

Physics Bachelors: One Year After Degree

Data from the degree recipient follow-up survey, classes of 2013 and 2014 combined

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REPORTS ON PHYSICS BACHELORS

Physics Bachelors: One
Year After Degree (October
2016)

Physics Bachelors: Initial
Employment (*forthcoming*)

Recipients of bachelor's degrees in physics typically either enter the work force or enroll in graduate school. For the classes of 2013 and 2014, over half (54%) of physics bachelors were enrolled in graduate school in the winter following the year in which they received their degrees, with the majority pursuing advanced degrees in physics or astronomy. As shown in **Figure 1**, new physics bachelors not enrolled in graduate programs were either employed (41%) or were seeking employment (5%).

Figure 1

Status of Physics Bachelors One Year After Degree, Classes of 2013 & 2014 Combined

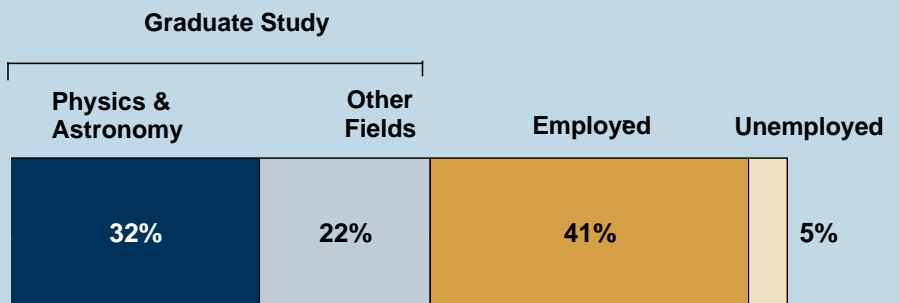


Figure based on 4,886 individuals.

<http://www.aip.org/statistics>

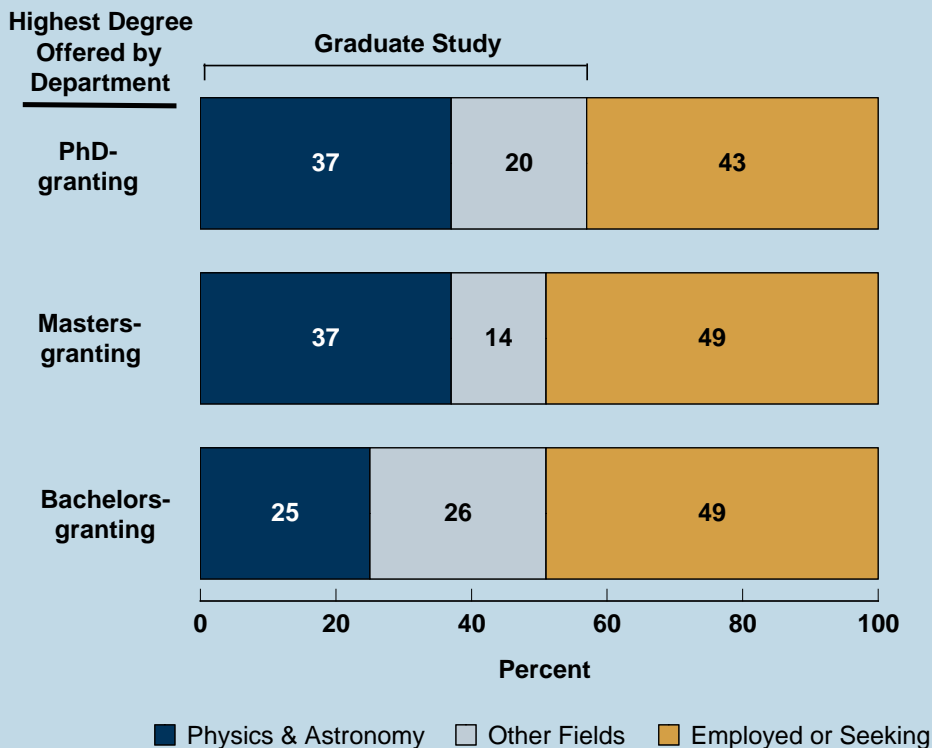
THE 2013 AND 2014 FOLLOW-UP SURVEYS OF PHYSICS BACHELORS

We contact physics bachelors in the winter following the academic year in which they receive their degrees. They are asked to share their employment or graduate school experiences.

Enrollment in physics bachelor’s programs has increased dramatically over the last decade, with each year representing a new high for the number of bachelor’s degrees conferred in the US. For more on enrollment and degree trends for physics bachelors, see our report series at: <https://www.aip.org/statistics/undergraduate>.

