The early 2000s: a period of declining teen summer employment rates

With many teens concentrating on academics, fewer are working during the summer; in recent years, teens also have faced a labor market weakened by recessions, a diminishing number of federally funded summer jobs, and competition from other groups for entry-level job opportunities

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aving a summer job has become a less common way for teenagers to spend their summers. The proportion of teens aged 16 to 19 years who are employed in the summer has been on a downward trend since 2000. The trend has encompassed younger teens and older teens and has spanned the genders and the major race and ethnicity groups. This article examines possible reasons behind this trend of lower summer employment rates for teens.

The data on employed persons used in the analysis that follows come from the Current Population Survey (CPS), a monthly survey of about 60,000 households. Persons are counted as *employed* in the CPS if they did any work for pay or profit during the reference week of the survey.¹ Persons who are absent from their jobs due to reasons such as illness or vacations are still counted as employed. Unpaid family workers, defined as those who work 15 or more hours during the reference week without pay in a family-operated enterprise, also are counted as employed. The employmentpopulation ratio, or the employment rate, is the proportion of the civilian noninstitutional population that is employed; the

terms "employment rate" and "employment-population ratio" are used interchangeably in this article. The CPS data used in the analysis are not seasonally adjusted. Throughout the article, when the words "summer" and "summertime" are used as an adjective, they refer to the average for the period from June through August, inclusive. For example, "summer employment rate" refers to the average employment rate for June, July, and August, and "summer 2009" refers to the average for those months in 2009.

Summer trends in teen employment rate

Between 1948 and 1989, the summertime teen employment rate fluctuated between 46.3 percent and 58.0 percent, falling during and around recessions and climbing during expansions. The trend appeared to change around the time of the 1990–91 recession: the summer employment rate declined during and around this period, as was typical, but it did not climb again during the 1990s expansion, as it had in previous recovery periods. Beginning in 2000, the summer employment rate for teens dropped, from 51.7 percent in summer 2000 to 48.0 percent by summer 2001, as the economy fell into a recession. The rate continued to fall, rather precipitously, until summer 2003, reaching 41.7 percent, and was

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little changed until summer 2006, when it again began a steep decline. By summer 2008, the economy was again in a recession and the rate was 37.4 percent. It fell further to 32.9 percent in summer 2009, a new series low. During the early 2000s, the summer employment rate did not rebound between the end of the 2001 recession and the one that began in December 2007. (See chart 1.)

Demographic trends

During the early 2000s, employment rates declined among teens of both genders and among younger (16–17 years) and older (18–19 years) teens. The proportions of White, Black, Hispanic, and Asian teens employed in the summer dropped as well.

Male and female youths. Prior to 2000, the employment rates for young men and young women showed divergent trends. From summer 1948 (the start of both series) through summer 2000, the employment-population ratio for women between the ages of 16 and 19 years generally trended upward, while the ratio for young men was on a downward trend. Since 2000, the gap between the rates for young men and young women has disappeared, with women having overtaken men slightly and both rates moving downward. In summer 2009, the employment rate for 16- to 19-year old men was 32.1 percent, down by 20.5 percentage points from summer 2000. The rate for teen women was 33.8 percent in summer 2009, down by 16.9 percentage points since summer 2000. (See chart 2.)

Younger and older teens. Employment data for teens can be further subdivided into youths aged 16–17 years and youths aged 18–19 years. The older teens have higher employment rates than the younger ones, but rates for both age groups have declined since the summer of 2000. During summer 2009, 44.1 percent of 18- to 19-year-olds were employed, down from 62.3 percent in summer 2000. The rate for youths aged 16-17 years dropped from 41.0 percent in summer 2000 to 22.7 percent in summer 2009. (See chart 3.)

Race and Hispanic or Latino ethnicity. The teen summer employment-population ratios for the major race and ethnicity groups (White, Black, Asian, and Hispanic) declined during the decade. The summer employment rate for White teens, 36.8 percent in 2009, was the highest among the groups that year; Whites also experienced the largest decline since summer

2000 (from 56.4 percent to 36.8 percent). The rate for Hispanic teens, 27.1 percent in summer 2009, was down by 13.2 percentage points since summer 2000. The summer 2009 employment rates for Black youths and Asian youths were 19.2 percent and 18.2 percent, respectively, having shown declines similar to those of Whites and Hispanics since summer 2000. (See chart 4.)

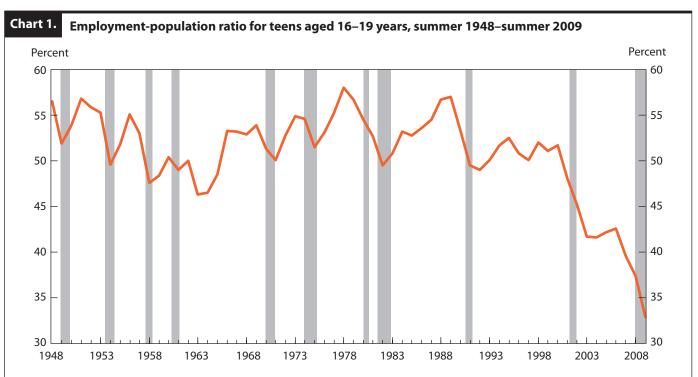
The falling summer teen employment rate

The recent declines in summer employment rates among teens have been large and unprecedented, and have occurred across all major demographic groups. Several reasons for the declines are related to education. First, the proportion of teens enrolled in school during the summer was on an upward trend over the period examined. Second, a number of factors suggest that teenagers are facing greater academic demands and pressures than in the past, which, together with the desire to achieve, may incline them toward placing greater emphasis on academics than on working.³ Finally, teenagers were affected by the two recessions that occurred during the 2000s, which likely resulted in both reduced job opportunities and increased competition for those jobs which were available. The declines in summer 2009 employment rates were especially steep.

