

Mathematics Job Market Notes

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0 Warning!

This is very much a work in progress. Don't judge it too harshly



1 Introduction

This document describes some of the comical things that I encountered while interviewing for academic jobs in 2018 and 2020. The initial impetus was a collection of emails that I sent while traveling for on-campus interviews, detailing the absurdities and oddities that I observed (and occasionally caused). Those emails are presented beginning in Section 9 with some additional material beforehand, outlining how I got into this mess in the first place. I had hoped that simply relating my experiences would be useful for other applicants, primarily by highlighting some of the complexities of the process so they could apply the lessons to their own situations. However, I'm not convinced that the travelogues actually serve that purpose very well, which led me to write Sections 3 – 8 hoping to describe the market and application process more abstractly. My experiences in 2020 around are even less likely to lead to generalizable advice¹ but hopefully the stories are still enjoyable.

Providing entertainment is another main motivation – I like telling stories that make people laugh and it turns out that my job search process provided plenty of material. However, there are also some useful lessons and details in here – one of the real problems about the academic market is the difficulty in obtaining usable information about the interview process. Even worse, it is a challenging thing to communicate about effectively – the process² feels very personal and trying to sift through and organize the experiences you encounter while participating in the market, in order to make them palatable, useful, and relatable to others, requires mentally revisiting a whole sequence of awkward memories³.

¹For a whole bunch of reasons, none of which are effectively explained in this document.

²and the rejections...

³As mentioned above, I had initially hoped that simply relaying my experiences would provide sufficient detail about the process to be useful to others but as always, it turns out that some thoughtful synthesis is more generically useful.

Sadly, there is no perfect formula or set of checkboxes you can tick to guarantee success in this process. That said, I hope that by being open about my experiences⁴ I am adding some useful information to the system. At the very least, I don't think that reading this document will make you less informed and hopefully you will giggle at least a couple of times. If it ends up being useful to your own job search, even better.

1.1 Current Outline

Section 2 introduces my background and the cast of characters that appears in the emails. Sections 3, 4, 5, and 6 walk through some of the basic details of the math job market, how to find jobs, what applications look like, preliminary interviews, and on-campus visits. Sections 7 and 8 are still in progress and sketch out what happens after you get an offer as well as some higher level philosophical advice about the entire process. The travelogue, with occasional breaks for informative commentary, starts at Section 9 and runs through Section 12, followed by some document and question examples. Not really sure how to explain the appendices but I hope you enjoy them.

1.2 2018 Disclaimer

Your mileage ~~may~~ will vary! There are shockingly few features of the job market that are truly universal. Even things like panel interviews, where each faculty member is required to read their question of a printed sheet, in a particular order can play out very differently depending on your comfort in social situations and how you address the questions. Although I will at some points undoubtedly lapse into pr(e/o)scriptive language, you should take everything I report with a massive bucket of salt⁵ I am mostly reporting on my experiences and thoughts filtered through a fairly non-traditional approach to the market. That is to say, the things that are possible to generalize from my experiences to your personal setting are probably more contextual than anything specific about the magic words to say to get hired.

This document also is not intended to try to tell you how to use your graduate school years most effectively in order to get your dream job⁶ In some sense this is because at the point you are applying for jobs it is mostly too late to dramatically reshape your application. You go on the market as the person you are, not the person you might have been if you had done things differently. As my high school tennis coach always used to say: "You have to dance with who brung ya." And this applies just as well to CVs as to doubles partners. That said, if you are a younger student reading this document, I definitely encourage you to go read the first three sections of Dartmouth's [Written Qual Book](#), where David and I provide 20ish pages of unsolicited advice about how to survive the early stages of graduate school.

It is also true that the types of jobs people think they will prefer frequently change throughout graduate school and most entering graduate students⁷ are in no position to make meaningful and effective decisions about their career plans at an early stage. This information is thus most likely to be useful for⁸ late-stage graduate students who are entering the market for the first time and have possibly been ensconced in the graduate student bubble. The further out of graduate school you are the wider your professional and mentorship networks are likely to be and the application process changes significantly at that point⁹.

1.3 2020 Disclaimer

Although the original version of this document came with several caveats I want to strengthen a couple of them here. You should not expect that **any** of the specific approaches that I used or scenarios that I encountered generalize nicely to your personal scenario. There are some fairly unique facets of my search¹⁰ that mean that I was in an overall very privileged position. Definitely fish for lessons but please don't take this "advice" as an excuse not to do your homework.

I guess what I'm really trying to say is that you should find people who are on your side to talk to¹¹

⁴Mostly, anyway. There are a few [redacted] portions in the emails below.

⁵This is discussed more fully in Section 3.4.

⁶Although I certainly know some people with strong opinions on this topic.

⁷at least in math

⁸and is generally written for

⁹or so I've heard.

