Recent college graduates in the U.S. labor force: data from the Current Population Survey

Data collected each October in the School Enrollment Supplement to the Current Population Survey provide an annual snapshot of the demographic characteristics, labor force activity, and school enrollment status of each year's cohort of recent college graduates

Thomas Luke Spreen

very year, thousands of recent graduates of colleges and universities across the United States enter the labor force with newly minted degrees and high hopes about their employment prospects. In October 2011, 74.5 percent of the 1.3 million 2011 recent college graduates were employed, according to data from the Current Population Survey (CPS). The unemployment rate for the 2011 cohort of recent college graduates was 12.6 percent. CPS data also show variation in the labor force status of bachelor's and advanced degree recipients.

This article is the first from the Bureau of Labor Statistics (BLS) to publish labor force data specifically for recent college graduates. The estimates presented in this article were generated from data collected in the October School Enrollment Supplement to the CPS. The analysis that follows describes the demographic characteristics, labor force activity, and school enrollment status of the 2011 cohort of recent college graduates. Additional labor force data are also presented for the 2007 to 2010 cohorts of recent college graduates.

About the data

The CPS is a nationally representative sample survey of 60,000 households pro-

viding information about employment and unemployment in the United States. The U.S. Census Bureau conducts the CPS each month for the BLS. The CPS provides labor force data by a variety of demographic characteristics, including educational attainment. Since January 1992, educational attainment has been measured in the CPS by highest degree attained.

To collect additional data on the school enrollment of children 3 to 14 years old and adults 15 years and older, the BLS, U.S. Census Bureau, and National Center for Education Statistics (NCES) jointly sponsor the CPS School Enrollment Supplement, which is administered annually in October. A question was added beginning with the October 1993 supplement to determine the calendar year that respondents received their most recent postsecondary degree. This question was restricted to respondents ages 15 to 29 who stated in the monthly survey that they had an associate's, bachelor's, master's, professional, or doctoral degree.2 The question has two response options: in the current year or a prior year. For the purpose of this article, respondents who report they received their degree in the current calendar year are considered recent college graduates. (For more information about how recent college graduate status is determined, see the section entitled "Supplement question identifying recent college graduates" in the appendix, p. 12.) This question can be used with

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the monthly CPS demographic and labor force questions to identify labor force outcomes and school enrollment status of college graduates within a year of completion of their degree.

The approximate measure of recent college graduates currently available from the CPS is 16-to-24-year-olds with at least a bachelor's degree who are not enrolled in school. These data have the advantage of timely publication each month concurrent with "The Employment Situation" news release.³ However, with no question to identify the precise date of completion, these estimates include persons who completed their degree more than a year prior to the survey. Furthermore, since these estimates are restricted to 16-to-24-year-olds, they systematically exclude older graduates. Data from the NCES-sponsored Baccalaureate and Beyond Longitudinal Study show that nearly one-fifth of bachelor's degree recipients finish their degrees between the ages of 24 and 29 years.⁴

As previously noted, the question used to identify recent college graduates in the CPS School Enrollment Supplement is restricted to persons ages 15 to 29. All data reported in this article are restricted to recent college graduates ages 20 to 29. Persons ages 15 to 19 were excluded from estimates in this article because of their small representation within the October 2011 sample.⁵ This article provides demographic and labor force data for three groups: (1) all recent college graduates, (2) recipients of bachelor's degree only, and (3) recipients of an advanced degree, which includes those who received a master's, professional, or doctoral degree.⁶

Limitations

The October School Enrollment Supplement may not capture a sizeable number of recent degree recipients. Data from the NCES's Integrated Postsecondary Education Data System (IPEDS), a survey of postsecondary institutions in the United States, show that approximately 1.65 million bachelor's degrees and about 850,000 advanced degrees were conferred in the 2009 to 2010 academic year. Data for 2010 from the October 2010 School Enrollment Supplement show that about 1.0 million persons received a bachelor's degree between January and October 2010, with an additional 300,000 receiving some type of advanced degree over that same period.

Several reasons exist for the discrepancy between estimates generated from the School Enrollment Supplement and IPEDS data. First, the timing of the October supplement presents a potential problem. Unlike high school graduation, which occurs for nearly all high school

graduates between April and June, collegiate graduation can occur at any time of the year, depending on the institution's academic calendar. Therefore, individuals who graduate following the fall semester (typically in December) may be systematically missed by the School Enrollment Supplement, which occurs in October of each year. Second, the CPS sample includes only members of the civilian noninstitutional population of the United States. Individuals who have entered active duty in the armed forces and international students who have returned to their country of origin following completion of their college degree are not eligible to participate in the CPS. Finally, in this article, estimates of recent college graduates are restricted to persons ages 20 to 29. Data from the Baccalaureate and Beyond Longitudinal Study show that about 13 percent of bachelor's degree recipients receive their degree at the age of 30 or older.8

Despite these limitations, data from the CPS School Enrollment Supplement provide an annual portrait of demographic makeup and labor force outcomes for each year's cohort of recent college graduates. Furthermore, several years of historical data are already available.

