

Youth enrollment and employment during the school year

Current Population Survey data show that teenagers are attending school at higher rates than ever before; at the same time, teens are less frequently employed during the school year

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Having a job as a teenager can be a valuable experience, teaching responsibility, and organizational and time management skills, along with providing a paycheck.¹ Teens, though, must balance their school requirements with their work preferences during the school year. The Current Population Survey (CPS) of the Bureau of Labor Statistics (BLS) produces data on school enrollment and employment for teens. These data show that teens are enrolled in school at increasingly higher rates since the mid 1980s (when the CPS began collecting monthly enrollment data for persons aged 16–24), while fewer teens are employed during the school year than in the past. Both teens who are in school and those who are not in school saw their employment rates decline; however, the decline for students has been greater than for nonstudents.

This article analyzes changes in school enrollment and employment patterns for teens who are between the ages of 16 and 19. The data are analyzed separately for youths aged 16–17 and 18–19, and by sex, race, and ethnicity. Both students in high school and students enrolled in college are included; of those 16- to 19-year-olds enrolled in 2007, about three-quarters were in high school, with the remainder in college. As noted, data on youth enrollment and employment come from the CPS, a monthly survey of about 60,000 households, and are averages for the 9 months that youths normally attend school (January–May and September–December, referred to here-

after as “school months”).² Youths considered to be not working or not employed in this analysis either are unemployed or do not participate in the labor force. CPS data on the enrollment and working status of youths are published annually as part of *America’s Children: Key National Indicators of Well Being*, a report from the Federal Interagency Forum on Child and Family Statistics, of which BLS is a member.³

Interviewers from the U.S. Census Bureau collect the CPS data for BLS. The interviewers query households with regard to the labor force status of household members aged 15 years and older during the reference week, which is the calendar week that includes the 12th day of the month. Only the civilian noninstitutional population is eligible to participate. Questions regarding school enrollment status are asked each month solely of persons between the ages of 16 and 24, regardless of their labor force status. Schools are defined as public or private institutions that confer academic degrees; included are high schools, community or junior colleges, 4-year colleges, universities, and graduate or professional schools of learning. School attendance, as counted by the CPS, can be either full time or part time.

In the CPS, persons are counted as employed if they did any work for pay or profit during the reference week. Persons who are absent from their jobs due to reasons such as illness or vacations are still counted as employed. Unpaid family workers, who are

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those working 15 or more hours during the reference week without pay in a family-operated enterprise, also are counted as employed. Persons who are *unemployed* must not have been employed, must have been actively searching for work during the previous 4 weeks, and must have been available for work. Persons who are neither employed nor unemployed are considered to be not in the labor force (NILF).

Changes in enrollment and employment

The proportion of 16- to 19-year-olds enrolled in school during regular school months grew from 72.8 percent in 1985 to 82.5 percent in 2007. At the same time, the rate of employment, officially known as the employment-to-population ratio, fell to 33.2 percent during school months in 2007, down from 41.5 percent in 1985. In the intervening years, employment rates for both students and non-students showed similar trends. The rate of employment rose for both groups from 1985 to 1989, trended downward until 1992, and then began to move upward once again until 2000. The employment rates for both groups dropped sharply after 2000. (See chart 1, page 53.)

The sections that follow analyze changes in enrollment and employment for all youths aged 16–19 and for major demographic groups. There are four possible combinations of enrollment and employment status:

1. Enrolled and employed
2. Enrolled and not employed
3. Not enrolled and employed
4. Not enrolled and not employed

Youths aged 16–19

Between 2000 and 2007, the proportion of 16- to 19-year-olds who were enrolled and not employed during regular school months grew by 11 percentage points, from 48 percent to 59 percent. This proportion had changed little throughout the 1990s before moving upward in the early 2000s; then it remained fixed at either 57 percent or 58 percent from 2003 to 2006. A little less than one-quarter of teenagers (24 percent) were both enrolled and employed during the 2007 school months. The ratio was down from 30 percent in 2000, after having edged up during the 1990s.

Youths who were not enrolled and were employed made up 10 percent of the population aged 16–19 during the 2007 school months. This proportion is lower than it was in 1985 (16 percent). Teens who were neither enrolled in school nor working at a job (sometimes referred to in the

literature as “disconnected” youths⁴) were 8 percent of the 16- to 19-year-old population during school months in 2007, a rate that was down from about 10 percent in the early 1990s. (See table 1 and chart 2, pages 54 and 55.)

The younger teens. The enrollment rate for teens aged 16–17 moved upward slightly, from 92 percent of the population in 1985 to 95 percent in 2007. The status of the majority of teens in this age group is “enrolled and not working.” During school months in 2007, 73 percent of 16- to 17-year-olds were nonworking students; a proportion that was up from 63 percent in 2000 (the same as it was in 1985). The proportion of 16- to 17-year-olds who were both enrolled and employed was 21 percent in 2007, down by 10 percentage points since 2000.

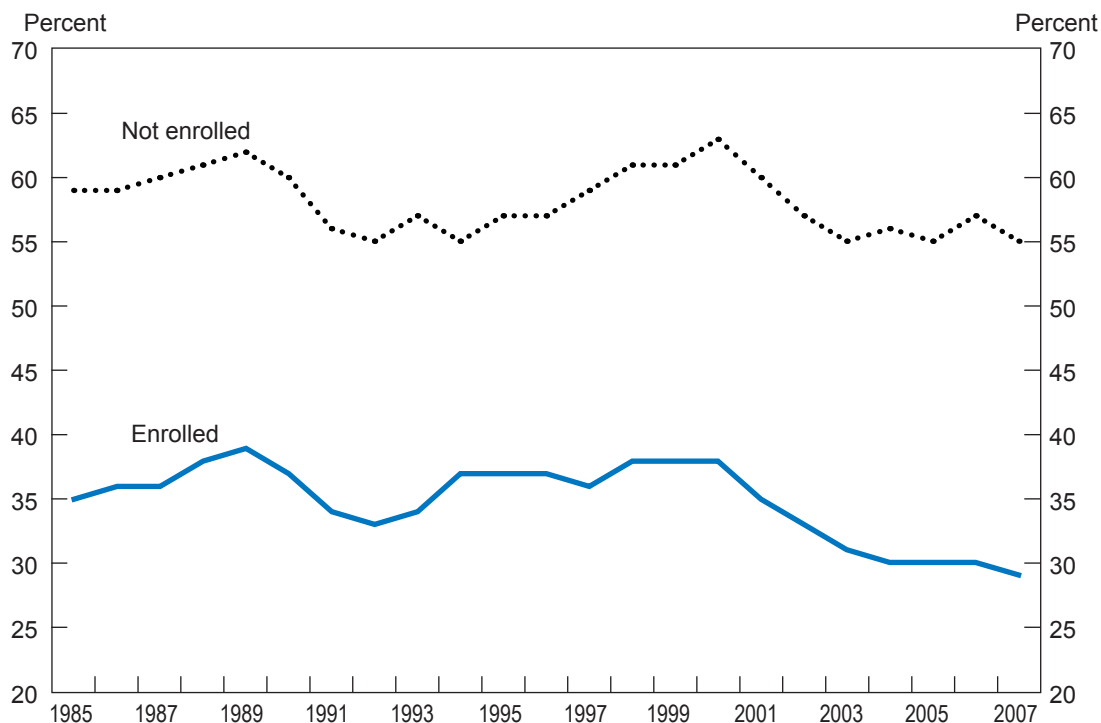
The older teens. The 18- to 19-year-old age group includes youths who are in high school and those who are in college. After graduating from high school, a higher proportion of youths is moving onto college or other advanced education than had been in the past. (See later in this article.) During the 2007 school months, 68 percent of young adults aged 18–19 were enrolled in school, while in 1985, a little more than half were enrolled. Nonworking students made up the largest proportion of 18- to 19-year-olds. In 2007, 42 percent of 18- to 19-year-olds were nonworking students, up from 34 percent in 2000; the proportion had been little changed through the 1990s. Employed students were 26 percent of the 18- to 19-year-old population in 2007, down from 30 percent in 2000 and equal to proportions seen in the early 1990s.