¹⁰and your search

¹¹And a giant thank you to the people that I have written whiny emails to!

and know that everyone is panicking, all the time. I was able to take a pretty idiosyncratic approach to the schools that I decided to apply to in 2020 - I definitely don't recommend taking a similar approach with your selections!

2 Context

This section provides some preliminary details about my perspective and the job market which should help provide context for the commentary in the emails.

2.1 Personal Details

At the time of (initial) email writing I was a 5th year Ph.D. student at Dartmouth College, preparing to finish my thesis and graduate in May. The second set of emails reflect my experiences after being a postdoc for two years at MIT-CSAIL and maintaining an affiliation with the Tufts-based Metric Geometry and Gerrymandering Group. My main research interests are in the application of algebraic and combinatorial techniques to problems that arise in data analysis, particularly to problems in the social sciences. Many college and university math departments are trying to capitalize on recent interest in "Data Science" so it is a relatively nice field to be applying for jobs in. Additionally, gerrymandering research is a particularly 'hot topic' with a great deal of interest around the Supreme Court Case in 2019 and the new census cycle in 2020. That said, all of these positions gather hundreds of applicants, so there is still plenty of competition in the system (and noise in the selection process).

Together with [David Freund](#), I have put a lot of effort in writing guides to things that I find interesting, particularly [L^AT_EX](#), [Sage](#), and [research ethics](#). To me, this has been a useful way to summarize useful facts and hopefully be able to help other people who are encountering similar issues. A good example of this is our [Written Qual Book](#), a 247 page collection of advice and solutions to qual problems that we for some reason felt compelled to write at the same time as trying to finish off our theses. This is all to say that I imagine someday we will attempt a similar project for the job market (likely, after we are sure we aren't ever going to have to apply again) and this current document both fits into a well established body of literature as well as providing a starting point for fleshing out what might be useful for other people later on.

2.2 Math Jobs

A little background about the job market in math is probably in order, for those of you who aren't as directly plugged in to the academic scene. Most of the applications go out in the Fall between early October and late December. This is facilitated by the fantastic mathjobs.org website¹². The interview process at many schools occurs in tiers, with an initial phone or skype interview, potentially followed by a slightly longer panel interview at the Joint Math Meetings, followed by inviting three¹³ candidates to full-day campus interviews.

Campus interviews¹⁴ usually consist of a sequence of meetings with faculty members (including the department chair and search committee), research talks, teaching demonstrations, meetings with administrators (deans, provosts, presidents, etc.), meals, campus tours, meetings with students, and hopefully a couple of restroom breaks. Not all schools incorporate all of these events but most places have versions of most of them.

2.3 Characters

The emails and travelogues were originally sent to two other 2018 Dartmouth Math Ph.D. graduates, David Freund and Kate Moore. Dan Rockmore is my Ph.D. advisor and Scott Pauls is the Math Department Chair and a frequent collaborator. Tracy Moloney is the Math Department Administrator and all around angel. Please see my [thesis acknowledgements](#) for more thoughtful commentary about my feelings towards these wonderful people.

¹²Section 3.5 below contains more information about how my make mathjobs work for you.

¹³ish

¹⁴more details in Section 6

Throughout the first set of emails there are some mentions of a postdoc at MGGG/MIT/Tufts. This is the position that I ended up accepting in 2018. The extent to which this makes all of the subsequent turmoil mostly irrelevant adds another exciting layer of absurdity to this journey. However, since I didn't travel to Cambridge during this process it isn't directly relevant to the main story.

3 Applying

This section describes some of the thinking that I went through in order to submit my applications. The first step is usually figuring out what types of constraints you are putting on the search, i.e. where you aren't willing to live, what types of teaching loads you aren't willing to take, and whether or not you are willing to take a temporary positions. Notice that all of these constraints are formulated as negatives...

One of the things that people really tend to misunderstand about the academic market is the extent to which your options are truly limited by which departments are hiring (and in what fields) in a given year. It is rarely a feasible solution to simply pick your favorite city and decide that you will take a job there.

3.1 How many jobs?

This is the key question at the beginning of the application season. MathJobs has made it possible to see all of the jobs in one place, so the real question becomes how you decide to winnow the list. It can be difficult to get good advice about what types of departments are likely to hire you or to get good, critical evaluations of your materials. Going in to the process the first time, I approached it with an assumption of a fairly uniform prior: I figured that since I couldn't get a good sense of my likelihood to be considered for any particular type of job, I would apply broadly and try to learn from the signals received from the market. Given that there is a significant amount of noise in this process, it is not clear that this is actually a reasonable approach.

My hope was to get a tenure track offer somewhere with reasonable expectations. This is purposefully pretty vague – I didn't really have any specific geographic constraints and I have a pretty wide viewpoint on the types of jobs where I could happily work. This makes me very lucky, since some people have very strong opinions on location, or type of school, or type of job focus in which case the pool of available jobs might be much smaller. This also means that I didn't have any sort of particular dream job in mind, there are many places that I'm sure I could be happy and I'm sure that I don't have enough information to make any stronger judgment than that without a great deal more experience.