Demographic characteristics

The demographic profile of the 2011 cohort of recent college graduates differs from that of the civilian noninstitutional population of all 20- to 29-year-old young adults (see table 1). In October 2011, recent graduates were more likely to be female (53 percent) than were young adults overall (49 percent). About 10 percent of recent graduates were Black, compared with about 14 percent of all young adults in their twenties. Recent graduates were also considerably less likely to be Hispanic; about 1 in 10 recent graduates were Hispanic, compared with about 2 in 10 of all young adults. Whites and Asians were somewhat overrepresented among the 2011 cohort of recent graduates relative to their shares of the total civilian noninstitutional population of young adults in their twenties. The demographic characteristics of 2011 recent college graduates largely resemble those of other young college graduates.

About 82 percent of the 1.3 million 2011 recent college graduates ages 20 to 29 were recipients of a bachelor's degree. (See chart 1.) The remaining 18 percent were recipients of an advanced degree. Of those, 13 percent received a master's degree, 4 percent received a professional degree, and 2 percent received a doctoral degree.

Nearly 60 percent of the 2011 cohort of recent recipients of bachelor's degrees were ages 22 to 23 in October 2011, with an additional 18 percent ages 24 to 25. (See

Table 1. Demographic characteristics of the civilian noninstitutional population and 2011 recent college graduates, 20 to 29 years of age, October 2011

[Levels in thousands]

	20-to-29-year-olds					
Characteristic	Total	College graduates	2011 recent college graduates			
Total	42,612	9,608	1,336			
Percent distribution	100.0	100.0	100.0			
Gender						
Men	50.6	44.5	46.6			
Women	49.4	55.5	53.4			
Race						
White	77.5	80.0	80.3			
Black or African American	14.3	8.5	10.1			
Asian	4.9	9.3	5.8			
Hispanic or Latino ethnicity						
Hispanic or Latino	19.5	7.2	10.3			
Non-Hispanic or Latino	80.5	92.8	89.7			

NOTE: Recent college graduates refer to people ages 20 to 29 who completed a bachelor's, master's, professional, or doctoral degree in the calendar year of the survey (January through October). Data for the race groups shown do not sum to 100 percent because not all races are presented. People whose ethnicity is identified as Hispanic or Latino may be of any race.

SOURCE: October 2011 School Enrollment Supplement to the Current Population Survey, U.S. Bureau of Labor Statistics.

chart 2.) This pattern reflects the fact that a sizeable majority of high school graduates enter college in the same year they receive their high school diploma.9 According to the Baccalaureate and Beyond Longitudinal Study, the median time to completion of a bachelor's degree was 52 months in 2009, with about two-thirds of bachelor's degrees completed in 60 months or less. 10 Recent recipients of an advanced degree tended to be older in October 2011, reflecting the requirement of at least a bachelor's degree to enroll in most graduate programs.

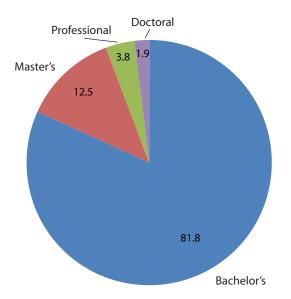
Labor force

The labor force participation rate measures the proportion of the civilian noninstitutional population that is either working or looking for work. About 1.1 million, or 85.2 percent, of the 2011 cohort of recent college graduates were participating in the labor force in October 2011. The labor force participation rate for recent college graduates was only somewhat lower a year earlier, at 83.3 percent in October 2010. (See table 2.)

Recent recipients of advanced degrees were more likely to participate in the labor force than did recipients of bachelor's degrees. The labor force participation rate of recipients of advanced degrees was 91.0 percent in Octo-

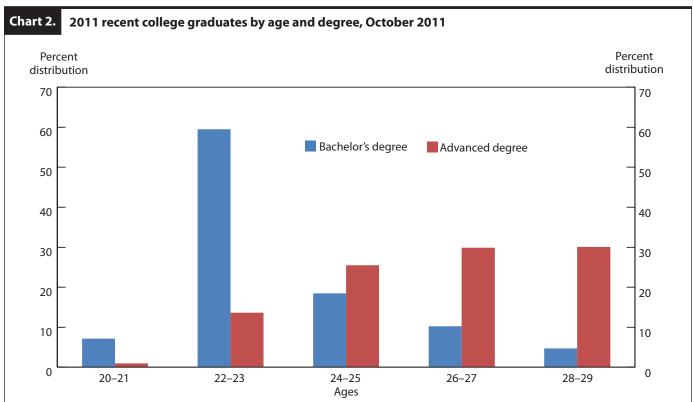
2011 recent college graduates ages 20 to 29, by degree, October 2011 Chart 1.

