
Employment Opportunities for PhDs Outside of Astronomy

— Liam Walters —

The Search

- Get in touch with the [UVA Career Center!](#)
- Attend career fairs and conferences that interest you
 - Don't waste time going to conferences in fields that don't interest you

Common Career Fields in Industry for Astronomy PhDs

- Engineering
- Careers at National Labs and Telescopes
- Public Policy and Law
- Health Care
- Public Outreach
- Business
- Writing
- Art
- Teaching

Example Jobs/Employment Locations

- Engineering
 - National observatories and technical firms
 - Operators and specialists to handle equipment
 - Optical Engineer
 - Instrument Engineer
 - Computer Science
 - Programmer, software developer, software engineer
 - Aerospace
 - Space science mission engineer
 - Space strategy consultant
 - General Research & Development
- Careers at National Labs and Telescopes
 - Similar to positions of people at NRAO
 - Typically centered around observation/instrumentation
 - Usually positions where independent research time is supported and 50-80% of the rest of the time is “time in service”
 - Salaries competitive with academic positions
 - General Research & Development
- Public Policy and Law
 - Congressperson
 - NSF/NASA program officer
 - Space lawyer
 - Science advisor
 - Policy fellowships like: [John Bahcall Public Policy Fellowship](#) and [AAAS Science & Technology Policy Fellowship](#)
- Health Care
 - Bioinformatics
 - Medical Imaging
 - Data Analyst
- Public Outreach
 - Planetariums
 - Science Centers
 - Museums
- Business
 - Market Analyst
 - Financial Advisor
- Writing
 - STEM consultant
 - Screenwriter
 - Science Journalist
 - Writer for technical reports
 - Editor for similar things
- Art
 - sculptor/3D modelling
 - Graphic designer
- Teaching
 - middle/high school, colleges/institutions, and universities that aren't focused on research

A few People in Industry who have Astronomy PhDs

- Data Science
 - Dr. Alicia Oshlack (PhD from University of Melbourne)
 - Head of Bioinformatics at Murdoch Children's Research Inst.
 - Dr. Jessica Kirkpatrick (PhD from UC Berkeley)
 - Director of Data Science and Digital Exploration at KoBold Metals
- Government
 - Dr. Joseph Pesce (PhD from Cambridge)
 - Program Director of National Science Foundation
- Museums
 - Dr. Isabel Hawkins (PhD from UCLA)
 - Project Director of Exploratorium

Currently Available Jobs that Require an Astronomy PhD

- Optical Scientist
 - \$102,000 - \$230,000
- Mechanical Design Engineer
 - \$102,000 - \$130,000
- Interdisciplinary-Supervisory Electronics Engineer, Supervisory Geophysicist
 - \$144,000 - \$188,000
- Public Health Informaticist 2
 - \$72,000

Conclusions

- A PhD in Astronomy is extraordinarily versatile
- There are many well-paying jobs in industry that desire Astronomy PhDs
- When it comes to job opportunities *outside* of academia, instrumentalists seem to have a slight advantage
- Finding a job after the PhD is still daunting because there are so many options
 - Will you be happy with the job you choose?

Resources

- [Astronomers Beyond Astronomy: Using Your Degree Outside of Academia](#)
- [Information and Advice: About a career in Astronomy](#)
- [Information and Advice: Astronomy-Powered Careers](#)
- [Non-Academic employment after getting a PhD in Astrophysics](#)
- [Indeed](#)