

Job Process

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TSW 2012, 2014

Types of jobs in U.S. academia

Postdoc (typically 2-3 years)

- Teaching: none to 2-2
- NSF Postdoc available to US Citizens

Research Institution Tenure-Track

- Teaching: usually 2-1 to 2-2 with many deals possible
- Typically at PhD-granting Institutions
- Prior postdoc is virtually required

Liberal Arts/Teaching-Focused Tenure-Track

- Teaching: 2-2 to 4-4
- Typically at Undergraduate Institutions
- Increasingly, postdoc is expected

Lecturer/Other (1 year to Indefinite)

- Teaching: 2-2 to 5-5

Finding open jobs in the U.S.

Mainly mathjobs.org, but also

- AMS website (eims.ams.org) or Notices of the AMS
- word of mouth
- Employment Center at JMM
- maybe even Math Jobs Wiki

A typical new PhD might apply for 20-100 entry-level positions.

The application

Standard stuff:

Cover Letter
AMS Standard Cover Letter
(mathjobs)
CV
Research Statement
Teaching Statement
3+ Rec Letters
(w/ at least one on teaching)

Possibly also:

Transcripts (Undergrad & Grad)
Publication List
Institution-Specific Document:
Diversity
Educational Issues
Interest in particular
institution

Ideas for the cover letter

The job you are applying for

Name of contact at institution

Brief academic biography

Why you are perfect for the job

- potential research collaborations

- teaching experience

- connections to institution/geographic area

Customize (only for your top few jobs)

Names of letter writers

Attendance at JMM

Some people: mention partner (strategy required)

Cover letters for liberal arts schools

- Did you attend a liberal arts college? Do you have any connections with one?
- Why are you right for a small college -- and vice versa?
- Have you engaged in research with an undergraduate student? REU or otherwise?

Having faculty connections is not as important as you might think....

It is not necessary to do research in the area of a faculty member of the department - but point out if that's the case.

Letters of recommendation

Whom to ask:

- Advisor
- Prominent mathematicians in your area
 - best if you've met them, but not necessary
 - institutional/international diversity can help your file
 - get a sense of their reputation as letter-writers (ask around)
- Department teaching coordinator
 - request a classroom observation

Some say: The more the better!

Others say: Your file is only as good as your *weakest* letter.

Application timeline

August and onwards: make list of jobs

by early September: draft research and teaching statements, update CV and website

by mid-September: contact letter-writers

by mid-October: finalize documents

Nov/Dec and onwards: apply!

- apply before deadlines-- people read files early
- contact people directly-- hard but important!

Postdoc offers usually come Feb-May, often by email. Tenure-track interviews might be offered Dec-May. Offers might come with two weeks to decide.

The interviews

Three basic kinds:

- Phone
 - 10-20 minutes
- JMM: Employment Center / Informal
 - 15-45 minutes
- On-Campus
 - 1-2 days; includes job talk, many short meetings with individual faculty, usually meeting with dean

All interviews are about personality and "goodness of fit" as well as the math!

General interview advice

- Know what you want to say
 - research: 30 second, 2 minute, 30 minute versions
 - teaching: pedagogy, classes taught
- Know who you are talking to
 - research the institution, department & interviewers
- Don't put yourself in a box
 - talk about research possibilities
 - be flexible about teaching practices
- Ask questions
 - *Do you have an undergraduate math club?*
 - *What type of research support is offered?*
 - *What's the most common major in Calc 1?*
- Take notes
- Be yourself & smile!

You might be asked about...

How undergraduates can be included in your research program. Sample project? Necessary background?

Diversity: socio-economic, racial, gender, first generation college students.

- Is there a way you have dealt with diversity in your own classroom?
- Is there a way you have encountered diversity or lack there-of in your personal experience?

Interdisciplinary projects related to your work

Experimental or innovative teaching that you have tried;
classes you would like to teach

Computing - new buzzwords: "Digital Studies," "Computing across the Humanities," "Computational Studies"

Phone/skype interview

- Write down the names of the interviewers
- Be on time and use a dependable phone
- Speak clearly and confidently
- If you use Skype:
 - check your setup in advance
 - dress professionally and think about the setting (is your office a disaster?)
- Practice!

Employment center interview

- Research the interviewers
- Know where you will meet and be on time
- Have syllabi/materials ready
- Give a talk at the JMM
 - appropriate special session optimal
 - 10 minute contributed talk possible
- Be polite and don't hover
- Practice!



Campus interview- general

- Research the people you might meet
 - various deans, faculty from other departments, ...
- Remember names (as many as possible)
- Familiarize yourself with the area
- Prepare job talk(s)
- Socialize
- Communicate your enthusiasm for this particular job
- Have strategy for discussing (or not discussing) "two-body problems"

Campus interview- liberal arts

- Why are you right for a small college -- and vice versa?
- Very important to have a good, non-technical explanation of your research and where it fits into mathematics.
- Small colleges are not just about teaching! Make sure to be as excited about your research as your teaching.
- Highlight how your research program will thrive at this type of institution.

You will meet students! And those students will be asked for their opinion of you and your talk.

The job talk

Beyond basic advice on giving a math talk...

- Know your audience!
 - undergraduate talk / dept colloquium / seminar
 - ask your host what goals should be (e.g., impressing people vs communicating clearly)
- Say your contribution in the first 5 minutes
- Keep it very accessible, at least until the end
- Show people outside your immediate area that you will be good to talk to/have around
- Practice!

After the interview

In all cases, after you have interviewed:

- Ask when you might hear back
- Thank interviewers for opportunity
- Send thank-you email to host

Great, you have an offer.

Even better, you have two! Now what ... ?

- Do not accept immediately
- Ask around about salary, startup \$\$, other negotiables
- Negotiate! Use other offers, use salary stats from Notices. This is one of the few times you have leverage.

Negotiating an offer

- Main negotiables: salary, startup fund, teaching releases, deferment/leave
 - Unlikely to get teaching releases except at research-focused school, where it is standard
 - Deferment/leave: Is there an upcoming Special Semester or big conference in your area? If so, negotiate for time/funding for travel.
 - Startup fund can support grads, postdocs, or summer research students
- Do you need computing power? Ask now!
- Sabbatical clock (pre-tenure sabbatical?)
- Small colleges compare themselves all the time! Ask where salaries fall in their comparison group.

Keep in mind that at smaller schools this negotiation is not always possible because of size.

What you can do now

For any position:

- Attend conferences, talk to others
- Meet potential letter writers (both kinds!)
- Build a good website which shows breadth and depth

If you are interested in liberal arts jobs:

- Teach a variety of classes
- Work on a research project with an undergraduate - does your school have a VIGRE-like project where you can do this easily? REU?
- Learn about diversity issues on your campus
- Understand the relationships between your field and other departments
- Be involved in extracurricular mathematics, whether on the graduate, undergraduate or high school level.