



Where Are They Now?

A Description of 1992-93 Bachelor's Degree Recipients 10 Years Later

Statistical Analysis Report

U.S. Department of Education
NCES 2007-159



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A Description of 1992-93 Bachelor's Degree Recipients 10 Years Later

Statistical Analysis Report

October 2006

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Executive Summary

In the 1992–93 academic year, the National Center for Education Statistics embarked on its first long-term longitudinal study of bachelor’s degree recipients. Students who had completed or expected to complete a bachelor’s degree between July 1992 and June 1993 were selected from a cross-section of students in all levels and sectors of postsecondary education¹ to participate in the first Baccalaureate and Beyond Longitudinal Study (B&B). These graduates were located and surveyed again in 1994 and 1997.

In 2003, 10 years after they had completed a bachelor’s degree, the final follow-up of this cohort took place. Using data from the 2003 Baccalaureate and Beyond Longitudinal Study (B&B:93/03), this report provides an overview of the status of 1992–93 college graduates 10 years after graduation. The estimates in this report are based on the results of surveys with approximately 9,000 bachelor’s degree recipients, representing about 1.2 million bachelor’s degree completers from 1992–93. This report presents the concluding data that were collected in the B&B series, completing the picture of various outcomes for these graduates 10 years after they completed a bachelor’s degree.

In the 2003 survey, 1992–93 college graduates were asked about many aspects of their lives, including their education, employment, family, civic participation, and opinions. This report presents a general overview of the graduates’ responses to

selected items in these five areas. Specifically, the overview addresses the following questions:

- How much education beyond a bachelor’s degree had 1992–93 graduates completed by 2003?
- What were graduates’ patterns of labor force participation in 2003?
- How satisfied were they with their college education, and how did they evaluate it 10 years later?
- What percentage of cohort members in 2003 were married or had children?
- What was their level of civic participation 10 years after college?

This report also contains a table compendium. The compendium is organized into sections that correspond to the major sections of the overview: Education, Employment, Opinions About Education, Family Status, and Civic Participation. In each section, the table compendium presents further detail about the characteristics of the graduates, as well as additional information about other outcomes in each topic area. For information about the variables used in this report, the reader should consult the glossary in appendix A. More information about the data collection and the statistical tests used in this report is available in appendix B.

¹ Students were sampled in the 50 states, the District of Columbia, and Puerto Rico.

Graduate Education

By 2003, 10 years after bachelor's degree completion, 40 percent of 1992–93 bachelor's degree recipients had enrolled in a master's, first-professional, or doctoral degree program. This included 25 percent who had completed such a degree, 6 percent who were currently enrolled, and 9 percent who had enrolled in a graduate program but left without completing one (table 1).

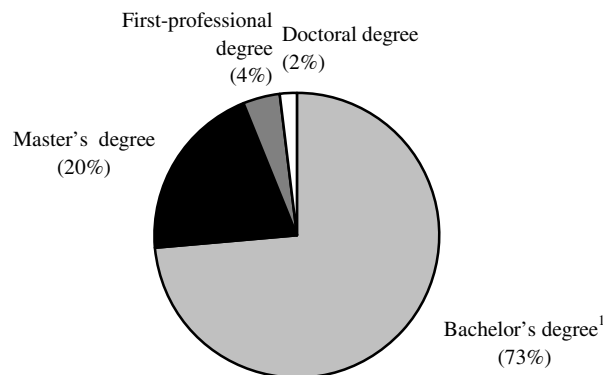
Specifically, about one-fourth of 1992–93 bachelor's degree recipients earned an advanced degree (master's, doctoral, or first-professional degree) during the past 10 years (figure A). Twenty percent of students earned a master's degree, 4 percent earned a first-professional degree, and 2 percent earned a doctoral degree. Men were more likely than women to earn a doctoral or first-professional degree, while women were more likely than men to earn a master's degree (table 2). These patterns were consistent with those observed for the same cohort of graduates in 1997 (Clune, Nuñez, and Choy 2001).

Graduates' baccalaureate major was associated with their likelihood of entering and completing an advanced degree. For example, graduates who earned a bachelor's degree in education were more likely than those who majored in other subjects (except in arts and humanities) to have earned a master's degree by 2003 (table 2). Graduates' field of employment was also related to their likelihood of completing an advanced degree. Consistent with the results for undergraduate major, those working in education were more likely than those working in any other occupation to hold a master's degree (38 vs. 9–20 percent). Reflecting the fact that the M.D. and D.D.S. are first-professional degrees, health professionals were more likely to hold a first-professional degree than graduates working in other occupations.

Employment

In 2003, 10 years after earning a bachelor's degree, most college graduates (87 percent) were employed, primarily in one full-time job (70 per-

Figure A. Percentage distribution of 1992–93 bachelor's degree recipients by highest degree attained: 2003



¹Includes postbaccalaureate certificates.

NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993–2003 Baccalaureate and Beyond Longitudinal Study (B&B:93/03).

cent; table 3). Nine percent were employed in multiple jobs, and 8 percent had one part-time job. Another 4 percent were unemployed (not working, but looking for work), and the remaining 9 percent were out of the labor force (not working and not looking for work).

Graduates' educational attainment after earning the 1992–93 bachelor's degree was related to their chances of working full time, part time, or in multiple jobs. For example, about 80 percent of graduates with first-professional or doctoral degrees worked at one full-time job, compared with 71 percent of those with master's degrees and 69 percent with bachelor's degrees.

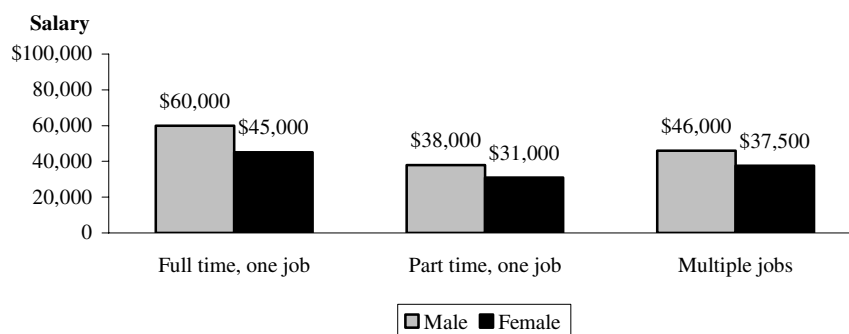
Among 1992–93 college graduates who were employed in 2003, salaries varied widely by levels of education and employment and by occupation (table 4). The average salary for full-time workers was \$60,700, and the median salary was \$52,000. Consistent with earlier results for this cohort (Bradburn and Berger 2002), men earned more than women among those working full time or in multiple jobs (figure B). Higher degrees were also

associated with higher salaries, and full-time workers in business and management and in engineering, architecture, or computer science earned more than their counterparts in many other occupations (table 4).

Looking Back: Opinions About Education

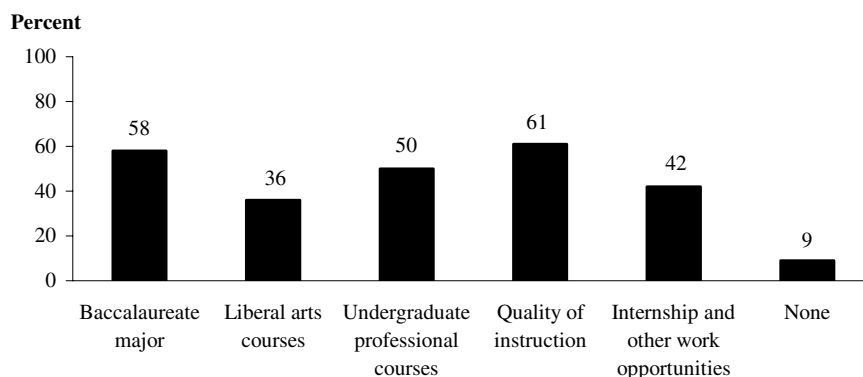
Among 1992–93 bachelor's degree recipients, about three-fifths reported that the quality of instruction they received as undergraduates (61 percent) and their undergraduate major field (58 percent) remained very important to their lives 10 years later (figure C). Smaller percentages of graduates reported this lasting influence of the liberal arts courses they took (36 percent), the undergraduate professional courses they took (50 percent), or any internship or work opportunities they had as undergraduates (42 percent). A number of characteristics of their undergraduate education were related to these assessments. For example, in 2003, graduates of public institutions were more likely than graduates of private not-for-profit institutions to report that their major field,

Figure B. Median annual salary of employed 1992–93 bachelor's degree recipients, by employment level and gender: 2003



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993–2003 Baccalaureate and Beyond Longitudinal Study (B&B:93/03).

Figure C. Percentage of 1992–93 bachelor’s degree recipients who reported that various characteristics of their undergraduate education were very important to their lives now: 2003



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993–2003 Baccalaureate and Beyond Longitudinal Study (B&B:93/03).

the professional classes they took, and their internship or other work opportunities as undergraduates were very important 10 years after graduation, (table 6). On the other hand, a larger percentage of graduates of private not-for-profit institutions than graduates of public institutions said that liberal arts courses and the quality of instruction they received were very important.

The graduates were also asked whether they considered their undergraduate education (as a whole) to be very important preparation for their work and career, further education, and financial security (table 7). Nearly four out of five graduates (78 percent) reported that their undergraduate education was very important in preparing them for their work and career; a majority also indicated that their college years prepared them for further education (56 percent) and achieving financial security (57 percent). Yet 8 percent did not feel that their undergraduate education was very important preparation for any of these areas.

Finally, the graduates evaluated their undergraduate education favorably. At least 9 out of 10 felt that obtaining a bachelor’s degree was worth

the financial cost, time, and effort that had been required (90, 93, and 96 percent, respectively; table 8).

Family Status

Among 1992–93 college graduates, about one-third of women (34 percent) and one-fourth of men (26 percent) had married before earning a bachelor’s degree (Clune, Nuñez, and Choy 2001). In 2003, about two-thirds (68 percent) of 1992–93 graduates were married, and 20 percent were single and had never been married (table 9). Smaller percentages reported that they were divorced (6 percent), cohabiting (4 percent), separated (1 percent), or widowed (0.4 percent).

Pursuit of a graduate education and employment were associated with a lower likelihood of marriage. Those 1992–93 graduates who had completed a doctoral or first-professional degree were more likely than other graduates to be single in 2003 (29 vs. 19–20 percent), and they were less likely to be married (61 vs. 68–69 percent). Those who had received a doctoral or first-professional degree were also less likely than others to be di-

voiced (3 vs. 6 percent). Graduates who worked part time or were out of the labor force were less likely than other graduates to be single and never married. Conversely, graduates who worked part time and those who were out of the labor force were more likely than other graduates to be married (78 and 87 percent, respectively, vs. 54–66 percent).

When they completed college in 1992–93, 14 percent of this cohort already had children, and 13 percent of the other graduates had become parents within 4 years (Clune, Nuñez, and Choy 2001). Ten years after college completion, about one-half (51 percent) of graduates had children under age 18 (table 10): 21 percent had one child, 22 percent had two children, and 9 percent had three or more children. As with marriage, graduate education was associated with a lower likelihood of having children.

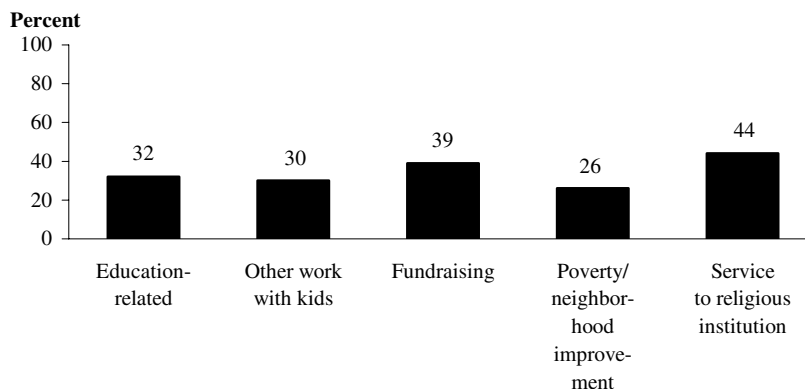
Civic Participation

The college graduates described in this report had 10 years to complete additional education,

enter careers, and pursue other interests. Many of them had established ties to the community, which were reflected in their volunteer work. Overall, nearly one-half (47 percent) of the 1992–93 graduate cohort reported in 2003 that they had participated in community service in the past year (table 11). Of those who had volunteered, 44 percent reported that they had provided service to a religious institution, 39 percent had worked on fundraising, and 32 percent had participated in education-related activities (figure D).