Figure 2

Status of Physics Bachelors by Type of Department Attended One Year After Degree, Classes of 2013 & 2014 Combined



Physics bachelors receiving their degrees from departments that also offered graduate degrees in physics were more likely to pursue graduate study in physics than degree recipients from bachelors-only departments.

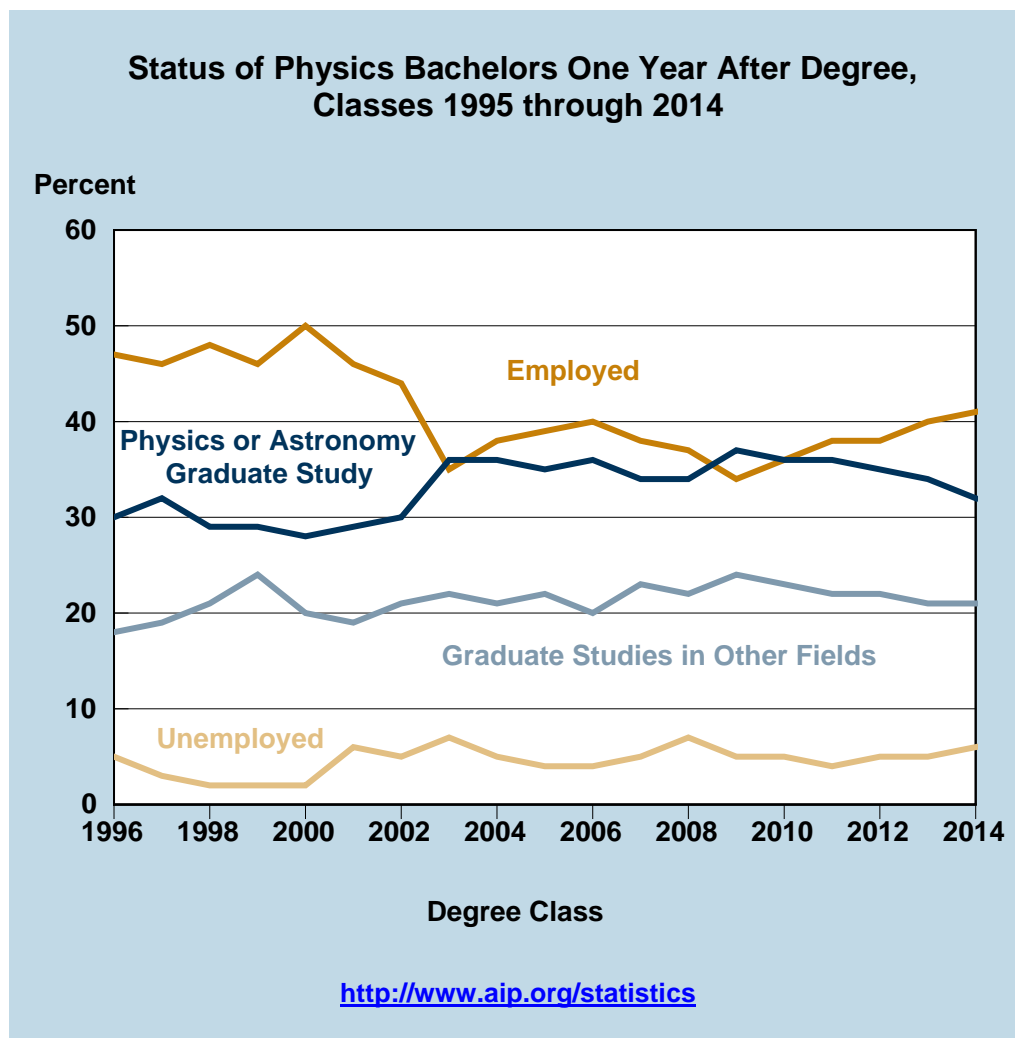
Figure based on 2,375 bachelors who attended PhD-granting departments, 258 bachelors who attended departments where a master’s was the highest degree offered, and 2,255 who attended departments where a bachelor’s was the highest degree offered.

<http://www.aip.org/statistics>

Physics bachelors who earned their degrees from a department that also had a graduate program in physics were more likely to immediately continue on to physics or astronomy graduate studies than bachelors from an undergraduate only department. Regardless of the highest degree offered by a department, physics bachelors entered the workforce at similar rates (Figure 2).

The initial outcomes of physics bachelors have changed over the last five years, with greater proportions accepting employment immediately following graduation (**Figure 3**). This increase has been offset by a decline in the proportion immediately entering graduate school in the fields of physics or astronomy. The percent entering graduate studies in other fields has remained relatively unchanged, as has the proportion who had not yet secured employment.