Summer school has increased. CPS data show that the proportion of 16- to 19-year-olds enrolled in school (both high school and college) during the summer has increased substantially. More than half (53.0 percent) of youths aged 16-19 years were enrolled in school sometime during the summer of 2009, a percentage close to 3 times higher than that 20 years earlier (19.4 percent). (See chart 5.) The increase is due partly to a trend of school terms beginning earlier in the summer, compared with after Labor Day, but summer school enrollment plays a part as well. Looking solely at July data, when the majority of school systems would be closed for the summer, reveals that the proportion of teens enrolled has more than tripled in the past 20 years.

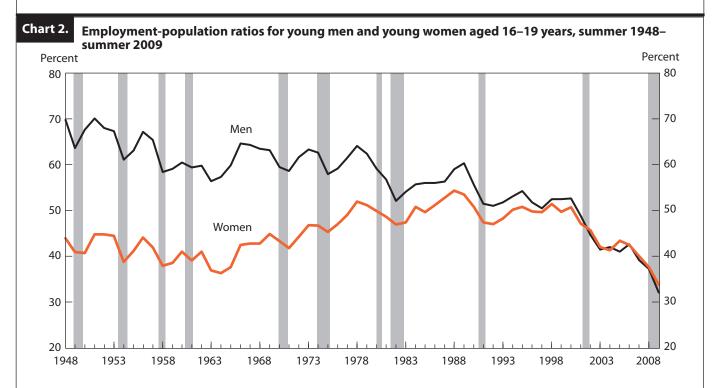
Teens who are enrolled in school are much less likely to hold jobs in the summer than are youths who are not enrolled. The employment-population ratio for enrolled youths was 25.5 percent in summer 2009, compared with 41.3 percent for nonenrolled youths. Both of these proportions have been on a downward trend since 1999–2000, with a pause during the summers of 2003–06. (See chart 6.)

Most school terms begin before September. School districts have moved toward setting earlier starting dates for the school year, and some have shortened the length of the summer break. It



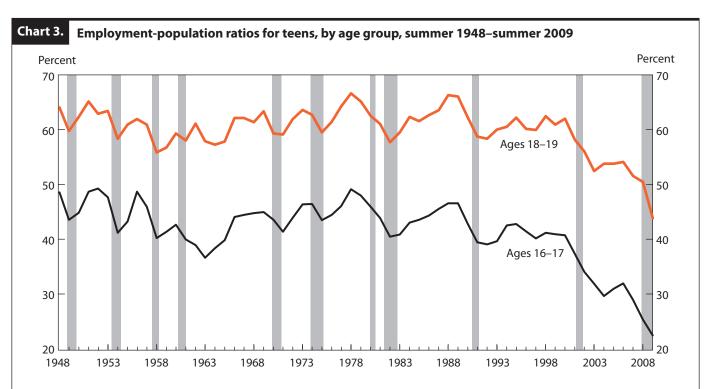
NOTE: Data are averages for the period from June through August. Shaded areas represent recessions as determined by the National Bureau of Economic Research, which has not yet determined an end point for the recession that began in December 2007.

SOURCE: Current Population Survey.



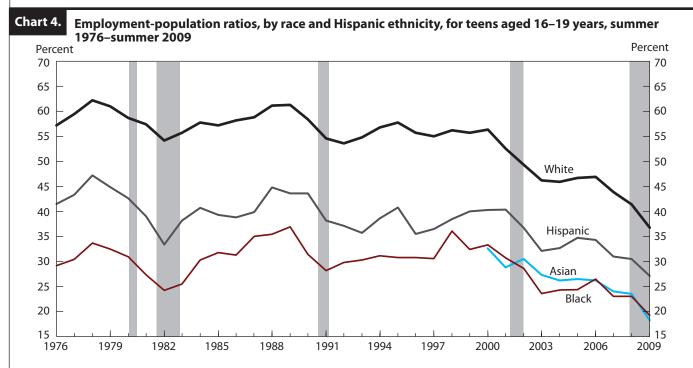
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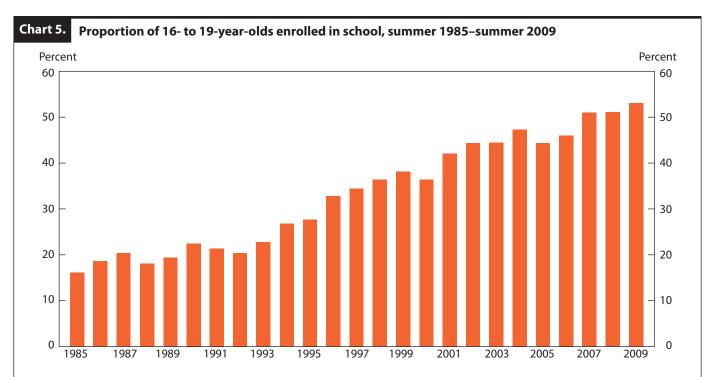
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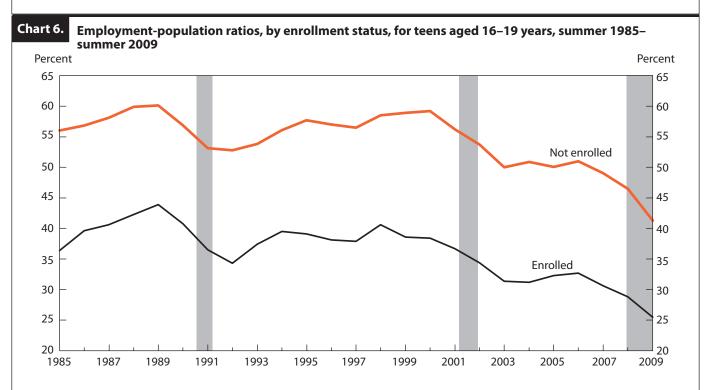
NOTE: Data are averages for the period from June through August. The data series for Hispanics began in 1976, that for Asians in 2000. Persons of Hispanic origin can be of any race. Shaded areas represent recessions as determined by the National Bureau of Economic Research, which has not yet determined an end point for the recession that began in December 2007.

