 0.9 |
| Paragraph Comprehension | | |
| Top quartile | -1.5 | 1.1 |
| Second quartile | -1.5 | 1.0 |
| Third quartile | -1.3 | 0.9 |
| Composite | | |
| Top quartile | -3.5* | 1.0 |
| Second quartile | -4.1* | 0.9 |
| Third quartile | -3.3* | 0.8 |

*Significantly less than zero at the 95 percent confidence level in a two-tailed test.

NOTE: The number shown is the percentage impact of being in the specified quartile compared with being in the bottom quartile on the unemployment probability.

SOURCE: Authors' calculations based on the National Longitudinal Survey of Youth, 1979-93 data.

Table A.16. Data for Figure 4.4, Mean hourly rate of pay for civilian workers ages 19-31 years, by age-adjusted ASVAB score quartile

| MATHEMATICS | | | | | | | | |
|-------------------------|--------------|----------------|-----------------|----------------|----------------|----------------|-----------------|----------------|
| Age | Top quartile | Standard error | Second quartile | Standard error | Third quartile | Standard error | Bottom quartile | Standard error |
| 19 | \$6.11 | 0.08 | \$6.48 | 0.08 | \$6.50 | 0.08 | \$6.49 | 0.11 |
| 20 | 6.68 | 0.09 | 6.96 | 0.08 | 6.97 | 0.09 | 6.80 | 0.09 |
| 21 | 7.27 | 0.09 | 7.63 | 0.09 | 7.31 | 0.08 | 7.03 | 0.07 |
| 22 | 8.07 | 0.10 | 8.21 | 0.09 | 7.85 | 0.08 | 7.46 | 0.07 |
| 23 | 9.43 | 0.10 | 8.66 | 0.09 | 8.12 | 0.08 | 7.79 | 0.10 |
| 24 | 10.73 | 0.12 | 9.49 | 0.10 | 8.60 | 0.10 | 7.85 | 0.08 |
| 25 | 11.47 | 0.13 | 9.89 | 0.12 | 8.96 | 0.10 | 8.10 | 0.09 |
| 26 | 12.07 | 0.14 | 10.42 | 0.12 | 9.36 | 0.12 | 8.22 | 0.09 |
| 27 | 12.67 | 0.15 | 10.66 | 0.12 | 9.31 | 0.11 | 8.38 | 0.10 |
| 28 | 13.50 | 0.18 | 11.13 | 0.12 | 9.53 | 0.11 | 8.76 | 0.11 |
| 29 | 14.17 | 0.19 | 11.48 | 0.15 | 9.86 | 0.13 | 8.70 | 0.11 |
| 30 | 14.93 | 0.22 | 11.82 | 0.16 | 10.08 | 0.14 | 8.59 | 0.10 |
| 31 | 15.01 | 0.24 | 11.90 | 0.17 | 10.14 | 0.18 | 8.96 | 0.14 |
| SCIENCE | | | | | | | | |
| Age | Top quartile | Standard error | Second quartile | Standard error | Third quartile | Standard error | Bottom quartile | Standard error |
| 19 | \$6.35 | 0.08 | \$6.63 | 0.11 | \$6.23 | 0.09 | \$6.36 | 0.09 |
| 20 | 6.84 | 0.09 | 7.22 | 0.12 | 6.85 | 0.08 | 6.47 | 0.07 |
| 21 | 7.37 | 0.09 | 7.78 | 0.10 | 7.27 | 0.07 | 6.82 | 0.07 |
| 22 | 8.19 | 0.10 | 8.37 | 0.11 | 7.76 | 0.07 | 7.27 | 0.07 |
| 23 | 9.41 | 0.11 | 8.89 | 0.11 | 8.25 | 0.08 | 7.46 | 0.07 |
| 24 | 10.69 | 0.13 | 9.63 | 0.11 | 8.71 | 0.09 | 7.73 | 0.08 |
| 25 | 11.10 | 0.13 | 10.15 | 0.13 | 9.27 | 0.11 | 7.99 | 0.08 |
| 26 | 11.86 | 0.15 | 10.68 | 0.13 | 9.52 | 0.10 | 8.14 | 0.09 |
| 27 | 12.49 | 0.16 | 10.91 | 0.13 | 9.57 | 0.11 | 8.23 | 0.08 |
| 28 | 13.10 | 0.18 | 11.46 | 0.14 | 9.95 | 0.12 | 8.62 | 0.10 |
| 29 | 13.58 | 0.19 | 11.92 | 0.18 | 10.30 | 0.13 | 8.61 | 0.10 |
| 30 | 14.26 | 0.22 | 12.23 | 0.18 | 10.44 | 0.15 | 8.83 | 0.11 |
| 31 | 14.36 | 0.24 | 12.19 | 0.19 | 10.73 | 0.19 | 8.92 | 0.14 |
| PARAGRAPH COMPREHENSION | | | | | | | | |
| Age | Top quartile | Standard error | Second quartile | Standard error | Third quartile | Standard error | Bottom quartile | Standard error |
| 19 | \$6.10 | 0.07 | \$6.44 | 0.10 | \$6.50 | 0.09 | \$6.57 | 0.10 |
| 20 | 6.65 | 0.09 | 6.90 | 0.10 | 7.03 | 0.08 | 6.83 | 0.08 |
| 21 | 7.16 | 0.08 | 7.43 | 0.10 | 7.55 | 0.08 | 7.12 | 0.07 |
| 22 | 7.98 | 0.10 | 7.88 | 0.09 | 8.14 | 0.08 | 7.61 | 0.08 |
| 23 | 8.97 | 0.10 | 8.79 | 0.10 | 8.45 | 0.08 | 7.84 | 0.09 |
| 24 | 10.16 | 0.11 | 9.51 | 0.11 | 9.06 | 0.09 | 8.03 | 0.09 |
| 25 | 10.69 | 0.12 | 10.09 | 0.13 | 9.48 | 0.11 | 8.24 | 0.09 |
| 26 | 11.16 | 0.13 | 10.73 | 0.14 | 9.91 | 0.11 | 8.40 | 0.09 |
| 27 | 11.65 | 0.15 | 10.97 | 0.14 | 10.05 | 0.11 | 8.52 | 0.09 |
| 28 | 12.43 | 0.17 | 11.41 | 0.14 | 10.37 | 0.13 | 8.89 | 0.11 |
| 29 | 12.93 | 0.18 | 11.79 | 0.17 | 10.78 | 0.14 | 8.91 | 0.11 |
| 30 | 13.45 | 0.22 | 12.54 | 0.19 | 10.74 | 0.14 | 9.10 | 0.12 |
| 31 | 13.40 | 0.23 | 12.72 | 0.21 | 10.90 | 0.17 | 9.23 | 0.15 |

NOTE: Respondents reporting hourly pay of less than \$1.00 or greater than \$100.00 (1992 dollars) at any given age were excluded from the sample for that age. To control for differences in age at testing, individuals were assigned to age-specific performance quartiles for each subject based on their age at testing.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, National Longitudinal Survey of Youth, 1979-93.