As of 2003, female college graduates were more likely than their male counterparts to have volunteered in the past year (50 vs. 43 percent) (table 11). Among those who had volunteered, women were more likely than men to have served in educational or religious institutions, while men were more likely than women to have done other volunteer work with children or to have participated in poverty or neighborhood improvement projects. These patterns are consistent with those found among 1999–2000 bachelor's degree recipients in 2001 (Bradburn et al. 2003).

Figure D. Among 1992–93 bachelor's degree recipients who participated in community service in the past year, percentage doing various types of service: 2003



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993–2003 Baccalaureate and Beyond Longitudinal Study (B&B:93/03).

Among 1992–93 bachelor’s degree recipients who had volunteered in the past year, as of 2003, 27 percent reported that they had done so less than once a month, 29 percent had done so monthly, and 34 percent had done so weekly (table 12). On average, the total number of volunteer hours they had logged in that period was 148 hours.

About 9 out of 10 (93 percent) of 1992–93 bachelor’s degree recipients who were U.S. citizens or nationals were registered to vote in 2003,

and a majority (76 percent) had voted in the 2002 election (table 13). Smaller percentages of graduates had contacted a public official by letter, e-mail, or telephone in the past 2 years (36 percent) or had attended some sort of political event, such as a dinner or a rally, in the past year (15 percent). Older college graduates were more likely than younger ones to have voted in the 2002 elections or to have contacted a public official in the past 2 years.

Foreword

This report profiles 1992–93 bachelor’s degree recipients 10 years after receiving a bachelor’s degree, in 2003, using data from the final follow-up of the first long-term longitudinal study of degree holders conducted by the National Center for Education Statistics (NCES) within the U.S. Department of Education. The sample was obtained by identifying eligible graduates from the 1993 National Postsecondary Student Aid Study (NPSAS:93), a nationally representative cross-section of all students in postsecondary education institutions in the 50 states, the District of Columbia, and Puerto Rico. As part of NPSAS:93, information was obtained from postsecondary institutions and through telephone interviews with students. Those members of the NPSAS:93 sample who completed a bachelor’s degree between July 1, 1992 and June 30, 1993, were identified and contacted for a 1-year follow-up interview in 1994 and for a second follow-up in 1997. The final follow-up, conducted 10 years later (B&B:93/03), is the focus of this report.

This report provides an introduction to the 2003 data, offering a snapshot of activities in five areas by the 1992–93 cohort 10 years after they had graduated: subsequent education, employment, opinions about education, family status, and civic participation. The body of the report provides a descriptive summary of the distribution of graduates for key items in these five areas, highlighting selected relationships to graduate demographic and educational characteristics. This report also contains a table compendium, organized into sections that correspond to the major sections of the overview: Education, Employment, Opinions About Education, Family Status, and Civic Participation. The tables in each section provide further detail about the questions discussed in the overview, as well as additional information about other outcomes in each topic area.

The estimates presented in the report were produced using the NCES Data Analysis System (DAS) Online, a web-based table-generating application that provides the public with direct, free access to the wealth of data contained in the B&B:93/03 study as well as other postsecondary datasets collected by NCES. The DAS produces the design-adjusted standard errors necessary for testing the statistical significance of differences in the estimates. For more information about the DAS, readers should consult appendix B of this report.

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Introduction

In the 1992–93 academic year, the National Center for Education Statistics (NCES) embarked on its first long-term longitudinal study of bachelor’s degree recipients, the Baccalaureate and Beyond Longitudinal Study (B&B). Students who had completed or expected to complete a bachelor’s degree between July 1992 and June 1993 were selected from a cross-section of students in all levels and sectors of postsecondary education in the 50 states, the District of Columbia, and Puerto Rico. These graduates were interviewed in 1993, then located and surveyed again in 1994 and 1997. In 2003, 10 years after they had completed a bachelor’s degree, the final follow-up of this cohort took place. This report provides a descriptive summary of the activities of this cohort of college graduates at the time of their interviews in 2003. Where similar information is available for the graduates when they were last interviewed in 1997, it is provided for context. However, this report does not test for changes over time within this cohort of bachelor’s degree recipients.

The 2003 survey, like the previous follow-ups, asked bachelor’s degree recipients about many aspects of their lives, including their education, employment, family, civic participation, and finances, as well as their attitudes and opinions about many of their experiences. The wealth of information available in the 2003 survey—not to mention the combined information of four separate waves of data—is vast, and no single report can begin to do justice to the complexity of the data. Instead, this report provides an introduction to the 2003 data, offering a snapshot of activities in five areas by the 1992–93 cohort 10 years after they had graduated: subsequent education, employment, opinions about education, family status, and civic participation. Following a description of the data and methods, the body of the report provides a general overview of the graduates’ responses to selected items in these five areas, addressing the following questions:

- How much education beyond a bachelor’s degree had 1992–93 graduates completed by 2003?
- What were the patterns of labor force participation in 2003?
- How satisfied were they with their college education, and how did they evaluate it 10 years later?
- What percentage of cohort members in 2003 were married or had children?
- What was their level of civic participation 10 years after college?

This report also contains a table compendium as a reference to the wider range of information collected in this study. The compendium is organized into sections that correspond to the major sections of the overview: Education, Employment, Opinions About Education, Family Status, and Civic Participation. In each section, selected statistically significant findings are presented at the beginning, followed by the tables for that section. The tables provide further detail about the questions discussed in the overview, as well as additional information about other outcomes in each topic area. The variables used in this report are defined in appendix A. More information about the B&B:93/03 data is available in appendix B, and the standard errors for all the estimates presented in this report are available at <http://nces.ed.gov/das/library/reports.asp>.

Data and Methods

The 1993–2003 Baccalaureate and Beyond Longitudinal Study (B&B:93/03) sample was obtained by identifying eligible bachelor’s degree recipients from the 1993 National Postsecondary Student Aid Study (NPSAS:93), a nationally representative cross-section of all students in postsecondary education institutions in the 50 states, the District of Columbia, and Puerto Rico.¹ For NPSAS:93, information was obtained from more than 1,000 postsecondary institutions on approximately 50,000 undergraduate students and more than 13,000 graduate students.² Those members of the NPSAS:93 sample who completed a bachelor’s degree between July 1, 1992 and June 30, 1993, were identified and contacted for a 1-year follow-up interview in 1994 and for a second follow-up in 1997. The final follow-up, conducted 10 years later in 2003, is the focus of this report. The estimates in this report are based on the results of surveys with approximately 9,000 bachelor’s degree recipients, representing about 1.2 million people who completed a bachelor’s degree in 1992–93. The Internet-based survey could be self-administered or completed over the telephone with a trained interviewer. The weighted overall response rate for the B&B:93/03 interview was 74 percent, reflecting a base-year institution response rate of 88 percent and a 2003 follow-up student response rate of 83 percent. For more information about the B&B:93/03 data collection, see appendix B of this report.

While information about this cohort from the 1997 data collection is used to provide context for the relationships presented in the analysis here, no longitudinal analysis of change in the graduates’ roles over time is conducted. In addition, the analysis conducted for this report generally does not control for the interrelationships among the variables considered; rather, it is designed to provide a descriptive overview of the activities of the 1992–93 college graduates 10 years later. Thus, one should use caution in drawing conclusions based solely on the results presented here. Future NCES reports will explore selected topics in much greater depth, and researchers are invited to conduct their own analyses of the B&B:93/03 data.

To avoid confounding influences of previous undergraduate experience, all analyses in this report are restricted to those for whom the 1992–93 bachelor’s degree was the first bachelor’s degree received (about 93 percent of the sample). Information about the operational definitions of this and other variables used in this report can be found in appendix A. Many results in this

¹ All tables in this report show totals for college graduates both with and without Puerto Rico. Breakouts by other variables include college graduates from Puerto Rico.

² Sample sizes have been rounded throughout to protect confidentiality.

report are presented by demographic or undergraduate educational characteristics. The distribution of the group of first-time bachelor's degree recipients analyzed in this report is available in appendix B. Demographic characteristics considered included gender, race/ethnicity, parents' highest level of education, and age at bachelor's completion. Distributions by baccalaureate degree major and the sector of the degree-granting institution are also shown.

All comparisons made in the text were tested using Student's *t* statistic for comparing two numbers or *F*-tests for overall significance and linear trends for comparisons across ordered categories. All differences cited were statistically significant at the .05 level. The formulas used and more detail on significance levels are provided in appendix B.

Graduate Education

Graduate enrollments have increased since the early 1970s, with particularly high growth earlier in the period (U.S. Department of Education 2002). Among 1992–93 college graduates, 29 percent had enrolled in a master’s, doctoral, or first-professional degree program when interviewed in 1997, within 4 years of completing college, with enrollment the highest during the first year after receiving a bachelor’s degree (Clune, Nuñez, and Choy 2001). Of those who had enrolled, about three-fourths (76 percent) were in a master’s degree program, 14 percent in a first-professional program, and 10 percent in a doctoral program (McCormick et al. 1999). In fact, by 1997, 15 percent had attained a master’s, doctoral, or first-professional degree (Clune, Nuñez, and Choy 2001). This section describes the extent to which the 1992–93 graduates had enrolled in and completed graduate programs³ by 2003, 10 years after they obtained a bachelor’s degree.

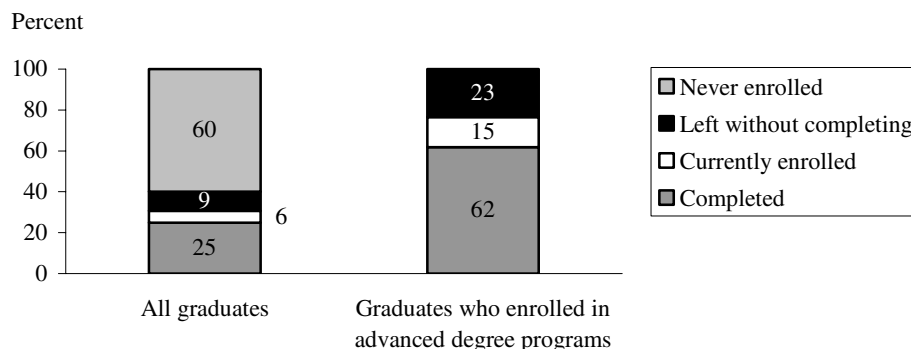
Participation in Graduate Programs

By 2003, 40 percent of 1992–93 bachelor’s degree recipients had enrolled in a master’s, doctoral, or first-professional degree program. This included 25 percent who completed a graduate degree, 6 percent who were enrolled in graduate education as of 2003, and 9 percent who had enrolled but left without completing a program (figure 1). Among those who had enrolled in a graduate program, about three-fifths (62 percent) had completed a degree, 15 percent were enrolled, and 23 percent left without a degree.

Parents’ education was associated with the cohort’s graduate enrollment: as of the 1997 interview, graduates whose parents had advanced degrees were more likely than others to be enrolled in an advanced degree program (McCormick et al. 1999). This pattern was observed in 2003 as well (table 1). Those bachelor’s degree recipients who had parents with advanced degrees were more likely to enroll in a graduate program than those who had parents with bachelor’s degrees, some postsecondary education, or a high school diploma or less. Graduates whose parents had more education were also more likely to have completed a graduate degree by 2003. For example, while one-third (33 percent) of college graduates whose parents had advanced degrees completed such a degree themselves within 10 years, 19–25 percent of other graduates completed an advanced degree.

³ Throughout the text, the terms “graduate program” and “advanced degree program” are used interchangeably to refer to master’s, first-professional, and doctoral degree programs combined. Postbaccalaureate certificates are not included.

Figure 1. Percentage distribution of 1992–93 bachelor’s degree recipients’ advanced degree enrollment and completion: 2003



NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993–2003 Baccalaureate and Beyond Longitudinal Study (B&B:93/03).