Figure 3

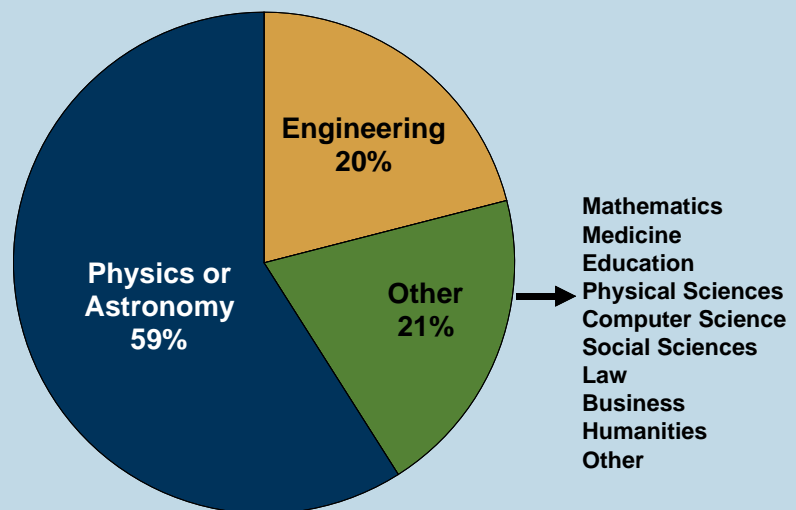


The proportion of physics bachelors accepting employment immediately following graduation has increased in recent years.

The initial employment of physics bachelors from the classes of 2013 and 2014 will be discussed in greater depth in the next report in this *focus on series*, *Physics Bachelors: Initial Employment*. It will include data on sectors of employment, starting salaries, skills used, etc.

Figure 4

Field of Graduate Study for Physics Bachelors One Year After Degree, Classes of 2013 & 2014 Combined



The majority of the physics bachelors who chose to continue their education in the year following their degrees were enrolled in a physics or astronomy graduate program.

Figure based on 2,709 physics bachelors who enrolled in graduate school following graduation.

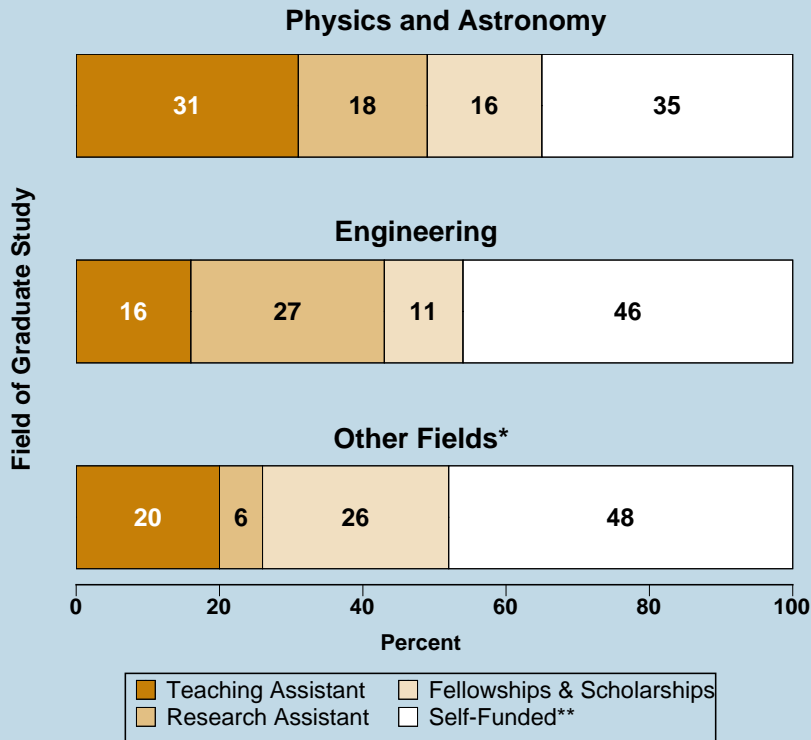
<http://www.aip.org/statistics>

As seen in **Figure 1**, more than half (54%) of physics bachelors from the classes of 2013 and 2014 decided to continue on to graduate school following receipt of their degrees. About three-fifths of these degree recipients chose to continue their studies in physics or astronomy (**Figure 4**). The remaining two-fifths of the bachelors enrolled in graduate school were studying a variety of fields with engineering being by far the largest group.

Regardless of graduate field of study, bachelors enrolled in master's programs were often supporting their education through self-funding, which included family assistance, loans, and wages (**Figure 5**). Students enrolled in a physics or astronomy master's degree program were more likely to receive support in the form of a teaching assistantship than students enrolled in master's programs in other fields. More than two-fifths of physics bachelors who were enrolled in master's programs in physics or astronomy following graduation indicated that they planned to continue on to a doctorate in the same field.

