

# STATS IN BRIEF

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## College Majors and Careers: Job Relatedness and Compensation of 1992–93 and 2007–08 Bachelor's Degree Recipients 4 Years After Graduation

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**Statistics in Brief** publications describe key findings from statistical tables to provide useful information to a broad audience, including members of the general public. They address simple and topical issues and questions. They do not investigate more complex hypotheses, account for inter-relationships among variables, or support causal inferences. We encourage readers who are interested in more complex questions and in-depth analysis to explore other NCES resources, including publications, online data tools, and public- and restricted-use datasets. See [nces.ed.gov](https://nces.ed.gov) and references noted in the body of this document for more information.

### Salaries for bachelor's degree

recipients can vary widely by college major (Carnevale, Cheah, and Hanson 2015; Carnevale, Cheah, and Strohl 2013). A 2001 report by the National Center for Education Statistics (NCES) investigated the relationship between the undergraduate majors and early employment outcomes of 1992–93 college graduates, including satisfaction with employment and salaries 4 years after receiving their bachelor's degrees. This report found that engineering and computer science majors experienced higher-than-average salaries 4 years after receiving their bachelor's degree, while education and humanities and arts majors had lower-than-average salaries (Horn and Zahn 2001). Another NCES report found that 25- to 29-year-olds who held bachelor's degrees in electrical engineering (\$74,790) and mechanical engineering (\$71,860) had some of the highest median annual earnings. In comparison, similarly aged bachelor's degree recipients in social work and human services (\$36,200), fine arts (\$36,270), and elementary education (\$39,070) had some of the lowest median annual earnings (McFarland et al. 2018).

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Relationships between college major and salary may depend upon how related bachelor's degree recipients' jobs are to their majors. One study found that students majoring in fields such as engineering, computer science, and business management received a higher wage penalty for working in a job unrelated to their major than did students who majored in these fields and who worked in a job related to their major. Significant differences were also found for social science and education majors, but the wage penalty was smaller than the penalty for engineering, computer science, and business management majors. For example, among males, engineering majors who held a position unrelated to their college major had a 25 percent lower annual income than their peers who held an engineering-related position, while social science majors who held a position unrelated to their major had a 4 percent lower annual income. (Robst 2007).

Adverse labor market conditions at the time of college graduation also can have a large, negative, and persistent effect on salaries (Kahn 2010; Oreopoulos, von Wachter, and Heisz 2012). A recent NCES report examined the relationship between college majors and unemployment rates and median annual salaries 1 year after

college by comparing three cohorts of college graduates (from 1992–93, 1999–2000, and 2007–08) (Staklis and Skomsvold 2014). The report found that the unemployment rate of 2007–08 bachelor's degree recipients (9 percent) was higher than that of those who attained their degrees in 1992–93 and 1999–2000 (5 percent in both years). In addition, 1 year after bachelor's degree completion, median annual salaries were lower for 2007–08 and 1992–93 college graduates who majored in fields such as computer and information science, the social sciences, and the humanities than for 1999–2000 college graduates. For all three cohorts, median salaries were higher for college graduates whose jobs were closely related to their majors than for those whose jobs were not related at all to their majors.

This Statistics in Brief builds on earlier reports to compare the labor market outcomes of 1992–93 and 2007–08 bachelor's degree recipients 4 years after their graduation, by major. The purpose of this brief is to describe students' bachelor's degree majors between two cohorts and to look at the relation between their majors and their jobs and salaries 4 years after completing their degree. This brief addresses three study questions. The first question is whether the

distribution of college majors changed between the classes of 1992–93 and 2007–08. The last two questions compare the percentages of graduates in the two cohorts who were employed in a job that was related to their major and then examine differences in inflation-adjusted median annual salaries by major 4 years after graduation. The last two questions focus on students who (1) were first-time bachelor's degree recipients, (2) did not obtain any additional degree 4 years after completing their bachelor's degree, and (3) were employed (either part time or full time) in 1997 or 2012.

## DATA AND METHODS

The analyses presented in this brief are based on data from the second follow-up of two administrations of the Baccalaureate and Beyond Longitudinal Study (B&B), B&B:93/97 and B&B:08/12, conducted by NCES. These studies provide information on the education and employment outcomes of those who received bachelor's degrees from Title IV eligible postsecondary institutions.<sup>1</sup> B&B:93/97 was a 4-year follow-up of bachelor's degree recipients who completed their degrees between July 1, 1992, and June 30, 1993, and who were first interviewed as part of the 1992–93 administration of the National Postsecondary Student Aid Study (NPSAS). Similarly, B&B:08/12

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<sup>1</sup> Title IV institutions are those eligible to participate in the federal financial aid programs included in Title IV of the Higher Education Act. These programs include Pell Grants, federal student loans, work-study, and other federal aid.

was a 4-year follow-up of bachelor's degree recipients who completed their degrees between July 1, 2007, and June 30, 2008, and who were first interviewed as part of the 2007–08 administration of NPSAS.

Some 11,190 and 17,110 individuals who were determined to be eligible for follow-up in 1997 and 2012, respectively, comprised the B&B:93/97 and B&B:08/12 cohorts. These bachelor's degree recipients represent approximately 1.2 million bachelor's degree completers in 1992–93 and 1.6 million in 2007–08. This brief is based on first-time bachelor's degree recipients only<sup>2</sup> who were employed 4 years after receiving their bachelor's degree.

Information on job relatedness to undergraduate majors is based on student reports collected from the self-administered B&B:93/97 and B&B:08/12 questionnaires. In B&B:93/97 and B&B:08/12, bachelor's degree recipients were asked how closely related their current jobs or primary jobs were

to their undergraduate majors.<sup>3</sup> In both 1997 and 2012, the responses for relatedness of job to major were measured using three categories: *closely related*, *somewhat related*, and *not related at all*.

The B&B:97 interview focused on college graduates' jobs in April 1997. If they had more than one job, respondents were asked to identify their main employer (i.e., the employer for whom they had worked the most number of hours). The B&B:12 interview focused only on respondents' primary job, which was defined as the respondent's current or most recent job that lasted more than 3 months; if more than one job met this definition, the job with the highest number of hours per week was selected. All estimates exclude respondents who were not employed in 1997 or 2012.

Median annual salaries for both the 1997 and 2012 collection were adjusted for inflation (to reflect 2016 dollars) using the Bureau of Labor Statistics Consumer Price Index.<sup>4</sup>

Differences in job relatedness to majors and median annual salaries are reported in two overall categories of undergraduate major: science, technology, engineering, and mathematics (STEM) fields and non-STEM fields.<sup>5</sup> STEM fields include computer and information sciences, engineering and engineering technology, and "Other STEM fields."<sup>6</sup> Non-STEM fields include social sciences, humanities, health care fields, business, education, "General studies and other,"<sup>7</sup> and "Other applied."<sup>8</sup>

All differences reported in the text are statistically significant at the  $p < .05$  level to ensure that they are larger than might be expected due to sampling variation.<sup>9</sup> No adjustments were made for multiple comparisons. For more information about  $p$  values, as well as about the data sources, variables selected in the collection of these data, measures, and methods used in this brief, please see the **Methodology and Technical Notes** at the end of the report.

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<sup>2</sup> Because estimates are for first-time bachelor's degree recipients only, the 11.3 percent of 1992–93 bachelor's degree recipients and 7.0 percent of 2007–08 bachelor's degree recipients who had earned a prior bachelor's degree or above, or who had not responded to a question about a prior bachelor's degree, have been excluded from the report analyses.

<sup>3</sup> In 1997, respondents who had a master's degree or above were also asked how closely related their jobs were to their graduate field of study. In 2012, the survey question asked only about the relatedness of respondents' primary job to their bachelor's degree major. To ensure comparability, the estimates in study questions 2 and 3 exclude the 17.7 percent of 1992–93 bachelor's degree recipients and 25.9 percent of 2007–08 bachelor's degree recipients who had obtained an additional degree 4 years after completing their bachelor's degree or who had not responded to the question about a post-bachelor's degree.

<sup>4</sup> Consumer Price Index multipliers retrieved February 8, 2017, from <http://www.bls.gov/cpi/cpicalc.htm>. The multipliers 1.49537 and 1.04535 were used to standardize salaries for 1997 and 2012, respectively.

<sup>5</sup> These categories are consistent with other NCES reports using B&B data (for example, see Staklis and Skomsvold 2014).

<sup>6</sup> "Other STEM fields" include biological and physical sciences, science technology, mathematics, and agricultural and natural sciences.

<sup>7</sup> "General studies and other" fields include liberal arts and sciences; general studies and humanities; multi/interdisciplinary studies; basic skills; citizenship activities; health-related knowledge and skills; interpersonal and social skills; leisure and recreational activities; and personal awareness and self-improvement.

<sup>8</sup> "Other applied" fields include personal and consumer services; manufacturing, construction, repair, and transportation; military technology and protective services; architecture; communications; public administration and human services; design and applied arts; law and legal studies; library sciences; and theology and religious vocations.