SOURCE: Current Population Survey.



Schools are defined to be public or private institutions, including high schools, community or junior colleges, 4-year colleges, universities, and graduate or professional schools of learning, that confer academic degrees. School attendance can be either full time or part time. Data are averages for the period from June through August.

SOURCE: Current Population Survey.



NOTE: Data are averages for the period from June through August. Shaded areas represent recessions as determined by the National Bureau of Economic Research, which has not yet determined an end point for the recession that began in December 2007.

SOURCE: Current Population Survey.

has become less common for school districts to open after Labor Day. According to Market Data Retrieval, a company providing marketing services to educational institutions, about three-quarters of public school districts began their school year before September 1 in 2007, up from about one-half in 1988.5 School districts cite the need for more instructional time to prepare for standardized tests, such as those required by the Federal No Child Left Behind Act. In addition, some States and school districts have increased the number of instructional hours required in a school year. In recent years, however, there has been a push to open school later in the summer, and some school districts have moved to later starts. For example, Florida passed a law effective with the 2007 school year that school cannot begin more than 14 days before Labor Day; in 2006, about half of Florida school districts began their school year the first week in August.6

A shorter timeframe for working may serve to discourage teens from getting summer jobs and may discourage employers from hiring teens, who, because of early school starting dates, would not be available for work during a substantial part of the summer season.

Higher achievement is required for a high school diploma. level and difficulty of high school courses have grown, at least partly because of tougher graduation requirements. Hence, teens may be attending summer school to "catch up" or to gain the needed credits. The trend for States or localities to adopt new graduation requirements started in the early 1980s in response to recommendations from the National Commission on Excellence in Education. The report A Nation at Risk recommended that collegebound students complete 4 units of English, 3 units each of mathematics, science, and social studies, one-half year of computer science, and 2 units of a foreign language.⁷ Data from the National Center for Education Statistics of the U.S. Department of Education show that the percentage of high school graduates satisfying these requirements rose from 2 percent in 1982 to 36 percent in 2005 (the year for which the latest data are available).8 Overall, the average number of credits (as measured in Carnegie units) earned by high school graduates from 1982 to 2005 increased from 21.6 to 26.7.9

Data from the same organization also show that the proportion of high school graduates taking advanced courses has grown. In 2005 (the year for which the latest data are available), the proportion of graduates who took advanced mathematics courses was 48.8 percent, up from 26.3 percent in 1982. The proportion who took advanced science courses also grew, from 35.4 percent in 1982 to 62.5

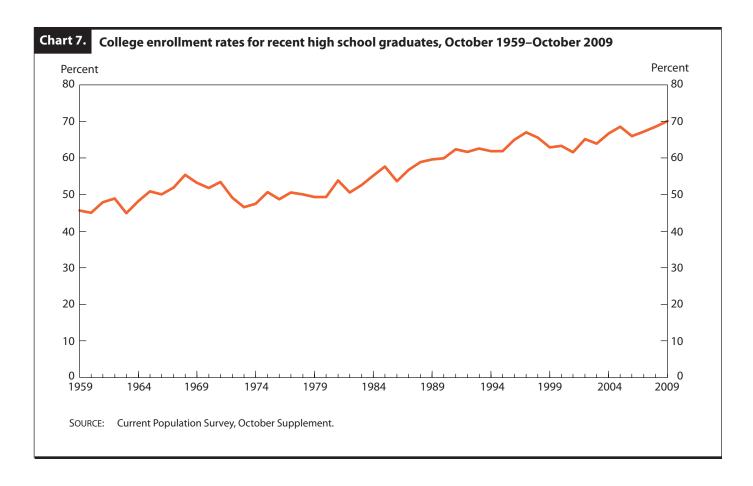
percent in 2005. The proportion of graduates who took advanced English courses more than doubled, from 13.3 percent in 1982 to 30.9 percent in 2005, as did the proportion who took advanced foreign language courses: 14.6 percent in 1982, compared with 33.5 percent in 2005.¹⁰

College enrollment rates for recent high school graduates have risen. The increased level at which teens are taking academic courses also may be due to growing college enrollment. CPS data show that most recent high school graduates are enrolled in college in the October following graduation. In October 2009, the college enrollment rate for recent high school graduates was 70.1 percent. 11 The rate has trended upward over time; when the series began in 1959, it was 45.7 percent. (See chart 7.) Because most teens enroll in college after graduation, students may be taking advantage of summer instruction to increase their levels of academic achievement.

Many colleges are now offering summer "precollege" programs. Attendance at these programs can allow prospective college attendees to enhance their admissions applications, and some colleges grant credit upon completion of the programs. Another scholarly choice for teens is traveling abroad during the summer; some trips are sponsored through high schools and others through private travel companies that combine volunteering with language-learning opportunities. If the educational institutions offer credit for these nontraditional educational options, then credit-earning participants would be counted as enrolled under the CPS definition.

