



AAS Employment Committee Special Session

Job Applicants: Top 10 Questions You Should Ask



Junior Academic

Elizabeth Barton
University of California, Irvine

10 Questions to Ask About a Permanent Job

1. How much teaching and service are involved in the job? What will I have to do that I'm not thinking about right now?
2. What are the expectations for tenure?
3. Who has been turned down for tenure, when, and why?
4. Do my startup funds expire?
5. Exactly how much does it cost from startup funds or a grant to have a graduate student? A postdoc? An undergraduate research assistant?
6. How many graduate students might I expect to attract, and when?
7. What are the institution's maternity/paternity policies?
8. Will the department chair nominate me or support my application for prizes and fellowships (e.g., Sloan, Packard Foundation fellowships)?
9. Does the institution have computer support?
10. Is there a departmental slush fund? What kinds of university funds are available?

Things to Find Out About a Postdoctoral Position

- How long does my appointment last? What are the conditions of reappointment or continuation for the final year(s)?
- Are my moving expenses paid?
- How much research funding is at my disposal? Is it really enough?
- Do I need to pay for part of my health plan? Is my family covered? Are there any retirement benefits?
- Can I serve as PI on observing proposals to the available facilities? If not, will a faculty member "front" for me?
- How much time will I have for my own research?
- What type of "service" is expected of me?
- Who here will write letters of recommendation for me when it is time to find a new job? Will I be competing directly with their students or other postdocs?



Senior Academic (Post tenure)

Bruce Balick, University of Washington

Self-evident questions

More subtle questions

Obvious questions

- Salary, benefits, cost-of-living issues, retirement matching, medical coverage, moving costs
- Months of guaranteed employment; startup package; raise schedule; responsibilities and authority of the job;
- Leave entitlements and policy: sabbatical, emergency, maternity/paternity; *pausing the promotion clock.*
- Spousal employment opportunities
- Local schools, commuting, public transportation and passes.

Less obvious questions

- *Department strategic goals and implementation plans*
- *Promotion: expectations, best practices, mentoring, timetable, documentation; demystifying the process*
- *Faculty hiring:*
desiderata, timetable, process, final approvals
- *Recent hiring history and faculty departures*
- *Inside scooping: private meeting with students*
- *Influence inside and outside of the home department*
- *Increases in matching retirement contributions: automatic or only by request?*

Awkward questions

- *Gender and diversity policies and hiring practices*
- *Salary “compression” and the “catch-up” game*
- *Dealing with unpleasant or unsupportive chairs and colleagues*
- *How (successfully) does the university deal with job offers to existing faculty?*
- *Procedures and/or legal representation for*
 - *accusations by students, or*
 - *about illegal student behavior*

Deflecting inappropriate questions tactfully



Questions for Industry Interviews

Ron Polidan
NGST

What Kind of Company are You Questions

- 1. What is the primary type of work that the company is engaged in, basic research, applied science or engineering, production work, etc**

The purpose of this question is to give you an idea of the global interests of the company
- 2. What is the primary type of work that the group I am being considered for is engaged in, basic research, applied science or engineering, production work, etc**

The purpose of this question is to give you an idea of the global interests of the segment of the company within which you will be working. Combined with Question 1 it lets you know whether you will be doing things of core interest to your employer or something on the fringe.
- 3. What specific type of work I be primarily doing (basic research, applied science or engineering, production work, etc)**

This question is intended to give you an idea of what you will be spending most of your time
- 4. Does your company do any basic or applied scientific or technical research?**

Most companies do some kind of basic or applied research, some even do quite a lot. It can be useful to get information on scope of this work. For science PhDs the more a company does in research efforts, the more likely they are to fit in to the company. It is also often possible to tap into this work shortly after you arrive if you know what they are doing.
- 5. Do you currently employ many people with astrophysics/physics degrees?**

This is another “will I fit in” question. Most groups feel that their “type” of skill attracts the right kind of people and that other backgrounds are not as good – we are still more comfortable with our own kind. You do not want to be the only PhD physicist/astronomer in a organization of MBAs. Industry - Ron Polidan

Work Environment Questions

6. **Will I be in a "matrixed" position (multiple independent jobs or tasks) or working on a single job or task?**

Companies operate with both systems. This is a personal work environment question that has no “right” answer. Some people like being matrixed and hate single task approaches, others hate matrixing. This is a personal preference question. But you need to know what you are getting into before you commit.
7. **Do employees regularly attend conferences or publish technical papers? If so, what venues?**