Table A.17. Data for Figure 4.5, Mean hourly rate of pay for civilian workers ages 19-31 years, by educational attainment and age-adjusted ASVAB score quartile

| High school graduates | | | | | | | | |
|-------------------------|--------------|----------------|-----------------|----------------|----------------|----------------|-----------------|----------------|
| Mathematics | | | | | | | | |
| Age | Top quartile | Standard error | Second quartile | Standard error | Third quartile | Standard error | Bottom quartile | Standard error |
| 19 | \$6.21 | 0.10 | \$6.47 | 0.10 | \$6.53 | 0.11 | \$6.55 | 0.14 |
| 20 | 7.23 | 0.16 | 7.37 | 0.11 | 7.19 | 0.12 | 6.94 | 0.15 |
| 21 | 7.86 | 0.17 | 8.08 | 0.13 | 7.49 | 0.10 | 7.17 | 0.10 |
| 22 | 8.56 | 0.19 | 8.54 | 0.12 | 8.03 | 0.10 | 7.42 | 0.09 |
| 23 | 9.25 | 0.22 | 9.05 | 0.14 | 8.16 | 0.11 | 7.85 | 0.14 |
| 24 | 9.80 | 0.24 | 9.42 | 0.15 | 8.62 | 0.13 | 7.85 | 0.11 |
| 25 | 10.26 | 0.29 | 9.67 | 0.14 | 8.85 | 0.12 | 8.11 | 0.13 |
| 26 | 10.49 | 0.31 | 10.22 | 0.16 | 9.29 | 0.15 | 8.22 | 0.11 |
| 27 | 10.61 | 0.30 | 10.33 | 0.17 | 9.34 | 0.15 | 8.17 | 0.13 |
| 28 | 10.73 | 0.33 | 10.55 | 0.16 | 9.29 | 0.14 | 8.60 | 0.14 |
| 29 | 11.59 | 0.54 | 11.02 | 0.24 | 9.71 | 0.16 | 8.56 | 0.14 |
| 30 | 11.81 | 0.41 | 11.21 | 0.24 | 9.75 | 0.18 | 8.53 | 0.14 |
| 31 | 12.34 | 0.47 | 11.05 | 0.25 | 9.86 | 0.23 | 8.85 | 0.18 |
| Science | | | | | | | | |
| Age | Top quartile | Standard error | Second quartile | Standard error | Third quartile | Standard error | Bottom quartile | Standard error |
| 19 | \$6.41 | 0.10 | \$6.72 | 0.13 | \$6.09 | 0.09 | \$6.52 | 0.12 |
| 20 | 7.40 | 0.16 | 7.74 | 0.17 | 7.06 | 0.11 | 6.58 | 0.09 |
| 21 | 7.94 | 0.15 | 8.31 | 0.14 | 7.44 | 0.10 | 6.98 | 0.09 |
| 22 | 8.69 | 0.18 | 8.77 | 0.14 | 7.83 | 0.09 | 7.33 | 0.09 |
| 23 | 9.38 | 0.22 | 9.13 | 0.18 | 8.28 | 0.11 | 7.42 | 0.10 |
| 24 | 9.77 | 0.22 | 9.37 | 0.16 | 8.65 | 0.12 | 7.71 | 0.12 |
| 25 | 9.61 | 0.21 | 9.76 | 0.16 | 9.02 | 0.14 | 7.94 | 0.11 |
| 26 | 10.13 | 0.25 | 10.40 | 0.20 | 9.26 | 0.13 | 8.11 | 0.11 |
| 27 | 10.90 | 0.32 | 10.18 | 0.18 | 9.22 | 0.16 | 8.14 | 0.11 |
| 28 | 10.44 | 0.25 | 10.49 | 0.19 | 9.44 | 0.14 | 8.51 | 0.13 |
| 29 | 11.42 | 0.39 | 10.72 | 0.23 | 9.75 | 0.18 | 8.56 | 0.13 |
| 30 | 11.32 | 0.33 | 10.90 | 0.23 | 9.75 | 0.18 | 8.71 | 0.16 |
| 31 | 11.24 | 0.33 | 11.06 | 0.27 | 10.15 | 0.25 | 8.49 | 0.16 |
| Paragraph Comprehension | | | | | | | | |
| Age | Top quartile | Standard error | Second quartile | Standard error | Third quartile | Standard error | Bottom quartile | Standard error |
| 19 | \$6.15 | 0.09 | \$6.38 | 0.11 | \$6.59 | 0.11 | \$6.74 | 0.14 |
| 20 | 7.12 | 0.13 | 7.24 | 0.16 | 7.28 | 0.11 | 7.05 | 0.12 |
| 21 | 7.67 | 0.13 | 7.67 | 0.12 | 7.76 | 0.11 | 7.38 | 0.10 |
| 22 | 8.43 | 0.15 | 7.92 | 0.12 | 8.21 | 0.11 | 7.79 | 0.11 |
| 23 | 8.55 | 0.16 | 8.60 | 0.15 | 8.50 | 0.11 | 8.14 | 0.15 |
| 24 | 9.03 | 0.18 | 8.81 | 0.16 | 9.00 | 0.12 | 8.19 | 0.13 |
| 25 | 9.12 | 0.18 | 9.44 | 0.17 | 9.23 | 0.14 | 8.25 | 0.11 |
| 26 | 9.58 | 0.21 | 9.87 | 0.20 | 9.60 | 0.14 | 8.48 | 0.12 |
| 27 | 9.66 | 0.23 | 9.80 | 0.21 | 9.67 | 0.15 | 8.59 | 0.13 |
| 28 | 9.73 | 0.23 | 9.94 | 0.19 | 9.80 | 0.14 | 8.91 | 0.14 |
| 29 | 10.33 | 0.34 | 10.47 | 0.25 | 10.05 | 0.16 | 9.01 | 0.17 |
| 30 | 10.09 | 0.28 | 10.66 | 0.26 | 9.93 | 0.16 | 9.34 | 0.18 |
| 31 | 10.61 | 0.35 | 10.85 | 0.28 | 9.96 | 0.20 | 9.31 | 0.21 |