[In percent]



NOTE: Recent college graduates refer to persons ages 20 to 29 who completed a bachelor's, master's, professional, or doctoral degree in the calendar year of the survey (January through October). In October 2011, recent college graduates totaled 1.3 million.

SOURCE: U.S. Bureau of Labor Statistics.



NOTE: Recent college graduates refer to persons ages 20 to 29 who completed a bachelor's, master's, professional, or doctoral degree in the calendar year of the survey (January through October). In October 2011, recent college graduates totaled 1.3 million.

Year

324

89.9

91.0

88.9

299

89.1

87.1

90.8

243

91.0

94.6

88.5

SOURCE: U.S. Bureau of Labor Statistics.

[Levels in thousands]

Table 2. Labor force participation rates of recent college graduates by degree and gender, each October 2007-2011

Danuar and mandan	1-1-1							
Degree and gender	2007	2008	2009	2010	2011			
Total recent college graduates								
Civilian noninstitutional population, ages 20 to 29	1,192	1,281	1,217	1,332	1,336			
Participation rate, total	87.0	88.4	85.2	83.3	85.2			
Men	88.8	86.0	84.9	83.2	84.9			
Women	85.7	90.1	85.3	83.3	85.4			
Bachelor's degree								
Civilian noninstitutional population	938	946	893	1,023	1,093			
Participation rate, total	85.3	88.2	83.4	81.6	83.9			
Men	88.3	85.5	82.5	81.7	83.1			
Women	83.1	90.5	84.2	81.5	84.6			

NOTE: Recent college graduates refer to people ages 20 to 29 who completed a bachelor's, master's, professional, or doctoral degree in the calendar year of the survey (January through October).

254

93.2

91.0

94.4

334

89.0

88.2

89.4

SOURCE: October 2007–2011 School Enrollment Supplement to the Current Population Survey, U.S. Bureau of Labor Statistics.

Civilian noninstitutional population

Participation rate, total

Men

Women

Advanced degree

ber 2011, compared with 83.9 percent of recent bachelor's degree recipients. The labor force participation rate of the 2011 cohort of recent college graduates was similar for men and women, regardless of the degree received.

The employed

In October 2011, 74.5 percent of the 1.3 million 2011 recent college graduates were employed (see table 3). The employment-population ratio of recent college graduates was somewhat higher in October 2011 than it was in October 2010 (72.3 percent). Between October 2007 and October 2009, the employment-population ratio of recent college graduates declined by 8.4 percentage points. A considerable share of the decline can be attributed to male recipients of bachelor's degrees, whose ratio fell by 17.8 percentage points over that period.

Recipients of an advanced degree were more likely to be employed in October 2011 (83.2 percent) than were recipients of a bachelor's degree (72.5 percent), a pattern that generally holds for prior cohorts of recent college graduates. Despite modest improvement, employmentpopulation ratios of both bachelor's and advanced degree recipients remain below their prerecession levels.¹¹

The employment-population ratio of male recent college graduates was 71.8 percent in October 2011, little changed from a year earlier. The employment-population ratio of their female counterparts was 76.7 percent in October 2011, somewhat higher than it was a year earlier, at 73.6 percent in October 2010. The employment-population ratio of 2011 male recent college graduates remains 8.0 percentage points below the prerecession level.

For recent college graduates, initial job placement is critical for developing on-the-job skills and determining the trajectory of their lifetime earnings.¹² Almost onehalf of the 2011 cohort of recent college graduates were working in professional and related occupations in October 2011.¹³ (See table 4.) About 43 percent of recent bachelor's degree recipients were employed in these occupations in October 2011, compared with about 68 percent of advanced degree recipients. The high proportion of recent college graduates working in these occupations reflects the entry requirement of at least a bachelor's degree in the majority of professional and related occupations.¹⁴

Large shares of the 2011 cohort also found work in sales and office occupations (19 percent); management, business, and financial operations occupations (14 percent); and service occupations (13 percent).¹⁵ Nearly all

Table 3. Employment–population ratios of recent college graduates by degree and gender, each October 2007–2011 [Levels in thousands]