Community service now receives increasing emphasis. There is some evidence that teenagers are being given both increased requirements and increased incentives for performing community service activities. In recent years, legislatures at the State and local levels have modified graduation requirements to include community service and volunteer work. Also, Federal programs such as Americorps have been attracting student volunteers. Colleges may look at past community service when evaluating applications for admission, and some offer scholarships based on previous volunteer activities. It is possible that teens are fulfilling such requirements and needs during the summer, which could leave less time for paid work.

The CPS collects data on volunteers as part of a supplemental survey conducted in September. The data characterize persons who performed unpaid volunteer activities for an organization at any point during the previous year ending in September. In the 2009 survey, 26.0 percent of teens aged 16–19 years reported volunteering at some time during the past year; the teen rate was higher than



the rate for 20- to 24-year-olds (18.8 percent).¹²

A recent survey by the Corporation for National and Community Service examined teen volunteering, with an emphasis on service learning—in other words, schoolbased service opportunities that are combined with academic instruction. The survey, conducted in 2005, found that 38 percent of youths reported current or past participation in community service activities as part of a school course or requirement. Of these youths, 74 percent were currently enrolled in a service-learning course or had been within the previous year. ¹³ A November 2008 study by the Corporation for National and Community Service found that 86 percent of high schools recognized student participation in community service and 35 percent offered service learning to students.14

More students are taking internships, many of which are unpaid. Students increasingly are looking toward internships as a way to bolster their resumes or graduate school applications. Some college majors offer credit for internship work or require it for graduation. An April 2007 survey by Vault.com, a career counseling company, found that 74 percent of respondents had completed at least one internship by graduation; in comparison, 62 percent of college seniors responding to a 1995 Vault survey reported that they had completed at least one internship by the time they graduated.¹⁵ Internships go not only to older college students, but to younger ones as well, with companies often hiring sophomore and freshmen interns. ¹⁶ Therefore, students as young as 18 or 19 years (who are included in the age group studied in this article) could be among those seeking internships.

Internships can be paid or unpaid, and recent anecdotal discussions suggest that more youths are opting for unpaid internships.¹⁷ Unpaid internships can be easier to get than paid positions, and some sought-after fields tend to offer only unpaid internships. The 2007 Vault survey found that 29 percent of respondents had not been paid for their internships.¹⁸ Given that a person holding an unpaid internship as his or her primary job would not be counted as employed in the CPS (because the position is unpaid), if youths are increasingly holding unpaid internships instead of paid positions, then fewer would be counted as employed. Consequently, estimates of the number of youths enrolled in school could rise because students who are receiving college credit for an internship would be counted as enrolled while performing the internship.

Teen earnings may have become less important in funding a college education. Dependence on financial aid as a way to pay for college has been growing. There are a number of reasons, one being that the average amount for tuition and fees (adjusted for inflation) has grown substantially, resulting in more families becoming eligible for aid. In addition, revisions to the Higher Education Act in 1992 made more students eligible for aid, allowed them to borrow more, and made federally guaranteed subsidized loans available regardless of students' financial need. 19 According to data from the National Center for Education Statistics, between 1998-99 and 2008-09 average prices for the academic year for undergraduate tuition, room, and board at public colleges, in constant 2007-08 dollars, rose by 32 percent, to \$12,113, and prices for private institutions rose by 24 percent, to \$30,803.20 Statistics from the College Board show that total aid to students increased by about 85 percent from 1998-99 to 2008-09 (in constant 2008 dollars).21

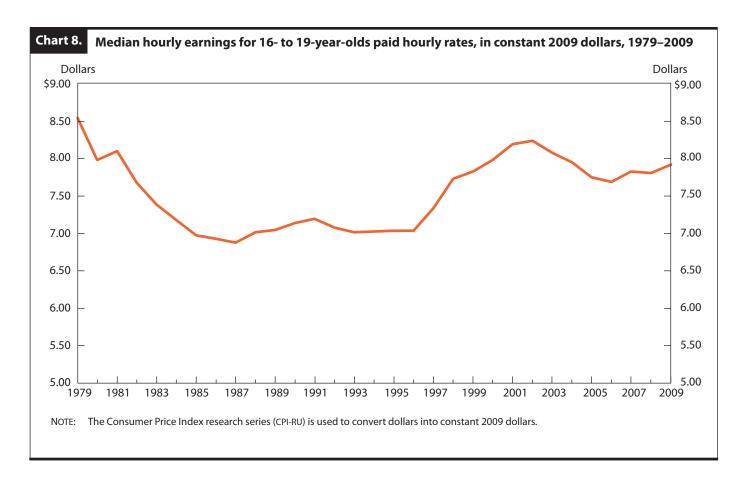
In response to the rising costs of college tuition, Congress, State governments, and colleges and universities have developed new types of grant and assistance programs. One such State-administered program is the Hope scholarship, which provides financial assistance to students attending State universities. Established in Georgia in 1993, Hope scholarships are now available in 15 additional States. A recent study by economists from the Federal Reserve Bank of Chicago found evidence that the scholarships have influenced the decline in teen labor force participation rates. The researchers theorized that Hope scholarships could explain up to 0.5 percentage point in the decline in teen labor force participation among 16- to 17-year-olds between 2000 and 2004.²²

Another source of financial aid has been colleges and universities that created their own programs offering free tuition to lower or middle-income families. An example is the University of North Carolina, which created a program in 2003 that covered nearly the entire cost of school for students whose families made less than 150 percent of the poverty level, provided that the students worked 10 to 12 hours per week at a campus job.²³ Other colleges, including the University of Virginia, Harvard University, the Massachusetts Institute of Technology, and Stanford University, have followed with their own programs.