<sup>9</sup> Apparent differences may not be statistically significant due to small sample sizes and large standard errors.

## STUDY QUESTIONS

1

How did the distribution of college majors change between the classes of 1992–93 and 2007–08?

2

Four years after receiving their bachelor's degrees, how did the relatedness of 2007–08 bachelor's degree recipients' jobs to their college majors differ from that of 1992–93 bachelor's degree recipients?

3

Four years after receiving their bachelor's degrees, how did the median annual salaries of 2007–08 bachelor's degree recipients differ from those of 1992–93 bachelor's degree recipients?

## KEY FINDINGS

- The percentage of students who graduated with a STEM degree decreased from 20 to 16 percent between 1992–93 and 2007–08 (figure 1).
- The percentage of students who graduated with a non-STEM degree increased from 80 to 84 percent between 1992–93 and 2007–08.
- Four years after graduation, the percentage of college graduates who reported that their jobs were closely related to their undergraduate major increased from 64 percent in 1997 to 71 percent in 2012 for education majors (figure 3).
- For graduates who majored in computer and information sciences, engineering and engineering technology, health care fields, business, and “Other applied” majors, the percentage who reported that their jobs were closely related to their undergraduate majors decreased.
- From 1997 to 2012, the median annual salary of graduates 4 years after graduation decreased by \$1,000 (in 2016 dollars) (figure 5).
- Differences in median annual salary by college major from 1997 to 2012 included an increase overall for STEM majors (\$7,800), as well as specifically for engineering and engineering technology majors (\$5,100). Meanwhile, there was a decrease for social science (\$5,300) and humanities (\$4,900) majors.

# 1

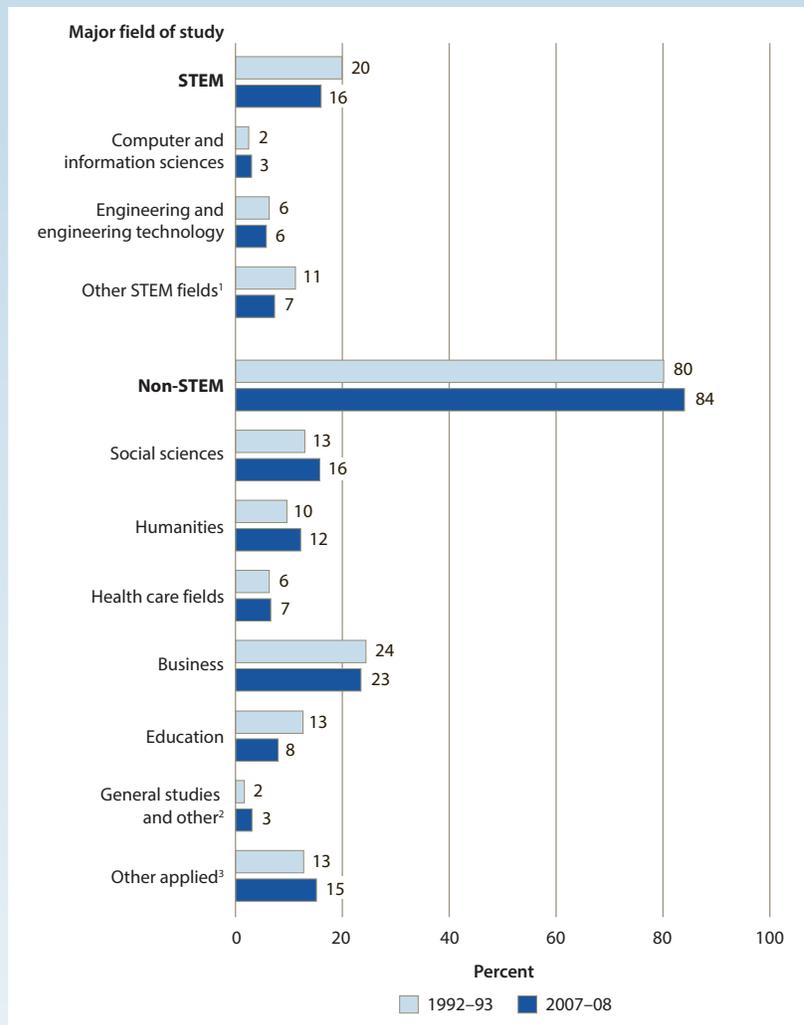
## How did the distribution of college majors change between the classes of 1992–93 and 2007–08?

Overall, the percentage of students who graduated with a STEM degree decreased from 20 to 16 percent between 1992–93 and 2007–08 (figure 1). While the percentage of students who graduated with a computer and information sciences major increased from 2 to 3 percent, the percentage of students who graduated with a major in “Other STEM fields” (outside of engineering and engineering technology) decreased from 11 to 7 percent.

In contrast, the percentage of undergraduate students who earned a non-STEM degree increased from 80 to 84 percent between 1992–93 and 2007–08. About 24 percent of undergraduate students were majoring in business in 1992–93 and 23 percent were majoring in business in 2007–08. Between these two years, there were increases in the percentages of college graduates who earned a degree in the social sciences (from 13 to 16 percent) and in the humanities (from 10 to 12 percent). However, there was a decrease in the percentage of students who earned a degree in education (from 13 to 8 percent).

### FIGURE 1.

Percentage distribution of major field of study of 1992–93 and 2007–08 first-time bachelor’s degree recipients: 1992–93 and 2007–08



<sup>1</sup>“Other STEM fields” include biological and physical sciences, science technology, mathematics, and agricultural and natural sciences.

<sup>2</sup>“General studies and other” includes liberal arts and sciences; general studies and humanities; multi/interdisciplinary studies; basic skills; citizenship activities; health-related knowledge and skills; interpersonal and social skills; leisure and recreational activities; and personal awareness and self-improvement.

<sup>3</sup>“Other applied” includes personal and consumer services; manufacturing, construction, repair, and transportation; military technology and protective services; architecture; communications; public administration and human services; design and applied arts; law and legal studies; library sciences; and theology and religious vocations.

NOTE: STEM majors include science, technology, engineering, and mathematics. Estimates are for first-time bachelor’s degree recipients only and exclude the 11.3 percent of 1992–93 bachelor’s degree recipients and 7.0 percent of 2007–08 bachelor’s degree recipients who had earned a prior bachelor’s degree or above or had not responded to a question about a prior bachelor’s degree. B&B:93/97 data are weighted by WTF000, and B&B:08/12 data are weighted by WTD000. Estimates include students enrolled in Title IV eligible postsecondary institutions in the 50 states, the District of Columbia, and Puerto Rico.

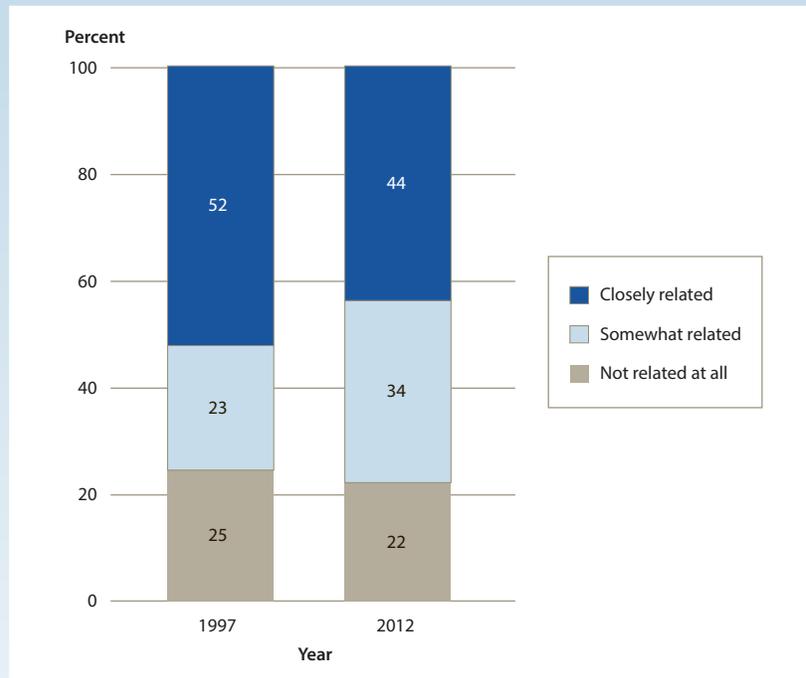
SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993/97 Baccalaureate and Beyond Longitudinal Study (B&B:93/97) and 2008/12 Baccalaureate and Beyond Longitudinal Study (B&B:08/12).

## 2 Four years after receiving their bachelor's degrees, how did the relatedness of 2007–08 bachelor's degree recipients' jobs to their college majors differ from that of 1992–93 bachelor's degree recipients?