Both undergraduate major and grade point average (GPA) were related to pursuing graduate education among the 1992–93 bachelor’s degree recipients. Approximately one-half of those graduates who had a bachelor’s degree major in natural sciences and mathematics, education, and social and behavioral sciences (57, 50, and 50 percent, respectively) enrolled in an advanced degree program; more than those in all other fields. Business majors were less likely than other majors to have enrolled in a graduate program (25 vs. 34–57 percent). Natural sciences and mathematics majors were also more likely than others to have completed a graduate program in the 10 years since bachelor’s degree completion (39 vs. 17–30 percent). Undergraduate GPA was also associated with enrollment in a graduate program. A greater proportion of students with an undergraduate GPA of 2.75 or higher enrolled in and completed such a program than those with lower GPAs.

Graduates’ patterns of enrollment in and completion of graduate programs 10 years after college were consistent with their plans at the time of graduation. About two-thirds (65 percent) of those who aspired to earn a doctoral or first-professional degree enrolled in a graduate program after bachelor’s degree completion. These graduates were more likely than those who expected to complete less education to have enrolled. Furthermore, those who expected to earn a master’s degree were more likely than those who expected to earn a bachelor’s degree to have enrolled. Higher degree expectations were also associated with a higher likelihood of completing a graduate degree within 10 years of college graduation.

Table 1. Percentage of 1992–93 bachelor’s degree recipients who enrolled in an advanced degree program, by demographic and educational characteristics: 2003

Selected characteristics	All graduates			
	Total ever enrolled	Completed	Currently enrolled	Left without completing
U.S. total (excluding Puerto Rico)	40.2	24.9	5.9	9.4
Total (50 states, D.C., and Puerto Rico)	40.1	24.8	5.9	9.4
Gender				
Male	38.7	24.8	5.7	8.3
Female	41.3	24.9	6.1	10.3
Parents’ highest education				
High school diploma or less	33.8	18.7	5.7	9.4
Some postsecondary education	39.1	23.8	6.0	9.4
Bachelor’s degree	39.9	24.6	6.6	8.7
Advanced degree	48.7	32.8	5.7	10.3
Baccalaureate degree major				
Business and management	25.4	16.6	3.2	5.6
Education	50.3	28.3	8.1	13.9
Engineering	39.2	24.5	5.4	9.3
Health	36.5	22.0	6.5	8.0
Public affairs/social services	36.3	20.6	6.2	9.5
Humanities	42.6	25.5	7.1	10.1
Social and behavioral sciences	49.8	30.3	8.7	10.8
Natural sciences and mathematics	56.7	38.6	6.4	11.7
Other	34.4	21.7	4.2	8.6
Cumulative undergraduate GPA				
Less than 2.75	33.9	19.7	5.6	8.6
2.75–3.74	46.4	29.7	6.7	9.9
3.75 or higher	54.7	37.9	5.0	11.8
Educational expectations at bachelor’s completion				
Bachelor’s degree	16.7	8.9	3.9	4.0
Master’s degree	35.5	21.5	5.5	8.5
Doctoral/first-professional degree	64.7	42.2	8.0	14.6

NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993–2003 Baccalaureate and Beyond Longitudinal Study (B&B:93/03).

Highest Degree Attained

About one-fourth of 1992–93 bachelor’s degree recipients earned an advanced degree during the past 10 years (table 2). Twenty percent of students earned a master’s degree, 4 percent earned a first-professional degree, and 2 percent earned a doctoral degree (figure 2). Men were more likely than women to earn a doctoral or first-professional degree, while women were more

likely than men to earn a master's degree (table 2). These patterns were consistent with those observed for the same cohort of graduates in 1997 (Clune, Nuñez, and Choy 2001).

Table 2. Percentage distribution of 1992–93 bachelor's degree recipients' highest degree attained, by demographic, educational, and employment characteristics: 2003

Demographic, educational, and employment characteristics	Bachelor's degree ¹	Advanced degree			
		Total	Master's degree	First-professional degree	Doctoral degree
U.S. total (excluding Puerto Rico)	74.4	25.6	19.7	4.0	1.9
Total (50 states, D.C., and Puerto Rico)	74.4	25.6	19.7	4.0	1.9
Gender					
Male	74.4	25.6	18.0	4.9	2.7
Female	74.5	25.5	21.1	3.2	1.3
Baccalaureate degree major					
Business and management	83.3	16.7	14.7	1.8	0.2
Education	71.1	28.9	26.3	1.5	1.1
Engineering	74.2	25.9	22.2	0.9	2.7
Health	77.9	22.1	19.4	2.1	0.6
Public affairs/social services	79.4	20.6	18.2	1.8	0.6
Humanities	73.0	27.1	21.5	4.3	1.2
Social and behavioral sciences	68.6	31.4	21.8	7.2	2.3
Natural sciences and mathematics	60.3	39.7	18.7	12.0	9.0
Other	77.6	22.4	18.0	3.4	1.0
Cumulative undergraduate GPA					
Less than 2.75	79.7	20.4	16.8	2.2	1.3
2.75–3.74	69.4	30.6	21.3	7.1	2.3
3.75 or higher	61.6	38.4	30.1	4.3	4.1
Educational expectations at bachelor's completion					
Bachelor's degree	90.9	9.1	7.7	1.0	0.4
Master's degree	78.0	22.0	20.9	0.9	0.3
Doctoral/first-professional degree	56.2	43.8	24.6	12.6	6.7
Occupation²					
Business and management	82.0	18.0	17.1	0.7	0.3
Education	58.5	41.5	37.9	0.8	2.9
Health professions	61.8	38.2	16.4	16.6	5.3
Service industries	89.1	10.9	9.4	1.3	0.1
Research, other professional/technical	66.3	33.7	19.7	10.1	3.8
Engineering/architecture/computer science	82.2	17.8	15.9	0.2	1.7
Other	87.9	12.1	9.0	3.1	#

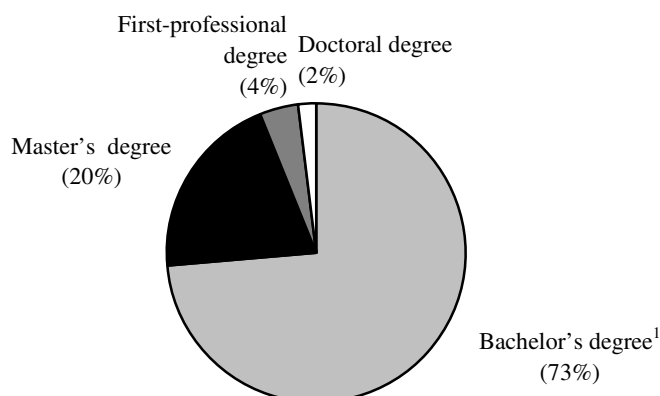
#Rounds to zero.

¹Includes postbaccalaureate certificates.

²Only includes respondents who have worked at any time since 1997. Applies to current or most recent job.

NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993–2003 Baccalaureate and Beyond Longitudinal Study (B&B:93/03).

Figure 2. Percentage distribution of 1992–93 bachelor’s degree recipients’ highest degree attained: 2003

¹Includes postbaccalaureate certificates.

NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993–2003 Baccalaureate and Beyond Longitudinal Study (B&B:93/03).

Graduates' baccalaureate major was associated with advanced degree completion. Graduates with a bachelor's degree in natural sciences and mathematics were more likely than those who majored in other subjects to earn a doctoral degree (9 percent vs. up to 3 percent). Graduates with majors in natural sciences and mathematics or in social and behavioral sciences were also more likely than those with other majors to earn a first-professional degree. About one-fourth (26 percent) of graduates who earned a bachelor's degree in education had a master's degree by 2003, a higher percentage than graduates with majors in business, health, public affairs/social services, natural sciences and mathematics, or "other" unspecified fields.

Students who expected, at the time they graduated from college, to earn a master's degree were more likely than those who expected to earn a bachelor's degree to attain a master's degree by 2003 (21 vs. 8 percent). Students with master's degree expectations were, however, *less* likely than those with doctoral or first-professional degree expectations to earn a master's degree (21 vs. 25 percent), perhaps because graduates who expected a doctoral degree may have earned a master's degree en route to a doctorate. A greater proportion of college graduates who expected to earn a doctoral or first-professional degree than those who expected to earn a bachelor's or master's degree attained a first-professional degree. Finally, 7 percent of those college graduates who expected to earn a doctoral or first-professional degree completed a doctorate within 10 years of college graduation, compared with less than 1 percent of those who expected to earn a bachelor's or master's degree.

Similar to the results related to bachelor's degree major, college graduates working in the education field were more likely than those working in any other occupation to hold a master's degree (38 vs. 9–20 percent). Reflecting the fact that the M.D. and D.D.S. are first-professional degrees, health professionals were more likely to hold a first-professional degree than bachelor's degree recipients working in other occupations. Those working in research or other professional or technical occupations were generally more likely than those working in other occupations (excluding health) to hold a first-professional degree. Additionally, those in the health field were more likely than those in most other occupations to hold a doctoral degree, except for those in the education and research fields.

Employment

Using previous rounds of B&B data for the 1992–93 cohort of college graduates, NCES has produced a number of descriptive reports that examine various aspects of graduates’ employment after leaving college. These topics include the relationship of undergraduate major to employment outcomes (Horn and Zahn 2001), the prevalence of alternative employment such as part-time work, self-employment, and employment in multiple jobs (Bradburn and Berger 2002), and occupational attrition or stability over time (Henke and Zahn 2001). This section provides the latest look at the employment characteristics of this cohort of graduates, describing their labor force participation and salaries in 2003.⁴

Labor Force Participation

In 2003, 10 years after earning a bachelor’s degree, most bachelor’s degree recipients (87 percent) were employed, primarily in one full-time job (70 percent; table 3). Nine percent were employed in multiple jobs, and 8 percent had one part-time job.⁵ Another 4 percent were unemployed (not working, but looking for work), and the remaining 9 percent were out of the labor force (not working and not looking for work). Consistent with findings from the 1994 and 1997 waves of this study (Horn and Zahn 2001; Bradburn and Berger 2002), gender differences in the likelihood of being employed part time or being out of the labor force were found. In 2003, men were more likely than women to work full time (81 vs. 61 percent), while women were more likely than men to work part time (12 vs. 3 percent) or to be out of the labor force (15 vs. 2 percent).

Educational attainment after earning the 1992–93 bachelor’s degree was also related to the likelihood of working full time, part time, or in multiple jobs (table 3). College graduates who had attained doctoral or first-professional degrees before 2003 were more likely to be employed full time than those who had earned master’s degrees or bachelor’s degrees. About 80 percent of bachelor’s degree recipients with first-professional or doctoral degrees worked at one full-time

⁴ When interviewed in 2003, graduates were asked about the characteristics of their current job or, if not employed, about their most recent job, as long as they were employed at some point since 1997. Unless otherwise specified, employment status refers to status when interviewed in 2003, but job characteristics refer to the graduate’s current (2003) or most recent (since 1997) job. (When only employed graduates are included in a table, the job characteristics describe the current [2003] job.)

⁵ For convenience, respondents working one full-time job will hereafter be described as “working full time,” and those working one part-time job will be described as “working part time.” That is, unless otherwise specified, respondents are employed in one job only.