Table A.17 (continued)

| 1 to 3 years of college | | | | | | | | |
|-------------------------|--------------|----------------|-----------------|----------------|----------------|----------------|-----------------|----------------|
| Mathematics | | | | | | | | |
| Age | Top quartile | Standard error | Second quartile | Standard error | Third quartile | Standard error | Bottom quartile | Standard error |
| 19 | \$5.92 | 0.11 | \$6.45 | 0.20 | \$6.69 | 0.46 | \$6.29 | 0.48 |
| 20 | 6.45 | 0.10 | 6.31 | 0.11 | 6.31 | 0.16 | 6.59 | 0.20 |
| 21 | 7.06 | 0.10 | 6.94 | 0.13 | 7.04 | 0.18 | 6.59 | 0.19 |
| 22 | 7.61 | 0.13 | 7.66 | 0.16 | 7.41 | 0.19 | 7.98 | 0.27 |
| 23 | 8.70 | 0.16 | 8.27 | 0.15 | 8.22 | 0.19 | 8.69 | 0.28 |
| 24 | 9.58 | 0.18 | 9.41 | 0.18 | 8.67 | 0.18 | 8.74 | 0.29 |
| 25 | 10.26 | 0.22 | 9.77 | 0.27 | 8.93 | 0.20 | 9.07 | 0.29 |
| 26 | 10.77 | 0.21 | 10.26 | 0.23 | 9.31 | 0.26 | 9.40 | 0.30 |
| 27 | 11.27 | 0.26 | 10.67 | 0.22 | 9.52 | 0.23 | 9.74 | 0.29 |
| 28 | 12.22 | 0.43 | 11.29 | 0.24 | 10.13 | 0.27 | 10.67 | 0.42 |
| 29 | 11.73 | 0.29 | 11.50 | 0.26 | 10.18 | 0.26 | 10.34 | 0.33 |
| 30 | 12.56 | 0.39 | 11.90 | 0.29 | 11.01 | 0.37 | 9.74 | 0.30 |
| 31 | 13.18 | 0.38 | 11.87 | 0.28 | 11.05 | 0.43 | 10.44 | 0.35 |
| Science | | | | | | | | |
| Age | Top quartile | Standard error | Second quartile | Standard error | Third quartile | Standard error | Bottom quartile | Standard error |
| 19 | \$6.06 | 0.15 | \$6.12 | 0.21 | \$6.44 | 0.24 | \$6.31 | 0.43 |
| 20 | 6.51 | 0.10 | 6.34 | 0.12 | 6.21 | 0.13 | 6.39 | 0.26 |
| 21 | 7.09 | 0.11 | 7.13 | 0.16 | 6.83 | 0.13 | 6.45 | 0.14 |
| 22 | 7.63 | 0.12 | 7.75 | 0.20 | 7.58 | 0.16 | 7.36 | 0.21 |
| 23 | 8.80 | 0.18 | 8.43 | 0.18 | 8.31 | 0.17 | 8.00 | 0.19 |
| 24 | 9.78 | 0.20 | 9.40 | 0.20 | 8.72 | 0.18 | 8.62 | 0.22 |
| 25 | 10.22 | 0.22 | 9.84 | 0.30 | 9.33 | 0.20 | 8.82 | 0.27 |
| 26 | 10.82 | 0.26 | 10.03 | 0.22 | 9.64 | 0.20 | 9.59 | 0.33 |
| 27 | 11.50 | 0.30 | 10.63 | 0.23 | 9.84 | 0.21 | 9.42 | 0.23 |
| 28 | 12.50 | 0.41 | 11.16 | 0.29 | 10.75 | 0.34 | 9.93 | 0.27 |
| 29 | 11.79 | 0.31 | 11.34 | 0.28 | 10.85 | 0.26 | 10.04 | 0.30 |
| 30 | 12.79 | 0.37 | 11.73 | 0.34 | 11.18 | 0.35 | 10.11 | 0.31 |
| 31 | 13.46 | 0.44 | 11.50 | 0.30 | 11.27 | 0.32 | 10.94 | 0.40 |
| Paragraph Comprehension | | | | | | | | |
| Age | Top quartile | Standard error | Second quartile | Standard error | Third quartile | Standard error | Bottom quartile | Standard error |
| 19 | \$5.87 | 0.12 | \$6.49 | 0.22 | \$6.12 | 0.28 | \$7.31 | 0.49 |
| 20 | 6.22 | 0.09 | 6.52 | 0.14 | 6.59 | 0.16 | 6.57 | 0.19 |
| 21 | 6.86 | 0.10 | 7.15 | 0.15 | 7.16 | 0.15 | 6.72 | 0.17 |
| 22 | 7.42 | 0.14 | 7.63 | 0.16 | 8.01 | 0.17 | 7.62 | 0.23 |
| 23 | 8.56 | 0.17 | 8.60 | 0.17 | 8.32 | 0.17 | 8.15 | 0.20 |
| 24 | 9.56 | 0.18 | 9.27 | 0.19 | 9.07 | 0.20 | 8.61 | 0.25 |
| 25 | 9.87 | 0.20 | 9.87 | 0.28 | 9.60 | 0.24 | 8.82 | 0.28 |
| 26 | 10.13 | 0.20 | 10.13 | 0.22 | 10.26 | 0.29 | 9.53 | 0.26 |
| 27 | 10.71 | 0.25 | 10.56 | 0.23 | 10.42 | 0.24 | 9.81 | 0.27 |
| 28 | 11.66 | 0.36 | 11.51 | 0.28 | 10.89 | 0.34 | 10.29 | 0.32 |
| 29 | 11.61 | 0.29 | 11.23 | 0.27 | 10.99 | 0.28 | 10.10 | 0.30 |
| 30 | 11.85 | 0.36 | 12.36 | 0.36 | 11.22 | 0.30 | 10.26 | 0.37 |
| 31 | 12.44 | 0.38 | 11.94 | 0.32 | 11.87 | 0.37 | 10.55 | 0.35 |