In both 1997 and 2012, employed bachelor's degree recipients were asked whether their current jobs were closely, somewhat, or not at all related to their undergraduate major.<sup>10</sup> In 1997, about 52 percent of bachelor's degree recipients stated that their jobs were closely related to their undergraduate major, some 23 percent responded that their jobs were somewhat related, and around 25 percent reported working jobs not related at all to their undergraduate majors. In 2012, only 44 percent of respondents reported that their jobs were closely related to their undergraduate major, about 34 percent reported that their jobs were somewhat related, and 22 percent reported that their jobs were not related at all (figure 2). The first section of findings focuses on bachelor's degree recipients who reported that their jobs were closely related to their major field of study, while the second sections focus on bachelor's degree recipients who indicated that their jobs were not related at all to their major field of study. Within each section, the findings explore differences in job relatedness to undergraduate major between 1997 and 2012.

**FIGURE 2.**

Percentage of first-time bachelor's degree recipients, by job relatedness to their undergraduate majors: 1997 and 2012



NOTE: Excludes the 11.3 percent of 1992–93 bachelor's degree recipients and 7.0 percent of 2007–08 bachelor's degree recipients who had earned a prior bachelor's degree or above or had not responded to the question about a pre-bachelor's degree. Excludes the 17.7 percent of 1992–93 bachelor's degree recipients and 25.9 percent of 2007–08 bachelor's degree recipients who had obtained an additional degree 4 years after completing their bachelor's degree or had not responded to the question about a post-bachelor's degree. Estimates exclude respondents who were not employed in 1997 or 2012. B&B:93/97 data are weighted by WTF000, and B&B:08/12 data are weighted by WTD000. Detail may not sum to totals because of rounding. Estimates include students enrolled in Title IV eligible postsecondary institutions in the 50 states, the District of Columbia, and Puerto Rico. SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993/97 Baccalaureate and Beyond Longitudinal Study (B&B:93/97) and 2008/12 Baccalaureate and Beyond Longitudinal Study (B&B:08/12).

<sup>10</sup> Data for bachelor's degree recipients who indicated that their jobs were somewhat related to their major field of study are included in table 2.

## Job closely related to major

### Comparisons between 1997 and 2012

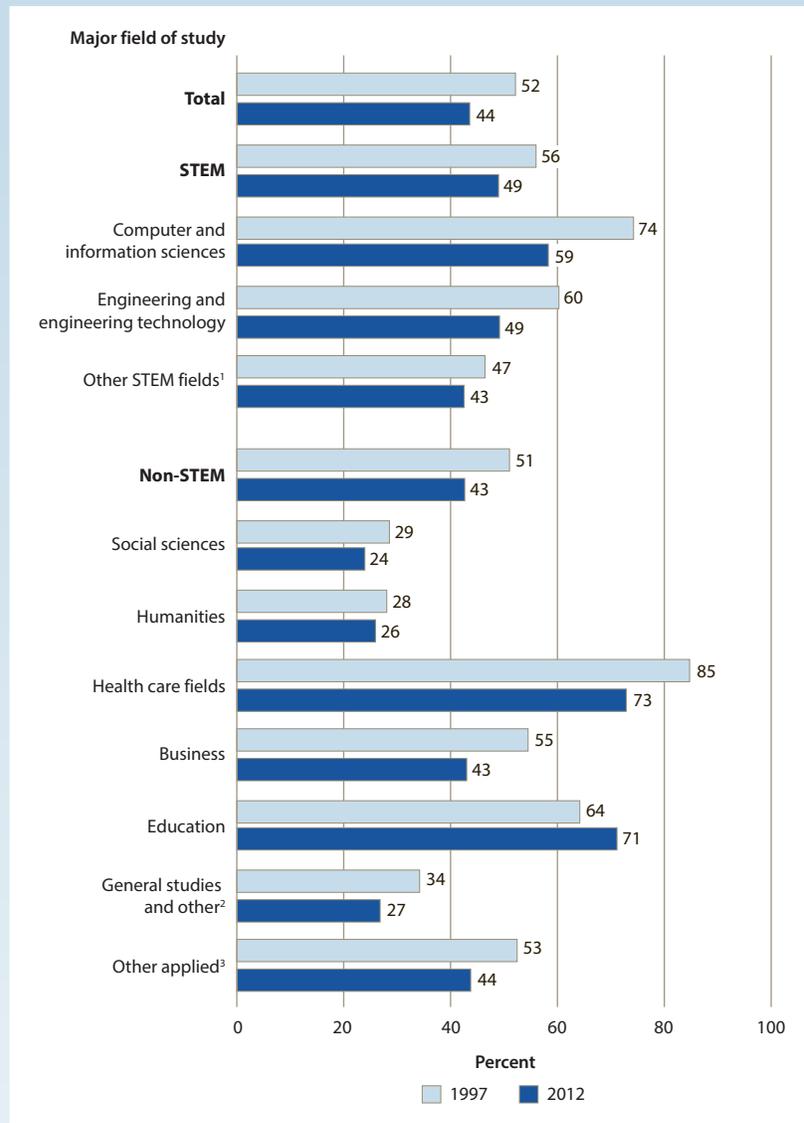
Overall, there was an 8-percentage-point decline from 1997 to 2012 in the percentage of bachelor's degree recipients who reported that their jobs were closely related to their major. Specifically, about 52 percent of 1992–93 graduates reported in 1997 that their jobs were closely related to their undergraduate majors, compared to 44 percent of 2007–08 graduates in 2012 (figure 3).

STEM majors followed a similar pattern. From 1997 to 2012, the total percentage of STEM graduates who reported that their jobs were closely related to their major field of study decreased from 56 to 49 percent. There were also specific decreases for computer and information science majors (from 74 to 59 percent) and engineering and engineering technology majors (from 60 to 49 percent).

As was the case with STEM majors, the total percentage of non-STEM majors who reported that their jobs were closely related to their undergraduate major field of study decreased from 1997 to 2012 (from 51 to 43 percent). However, this percentage increased for education majors (from 64 to 71 percent).

## FIGURE 3.

Percentage of first-time bachelor's degree recipients who reported that their jobs were closely related to their undergraduate majors, by major field of study: 1997 and 2012



<sup>1</sup>“Other STEM fields” include biological and physical sciences, science technology, mathematics, and agricultural and natural sciences.

<sup>2</sup>“General studies and other” includes liberal arts and sciences; general studies and humanities; multi/interdisciplinary studies; basic skills; citizenship activities; health-related knowledge and skills; interpersonal and social skills; leisure and recreational activities; and personal awareness and self-improvement.

<sup>3</sup>“Other applied” includes personal and consumer services; manufacturing, construction, repair, and transportation; military technology and protective services; architecture; communications; public administration and human services; design and applied arts; law and legal studies; library sciences; and theology and religious vocations.

NOTE: STEM majors include science, technology, engineering, and mathematics. Estimates are for first-time bachelor's degree recipients only. Excludes the 11.3 percent of 1992–93 bachelor's degree recipients and 7.0 percent of 2007–08 bachelor's degree recipients who had earned a prior bachelor's degree or above or had not responded to the question about a pre-bachelor's degree. Excludes the 17.7 percent of 1992–93 bachelor's degree recipients and 25.9 percent of 2007–08 bachelor's degree recipients who had obtained an additional degree 4 years after completing their bachelor's degree or had not responded to the question about a post-bachelor's degree. Estimates exclude respondents who were not employed in 1997 or 2012. B&B:93/97 data are weighted by WTF000, and B&B:08/12 data are weighted by WTD000. Detail may not sum to totals because of rounding. Estimates include students enrolled in Title IV eligible postsecondary institutions in the 50 states, the District of Columbia, and Puerto Rico.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993/97 Baccalaureate and Beyond Longitudinal Study (B&B:93/97) and 2008/12 Baccalaureate and Beyond Longitudinal Study (B&B:08/12).