By “apply broadly” I really meant it. By the time my application season was over I had applied to well over 200¹⁵ positions at every type of learning institution imaginable. This means that a) I received a lot of rejection emails ☹¹⁶ and b) I got a lot of information about how my application was received across the country. Your mileage may vary. I certainly don't recommend that anyone else apply to this many positions. It takes a lot of time and most people have more constraints on where they would be willing to go.

For my second attempt at the market, I had much more information and better advice. I *only* applied to 78 jobs, split between research universities and top liberal arts institutions. I also applied to a few statistics and computer science departments at top ranked universities. My background and interests allowed me more flexibility than most as I have a reasonable research profile but also extensive teaching experience and interests. Lots of places were still hiring for “data science” type positions and my interdisciplinary postdoc helped support applications for those positions.

3.2 What types of jobs?

This is a by-no-means comprehensive run down on some of the types of positions that are available and how the application/interview process can vary. Note that this is written from the perspective of someone who just finished their Ph.D. and who has a necessarily limited perspective on the vast array of possibilities that exist in academia. While I like to think of myself as someone with a fairly broad viewpoint on the modern academy (for example the vagaries of [research ethics](#) across fields) there are undoubtedly pieces of this that

¹⁵There are currently 228 cover letters in my “Jobs” Dropbox folder and a) I know that I accidentally saved over some of them while copy and pasting job titles into them (see below) and b) not everywhere that I applied required one.

¹⁶Even well into 2019 I was still being rejected for jobs I applied to in 2017

won't match your experience or specific location. Perhaps more than any other section in this document, this represents my impressions based on conversations and feedback but certainly no actual specific knowledge or details. Additionally, the vast majority of my applying/interviewing experience so far is with teaching-focused liberal arts positions, which certainly limits my personal exposure to some of the other options. At least currently I don't think that reading this section is actively harmful ... but you should read very critically.

- Tenure Track

- **Teaching-focused institutions:** As the name suggests, these institutions are much more likely to care about your relevant instructional experience than your thoughts on K-theory. In math 3-4 or 4-4 loads (mostly calculus and other service courses) are pretty common. The research commitments tend to be pretty minimal, I have chatted with people from institutions where the requirement to meet the research component of tenure evaluation is two scholarly works¹⁷. In the best situations, these are places where effective and informed pedagogy is highly valued and your colleagues will help you develop into a great educator.
- **S¹⁸LACs:** As the job market has gotten worse, these jobs may have been the most significantly impacted. Since it is now possible to recruit exclusively from applicants with postdoctoral experience in both research and teaching the bar has been raised significantly both for obtaining such a position as well as getting tenure afterwards.
- **Research Universities:** These days, at least in math departments, my sense is that most graduating Ph.D. students are not really competitive for these jobs¹⁹ and if you are one of the people who is competitive for such a job you certainly don't need my advice. It appears to be standard advice at this point that if you are aiming at this type of position it will probably take at least two postdocs.

- Other Permanent Careers

- **Research Labs:** In addition to the big national labs (Oak Ridge, Sandia, PNNL, etc.) there are also a large collection of grant/project funded research institutes that are always looking for mathematicians. Some of the nicest interviewing experiences that I had were with research labs and contract-based research companies. These were some of the best conversations about my actual research experiences and interests at JMM and I met a bunch of neat people who work on really interesting problems. I highly recommend considering these options, particularly if you aren't that interested in having teaching as a component of your career.
- **NSA:** The apocryphal largest employer of mathematicians on the planet. I don't know anything about working there or the application process but everyone that I know who has/does work there seems to really enjoy it.
- **Actual Industry:** Sadly, I have no useful information to offer here either. I always knew that I wanted to head in to some sort of academic/research oriented employment and didn't explore options here whatsoever. I'm sure there is plenty of good advice out there about transitioning this direction but I wouldn't even know where to point you.

- Postdocs

- **Research Universities:** In math these are mainly department-wide positions²¹, usually with a three year commitment and somewhere around a 1-2 teaching load. Many of them take the

¹⁷which tend to be quite broadly defined, including pedagogical pieces as long as there is some form of peer review/acclamation.

¹⁸Whether the 'S' stands for small or snooty undoubtedly depends on how many friends you have that attended one.

¹⁹A brief look around the [mathjobswiki](#) seems to confirm this. As an example, in a recent year a top-40 school²⁰ interviewed 12 people for several positions. The median number of years of postdoctoral experience was 4 (also the mode) and the median number of postdoctoral locations was 2 (mode 3). Particularly surprising is that they didn't even interview anyone who had spent less than 3 years as a postdoc. Those who actually got offers averaged 4.8 years of experience at 2.4 institution each.