• • • • • • • • • • • • • • • • • • • •								
Dogge and gooder		Year						
Degree and gender	2007	2008	2009	2010	2011			
Total recent college graduates								
Civilian noninstitutional population, ages 20 to 29	1,192	1,281	1,217	1,332	1,336			
Employment-population ratio, total	80.3	78.1	71.9	72.3	74.5			
Men	79.8	72.8	67.5	70.1	71.8			
Women	80.6	82.0	75.5	73.6	76.7			
Bachelor's degree								
Civilian noninstitutional population	938	946	893	1,023	1,093			
Employment-population ratio, total	77.6	77.7	68.8	70.1	72.5			
Men	78.3	72.1	60.5	68.7	69.8			
Women	77.0	82.4	75.0	71.0	75.1			
Advanced degree								
Civilian noninstitutional population	254	334	324	299	243			
Employment-population ratio, total	90.3	79.4	80.8	79.5	83.2			
Men	86.4	75.7	85.0	74.2	83.3			
Women	92.3	81.0	76.9	83.9	83.1			

NOTE: Recent college graduates refer to people ages 20 to 29 who completed a bachelor's, master's, professional, or doctoral degree in the calendar year of the survey (January through October).

SOURCE: October 2007–2011 School Enrollment Supplement to the Current Population Survey, U.S. Bureau of Labor Statistics.

Table 4. Employed recent college graduates by degree, occupation, industry, and class of worker, October 2011

[Levels in thousands]

Characteristic	Total, recent college graduates	Bachelor's degree	Advanced degree
Total employed, ages 20 to 29	995	793	202
Percent distribution	100.0	100.0	100.0
Occupation ¹			
Management, business, and financial operations	14.0	11.6	23.2
Professional and related	47.9	42.7	68.3
Service	12.7	15.3	2.3
Sales and office	19.1	23.1	3.7
All other	6.3	7.3	2.4
Industry ²			
Goods-producing	6.4	7.8	1.1
Wholesale and retail trade	10.3	10.0	11.7
Financial activities	6.1	6.7	3.7
Professional and business services	16.0	14.1	23.7
Educational and health services	41.8	38.5	54.9
Educational services	22.2	20.2	30.4
Health care and social assistance	19.6	18.3	24.6
Leisure and hospitality	9.0	11.2	.3
Public administration	3.4	3.2	4.0
All other industries	6.9	8.5	.6
Class of worker ³			
Government wage and salary workers	17.5	15.4	25.7
Federal	2.5	2.1	4.3
State	8.6	8.3	9.7
Local	6.4	5.0	11.8
Private wage and salary workers	81.7	84.0	72.9
All other	.8	.6	1.4

¹ All other occupations include natural resources, construction, and maintenance occupations and production, transportation, and material moving occupations.

NOTE: Recent college graduates refer to people ages 20 to 29 who completed a bachelor's, master's, professional, or doctoral degree in the calendar year of the survey (January through October).

SOURCE: October 2011 School Enrollment Supplement to the Current Population Survey, U.S. Bureau of Labor Statistics.

2011 recent college graduates employed in sales and office occupations and service occupations were recipients of a bachelor's degree. Conversely, recipients of advanced degrees made up a large share of those employed in management, business, and financial operations occupations.

By industry, about 2 in 5 recent graduates in the 2011 cohort found work in educational and health services. 16 (See table 4.) Within that industry, about 22 percent of recent graduates were employed in educational services and about 20 percent in health care and social assistance. More than one-half of recipients of advanced degrees in 2011 were employed in one of these industries. The 2011 cohort of recent graduates also found work in professional and business services (16 percent), wholesale and retail trade (10 percent), and leisure and hospitality (9 percent). Almost one-quarter of recipients of advanced degrees were employed in professional and business services. Recent bachelor's degree recipients made up almost all of those recent graduates employed in leisure and hospitality.

Most recent graduates were employed in the private sector. (See table 4.) About one-fifth of recent graduates found work in the public sector, primarily in state and local government. Three-fourths of those recent graduates employed in state and local government were working in education.

Unemployment rate

A key measure of the health of the labor market is the unemployment rate, which is the proportion of the labor force that is not working but is actively seeking work and available to take a job, if offered. The unemployment rate of recent college graduates was 12.6 percent in October 2011, little changed from a year earlier. (See table 5.) Despite modest improvement since a recent peak in October 2009, the unemployment rate of recent college graduates remains elevated above prerecession levels.

The 2011 cohort of male graduates had an unemployment rate of 15.4 percent in October 2011, compared with 10.1 percent for their female counterparts. Over the period of October 2007 to October 2009, the unemployment rate of both male and female recent college graduates doubled. The increase in unemployment was relatively more severe for men, who experienced a peak unemployment rate of 20.5 percent in October 2009, 8.9 percentage points higher than the rate of their female counterparts.

