

Applying for Jobs:

Non Academic Routes

Research Horizons

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- Emphasis on PhD students. **BUT** non-academic opportunities are even more relevant for Masters' students.

- **Disclaimer:** Have had the same job for 20 years, so I have no direct expertise on non-academic jobs. Relied on former student insight (B.R.) and help from a GT career counselor (more later).

- Where are our PhD students going?
- Are there other avenues to explore?
- How does one go about getting a non-academic job?

- PhD: Placement. Last 9 (and 4) years.
 - 61 (respectively, 27) PhD's.
 - First employment
 - Academic Type: 39 (resp. 17).
 - Non-Academic Type: 21 (resp. 10).
 - Unknown: 1 (0).
 - About $\frac{1}{3}$ rd.

- Non Academic Venues.

- MaxPlanck, Navy, Consulting, NSA, Asset Modeling, Planning Systems, Verizon, ATT, DOD, notnow.com, Retek Inc., Dynetics, Software, LANL, DE Shaw, Bank of America, Microsoft, Citigroup, MarketRX, IT, Inform GmbH (optimization software), Pace Academy.
- Non-academic trends: Software, Finances, Defense related.
- Why non-academic?

- Cultural barrier: *"I am a mathematician, why would I want to consider non-academic options?"* Philosophical answers aside ...

- Can have better control of where to live. For example, in some countries (e.g., Germany) academic jobs are scarce. Or, say, you want to remain in Atlanta.

- Hope to have a more concrete role in the community.

- Where are non-academic jobs advertised? How does one go about getting a non-academic job?

- Most jobs are advertised on-line.

- No one way to get a job. Possibilities are: (a) **Job Fairs**, (b) Headhunters (employment agency), (c) **Personal contact** and taking proactive role (e-mail people, introduce yourself, networking).

- Georgia Tech has (at least) two job fairs every year. One is starting **September 8**. Go to

<http://www.career.gatech.edu>

- Help is provided at the above site on several important things involved in a job search.

- Career counseling

- Practice interviews

- Information on potential employers

- Negotiations and offers

◦ **Networking** and personal contacts. Keep in mind that often there is a generous referral bonus for the person who recommends you (if you get the job). [Absolutely not true in academic environment.]

◦ [B.R.] "In finance, **headhunters** provide a lot of help, but, of course, they take a nice fee from employers for their services. That might make you less appealing to an employer if you are competing against people who don't come with that fee attached. On the other hand, a lot of direct, online applications often (usually?) fall through the cracks, and once you apply somewhere by yourself, a headhunter won't recommend you to them because it obviates their fee."

- What about the interviewing process?

- [B.R.] "In defense, interviews are a lot more general and non-technical. In finance, they can be brutal. Practice lots of brain teasers, and be prepared for a lot of questions. Typical finance process: 2 or 3 phone interviews (usually involving brainteasers), maybe an online test or two, then an onsite interview that lasts all day and leaves you exhausted."

- Work on school year (190 days), professional pay, gratifying, makes a **true difference** in many lives.

• Why?

<mailto:beth.spencer@provost.gatech.edu>

Georgia Tech has now a person who is the coordinator/liaison to help with the process of certification, Beth Spencer:

→ All teachers in the public school system must be certified ... but there are many routes to certification.

does it take?

• What about becoming a teacher? A 6-12 teacher? For example, in the public school system What

• [B.S.] "Certainly Math at both the middle and high school levels remains and will remain a critical shortage teaching field, and jobs abound in the metro area, across the state, and across the nation." ... "Because of Tech's reputation in math and sciences, school districts are very keen on bringing Tech students into their classrooms".

• Contact Beth Spencer if you want to pursue certification concurrently or after finishing an MS or PhD in Math at Tech. GSU has certification-only options (which is all someone who already has a graduate degree needs).

<http://www.undergradstudies.gatech.edu/preteaching>

- Certification? Keep in mind that ...

- Tech Math students who already have an MS or PhD are excellent candidates for the Alternative Certification Programs. These are the "learn as you earn" programs that provide training and the requirements for full state-approved certification for new teachers who want to jump right into a full-time teaching job without first completing a certification program or by doing one at a university.

- Interested? Check out

<http://www.atlanta.k12.ga.us>