Table A.17 (continued)

| 4 to 5 years of college | | | | | | | | |
|-------------------------|--------------|----------------|-----------------|----------------|----------------|----------------|-----------------|----------------|
| Mathematics | | | | | | | | |
| Age | Top quartile | Standard error | Second quartile | Standard error | Third quartile | Standard error | Bottom quartile | Standard error |
| 19 | * | * | * | * | * | * | * | * |
| 20 | * | * | * | * | * | * | * | * |
| 21 | * | * | * | * | * | * | * | * |
| 22 | \$8.99 | 0.22 | \$8.22 | 0.28 | \$9.33 | 1.27 | * | * |
| 23 | 9.97 | 0.16 | 8.16 | 0.21 | 9.49 | 0.59 | * | * |
| 24 | 11.54 | 0.17 | 9.80 | 0.22 | 10.41 | 0.55 | \$9.64 | 0.92 |
| 25 | 12.23 | 0.18 | 10.61 | 0.26 | 10.28 | 0.48 | 8.49 | 0.53 |
| 26 | 12.99 | 0.20 | 11.11 | 0.27 | 12.03 | 0.77 | 10.54 | 0.47 |
| 27 | 13.87 | 0.23 | 11.54 | 0.31 | 11.05 | 0.49 | 11.38 | 1.00 |
| 28 | 14.53 | 0.24 | 12.41 | 0.29 | 11.46 | 0.37 | 11.56 | 0.78 |
| 29 | 15.37 | 0.26 | 12.45 | 0.30 | 11.38 | 0.53 | 10.91 | 0.55 |
| 30 | 16.07 | 0.31 | 12.99 | 0.35 | 11.84 | 0.44 | 11.36 | 0.64 |
| 31 | 16.32 | 0.38 | 13.48 | 0.41 | 12.56 | 0.75 | 11.33 | 0.71 |
| Science | | | | | | | | |
| Age | Top quartile | Standard error | Second quartile | Standard error | Third quartile | Standard error | Bottom quartile | Standard error |
| 19 | * | * | * | * | * | * | * | * |
| 20 | * | * | * | * | * | * | * | * |
| 21 | * | * | * | * | * | * | * | * |
| 22 | \$8.97 | 0.25 | \$8.61 | 0.40 | \$8.25 | 0.36 | * | * |
| 23 | 9.96 | 0.19 | 9.05 | 0.25 | 9.08 | 0.26 | \$7.93 | 0.38 |
| 24 | 11.67 | 0.21 | 10.58 | 0.23 | 10.25 | 0.27 | 8.45 | 0.32 |
| 25 | 12.23 | 0.21 | 11.11 | 0.23 | 11.04 | 0.43 | 9.48 | 0.45 |
| 26 | 13.22 | 0.25 | 11.89 | 0.29 | 11.23 | 0.31 | 9.92 | 0.36 |
| 27 | 13.91 | 0.27 | 12.85 | 0.31 | 11.39 | 0.33 | 9.93 | 0.57 |
| 28 | 14.56 | 0.28 | 13.45 | 0.29 | 12.16 | 0.36 | 10.60 | 0.43 |
| 29 | 14.93 | 0.27 | 14.15 | 0.43 | 13.15 | 0.38 | 10.71 | 0.42 |
| 30 | 15.71 | 0.34 | 14.66 | 0.42 | 13.41 | 0.45 | 11.79 | 0.49 |
| 31 | 16.10 | 0.41 | 14.69 | 0.48 | 13.86 | 0.62 | 12.00 | 0.91 |
| Paragraph Comprehension | | | | | | | | |
| Age | Top quartile | Standard error | Second quartile | Standard error | Third quartile | Standard error | Bottom quartile | Standard error |
| 19 | * | * | * | * | * | * | * | * |
| 20 | * | * | * | * | * | * | * | * |
| 21 | * | * | * | * | * | * | * | * |
| 22 | \$8.82 | 0.26 | \$8.71 | 0.33 | \$9.10 | 0.49 | * | * |
| 23 | 9.56 | 0.19 | 9.57 | 0.23 | 9.69 | 0.33 | \$7.62 | 0.48 |
| 24 | 11.25 | 0.20 | 10.84 | 0.22 | 10.85 | 0.30 | 10.39 | 0.69 |
| 25 | 11.79 | 0.21 | 11.63 | 0.27 | 11.27 | 0.31 | 10.04 | 0.47 |
| 26 | 12.46 | 0.24 | 12.72 | 0.29 | 11.85 | 0.34 | 10.61 | 0.42 |
| 27 | 13.29 | 0.26 | 13.31 | 0.31 | 12.26 | 0.32 | 10.08 | 0.80 |
| 28 | 14.05 | 0.28 | 13.51 | 0.28 | 13.19 | 0.37 | 11.90 | 0.56 |
| 29 | 14.43 | 0.29 | 14.29 | 0.36 | 13.92 | 0.44 | 11.51 | 0.55 |
| 30 | 14.97 | 0.34 | 15.46 | 0.38 | 14.12 | 0.49 | 10.61 | 0.57 |
| 31 | 14.94 | 0.42 | 16.23 | 0.49 | 14.14 | 0.49 | 12.04 | 1.22 |

*Too few cases to provide reliable estimates.

NOTES: Respondents reporting hourly pay of less than \$1.00 or more than \$100 (1992 dollars) at any given age were excluded from the sample for that age. Data based on fewer than 30 observations are excluded from the tables.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, National Longitudinal Survey of Youth 1979-93.

Table A.18. Data for Figure 4.6, Estimated relationship between test scores and wage rates for 28-year-old workers

| Subject and test quartile | Percent difference in hourly wage compared with those in the bottom quartile | Standard error |
|--------------------------------|--|----------------|
| Mathematics | | |
| Top quartile | 15.0* | 2.3 |
| Second quartile | 10.6* | 1.9 |
| Third quartile | 2.6 | 1.7 |
| Science | | |
| Top quartile | 4.2 | 2.2 |
| Second quartile | 6.2* | 1.9 |
| Third quartile | 3.9* | 1.7 |
| Paragraph Comprehension | | |
| Top quartile | 4.6* | 2.2 |
| Second quartile | 4.6* | 2.0 |
| Third quartile | 4.8* | 1.8 |
| Composite | | |
| Top quartile | 19.5* | 2.1 |
| Second quartile | 18.2* | 1.8 |
| Third quartile | 10.1* | 1.7 |

*Significantly greater than zero at the 95 percent confidence level in a two-tailed test.

