Astronomer

Study stars, planets and galaxies for a living. Very well paid, very few jobs, and a long road through a doctorate.

TYPICAL PAY	PAY RANGE	TIME TO QUALIFY
$128,820	**$78k to $195k**	**9 to 14 years**
a year, full time	starting to experienced	after high school

DEMAND	LICENCE NEEDED	WHERE YOU WORK
Limited	**No**	**Universities, national observatories, federal labs, space...**
job outlook	anyone can do it	

How you get there

1. **High school** — Grades 11 and 12
   Physics and the highest math your school offers, plus any coding you can pick up. An astronomy club is fun but the physics is what matters.
2. **Bachelor's degree** — 4 years
   Physics or astronomy. Get into a research group by your second year, because a summer research placement is what makes a graduate application competitive.
3. **Doctorate** — 5 to 7 years
   Coursework, then years on one research problem, then a thesis. Funded by teaching and research assistantships or a fellowship.
4. **Postdoctoral research** — 2 to 6 years
   Short fixed-term research jobs, usually two or three years each, often in another city or country. Most people do one or two.
5. **Permanent position** — If it happens
   A faculty job, an observatory staff role or a federal research post. This is the narrow gate, and plenty of good people do not get through it.

Pros and cons

+ You get paid to answer questions nobody has answered
+ The doctorate is funded, not borrowed
+ Skills in code and data transfer to very well paid fields

– Around a decade before anything permanent
– Far more graduates than permanent research jobs
– Years of short contracts in cities you did not choose

Good to know

Most astronomers never look through an eyepiece
Professional telescopes feed detectors, not eyes. You submit a proposal, a scheduler decides whether you get the nights, and what arrives is a pile of data files. Some astronomers go an entire career wi...

Looking out is looking back
Light takes time to travel, so every image of a distant galaxy shows it as it was when the light left, sometimes billions of years ago. Astronomers are the only scientists who can watch the past directly.

Optional boosts

Serious programming. Statistics and machine learning. Instrument building. Public outreach.

Where these numbers come from

My Next Move: Astronomers (19-2011.00)
University of California Berkeley, Department of Astronomy
National Science Foundation: funding for graduate students
National Aeronautics and Space Administration: careers

Numbers checked September 2026. Pay figures are typical full-time annual amounts in United States dollars, based on Bureau of Labor Statistics wage data and published pay scales. They vary by state, employer and experience. Tuition is for in-state students at public schools unless the card says otherwise. Sources, links and the click-through version: https://career.help/us/careers/astronomer

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