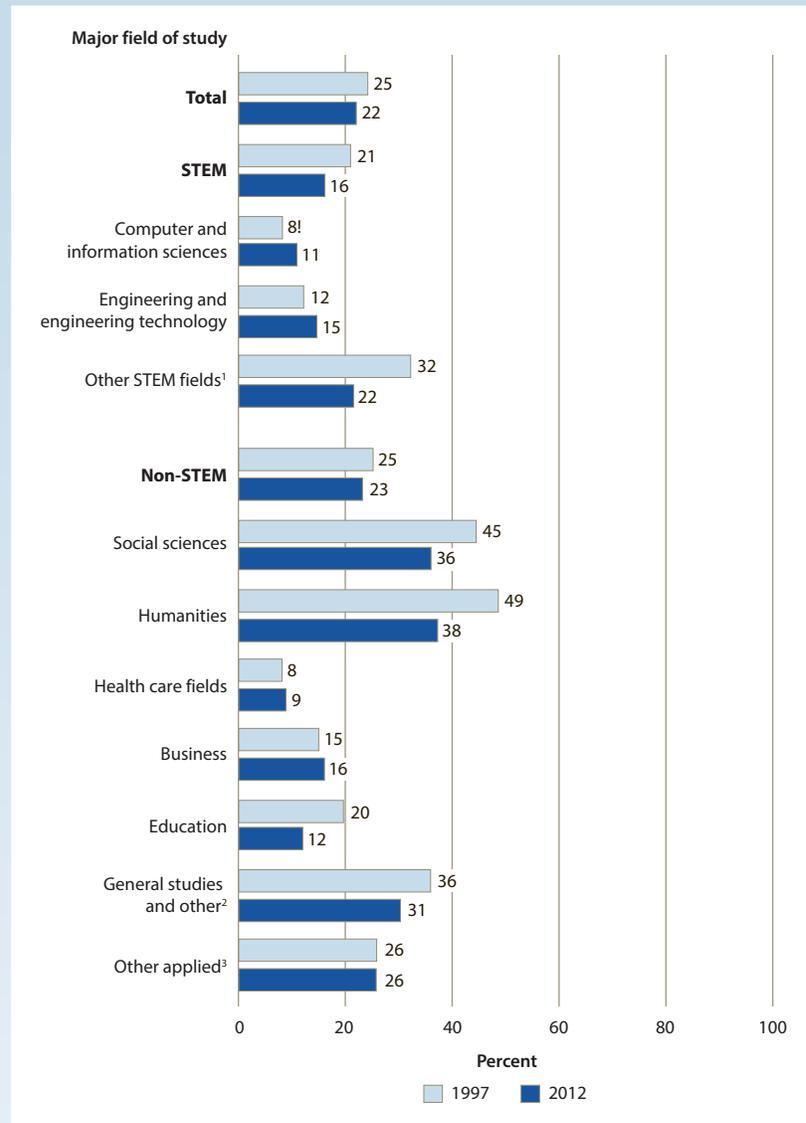
## Job not related at all to major

### Comparisons between 1997 and 2012

Overall, the percentage of graduates who reported that their jobs were not related at all to their undergraduate majors decreased from the 25 percent reported by 1992–93 graduates in 1997 to the 22 percent reported by 2007–08 graduates in 2012. There were also differences by major. For STEM majors, the percentage of college graduates who reported that their jobs were not related at all to their undergraduate majors decreased between 1997 and 2012 both overall (from 21 to 16 percent) as well as in “Other STEM fields” (from 32 to 22 percent). For non-STEM majors, the percentage decreased for social science majors (from 45 to 36 percent), humanities majors (from 49 to 38 percent), and education majors (from 20 to 12 percent) (figure 4).

## FIGURE 4.

Percentage of first-time bachelor’s degree recipients who reported that their jobs were not related at all to their undergraduate major, by major field of study: 1997 and 2012



! Interpret data with caution. The coefficient of variation for this estimate is between 30 and 50 percent.

<sup>1</sup>“Other STEM fields” include biological and physical sciences, science technology, mathematics, and agricultural and natural sciences.

<sup>2</sup>“General studies and other” includes liberal arts and sciences; general studies and humanities; multi/interdisciplinary studies; basic skills; citizenship activities; health-related knowledge and skills; interpersonal and social skills; leisure and recreational activities; and personal awareness and self-improvement.

<sup>3</sup>“Other applied” includes personal and consumer services; manufacturing, construction, repair, and transportation; military technology and protective services; architecture; communications; public administration and human services; design and applied arts; law and legal studies; library sciences; and theology and religious vocations.

NOTE: STEM majors include science, technology, engineering, and mathematics. Estimates are for first-time bachelor’s degree recipients only. Excludes the 11.3 percent of 1992–93 bachelor’s degree recipients and 7.0 percent of 2007–08 bachelor’s degree recipients who had earned a prior bachelor’s degree or above or had not responded to the question about a pre-bachelor’s degree. Excludes the 17.7 percent of 1992–93 bachelor’s degree recipients and 25.9 percent of 2007–08 bachelor’s degree recipients who had obtained an additional degree 4 years after completing their bachelor’s degree or had not responded to the question about a post-bachelor’s degree. Estimates exclude respondents who were not employed in 1997 or 2012. B&B:93/97 data are weighted by WTF000, and B&B:08/12 data are weighted by WTD000. Detail may not sum to totals because of rounding. Estimates include students enrolled in Title IV eligible postsecondary institutions in the 50 states, the District of Columbia, and Puerto Rico.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993/97 Baccalaureate and Beyond Longitudinal Study (B&B:93/97) and 2008/12 Baccalaureate and Beyond Longitudinal Study (B&B:08/12).

# 3 Four years after receiving their bachelor's degrees, how did the median annual salaries of 2007–08 bachelor's degree recipients differ from those of 1992–93 bachelor's degree recipients?

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## *Overall median annual salary comparisons*

In 1997, the median annual salary (in 2016 dollars) 4 years after graduation was \$46,400 for bachelor's degree recipients who reported that their jobs were closely related to their undergraduate majors, about \$44,900

for those who responded their jobs were somewhat related, and \$38,900 for those who reported working jobs not at all related to their undergraduate majors. In 2012, the median annual salary (in 2016 dollars) 4 years after graduation was \$48,300 for bachelor's degree recipients who reported that

their jobs were closely related to their undergraduate majors, about \$44,400 for those who responded their jobs were somewhat related, and \$34,200 for those who reported working jobs not at all related to their undergraduate majors.

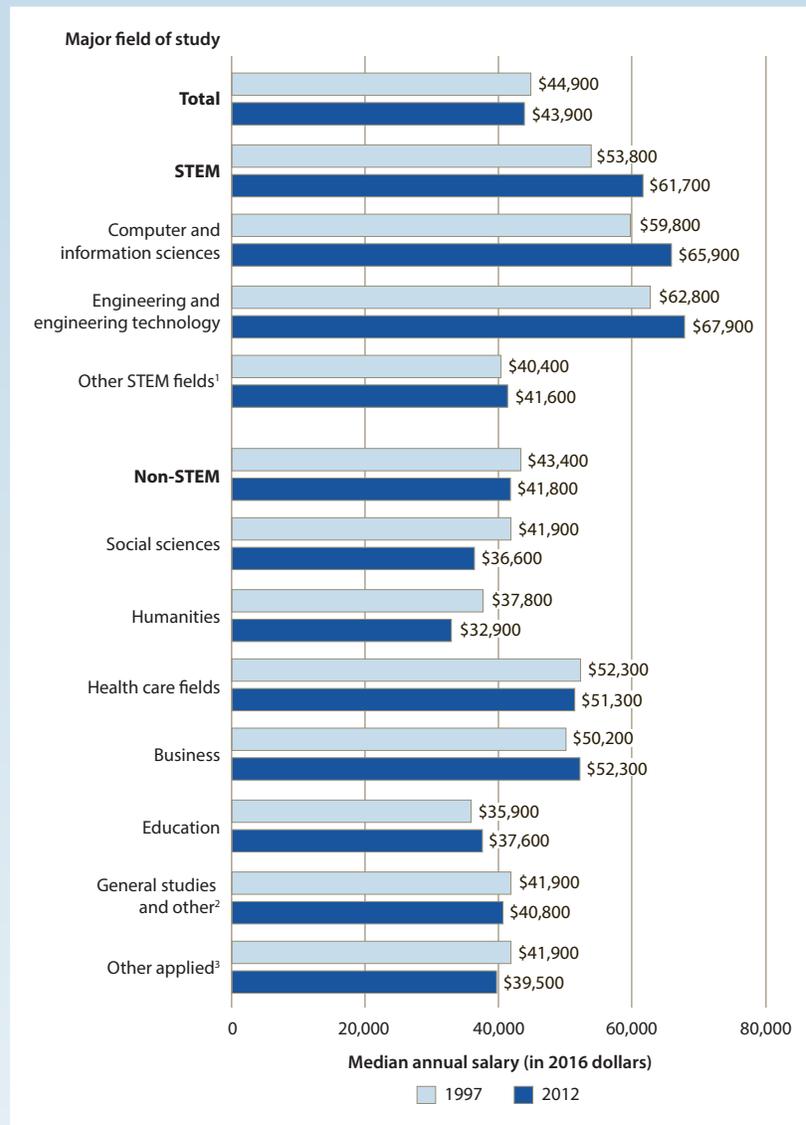
## Comparisons between 1997 and 2012

While the total median annual salary 4 years after graduation decreased from \$44,900 in 1997 to \$43,900 in 2012 (in 2016 dollars), the median salary increased for STEM majors both overall (from \$53,800 to \$61,700) as well as for engineering and engineering technology majors (from \$62,800 to \$67,900) (figure 5).<sup>11</sup>

In contrast, for non-STEM majors, the median annual salary decreased for social sciences majors (from \$41,900 to \$36,600) and humanities majors (from \$37,800 to \$32,900).

## FIGURE 5.

**Median annual salary 4 years after graduation (in 2016 dollars) among 1992–93 and 2007–08 bachelor's degree recipients, by major field of study: 1997 and 2012**



<sup>1</sup>“Other STEM fields” include biological and physical sciences, science technology, mathematics, and agricultural and natural sciences.