Young adults who worked and did not attend school were 19 percent of the 18- to 19-year-old population during the 2007 school months, down from 24 percent in 2000; the proportion had remained relatively stable through the 1990s. The share of young adults aged 18–19 who were neither enrolled in school nor working at a job was 13 percent in 2007, about the same as in 2000 and down from 17 percent in 1985. (See table 2, page 56.)

Young women and young men

A larger proportion of 16- to 19-year-old women was enrolled during the 2007 school months than men (84 percent and 81 percent, respectively.) Female 16- to 19-year-old students worked at a higher rate than did male students in 2007 (26 percent, as opposed to 21 percent). A slightly higher percentage of young men than young women (11 percent and 9 percent respectively) held a job, but were not students during school months in 2007.

Chart 1. Employment-population ratios by enrollment status of youths aged 16–19, school months in 1985–2007



NOTE: Yearly data are 9-month averages for the months youths are normally in school: January through May and September through December.

Both proportions have moved downward in the last 20 years. The proportion of female teens who were neither enrolled nor employed was 8 percent in 2007, about the same proportion as males. The share of “disconnected” female teens has moved downward in the last 20 years. (See table 3, page 57.) The adolescent birthrate for young women ages 15–19 was 59.9 births per 1,000 females in 1990, and it declined to 40.5 births per 1,000 in 2005.⁵

Race and Hispanic ethnicity

A number of differences in employment and enrollment patterns may be observed among black, white, and Hispanic teens.⁶ Although the employment rates for all three groups have moved downward in recent years, white youths continue to be employed at greater rates than black or Hispanic youths. Various researchers have studied this issue, and a number of reasons for the difference have been suggested, including the effects of family characteristics, such as the employment behavior of other household members; neighborhood and geographic factors, such as the industrial composition of the area and the availability of transportation; and individual characteristics, such as

criminal activity.⁷ The enrollment rates for all three groups have been rising, with the rates for black and white youths remaining higher than for Hispanic youths. Hispanics do have a higher high school dropout rate than either blacks or whites have: in 2005, among persons 16 to 24 years old, the percentage of high school dropouts (the “status” dropout rate) was 6.0 percent for whites, 10.4 percent for blacks, and 22.4 percent for Hispanics.⁸

The proportion of black youths between the ages of 16 and 19 who were enrolled in school and who did not hold jobs remained higher in 2007 than that for Hispanic youths and white youths. During 2007, 69 percent of black youths were enrolled and not employed during school months, as opposed to 59 percent of Hispanic youths and 56 percent of white youths. This gap between black teens, on the one hand, and Hispanic and white teens, on the other, has remained fairly consistent over time.

A greater share of white teens between the ages of 16 and 19 than either blacks or Hispanics was both enrolled and employed in 2007. During the 2007 school months, 29 percent of white youths were students and held jobs, compared with 13 percent of blacks and 17 percent of Hispanics. The proportions for blacks and whites trended downward after 2000.

Table 1. Percentage of youths aged 16–19 by enrollment/employment status during school months, selected years, 1985–2007

Status	1985	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Enrolled in school																			
Enrolled and employed	26	28	26	26	27	29	29	29	29	31	30	30	28	26	25	25	25	25	24
Enrolled and not employed	47	47	50	52	52	50	49	50	50	49	49	48	50	54	57	58	58	57	59
Not enrolled in school																			
Not enrolled and employed	16	15	13	12	12	12	13	12	13	13	13	14	13	12	10	10	10	10	10
Not enrolled and not employed ..	11	10	11	10	10	10	9	9	9	8	8	8	9	9	8	8	8	8	8

NOTE: Yearly data are 9-month averages for the months that youths are normally in school: January through May and September through December.

A larger proportion of Hispanic 16- to 19-year-olds than either blacks or whites was not enrolled and employed. At 14 percent during the 2007 school months, this proportion for Hispanics was down from 20 percent in 2000. The proportion of white teens who worked and were not enrolled was higher in 2007 (10 percent) than the proportion of black teens (7 percent). The share of white teens who were not enrolled yet held jobs was little changed through the 1990s and then began to move downward in the early 2000s. The share of black youths who were not enrolled and employed has ranged between 7 percent and 10 percent for the last 20 years.

During the 2007 school months, 11 percent of black teens and 11 percent of Hispanic teens between 16 and 19 years old were not enrolled and not working, compared with 6 percent of white teens. The proportions for all three groups have moved downward since 1985, particularly for blacks and Hispanics, but the latter two groups' proportions of disconnected youths have remained nearly twice that for whites. (See table 4, page 58.)

Why are teens working less?

