

YOU HAVE OPTIONS

Career Paths for Physicists

Q: What can you do with a physics or astronomy bachelor's degree?

A: Get a PhD and become a professor, OR ...

What comes after the "or" is not widely known in many departments, even though recent data show that only about 30% of physics bachelor's degree recipients enter physics or astronomy graduate school within one year of graduating. Physics and astronomy bachelors go into a huge variety of fascinating, fulfilling, and well-paying careers! This is evidenced by decades of data collected by the American Institute of Physics (AIP).

Physics bachelor's degree recipients

There were **8,618** in the class of 2021–22.

36% had a double major, most commonly math.

13% started at two-year colleges.

Within one year of earning a physics bachelor's degree...

54% entered the workforce

Common employment sectors included:

- The private sector (60%)**
 - The majority of these graduates took STEM positions.
 - Those working in STEM fields had a median starting salary of around \$70K.
- Colleges or universities (11%)**
 - This category contained the largest proportion of part-time employees (21%).
 - Many respondents worked at their alma mater.
- Civilian government, including national labs (9%)**
 - The vast majority of these positions were in STEM.
- High school teachers (6%)**
- Active military (4%)**
 - These positions spanned all branches of the armed forces and were in aviation, nuclear power, and many other areas.

16% attended graduate school NOT in physics or astronomy

48% went into engineering programs. The rest entered programs in math, medicine, education, or other fields.

- Physics majors scored among the highest of all majors on the admission tests for medical school and law school (the MCAT and LSAT); to learn more, visit aip.org and search "LSAT" or "MCAT."
- While AIP doesn't track these graduates, anecdotal evidence suggests they go on to successful careers in engineering, management, education, law, medicine, business, and a variety of other areas.

30% attended graduate school in physics or astronomy

72% started in PhD programs, the remainder in master's degree programs.

> 90% were supported by teaching or research assistantships or fellowships.

The median TA stipend for a PhD physics program was **\$28K**.

The majority of this data comes from AIP's degree recipient follow-up surveys for the classes of 2021 and 2022 combined. The data are for bachelors receiving their degree from US physics programs and remaining in the US after graduation. Data specific to astronomy bachelors can be found at aip.org/statistics.

7%

of US physics bachelor's recipients earn an "exiting" physics master's degree

- These master's degree recipients leave their department after receiving the degree, in contrast to those who earn a master's degree en route to a physics PhD in the same department.
- About 60% graduate with a specific research focus.
- A master's degree in physics takes about two years.

Of those who remain in the United States, within one year of earning a physics master's degree...

~66%

enter the workforce

- About half work in the private sector, overwhelmingly in STEM fields; engineering comprises the largest proportion.
- Other common employers include colleges and universities, high schools, civilian government, and the military.

~34%

continue graduate studies

- Some transfer to other institutions for a physics PhD, while others transfer to programs in other fields.
- While AIP doesn't track those who change fields, anecdotal evidence suggests these graduates go on to successful careers in engineering, management, education, law, medicine, business, and a variety of other areas.

What About Astronomy?

- About half of new astronomy bachelor's degree recipients pursue graduate studies in the year following their degree, with the largest proportion in astronomy or astrophysics.
- Among those entering the workforce, the largest proportion is employed by the private sector, followed by colleges and universities.
- In recent years, about two-thirds of new astronomy PhDs held a postdoc the winter after they graduated.
- The private sector employs the largest proportion of new astronomy PhDs that accept potentially permanent positions.
- Learn more at aip.org/statistics.

55%

accept a temporary position (e.g., a postdoc)

- Doing a postdoc is typically a prerequisite for a faculty position.
- Virtually all postdocs are in the university or government sector.

43%

accept potentially permanent positions

- 73% accept private sector positions, and they have a median salary of \$125K.
- 15% accept academic positions, and they have a median salary of \$66K.
- To learn more about who's hiring physics PhDs, visit aip.org/statistics/whos-hiring-physics-phds.

~13%

of US physics bachelor's degree recipients earn a physics PhD

- Students typically take 5–7 years to earn a physics doctorate.
- 98% of physics PhD students receive financial support through teaching or research assistantships or fellowships.

Of those who remain in the United States, within one year of earning a physics PhD...