

Physics Bachelor's One Year After Degree

Data from the degree recipient follow-up survey for the classes of 2011 and 2012 combined

Casey Langer Tesfaye & Patrick Mulvey

REPORTS ON PHYSICS BACHELOR'S

Physics Bachelor's, One
Year Later (September 2014)

Physics Bachelor's, Initial
Employment (*forthcoming*)

Once they receive a bachelor's degree in physics, new graduates typically follow one of two paths: enroll in graduate school or enter the employment market. In this publication we will explore the post-degree paths of the physics bachelor's from the classes of 2011 and 2012. Within these classes, nearly sixty percent of graduates chose to enroll in a graduate program, and about forty percent entered the employment market.

Figure 1

Status of Physics Bachelor's One Year After Degree, Classes of 2011 & 2012 Combined

Graduate Study



(N=4,307)

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

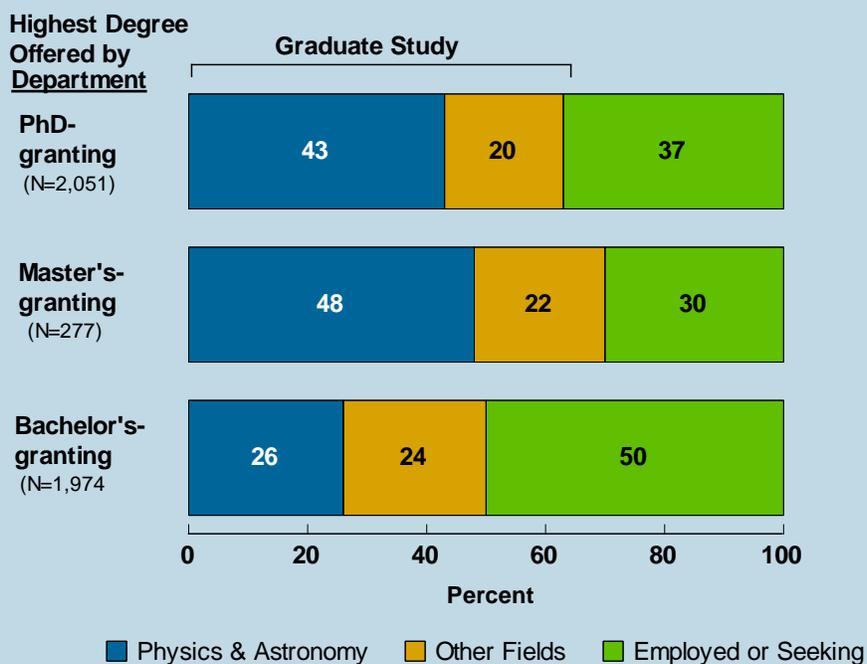
THE 2011 AND 2012 FOLLOW-UP SURVEYS OF PHYSICS BACHELOR'S

Physics bachelor's are contacted in the winter following the academic year in which they receive their degree. They are asked to share their employment or graduate school experiences. These reports describe our findings.

Enrollment in physics bachelor's programs has continued to increase dramatically over the last decade, with each year representing a record high for the number of bachelor's degrees conferred. For more about enrollment and degree trends for physics bachelor's, see our Enrollments and Degrees report series at: www.aip.org/statistics/undergraduate.

Figure 2

Status of Physics Bachelor's by Type of Department Attended, One Year After Degree, Classes of 2011 & 2012 Combined



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

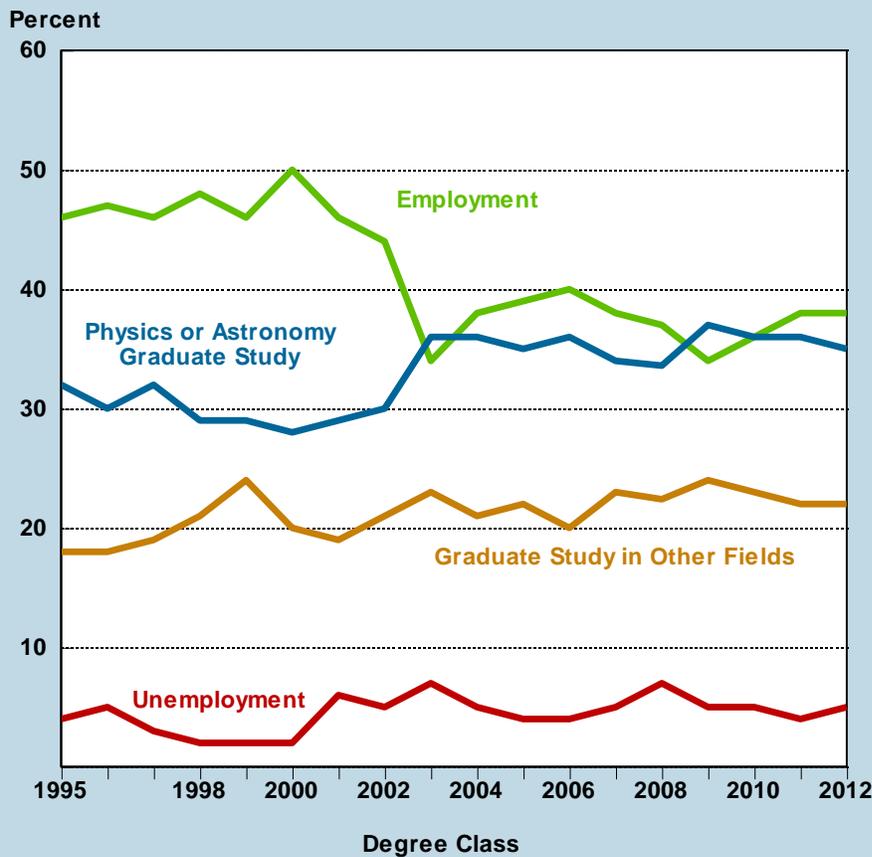
Physics bachelor's receiving their degrees from departments that also offered graduate degrees in physics were more likely to pursue graduate study in physics than degree recipients from bachelor's-only departments.