Table 3. Percentage distribution of 1992–93 bachelor’s degree recipients’ current labor force participation, by demographic, educational, and employment characteristics: 2003

Demographic, educational, and employment characteristics	Employed			Unemployed	Out of the labor force	
	Total	Full time, one job	Part time, one job			Multiple jobs
U.S. total (excluding Puerto Rico)	87.3	70.2	7.9	9.3	3.8	8.9
Total (50 states, D.C., and Puerto Rico)	87.3	70.1	7.9	9.2	3.8	8.9
Gender						
Male	93.9	81.1	3.5	9.4	4.1	2.0
Female	81.7	61.1	11.6	9.1	3.6	14.6
Highest degree attained as of 2003						
Bachelor’s degree	85.7	69.2	8.0	8.5	4.4	10.0
Master’s degree	91.2	70.8	8.3	12.1	2.2	6.6
Doctoral/first-professional degree	94.4	80.4	5.9	8.1	2.1	3.6
Field of advanced degree ¹						
Business and management	94.9	80.4	6.1	8.5	2.0	3.1
Education	91.0	69.8	8.4	12.8	1.5	7.6
Health	91.2	67.5	10.6	13.1	0.5	8.3
Arts and humanities	87.7	52.2	13.2	22.3	6.5	5.8
Social and behavioral sciences	93.2	64.1	12.6	16.5	1.5	5.3
Science/math/engineering	92.7	84.7	3.5	4.6	1.3	6.0
Other	90.5	74.5	6.1	9.9	3.9	5.6
Occupation ²						
Business and management	91.0	78.2	5.9	7.0	3.3	5.7
Education	86.3	65.7	9.3	11.3	2.3	11.4
Health professions	89.0	57.4	15.2	16.4	2.5	8.5
Service industries	87.2	69.2	11.6	6.4	3.5	9.3
Research, other professional/ technical	87.5	68.5	7.4	11.6	5.2	7.3
Engineering/architecture/ computer science	91.6	84.8	3.2	3.7	5.5	2.9
Other	87.3	68.0	8.3	11.1	5.2	7.5

¹Only includes respondents who completed a master’s, doctoral, or first-professional degree. Refers to the field of the highest degree attained or, if two or more programs qualified as the highest degree, the field of the most recent degree attained.

²Only includes respondents who have worked at any time since 1997. Applies to current or most recent job.

NOTE: Detail may not sum to totals because of rounding.

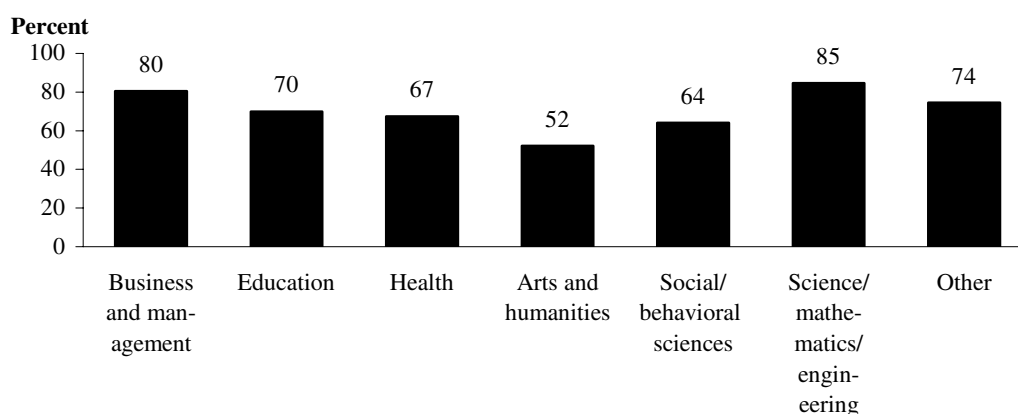
SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993–2003 Baccalaureate and Beyond Longitudinal Study (B&B:93/03).

job, compared with 71 percent of graduates with master’s degrees and 69 percent with bachelor’s degrees.

Among graduates with advanced degrees, field of study for that degree was related to the intensity of their labor force participation as well. Graduates whose major or field of study in

their highest degree was science, mathematics, or engineering were more likely than those who studied all other subjects except business to work full time 10 years after graduating from college (85 vs. 52–74 percent; figure 3). Bachelor's degree recipients who studied arts and humanities for their highest degree were the least likely group to work full time when compared with those who most recently studied other fields (with the exception of social and behavioral sciences): 52 percent of graduates who studied arts and humanities for an advanced degree worked full time, compared with 67–85 percent.

Figure 3. Percentage of 1992–93 bachelor's degree recipients with an advanced degree who worked in one full-time job in 2003, by field of advanced degree



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993–2003 Baccalaureate and Beyond Longitudinal Study (B&B:93/03).

For college graduates whose highest degree was a bachelor's degree, however, field of study for that degree may be less relevant to their employment 10 years later, because college graduates often change fields upon entering the job market or later on in their career (Henke and Zahn 2001). Examining labor market participation by occupation provides a more up-to-date look at labor force participation by field for all graduates. Although the majority of college graduates in all occupations were employed 10 years after earning a bachelor's degree, those in some occupations were more likely than others to be employed in one full-time job. Specifically, 85 percent of graduates working in engineering, architecture, or computer science were employed full time, compared with 78 percent of those in business and management, 69 percent in service industries, 68 percent in research or other professional or technical occupations, 68 percent in other unspecified occupations, 66 percent of educators, and 57 percent of health professionals.

Salary

Among 1992–93 college graduates who were employed in 2003, salaries varied by education level, occupation, and level of employment. Table 4 shows the average and median salaries for bachelor’s degree recipients employed in one full-time job, one part-time job, and in multiple jobs. The average salary for full-time workers was \$60,700, and the median salary was \$52,000. Consistent with earlier results for this cohort (Bradburn and Berger 2002), men earned more than women in their full-time work: men earned an average of \$69,900 per year, compared with \$50,600 for women. The median salaries reflected the same pattern, with men’s median salary about \$15,000 higher than women’s among full-time workers (figure 4). However, gender differences in salary are lower among bachelor’s degree recipients than among employees with less education, and these gaps have closed over time (U.S. Department of Education 2002).

In general, college graduates with higher degrees earned more than those with lower degrees. Among graduates who worked full time, those with a doctoral or first-professional degree earned an average of \$80,900 annually, compared with \$61,100 for master’s degree recipients and \$58,800 for bachelor’s degree recipients. The same pattern emerged for graduates with multiple jobs, with doctoral or first-professional degree recipients earning an average of \$65,000, compared with \$47,900 for master’s degree recipients and \$47,000 for bachelor’s degree recipients.

Engineers, architects, and computer scientists not only were more likely to work full time than their peers in other occupations but also earned higher salaries than those in several other fields (table 4). Full-time workers in this group, along with those in business and management, earned higher salaries than their counterparts in education, service industries, research, or other unspecified occupations. Ten years after earning a bachelor’s degree, engineers, architects, and computer scientists averaged \$72,200 per year, compared with an average annual salary of \$69,700 for those in business or management and \$41,900–66,900 for those in other occupations. Median salaries in business and management and in engineering, architecture, or computer science were also higher than those for other occupations, and the median salary for engineering, architecture, or computer science, at \$69,000 per year, was also higher than that for business and management (\$59,700). However, these findings varied by graduate degree attainment. Although graduate attainment was positively associated with higher average and median salaries for most occupations, college graduates who had completed a graduate degree and, in 2003, were employed in the service industry or as engineers, architects, or computer scientists did not report measurably higher salaries than their counterparts who had not attained graduate degrees.⁶

⁶ U.S. Department of Education, National Center for Education Statistics, 2003 Baccalaureate and Beyond Longitudinal Study (B&B:93/03), Data Analysis System. Not shown in tables.

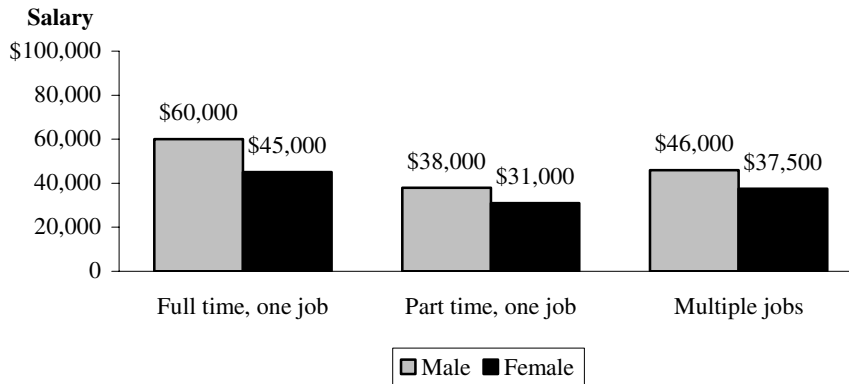
Table 4. Average annual salary of currently employed 1992–93 bachelor's degree recipients, by employment level, gender, highest degree, and occupation: 2003

Gender, highest degree, and occupation	Full time, one job		Part time, one job		Multiple jobs	
	Average salary	Median salary	Average salary	Median salary	Average salary	Median salary
U.S. total (excluding Puerto Rico)	\$60,800	\$52,000	\$41,400	\$31,800	\$48,300	\$40,900
Total (50 states, D.C., and Puerto Rico)	60,700	52,000	41,300	31,800	48,200	40,900
Gender						
Male	69,900	60,000	55,100	38,000	55,700	46,000
Female	50,600	45,000	37,800	31,000	42,000	37,500
Highest degree attained as of 2003						
Bachelor's degree	58,800	50,300	38,700	31,200	47,000	40,000
Master's degree	61,100	54,300	45,000	33,000	47,900	41,300
Doctoral/first-professional degree	80,900	64,000	‡	‡	65,000	55,000
Occupation						
Business and management	69,700	59,700	47,300	38,500	63,200	56,000
Education	41,900	39,900	25,400	21,000	33,100	35,000
Health professions	66,900	54,400	48,900	43,700	61,000	53,000
Service industries	59,400	52,000	37,100	25,000	46,600	30,000
Research, other professional/technical	58,300	49,400	49,800	31,200	42,400	35,400
Engineering/architecture/ computer science	72,200	69,000	‡	‡	55,200	52,000
Other	46,100	40,000	25,700	23,400	36,400	35,400
Bachelor's degree recipients without a graduate degree						
Occupation						
Business and management	67,300	59,700	46,200	37,000	60,000	48,500
Education	38,200	36,800	23,000	20,000	29,400	30,000
Health professions	58,300	50,000	43,800	40,400	59,300	52,000
Service industries	58,900	51,700	38,500	25,200	48,900	30,000
Research, other professional/technical	52,700	45,800	37,400	32,000	42,100	35,000
Engineering/architecture/ computer science	71,800	68,000	‡	‡	‡	‡
Other	43,700	39,900	23,700	20,800	34,800	35,000
Bachelor's degree recipients with a graduate degree						
Occupation						
Business and management	80,400	74,500	‡	‡	‡	‡
Education	46,600	43,500	28,500	21,000	37,900	38,000
Health professions	77,400	58,000	65,200	61,650	63,800	54,000
Service industries	63,600	52,000	‡	‡	‡	‡
Research, other professional/technical	68,200	57,000	72,500	31,200	42,900	36,400
Engineering/architecture/ computer science	73,500	72,000	‡	‡	‡	‡
Other	63,000	65,000	‡	‡	‡	‡

‡Reporting standards not met (too few cases).

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993–2003 Baccalaureate and Beyond Longitudinal Study (B&B:93/03).

Figure 4. Median annual salary of employed 1992–93 bachelor’s degree recipients, by employment level and gender: 2003



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993–2003 Baccalaureate and Beyond Longitudinal Study (B&B:93/03).

Eighty percent of employed graduates worked full time 10 years after earning a bachelor’s degree. They worked an average of 47 hours per week, and earned about \$60,700 per year (table 5). However, the percentage working full time, number of hours worked per week, and salary varied by occupation. Table 5 presents these figures by gender and highest degree attained by 2003, separately within occupational categories. Consistent with earlier findings, salary differences by gender persisted even when occupation was taken into account. Men employed full time in business and management, education, health professions, service industries, and research earned more than their female counterparts in the same professions.

Within some occupation groups, full-time workers who had doctoral or first-professional degrees worked more hours each week than their counterparts who had master’s or bachelor’s degrees. Those with doctoral or first-professional degrees who worked as educators averaged 53 hours per week, compared with 46–47 hours per week for bachelor’s and master’s degree recipients. Among health professionals, those with doctoral or first-professional degrees worked 61 hours per week, compared with 45–46 hours per week for those with bachelor’s or master’s degrees. Finally, in research and other professional or technical occupations, graduates with doctoral or first-professional degrees worked about 50 hours per week, while their peers with master’s or bachelor’s degrees worked 45 hours per week.