Yet another source of college financing comes from Section 529 college investment plans. There are two types of 529 plans: State-sponsored plans that cover State schools, and an independent plan offered by a group of more than 270 private college and universities. According to one report, assets in the 11.2 million State-sponsored 529 savings plans totaled \$100.3 million (in constant 2009 dollars) in 2009.24 The publication also notes that assets in the independent 529 plan exceeded \$135 million that same year.²⁵ The State-sponsored plans came into existence in 1996, the independent plan in 2003; both were created by acts of Congress.

Given the aforementioned rise in tuition and fees and greater availability of grant and loan programs, teen earnings would make less of a dent now in paying for an education compared with past years and could therefore be a less desirable source of funding. Teens generally earn low wages. In 2009, median hourly earnings for hourly paid persons aged 16-19 years was \$7.92. Although teen earnings have trended upward in recent years, they were still 32 cents lower in 2009 than in 2002 (in constant 2009 dollars; see chart 8). There were Federal minimum-wage increases in July in each of 2007, 2008, and 2009.

Increasing affluence has enabled parents to keep their children in school. Recent anecdotal evidence suggests that as parents have become more affluent, due partly to the well-known rise in dual-income families and increasing educational attainment, they are more willing to have their children participate in school and extracurricular activities instead of working for pay.26 As mentioned earlier, teens are facing greater academic demands and pressures than in the past and are participating in various school-related activities, such as volunteering. All of these endeavors can leave little or no time for jobs. A recent study examined the role played by parental educational attainment in teens' use of time.27 The authors analyzed CPS data on employment and hours worked, time use data from the BLS American Time Use survey (ATUS), and data on hours worked and time use from the Monitoring the Future (MTF) survey administered by the Institute of Survey Research at the University of Michigan. They found that teens in families with higher educational attainment exhibited a decrease in the time they spent in paid employment and an increase in their rates of volunteering. Also noted was a trend for teens—especially in the most highly educated families—suggesting a substitution of volunteer work for paid work. Finally, the ATUS data indicated that teens in the most highly educated families spent much more time in "traditional" activities, including extracurricular activities, reading and writing, and pursuing hobbies.



The number of federally funded summer jobs has diminished. The Summer Youth Employment Training Program (SYETP), a Federal summer jobs program for lowincome youths, was established in 1982 as part of the Job Partnership Training Act. The program was replaced by the Workforce Investment Act (WIA) in 2000. The Act, which is still in force, contains some restrictions that ended Federal funding dedicated solely to summer jobs programs: now all youths must be served in year-round programs, youths in the program must be tracked for a year following their enrollment, and at least 30 percent of the funds must be spent on out-of-school youths.²⁸ Since 1999, the amount of Federal funding dedicated to WIA youth activities has been trending downward: between calendar years 1999 and 2009, funding was down by 8 percent, in current dollars.²⁹ Reduced funding and additional program restrictions, as well as increases in Federal and State minimum wages, have resulted in municipalities offering fewer summer jobs. An example is the city of New York, which provided about 18 percent fewer jobs as part of its summer jobs program in 2005 than it did in summer 1999; Federal funds made up 11.5 percent of the city's summer jobs program's budget in 2005, compared with

82 percent in 1999.30 Another example is Pima County, Arizona, which includes the city of Tucson: the county's summer youth program expected to fund fewer positions in summer 2008 than in the previous summer, owing to less funding and an increase in the minimum wage.³¹

The effect of the demise of SYETP can be seen in employment statistics from the BLS Current Employment Statistics (CES) survey, a monthly survey of business establishments in the private and public sectors. Customarily, local government entities have provided many federally funded summer jobs, so those jobs would be included in CES payroll data for local government; however, the number of federally funded summer jobs cannot be strictly separated from other jobs. Still, CES data for local government, excluding education, show fewer jobs added for the May-through-July period beginning in 2002. (Estimates are not seasonally adjusted; May-through-July data are used because seasonal buildup in that industry occurs during those months.)

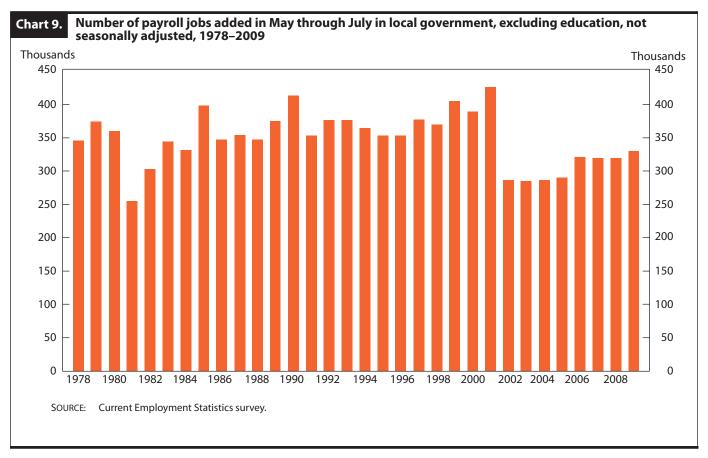
The number of jobs added in May through July of 2002 was down by about one-third from the same period in 2001 (from 426,000 to 287,000). Although SYETP ended in 2000, it took States some time to change over to the

new WIA program, which is likely why summer hiring in local government, excluding education, did not begin to slow until 2002.³² Since then, the number of jobs added in May through July in this local government sector has ranged from 285,000 to 330,000, a clear dropoff from earlier years. (See chart 9.)