NOTE: The number shown is the percentage impact of being in the specified quartile compared with being in the bottom quartile on the hourly wage.

SOURCE: Authors' calculations based on the National Longitudinal Survey of Youth, 1979-93 data.

Table A.19. Data for Figure 4.7, Trends in average U.S. achievement scores in science, mathematics, and reading: 1969-1992

| Year | Age 9 | | | Age 13 | | | Age 17 | | |
|------|---------|-------------|---------|---------|-------------|---------|---------|-------------|---------|
| | Science | Mathematics | Reading | Science | Mathematics | Reading | Science | Mathematics | Reading |
| 1969 | | | | | | | 305 | | |
| 1970 | 225 | | | 255 | | | | | |
| 1971 | | | 208 | | | 255 | | | 285 |
| 1973 | 220 | 219 | | 250 | 266 | | 296 | 304 | |
| 1975 | | | 210 | | | 256 | | | 286 |
| 1977 | 220 | | | 247 | | | 290 | | |
| 1978 | | 219 | | | 264 | | | 300 | |
| 1980 | | | 215 | | | 258 | | | 286 |
| 1982 | 221 | 219 | | 250 | 269 | | 283 | 298 | |
| 1984 | | | 211 | | | 257 | | | 289 |
| 1986 | 224 | 222 | | 251 | 269 | | 288 | 302 | |
| 1988 | | | 212 | | | 258 | | | 290 |
| 1990 | 229 | 230 | 209 | 255 | 270 | 257 | 290 | 305 | 290 |
| 1992 | 231 | 230 | 210 | 258 | 273 | 260 | 294 | 307 | 290 |

SOURCE: U.S. Department of Education, National Center for Education Statistics, *The National Assessment of Educational Progress: 1992 Trends in Academic Progress*, 1994.

Table A.20. Data for Figure 4.8, Difference in average NAEP proficiency scores for whites and blacks and whites and Hispanics age 17 years, by subject: 1969-92

| Average NAEP score for white students minus average score for black students | | | |
|---|---------|---------|-------------|
| Year | Science | Reading | Mathematics |
| 1969 | 54 | | |
| 1971 | | 53 | |
| 1973 | 54 | | 40 |
| 1975 | | 52 | |
| 1977 | 57 | | |
| 1978 | | | 38 |
| 1980 | | 50 | |
| 1982 | 58 | | 32 |
| 1984 | | 31 | |
| 1986 | 45 | | 29 |
| 1988 | | 20 | |
| 1990 | 48 | 29 | 21 |
| 1992 | 48 | 37 | 26 |
| Average NAEP score for white students minus average score for Hispanic students | | | |
| Year | Science | Reading | Mathematics |
| 1973 | | | 33 |
| 1975 | | 40 | |
| 1977 | 35 | | |
| 1978 | | | 30 |
| 1980 | | 31 | |
| 1982 | 44 | | 27 |
| 1984 | | 27 | |
| 1986 | 38 | | 24 |
| 1988 | | 24 | |
| 1990 | 40 | 22 | 26 |
| 1992 | 34 | 26 | 20 |

NOTE: Blank spaces indicate no data available for that subject for that year.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *The National Assessment of Educational Progress: 1992 Trends in Academic Progress*, 1994.

Table A.21 Data for Figure 4.9, Trends in percent of 17-year-old students at or above four mathematics and four science proficiency levels: 1977-92

| Mathematics proficiency level | Year | | | | |
|--|------|------|------|------|------|
| | 1978 | 1982 | 1986 | 1990 | 1992 |
| Beginning skills and understanding | 100 | 100 | 100 | 100 | 100 |
| Numeric operations and beginning problem solving | 92 | 93 | 96 | 96 | 97 |
| Moderately complex procedures and reasoning | 52 | 48 | 52 | 56 | 59 |
| Multi-step problem solving and algebra | 7 | 6 | 6 | 7 | 7 |

| Science proficiency level | Year | | | | |
|---|------|------|------|------|------|
| | 1977 | 1982 | 1986 | 1990 | 1992 |
| Understands simple scientific principles | 97 | 96 | 97 | 97 | 98 |
| Applies general scientific information | 82 | 77 | 81 | 81 | 83 |
| Analyzes scientific procedures and data | 42 | 37 | 41 | 43 | 47 |
| Integrates specialized scientific information | 8 | 7 | 8 | 9 | 10 |

SOURCE: U.S. Department of Education, National Center for Education Statistics, *The National Assessment of Educational Progress: 1992 Trends in Academic Progress*, 1994.

Table A.22. Data for Figure 5.1, Unemployment rate of adult labor force participants, by proficiency level on three literacy scales (percent): 1992

| Literacy scale | Proficiency level | | | | |
|----------------|-------------------|------|-----|-----|-----|
| | 1 | 2 | 3 | 4 | 5 |
| Prose | 16.9 | 15.4 | 7.9 | 5.6 | 4.2 |
| Document | 17.1 | 12.9 | 8.4 | 5.0 | 5.2 |
| Quantitative | 19.9 | 12.5 | 8.8 | 4.9 | 2.7 |

SOURCE: Andrew Sum, *Literacy and the Labor Force: Results of the National Adult Literacy Survey*, forthcoming; U.S. Department of Education, National Center for Education Statistics, National Adult Literacy Survey, 1992.

Table A.23. Data for Figure 5.2, Average proficiencies of the unemployed and full-time employed with high school diplomas only, by literacy scale: 1992

| Literacy scale | Unemployed | Full-time employed |
|----------------|------------|--------------------|
| Prose | 259 | 275 |
| Document | 256 | 272 |
| Quantitative | 256 | 278 |

SOURCE: Andrew Sum, *Literacy and the Labor Force: Results of the National Adult Literacy Survey*, forthcoming; U.S. Department of Education, National Center for Education Statistics, National Adult Literacy Survey, 1992.

Table A.24. Data for Figure 5.3, Mean weekly earnings of full-time workers, by literacy proficiency on three literacy scales: 1992

| Literacy scale | Proficiency level | | | | |
|----------------|-------------------|-------|-------|-------|-------|
| | 1 | 2 | 3 | 4 | 5 |
| Prose | \$355 | \$436 | \$531 | \$709 | \$910 |
| Document | 355 | 458 | 553 | 710 | 807 |
| Quantitative | 330 | 438 | 533 | 684 | 913 |

SOURCE: Andrew Sum, *Literacy and the Labor Force: Results of the National Adult Literacy Survey*, forthcoming; U.S. Department of Education, National Center for Education Statistics, National Adult Literacy Survey, 1992.