The data clearly show that teens are working less during the school year. In particular, since 2000, teens are increasingly moving into the status "enrolled and not employed," and this is true for all of the major teenage demographic groups. At the same time, declines have occurred in the proportions of teens employed among both those enrolled and those not enrolled (though to a lesser degree than enrolled teens). There are several possible reasons that

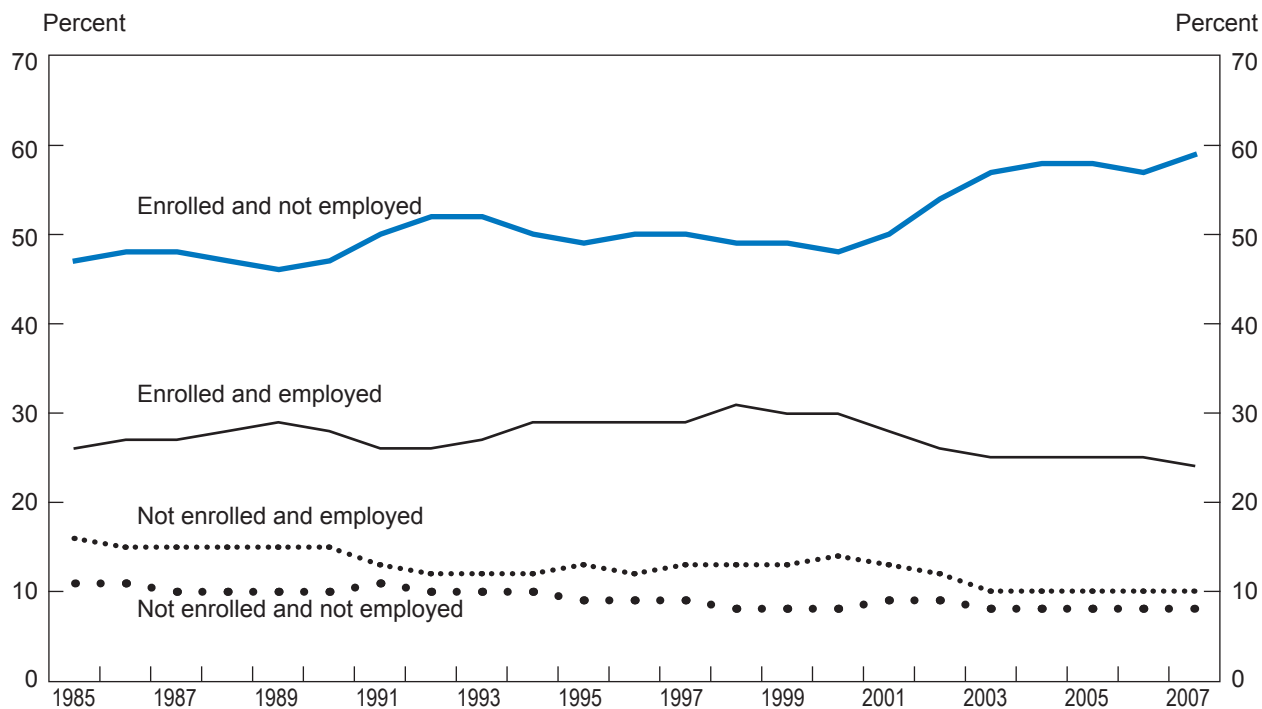
teens are choosing to work less, and these are examined in the next two sections. The first section concentrates on school-related reasons, and the second, on reasons unrelated to education.

Greater school pressures

A number of factors indicate that pressure to achieve in school has increased for youths. Academic requirements for graduation have become more stringent, and many students are subject to high school exit examinations. Students are taking advanced academic courses at greater rates than ever before, and are taking more Advanced Placement® (AP) exams. Requirements and incentives for community service among students also appear to be rising. In addition, because college enrollment has been trending upward, high school students may be applying themselves more toward their academic studies in order to increase their chances of being accepted to college. All of these factors can lessen the amount of time students have available for work and may serve to place a greater emphasis on the importance of school rather than on working.

More courses and higher level courses. In the early 1980s, States began to increase the number of courses required to graduate from high school. Indeed, data from the National Center for Education Statistics (NCES) show that the average number of Carnegie units (a standard measurement for the amount of time spent on a subject) earned by public high school graduates was 21.7 for 1982 graduates and 25.8 for graduates in 2004 (the most current

Chart 2. Percentage of youths aged 16–19 by enrollment and employment status, school months in 1985–2007



NOTE: Yearly data are 9-month averages for the months youths are normally in school: January through May and September through December.

data available).⁹ High school graduates also are taking more advanced courses; NCES data show that the proportion of high school graduates taking advanced-level courses was higher in 2004 than in 1990. One-half of high school graduates completed advanced mathematics courses in 2004, while a little less than one-third did so in 1990. Advanced science courses were taken by 68.4 percent of graduates in 2004, compared with about one-half of graduates in 1990. About one-third of high school graduates took advanced English courses and advanced foreign language courses in 2004 (32.7 percent and 34.5 percent, respectively). In 1990, about one-fifth of graduates took courses in each.¹⁰ (See table 5, page 59.)

Thus, in recent years, ever more high school seniors are graduating having earned credits in increasingly difficult curricula. In 1983, the National Commission on Excellence in Education, as part of the report, “A Nation at Risk,” recommended that at a minimum, college-bound students take four units of English, three of social studies, three of science, three of mathematics, one-half unit of computer science, and two units of a foreign language.¹¹ In 2005 (the most current year available), 36 percent of high school graduates earned this level of achievement, compared with 2 percent in 1982.¹²

High school exit examinations. Since the 1990s, States have been revising or implementing standards for achievement. By 2006, public high school students in 22 States (accounting for two-thirds of the Nation’s public school students) were required to pass exit examinations in order to receive a high school diploma, and by 2012, three additional States expect that students will be required to pass exit exams in order to graduate.¹³

More students are taking AP exams. AP programs offer both advanced courses that allow high school students to gain experience in college-level work, and exams that enable students to earn college credits and attain college placement, sometimes at a higher-than-freshman level. The number of students taking AP exams has been increasing in recent years. (See chart 3, page 59.) From 1996 to 2007, the number of students taking AP exams nearly tripled, from 537,000 to 1.5 million.¹⁴

High school graduates are attending college at greater rates. CPS data show that the college enrollment rate of high school graduates in the October following graduation has been trending upward since 2001.¹⁵ In October

Table 2. Percentage of youths aged 16–17 and aged 18–19 by enrollment/employment status during school months, selected years, 1985–2007

Status	1985	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Aged 16–17																			
Enrolled in school																			
Enrolled and employed	29	29	27	26	27	30	30	30	29	31	31	31	28	25	24	23	23	23	21
Enrolled and not employed	63	63	66	68	67	64	64	64	64	63	63	63	65	69	71	72	72	72	73
Not enrolled in school																			
Not enrolled and employed	3	3	2	2	2	2	2	3	2	2	2	3	3	2	2	2	2	2	2
Not enrolled and not employed ..	5	5	5	4	4	4	4	4	4	4	4	4	4	4	3	3	3	3	4
Aged 18–19																			
Enrolled in school																			
Enrolled and employed	23	26	25	26	26	28	28	28	28	30	30	30	28	28	27	27	28	28	26
Enrolled and not employed	31	33	35	36	36	35	34	35	35	34	34	34	35	37	40	41	41	40	42
Not enrolled in school																			
Not enrolled and employed	29	26	24	23	23	22	23	22	23	23	24	24	23	21	20	19	19	20	19
Not enrolled and not employed .	17	15	16	16	15	15	15	15	14	13	13	12	13	14	14	13	13	13	13

NOTE: Yearly data are 9-month averages for the months that youths are normally in school: January through May and September through December.