Table 5. Percentage of currently employed 1992–93 bachelor's degree recipients who had one full-time job and, of those, average hours worked per week and salary, by occupation, gender, and highest degree: 2003

Gender and highest degree	Percent	Average hours worked per week	Average salary
U.S. total (excluding Puerto Rico)	80.4	47.2	\$60,800
All occupations			
Total (50 states, D.C., and Puerto Rico)	80.4	47.2	60,700
Gender			
Male	86.4	49.0	69,900
Female	74.7	45.2	50,600
Highest degree attained as of 2003			
Bachelor's degree	80.7	46.7	58,800
Master's degree	77.6	46.8	61,100
Doctoral/first-professional degree	85.2	54.1	80,900
Business and management			
Total (50 states, D.C., and Puerto Rico)	85.9	48.2	69,700
Gender			
Male	89.5	50.2	79,300
Female	81.5	45.5	56,900
Highest degree attained as of 2003			
Bachelor's degree	85.8	48.1	67,300
Master's degree	86.5	48.7	79,400
Doctoral/first-professional degree	‡	‡	‡
Education			
Total (50 states, D.C., and Puerto Rico)	76.2	46.9	41,900
Gender			
Male	73.6	48.4	47,400
Female	77.2	46.4	40,100
Highest degree attained as of 2003			
Bachelor's degree	76.1	47.0	38,200
Master's degree	76.4	46.2	45,900
Doctoral/first-professional degree	74.5	53.4	53,900
Health professions			
Total (50 states, D.C., and Puerto Rico)	64.5	49.8	66,900
Gender			
Male	78.6	56.4	79,300
Female	57.6	45.4	58,600
Highest degree attained as of 2003			
Bachelor's degree	59.1	44.6	58,300
Master's degree	57.9	46.1	67,700
Doctoral/first-professional degree	82.3	60.8	81,900

See notes at end of table.

Table 5. Percentage of currently employed 1992–93 bachelor’s degree recipients who had one full-time job and, of those, average hours worked per week and salary, by occupation, gender, and highest degree: 2003—Continued

Gender and highest degree	Percent	Average hours worked per week	Average salary
Service industries			
Total (50 states, D.C., and Puerto Rico)	79.4	47.2	\$59,400
Gender			
Male	87.8	48.9	65,800
Female	70.0	44.9	50,400
Highest degree attained as of 2003			
Bachelor’s degree	80.3	47.0	58,900
Master’s degree	79.9	48.8	62,400
Doctoral/first-professional degree	‡	‡	‡
Research/other professional/technical			
Total (50 states, D.C., and Puerto Rico)	78.3	46.2	58,300
Gender			
Male	84.2	47.4	64,300
Female	72.8	44.9	51,900
Highest degree attained as of 2003			
Bachelor’s degree	77.7	45.4	52,700
Master’s degree	69.6	45.2	52,600
Doctoral/first-professional degree	92.7	49.8	84,100
Engineering/architecture/computer science			
Total (50 states, D.C., and Puerto Rico)	92.5	45.5	72,200
Gender			
Male	94.5	46.1	73,300
Female	85.3	43.2	67,700
Highest degree attained as of 2003			
Bachelor’s degree	92.7	45.4	71,900
Master’s degree	90.8	45.2	71,300
Doctoral/first-professional degree	‡	‡	‡

‡Reporting standards not met (too few cases).

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993–2003 Baccalaureate and Beyond Longitudinal Study (B&B:93/03).

Looking Back: Opinions About Education

The 2003 follow-up completes the study of this cohort of bachelor's degree recipients and, as the final installment of information about their postbaccalaureate paths, represents an appropriate time to ask graduates to reflect on their college years. Several items in the survey asked them to assess their undergraduate education: the value of specific aspects of their college education to them now; the usefulness of their undergraduate education as a whole to some of the broad areas of their lives; and the overall worth of the investments they made in their college years. This section summarizes how college graduates evaluated their undergraduate education 10 years after bachelor's degree completion.

Importance of Specific Undergraduate Experiences

The 1992–93 college graduates were asked which aspects of their undergraduate education—major, liberal arts courses, professional courses, quality of instruction, and internships or other work opportunities—they considered to be very important to their lives in 2003. About three-fifths of 1992–93 bachelor's degree recipients reported that the quality of instruction they received as undergraduates (61 percent) and their undergraduate major field (58 percent) remained very important to their lives 10 years later (table 6). These proportions were larger than those who attributed the same importance to the liberal arts courses they took, the undergraduate professional courses they took, or any internship or work opportunities they had as undergraduates (36 percent, 50 percent, and 42 percent, respectively).

Baccalaureate degree major was related to the likelihood of reporting that undergraduate characteristics were very important 10 years later. College graduates who majored in health, engineering, education, or natural sciences and mathematics were more likely than those with any other major to report that their undergraduate major field was very important to their lives 10 years later (64–74 vs. 46–58 percent). On the other hand, humanities majors and social/behavioral science majors were more likely than those with all other majors to indicate that their undergraduate liberal arts courses were very important to their lives; 61 percent of humanities majors and 49 percent of social/behavioral science majors said this, compared with 41 percent or less for other majors. Engineering majors were less likely than all other majors to report this importance of their liberal arts courses; 14 percent of engineering majors said those courses remained very important to their lives in 2003. Majors in health or in business were also less

Table 6. Percentage of 1992–93 bachelor’s degree recipients who reported that various characteristics of their undergraduate education were very important to their lives now, by baccalaureate major, institution type, and occupation: 2003

Baccalaureate major, institution type, and occupation	Bacca- laureate major	Liberal arts courses	Undergrad- uate pro- fessional courses	Quality of instruction	Internship and other work oppor- tunities	None
U.S. total (excluding Puerto Rico)	58.4	36.4	49.7	60.7	41.8	8.8
Total (50 states, D.C., and Puerto Rico)	58.3	36.3	49.8	60.7	41.8	8.8
Baccalaureate degree major						
Business and management	58.3	25.0	56.3	55.8	35.5	11.1
Education	65.0	38.2	55.4	64.4	50.9	6.5
Engineering	69.6	13.7	49.4	53.8	44.8	6.5
Health	73.8	20.9	72.5	67.7	55.9	4.3
Public affairs/social services	56.4	37.4	54.8	58.1	46.1	8.9
Humanities	52.4	60.9	34.9	66.5	34.1	8.2
Social and behavioral sciences	43.9	49.4	39.5	58.0	38.7	12.0
Natural sciences and mathematic:	64.3	33.3	46.5	65.9	39.5	6.8
Other	54.0	41.5	46.3	60.3	45.2	8.9
Bachelor’s degree-granting institution						
Public 4-year	59.8	32.4	51.7	57.8	43.0	9.1
Private not-for-profit 4-year	55.6	46.0	46.4	67.5	39.4	7.1
Other	54.4	20.7	46.7	53.4	42.6	19.0
Occupation ¹						
Business and management	53.5	34.0	52.4	57.0	36.3	10.6
Education	68.1	42.6	57.6	67.6	50.6	5.3
Health professions	68.6	27.7	62.8	66.6	52.2	5.2
Service industries	48.7	37.4	42.3	53.9	38.0	10.7
Research, other professional/ technical	58.9	45.2	41.9	62.7	42.6	7.7
Engineering/architecture/ computer science	66.2	25.9	50.6	61.9	44.0	4.8
Other	43.0	32.7	35.0	55.2	31.0	18.7

¹Only includes respondents who have worked at any time since 1997. Applies to current or most recent job.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993–2003 Baccalaureate and Beyond Longitudinal Study (B&B:93/03).

likely than others to say that the liberal arts courses they took were very important to their lives now. In contrast, health majors were more likely than graduates with other majors to report that their undergraduate professional courses remained very important to their lives, while humanities majors and social/behavioral sciences majors were less likely to do so. Finally, those who majored in education, health, humanities, or natural sciences and mathematics were more likely than

business or engineering majors to report that the quality of the undergraduate instruction they received was very important 10 years later.

Graduates of public institutions were more likely than graduates of private not-for-profit institutions to report that their major field, the professional classes they had taken, and their internship or other work opportunities as undergraduates were very important in 2003, 10 years after graduation. On the other hand, a larger percentage of graduates of private not-for-profit institutions than graduates of public institutions said that liberal arts courses and the quality of instruction they received were very important.

Perhaps reflecting the relationship between undergraduate major field and subsequent occupation, among employed 1992–93 graduates, occupational field in 2003 was associated with a declared importance of undergraduate major field to their current lives. Specifically, employees in business, service industry, or other unspecified occupations (43–53 percent) were less likely than others to say their major field was very important 10 years later, while workers in education, health occupations, research or other professional or technical jobs, and engineering, architecture, or computer science (59–69 percent) were more likely to report this influence.

Graduates employed in education, health, and research or other professional or technical fields were more likely than those employed in business, service industries, and other unspecified fields to claim that the quality of their undergraduate instruction was very important to their lives 10 years later. Employed graduates in education and in health were more likely than those in other occupations to say that undergraduate internships and other work opportunities were very important to their lives 10 years later. In addition, employees in research or other professional or technical jobs and in engineering, architecture, or computer science were more likely than employees in business or in other unspecified occupations to report this enduring influence.

These results varied somewhat by graduate attainment. In general, college graduates who had completed a graduate degree were more likely than their counterparts who had not attained a graduate degree to report that their undergraduate major, liberal arts courses, and the quality of undergraduate instruction were very important 10 years later.⁷ Graduates who majored in education or the social or behavioral sciences as undergraduates and had gone on to complete a graduate degree were more likely to consider their undergraduate education very important to their lives than their peers who majored in those subjects as undergraduates and did not complete a graduate degree. On the other hand, graduates with advanced degrees who were employed as en-

⁷ U.S. Department of Education, National Center for Education Statistics, 2003 Baccalaureate and Beyond Longitudinal Study (B&B:93/03), Data Analysis System. Not shown in tables.

engineers in 2003 were less likely to consider their undergraduate education very important compared with engineers who had not completed a graduate degree.

Influence of College on Work, Education, and Financial Security

The 1992–93 graduates were also asked about specific aspects of their lives—work and career, further education, and financial security—and whether they considered their undergraduate education (as a whole) to be very important preparation for those areas (table 7). Nearly four out

Table 7. Percentage of 1992–93 bachelor’s degree recipients who reported that their undergraduate education was very important preparation for various areas of their lives now, by baccalaureate major, type of employer, and occupation: 2003

Baccalaureate major, type of employer, and occupation	Work and career	Further education	Establishing financial security	Not important preparation
U.S. total (excluding Puerto Rico)	78.5	55.9	57.1	8.0
Total (50 states, D.C., and Puerto Rico)	78.5	55.9	57.2	8.1
Baccalaureate degree major				
Business and management	82.6	46.4	61.7	7.6
Education	79.8	60.5	53.3	7.1
Engineering	88.1	46.9	72.3	3.7
Health	86.0	60.1	70.6	5.3
Public affairs/social services	77.8	58.6	56.5	8.4
Humanities	69.7	60.3	47.7	11.0
Social and behavioral sciences	69.3	61.6	49.2	11.8
Natural sciences and mathematics	80.8	67.3	61.2	5.1
Other	76.7	51.6	52.1	9.4
Type of employer ¹				
Self-employed	67.4	50.7	49.7	13.0
For-profit	77.3	50.2	59.0	8.9
Not-for-profit	81.4	62.9	53.3	5.9
Local/state government	82.7	65.6	56.7	4.6
Federal government	81.6	60.6	59.5	7.9
Military	79.8	65.1	55.0	9.8
Occupation ¹				
Business and management	81.7	48.7	61.1	7.8
Education	84.8	68.9	57.5	4.3
Health professions	82.7	69.0	62.2	4.4
Service industries	69.5	45.2	53.3	11.9
Research, other professional/technical	77.2	59.9	52.6	7.2
Engineering/architecture/computer science	84.9	48.1	67.5	6.0
Other	55.9	52.7	40.6	19.1

¹Only includes respondents who have worked at any time since 1997. Applies to current or most recent job.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993–2003 Baccalaureate and Beyond Longitudinal Study (B&B:93/03).

of five graduates (78 percent) reported that their undergraduate education was very important in preparing them for their work and careers; a majority also indicated that their college years were very important preparation for their further education (56 percent) and financial security (57 percent). Yet 8 percent did not feel that their undergraduate education was very important to any of these aspects of their lives.