²¹i.e. funded by the department as a whole not by a grant to a particular faculty member. Many departments have a fixed number of positions that rotate through the research groups over time, with exceptions made for exceptional candidates. Although you will be officially hired by the department you will have a mentor who is responsible for the hiring process.

form of named Assistant Professorships. There are an increasingly large number of grant funded positions as well, particularly in applied mathematics, which tend to carry a smaller or non-existent teaching load and usually occupy a shorter time frame.

S²²LACs: These tend to have a larger teaching commitment than the equivalent positions at research universities with an correspondingly larger support framework for developing your pedagogical skills.

3.3 Application Items

The actual process of applying for jobs requires you to prepare a long list of official documents that will be used to evaluate your application. No two faculty members read and score the same set of documents the same way, so over-optimizing any of these is a mistake. Below are brief descriptions of some of the main requirements.

- **AMS Coversheet:** Mathjobs provides an .html form that takes your standard identifying information. The one tricky piece here is the AMS subject classification. Many departments/faculty members use this to filter for relevant applications²³ but it can be really difficult to find an appropriate selection as an applied mathematician.
- **CV:** Your CV is the main summary of your achievements. The standard categories include educational history, research papers, teaching experiences, talks, and other academic happenings. You can download a slightly outdated version of mine [here](#) and David and I wrote up some notes about CV design at the bottom of [this page](#). A common modification is to reorganize your teaching vs. research sections depending on whether you are applying to a research or teaching position. This would require more fussing with the page spacing that I was up for initially, so I submitted the same one everywhere the first time around. In 2020 I did more customization of this sort at the advice of faculty members at smaller schools. I compiled a list of links to some online CVs [here](#).
- **Teaching Statement:** This document is supposed to outline your teaching philosophy, talk about your experiences in the classroom, and most importantly convince the department that you aren't going to be a complete disaster as an instructor. At least one person at each school will probably read this quite closely and be prepared to grill you about it so make sure that you are prepared to defend anything you write. It can be tempting to fill this out with fluffy aphorisms but I had several interviewers who went through mine line-by-line and asked detailed questions about what I was thinking when I wrote each piece, so do put at least a little thought into each sentence. I compiled a list of links to some online teaching statements [here](#).
- **Research Statement:** In math these tend to be full of statements of your most impressive theorems, strung together with a little motivation and a couple of definitions, plus apparently a paragraph devoted to how your research could be used to motivate undergraduate projects. My sense is that tailoring this pretty narrowly is ok, most people aren't going to evaluate the research specifics themselves but it is good to provide both a sense of how what you have accomplished fits into the broader research community and make it clear that you have thought about next steps, past your thesis.
- **Cover Letter:** The cover letter is a mysterious (and frequently mass-produced) document that some schools parse very carefully and others never look at. This is a good place to briefly mention your research and teaching interests and anything particularly exciting about your application. Representative versions of mine are in Section 13.1 and as you might notice, for the first version there are exactly three elements that have to be copy and pasted from the job ad into the letter, everything else stays the same. As with the CV, some people reorder the paragraphs to appeal to different types of positions. Indeed, some people rewrite them entirely for each new job posting to focus very specifically on the particular department. I did much more specialization the second time on the market, although the main changes only occurred in two of the four paragraphs.

²²See above.

²³so it is critically important that you select one

- **Diversity Statements:** About a third of the schools that I applied to require some sort of statement on diversity and inclusion. There really isn't a standard description of what should go in this document yet²⁴, so make sure to read the ad carefully. Some university systems provide helpful rubrics and examples for their schools ([Berkeley](#), [Rutgers](#), [UCLA](#), [UCSD](#)) but in general the focus tends to be on how you promote these topics with your pedagogy. I compiled a list of links to some online diversity statements [here](#).
- **Transcripts:** More schools are starting to require these as part of a standard application package. My sense is that committees don't really look at them (and given that all Dartmouth graduate classes are given P/F mine certainly doesn't convey any useful information).
- **Recommendation Letters:** Probably the most important piece of your application, make sure to request them early²⁵ if your writers are busy people²⁶. Also the part that you have the least direct control over. Do make sure to talk to your potential letter writers early and make them aware of any special deadlines or requests. One of the best features of mathjobs.org is that it allows your recommenders to upload your letter in one place and not to have to deal with university specific portals.
- **Webpage:** It is useful to have a well-curated webpage (you can judge the curatedness of mine [here](#)) highlighting your research papers and teaching resources²⁷. It is fun but less useful to set up Google analytics tracking so you can see the geographic regions of the people who have been clicking on your page. At least in my experience, this correlates pretty well with interest from hiring universities but can be very stressful.
- **Teaching Evaluations:** More and more places are starting to ask for the numerical scores you received while teaching. It happened often enough that I typed up a cute two page summary of the numbers with comparisons to department averages and selected quotes and one postdoc I know actually generated a bunch of bar charts and made a whole presentation out of it. He eventually got a great job, so maybe it is something to think about.