2006, the college enrollment rate for recent high school graduates was 65.8 percent; in October 2001, it was 61.6 percent. Because the number of recent high school graduates who go on to attend college is greater than in the past, it is likely that they are spending more time on schoolwork (and thereby leaving less time for working) in order to enhance their chances for acceptance. Also, because financial aid for college has become more available, it may be that working to pay for college during one's teen years has become less common as a method of financing one's education. During 1992–93, about 59 percent of full-time, full-year undergraduates received some form of financial aid, whether it was from a Federal, State, or institutional source or through an employer. By 2003–04, the figure had increased to 76 percent.¹⁶ The receipt of financial aid was up from the 1992–93 rate among part-time, part-year undergraduates as well. There are several reasons that dependence on financial aid has grown. First, revisions to the Higher Education Act in 1992 made it easier for students to become eligible for aid, allowed students to borrow more, and made Federally guaranteed, unsubsidized loans available, regardless of students' need.¹⁷ Second, average

tuition rates and fees for college (adjusted for inflation) have risen substantially, resulting in more families being eligible for aid. Third, more grant and loan programs are available. One such program is the HOPE scholarship, which provides financial assistance to students attending State universities; in some cases, recipients receive free tuition. Begun in Georgia in 1993, HOPE scholarships have spread in some form or other to 15 more States. In their 2006 study on teen labor force participation, Daniel Aaronson, Kyung-Hong Park, and Daniel Sullivan found that, between 2000 and 2004, labor force participation among 16- to 17-year-olds in HOPE States fell more than participation did for teens in non-HOPE States.¹⁸

Requirements and incentives for community service. There is some evidence that requirements and incentives for community service are becoming more prevalent at both the high school and college levels. If students either are choosing or are required to spend more time on volunteer work, then they will have less time available for paid work. In recent years, legislative reforms such as modifying State and local graduation requirements to include

Table 3. Percentage of youths aged 16–19 by sex and enrollment/employment status during school months, selected years, 1985–2007

Status	1985	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Men																			
Enrolled in school																			
Enrolled and employed	26	27	25	26	26	28	28	28	28	29	29	29	26	24	23	22	23	23	21
Enrolled and not employed	48	48	52	53	53	51	51	51	51	50	49	50	52	55	58	59	59	59	60
Not enrolled in school																			
Not enrolled and employed	17	17	15	13	14	13	14	13	14	14	15	15	14	13	11	11	10	11	11
Not enrolled and not employed...	9	8	9	8	8	8	8	8	8	8	7	7	8	8	8	7	7	7	8
Women																			
Enrolled in school																			
Enrolled and employed	26	28	28	27	27	30	30	30	30	33	32	32	30	28	27	27	27	27	26
Enrolled and not employed	46	46	48	50	50	48	48	48	49	47	48	47	49	52	55	56	56	56	58
Not enrolled in school																			
Not enrolled and employed	15	14	12	11	11	11	11	11	12	11	11	12	12	10	9	9	9	9	9
Not enrolled and not employed...	13	12	13	12	11	11	11	11	10	9	9	9	9	9	9	8	8	8	8

NOTE: Yearly data are 9-month averages for the months that youths are normally in school: January through May and September through December.

volunteer work or community service, and Federal programs such as AmeriCorps and USA Freedom Corps, have helped to emphasize community service activities among youths. Community service performed by students is often referred to as “service-learning” when it incorporates classroom instruction. The most recent U.S. Department of Education survey on service-learning and community service was published in 1999. Covering the 1998–99 academic year, it found that 83 percent of public high schools had students participating in community-service projects recognized or arranged by the school, and nearly 50 percent had students involved in service-learning.¹⁹ The authors noted that tentative evidence existed that service-learning had become more widespread since the early 1980s. They mentioned a 1985 survey by F. M. Newmann and R. A. Rutter, which found that 27 percent of all high schools (both public and private) offered some type of community service and 9 percent offered service-learning.²⁰ A more recent survey on teen volunteering was conducted in 2005 by the Corporation for National and

Community Service in collaboration with the U.S. Census Bureau. A sample of youths aged 12 through 18 were asked if they had ever performed community service as part of a school requirement or activity; 38 percent replied that they had. Of those who answered yes, 65 percent took part in service-learning activities, which were defined by the survey as either helping to plan the activity or writing about the experience.²¹

Other factors

Slow recovery of the teen employment rate following the 2001 recession. Part of the decline in employment rates among teens in recent years is likely related to weakness in the economy stemming from the March–November 2001 recession.²² The reason is that a downturn in the economy can cause workers to leave the labor force and return to or stay in school to enhance their skills. In previous recession and recovery periods (except for the short 1980 recession), the employment-to-population ratio for ages 16–19 be-

Table 4. Percentage of youths aged 16–19 by race and Hispanic ethnicity and by enrollment/employment status during school months, selected years, 1985–2007

Status	1985	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
White non-Hispanic																			
Enrolled in school																			
Enrolled and employed	30	33	32	31	32	35	35	35	35	36	36	36	34	31	30	30	31	31	29
Enrolled and not employed	44	44	46	48	48	45	45	45	46	45	45	45	47	51	53	54	54	54	56
Not enrolled in school																			
Not enrolled and employed	17	16	14	13	13	13	13	13	13	13	13	13	13	11	10	10	9	10	10
Not enrolled and not employed	9	8	8	8	7	7	7	7	7	6	6	6	6	7	6	6	6	6	6
Black non-Hispanic																			
Enrolled in school																			
Enrolled and employed	12	15	12	13	13	16	16	15	16	19	17	19	16	15	14	14	13	15	13
Enrolled and not employed	60	60	62	63	65	63	61	61	61	59	60	59	60	62	67	70	68	67	69
Not enrolled in school																			
Not enrolled and employed	10	10	9	8	7	7	8	10	9	9	10	10	10	9	7	7	8	8	7
Not enrolled and not employed ..	18	15	17	17	15	14	14	15	14	13	13	13	14	14	12	10	12	11	11
Hispanic origin¹																			
Enrolled in school																			
Enrolled and employed	15	17	16	17	16	17	16	17	17	18	18	19	20	17	15	16	17	17	17
Enrolled and not employed	51	46	50	52	52	52	52	52	53	50	49	49	48	52	58	58	58	58	59
Not enrolled in school																			
Not enrolled and employed	17	20	18	15	16	15	16	15	16	18	18	20	19	18	14	14	13	15	14
Not enrolled and not employed...	17	17	16	17	16	16	16	16	14	14	14	13	13	13	12	12	12	11	11

¹ Persons of Hispanic origin can be of any race.