Again, undergraduate major field and occupational area were related to the level of importance graduates attached to their undergraduate education for work, further education, and financial security. Nearly nine out of ten (88 percent) engineering majors reported that their undergraduate education was very important preparation for their work and career now, more than any other major except health. Undergraduate majors that prepare students for specific occupations, such as engineering or nursing, are typically more likely to be consistent with graduates' occupations after college (Horn and Zahn 2001). On the other hand, graduates who majored in humanities or in social and behavioral sciences (69–70 percent) were generally less likely than graduates with all other majors to feel that their undergraduate education was very important preparation for their work lives.

Furthermore, graduates who majored in business or engineering as undergraduates were generally less likely than graduates who majored in all other fields to report that their undergraduate education was very important preparation for further education (46 and 47 vs. 52–67 percent). This may reflect the fact that business and engineering majors were less likely than those majoring in other fields to pursue graduate education (see table 1). However, two-thirds (67 percent) of majors in natural sciences and mathematics reported that college was very important to their further education. Finally, engineering and health majors were more likely than majors in all other fields to report that their undergraduate education was very important to their financial security 10 years later (71–72 percent vs. 48–62 percent).

Some of these patterns by baccalaureate major translated into similar patterns by occupation. Employees in business, education, health, and engineering, architecture, or computer science were more likely than those working in other fields to say that their undergraduate education was very important preparation for their work and career (82–85 vs. 56–77 percent). For example, 85 percent of educators felt this way, compared with 69 percent of those employed in service industries. In addition, educators and health professionals (69 percent each), who tended to be more likely to continue their education (see compendium table I.1), were more likely than other graduates to feel that their college years were very important for their further education. Finally, engineers, architects, and computer scientists (67 percent) reported more often than all others except health professionals (62 percent) that their undergraduate education was very important preparation for their financial security. Professionals in health (62 percent)

and business (61 percent) were also more likely than employees in most other fields (except education) to feel this way.

Not just the field of employment but also the *type* of employer was related to the importance of undergraduate education for different aspects of graduates' lives in 2003. In particular, self-employed graduates were less likely than other graduates to feel that their undergraduate education was very important preparation for their work and career (67 vs. 77–83 percent). They were also less likely than those in the for-profit sector or at any level of government to feel that their undergraduate education was very important preparation for their financial security (50 vs. 57–60 percent). Graduates who were self-employed and those working in the for-profit sector were also less likely than other graduates to claim that their college years were very important preparation for further education (51 and 50 percent, respectively, vs. 61–66 percent).

Graduates who had attained advanced degrees assessed the impact of their undergraduate experiences on their later education somewhat differently. College graduates who completed advanced degrees were consistently more likely than their peers who had not attained graduate degrees across all undergraduate major and occupation fields to consider their undergraduate education very important preparation for further education.⁸ Furthermore, among graduates who majored in education or humanities as undergraduates, those who attained advanced degrees were more likely than those who did not to consider their undergraduate education very important preparation for their work and career. Those with undergraduate majors in education who held advanced degrees were more likely than their peers without graduate degrees to consider their undergraduate education very important preparation for their financial stability, whereas those who majored in health fields as undergraduates and attained advanced degrees were less likely to consider their college years very important preparation for their financial stability compared to health majors who had not completed a graduate degree.

Value of Undergraduate Education

Finally, the 1992–93 college graduates were asked to reevaluate their undergraduate education and decide whether they felt, 10 years later, that it was worth the financial cost, time, and effort required to obtain a bachelor's degree. Overall, the graduates evaluated their undergraduate education very favorably: at least 9 out of 10 felt it was worth the cost, time, and effort (90, 93, and 96 percent, respectively; table 8). Three percent, however, did not feel that their college years had been worth any of these investments.

⁸ U.S. Department of Education, National Center for Education Statistics, 2003 Baccalaureate and Beyond Longitudinal Study (B&B:93/03), Data Analysis System. Not shown in tables.

Table 8. Percentage of 1992–93 bachelor’s degree recipients who reported that their undergraduate education was worth the cost, time, and effort required, by baccalaureate major: 2003

Baccalaureate major	Financial cost	Amount of time	Amount of effort	Not worth cost, time or effort
U.S. total (excluding Puerto Rico)	90.4	93.2	95.7	2.8
Total (50 states, D.C., and Puerto Rico)	90.2	93.2	95.6	2.8
Baccalaureate degree major				
Business and management	91.6	92.7	95.0	3.5
Education	91.0	93.7	95.3	2.6
Engineering	93.9	94.5	95.8	1.4
Health	94.1	95.0	96.5	1.6
Public affairs/social services	85.2	93.3	96.0	2.1
Humanities	88.8	93.7	96.7	2.5
Social and behavioral sciences	88.3	92.5	95.3	2.8
Natural sciences and mathematics	90.5	92.5	94.8	3.3
Other	87.8	93.1	96.2	3.0

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993–2003 Baccalaureate and Beyond Longitudinal Study (B&B:93/03).

Despite the high overall evaluation, there were a few differences in the percentage reporting that college was worth the financial cost by undergraduate major. College graduates who majored in health or engineering were more likely than those who majored in other fields except for business to say that their college education was worth its financial cost (94 vs. 85–91 percent).

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Family Status

Among 1992–93 college graduates, about one-third of women (34 percent) and one-fourth of men (26 percent) had married before earning a bachelor’s degree, and 14 percent already had children (Clune, Nuñez, and Choy 2001). Among recent college graduates, marriage, parenthood, graduate education, and employment sometimes compete with each other as graduates pursue different paths and goals (Clune, Nuñez, and Choy 2001; Moen 1992). In this section, the marital and parental status of 1992–93 college graduates in 2003 is examined in relation to the other roles they hold as well as their demographic characteristics.

Marital Status

About two-thirds (68 percent) of 1992–93 college graduates were married in 2003, and 20 percent were single and had never been married⁹ (table 9). Smaller percentages reported that they were divorced (6 percent), cohabiting (4 percent), separated (1 percent), or widowed (0.4 percent). Men were more likely than women to report that they were single (22 vs. 18 percent), while women were more likely than men to report that they were divorced (7 vs. 5 percent) or widowed (0.7 vs. 0.1 percent). These findings are consistent with earlier ones that women were more likely than men to have married by the time they completed a bachelor’s degree or to have married in the first 4 years after completing college (Clune, Nuñez, and Choy 2001).

Differences in marital status by race/ethnicity 4 years after college completion (Clune, Nuñez, and Choy 2001) also persisted to 2003. Ten years after college, Asian/Pacific Islander and Black, non-Hispanic, graduates were more likely than their White, non-Hispanic,¹⁰ and Hispanic counterparts to be single (37 and 33 percent, respectively, vs. 18–19 percent). About one-half of Asian and Black graduates were married (54 and 52 percent, respectively), compared with 70 percent of White graduates and 65 percent of Hispanic graduates. Black and Hispanic graduates were more likely than Asian graduates to be divorced (9 percent each vs. 2 percent).

As in earlier years (Clune, Nuñez, and Choy 2001), pursuit of further education was associated with a lower likelihood of marriage. In 2003, compared with their peers who were not enrolled, graduates who were enrolled in a postsecondary program at that time were more likely to

⁹ For simplicity, the term “single” is used hereafter to refer to those who are single and have never been married.

¹⁰ Hereafter, “Asian” refers to Asian/Pacific Islander; “Black” refers to Black, non-Hispanic; and “White” refers to White non-Hispanic.

Table 9. Percentage distribution of 1992–93 bachelor’s degree recipients’ marital status, by demographic, educational, and employment characteristics: 2003

Demographic, educational, and employment characteristics	Single, never married	Cohabiting, not married	Married	Separated	Divorced	Widowed
U.S. total (excluding Puerto Rico)	20.1	4.3	68.2	1.2	5.9	0.4
Total (50 states, D.C., and Puerto Rico)	20.0	4.3	68.1	1.2	5.9	0.4
Gender						
Male	22.2	4.3	67.5	1.1	4.9	0.1
Female	18.2	4.3	68.7	1.3	6.8	0.7
Race/ethnicity ¹						
White, non-Hispanic	18.2	4.4	70.4	1.0	5.7	0.4
Black, non-Hispanic	32.6	2.8	51.9	3.5	8.9	0.3
Hispanic	18.6	5.3	64.9	1.3	8.7	1.1
Asian/Pacific Islander	37.3	4.7	54.4	1.2	2.4	#
Enrollment status in 2003						
Not currently enrolled	19.6	4.4	68.9	1.1	5.6	0.4
Currently enrolled	24.6	3.5	59.5	1.9	9.8	0.7
Highest degree attained as of 2003						
Bachelor’s degree	19.3	4.2	68.7	1.2	6.3	0.4
Master’s degree	20.1	4.8	68.0	1.0	5.6	0.5
Doctoral/first-professional degree	29.5	4.6	60.7	2.2	3.0	#
Labor force participation						
Employed, total	20.9	4.6	66.8	1.1	6.1	0.4
Full time, one job	21.6	4.7	66.5	1.2	5.7	0.4
Part time, one job	12.1	3.1	77.9	1.4	5.1	0.5
Multiple jobs	23.4	5.5	60.2	0.8	10.0	0.1
Unemployed	31.0	4.8	53.6	2.4	7.0	1.2
Out of the labor force	6.6	1.2	86.8	1.3	3.5	0.7
Salary ²						
Low	20.2	4.3	66.2	1.6	6.8	0.8
Middle	21.2	4.6	66.3	1.4	6.2	0.3
High	18.2	4.0	72.3	0.5	4.8	0.2

#Rounds to zero.

¹Black includes African American, Pacific Islander includes Native Hawaiian, and Hispanic includes Latino. Race categories exclude Hispanic origin unless specified. Included in the totals but not shown separately are data for American Indian/Alaska Native respondents and those who identified themselves with another race not shown.

²Only includes respondents who have worked at any time since 1997. Applies to current or most recent job.

NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993–2003 Baccalaureate and Beyond Longitudinal Study (B&B:93/03).

be single (25 vs. 20 percent) or divorced (10 vs. 6 percent) and less likely to be married (60 vs. 69 percent). In addition, 1992–93 graduates who had completed a doctoral or first-professional degree were more likely than other graduates to be single in 2003 (29 vs. 19–20 percent), and they were less likely to be married (61 vs. 68–69 percent). Doctoral and first-professional degree recipients were also less likely than other graduates to be divorced (3 vs. 6 percent).

In 2003, 10 years after college completion, graduates who worked part time or were out of the labor force were less likely than other graduates to be single and never married (12 and 7 percent, respectively, vs. 22–31 percent). Conversely, graduates who worked part time or were out of the labor force were more likely than others to be married (78 and 87 percent, respectively, vs. 54–66 percent). These patterns may be related to the fact that women were more likely than men to work part time or be out of the labor force (see table 3). Finally, bachelor's degree recipients with salaries in the highest salary group were more likely than their peers who earned less to be married in 2003 (72 vs. 66 percent).

Parenthood

When they completed college in 1992–93, 14 percent of this cohort already had children; among those who did not already have children, 13 percent had become parents within 4 years (Clune, Nuñez, and Choy 2001). Ten years after college completion, about one-half (51 percent) of graduates had children¹¹ younger than age 18 (table 10): 21 percent had one child, 22 percent had two children, and 9 percent had three or more children.

Clune, Nuñez, and Choy (2001) showed that pursuing further education within 4 years of college completion was associated with delayed childbearing for this cohort. The parental status of graduates after 10 years reflects this result. While 43 percent of bachelor's degree recipients enrolled in postsecondary education in 2003 had children, 52 percent of graduates who were not currently enrolled had children. Further, the higher the degree that graduates had completed by 2003, the less likely they were to have children. For example, 53 percent of graduates who did not complete a degree beyond the bachelor's had children, compared with 39 percent of those who completed a doctoral or first-professional degree.

Labor force participation was also associated with parental status. About two-thirds (64 percent) of graduates who were employed part time in a single job had children in 2003, as did three-fourths of those who were out of the labor force. In contrast, 48 percent of those who were employed full time in one job, 44 percent of those who had multiple jobs, and 40 percent of those

¹¹ Children are defined as dependents either inside or outside the household who were younger than age 18.