Teens are facing stiffer competition from adults and the foreign born. Federal and State laws bar minors from working in certain jobs and operating hazardous machinery, and some States and localities set limits on the hours that teens can work. Teenagers also have less experience and availability than adults; for example, they may be available only for summer work. These factors may make it more desirable for employers to hire adults, rather than teens, for entry-level jobs. Adults also may be more likely to take entry-level jobs in a tough labor market. Many studies have suggested that, in the current economic times, teens are facing increased competition from other groups for the types of entry-level jobs they normally would fill. One such study conjectures that a rising number of young college graduates are taking jobs outside of the normal college labor market and that more older women without college

degrees are holding jobs in retail trade.³³ The authors also note that employment growth over the 2000-04 period appears to be attributable to new immigrants, many of whom are young persons under age 30 who would compete directly with teenagers for entry-level jobs.³⁴ In addition, teens are facing more competition for jobs from older workers in general, who have been increasing their participation in the labor force in recent years. Studies have shown that many older workers take on "bridge jobs" after they retire from career jobs. There are a number of reasons for this phenomenon, including an increase in the retirement age normally required to receive full Social Security benefits, the elimination of an earnings test for persons of normal retirement age, increased health among seniors, and a shift toward defined-contribution pension plans.³⁵

The CPS has data by occupation and by age group. Because of a change in occupational classification, comparable data are available only back to 2000. Accordingly, the analysis that follows will examine changes in annual average employment between 2000 and 2009. CPS data show that the largest proportions of employed teens are in food preparation and serving occupations and in sales and related occupations. In 2009, 27 percent of employed



teens worked in the former, and 24 percent in the latter, occupational group. Employment was up from 2000 to 2009 in food preparation and serving, and little changed in sales occupations. Total employment in food preparation and serving rose by 1.1 million between 2000 and 2009, while the number of teens employed declined by 242,000. During this same period, food preparation and serving employment increased by 478,000 among persons between the ages of 20 and 24 years and by 388,000 among 25- to 34-year-olds. The following tabulation of CPS data shows the change in employment, in thousands, between 2000 and 2009 in selected intermediate-level occupations, by age group:

	Occupational group			
Age group	Food preparation and serving	Sales and related	Office and administrative support	
Total	242 478 388 15 284	-80 -532 121 -214 -599 322 822	-2,302 -553 -532 -869 -1,280 -158 1,091	

According to the tabulation, total employment in sales and related occupations was little changed (-80,000) between 2000 and 2009; teen employment in sales fell by 532,000, while persons aged 55 years and older increased their employment in sales occupations by 822,000. The largest loss in teen employment among the intermediate-level occupations came in office and administrative occupations, which lost 553,000 teen workers between 2000 and 2009. Overall, employment in this occupational group declined by 2.3 million. During the same period, employment in the occupational group grew by 1.1 million among workers aged 55 years and older.

The CPS also collects data on the labor force status of the foreign born, including data aggregated by level of educational attainment for those aged 25 years and older. Foreign-born persons tend to have lower levels of education than native-born persons and would therefore be more likely to seek or qualify for jobs in the areas that normally employ teens—that is, jobs which require lower levels of education. In 2009, 30 percent of the foreignborn population aged 25 years and older had less than a high school diploma, while 10 percent of the native-born population had that same low level of education.

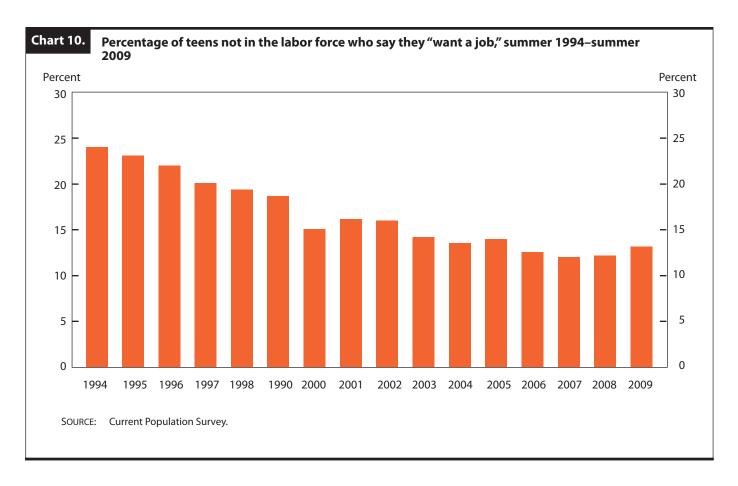
CPS data on persons employed in intermediate-level occupations are available by native- or foreign-born status. These data show that the proportions of workers who were foreign born increased between 2000 and 2009 in the two occupational categories that employ the most teens: food preparation and serving occupations and sales occupations. Foreign-born workers also increased their share of employment in the occupational category that showed the largest decline in teen employment: office and administrative support occupations. The following tabulation shows the foreign born as a percent of the total employed in selected occupations for 2000 and 2009:

Occupational group	2000	2009	Change, 2000–09
Total employed, all occupations. Food preparation and serving Sales and related	13.3	15.4	2.1
	20.1	22.4	2.3
	10.9	12.3	1.4
	8.6	9.7	1.1

Teens not in the labor force

Persons who are not in the labor force are neither employed nor unemployed; in other words, they do not have a job and are not currently looking for a job. The number of teens who are not in the labor force has been moving up steadily since the summer of 1989, when the group totaled 4.7 million; by summer 2009, 9.5 million teens did not participate in the labor force. The CPS asks non-labor-force participants about their desire to find a job; since 1994, the survey has included questions aimed at determining whether persons not in the labor force "want a job." This group need not have made any effort to find a job. The proportion of teens not in the labor force who want a job was 13.2 percent in summer 2009, up slightly from the previous summer, but down from 24.0 percent in summer 1994. (See chart 10.)