Table A.25. Data for Figure 5.4, Mean weekly earnings of full-time employed college graduates, by proficiency level on three literacy scales: 1992

| Literacy scale | Proficiency level | | | | |
|----------------|-------------------|-------|-------|-------|-------|
| | 1 | 2 | 3 | 4 | 5 |
| Prose | \$586 | \$677 | \$739 | \$866 | \$993 |
| Document | 632 | 717 | 787 | 878 | 904 |
| Quantitative | NA | 610 | 731 | 865 | 1,031 |

NA = not available.

SOURCE: Andrew Sum, *Literacy and the Labor Force: Results of the National Adult Literacy Survey*, forthcoming; U.S. Department of Education, National Center for Education Statistics, National Adult Literacy Survey, 1992.

Table A.26. Data for Figure 5.5, Weekly earnings of full-time black workers as a percentage of white workers' earnings, by literacy proficiency level (percent): 1992

| Literacy scale | Proficiency level | | | |
|----------------|-------------------|----|----|----|
| | 1 | 2 | 3 | 4 |
| Prose | 82 | 87 | 93 | 95 |
| Quantitative | 93 | 92 | 98 | 97 |

NOTE: Figures provided are black workers' earnings as a percentage of white workers' earnings. No data are available for proficiency level 5.

SOURCE: Andrew Sum, *Literacy and the Labor Force: Results of the National Adult Literacy Survey*, forthcoming; U.S. Department of Education, National Center for Education Statistics, National Adult Literacy Survey, 1992.

Table A.27. Data for Figure 5.6, Percentage of the labor force in each proficiency level on the three literacy scales: 1992

| Literacy scale | Proficiency level | | | | |
|----------------|-------------------|------|------|------|-----|
| | 1 | 2 | 3 | 4 | 5 |
| Prose | 14.4 | 25.3 | 35.2 | 20.8 | 4.2 |
| Document | 15.8 | 27.2 | 34.6 | 19.0 | 3.4 |
| Quantitative | 15.2 | 24.5 | 34.5 | 20.8 | 5.0 |

SOURCE: Andrew Sum, *Literacy and the Labor Force: Results of the National Adult Literacy Survey*, forthcoming; U.S. Department of Education, National Center for Education Statistics, National Adult Literacy Survey, 1992.

Table A.28. Data for Figure 6.1, Mean literacy proficiency scores of full-time workers, by occupation: 1992

| Occupation | Literacy scale | | |
|--------------------------|----------------|----------|--------------|
| | Prose | Document | Quantitative |
| Professional | 329 | 321 | 326 |
| Managers and executives | 319 | 310 | 321 |
| Technical | 309 | 308 | 308 |
| Administrative support | 296 | 290 | 293 |
| Sales | 290 | 285 | 291 |
| Craft production | 267 | 267 | 275 |
| Service | 262 | 259 | 258 |
| Transport operatives | 258 | 260 | 266 |
| Laborers and cleaners | 248 | 247 | 249 |
| Assemblers and operators | 247 | 242 | 248 |
| Farming and forestry | 245 | 245 | 254 |

SOURCE: Andrew Sum, *Literacy and the Labor Force: Results of the National Adult Literacy Survey*, forthcoming; U.S. Department of Education, National Center for Education Statistics, National Adult Literacy Survey, 1992.

Table A.29. Data for Figure 6.2, College graduates in the labor force and in jobs that do not require college degrees: 1967-90

| Year | College graduates in labor force (thousands) | College graduates in nondegree jobs or unemployed (thousands) | Percent of college graduates in nondegree jobs or unemployed | Civilian labor force (thousands) | Percent of labor force members with college degrees |
|------|--|---|--|----------------------------------|---|
| 1967 | 8,792 | 1,032 | 11.7 | 77,347 | 11.4 |
| 1968 | 9,328 | 987 | 10.6 | 78,737 | 11.8 |
| 1969 | 9,676 | 1,032 | 10.7 | 80,734 | 12.0 |
| 1970 | 10,157 | 1,151 | 11.3 | 82,771 | 12.3 |
| 1971 | 10,859 | 1,375 | 12.7 | 84,382 | 12.9 |
| 1972 | 11,604 | 1,668 | 14.4 | 87,034 | 13.3 |
| 1973 | 12,368 | 1,793 | 14.5 | 89,429 | 13.8 |
| 1974 | 13,428 | 2,070 | 15.4 | 91,949 | 14.6 |
| 1975 | 14,328 | 2,398 | 16.7 | 93,775 | 15.3 |
| 1976 | 15,356 | 2,714 | 17.7 | 96,158 | 16.0 |
| 1977 | 16,200 | 3,010 | 18.6 | 99,009 | 16.4 |
| 1978 | 16,701 | 2,893 | 17.3 | 102,251 | 16.3 |
| 1979 | 17,925 | 3,163 | 17.6 | 104,962 | 17.1 |
| 1980 | 19,237 | 3,585 | 18.6 | 106,940 | 18.0 |
| 1981 | 19,759 | 3,715 | 18.8 | 108,670 | 18.2 |
| 1982 | 20,958 | 4,129 | 19.7 | 110,204 | 19.0 |
| 1983 | 22,479 | 4,648 | 20.7 | 111,550 | 20.2 |
| 1984 | 23,357 | 4,453 | 19.1 | 113,544 | 20.6 |
| 1985 | 24,137 | 4,645 | 19.2 | 115,461 | 20.9 |
| 1986 | 24,686 | 4,792 | 19.4 | 117,834 | 20.9 |
| 1987 | 25,765 | 5,029 | 19.5 | 119,865 | 21.5 |
| 1988 | 27,135 | 5,287 | 19.5 | 121,669 | 22.3 |
| 1989 | 28,080 | 5,353 | 19.1 | 123,869 | 22.7 |
| 1990 | 28,983 | 5,753 | 19.9 | 124,787 | 23.2 |

NOTE: Unemployed graduates are counted as college graduates in nondegree jobs. Data refer to noninstitutionalized population 16 years and older.

SOURCE: Daniel H. Hecker. "Reconciling Conflicting Data on Jobs for College Graduates." *Monthly Labor Review*, (July 1992), 3-12; U.S. Department of Commerce, Bureau of the Census, Current Population Surveys.