Table 10. Percentage distribution of 1992–93 bachelor’s degree recipients’ number of dependents younger than age 18, by education, employment, and family characteristics: 2003

Education, employment, and family characteristics	Has dependents under age 18				
	None	Total	One	Two	Three or more
U.S. total (excluding Puerto Rico)	49.0	51.0	20.6	21.6	8.8
Total (50 states, D.C., and Puerto Rico)	48.9	51.1	20.7	21.6	8.8
Enrollment status in 2003					
Not currently enrolled	48.2	51.8	20.7	22.1	9.0
Currently enrolled	57.3	42.8	20.4	16.4	6.0
Highest degree attained as of 2003					
Bachelor’s degree	47.1	52.9	20.4	23.1	9.5
Master’s degree	52.2	47.8	22.0	19.2	6.6
Doctoral/first-professional degree	61.5	38.5	20.2	10.8	7.5
Labor force participation					
Employed, total	50.9	49.1	20.8	20.6	7.7
Full time, one job	52.0	48.0	20.9	19.8	7.4
Part time, one job	36.0	64.0	24.1	29.3	10.6
Multiple jobs	55.7	44.3	17.4	19.1	7.8
Unemployed	59.6	40.4	15.1	16.0	9.3
Out of the labor force	24.9	75.1	21.6	34.2	19.3
Occupation ¹					
Business and management	48.4	51.6	21.8	22.6	7.2
Education	43.5	56.6	21.4	24.6	10.6
Health professions	49.1	50.9	22.0	19.6	9.3
Service industries	48.7	51.3	21.8	20.7	8.7
Research, other professional/ technical	58.5	41.5	17.6	16.7	7.3
Engineering/architecture/ computer science	48.4	51.6	21.7	21.8	8.1
Other	50.1	49.9	20.3	23.1	6.5
Marital status					
Single, never married	95.0	5.0	2.8	1.3	0.9
Married or cohabiting	35.3	64.7	25.4	27.9	11.4
Separated/divorced/widowed	57.4	42.6	22.6	15.3	4.7

¹Only includes respondents who have worked at any time since 1997. Applies to current or most recent job.

NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993–2003 Baccalaureate and Beyond Longitudinal Study (B&B:93/03).

who were unemployed had children. Furthermore, those who were out of the labor force were more likely than all others to have three or more children (19 vs. 7–11 percent).

Occupation was associated with having children as well. Educators were generally more likely than those in other occupations to have children, and employees in research or other professional or technical occupations were less likely than others to have children.

Finally, as might be expected, marital status was associated with having children under age 18. While 5 percent of bachelor's degree recipients who were single and had never been married had children, about two-thirds (65 percent) of bachelor's degree recipients who were married or living with a partner did so, as did 43 percent of bachelor's degree recipients who were separated, divorced, or widowed.

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Civic Participation

Considerable attention has been paid in recent years to community service and the role that education may play in fostering this civic participation. NCES data have been used to describe the community service experiences of the nation's secondary students (Nolin, Chaney, and Chapman 1997; Kleiner and Chapman 1999; Skinner and Chapman 1999), and such experiences are associated with increased community service participation in college (Sax and Astin 1997). In 2001, 43 percent of all 1999–2000 college graduates reported having done community service in the past year (Bradburn et al. 2003). Furthermore, community service during the undergraduate years was associated with higher rates of graduate school attendance, attainment of higher degrees, and a higher likelihood of participating in community service activities in the years following college (Astin, Sax, and Avalos 1999). Political involvement is also alive and well on college campuses: students entering college in the late 1980s (many of whom would have completed a bachelor's degree in 1992–93) appeared to be more inclined toward social activism than their counterparts in earlier years (Astin 1991). Did the activities of the 1992–93 graduates 10 years later reflect high rates of involvement in community and political affairs? This section describes graduates' civic participation in 2003.

Community Service

Overall, nearly one-half (47 percent) of the 1992–93 graduate cohort reported in 2003 that they had participated in community service in the past year (table 11). They volunteered in diverse ways. Of those who had volunteered, 44 percent reported that they had served a religious institution, 39 percent had participated in fundraising, and 32 percent had worked in education (figure 5). Also, 30 percent had been involved in other types of volunteer work with kids, such as coaching or mentoring, and 26 percent had volunteered to help with poverty or other neighborhood or community improvement programs.

As of 2003, female college graduates were more likely than their male counterparts to have volunteered in the past year (50 vs. 43 percent; table 11). Among those who had volunteered, women were more likely than men to have served educational or religious institutions, while men were more likely than women to have done other volunteer work with children or to have addressed poverty or neighborhood improvement projects. These patterns are consistent with those found among 1999–2000 bachelor's degree recipients in 2001: at that time, women were

Table 11. Percentage of 1992–93 bachelor’s degree recipients who had participated in community service in the past year, and of those, percentage doing various types of service, by demographic, employment, and family characteristics: 2003

Demographic, employment, and family characteristics	Percent of volunteers in various areas					
	Any	Education- related	Other work with kids	Fund- raising	Poverty/ neighbor- hood im- provement	Religious institution
U.S. total (excluding Puerto Rico)	47.0	31.6	29.9	38.7	26.5	44.3
Total (50 states, D.C., and Puerto Rico)	46.9	31.6	29.9	38.7	26.5	44.4
Gender						
Male	43.0	24.6	34.1	37.7	31.1	41.2
Female	50.1	36.5	26.9	39.4	23.2	46.7
Labor force participation						
Employed, total	46.5	30.8	30.4	39.0	27.3	43.4
Full time, one job	45.5	29.2	30.4	38.8	27.4	42.8
Part time, one job	48.7	35.5	24.3	34.7	22.1	46.9
Multiple jobs	52.0	37.6	35.6	44.0	31.2	44.2
Unemployed	37.9	33.9	34.0	46.9	28.9	42.8
Out of the labor force	54.7	38.0	24.2	33.6	18.6	53.0
Type of employer ¹						
Self-employed	48.7	29.1	33.2	46.1	23.8	43.6
For-profit	41.8	22.7	27.7	38.9	27.4	39.8
Not-for-profit	51.2	30.7	27.3	36.3	28.3	45.3
Local/state government	52.8	36.7	27.1	35.6	23.8	43.6
Federal government	43.0	31.6	22.3	35.7	28.2	43.3
Military	52.9	16.7	40.6	32.2	22.1	38.1
Marital status						
Single, never married	44.9	29.2	23.2	35.4	26.4	27.2
Married or cohabiting	47.5	32.0	31.0	39.4	26.3	49.2
Separated/divorced/widowed	46.3	34.3	36.6	40.1	27.8	40.6
Number of dependents under age 18						
None	45.5	29.4	23.4	36.9	27.6	32.8
One or more	48.2	33.6	35.8	40.2	25.4	54.8

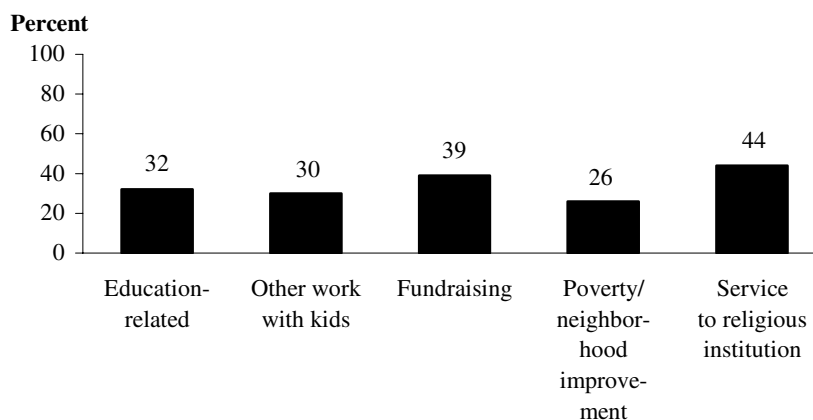
¹Only includes respondents who have worked at any time since 1997. Applies to current or most recent job.

NOTE: Types of service are not mutually exclusive; volunteers could participate in multiple activities.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993–2003 Baccalaureate and Beyond Longitudinal Study (B&B:93/03).

more likely than men to have engaged in community service overall, as well as in tutoring or education-related volunteer work with children and youth, while men were more likely than women to have done other (non-education-related) volunteer work with children and youth (Bradburn et al. 2003).

Figure 5. Among 1992–93 bachelor’s degree recipients who participated in community service in the past year, percentage doing various types of service: 2003



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993–2003 Baccalaureate and Beyond Longitudinal Study (B&B:93/03).

Graduates who were out of the labor force in 2003 were more likely than those who were either employed or unemployed to have done volunteer work, and those who were unemployed were less likely to do so than others. That is, 46 percent of 1992–93 college graduates who were employed in 2003 had volunteered in the past year, as had 55 percent of graduates who were out of the labor force and 38 percent of those who were unemployed. Employees of for-profit businesses were less likely than graduates working for themselves, for not-for-profit organizations, or for local or state government to have volunteered in the past year (42 vs. 49–53 percent). Federal government employees were also less likely than state or local civil servants to have volunteered (43 vs. 53 percent).

Among 1992–93 bachelor’s degree recipients who had volunteered in the past year as of 2003, those who were single were less likely than others to have volunteered to work with children or for a religious institution. However, no difference by marital status in the overall proportion who had volunteered was detected. Similarly, among those who had volunteered at all in the past year, college graduates with dependents under age 18 in 2003 were more likely than those without dependents to have done educational volunteer work, other work with kids, or volunteer work for a religious institution. Yet there was no detectable difference in graduates’ overall likelihood of volunteering by whether or not they had dependents.

Among 1992–93 bachelor’s degree recipients who had volunteered in the past year as of 2003, 27 percent reported that they had done so less than once a month, 29 percent had done so monthly, and 34 percent had done so weekly (table 12). On average, the total amount of time

Table 12. Level of participation in community service for 1992–93 bachelor’s degree recipients who had volunteered in the past year, by demographic, employment, and family characteristics: 2003

Demographic, employment, and family characteristics	Percentage distribution by frequency of volunteer work					Average total volunteer hours in past year
	One-time event	Less than once a month	Monthly	Weekly	Daily	
U.S. total (excluding Puerto Rico)	1.8	27.3	29.0	34.1	7.7	147
Total (50 states, D.C., and Puerto Rico)	1.8	27.3	29.0	34.1	7.8	148
Gender						
Male	2.2	22.4	29.2	35.8	10.5	150
Female	1.6	30.9	28.8	32.9	5.9	146
Labor force participation						
Employed, total	1.7	25.1	29.4	35.3	8.6	141
Full time, one job	1.6	24.3	28.7	35.9	9.6	135
Part time, one job	1.9	31.1	35.9	26.3	4.8	174
Multiple jobs	1.9	26.0	28.4	38.5	5.2	149
Unemployed	2.6	39.5	27.1	28.5	2.3	253
Out of the labor force	2.8	42.3	26.6	25.6	2.8	175
Type of employer ¹						
Self-employed	1.6	28.3	28.1	36.6	5.5	137
For-profit	1.5	21.9	29.0	36.3	11.4	118
Not-for-profit	2.0	31.5	30.2	32.5	3.8	194
Local/state government	2.6	32.3	26.4	33.2	5.6	152
Federal government	4.4	35.4	20.0	31.7	8.4	168
Military	#	30.8	31.6	29.5	8.2	193
Marital status						
Single, never married	1.0	23.2	25.4	39.5	10.9	139
Married or cohabiting	2.1	27.8	29.6	33.3	7.2	142
Separated/divorced/widowed	1.2	33.3	32.5	27.6	5.4	222
Number of dependents under age 18						
None	1.4	23.7	28.2	36.9	9.8	148
One or more	2.2	30.7	29.7	31.5	6.0	147

#Rounds to zero.

¹Only includes respondents who have worked at any time since 1997. Applies to current or most recent job.

NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993–2003 Baccalaureate and Beyond Longitudinal Study (B&B:93/03).

volunteers had logged in that period was 148 hours. Although women were more likely than men to have volunteered in the past year, among those who had volunteered, men were more likely to have done so on a daily basis (10 vs. 6 percent), while women were more likely to have volunteered less than once a month (31 vs. 22 percent).