NOTE: Yearly data are 9-month averages for the months that youths

are normally in school: January through May and September through December.

gan to turn upward within a year or so after the recessions ended. By contrast, following the 2001 recession, the teenage employment-to-population ratio did not begin to turn upward until 2006, and then it moved *downward* in 2007. (See chart 4, page 60.)

Recent decrease in real wages for teens. Teen workers gener-

ally earn low wages. Real median hourly earnings for workers aged 16–19 who were paid hourly rates declined from 1979 until 1987, changed little until the later 1990s, and then drifted upward until 2002. Real median hourly earnings for teens moved downward by about 50 cents between 2002 and 2006, from \$7.74 to \$7.23. (See chart 5, page 60.) Falling real wages during this period may have had some effect on teens' inclina-

Table 5. Percentage of high school graduates who completed advanced coursework, 1990 and 2004

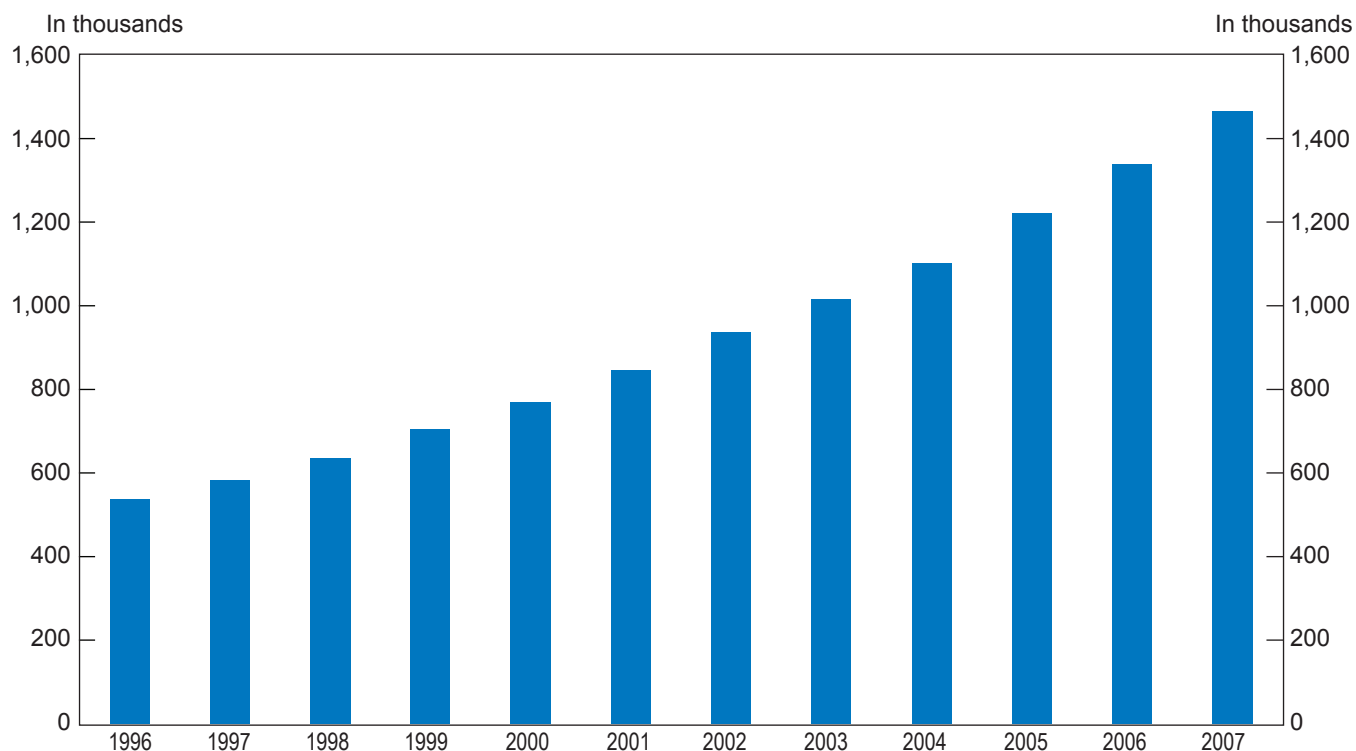
Year	Advanced mathematics	Advanced science	Advanced English	Advanced foreign language
1990	30.6	49.5	19.6	21.7
2004	50.0	68.4	32.7	34.5

NOTES: Advanced academic courses in mathematics include Algebra III, algebra/trigonometry, algebra/analytical geometry, trigonometry, trigonometry/solid geometry, analytical geometry, linear algebra, probability/statistics, statistics (other), independent study, statistics, precalculus, AP calculus, calculus, calculus/analytical geometry, and introduction to analysis. Advanced science courses include chemistry, physics, and advanced biology. Advanced courses

in English include honors level classes. Advanced foreign language courses include years 3 and 4 and advanced placement.

SOURCE: Federal Interagency Forum on Child and Family Statistics, *America's Children in Brief: Key National Indicators of Well Being 2007*, Indicator Tables ED3.A, ED3.B, ED3.C, ED3.D.