<sup>2</sup>“General studies and other” includes liberal arts and sciences; general studies and humanities; multi/interdisciplinary studies; basic skills; citizenship activities; health-related knowledge and skills; interpersonal and social skills; leisure and recreational activities; and personal awareness and self-improvement.

<sup>3</sup>“Other applied” includes personal and consumer services; manufacturing, construction, repair, and transportation; military technology and protective services; architecture; communications; public administration and human services; design and applied arts; law and legal studies; library sciences; and theology and religious vocations.

NOTE: STEM majors include science, technology, engineering, and mathematics. Estimates are for first-time bachelor's degree recipients only. Excludes the 11.3 percent of 1992–93 bachelor's degree recipients and 7.0 percent of 2007–08 bachelor's degree recipients who had earned a prior bachelor's degree or above or had not responded to the question about a pre-bachelor's degree. Excludes the 17.7 percent of 1992–93 bachelor's degree recipients and 25.9 percent of 2007–08 bachelor's degree recipients who had obtained an additional degree 4 years after completing their bachelor's degree or had not responded to the question about a post-bachelor's degree. Estimates exclude respondents who were not employed in 1997 or 2012. B&B:93/97 data are weighted by WTF000, and B&B:08/12 data are weighted by WTD000. The median annual salary is adjusted for inflation using the following Bureau of Labor Statistics Consumer Price Index multipliers: 1.49537 for 1997 and 1.04535 for 2012. Retrieved February 8, 2017, from <http://www.bls.gov/cpi/cpicalc.htm>. Detail may not sum to totals because of rounding. Estimates include students enrolled in Title IV eligible postsecondary institutions in the 50 states, the District of Columbia, and Puerto Rico.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993/97 Baccalaureate and Beyond Longitudinal Study (B&B:93/97) and 2008/12 Baccalaureate and Beyond Longitudinal Study (B&B:08/12).

<sup>11</sup> Median annual salaries 4 years after graduation are reported in 2016 dollars and were adjusted for inflation using the following Bureau of Labor Statistics Consumer Price Index multipliers: 1.49537 for 1997 and 1.04535 for 2012 (retrieved February 8, 2017, from <http://www.bls.gov/cpi/cpicalc.htm>).

## Median annual salaries for college graduates by relatedness of their job to their major

### Job closely related to major

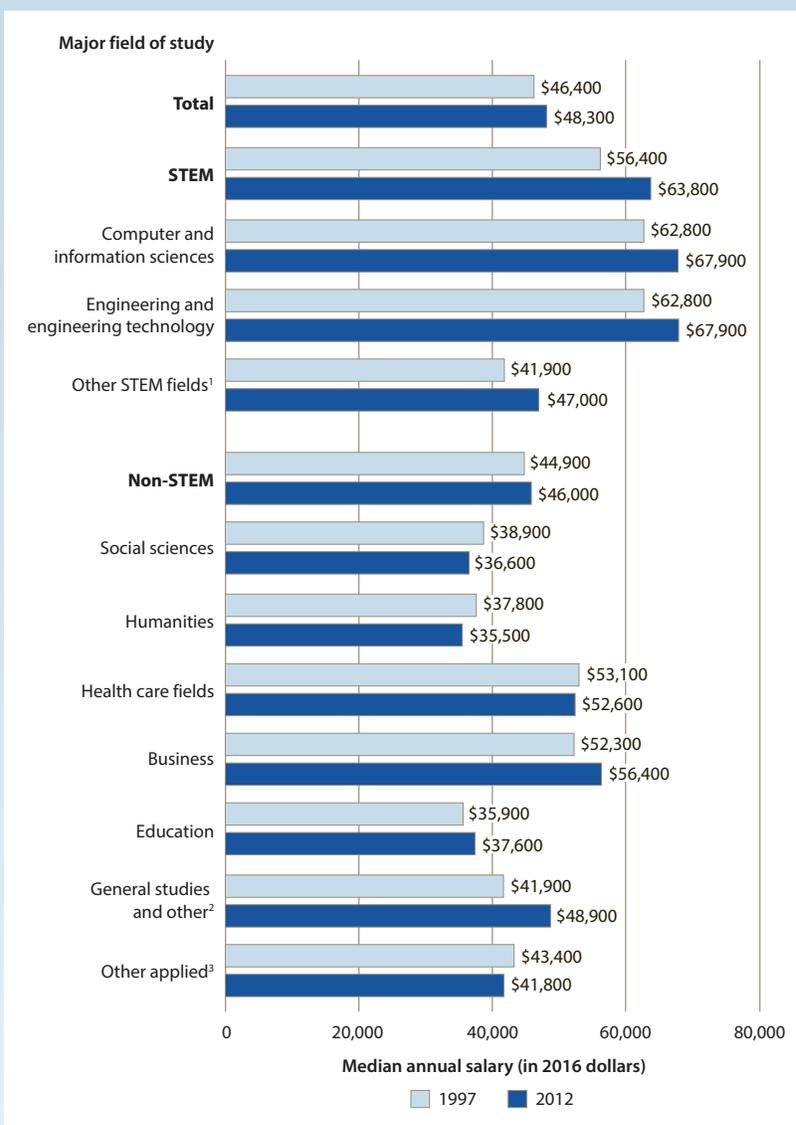
#### Comparisons between 1997 and 2012

Study question 2 showed generally that a lower percentage of college graduates held a job closely related to their major in 2012 than in 1997. Overall, for bachelor's degree recipients who reported that their jobs were closely related to their undergraduate majors, there was no measurable change in median annual salary (in 2016 dollars) 4 years after graduation between 1997 and 2012. However, there were differences in median annual salary by college major (figure 6).

For STEM majors, the total median annual salary increased from \$56,400 in 1997 to \$63,800 in 2012 for college graduates whose jobs were closely related to their college major; however, for non-STEM majors, the median annual salary did not change. There were increases for specific non-STEM majors, such as business majors (from \$52,300 to \$56,400), education majors (from \$35,900 to \$37,600), and "General studies and other" majors (from \$41,900 to \$48,900).

## FIGURE 6.

Median annual salary 4 years after graduation (in 2016 dollars) among 1992–93 and 2007–08 bachelor's degree recipients who reported that their jobs were closely related to their undergraduate majors, by major field of study: 1997 and 2012



<sup>1</sup>Other STEM fields include biological and physical sciences, science technology, mathematics, and agricultural and natural sciences.

<sup>2</sup>General studies and other includes liberal arts and sciences; general studies and humanities; multi/interdisciplinary studies; basic skills; citizenship activities; health-related knowledge and skills; interpersonal and social skills; leisure and recreational activities; and personal awareness and self-improvement.

<sup>3</sup>Other applied includes personal and consumer services; manufacturing, construction, repair, and transportation; military technology and protective services; architecture; communications; public administration and human services; design and applied arts; law and legal studies; library sciences; and theology and religious vocations.

NOTE: STEM majors include science, technology, engineering, and mathematics. Estimates are for first-time bachelor's degree recipients only. Excludes the 11.3 percent of 1992–93 bachelor's degree recipients and 7.0 percent of 2007–08 bachelor's degree recipients who had earned a prior bachelor's degree or above or had not responded to the question about a pre-bachelor's degree. Excludes the 17.7 percent of 1992–93 bachelor's degree recipients and 25.9 percent of 2007–08 bachelor's degree recipients who had obtained an additional degree 4 years after completing their bachelor's degree or had not responded to the question about a post-bachelor's degree. Estimates exclude respondents who were not employed in 1997 or 2012. B&B:93/97 data are weighted by WTF000, and B&B:08/12 data are weighted by WTD000. The median annual salary is adjusted for inflation using the following Bureau of Labor Statistics Consumer Price Index multipliers: 1.49537 for 1997 and 1.04535 for 2012. Retrieved February 8, 2017, from <http://www.bls.gov/cpi/cpicalc.htm>. Detail may not sum to totals because of rounding. Estimates include students enrolled in Title IV eligible postsecondary institutions in the 50 states, the District of Columbia, and Puerto Rico.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993/97 Baccalaureate and Beyond Longitudinal Study (B&B:93/97) and 2008/12 Baccalaureate and Beyond Longitudinal Study (B&B:08/12).