IN SUM, FEWER TEENS ARE EMPLOYED during the summer, a trend that has been particularly evident since 2000. Today, teens are enrolled in school during the summer more so than in the past. In addition, teens are placing greater emphasis on academic achievement, because of both stricter graduation requirements and increased college enrollment among recent high school graduates. Teens may be choosing summer school or other scholarly activities over working. Also, teen earnings may have become less important in paying for college as financial aid has grown and their earnings remain low. There is evidence as well that the types of jobs that teens would normally fill have become scarcer: not only is there increased competition for such jobs from other groups, but also, fewer summer jobs are funded through government programs. Finally, the decade has experienced two recessions, which no doubt have diminished employment opportunities for teens as well as other age groups.



Notes

- ¹ The survey reference week is the calendar week that includes the 12th day of the month.
- ² The National Bureau of Economic Research (NBER) is the official arbiter of dating recessions.
- ³ In this regard, more teenagers are both enrolled and working less during the school year. For a discussion of enrollment and employment trends during the school year, see Teresa L. Morisi, "Youth enrollment and employment during the school year," Monthly Labor Review, February 2008, pp. 51-63, on the Internet at www.bls.gov/ opub/mlr/2008/02/art3full.pdf (visited May 20, 2010).
- ⁴ In the CPS, schools are defined to be public or private institutions, including high schools, community or junior colleges, 4-year colleges, universities, and graduate or professional schools of learning, that confer academic degrees. School attendance can be either full time or part time.
- ⁵ "Public School Calendars Shifting Toward Earlier Opening and Closing Dates" (Shelton, CT, MDR, 2010), on the Internet at www. schooldata.com/mdrk12calendar.asp (visited May 20, 2010).
- ⁶ Sean Lavin, "Districts could pick school starts," The Florida Times-Union (Jacksonville, Apr. 14, 2007), on the Internet at www. jacksonville.com/tu-online/stories/041407/met_9239982.shtml (visited May 20, 2010).
- 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 May 20, 2010).

- ⁸ Digest of Education Statistics, 2009, Table 153, "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" (National Center for Education Statistics, April 2010), on the Internet at nces.ed.gov/programs/digest/d09/ tables/dt09_153.asp.
- Digest of Education Statistics, 2009, Table 149, "Average number of Carnegie units earned by public high school graduates in various subject fields, by selected student characteristics: Selected years, 1982 through 2005" (National Center for Education Statistics, April 2010), on the Internet at nces.ed.gov/programs/digest/d09/tables/ dt09_149.asp (visited May 20, 2010). A Carnegie unit is the credit given for the successful completion of a year's study of one subject in a secondary school.
- ¹⁰ The data cited in this paragraph are from the Federal Interagency Forum on Child and Family Statistics, America's Children: Key National Indicators of Well-Being, 2009, Indicator Tables ED3A, B, C, and D: "High school academic coursetaking: percentage distribution of high school graduates by the highest level of mathematics, science, English, and foreign language courses taken, selected years, 1982-2005" (Hyattsville, MD, U.S. Government Printing Office, July 2009). The Forum uses data from a number of Federal sources, including the National Center for Education Statistics.
- ¹¹ See "College Enrollment and Work Activity of 2009 High School Graduates," news release (Bureau of Labor Statistics, Apr. 27. 2010), on the Internet at www.bls.gov/news.release/pdf/hsgec.pdf (visited May 20, 2010).