The 2003 employment status of 1992–93 college graduates was associated with how frequently they had volunteered in the past year. Those who were employed in 2003 had volunteered more frequently than graduates who were unemployed or out of the labor force; for example, 9 percent of employed graduates volunteered daily, compared with 2–3 percent of others. Further, while about one-fifth of unemployed graduates (40 percent) or those who were out of the labor force (42 percent) volunteered less than once a month, one-fourth of those who were employed did so (25 percent). Despite volunteering more frequently, however, employed graduates had done fewer total hours of volunteer work during the past year than their counterparts who were unemployed or out of the labor force (141 vs. 253 and 175 hours, respectively).

Whether or not graduates were married or had children was also related to the frequency of their community service. College-educated volunteers who were single and had never been married were more likely than others to have volunteered weekly (40 vs. 28–33 percent) or daily (11 vs. 5–7 percent). Volunteers who had children younger than age 18 were more likely than their counterparts without children to have done community service less than once a month (31 vs. 24 percent), and they were less likely to have volunteered weekly (31 vs. 37 percent) or daily (6 vs. 10 percent).

Political Participation

About 9 out of 10 (93 percent) of 1992–93 bachelor’s degree recipients were registered to vote in 2003, and a majority (76 percent) had voted in the 2002 election (table 13).¹² These rates of registration and voting were similar to those of 1999–2000 graduates: 87 percent were registered to vote in 2001, and 77 percent had voted in the 2000 presidential election.¹³ Among the 1992–93 graduates, activities that required more involvement were less common: about one-third (36 percent) had contacted a public official by letter, e-mail, or telephone in the past 2 years, while 15 percent had attended some sort of political event, such as a dinner or a rally, in the past year.

Asian/Pacific Islander and Hispanic graduates were less likely than their Black and White counterparts to be registered to vote in 2003, to have voted in the 2002 elections, or to have attended political events in the past year. There was one exception to this overall pattern: no difference was detected between Hispanic and White graduates in the percentage attending political events.

¹² Voter registration and voting are reported only for U.S. citizens or nationals, while contacting public officials and attending political events apply to all graduates.

¹³ U.S. Department of Education, National Center for Education Statistics, 2001 Baccalaureate and Beyond Longitudinal Study (B&B:01), Data Analysis System.

Table 13. Percentage of 1992–93 bachelor’s degree recipients who reported participating in various political activities, by demographic and educational characteristics: 2003

Demographic and educational characteristics	Registered to vote ¹	Voted in 2002 election ¹	Contacted public official ²	Attended political meetings/rallies ³
U.S. total (excluding Puerto Rico)	93.4	76.4	36.4	15.2
Total (50 states, D.C., and Puerto Rico)	93.1	76.1	36.3	15.1
Race/ethnicity ⁴				
White, non-Hispanic	94.2	77.0	37.6	15.2
Black, non-Hispanic	95.8	84.7	28.3	21.5
Hispanic	85.5	66.1	31.9	11.5
Asian/Pacific Islander	79.0	60.7	25.9	8.4
Age at bachelor’s degree completion				
22 or younger	93.3	73.0	33.4	15.4
23–24	91.3	73.8	34.4	13.0
25–29	92.3	77.2	35.6	14.1
30 or older	95.9	89.2	49.2	18.7
Educational expectations at bachelor’s completion				
Bachelor’s degree	92.7	75.4	29.5	11.9
Master’s degree	93.3	77.1	35.0	12.9
Doctoral/first-professional degree	93.4	75.6	44.2	21.5
Highest degree attained as of 2003				
Bachelor’s degree	92.7	76.0	35.0	13.4
Master’s degree	95.6	78.4	41.2	18.9
Doctoral/first-professional degree	89.8	69.5	37.0	24.1

¹U.S. citizens and nationals only.

²Contacted public official in the past 2 years.

³Attended political events in the last year.

⁴Black includes African American, Pacific Islander includes Native Hawaiian, and Hispanic includes Latino. Race categories exclude Hispanic origin unless specified. Included in the totals but not shown separately are data for American Indian/Alaska Native respondents and those who identified themselves with another race not shown.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993–2003 Baccalaureate and Beyond Longitudinal Study (B&B:93/03).

Older 1992–93 college graduates were more likely than younger ones to have voted in the 2002 elections. While 73 percent of those who graduated at age 22 or younger had voted, 89 percent of those who were age 30 or older when graduating had done so. Older bachelor’s degree recipients were also more likely than their younger peers to have contacted a public official in the past 2 years: about one-half (49 percent) of graduates age 30 or older at college completion had done so, compared with approximately one-third (33–36 percent) of younger graduates.

Both educational expectations at college completion and eventual educational attainment were associated with various forms of political participation. When interviewed in 2003, mem-

bers of the 1992–93 cohort who expected at the time of graduation to complete a doctoral or first-professional degree were more likely than those who did not have such expectations to have contacted a public official in the past 2 years or to have attended political events in the past year. When comparing graduates by the actual level of education they had completed by 2003, having an advanced degree was also sometimes associated with more political participation. Graduates who had completed an advanced degree by 2003 were more likely than those with no more than a bachelor’s degree to have attended political events in the past year (19–24 percent vs. 13 percent). Furthermore, master’s degree recipients were more likely than graduates with a bachelor’s degree to have contacted a public official in the past 2 years (41 vs. 35 percent). However, doctoral and first-professional degree holders were *less* likely than master’s degree holders to have voted in the 2002 national election (70 vs. 78 percent).

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Summary and Conclusion

Although 1992–93 college graduates took many different paths after earning bachelor’s degrees, some paths were more common than others. By 2003, 20 percent of graduates had earned master’s degrees, 4 percent had earned first-professional degrees, and 2 percent had earned doctoral degrees. Advanced degree program attendance and completion were associated with a number of undergraduate factors, such as major field of study and GPA. Also, the extent to which graduates enrolled in graduate and professional education programs corresponded with their plans upon earning a bachelor’s degree: those who had anticipated earning an advanced degree were more likely to do so than those who had not expected to further their education.

Most bachelor’s degree recipients were employed 10 years after graduating from college, and 70 percent were employed in one full-time job. The average full-time employee worked 47 hours per week and earned \$60,700 per year. Ten years after graduating from college, the median salary for graduates who worked full time was \$52,000. Gender differences were evident in graduates’ careers. For example, men were more likely to work full time than women, while women were more likely to work part time or to be out of the labor force than men. Employment outcomes were also related to highest degree attained, occupation, and other characteristics.

Overall, 1992–93 college graduates seemed to be pleased with their experiences while they were undergraduates. Although their evaluation varied across the specific aspects of their undergraduate education (such as their liberal arts coursework and internship or work opportunities), most agreed that their undergraduate education as a whole was very important preparation for their work and career, further education, and for establishing financial security. Finally, regardless of major, most bachelor’s degree recipients felt that their undergraduate education was worth the financial cost, amount of time, and amount of effort they had invested in it.

The majority of bachelor’s degree recipients (68 percent) were married in 2003, and about half (51 percent) had children under 18 years old. The likelihood of being married varied by graduates’ demographic characteristics, and pursuing a graduate degree was associated with a reduced likelihood of both being married and having children, a result consistent with earlier findings that graduate school enrollment delayed family formation (Clune, Nuñez, and Choy 2001).

Community service, a recent focus in postsecondary education, was common among the graduates 10 years later. In 2003, nearly half (47 percent) of them reported having volunteered within the last year. Political participation was also evident. The majority of graduates were registered to vote, and nearly three-fourths reported that they had voted in the 2002 election. Graduates reported that they were less likely to have contacted a public official to express an opinion or to have attended political events than they were to have voted. However, those who had attained a doctoral or first-professional degree by 2003 were generally more likely to have participated in these activities than those who had earned a master's or bachelor's degree.

References

- Astin, A.W. (1991). The Changing American College Student: Implications for Educational Policy and Practice. *Higher Education* 22: 129–143.
- Astin, A.W., Sax, L.J., and Avalos, J. (1999). Long-Term Effects of Volunteerism During the Undergraduate Years. *The Review of Higher Education* 22(2): 187–202.
- Bradburn, E.M., and Berger, R. (2002). *Beyond 9 to 5: The Diversity of Employment Among 1992–93 College Graduates in 1997* (NCES 2003-152). U.S. Department of Education. Washington, DC: National Center for Education Statistics.
- Bradburn, E.M., Berger, R., Li, X., Peter, K., and Rooney, K. (2003). *A Descriptive Summary of 1999–2000 Bachelor’s Degree Recipients 1 Year Later, With an Analysis of Time to Degree* (NCES 2003-165). U.S. Department of Education. Washington, DC: National Center for Education Statistics.
- Clune, M.S., Nuñez, A., and Choy, S.P. (2001). *Competing Choices: Men’s and Women’s Paths After Earning a Bachelor’s Degree* (NCES 2001-154). U.S. Department of Education. Washington, DC: National Center for Education Statistics.
- Green, P.J., Myers, S.L., Giese, P., Law, J., Speizer, H.M., Tardino, V.S., and Knepper, P. (1996). *Baccalaureate and Beyond Longitudinal Study: 1993/94 First Follow-up Methodology Report* (NCES 96-149). U.S. Department of Education. Washington, DC: National Center for Education Statistics.
- Green, P., Myers, S., Veldman, C., and Pedlow, S. (1999). *Baccalaureate and Beyond Longitudinal Study: 1993/97 Second Follow-up Methodology Report* (NCES 1999-159). U.S. Department of Education. Washington, DC: National Center for Education Statistics.
- Henke, R.R., and Zahn, L. (2001). *Attrition of New Teachers Among Recent College Graduates: Comparing Occupational Stability Among 1992–93 Graduates Who Taught and Those Who Worked in Other Occupations* (NCES 2001-189). U.S. Department of Education. Washington, DC: National Center for Education Statistics.

- Horn, L.J., and Zahn, L. (2001). *From Bachelor's Degree to Work: Major Field of Study and Employment Outcomes of 1992–93 Bachelor's Degree Recipients Who Did Not Enroll in Graduate Education by 1997* (NCES 2001-165). U.S. Department of Education. Washington, DC: National Center for Education Statistics.
- Kass, G.V. (1980). An Exploratory Technique for Investigating Large Quantities of Categorical Data. *Applied Statistics*, 29: 119–127.
- Kleiner, B., and Chapman, C. (1999). *Service-Learning and Community Service Among 6th-Through 12th-Grade Students in the United States: 1996 and 1999* (NCES 2000-028). U.S. Department of Education. Washington, DC: National Center for Education Statistics.
- Loft, J.D., Riccobono, J.A., Whitmore, R.W., Fitzgerald, R.A., and Berkner, L.K. (1995). *Methodology Report for the National Postsecondary Student Aid Study, 1992–93* (NCES 95-211). U.S. Department of Education. Washington, DC: National Center for Education Statistics.
- McCormick, A.C., Nuñez, A., Shah, V., and Choy, S.P. (1999). *Life After College: A Descriptive Summary of 1992–93 Bachelor's Degree Recipients in 1997, With an Essay on Participation in Graduate and First-Professional Education* (NCES 1999-155). U.S. Department of Education. Washington, DC: National Center for Education Statistics.
- Moen, P. (1992). *Women's Two Roles: A Contemporary Dilemma*. New York: Auburn House.
- Nolin, M.J., Chaney, B., and Chapman, C. (1997). *Student Participation in Community Service Activity* (NCES 97-331). U.S. Department of Education. Washington, DC: National Center for Education Statistics.
- Sax, L.J., and Astin, A.W. (1997, Summer/Fall). The Benefits of Service: Evidence From Undergraduates. *Educational Record*, 78 (3-4): 25–32.
- Skinner, B., and Chapman, C. (1999). *Service-Learning and Community Service in K–12 Public Schools* (NCES 1999-043). U.S. Department of Education. Washington, DC: National Center for Education Statistics.
- U.S. Department of Education, National Center for Education Statistics. (2002). *The Condition of Education 2002* (NCES 2002-025). Washington, DC: National Center for Education Statistics.
- Wine, J.S., Cominole, M.B., Wheelless, S., Dudley, K., and Franklin, J. (2005). *1993/03 Baccalaureate and Beyond Longitudinal Study (B&B:93/03) Methodology Report* (NCES 2006-166). U.S. Department of Education. Washington, DC: National Center for Education Statistics.