Chart 3. Number of students taking Advanced Placement tests, 1996–2007



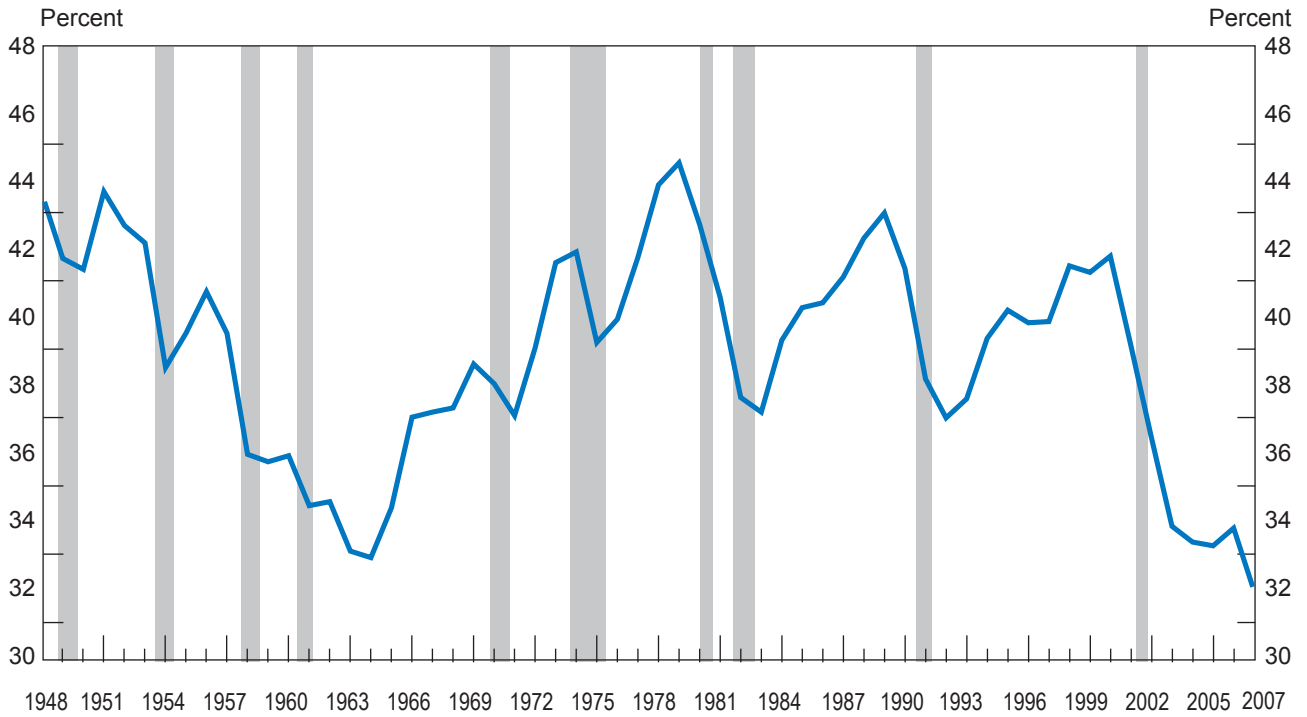
SOURCE: The College Board, New York, NY, Advanced Placement Program, National Summary Reports.

tion to work, but the rate of teens' working began to trend downward in 2000, when real wages were still rising.

Decline in jobs held by teens in retail trade and restaurants. As CPS data show, both retail trade and restaurants employ more teens than other industries do. Yet, from 2000 to 2007, these two industries' shares of teen workers declined. Together, retail trade and restaurants accounted

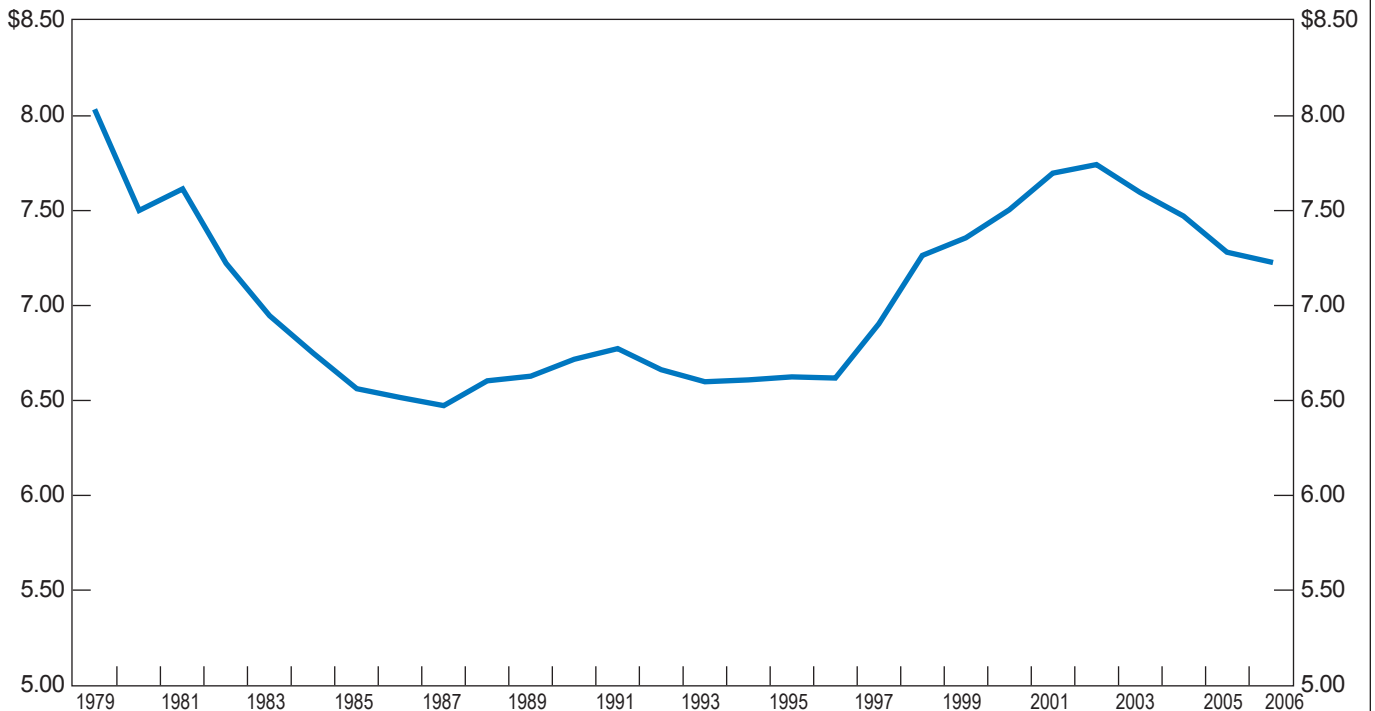
for about 55 percent of all employed 16- to 19-year-olds in 2007. Both industries added workers between 2000 and 2007. Employment in retail among all persons aged 16 and older increased by 807,000 over the period, while the number of 16- to 19-year-olds employed in retail fell by 419,000 and their share of retail employment declined from 12 percent to 9 percent. Restaurant employment grew by about 1 million from 2000 to 2007, while the number

Chart 4. Employment-population ratio for youths aged 16–19, school months in 1948–2007



NOTE: Yearly data are 9-month averages for the months youths are normally in school: January through May and September through December. Shaded areas denote years with recessions as designated by the National Bureau of Economic Research (NBER).