The unemployment rate for the 2011 recipients of advanced degrees was 8.6 percent, compared with 13.5 percent for recipients of bachelor's degrees in October 2011. This discrepancy may reflect the fact that recipients of an advanced degree are older on average than recipients of a bachelor's degree, and older persons tend to have lower

² Goods-producing industries include agricultural and related, mining, construction, and manufacturing industries. All other industries include transportation and warehousing, utilities, information, and other services.

³ All other classes include both incorporated and unincorporated selfemployed workers and unpaid family workers.

unemployment rates. This result may also be because advanced degrees confer specialized skills that employers find desirable.

School enrollment

Many recent college graduates face a decision of either entering the labor market directly after graduation or enrolling in graduate school. In a weak labor market, graduate school would seem to appeal to recent bachelor's degree graduates, although empirical evidence of a cyclical pattern to graduate school enrollment is mixed.¹⁷

About one-quarter of the 2011 cohort of recent college graduates were enrolled in school in October 2011.18 (See table 6.) The proportion of the recent college graduates enrolled in school in October 2011 changed little from

Table 5.	Unemployment rates of recent college graduates by degree and gender, each October 2007–20	111
[Levels in t	ousands]	

Danier and market		Year					
Degree and gender	2007	2008	2009	2010	2011		
Total recent college graduates							
Civilian labor force, ages 20 to 29	1,036	1,132	1,036	1,101	1,138		
Unemployment rate, total	7.7	11.6	15.5	13.2	12.6		
Men	10.2	15.4	20.5	15.7	15.4		
Women	6.0	9.1	11.6	11.7	10.1		
Bachelor's degree							
Civilian labor force	800	834	745	834	917		
Unemployment rate, total	9.0	11.9	17.6	14.0	13.5		
Men	11.4	15.7	26.6	16.0	16.1		
Women	7.3	8.9	10.9	12.8	11.2		
Advanced degree							
Civilian labor force	236	298	291	266	221		
Unemployment rate, total	3.1	10.9	10.2	10.8	8.6		
Men	5.0	14.1	6.6	14.9	12.0		
Women	2.2	9.4	13.5	7.6	6.1		

NOTE: Recent college graduates refer to people ages 20 to 29 who completed a bachelor's, master's, professional, or doctoral degree in the calendar year of the survey (January through October).

SOURCE: October 2007–2011 School Enrollment Supplement to the Current Population Survey, U.S. Bureau of Labor Statistics.

Table 6. School enrollment rates of recent college graduates by degree, each October 2007–2011 [Levels in thousands]

Degree		Year					
Degree	2007	2008	2009	2010	2011		
Total recent college graduates							
Civilian noninstitutional population, ages 20 to 29	1,192	1,281	1,217	1,332	1,336		
Percent enrolled in school, total	26.1	19.2	24.9	23.8	24.7		
Bachelor's degree							
Civilian noninstitutional population	938	946	893	1,023	1,093		
Percent enrolled in school, total	29.3	19.7	27.0	25.9	27.6		
Advanced degree							
Civilian noninstitutional population	254	334	324	299	243		
Percent enrolled in school, total	14.2	18.0	19.1	16.7	11.5		

NOTE: Recent college graduates refer to people ages 20 to 29 who completed a bachelor's, master's, professional, or doctoral degree in the calendar year of the survey (January through October). Regular schooling is that which may advance a person toward a high school diploma or a college, university, or professional degree.

SOURCE: October 2007–2011 School Enrollment Supplement to the Current Population Survey, U.S. Bureau of Labor Statistics.

Table 7. Labor force status of 2011 recent college graduates by degree, gender, race, Hispanic or Latino ethnicity, age, and school enrollment, October 2011

[Levels in thousands]

