

## FOCUS on Students: Applying for an Academic Job

By Robert W. Vallin

Once again we are at hiring season. Hundreds of applicants are each sending out triple-digit numbers of applications, trying to find a post-doctoral, tenure-track, or temporary position. This time-consuming process keeps the applicants worried and guessing about their future. It is a hair-pulling experience also for the department committee looking for that elusive "best fit." Departments are well aware that a wrong move could end up being a 40-year mistake. Having served on several search committees as well as having compared notes with colleagues about their own adventures, I have decided to put pen to paper and give some help to those looking for employment. If you would like to find some more complete thoughts on the process I recommend going to the American Mathematical Society's page on advice for new PhDs at <http://www.ams.org/employment/job-articles.html>.

Each job has its own nuances and it is important that you research these. This department emphasizes research. That one refers to excellence in teaching in its advertisement. Perhaps department A has someone who does research in analytic number theory just like you. Maybe department B has someone who is an officer in a group in which you wish to be active. This type of information can easily be found via the department web site. Departments are looking for a colleague who will be a good fit for them, and showing that you know details about their mission or faculty makes a good impression. It is easy to write one cover letter and just keep changing the address of the department, but such generic letters may get pushed to the bottom of the pile. Try to tailor each application to the situation. Also, even though you are the one looking for a job, this is not all about you. It is about those doing the hiring, too.

*True Story:* He was about to graduate. Very sure of himself, he would tell anyone and everyone who would listen how organized he was. He also complained

about how unnecessary and unfair it was to make each packet meet the needs of each school. "Too busy with his other stuff," he told his friends. In the end, all the tenure-track jobs passed him by. Near the end of the school year he was lucky enough to find a temporary job. The moral: The requirements for your packet and department web site are there for a reason.

Schools can, for the most part, be sorted into one of three categories: Research Institutions, Liberal Arts Schools, and "the Rest." When I was at a "the Rest" university and a cover letter said how the applicant's goal was to teach at a liberal arts school, my only thought was, "Then why are you wasting my time?" Unwanted material will have the same effect, such as sending a teaching or research statement to a school which did not request one. That says you either didn't read the ad or just don't care.

### Cover Letter

This is the first thing the committee will look at. It is your pitch, telling them why you are exactly what they're looking for. These are much different from non-academic cover letters in that the readers are not the people you will work for, they are the people you will work with, your potential future colleagues. Any letter that is bland enough to be sent to every place you apply will not help you make any short lists. As with anything you sign your name to, make sure someone else (really at least two someones) reads it. Typos must be corrected. If your letter refers to the school by name, make sure that it is spelled correctly. Now is not the time to impress with fancy fonts or over-the-top gushing enthusiasm. Instead impress them with your professionalism. Remember, if you are sending out 100 applications, the committee is reading at least twice that many.

*True Story:* The cover letter read well. However, in the first paragraph, the first

letter of every line was a larger font-size than the rest. Bold-faced, they stood out. Put together, these letters spelled out the name of the applicant. Funny? Yes. Hiring material? No. The moral: You're trying to be my colleague, not my entertainer/cheerleader.

### Curriculum Vitae

As the Latin translation implies, this is your life. Like a résumé, this should be a history of your work. Unlike a résumé, this does not have to be short. Usually a CV starts at two pages and then grows. Everything should be included: personal information, education, dissertation title and advisor, teaching experience, research experience, papers (research, pedagogical, and expository) published or submitted, talks given, awards, service work, grants and fellowships received, workshops or mini-courses taken, meetings attended, and professional memberships. The page [http://www.resumesandcoverletters.com/Academic\\_CV.pdf](http://www.resumesandcoverletters.com/Academic_CV.pdf) is a good sample of an academic CV. It's a bit long, but it shows the numerous items that can go on a CV. Be warned though, a CV means something different in Europe. It is more of a résumé. When looking to the web for help, you'll find lots of information that may be true in other countries (such as including a photograph), but that is not correct for an academic job in the U.S.

*True story:* The committee member could not tell you if she was qualified. He did not know how her CV read. He couldn't get past the pink paper. Neither could anyone else. The moral: Stand out with your hard work and thoughtful presentation, not with the eye-catching trappings.

### Teaching and Research Statements

Read the ads carefully to make sure these are requested. Again, when they are included but not asked for, they can give the impression that the applicant is using an assembly line approach and not

Be honest with these questions. If you have a specific research plan, outline it briefly. If you would rather spend your time focusing on teaching, say so. There are schools out there that are looking for both of these answers, so do not be afraid to be honest and true to yourself.

### **On-Campus Interviews**

Most on-campus interviews follow a script that reads something like: fly in, go on a campus tour, meet the faculty and administration, give a talk, and return home. Realize that different schools have different methods of searching for and ranking a candidate. Typically, a search committee decides on which top three or four applicants to interview; they also rank their top candidates before the interview. From personal conversations it seems that the rankings did not change after the interviews were conducted. This may seem surprising at first, but rank is typically determined by substantial criteria like publication record, teaching experience, field of expertise, letters of recommendation, etc. Most likely your publication list or teaching experience will not change drastically from the time you send in your application to the time you interview at the school. Here are some suggestions that may help in the interview process.