- 12 See "Volunteering in the United States-2009," news release (Bureau of Labor Statistics, Jan. 26, 2010), on the Internet at www.bls. gov/news.release/pdf/volun.pdf (visited May 20, 2010).
- ¹³ The survey included youths between the ages of 12 and 18, a broader group than that analyzed here. (See Youth Helping America: Educating for Active Citizenship; Service-Learning, School-Based Service and Youth Civic Engagement (Washington, DC, Corporation for National and Community Service, March 2006), on the Internet at www. nationalservice.gov/pdf/06_0323_SL_briefing.pdf (visited May 20, 2010).
- 14 "Community Service and Service-Learning in America's Schools" (Washington, DC, Corporation for National and Community Service, November 2008), on the Internet at www.nationalservice. gov/pdf/08_1112_lsa_prevalence.pdf (visited May 20, 2010).
- ¹⁵ "More Interns Getting the Loot, Says Vault," on the Internet at www. $vault.com/wps/portal/usa/!ut/p/c4/04_SB8K8xLLM9MSSzPy8xBz9C-lambda for the control of the cont$ P0os3gzQ0u_YHMPIwP_gABTA09npxDXgKAAY5cAc_2CbEdFAF2a9xM!/? WCM_GLOBAL_CONTEXT=/wps/wcm/connect/vault_content_library/ articles_site/articles/internships/more+interns+getting+the+loot%2C+ says+vault (visited May 20, 2010).
- ¹⁶ Rachel Emma Silverman, "Summer Jobs are Easier to Find This Year; After a Post-Boom Drought, Employers Are Staffing Up; Industries That Are Hiring," The Wall Street Journal, May 11, 2006, p. D1.
- ¹⁷ See, for example, Barbara Whitaker, "Ample Jobs, but Youths Are Choosy," The New York Times, June 9, 2007), on the Internet at www.nytimes.com/2007/06/09/business/09teens.html?_ r=1&scp=1&sq=barbara%20whitaker%20summer%20jobs&st=cse (visited May 20, 2010).
 - ¹⁸ "More Interns Getting the Loot."
- ¹⁹ Susan 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 (National Center for Education Statistics, June 2004), on the Internet at www.nces.ed.gov/ pubs2004/2004075.pdf (visited May 20, 2010).
- ²⁰ Digest of Education Statistics: 2009, Table 334, "Average undergraduate tuition and fees and room and board rates charged for fulltime students in degree-granting institutions, by type and control of institution, 1964-65 through 2008-09" (National Center for Education Statistics, April 2010), on the Internet at nces.ed.gov/programs/ digest/d09/tables/dt09_334.asp?referrer=list (visited May 20, 2010).
- ²¹ Trends in Student Aid: 2009 (New York, The College Board, 2009), on the Internet at www.trends-collegeboard.com/student_ aid/pdf/2009_Trends_Student_Aid.pdf (visited May 20, 2010).
- ²² See Daniel Aaronson, Kyung-Hong Park, and Daniel Sullivan, "The decline in teen labor force participation," Economic Perspectives (Chicago, Federal Reserve Bank of Chicago, first quarter, 2006), on the Internet at www.chicagofed.org/digital_assets/ publications/economic_perspectives/2006/ep_1qtr2006_part1_ aaronson_et_al.pdf (visited May 20, 2010); and "Explaining the Decline in Teen Labor Force Participation," *Chicago Fed Letter* (Chicago, Federal Reserve Bank of Chicago, January 2007), on the Internet at www.chicagofed.org/digital_assets/publications/ chicago_fed_letter/2007/cfljanuary2007_234.pdf (visited May 20, 2010).
- ²³ David Leonhardt, "The (Yes) Low Cost of Higher Ed," The New York Times, Apr. 20, 2008, on the Internet at www.nytimes.

- com/2008/04/20/education/edlife/essay.html?st=cse&sq=the+%28 yes%29+low+cost+of+higher+ed&scp=1 (visited May 20, 2010).
 - ²⁴ See Trends in Student Aid: 2009.
- ²⁶ See, for example, David Cho, "Working on Nothing But Their Suntans; Many Teens Do Without Summer Jobs," The Washington Post, June 16, 2002, p. C1; Mary Williams Walsh, "Summer Work is Out of Favor With the Young," The New York Times, June 18, 2008, on the Internet at www.nytimes.com/2000/06/18/business/summer-work-is-out-offavor-with-the-young.html?scp=2&sq=summer%20work%20is%20 out%20of%20favor&st=cse&pagewanted=1 (visited May 20, 2010); and Barbara Hagenbaugh, "Full Activity, Study Schedules Have Many Teens Just Saying No to Jobs," USA Today, Apr. 6, 2005, on the Internet at www.usatoday.com/money/economy/employment/2005-04-06-teenwork-usat_x.htm?loc=interstitialskip (visited May 20, 2010).
- ²⁷ Shirley L. Porterfield and Anne E. Winkler, "Teen time use and parental education: evidence from the CPS, MTF, and ATUS, Monthly Labor Review, May 2007, pp. 37–56, on the Internet at www.bls.gov/ opub/mlr/2007/05/art4full.pdf (visited May 20, 2010).
- ²⁸ Josie Hathaway, "Summer Jobs Program Faces Two-Thirds Cut," U.S. Mayor Newspaper, Washington, DC, Jan. 24, 2000, on the Internet at www.usmayors.org/uscm/us_mayor_newspaper/ documents/01_24_00/summer_washington.htm (visited May 20,
- ²⁹ Author's analysis of WIA funding from program allotment information published in various issues of the Federal Register.
- 30 See "Since 2000, Funding Changes Cause Annual Uncertainty for Summer Jobs Program," New York City Independent Budget Office Fiscal Brief (New York, New York City Independent Budget Office, June 2006), p. 1.
- 31 Siobhan Daniel, "Summer jobs program will hire fewer due to higher wage, smaller budget," Arizona Daily Star, Apr. 3, 2008), on the Internet at azstarnet.com/business/article_8866619d-aaeb-5b2a-9827fcf11eb215a4.html (visited May 20, 2010).
- 32 See Jennifer L. Martel and David S. Langdon, "The job market in 2000: slowing down as the year ended," Monthly Labor Review, February 2001, pp. 3-30, on the Internet at www.bls.gov/opub/mlr/2001/02/ art1full.pdf (visited May 20, 2010).
- 33 Andrew Sum and Ishwar Khatiwada, with 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, Northeastern University, Center for Labor Market Studies, January 2005).
 - 34 Ibid.
- 35 See, for example, Kevin E. Cahill, Michael D. Giandrea, and Joseph F. Quinn, "Are Traditional Retirements a Thing of the Past? New Evidence on Retirement Patterns and Bridge Jobs," Working Paper 384 (Bureau of Labor Statistics, September 2005), on the Internet at www.bls.gov/osmr/pdf/ec050100.pdf (visited May 20, 2010); and "A Micro-Level Analysis of Recent Increases in Labor Force Participation Among Older Men," Working Paper 400 (Bureau of Labor Statistics, October 2006), on the Internet at www.bls.gov/osmr/pdf/ec060120. pdf (visited May 20, 2010). See also Murray Gendell, "Older workers: increasing their labor force participation and hours of work," Monthly Labor Review, January 2008, pp. 41-54, on the Internet at www.bls. gov/opub/mlr/2008/01/art3full.pdf (visited May 20, 2010).