	Civilian	Civilian labor force					1	
Characteristic	noninsti-		Percent of	Emp	loyed	Unem	oloyed	Not in the
Characteristic	tutional population	Total	Total population	Total	Percent of population	Number	Rate	labor force
Total, 2011 recent college graduates ¹								
Total, ages 20 to 29	1,336	1,138	85.2	995	74.5	143	12.6	198
Men	622	528	84.9	447	71.8	81	15.4	94
Women	714	610	85.4	548	76.7	62	10.1	104
White	1,073	935	87.1	836	77.9	99	10.6	138
Black	135	114	84.4	91	67.4	23	20.2	21
Asian	78	52	67.0	33	42.0	19	(2)	26
Hispanic	137	122	89.0	107	78.3	15	12.1	15
Ages 20 to 24	912	781	85.6	688	75.4	94	12.0	131
Ages 25 to 29	424	357	84.1	308	72.5	49	13.8	67
Enrolled in school	330	224	68.0	210	63.5	15	6.6	106
Not enrolled in school	1,006	914	90.8	785	78.1	128	14.0	93
Bachelor's degree								
Total	1,093	917	83.9	793	72.5	124	13.5	176
Men	526	438	83.1	367	69.8	70	16.1	89
Women	567	479	84.6	426	75.1	54	11.2	88
Ages 20 to 24	856	728	85.0	641	74.8	87	12.0	128
Ages 25 to 29	237	189	79.6	152	64.2	37	19.4	48
Enrolled in school	302	201	66.5	186	61.6	15	7.3	101
Not enrolled in school	791	716	90.5	606	76.7	109	15.3	75
Master's degree or higher								
Total	243	221	91.0	202	83.2	19	8.6	22
Men	96	91	94.6	80	83.3	11	12.0	5
Women	147	130	88.5	122	83.1	8	6.1	17
Ages 20 to 24	56	53	(2)	47	(2)	6	(2)	3
Ages 25 to 29	187	168	89.9	155	83.1	13	7.5	19

¹ Data refer to people who graduated from college in January through October 2011.

NOTE: Recent college graduates refer to people ages 20 to 29 who completed a bachelor's, master's, professional, or doctoral degree in the calendar year of the survey (January through October). Data for the race groups shown do not sum to totals because not all races are presented. People whose ethnicity is identified as Hispanic or Latino may be of any race.

SOURCE: October 2011 School Enrollment Supplement to the Current Population Survey, U.S. Bureau of Labor Statistics.

prior years. A higher percentage of recent recipients of bachelor's degree (about 28 percent) were enrolled in school compared with that of recent recipients of advanced degrees (about 12 percent) in October 2011.

Recent graduates who were enrolled in school in October 2011 were less likely to be participating in the labor force (68.0 percent) than those not enrolled (90.8 percent). (See table 7.) Those enrolled in school were less likely to be working and were somewhat less likely to be

unemployed than those not enrolled.

WITH MORE PEOPLE EARNING COLLEGE DEGREES than ever before, documenting labor force outcomes for each new cohort of college graduates is important. Administered annually each October, the CPS School Enrollment Supplement provides a snapshot of the demographic and labor force characteristics of each new cohort of recent graduates.

² Data not shown where base is less than 75,000.

The data collected in the CPS School Enrollment Supplement show that 74.5 percent of the 2011 cohort of recent college graduates were employed in October 2011 and that their unemployment rate was 12.6 percent. The employment-population ratio and unemployment rate of recent college graduates were similar in 2011 and 2010. Generally, recipients of advanced degrees were more likely to be employed than those who received bachelor's degrees.

About one-half of the 2011 cohort of recent college graduates were working in professional and related occupations in October 2011. About 2 in 5 were employed in educational and health services. About one-fifth of recent college graduates were working in the public sector, primarily in education services.

About 25 percent of 2011 recent college graduates were enrolled in school in October 2011. Recipients of bachelor's degrees were more likely to be enrolled in school than were recipients of an advanced degree. Those enrolled in school were less likely to participate in the labor force than those who were not enrolled.

Notes

- ¹ College graduates are persons who completed a bachelor's degree and higher, which includes bachelor's, master's, professional, and doctoral degrees.
- ² For more information, see "Attachment 8: Current Population Survey, October 2011 School Enrollment and Internet Use Supplement Questionnaire," Current Population Survey, October 2011 School Enrollment File Technical Documentation (U.S. Census Bureau, October 2011), http://www.census.gov/apsd/techdoc/cps/cpsoct11.pdf.
- ³ See table A-16, "Employment status of the civilian noninstitutional population 16 to 24 years of age by school enrollment, age, sex, race, Hispanic or Latino ethnicity, and educational attainment,' Labor force statistics from the Current Population Survey (U.S. Bureau of Labor Statistics, February 2013), http://www.bls.gov/web/empsit/ cpseea16.htm.
- ⁴ See table 1, "Demography and enrollment by sex and race/ethnicity: percentage distribution of 2007-2008 first-time bachelor's recipients by sex, race/ethnicity, demographic and enrollment characteristics: 2009," 2008–09 Baccalaureate and Beyond Longitudinal Study (National Center for Education Statistics, July 2011), p. 8, http://nces.ed.gov/ pubs2011/2011236.pdf.
- ⁵ Of the 547 respondents to the October 2011 School Enrollment Supplement to the CPS with an educational attainment of a bachelor's degree or higher between the ages of 15 and 29, 7 respondents were between the ages of 15 and 19, or about 1.3 percent of the total sample.
- ⁶ A professional degree includes medical doctor (M.D.), doctor of dental surgery (D.D.S.), juris doctor (J.D.), and other comparable degrees. A doctoral degree includes doctor of philosophy (Ph.D.), doctor of education (Ed.D.), and other comparable degrees at the doctoral level. See appendix in this article for additional information.
- ⁷ See table 292, "Degrees conferred by degree-granting institutions, by control of institution, level of degree, and field of study: 2009-10," Integrated Postsecondary Education Data System, Digest of Education Statistics (National Center for Education Statistics, May 2011), http://nces. ed.gov/programs/digest/d11/tables/dt11_292.asp.
- ⁸ Table 1, 2008–09 Baccalaureate and Beyond Longitudinal Study, http://nces.ed.gov/pubs2011/2011236.pdf.
- ⁹ For more information, see the news release "College enrollment and work activity of 2011 high school graduates" (U. S. Bureau of Labor Statistics, April 19, 2012), http://www.bls.gov/news.release/pdf/ hsgec.pdf.