Table A.30. Data for Figure 7.1, Median weekly earnings of full-time workers age 16 years and over, by training status and educational attainment: January 1991

| Workers Who Needed No Qualifying Training for Current Job | | |
|--|---|---|
| Highest education completed | Workers training to improve skills since start of job | Workers who did not training to improve skills since start of job |
| Fewer than 12 Years | \$333 | \$263 |
| High school graduate | 396 | 314 |
| 1-3 years of college | 471 | 353 |
| College graduate | 601 | 461 |
| Workers Who Needed Qualifying Training for Current Job | | |
| Fewer than 12 Years | \$405 | \$319 |
| High school graduate | 465 | 380 |
| 1-3 years of college | 515 | 422 |
| College graduate | 683 | 616 |

SOURCE: Alan Eck, "Job-Related Education and Training: Their Impact on Earnings," *Monthly Labor Review*, (October 1993) 21-38; U.S. Department of Commerce, Bureau of the Census, Current Population Survey, January 1991.

Table A.31. Data for Figure 7.2, Workers 16 and older who participated in skill improvement training while on their current jobs (percent of workers in each category): 1983 and 1991

| | 1983 | 1991 |
|---|------|------|
| All Workers | 35 | 41 |
| Gender | | |
| Male | 35 | 40 |
| Female | 34 | 41 |
| Race/ethnicity | | |
| White | 36 | 42 |
| Black | 28 | 34 |
| All other races | 32 | 38 |
| Hispanic | 23 | 28 |
| Highest grade completed | | |
| High school or less | 26 | 29 |
| Some college | 41 | 46 |
| College graduate | 54 | 61 |
| Occupational group | | |
| Executive, administrative, and managerial | 47 | 53 |
| Professional | 61 | 67 |
| Technicians | 52 | 59 |
| Sales | 32 | 35 |
| Administrative support | 32 | 40 |
| Private household | 3 | 6 |
| Service | 25 | 29 |
| Farming, forestry, and fishing | 16 | 21 |
| Precision production, craft, and repair | 35 | 38 |
| Machine operators, assemblers, and inspectors | 22 | 25 |
| Transportation and material moving | 18 | 25 |
| Handlers, cleaners, and laborers | 14 | 15 |
| Training source | | |
| School | 12 | 13 |
| Formal company programs | 11 | 16 |
| Informal on-the-job training | 14 | 15 |
| Other source | 4 | 7 |

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *How Workers Get Their Training: A 1991 Update*, 1992; U.S. Department of Commerce, Bureau of the Census, Current Population Survey, January 1983 and 1991.

Table A.32. Data for Figure 7.3, Workers age 17 and older who were enrolled in employment-related training in the previous 12 months (percent of workers in each category): 1991

| | |
|--|----|
| All workers | 33 |
| Gender | |
| Male | 33 |
| Female | 34 |
| Race-ethnicity | |
| White | 35 |
| Black | 24 |
| Hispanic | 27 |
| Education | |
| Less than high school | 9 |
| High school diploma | 22 |
| Some postsecondary education | 38 |
| College graduation | 53 |
| Occupation | |
| Managerial/professional | 56 |
| Technical/sales/administrative support | 32 |
| Service | 21 |
| Precision production/repair | 26 |
| Operations/fabrications/laborers | 17 |

NOTE: Sample includes employed adults age 17 and older. Employment status of individuals was determined by status during the week of the survey.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Adult Education: Employment-Related Training*, 1994 and the National Household Education Survey, 1991.

Table A.33. Data for Figure 7.4, Training participation by training type (percent of workers participating in each type of training): 1991

| From CPS Data | |
|--|----|
| Technical | 26 |
| Computer-related | 13 |
| Managerial/supervisory | 11 |
| Reading/writing/math | 6 |
| Other | 7 |
| From NHES Data | |
| Professional development | 25 |
| Technical or skilled | 20 |
| Executive or management development | 13 |
| Supervisory skills | 12 |
| Job health and safety | 12 |
| Computer | 10 |
| Quality or statistical process control | 10 |
| Sales and marketing | 8 |
| New employee | 7 |

NOTE: CPS data include all employed individuals age 16 and older. NHES data include all employed individuals age 17 and older. CPS data refer to any training on the current job and NHES data to training in the last 12 months.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *How Workers Get Their Training: A 1991 Update*, 1992; U.S. Department of Commerce, Bureau of the Census, Current Population Survey, January 1991; U.S. Department of Education, National Center for Education Statistics, *Adult Education: Employment-Related Training*, 1994, and the National Household Education Survey, 1991.

Table A.34. Data for Figure 8.1, Secondary school completion, by age (percent of population): 1992

| Country | 25-64 years of age | 25-34 years of age |
|----------------|--------------------|--------------------|
| United States | 84.0 | 86.5 |
| Japan | 69.7 | 90.6 |
| Germany | 81.9 | 88.6 |
| United Kingdom | 68.1 | 80.9 |
| France | 52.2 | 67.1 |
| Italy | 28.4 | 42.4 |
| Canada | 71.3 | 80.8 |

NOTE: In the United States, completing secondary school is defined as graduating from high school or earning a GED.

SOURCE: U.S. Department of Education, National Center for Education Statistics *The Condition of Education*, 1995; Organization for Economic Cooperation and Development, Indicators for Education's Systems, *Digest of International Education Statistics*, forthcoming.

Table A.35. Data for Figure 8.2, Completion of higher education, by age (percent of population): 1992

| Country | 25-64 years of age | 25-34 years of age |
|----------------|--------------------|--------------------|
| United States | 23.6 | 23.2 |
| Japan | 13.3 | 22.9 |
| Germany | 11.6 | 11.8 |
| United Kingdom | 10.7 | 12.5 |
| France | 10.2 | 12.3 |
| Italy | 6.4 | 6.8 |
| Canada | 15.0 | 16.1 |

NOTE: In the United States, completing higher education is defined as earning a bachelor's degree.

SOURCE: U.S. Department of Education, National Center for Education Statistics *The Condition of Education*, 1995; Organization for Economic Cooperation and Development, Indicators for Education's Systems, *Digest of International Education Statistics*, forthcoming.