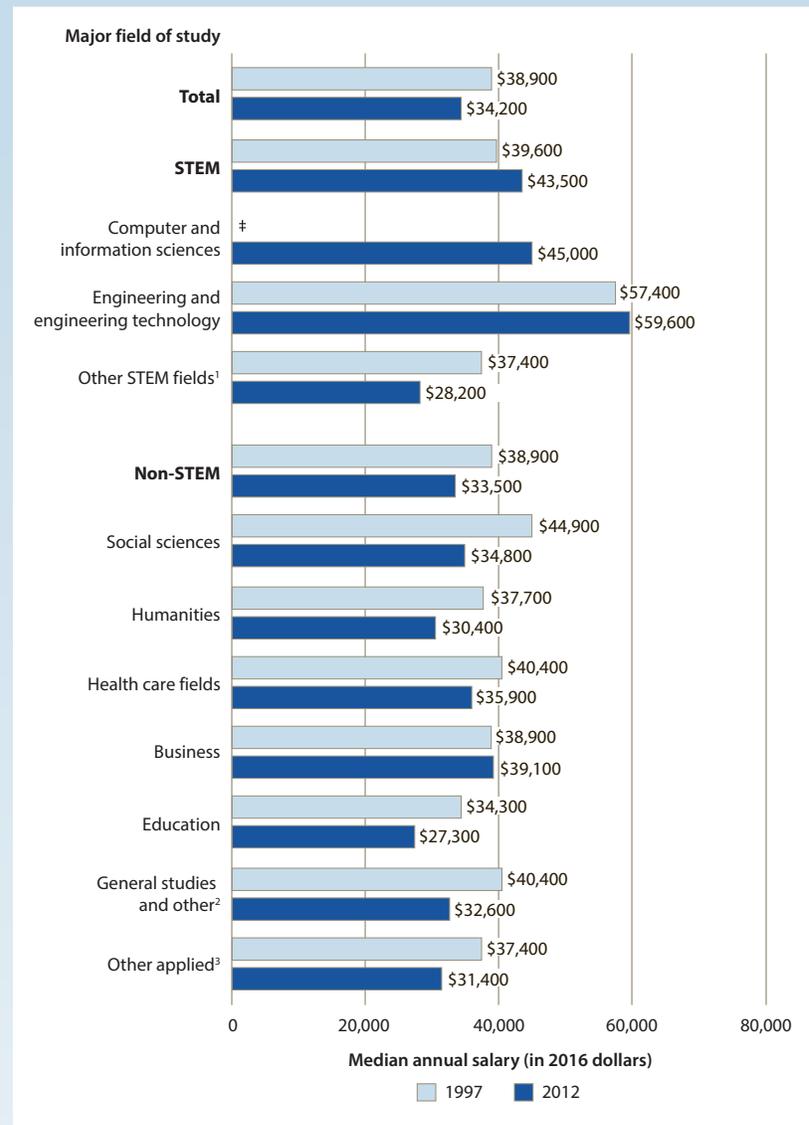
## Job not related at all to major

### Comparisons between 1997 and 2012

Overall, the median annual salary (in 2016 dollars) 4 years after graduation decreased from \$38,900 in 1997 to \$34,200 in 2012 for bachelor's degree recipients who reported that their jobs were not related at all to their undergraduate majors. Median annual salaries also decreased for non-STEM majors overall from \$38,900 to \$33,500. Changes in median annual salaries for those who majored in specific non-STEM fields included decreases for social sciences majors (from \$44,900 to \$34,800), humanities majors (from \$37,700 to \$30,400), and "Other applied" majors (from \$37,400 to \$31,400) (figure 7). STEM majors (including STEM majors overall) had no measurable change in median annual salaries for positions that were not related at all to their college major between 1997 and 2012.

## FIGURE 7.

**Median annual salary 4 years after graduation (in 2016 dollars) among 1992–93 and 2007–08 bachelor's degree recipients who reported that their jobs were not related at all to their undergraduate majors, by major field of study: 1997 and 2012**



‡ Reporting standards not met.

<sup>1</sup>Other STEM fields<sup>1</sup> include biological and physical sciences, science technology, mathematics, and agricultural and natural sciences.

<sup>2</sup>General studies and other<sup>2</sup> includes liberal arts and sciences; general studies and humanities; multi/interdisciplinary studies; basic skills; citizenship activities; health-related knowledge and skills; interpersonal and social skills; leisure and recreational activities; and personal awareness and self-improvement.

<sup>3</sup>Other applied<sup>3</sup> includes personal and consumer services; manufacturing, construction, repair, and transportation; military technology and protective services; architecture; communications; public administration and human services; design and applied arts; law and legal studies; library sciences; and theology and religious vocations.

NOTE: STEM majors include science, technology, engineering, and mathematics. Estimates are for first-time bachelor's degree recipients only. Excludes the 11.3 percent of 1992–93 bachelor's degree recipients and 7.0 percent of 2007–08 bachelor's degree recipients who had earned a prior bachelor's degree or above or had not responded to the question about a pre-bachelor's degree. Excludes the 17.7 percent of 1992–93 bachelor's degree recipients and 25.9 percent of 2007–08 bachelor's degree recipients who had obtained an additional degree 4 years after completing their bachelor's degree or had not responded to the question about a post-bachelor's degree. Estimates exclude respondents who were not employed in 1997 or 2012. B&B:93/97 data are weighted by WTF000, and B&B:08/12 data are weighted by WTD000. The median annual salary is adjusted for inflation using the following Bureau of Labor Statistics Consumer Price Index multipliers: 1.49537 for 1997 and 1.04535 for 2012. Retrieved February 8, 2017, from <http://www.bls.gov/cpi/cpicalc.htm>. Detail may not sum to totals because of rounding. Estimates include students enrolled in Title IV eligible postsecondary institutions in the 50 states, the District of Columbia, and Puerto Rico.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993/97 Baccalaureate and Beyond Longitudinal Study (B&B:93/97) and 2008/12 Baccalaureate and Beyond Longitudinal Study (B&B:08/12).

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<http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2018163>

More detailed information on college graduates' labor market outcomes can be found in the following publications produced by the National Center for Education Statistics (NCES) using the Baccalaureate and Beyond Longitudinal Study (B&B):

Cataldi, E., Woo, J., and Staklis, S. (2017). *Four Years After a Bachelor's Degree: Employment, Enrollment, and Debt Among College Graduates* (NCES 2017-438). <https://nces.ed.gov/pubs2017/2017438.pdf>.

Staklis, S., and Skomsvold, P. (2014). *New College Graduates at Work: Employment Among 1992–93, 1999–2000, and 2007–08 Bachelor's Degree Recipients 1 Year After Graduation* (NCES 2014-003rev). <https://nces.ed.gov/pubs2014/2014003rev.pdf>.

Staklis, S., and Skomsvold, P. (2015). *Baccalaureate Degree Recipients' Early Labor Market and Education Outcomes: 1994, 2001, and 2009* (NCES 2015-027). <https://nces.ed.gov/pubs2015/2015027.pdf>.

## METHODOLOGY AND TECHNICAL NOTES

The estimates provided in this Statistics in Brief are based on data collected as part of the second follow-up of the Baccalaureate and Beyond Longitudinal Study (B&B) of 1993 and 2008 (B&B:93/97 and B&B:08/12). The B&B study collects information about students' education and work experiences after they complete a bachelor's degree. Following several cohorts of students over time, B&B looks at bachelor's degree recipients' employment outcomes, income, debt repayment, and continued education, among other indicators. B&B also gathers extensive information on bachelor's degree recipients' undergraduate education experience, family backgrounds, and participation in community service.

B&B draws its initial cohorts from the National Postsecondary Student Aid Study (NPSAS), which uses a nationally representative sample of postsecondary students and institutions to examine how students pay for postsecondary education. Initial B&B cohorts are a representative sample of graduating seniors in all majors. The first B&B cohort was drawn from the 1993 NPSAS and followed up in 1994, 1997, and 2003. The second B&B cohort was chosen from the 2000 NPSAS and followed up in 2001. The third B&B cohort was drawn from the 2008 NPSAS sample and followed up in 2009 and 2012.

B&B:93/97 was a 4-year follow-up of bachelor's degree recipients who

completed their degrees between July 1, 1992, and June 30, 1993, and who were first interviewed as part of the 1992–93 administration of NPSAS. Similarly, B&B:08/12 was a 4-year follow-up of bachelor's degree recipients who completed their degrees between July 1, 2007, and June 30, 2008, and who were first interviewed as part of the 2007–08 administration of NPSAS. Some 11,190 and 17,110 individuals who were determined eligible for follow-up in 1997 and 2012, respectively, comprised the B&B:93/97 and B&B:08/12 cohorts. These bachelor's degree recipients represent approximately 1.2 million bachelor's degree completers in 1992–93 and 1.6 million in 2007–08.

Two broad categories of error occur in estimates generated from surveys: sampling errors and nonsampling errors. Sampling errors occur when observations are based on samples rather than on entire populations. The standard error of a sample statistic is a measure of the variation due to sampling and indicates the precision of the statistic. The complex sampling design must be taken into account when calculating variance estimates such as standard errors. NCES's online PowerStats, which generated the estimates in this Statistics in Brief, uses the balanced repeated replication (BRR) method to adjust variance estimation for complex sample designs (Kaufman 2004; Wolter 2007).

Nonsampling errors can be attributed to several sources: incomplete information about all respondents (e.g., some students or institutions refused

to participate, or students participated but answered only certain items); differences among respondents in question interpretation; an inability or unwillingness to give correct information; and other mistakes in recording or coding data.