Chart 5. Average hourly earnings for youths aged 16–19 paid hourly rates in constant 2006 dollars, 1979–2006



NOTE: The Consumer Price Index research series using current methods (CPI-U-RS) is used to convert current dollars to constant 2006 dollars.

of teens aged 16–19 employed in restaurants was about unchanged (–2,000); their share of restaurant employment declined from 25 percent to 22 percent. Within retail, employment gains of 365,000 and 385,000, respectively, came in the age groups of 20–24 and 45–54; in addition, an increase of 553,000 occurred among 55- to 64-year-olds. Within restaurants, young persons aged 20–24 increased their employment levels by 351,000, those aged 25–34 saw their employment rise by 287,000, and employment of 45 to 54-year-olds grew by 191,000. A recent analysis by Andrew Sum, Ishwar Khatiwada, and Sheila Palma ventured that teens are facing intense competition for jobs from young adults, older adults, and recent immigrants.²³

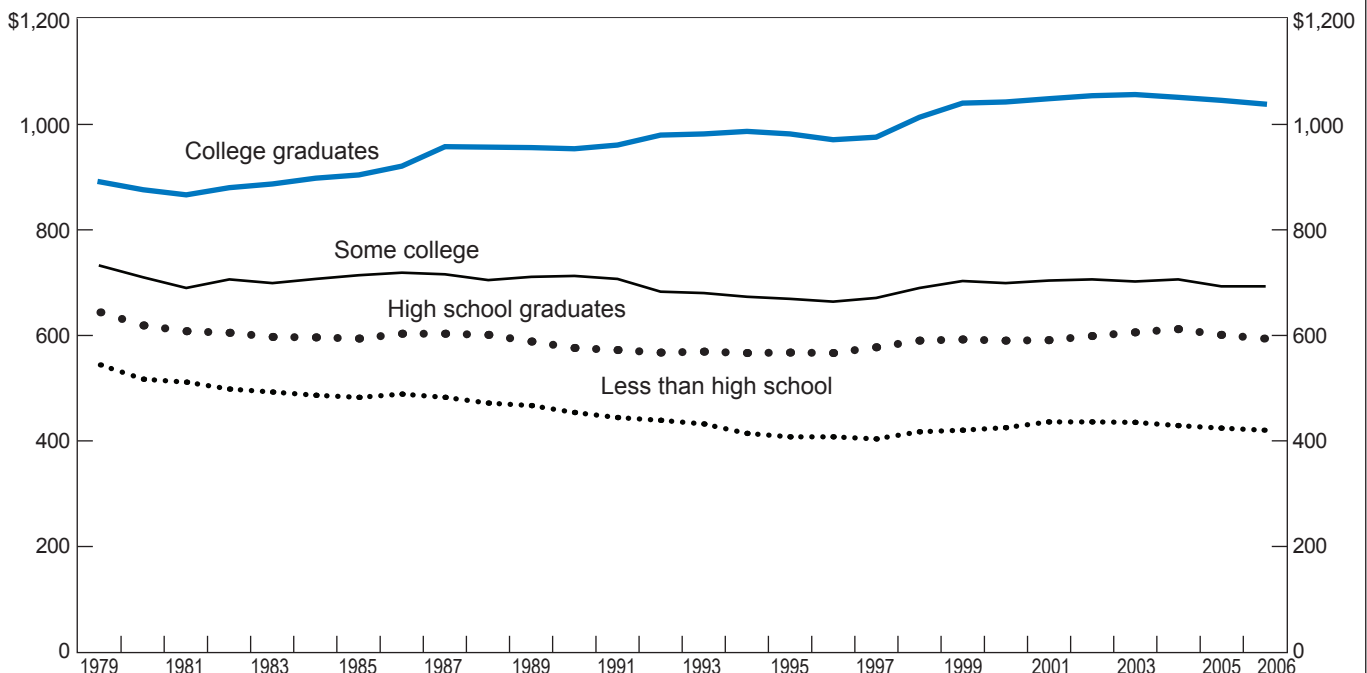
Education pays dividends in the workplace

CPS data indicate that higher educational attainment is associated with lower unemployment and higher earnings. CPS data on persons aged 25 and older show that the unemployment rate in 2007 for persons with less than a high school diploma, 7.1 percent, was higher than the rates for high school graduates (4.4 percent), for persons with some college (3.6 percent), and for college graduates (2.0

percent). In addition, the data demonstrate that median weekly earnings for full-time wage and salary workers increase as one’s educational attainment increases. In 2006, median weekly earnings for full-time workers aged 25 and older with a bachelor’s degree or higher were \$1,039, compared with \$692 for workers with some college, \$595 for high school graduates, and \$419 for persons with less than a high school diploma. When median weekly earnings are adjusted to constant 2006 dollars, they show that earnings for college graduates have trended upward since 1979 (although they have moved downward somewhat recently), while earnings for the lower education levels are below what they were in 1979; constant-dollar median weekly earnings for those with less than a high school diploma have declined by the most among the three education groups. (See chart 6.) Aaronson, Park, and Sullivan theorize that teens may be studying harder and graduating more frequently in recognition of the growing value of education; as a corollary, they may be lowering their rate of participation in the labor force.²⁴

IN SUM, TEENS ARE ATTENDING SCHOOL at higher rates than ever before. At the same time, they are less likely to

Chart 6. Median weekly earnings of full-time wage and salary workers aged 25 and older by educational attainment, in constant 2006 dollars, 1979–2006



NOTE: The Consumer Price Index research series using current methods (CPI-U-RS) is used to convert current dollars to constant dollars. Since 1992, data on educational attainment have been based on the “highest diploma or degree received” rather than the “number of years of school completed.”

work during school months. This trend is apparent among both sexes and among blacks, whites, and Hispanics. Greater academic pressure and stricter education requirements may have made it more difficult and costly, in terms

of time spent away from education, for teens to pursue paid work. Declines in real earnings also may have made concentrating on education more attractive to young people. □

Notes

¹Some studies and policy recommendations have encouraged teenagers to work, while others have espoused the negative effects of teen employment. Donna S. Rothstein summarizes these issues and presents original research in “High School Employment and Youths’ Academic Achievement,” *Journal of Human Resources*, Winter 2007, pp. 194–213.

²The CPS enrollment data analyzed in this article are from the basic monthly survey and may differ from enrollment data collected through the CPS October school enrollment supplement.

³Data on the well-being of youths can be accessed at the Internet site of the Federal Interagency Forum on Child and Family Statistics: www.childstats.gov (visited Feb. 5, 2008). The Forum is a working group of Federal agencies that collect, analyze, and report data on issues related to children and families. The Forum has partners from 20 Federal agencies, as well as partners in private research organizations.