- 10 See table 3, "Time to degree: median and percentage distribution of 2007-08 first-time bachelor's degree recipients by number of months from enrollment to degree attainment and enrollment characteristics: 2009," 2008-09 Baccalaureate and Beyond Longitudinal Study (National Center for Education Statistics, July 2011), pp. 10-11, http://nces.ed.gov/pubs2011/2011236.pdf.
- ¹¹ According the National Bureau of Economic Research, which is generally recognized as the official arbiter of recessions in the United States, the most recent recession began in December 2007 and ended in June 2009.
- ¹² See Lisa B. Kahn, "The long-term consequences of graduating from college in a bad economy," Labour Economics, April 2010, pp. 303-316.
- ¹³ Professional and related occupations include computer and mathematical; architecture and engineering; life, physical, and social science; community and social service; legal; education, training, and library; arts, entertainment, sports, and media, and healthcare practitioner and technical occupations. Professional and related occupations made up 22.1 percent of total employment in 2011.
- ¹⁴ Dixie Sommers and Teresa L. Morisi, "Employment projections through the lens of education and training," Monthly Labor Review, April 2012, pp. 13-28, http://www.bls.gov/opub/mlr/2012/04/art 2full.pdf.
- ¹⁵ Sales and office occupations include retail sales workers, sales representatives, as well as office and administrative support occupations, such as clerks and secretaries. Sales and office occupations made up about 23.6 percent of total employment in 2011.
- ¹⁶ The estimates for different industries, including those for educational and health services, include both government and private wage and salary workers.
- 17 Kelly Bedard and Douglas A. Herman, "Who goes to graduate/ professional school? The importance of economic fluctuations, undergraduate field, and ability," Economics of Education Review, April 2008, pp. 197-210.
- ¹⁸ A person is considered enrolled in school if they were enrolled in regular school in the October of the calendar year of the survey. Regular schooling is that which may advance a person toward a high school diploma or a college, university, or professional degree.

APPENDIX: Technical information about measures of educational attainment and recent college graduates in the Current Population Survey

The estimates for recent college graduates in this article were obtained from a supplement to the October 2011 Current Population Survey (CPS). The CPS is a monthly survey of about 60,000 eligible households that provides information on employment and unemployment in the United States. The CPS is conducted each month by the U.S. Census Bureau. A CPS supplement consists of questions on a particular topic following the completion of the basic monthly questionnaire. The monthly CPS began in 1940, and the School Enrollment Supplement has been conducted annually each October since 1961. The BLS, Census Bureau, and National Center for Education Statistics jointly sponsor the School Enrollment Supplement.

Educational attainment measurement in the CPS

Prior to 1992, educational attainment was enumerated in the CPS by the number of years of schooling completed. Beginning in January 1992, the CPS began to measure educational attainment by the highest diploma or degree received, matching the measure used in the 1990 Census.² The updated educational attainment measure more accurately captures the economic benefit conferred on workers who successfully complete their degree.³ A research summary published in the September 1993 *Monthly Labor Review* documents the motivation for the change as well as specific changes to the wording of the questionnaire.⁴ The School Enrollment Supplement questionnaire was updated in October 1992 to reflect the new educational attainment measure.

Data for college graduates presented in this article include persons with a bachelor's degree or higher. Additional data are also presented specifically for recipients of a bachelor's degree, as well as for recipients of an advanced degree, such as a master's, professional, or doctoral degree. All estimates for college graduates in this article exclude recipients of associate's degrees. Currently, the BLS considers persons with an associate's degree to possess an educational attainment of some college or associate's degree. The box that follows shows the educational attainment categories and applicable abbreviations used in the CPS.