Physics bachelor's who earned their degrees from a department that also has a graduate-level program were more likely to immediately pursue graduate studies in physics than bachelor's who earned their degrees from a department that only offered a bachelor's degree. It is unclear whether these differences were a product of the undergraduate experiences of the students or if students intending to pursue graduate school were more likely to enroll at a department that offered an advanced physics degree. There was little difference between the post-degree paths followed by male and female graduates.

Although the distribution of initial post-degree paths chosen by physics bachelor's has changed little in recent years, there has been a shift in outcomes over the longer term. Beginning in 2002 the distribution of outcomes shifted dramatically. The proportion of new bachelor's choosing to enroll in a physics graduate program rose, and has remained steady at this higher level. The proportion of students who found employment in the year after their degree dipped dramatically, and it has remained steady at this new lower level.

Figure 3

Status of Physics Bachelor's One Year After Degree, Classes 1995 through 2012



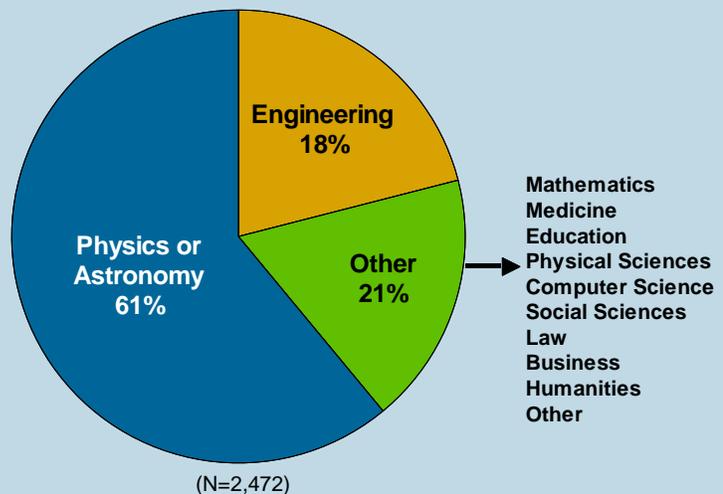
<http://www.aip.org/statistics>

The distribution of post-degree paths has changed little since the dramatic shifts around the turn of the millennium.

The initial employment of physics bachelor's from the classes of 2011 and 2012 will be discussed in greater depth in the next report in this *focus on* series, *focus on Physics Bachelor's, Initial Employment*.

Figure 4

Field of Graduate Study for Physics Bachelor's One Year After Degree, Classes of 2011 & 2012 Combined