3.4 What kind of advice?

Lots of people have job market advice for you. Most of it won't be useful at all. Seriously, almost everyone²⁸ has enormous blind spots about what is useful, important, necessary, etc. That said, my personal advice about who to ask for advice is: everyone. And my personal advice about how much weight to put on their input is: very little. As described above, the combination of the opacity of the process, difficulty in evaluating your own profile, and random noise means that I view the market itself as a low information system. Generating lots of samples, noisy as they are, from everyone you know at least lets you set the outer parameters of the support of the distribution, even if it provides very little detail about the distribution itself.

It can be really hard to be constantly buffeted by strong opinions about how the market "really works" or what you should "actually be doing" but I found it very helpful to view the entire process through the probabilistic lens – everyone else is making judgments based on their noisy samples as well. Some useful filters to put on other people's comments include:

- **Survivorship bias:** People who are currently in academia clearly survived this process (at least once) which can color their view of how likely you are to succeed.

²⁴and they tend to be called slightly different names everywhere, so they float around your MathJobs portfolio a little.

²⁵I usually recommend making the initial request by the beginning of the Summer before you start applying

²⁶... they are.

²⁷Here is a slightly hyperbolic note I wrote for a junior mathematician about websites a few years ago : "The sociology of mathematician websites is complicated and silly. Having one is necessary (particularly for those of us on the job market :(although it can lead to fun Google analytics stuff) and having designed/coded it yourself with some personal touch is a mark of technical prowess/cultural assimilation left over from the days before CS departments existed and only mathematicians were hosting their own webservers at universities. At the same time, if it looks too nice or polished or flashy then people see you as unserious or focused on the wrong things, so there is some pressure to keep it medium-ugly."

²⁸definitely including me...

- **Length of time since the last time they were on the market** That said, the job market was a very different place 20–30²⁹ years ago and some people can be shockingly out of touch with today’s application rates.
- **Strength of institution:** A frequent rejoinder to the previous point is that they serve on the hiring committee every year. Sure, but does your institution hire people whose CVs look like your graduates? Almost certainly not. This is a real problem at Dartmouth, where the kinds of people the hiring committee considers are very different³⁰ than the type of students who are graduating.
- **Type of job desired:** There is enormous variety across the space of jobs that collectively form the class of “Assistant Professor”. Peoples perspectives are often heavily influenced by the particular class of schools (R1, SLAC, etc.) that they are pursuing.

In my case, it was very useful to talk to all types of people: faculty members at all levels, administrators, other students, pretty much anyone who was willing to tell me what to do³¹. This is not to say that they all provided useful advice, or that you should weight it all evenly but it is very eyeopening to see the breadth of opinions on this topic. Additionally, there are probably mathematicians like the mathematicians you know on many of the committees that will be evaluating your application. This is one reason it makes sense to get input even from people you don’t like or respect. Everyone has their own biases about how the market (ought to) works and averaging this out across all of your acquaintances can be useful.

This is something I have found to be particularly true of advice from senior faculty members. They tend to have lots of experience and have developed systems of evaluation that work for them but that doesn’t mean that anyone else on the planet approaches the hiring process the same way. More explicitly, for every document in your application there is at least one faculty member who thinks it is the most important piece and will have a well-defined rubric for evaluating you on a bunch of things that you never considered and another faculty member who in “30 years of reading applications has never so much as glanced at [that document].”

Even worse, the faculty members who do take specific pieces seriously tend not to agree on which components of the document are most important. I have the most direct experience with this in the context of teaching statements, where I received advice from several different faculty members who had very strong³² opinions on what types of information are most important to convey, what types of examples should absolutely be included, and even what the overall goal of the document is. Note that any of these people could be reading your application next year and you have no way of knowing what the key components of their rubrics are.

This is not to depress you³³ but rather to again point out that there is no way to “optimize” yourself for the job market. At some point you simply have to accept the inherent stochasticity in the system and present yourself in a way that you are happy/comfortable with.

3.5 Timeline

Although every situation is different, there are some broad similarities to the timing of the market every year:

- (Early) Summer
 - Start putting together job documents
 - Contact letter writers
 - Activate your professional networks to find relevant postings
- Early Fall
 - Get mentors/friends to look over your documents

²⁹also 5

³⁰on average

³¹a surprisingly large number of people, all told.

³²and contradictory

³³Although I certainly find it maddening!