### Variables Used

Variable label	Variable name
<b>Baccalaureate and Beyond, B&amp;B:93/97</b>	
Major field of study (expanded), 1992–93	MAJORS
April 1997 job: Annual salary	B2APRSAL
Weight	WTF000
Employment or enrollment status in April 1997	B2NM9704
Highest post-bachelor's attainment: Degree type as of 1997	B2HDGPRG
April 1997 job: Relationship between job and degree field	B2AJRELT
<b>Baccalaureate and Beyond, B&amp;B:08/12</b>	
Bachelor's degree major (10 categories), 2007–08	MAJORS4Y
Primary job: Annualized salary, 2012	B2CJSAL
Weight	WTD000
Employment and enrollment status in 2012	B2LFP12
Highest post-bachelor's attainment	B2HIDEG
Primary job: Relatedness to bachelor's degree major, 2012	B2DNSF19B

### Response Rates

NCES Statistical Standard 4-4-1 states that “[a]ny survey stage of data collection with a unit or item response rate less than 85 percent must be evaluated for the potential magnitude of nonresponse bias before the data or any analysis using the data may be released” (Seastrom 2014).

In the case of B&B:08/12, this means that a nonresponse bias analysis could

be required at any of three levels: institutions, study respondents, or items. Since the institutional response rate for NPSAS:08 was 90 percent, a nonresponse bias analysis was not required at that level. The B&B:08/12 sample consisted of all B&B:08/09 eligible respondents and all B&B:08/09 nonrespondents, resulting in a sample size of 17,160. Of the 17,110 eligible sample students, the weighted response rate was 77 percent. Because the weighted rate was less than 85 percent for those who responded to the interview, a nonresponse bias analysis was required for those variables based in whole or in part on the interview. For more detailed information on the nonresponse bias analysis and an overview of the survey methodology for B&B:08/12, see *2008/12 Baccalaureate and Beyond Longitudinal Study (B&B:08/12) Data File Documentation* (NCES 2015-141), at <https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2015141>.

Nonresponse bias analyses were not required for B&B:93/97. For an overview of the survey methodology for B&B:93/07, see *Baccalaureate and Beyond Longitudinal Study: 1993/97 Second Follow-up Methodology Report* (NCES 1999-159), at <https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=1999159>.

### PowerStats

The estimates presented in this report were produced using PowerStats, a Web-based software application that enables users to generate tables for most of the postsecondary surveys conducted by NCES. PowerStats

produces the design-adjusted standard errors necessary for testing the statistical significance of differences in the estimates. PowerStats also contains a detailed description of how each variable was created and includes question wording for items coming directly from an interview. With PowerStats, users can replicate or expand upon the tables presented in this report. The output from PowerStats includes the table estimates (e.g., percentages or means), the proper standard errors, and weighted sample sizes for the estimates. If the number of valid cases is too small to produce a reliable estimate (fewer than 30 cases), PowerStats prints the double dagger symbol (‡) instead of the estimate. In addition to producing tables, PowerStats users may conduct linear or logistic regressions. Many options are available for output with the regression results. For a description of all the options available, users should access the PowerStats website at <http://nces.ed.gov/datalab/index.aspx>.

For more information, contact [nces.info@ed.gov](mailto:nces.info@ed.gov).

### Statistical Procedures

Comparisons made in the text were tested for statistical significance at the  $p < .05$  level to ensure that the differences were larger than might be expected due to sampling variation. Consistent with widely accepted statistical standards, only those findings are reported that are statistically significant at the .05 level (that is, there is a less than 5 percent chance that the difference occurred by chance). When comparing estimates

between categorical groups (e.g., major, year),  $t$  statistics were calculated using the following formula:

$$t = \frac{E_1 - E_2}{\sqrt{se_1^2 + se_2^2}}$$

where  $E_1$  and  $E_2$  are the estimates to be compared (e.g., the means of sample members in two groups) and  $se_1$  and  $se_2$  are their corresponding standard errors.

The decision rule is to reject the null hypothesis if there is a measurable difference between the two groups in the population in terms of the percentage having the characteristic, if  $|t| > t_{critical}$ , where  $t_{critical}$  is the value such that the probability that a Student's  $t$  random variable with degrees of freedom ( $df$ ) exceeds that value is  $\alpha/2$  for a two-tailed test. All tests in this report are based on a significance level of .05 (i.e.,  $\alpha=0.05$ ). When the degrees of freedom are large, greater than 120,  $t_{0.025,df} \approx 1.96$ .

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## APPENDIX A: DATA TABLES WITH STANDARD ERRORS

**Table 1. Percentage distribution of 1992–93 and 2007–08 bachelor’s degree recipients, by undergraduate major field of study: 1992–93 and 2007–08**

[Standard errors appear in parentheses.]

Undergraduate major field of study	Academic year in which bachelor’s degree was received			
	1992–93		2007–08	
<b>Total</b>	<b>100.0</b>	<b>(†)</b>	<b>100.0</b>	<b>(†)</b>
<b>STEM majors</b>	<b>19.9</b>	<b>(0.58)</b>	<b>16.0</b>	<b>(0.34)</b>
Computer and information sciences	2.4	(0.17)	3.0	(0.15)
Engineering and engineering technology	6.3	(0.44)	5.7	(0.24)
Other STEM fields <sup>1</sup>	11.2	(0.45)	7.3	(0.29)
<b>Non-STEM majors</b>	<b>80.1</b>	<b>(0.58)</b>	<b>84.0</b>	<b>(0.34)</b>
Social sciences	12.9	(0.66)	15.7	(0.29)
Humanities	9.6	(0.41)	12.2	(0.38)
Health care fields	6.3	(0.50)	6.6	(0.23)
Business	24.4	(0.81)	23.5	(0.36)
Education	12.6	(0.50)	7.9	(0.25)
General studies and other <sup>2</sup>	1.6	(0.16)	3.0	(0.24)
Other applied <sup>3</sup>	12.7	(0.54)	15.1	(0.38)

† Not applicable.

<sup>1</sup>“Other STEM fields” include biological and physical sciences, science technology, mathematics, and agricultural and natural sciences.

<sup>2</sup>“General studies and other” includes liberal arts and sciences; general studies and humanities; multi/interdisciplinary studies; basic skills; citizenship activities; health-related knowledge and skills; interpersonal and social skills; leisure and recreational activities; and personal awareness and self-improvement.

<sup>3</sup>“Other applied” includes personal and consumer services; manufacturing, construction, repair, and transportation; military technology and protective services; architecture; communications; public administration and human services; design and applied arts; law and legal studies; library sciences; and theology and religious vocations.

NOTE: STEM majors include science, technology, engineering, and mathematics. Estimates are for first-time bachelor’s degree recipients only and exclude the 11.3 percent of 1992–93 bachelor’s degree recipients and 7.0 percent of 2007–08 bachelor’s degree recipients who had earned a prior bachelor’s degree or above or had not responded to question about pre-bachelor’s degree. B&B:93/97 data are weighted by WTF000, and B&B:08/12 data are weighted by WTD000. Detail may not sum to totals because of rounding. Estimates include students enrolled in Title IV eligible postsecondary institutions in the 50 states, the District of Columbia, and Puerto Rico.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993/97 Baccalaureate and Beyond Longitudinal Study (B&B:93/97) and 2008/12 Baccalaureate and Beyond Longitudinal Study (B&B:08/12).

**Table 2. Percentage distribution of 1992–93 and 2007–08 bachelor's degree recipients, by relationship between job and college major and undergraduate major field of study: 1997 and 2012**

[Standard errors appear in parentheses.]

Undergraduate major field of study	Relationship between job and college major											
	Closely related				Somewhat related				Not related at all			
	1997		2012		1997		2012		1997		2012	
<b>Total</b>	<b>52.2</b>	<b>(1.02)</b>	<b>43.8</b>	<b>(0.80)</b>	<b>23.2</b>	<b>(0.70)</b>	<b>34.0</b>	<b>(0.80)</b>	<b>24.5</b>	<b>(0.73)</b>	<b>22.2</b>	<b>(0.74)</b>
<b>STEM majors</b>	<b>56.0</b>	<b>(2.19)</b>	<b>49.1</b>	<b>(2.16)</b>	<b>22.8</b>	<b>(1.45)</b>	<b>34.5</b>	<b>(1.96)</b>	<b>21.2</b>	<b>(1.86)</b>	<b>16.4</b>	<b>(1.45)</b>
Computer and information sciences	74.3	(4.13)	58.5	(4.61)	17.3	(3.56)	30.4	(4.36)	8.3 <sup>!</sup>	(2.51)	11.1	(2.68)
Engineering and engineering technology	60.4	(3.69)	49.2	(3.80)	27.3	(3.16)	35.8	(3.38)	12.3	(1.92)	15.0	(2.30)
Other STEM fields <sup>1</sup>	46.5	(2.33)	42.6	(3.52)	21.1	(1.84)	35.7	(2.95)	32.4	(2.73)	21.8	(2.74)
<b>Non-STEM majors</b>	<b>51.2</b>	<b>(1.18)</b>	<b>42.8</b>	<b>(0.90)</b>	<b>23.4</b>	<b>(0.84)</b>	<b>33.9</b>	<b>(0.90)</b>	<b>25.4</b>	<b>(0.80)</b>	<b>23.3</b>	<b>(0.82)</b>
Social sciences	28.7	(2.35)	24.1	(1.84)	26.6	(2.38)	39.8	(2.20)	44.7	(2.43)	36.1	(2.07)
Humanities	28.2	(1.77)	26.1	(2.13)	23.0	(2.03)	36.4	(2.48)	48.8	(1.90)	37.5	(2.57)
Health care fields	84.9	(2.22)	72.9	(2.50)	6.9	(1.30)	18.0	(2.35)	8.2	(1.83)	9.0	(1.46)
Business	54.6	(1.82)	43.2	(1.82)	30.0	(1.87)	40.5	(1.81)	15.3	(1.14)	16.3	(1.30)
Education	64.2	(2.48)	71.3	(2.41)	15.9	(1.64)	16.5	(1.91)	19.9	(1.74)	12.2	(1.91)
General studies and other <sup>2</sup>	34.4	(5.08)	27.0	(4.35)	29.5	(6.46)	42.5	(4.82)	36.1	(5.60)	30.5	(4.60)
Other applied <sup>3</sup>	52.6	(2.17)	43.9	(1.76)	21.5	(1.71)	30.2	(1.84)	25.9	(1.94)	25.9	(1.66)