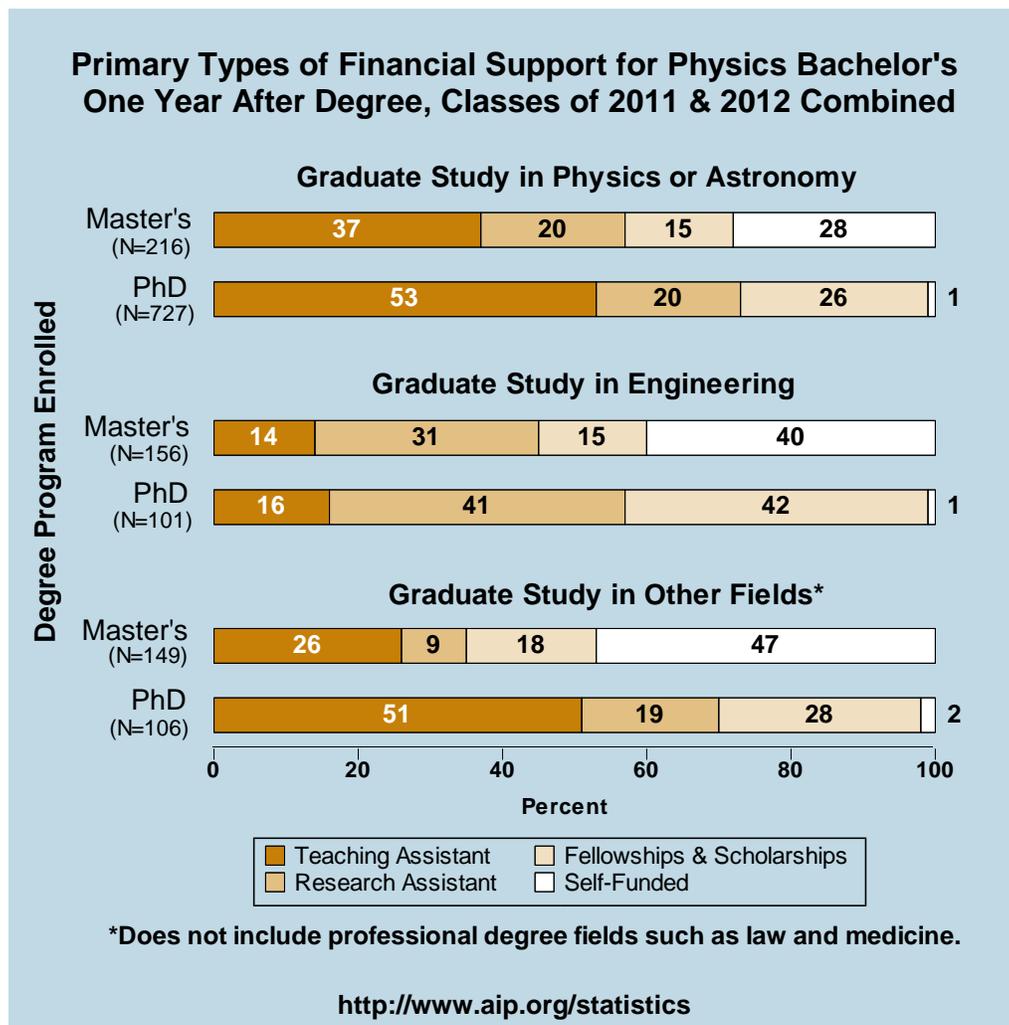
Most of the physics bachelor's who chose to continue their education in the year following their degree enrolled in physics or astronomy, or engineering graduate programs.

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

A substantial proportion (58%) of the physics bachelor's from the combined classes of 2011 and 2012 chose to enroll in graduate programs in the year following their degree. The majority (61%) of these students enrolled in physics or astronomy programs, and another 18% of them enrolled in engineering programs. The remaining students were spread across a variety of fields, working toward a variety of graduate and professional degrees. Eighty-three percent of the physics bachelor's who enrolled in physics or astronomy graduate programs aspire to obtain a PhD in the field, which is relatively high when compared to about half of the bachelor's who enrolled in engineering or other fields.

Although the types of support they receive varies by graduate subfield, nearly all of the physics bachelor's who enrolled in a PhD program received financial support. This is not the case for students enrolled in master's programs and professional degree programs, who had a higher proportion of students that were self-funded.

Figure 5



Virtually all physics bachelor's enrolled in a PhD program are financially supported, regardless of field.

Survey Methodology

Each fall, the Statistical Research Center 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 2011 and 2012 consisted of 6,296 and 6,776 bachelor's respectively. The follow-up surveys for the classes of 2011 and 2012 were conducted using a web-based form. Up to three e-mail invitations were sent to degree recipients. We received post-degree information for about 35% of these degree recipients, with 69% of the information coming directly from the student and 31% of the information coming from the student's advisor. Four percent of the respondents were pursuing employment or graduate study outside the U.S. and were not included in the analysis.

On the figures in this report the notation “N” represents the number of individuals about whom we received data.

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

e-Updates

You can sign up to receive an e-mail alert when we post a new report. Visit http://www.aip.org/statistics/e_updates.html to register and indicate your area(s) of interest. We will send you an e-Update only when we post a new report that includes data of interest to you. If you sign up for every possible notification, you should receive no more than 20 messages in a year.

Career Resources

The American Institute of Physics has a Career Resources page (<http://www.aip.org/career-resources>) that centralizes an array of career-related information for members of the physical science community. Content includes career advice, the latest science and engineering job opportunities, employment statistics, fellowship information, and science education and career path recommendations. Also featured are links to AIP Member Society Career Resource pages.