

# Overview of the academic hiring process

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## Some stats

In 2008:

- ▶ 1235 new PhDs awarded (first report)
- ▶ 33% of them from Group I (roughly the top 50 departments)
- ▶ 44% US citizens, 31% women, about 10% underrepresented minorities
- ▶ 72% employed in US, 53% employed at US academic institutions, 7% employed at same school, 5.4% unemployed
- ▶ numbers employed in industry and government have been rising for 5 years

Lots more data at

<http://www.ams.org/employment/docsgrtd.html>

## Types of jobs for recent PhDs

- ▶ industry/government (this should be the subject of another panel discussion)
- ▶ academic
  1. tenure-track assistant prof
  2. academic post-doc
  3. research institute (IAS, MSRI, IMA, IPAM, AIM, Clay ... IHES, MPI, Newton, CRM, RIMS, ...)

(3) is almost entirely research, (2) is intermediate, (1) involves more teaching, possibly committee work. The NSF post-doc can be like (2) or (3).

There is a huge variation in expectations for (1) (relative emphasis on research, teaching, service).

For research-oriented (1), you generally must do (2/3) first. Some schools, generally more oriented toward teaching, may hire fresh PhDs for (1).

## Steps to getting a good job

- ▶ !!Create some great mathematics and communicate it well!!
- ▶ Become (and become known as) a good teacher
- ▶ Get some breadth and perspective: go to colloquia, read the Notices and Bulletin of the AMS, take some courses outside your speciality, even outside math
- ▶ Be able to document your training and achievements:
  - ▶ prepare and maintain an up-to-date CV
  - ▶ make a “teaching portfolio”
  - ▶ !!Make sure a few potential referees know you well! (class visits, seminar talks, independent studies, ...)

Note that everything here takes time and should be started as early as possible.

## Where to find ads

- ▶ EIMS (<http://www.ams.org/eims/>)
- ▶ Mathjobs (<http://www.mathjobs.org>)
- ▶ Notices of the AMS (<http://www.ams.org/notices/>)
- ▶ SIAM News (<http://www.siam.org/news/>)
- ▶ Sites of the institutes (links here:  
<http://www.mathinstitutes.org/>)

## What's in an application

- ▶ AMS cover sheet  
(<http://www.ams.org/employment/cover-printable.pdf>)
- ▶ Cover letter
- ▶ CV
- ▶ Statement on research
- ▶ Statement on teaching
- ▶ Letters (2-3 on research, 1 on teaching)

The letters are the most important factor.

## The cover letter

Keep it short and simple, 1 page max

- ▶ name the job you are applying for
- ▶ possibly say a few words about your research area and teaching experience
- ▶ possible customization: name faculty you might interact with; mention special features of their program
- ▶ contact info; presence at January meeting

## The CV

See links later for what to include, the order, etc.

General principles: Include only what is relevant, significant, impressive. Absolute honesty and accuracy is essential.

For example, an award you won in high school is probably no longer significant. The fact that you won a hot-dog eating contest is perhaps impressive, but not relevant. The fact that you helped chauffeur your advisor's visitor is not impressive. Any misrepresentation, exaggeration, or inaccuracy can get you into real trouble.

Avoid exotic typefaces and flashy paper.

## Statements

There is a lot of good advice in the links below about writing these statements. They will form your main first impression, so put some effort into them. Show them to mentors and colleagues and get feedback.

Some customization (e.g., for teaching-oriented versus research-oriented schools) may be useful.

## Letters of reference

These are absolutely crucial.

The most effective letters come from well-respected people who know you and your work well. Therefore, you should make sure a few such people know you and your work. Talk to faculty beyond your advisor! Go to colloquia, and the associated teas or dinners! Go to conferences!

Provide your referees with your CV, statements, some idea of what your goals are. Give them enough lead time to do a good job.

## Timeline

- ▶ Ads are placed in late summer, early fall
- ▶ Applications are generally due sometime between 10/15 and 1/15, although some are earlier or later.
- ▶ Committees read files in late fall, early winter
- ▶ Post-doc offers are made, generally take-it-or-leave-it, in January or later. There is no interview. Deadline to accept is February 5 or later (Feb 5 = deadline to accept NSF post-doc)
- ▶ Tenure-track jobs almost always involve a campus interview. See the links below for advice on the interview. Offers can come anywhere between January and May, even beyond.

## How does the hiring committee decide?

In a top research-oriented department, the key factors might be:

- ▶ The importance and originality of your work
- ▶ The likelihood that you will develop a significant, independent research program
- ▶ Your ability to communicate (both research and teaching) and to mentor

The relative balance of these items might be quite different at a top teaching-oriented school (Williams, Amherst, etc.) and different still at a regional 2- or 4-year college.

Any good hiring committee will be asking themselves “what is the evidence that this candidate will develop into the kind of faculty member who advances our missions?”

## How does the hiring committee decide?

Other factors, secondary but still important:

- ▶ The “fit” of you and your work with the school
- ▶ Your breadth and ability to interact with others
- ▶ Your collegiality, and the likelihood that you will contribute broadly to the missions of the school

Generally there are a lot of exciting candidates. To get an interview, there has to be someone pushing your case. It helps if they have met you, seen you lecture, etc.

## The AMS Employment Center

At the January joint AMS/MAA/SIAM/... meeting, the AMS organizes a job fair with short interviews between candidates and employers. See <http://www.ams.org/emp-reg/>. Roughly speaking, this is a screening operation (for employers and candidates) and is used mostly by teaching-oriented schools. The site has some interesting articles and advice.

## Resources

- ▶ “Advice for new PhDs” on the AMS web site has many articles on both academic and non-academic jobs. See <http://www.ams.org/employment/job-articles.html>.
- ▶ SIAM’s Careers page has several resources.  
<http://www.siam.org/careers/>
- ▶ Among the many books offering advice and opinions by Steven Krantz, the most relevant here is “A Mathematician’s Survival Guide” published by the AMS.
- ▶ “Starting Our Careers” (Bennett and Crannell, published by the AMS) has advice from the Young Mathematicians’ Network on many things, including applying for jobs.
- ▶ The University of Michigan has an interesting site on how to write a teaching statement:  
<http://www.crlt.umich.edu/tstrategies/tstpts.php>