- **Know your audience.**

**MJ:** Some schools will require a talk at the undergraduate level, while others want a more high-powered talk. Make sure you are informed at what level to pitch the talk.

- **Prepare multiple versions of your talk.**

**DT:** Typically, schools will ask you to prepare a talk aimed at an advanced undergraduate mathematics major. Since the job talk is the one time most of the faculty are able to see you in action, you also want to show you do solid and interesting research. It is difficult to determine how to strike a balance. I eventually had three versions of my talk prepared (nontechnical, advanced undergraduate, and technical). Job talks are usually given in the afternoon, so after spending the day with the faculty I got a feel for which version of the talk to present. You could also ask the school in advance if you can give two half-hour talks instead of one hour-long talk. The first talk would be geared toward students, while the second talk would be for faculty.

- **Bring and leave a portfolio with all of your accomplishments.**

**DT:** Individual committee members may be looking for specific information. Your portfolio provides information that the faculty want to know and did not have time to ask you during your interview. Make sure it is well organized and tabbed so your interviewers can quickly find relevant in-

formation. My portfolio contained: (1) AMS Cover Sheet and vita; (2) classroom exercises, handouts, and projects/samples of student work; (3) completed research papers; (4) papers in progress; (5) grants received; (6) student evaluations. Leave the portfolio behind for faculty who were unable to make your acquaintance.

**MJ:** It is also a good idea to keep this portfolio up-to-date for departmental reviews and to help organize your materials for tenure.

- **When teaching a course, do not do anything fancy.**

**DT:** I was asked to teach a class for one interview. I had the students break into groups. The students did not have time to warm up to me and did not feel comfortable interacting with me. Teaching a class on an interview is almost like teaching on the first day of class, only with faculty watching. If you are required to do this for your interview, give a well-prepared clear lecture with periodic questions thrown at the class.

- **Be yourself.**

**DT:** Do not try to be every member's ideal candidate. Most faculty have probably looked at many applications and served on search committees for previous job searches. They will know if you are trying too hard to tailor yourself for their position.

**TH:** I know of one job seeker who openly told schools that she did not want to do any research after her dissertation. And what do you know? At one of the schools she interviewed with, this was exactly what they wanted to hear. You help everyone, including yourself, by being honest.

- **Ask for feedback.**

**DT:** If you do not receive an offer from a school, contact them and ask for feedback on your interview. They may be able to provide insights on the search process and how you came across. You can use the information to determine how to interview better next time.

### **Questions to Ask the Search Committee**

While on an interview you will have many opportunities to ask questions. We suggest that you come prepared with a list of questions, because you may forget to ask a particular question if you are nervous or anxious about the interview. Moreover, good questions will help engage faculty members in discussion and reflect well on your personality. Ask questions to help determine if you would be happy and successful at the institution. Below are a few questions to get you started, which we have divided into different categories.

#### *Life Issues*

- Can you provide specific information about the health insurance and retirement packages?

- Is there affordable housing in the area? Where do the other faculty live?
- What types of childcare facilities are available, and where do faculty send their children to school?
- Would my children be able to attend the college for free or for reduced tuition?

#### *Teaching Environment*

- Typically, how many contact hours and separate preparations will I have per term?
- Are there course reductions for junior faculty and for faculty to pursue research?
- What kind of computer facilities are available for the students? How, if ever, is technology used in the classroom? Does this include access to a network with standard mathematical software packages?
- Will I be able to teach a variety of courses ranging in levels?
- Is summer teaching available? expected?
- Is there an undergraduate colloquium series? Is there an undergraduate math club and/or chapter of Pi Mu Epsilon?

#### *Research Environment*

- Are there start-up funds available for your research? What computer equipment do individual faculty members receive?
- Are there opportunities for a research-based leave or early sabbatical (before tenure)?
- Does the library have CD-ROM abstracts like *Mathematical Reviews*, an online subscription to MathSciNet, or subscription to document retrieval services? How is the library at getting interlibrary loan materials? Will I have input in future acquisitions to the collection?
- Is there a department colloquium or seminar series?
- Is there travel money to attend and/or present at conferences?
- Are there funds for undergraduate research?

#### *Service Responsibilities*

- Will I be responsible for advising students? And if so, how many students?
- How are the committee assignments made? Will I have an opportunity to serve on campuswide as well as departmental committees?
- Are the service requirements less for junior faculty?

#### *Assessment of Performance*

- How is teaching evaluated for tenure and promotion?
- What are the research expectations to receive tenure?
- Is there a yearly review? Is there a three-year review?

- How many people have come up for tenure in the past ten years? How many have received tenure?

### **Conclusion**

Our best advice is to prepare well for your interview. Unfortunately, you will encounter situations that will take you by surprise. Minimize this by talking to young faculty and fellow graduate students about their experiences. Further, consult Web pages, like the Young Mathematicians Network [4] or the AMS Web site [1], to glean tips from the advice of job market veterans.

There is no set formula for a successful job search. There is an infinite number of factors that come into play when a department hires a new faculty member, and many will have nothing to do with you! But the interview is an aspect that you can partially control to prove that you will be a cherished addition to their department. Do not let the things that are in your control work against you. An ounce of preparation is worth a ton of good impressions.

### **Acknowledgments**

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