- Register for a JMM talk
- Create a mathjobs account
 - * Familiarize yourself with the interface
 - * Send letter request emails to your writers
 - * Remove the irrelevant jobs from the active list
 - * Figure out a system that works for you to mark the relevant information in ads you will apply to (dates, teaching load, research focus, etc.)
- Oct. 15, Nov. 1, Nov. 15, Dec. 1
 - These are the big application deadlines. Leave yourself plenty of time in advance to get all of your cover letters ready
- December
 - First notifications about preliminary interviews
 - JMM invites
- January
 - Usually a lull until JMM happens
 - Afterwards, on-campus interview offers usually happen in the last couple of weeks
 - The NSF deadline for postdocs is usually at the end of the month, so most department level positions have been offered by then.
- February – March
 - Hopefully interviews, offers, and the end of the process

Let me provide a little more detail about a few of these elements. As with many parts of the academic experience³⁴ it is critical to start early and work consistently to get the best results. With respect to the job market, this means talking to your mentors long before you are actually applying and getting drafts of your materials together early enough so that you can get feedback from a wide variety of people. Starting early also gives you a chance to start planting seeds in our networks to get leads and recommendations about what jobs to apply for.

Getting familiar with mathjobs is also incredibly important. You need to create an account and start filling out your coversheet early, so you can process the long list of jobs. You will also be using their interface to request letters from your recommenders, and the earlier you can get those requests submitted the better. Once you first create an account it will take a while³⁵ to process all of the currently posted jobs. After you have cleared the list and marked the ones you are interested in, you can set up a schedule of checking every (other) day to keep up with new postings. In addition to removing jobs you won't apply for from the visible list, you will also want to annotate the jobs you are considering with information like the application due date or any special features requested by the institution. Everyone has different preferences for the structure of information they decide to keep so take some time to experiment and find out what works for you - you will be spending a lot of time on this site, might as well make it as comfortable as possible.

When you are actually applying, make sure to keep track of your document labels. Mathjobs makes it easy to track different copies uploaded for different institutions like cover letters, as well as different types of documents (say teaching statements for research positions vs. teaching positions). It is easy to make mistakes but also easy to correct them, since when you replace a document it replaces it in every application you had previously submitted. This is a super helpful feature for when you discover the inevitable typos or send in the wrong cover letter to the right school.

³⁴You are working on your thesis, right? Right?!?

³⁵Several hours

4 Post-Applying

After the applications are submitted, you settle down to wait for rejections. This isn't entirely true, since the application period stretches for 3 months, so you can collect rejections even before you are done applying. There are a couple of websites that track what stage of the process various hiring committees are at. In particular, the [Math Jobs Wiki](#) (and its companion site for teaching focused institutions) keeps a pretty good track of what is happening across the country. I don't recommend clicking on the webpages of the people who are getting all the "good" interview offers, that can be a pretty depressing experience.

You can also start to collect (and even have) Skype interviews during this period, although for math the JMM provides a deadline separating the application portion from the interview portion. Transcripts of a couple of my 2017 pre-JMM skype interviews are in Section 14, I did a total of four non-JMM skype/phone interviews but didn't write down thoughts from all of them once we got into the overwhelming portion of the interview season.

Towards the end of December, requests for 30 minute panel interviews at the JMM started to come in. Most of the action in the job center occurs Wednesday through Friday between 9 and 4 and I found that the schools were pretty willing to be flexible with scheduling – this turned out to be important. In my case, the large number of jobs I applied for led to a large number of interviews to pack into those three and a half days 8 on Wednesday, 6 on Thursday, 7 on Friday, and 2 on Saturday. Of these, 2 were non-academic jobs, 2 were for postdocs, and the other 17 were for tenure track positions at teaching focused institutions. Fitting this many interviews into that small of a time window was an enormous mistake. In 2020, I only did 7 interviews at the Joint Meetings, the rest occurred over skype during December. My guess is that with the AMS and MAA separating, this early schedule will become more common.

4.1 2018 JMM

In 2018, JMM was held in San Diego, which is not a terrible place to spend a week in January. Sadly, I spent the whole week inside the convention center being grilled about my teaching philosophies and research interests. The one time someone asked me an actual math question, (middle of the day on Thursday, or about 12 interviews in, I think) I was so shocked it took me a few seconds to even remember that I was anything other than a robot spitting out canned responses to beige questions. The interviews themselves are pretty much a blur at this point. It was an indescribably stressful time and mostly I just remember trudging in and out of the interview cubicles like a robot that got activated to perform an excited routine every hour or so and then returned to the power outlet in the corner to quietly recharge.

Although I covered preliminary interviews in general in Section 5 below, there were a few things about the first trip through the employment center that didn't make the general advice column. After each interrogation, and whatever conversation it leads to, it is your turn to ask questions. Given the number of schools that I applied to, I didn't do too much reading in advance about the departments, other than two sentence summaries of one generic fact and one specific fact that I memorized to make it look like I had done some research (e.g. I noticed your department does a really great job with * or I saw that many of your students write theses or your class about * looks really interesting or it is great that your math club seems so active online), this seemed to be good enough³⁶.

