ATTENTION PHYSICS STUDENTS: You Have Options

Q: What can you do with a physics degree? A: Get a PhD and become a physics professor OR ... What comes after the "or" is not widely known in many physics departments, even though data show that only about a third of physics bachelor's degree recipients enroll in a physics or astronomy graduate program within one year of graduating. People with undergraduate degrees in physics, pursue a variety of fascinating, fulfilling, and well-paying careers. This is evidenced by decades of data collected by the Statistics Research Center at the American Institute of Physics. Illustrated below are the common paths of physics bachelor's recipients based on the most recent data. Unless otherwise indicated, all data are for graduates of US physics programs who remain in the United States.

Over 7,300 physics bachelor’s degrees were awarded in the class of 2012–13. A record high! Typically...
- Three-fourths of those who earn physics bachelor’s degrees have research experience.
- One-third graduate with a double major; many in math.
- One-tenth start at two-year colleges.

Within one year of earning a physics bachelor’s degree...
- ~36% attend graduate school in physics or astronomy.
- ~42% enter the workforce.

Common employment sectors include:
- Private sector
  - Typically half of those who enter the workforce take jobs in the private sector.
  - Of those that enter the private sector, the majority hold science, technology, engineering, and math (STEM) positions.
- Federal/private sector STEM positions are well compensated, with a median starting salary of about $50K.
- Colleges or universities
  - More than half of the students in these positions initially work at the same institution they graduated from. Many work in research or IT.
- Government/contractors
  - The civilian government sector includes national labs. The vast majority of these positions are in STEM fields, many related to defense or energy.
- Active military
  - Physics bachelor’s work across all branches of the armed forces. Many work in aviation or nuclear power.
- High school teaching

The approximate breakdown by employment sector for all employed physics PhDs (not just new ones), is given below.
- 45–49% Private sector
- 29–33% Academe
- 14–17% Government
- 5–7% Other

-2/3 accept a temporary position (e.g. a postdoc), primarily at a university or with the government.

-1/3 accept a potentially permanent position.

The Statistical Research Center does not formally follow the career paths of these individuals, but we hear that they go on to successful careers in engineering, management, economics, health, medicine, business, and a variety of other areas.

References and Notes
The following reports were published by the Statistical Research Center of the American Institute of Physics and are available online at www.aip.org/statistics.

2. AIP Statistical Research Center, AIP Physics Trends: Research Experiences of Physics Undergraduates, Fall 2009.
5. Casey Longer Truffey and Patrick Mulvey, Physics Bachelor’s One Year After Degree, September 2014.
7. Casey Longer Truffey and Patrick Mulvey, Physics Bachelor’s One Year After Degree, September 2014.

*Estimates provided by the AIP Statistical Research Center, Summer 2014.