Educational attainment	Example
Less than a high school diploma	
High school diploma	
Some college or associate's degree	
Associate's degree	
College graduate	
Bachelor's degree	B.A., B.S.
Advanced degree	
Master's degree	M.A., M.S., M.P.A., M.B.A.
Professional degree	J.D., M.D., D.D.S.
Doctoral degree	Ph.D., Ed.D.

Supplement question identifying recent college graduates

All respondents to the October CPS between the ages of 15 and 29 who possess at least an associate's degree are asked when they received their most recent college degree. Specifically, the School Enrollment Supplement question is, "In what calendar year did you receive your most recent degree?" This question has two response options: in the current year or in a prior year. This question first appeared in the October 1993 School Enrollment Supplement and has been asked in each subsequent supplement.

Respondents who report that they received their degree in the calendar year of the survey (January through October) are considered recent college graduates. All labor force estimates for recent college graduates in this article refer to persons ages 20 to 29 with a bachelor's degree or higher. Persons ages 15 to 19 were excluded from estimates in this article because of their small representation within the October 2011 sample.⁵

Limitations of the CPS data

The sample size of the CPS limits the precision of detailed data pertaining to relatively small groups. For instance, in October 2011, approximately 700 respondents had received a degree in the calendar year of the survey (January through October) and were members of a household par-

ticipating in the CPS. Of those, about 160 had received an associate's degree, about 440 had received a bachelor's degree, and about 100 received an advanced degree. Further division of the data by different characteristics can result in weighted estimates that are based on very few interviews. As a result, the standard errors for some weighted estimates are large.⁶ All estimates presented in this article meet the minimum threshold for publication of monthly CPS data.7

Weighting procedures

The publication Design and Methodology: Current Population Survey, also known as Technical Paper 66, describes general weighting procedures for calculating various kinds of data from the CPS.8 The technical documentation for the October 2011 School Enrollment Supplement contains a more detailed description of estimation and weighting procedures specifically for the supplement.9

Notes to appendix

- ¹ For more information, see "School Enrollment Reports and Tables from Previous Years" (U.S. Census Bureau, August 2, 2011), http:// www.census.gov/hhes/school/data/cps/previous/index.html.
- ² The question used to measure educational attainment in the CPS asks the respondent, "What is the highest level of school completed or the highest degree received?" A recent college graduate of a joint degree program, such as a joint medical doctor (M.D.) and master's of public health (M.P.H.), would therefore be counted as a professional degree recipient. For more information, about the questions on educational attainment in the CPS, see "Current Population Survey Interviewing Manual" (U.S. Census Bureau, January 2012), pp. C3-16 through C3-18, http://www. census.gov/apsd/techdoc/cps/CPS_Manual_Jan2012_Entire.pdf.
- ³ David A. Jaeger and Marianne E. Page, "Degrees matter: new evidence on sheepskin effects in the returns to education," The Review of Economics and Statistics, November 1996, pp. 733-740.
- ⁴ Robert Kominski and Paul M. Siegel, "Measuring education in the Current Population Survey," Monthly Labor Review, September 1993, pp. 34–38. http://www.bls.gov/cps/measuring_educa tion_1993.pdf.
- ⁵ Of the 547 respondents to the October 2011 School Enrollment Supplement to the CPS with an educational attainment of a bachelor's degree or higher and between the ages of 15 and 29, 7 respondents

were between the ages of 15 and 19, or about 1.3 percent of the total

- ⁶ For a full discussion on the reliability of data from the CPS and information on estimating standard errors, see http://www.bls.gov/ cps/documentation.htm#reliability.
- ⁷ Generally, rates and percentages are not published for CPS data unless the monthly base is greater than 75,000. For more information, see "Employment and earnings: household data, reliability of estimates" (U.S. Bureau of Labor Statistics, February 2006), p. 197, http://www.bls.gov/cps/documentation.htm#reliability.
- 8 "Chapter 10: Weighting and Seasonal Adjustment for Labor Force Data," Design and Methodology: Current Population Survey, Technical Paper 66 (U.S. Bureau of Labor Statistics and U.S. Census Bureau, October 2006), pp. 75-88, http://www.census.gov/ prod/2006pubs/tp-66.pdf.
- ⁹ For more information, see "Attachment 16: Source of the Data and Accuracy of the Estimates for the October 2011 CPS Microdata File on School Enrollment Source and Accuracy of the October 2011 School Enrollment Data," Current Population Survey, October 2011 School Enrollment File Technical Documentation (U.S. Census Bureau, October 2011), p. 200, http://www.census.gov/apsd/techdoc/cps/ cpsoct11.pdf.