⁴See, for example, Charles Dervarics, “Minorities Overrepresented Among America’s ‘Disconnected’ Youth,” (Washington, DC, Population Reference Bureau, August 2004), on the Internet at www.prb.org/Articles/2004/MinoritiesOverrepresentedAmongAmericaDisconnectedYouth.aspx (visited Feb. 27, 2008); or Rima Shore, “Reducing the Number of Disconnected Youth,” *Kids Count Indicator Brief* (Baltimore, MD, The Annie E. Casey Foundation, July 2003), on the Internet at www.aecf.org/upload/publicationfiles/brief%20disconnected20%youth.pdf (visited Feb. 27, 2008).

⁵“Births: Final Data for 2005,” *National Vital Statistics Reports* (Atlanta, GA, Centers for Disease Control and Prevention, Dec. 5, 2007), on the Internet at www.cdc.gov/nchs/data/nvsr/nvsr56/nvsr56_06.pdf (visited Feb. 5, 2008).

⁶The racial groups are *white alone, non-Hispanic; black alone, non-Hispanic; and Hispanic*. (Thus, persons of Hispanic origin can be of any race.) The definitions of the racial and ethnic groups for 2003 through 2007 differ from those of earlier years. Before 2003, the 1977 Office of Management and Budget (OMB) standards on race and ethnicity were used to classify persons into racial groups. For 2003 and later data, the revised 1997 OMB standards were used; two major changes were that individuals were allowed to choose more than one racial category and that individuals were asked whether they were of Hispanic ethnicity before being asked about their race. Data from 2003 onward categorized by race and ethnicity are not strictly comparable with data for earlier years.

⁷Rosella M. Gardecki reviews these factors and provides new research using the National Longitudinal Survey of Youth 1997 (NLSY97) in “Racial differences in youth employment,” *Monthly Labor Review*, August 2001, pp. 51–67; on the Internet at www.bls.gov/opub/mlr/2001/08/art6full.pdf (visited Feb. 5, 2008).

⁸*The Condition of Education 2007*, NCES 2007–064 (Washington, DC, National Center for Education Statistics, June 2007), on the Internet at <http://nces.ed.gov/pubs2007/2007064.pdf> (visited Feb. 5, 2008).

⁹*High School Coursetaking: Findings from The Condition of Education 2007*, NCES 2007–065, Table SA–3, on the Internet at <http://nces.ed.gov/programs/coe/2007/analysis/2007065.pdf> (visited Feb. 5, 2008).

¹⁰Federal Interagency Forum on Child and Family Statistics, *America’s Children in Brief: Key National Indicators of Well Being 2007*, Indicator Tables ED3.A, B, C, and D: “Percentage of high school graduates who completed high-level coursework in mathematics, science, English, and foreign language, selected years 1982–2004,” on the Internet at <http://childstats.gov/americaschildren/tables.asp> (visited Feb. 5, 2008).

¹¹*A Nation at Risk: The Imperative for Educational Reform* (U.S. Department of Education, National Commission on Excellence in Education, April 1983), on the Internet at www.ed.gov/pubs/NatAtRisk/index.html (visited Feb. 5, 2008).

¹²*Digest of Education Statistics 2006*, NCES 2007–017 (Washington, DC, National Center for Education Statistics), Table 140, “Percentage of public and private high school graduates earning minimum credits in selected combinations of academic courses, by sex and race/ethnicity: Selected years, 1982 through 2005,” on the Internet at http://nces.ed.gov/programs/digest/d06/tables/dt06_140.asp (visited Feb. 5, 2008).

¹³*State High School Exit Exams: A Challenging Year* (Washington, DC Center on Education Policy, Aug. 1, 2006).

¹⁴*National Summary Reports* (New York, NY, The College Board, Advanced Placement Program, 2007), on the Internet at www.collegeboard.com/student/testing/ap/exgrd_sum/2007.html (visited Feb. 5, 2008).

¹⁵See “College Enrollment and Work Activity of 2006 High School Graduates” (Bureau of Labor Statistics, Apr. 26, 2007), on the Internet at www.bls.gov/news.release/pdf/hsgec.pdf (visited Feb. 5, 2008).

¹⁶*Digest of Education Statistics 2006*, Table 327, “Percentage of full-time, full-year, undergraduates receiving aid, by type and source of aid received and control and type of institution: Selected years, 1992–93 through 2003–04,” on the Internet at http://nces.ed.gov/programs/digest/d06/tables/dt06_327.asp (visited Feb. 5, 2008).

¹⁷Susan P. Choy, *Paying for College: Changes Between 1990 and 2000 for Full-Time Dependent Undergraduates, Findings from the Condition of Education 2004*, NCES 2004–075 (Washington, DC, National Center for Education Statistics, June 2004), on the Internet at <http://nces.ed.gov/pubs2004/2004075.pdf> (visited Feb. 5, 2008).

¹⁸Daniel Aaronson, Kyung-Hong Park, and Daniel Sullivan, “The decline in teen labor force participation,” *Economic Perspectives* (Chicago, Federal Reserve Bank of Chicago, IL, first quarter, 2006), on the Internet at www.chicagofed.org/publications/economicperspectives/ep_1qtr2006_part1_aaronson_et_al.pdf (visited Feb. 5, 2008).

¹⁹“Service-Learning and Community Service in K–12 Public Schools” (Washington, DC, National Center for Education Statistics, September 1999), on the Internet at <http://nces.ed.gov/pubs99/1999043.pdf> (visited Feb. 5, 2008).

²⁰F. M. Newmann and R. A. Rutter, “A Profile of High School Community Service Programs [1985]” (Washington, DC, U.S. Department of Education), in *Advances in Education Research*, vol. 3, Fall 1998, pp. 7–23. Originally published in *Educational Leadership*, December 1986/January 1986, pp. 65–71. For more information, see the citation

on the Internet at www.nces.ed.gov/pubs2000/2000028.pdf (visited Feb. 27, 2008).

²¹ *Youth Helping America: Building Active Citizens: The Role of Social Institutions in Teen Volunteering* (Washington, DC, Corporation for National and Community Service, November 2005), on the Internet at www.worldvolunteerweb.org/fileadmin/docdb/pdf/2006/05_1130_LSA_YHA_study.pdf (visited Feb. 5, 2008).

²² The National Bureau of Economic Research is generally recognized as the official arbiter of recessions in the United States. The orga-

nization determined that the most recent recession lasted from March 2001 to November 2001.

²³ Andrew Sum, Ishwar Khatiwada, and Sheila Palma, "The Age Twist in Employment Rates in the U.S., 2000–2004: The Steep Tilt Against Young Workers in the Nation's Labor Markets" (Boston, Center for Labor Market Studies, Northeastern University, January 2005), on the Internet at www.aypf.org/publications/EmploymentRatesofyoungworkers.pdf (visited Feb. 27, 2008).

²⁴ Aaronson, Park, and Sullivan, "The decline in teen labor force participation."

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