This is another personal work environment question. We tend to think that “everyone does this.” In reality, a lot of industry only publishes in marketing/trade oriented events – really just selling their products. This may or may not be an important factor for the individual, but it is a useful piece of information.
8. **What is the company policy on conference attendance?**

This is another work environment probe. This is a subtle way of finding out how hierachal the company is. For many conference attendance is a perk, reserved for more senior people or given as a reward. For others conference attendance is just a normal part of work – if you do the effort, you report the results (like astrophysics). I personally avoid the hierachal companies, but that is my personality.
9. **Who are your primary customers?**

Again this is a personal choice but I think it is worth knowing who you will be primarily dealing with: NASA, NOAA, universities, other commercial companies, DoD, or other acronymed government agencies. Remember that for industry the customer dictates pretty much everything.



Soft-Money Scientist

(at universities, observatories, soft-money institutes)

Barbara Whitney, Space Science Institute

- What is the overhead rate?
 - What is the institute providing in return for this charge?
- What is included in my benefits package and how much will it cost?
 - What percent FTE do benefits kick in?
 - Are some benefits optional (e.g., health insurance)?
- Are my grants treated as grants or contracts by your institution?

- How are my salary and pay raises determined?
- Are there opportunities within the institute if I lose my own funding sources?
- Is it an exciting place to work with active research and opportunities for collaboration within the institute?
- Is the administrative staff easy to work with, competent, prompt? (Am I?)
- (Postdoc): What are my opportunities for interaction and collaboration with people in my field?



Science Center

Lisa Storrie-Lombardi
Spitzer Science Center

- 1. How much of my time do I get to spend on research and how much of my raises/performance reviews are based on my research output? For post-docs, ask how much time you get to spend on self-directed research and if there are any service components to the job.
- 2. If I am hired into a science track that I'm not happy with can I move between tracks? (Research vs. Staff, Tenure-track vs. Astronomer/Research-track). What does tenure mean?
- 3. What are the rules for hiring post-docs/data aides, supporting graduate students and being the principal investigator on proposals?

- 4. What does the employment picture look like for your institution in 5 years? For post-docs, ask if the full-funding for the position is in hand.
- 5. Are post-docs considered *employees* or *fellows*.
 - Employees get benefits. Fellows often don't or they get a much lower level of benefits. ‘Salaries’ and ‘stipends’ come with different tax consequences.
- 6. What is the salary range? Are raises generally given annually?
 - Negotiating a good starting salary is important. If you start low it is much harder to ‘catch up’ later, even if you are doing great work.
- 7. What type of research support is provided? Do I have to pay for conference travel, observing, page charges, photocopies, phone calls.

- 8. What benefits (insurance, retirement plans, gym, day care, vacation) does your institution provide? Are relocation expenses covered?
- Ask about where to find this information. Most is probably available on the web. You don't have to tell people that you have 3 kids under the age of 5 but you can find out if the institution has day care, insurance for domestic partners, etc. JPL only pays for moving expenses from the 'port of entry' for post-docs coming from overseas. If you are moving a family, this can be a huge expense.
- 9. What institutional overhead will be charged on my research grants and what does it buy me?
 - It's extremely disconcerting to arrive at an institution with your new fellowship and discover that the institution is taking 40% off the top of your research budget and for this they provide you a desk and no other support.
- 10. What is the ratio in numbers of staff scientists, engineers and post-docs?

Questions to ask about jobs at ground-based observatories

Grant Hill
Keck Observatory

- Do I get access to the telescope? Is there time set aside for staff (i.e. director's time) and how much work is it to get it? What is the oversubscription rate like for that time? Alternatively do I have to apply like the same people I'm supporting at night?
- How much work is at night and is that all night long? Do I have to be on the mountain for extended periods? How often are people called when they are not on support?
- What phase of its "life cycle" is the observatory in? i.e. is the instrumentation suite stable, the emphasis on operations, and perhaps the observatory filling a niche of some sort? or..... Is the observatory still heavily in development with new instruments arriving? In this later case, the while it may be more exciting being on the cutting edge, the support pressure can be much higher.

- What financial support for research is there, and how cumbersome is it to get that support for things like travel, page charges, etc.? Can you get money to go observe elsewhere?
- Do you have to collaborate with others at the observatory?
- If the observatory is geographically isolated, is there travel assistance for home leave?
- Is the salary flat or are there extras for being on call, being on the mountain, being on nights, etc?