I was particularly bad about asking questions about the specific job responsibilities (teaching load, etc.) partially because there was no way I was going to remember everything³⁷. Asking about these things is totally reasonable³⁸ and you should do it if you have questions. Then, there is a wrap up period where they talk about the timeline for making a decision and what the next steps might be. Honestly, at this point in the interview I was almost always pretty fried, so I tended to tune it out and assume that they would email if they wanted to move forward. Thus, I don't actually have any details to report about this part of the conversations.

³⁶To be fair, while I am complaining about having to interview with 20 school, most schools are interviewing more than 20 people so in all likelihood, they haven't studied you that carefully either. It definitely always felt like a little bit of a shock when someone referenced something I had written in my application documents - 'You mean you actually looked at those?!'

³⁷also partially because it felt awkward and I was stressed enough already.

³⁸as long as they weren't mentioned in the job ad or earlier in the interview. This was another reason I didn't ask – not enough research.

The schools that are hiring tend to have more people at JMM than fit at the table, so they tend to interview in shifts. This means that interviews at the same school may not be comparable, depending on the relative sociability of your interviewers. Overall, with only a couple of notable exceptions, I found the interviewers to be very friendly and helpful. They are on your side and most of them understand/remember how miserable the process is from the applicant side of the table. I was really surprised by the amount of humanity that some of them were able to interject into what is definitely a draining, impersonal process.

I guess I should point out that you usually ought to give a talk about something related to your thesis work at JMM, the submission deadline is usually near the beginning of the Fall term.

4.2 2018 Post–JMM

This is a place where having lots of information about the market was helpful. Because I had applied to so many jobs and done a lot of interviews I was able to get a pretty good sense for where I was likely to be competitive and used this information to establish a stronger floor on the pool of jobs I was willing to accept. This was scary as turning down the possibility of an offer before having heard anything official from anywhere. However, it was also clear that I couldn't keep up this pace of interviewing.

Based on this, after JMM I spent some time reflecting on the process and decided to withdraw from several of the places I had interviewed with and prod a few others to see if I was likely to visit. Appendices 13.4 and 13.5 have generic copies of those emails. Then, I started getting a few emails asking if I would come to on campus interviews.

After setting dates for four initial campus visits I headed off on the first leg of the trip... continued in Section 9.

5 Preliminary Interviews

This guide is intended to demystify the first round interview process for faculty jobs in mathematics, primarily at liberal arts and teaching focused institutions. After two trips through the market I have participated in way too many of these interviews and the notes and questions below reflect some commonalities that I hope will be helpful to others who are preparing for the same experiences. A standalone and slightly expanded version of this section can be found here: <https://www.overleaf.com/read/wmrdmrnmgrpr>.

The next couple of subsections describe the basics of interviews and how to prepare for them, followed by a deeper dive into possible formats and likely question types. The first two appendices contain lists of questions that I have been asked and questions that you might ask the committee at the end of the interview. Finally, the last appendix is a collection of some full interviews that I have had over the last couple of years.

Other good references for preparing for these interview include these [guidelines and suggestions](#) prepared by the University of Washington career center are also excellent advice, although not focused on math specifically. These [notes](#) from UVA and [slides](#) from UPenn are also useful. Finally, no academic jobs resource is complete without links to posts from *The Professor is in*: [skype](#), [conference](#), and [general advice](#). The last set has more of a social science perspective but still lots of useful content. Reasonably updated statuses of current math searches can be seen [here](#).

5.1 What is a preliminary interview?

Currently, most positions posted on MathJobs receive hundreds of applications, which the members of the search committee have to winnow down to three applicants to invite for on campus interviews. Many schools do an initial filtering based on the submitted materials and then select a pool of medium-list candidates to do a 15-30 minute preliminary interview. The size of the pool at this stage can vary widely but is usually approximately 20-30 people. I know that one school interviewed over 60 people at JMM 2018 and there was an example this year where only 6 people made it to the skype interview stage.

Making it to the preliminary interview stage is a great sign - you are in the top 5-10% of applicants. However, it requires a strong performance at this stage to get an on-campus invitation. The preliminary

interview is your chance to convince the hiring committee that you are a great fit for their posting³⁹ and present yourself as one of the top three candidates for their department. It can be tempting to treat these short interviews as informal information gathering experience but they are really quite competitive and it is in your best interest to treat them as formal interviews.

5.2 Timeline

The first round of application due dates usually hits in mid-October, with November 1, November 15, and December 1 being significant deadlines. Preliminary interviews sometimes start right after the first set of deadlines (I had two interviews in October for the 2020 cycle) but most of the long distance interviews are scheduled in December, once classes have started to wrap up. December is also when invites to interview at the JMM occur, with the JMM itself happening the first or second week of January.