<sup>!</sup> Interpret data with caution. The coefficient of variation for this estimate is between 30 and 50 percent.

<sup>1</sup> "Other STEM fields" include biological and physical sciences, science technology, mathematics, and agricultural and natural sciences.

<sup>2</sup> "General studies and other" includes liberal arts and sciences; general studies and humanities; multi/interdisciplinary studies; basic skills; citizenship activities; health-related knowledge and skills; interpersonal and social skills; leisure and recreational activities; and personal awareness and self-improvement.

<sup>3</sup> "Other applied" includes personal and consumer services; manufacturing, construction, repair, and transportation; military technology and protective services; architecture; communications; public administration and human services; design and applied arts; law and legal studies; library sciences; and theology and religious vocations.

NOTE: STEM majors include science, technology, engineering, and mathematics. Excludes the 11.3 percent of 1992–93 bachelor's degree recipients and 7.0 percent of 2007–08 bachelor's degree recipients who had earned a prior bachelor's degree or above or had not responded to the question about a pre-bachelor's degree. Excludes the 17.7 percent of 1992–93 bachelor's degree recipients and 25.9 percent of 2007–08 bachelor's degree recipients who had obtained an additional degree 4 years after completing their bachelor's degree or had not responded to the question about a post-bachelor's degree. Estimates exclude respondents who were not employed in 1997 or 2012. B&B:93/97 data are weighted by WTF000, and B&B:08/12 data are weighted by WTD000. Detail may not sum to totals because of rounding. Estimates include students enrolled in Title IV eligible postsecondary institutions in the 50 states, the District of Columbia, and Puerto Rico.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993/97 Baccalaureate and Beyond Longitudinal Study (B&B:93/97) and 2008/12 Baccalaureate and Beyond Longitudinal Study (B&B:08/12).

**Table 3. Median annual salary 4 years after graduation among 1992–93 and 2007–08 bachelor's degree recipients, by relationship between job and college major and undergraduate major field of study: 1997 and 2012**

[Amounts in 2016 dollars. Standard errors appear in parentheses.]

Undergraduate major field of study	Relationship between job and college major															
	Total				Closely related				Somewhat related				Not related at all			
	1997		2012		1997		2012		1997		2012		1997		2012	
<b>Total</b>	<b>\$44,900</b>	<b>(10)</b>	<b>\$43,900</b>	<b>(360)</b>	<b>\$46,400</b>	<b>(750)</b>	<b>\$48,300</b>	<b>(790)</b>	<b>\$44,900</b>	<b>(450)</b>	<b>\$44,400</b>	<b>(1,110)</b>	<b>\$38,900</b>	<b>(1,140)</b>	<b>\$34,200</b>	<b>(980)</b>
<b>STEM majors</b>	<b>53,800</b>	<b>(1,060)</b>	<b>61,700</b>	<b>(1,500)</b>	<b>56,400</b>	<b>(1,410)</b>	<b>63,800</b>	<b>(1,520)</b>	<b>53,800</b>	<b>(2,480)</b>	<b>60,600</b>	<b>(2,590)</b>	<b>39,600</b>	<b>(3,090)</b>	<b>43,500</b>	<b>(4,910)</b>
Computer and information sciences	59,800	(2,780)	65,900	(3,680)	62,800	(4,040)	67,900	(3,770)	‡	(†)	67,900	(8,180)	‡	(†)	45,000	(7,050)
Engineering and engineering technology	62,800	(1,660)	67,900	(1,370)	62,800	(2,830)	67,900	(1,800)	65,800	(1,440)	70,000	(1,990)	57,400	(5,870)	59,600	(12,070)
Other STEM fields <sup>1</sup>	40,400	(1,830)	41,600	(2,200)	41,900	(1,600)	47,000	(2,420)	42,600	(2,410)	36,600	(3,720)	37,400	(3,430)	28,200	(6,100)
<b>Non-STEM majors</b>	<b>43,400</b>	<b>(750)</b>	<b>41,800</b>	<b>(670)</b>	<b>44,900</b>	<b>(350)</b>	<b>46,000</b>	<b>(760)</b>	<b>44,900</b>	<b>(1,160)</b>	<b>43,000</b>	<b>(870)</b>	<b>38,900</b>	<b>(1,120)</b>	<b>33,500</b>	<b>(1,000)</b>
Social sciences	41,900	(1,140)	36,600	(800)	38,900	(1,080)	36,600	(1,050)	41,900	(2,170)	38,700	(2,060)	44,900	(1,430)	34,800	(1,910)
Humanities	37,800	(1,020)	32,900	(950)	37,800	(1,260)	35,500	(2,190)	40,400	(2,390)	33,500	(2,400)	37,700	(1,650)	30,400	(1,510)
Health care fields	52,300	(1,270)	51,300	(1,320)	53,100	(1,880)	52,600	(1,430)	‡	(†)	49,100	(4,500)	40,400	(7,440)	35,900	(6,710)
Business	50,200	(1,330)	52,300	(900)	52,300	(1,020)	56,400	(1,440)	47,900	(2,230)	50,200	(1,690)	38,900	(2,870)	39,100	(2,370)
Education	35,900	(610)	37,600	(790)	35,900	(400)	37,600	(590)	31,900	(2,040)	35,100	(2,090)	34,300	(1,790)	27,300	(3,790)
General studies and other <sup>2</sup>	41,900	(2,120)	40,800	(3,180)	41,900	(2,450)	48,900	(2,280)	‡	(†)	34,800	(5,910)	40,400	(7,420)	32,600	(5,120)
Other applied <sup>3</sup>	41,900	(840)	39,500	(1,050)	43,400	(1,120)	41,800	(1,550)	40,400	(2,970)	41,800	(1,300)	37,400	(1,400)	31,400	(1,960)

† Not applicable.

‡ Reporting standards not met.

<sup>1</sup> "Other STEM fields" include biological and physical sciences, science technology, mathematics, and agricultural and natural sciences.

<sup>2</sup> "General studies and other" includes liberal arts and sciences; general studies and humanities; multi/interdisciplinary studies; basic skills; citizenship activities; health-related knowledge and skills; interpersonal and social skills; leisure and recreational activities; and personal awareness and self-improvement.

<sup>3</sup> "Other applied" includes personal and consumer services; manufacturing, construction, repair, and transportation; military technology and protective services; architecture; communications; public administration and human services; design and applied arts; law and legal studies; library sciences; and theology and religious vocations.

NOTE: STEM majors include science, technology, engineering, and mathematics. Estimates are for first-time bachelor's degree recipients only. Excludes the 11.3 percent of 1992–93 bachelor's degree recipients and 7.0 percent of 2007–08 bachelor's degree recipients who had earned a prior bachelor's degree or above or had not responded to the question about a pre-bachelor's degree. Excludes the 17.7 percent of 1992–93 bachelor's degree recipients and 25.9 percent of 2007–08 bachelor's degree recipients who had obtained an additional degree 4 years after completing their bachelor's degree or had not responded to the question about a post-bachelor's degree. Estimates exclude respondents who were not employed in 1997 or 2012. B&B:93/97 data are weighted by WTF000, and B&B:08/12 data are weighted by WTD000. The median annual salary is adjusted for inflation using the following Bureau of Labor Statistics Consumer Price Index multipliers: 1.49537 for 1997 and 1.04535 for 2012. Retrieved February 8, 2017, from <http://www.bls.gov/cpi/cpicalc.htm>. Detail may not sum to totals because of rounding. Estimates include students enrolled in Title IV eligible postsecondary institutions in the 50 states, the District of Columbia, and Puerto Rico.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993/97 Baccalaureate and Beyond Longitudinal Study (B&B:93/97) and 2008/12 Baccalaureate and Beyond Longitudinal Study (B&B:08/12).