Table A.36. Data for Figure 8.3, Completion of postsecondary education, percent of population ages 25-64 years: 1991

| Country | Completion rate |
|----------------|-----------------|
| United States | 36 |
| Germany | 22 |
| United Kingdom | 16 |
| France | 15 |
| Italy | 6 |
| Canada | 40 |

NOTES: Postsecondary education includes university and nonuniversity education above the secondary level. Completion of postsecondary education is defined according to the International Standard Classification of Education, which is used as a means of compiling internationally comparable statistics on education. Postsecondary completion includes education at the postsecondary level which leads to an award or degree. The classification is described in detail in Annex 4 of Organization for Economic Cooperation and Development (1993). In the United States, completion of postsecondary education refers to high school graduates who complete programs at a technical or vocational institution, a two-year college, or a four-year college or university.

SOURCE: Organization for Economic Cooperation and Development, *Education at a Glance*, 1993.

Table A.37. Data for Figure 8.4, Mean mathematics achievement of students in their last year of secondary school in industrialized countries: 1980-82

| Country | Number Systems | | Algebra | | Geometry | | Functions and Calculus | |
|----------------|----------------|------------------------|---------|------------------------|----------|------------------------|------------------------|------------------------|
| | Mean | Standard error of mean | Mean | Standard error of mean | Mean | Standard error of mean | Mean | Standard error of mean |
| United States | 40 | 1.1 | 43 | 1.2 | 31 | 1.0 | 29 | 1.2 |
| Japan | 68* | 1.1 | 78* | 1.0 | 60* | 1.1 | 66* | 1.5 |
| United Kingdom | 59* | 0.8 | 66* | 0.6 | 51* | 0.5 | 58* | 0.6 |
| Canada (B.C.) | 43 | 1.3 | 47 | 1.4 | 30 | 1.2 | 21* | 1.0 |

* Mean score is significantly different from that of U.S. students.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *International Mathematics and Science Assessments: What Have We Learned?*, 1992, based on data from the Second International Mathematics Study (SIMS).

Table A.38. Data for Figure 8.5, Mean science achievement of students in their last year of secondary school in industrialized countries: 1983-86

| Country | Biology | | Chemistry | | Physics | |
|----------------|---------|------------------------|-----------|------------------------|---------|------------------------|
| | Mean | Standard error of mean | Mean | Standard error of mean | Mean | Standard error of mean |
| United States | 37.9 | 0.41 | 37.7 | 0.67 | 45.5 | 0.53 |
| Japan | 46.2* | 0.48 | 51.9* | 0.86 | 56.1* | 0.58 |
| United Kingdom | 63.4* | 0.24 | 69.5* | 0.29 | 58.3* | 0.20 |
| Italy | 42.3* | 1.05 | 38.0 | 1.45 | 28.0* | 0.25 |
| Canada | 45.9* | 0.20 | 36.9 | 0.31 | 39.6* | 0.20 |

* Mean score is significantly different from that of U.S. students.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *International Mathematics and Science Assessments: What Have We Learned*, 1992, based on data from the Second International Science Study (SISS).

Table A.39. Data for Figure 8.6, Mean reading achievement of 14-year-old students in industrialized countries: 1990-91

| Country | Narrative | | Expository | | Documents | |
|----------------|-----------|----------------|------------|----------------|-----------|----------------|
| | Mean | Standard error | Mean | Standard error | Mean | Standard error |
| United States | 539 | 4.9 | 539 | 5.6 | 528 | 4.0 |
| Germany (West) | 514* | 4.9 | 521* | 4.5 | 532 | 3.9 |
| France | 556* | 4.2 | 546 | 4.3 | 544* | 4.2 |
| Italy | 520* | 3.6 | 524* | 3.2 | 501* | 3.3 |
| Canada (B.C.) | 526* | 3.1 | 516* | 3.1 | 522 | 2.7 |

*Mean score is significantly different from that of U.S. students.

SOURCE: Warwick B. Elley, *How in the World Do Students Read?*, Hamburg: International Association for the Evaluation of Educational Achievement, 1992, based on data from the International Association for the Evaluation of Educational Achievement, Reading Literacy Study.

Table A.40. Data for Figure 8.7, Estimated percentage of the population in each proficiency level on three adult literacy scales, by selected countries: 1994

| Scale and Country | Proficiency level | | | |
|----------------------|-------------------|------|------|------|
| | 1 | 2 | 3 | 4/5 |
| Prose | | | | |
| United States | 20.7 | 25.9 | 32.4 | 21.1 |
| Canada | 16.6 | 25.6 | 35.1 | 22.7 |
| Germany | 14.4 | 34.2 | 38.0 | 13.4 |
| Netherlands | 10.5 | 30.1 | 44.1 | 15.3 |
| Poland | 42.6 | 34.5 | 19.8 | 3.1 |
| Sweden | 7.5 | 20.3 | 39.7 | 32.4 |
| Switzerland (French) | 17.6 | 33.7 | 38.6 | 10.0 |
| Switzerland (German) | 19.3 | 35.7 | 36.1 | 8.9 |
| Document | | | | |
| United States | 23.7 | 25.9 | 31.4 | 19.0 |
| Canada | 18.2 | 24.7 | 32.1 | 25.1 |
| Germany | 9.0 | 32.7 | 39.5 | 18.9 |
| Netherlands | 10.1 | 25.7 | 44.2 | 20.0 |
| Poland | 45.4 | 30.7 | 18.0 | 5.8 |
| Sweden | 6.2 | 18.9 | 39.4 | 35.5 |
| Switzerland (French) | 16.2 | 28.8 | 38.9 | 16.0 |
| Switzerland (German) | 18.1 | 29.1 | 36.6 | 16.1 |
| Quantitative | | | | |
| United States | 21.0 | 25.3 | 31.3 | 22.5 |
| Canada | 16.9 | 26.1 | 34.8 | 22.2 |
| Germany | 6.7 | 26.6 | 43.2 | 23.5 |
| Netherlands | 10.3 | 25.5 | 44.3 | 19.9 |
| Poland | 39.1 | 30.1 | 23.9 | 6.8 |
| Sweden | 6.6 | 18.6 | 39.0 | 35.8 |
| Switzerland (French) | 12.9 | 24.5 | 42.2 | 20.4 |
| Switzerland (German) | 14.2 | 26.2 | 40.7 | 19.0 |

SOURCE: Organization for Economic Cooperation and Development and Statistics Canada, *Literacy, Economy and Society: Results of the First International Adult Literacy Survey*, 1995.