Figure 5

Primary Types of Financial Support for Physics Bachelors Enrolled in a Master's Program One Year After Degree, Classes of 2013 & 2014 Combined



The majority of physics bachelors enrolled in master's programs had some form of financial aid.

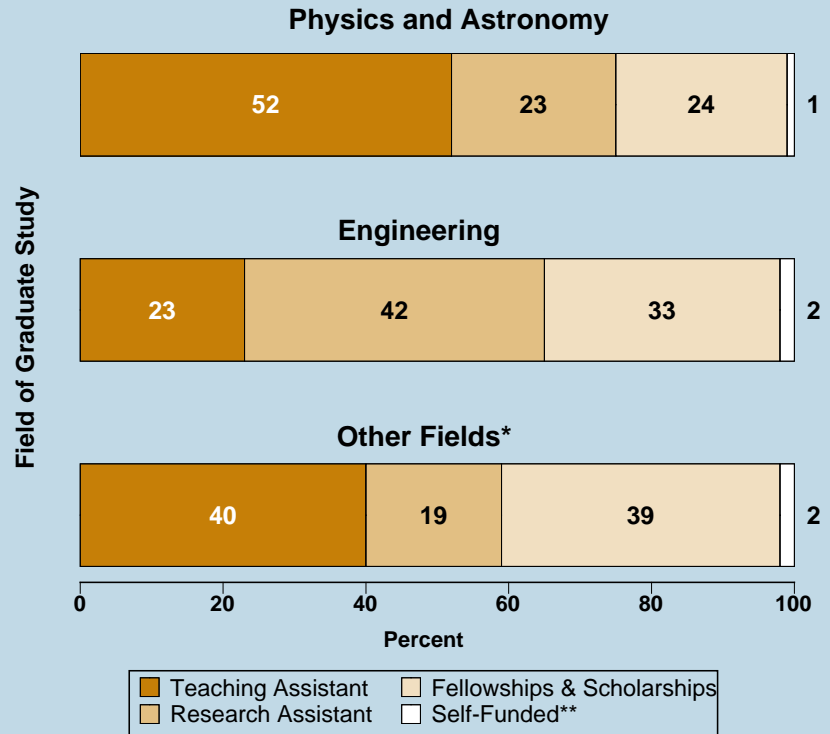
*Does not include professional degree fields such as law and medicine.
 **Includes family assistance, loans, and wages.

Figure based on the responses of physics bachelors enrolled in master's programs in physics and astronomy (267), engineering (211), or other fields (275).

<http://www.aip.org/statistics>

Figure 6

Primary Types of Financial Support for Physics Bachelors Enrolled in a PhD Program One Year After Degree, Classes of 2013 & 2014 Combined



*Does not include professional degree fields such as law and medicine.

**Includes family assistance, loans, and wages.

Figure based on the responses of physics bachelors enrolled in PhD programs in: physics and astronomy (825), engineering (114), or other fields (104).

<http://www.aip.org/statistics>

Virtually all physics bachelors enrolled in PhD programs are financially supported, regardless of field.

Physics bachelors who entered PhD programs, regardless of field of study, accepted teaching and research assistantships at higher rates than those who entered master's programs. Very few bachelors enrolled in PhD programs reported that their education was self-funded. Those who were enrolled in subjects other than physics or astronomy were more likely to fund their schooling with fellowships or scholarships than physics and astronomy graduate students (**Figure 6**). Many first-year graduate students in physics and astronomy initially support themselves with teaching assistantships, but as they progress through their studies they typically transition into research assistantships.

Survey Methodology

Each fall, the Statistical Research Center (SRC) conducts the *Survey of Enrollments and Degrees*, which asks physics and astronomy departments to provide information concerning the number of students they have enrolled and counts of recent degree recipients. In connection with this survey, we ask for the names and contact information for their recent degree recipients. This information is used to conduct the follow-up survey in the winter following the academic year in which they received their degrees.

Recent degree recipients can be very difficult to reach because they tend to move after graduating. Often, the department does not have accurate contact information for their alumni. To assist us in determining outcome information and to help obtain updated contact information, we contact the advisors of non-responding graduates.

The physics classes of 2013 and 2014 consisted of 7,329 and 7,526 bachelors respectively. Degree recipients received up to four invitations to participate in a web-based survey. We received post-degree information for about 44% of physics bachelor's whom we were able to contact either personally or through their advisors. Seventy-four percent of the outcome information came directly from the students. Four percent of the respondents were pursuing employment or graduate study outside the US and were not included in the analysis.

We thank the many physics and astronomy departments, degree recipients, and faculty advisors who made this publication possible.

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