For non-JMM interviews most schools like to get them all done in a two or three day window and you are usually given about one week notice for scheduling. This obviously has some variance, as I got one phone call this year on a Friday asking for a Monday interview and a different school sent an email on a Monday requesting a Wednesday slot. Either way, you should make sure that you have sufficient time in your schedule to research the school before showing up for the interview itself. Scheduling practices vary from Google calendar plugins to simply providing the committee with some time ranges that you are available. Even with complicated scheduling constraints, I have found committees to be very flexible - remember, they want to talk to you!

5.3 Preparation

Interviewing is a skill and just like any other skill, you will improve with practice. I highly recommend getting some of your classmates or collaborators to take turns running mock interviews. Simulate as much of the environment as possible by picking a particular school to represent, calling on the phone or over skype, and going through the entire procedure with time limits and a full set of questions. For each of the basic question types below, you should rehearse and refine your answers so that you feel comfortable explaining each component and have ready-to-go specific examples if the committee asks follow up questions. The best answers have specific details about your experience and are efficient and focused. Resist the temptation to wander or circle back and excise the “uhhhmmsss” from your presentation.

Additionally, for the actual interviews you *must* research the department in advance. Know the courses that you would be willing/able to teach right away, identify holes in their curriculum where you could contribute new courses, how students progress through the major, whether there are senior capstone/thesis/project requirements and if so how they are selected and supervised, what the department prides itself on. This also requires being familiar with the posting itself and being prepared to justify your interest in the position. Finally, you need to prepare questions to ask them and make sure that the answers aren't easily googleable off of their website. For all of these topics you should take notes and make sure that they are accessible during the interview itself.

5.4 Common Mistakes

Definitely incomplete and in no particular order:

- Not dressing up
- Not turning off your phone
- Weird background items⁴⁰ visible through your webcam
- Talking too much about your dissertation

³⁹This isn't always possible. For example, a job ad could be written over the summer with a fairly broad focus but by January/February the department may have decided that they really want someone in a smaller subfield. In 2018, there were several schools who listed broad “applied math” ads and even carried out JMM interviews with all sorts of applied backgrounds before deciding that they really only wanted to consider researchers in mathematical biology. In at least one case, this decision didn't get made until after all the JMM interviews were over...

⁴⁰or chalkboard notes...

- Too much jargon in your research description (almost universally in this setting the interviewers will *not* be in your research field)
- Implying that teaching is easier than research
- Negative framing in question responses
- Responding to each question with “Great question!”
- Not having any questions for them at the end of the interview
- Forgetting to check spelling and grammar in each e-mail you send to the search committee
- Offering too much irrelevant personal information
- Giving them reasons not to hire you
- Don’t say that the reason why you want to work there is because you need a job
- Using canned answers to standard questions (e.g. my greatest weakness is that I work too hard)
- Being unprepared to address why their school is special and you are excited to go there
- Forgetting to ask about timeline moving forward
- Turning down jobs before they are offered
- Making excuses for not having experience instead of expressing desire to gain experience

5.5 Interview Structure

5.5.1 Technology

More and more interviews are moving to Zoom but some places use Skype, Google Hangouts, proprietary university systems, or even phone calls. Make sure you have downloaded the software, created an account, and tested your webcam and microphone in advance of the actual meeting time. I usually sign in to the meeting 4 minutes early, just to make sure everything is in the right place and so I can setup my notes on the other half of the screen.

5.5.2 Introductions

The committee will probably start by going around and introducing everyone in the room and possibly their research interests or how long they have been with the department. Usually there will be between 2-5 people interviewing you, although I have seen as many as 9 around a single table. Sometimes, the chair of the committee will provide a few additional details about the job, like the teaching load or area focus. They will probably also say a few words about the interview format itself - will they alternate asking questions, how long do you have, will there be time at the end for you to ask questions, and other procedural details.

Some schools are required to ask each candidate exactly the same questions in the same order, although follow up questions are usually allowed to address your specific responses. Usually the interviewers will have laptops or scratch paper in front of them to take notes about your responses⁴¹. If you think that might make you nervous, incorporate it into your practice interviews. Once this preliminary material is dispensed with, the interview starts in earnest...

⁴¹At least one college provides each interviewer with a rubric that they fill in with numerical scores while you are talking

5.5.3 Their Questions

Questions from the committee tend to fall into four main categories described below although the relative importance of each category varies by school. A list of potential questions is included in Section 14.8. While the answers to some of these questions may appear in your job documents, you can't assume that the committee is particularly familiar with them and should instead try to provide additional context and examples to flesh out your philosophical statements. Every question is an opportunity for you to explain why you are the best candidate for their specific department and position.

My experience has been that most committees are not concerned about you responding directly to the wording of the question but rather this is an opportunity for you to present your best spin on the topic that they have introduced. Also, follow up questions are not very common, frequently they will allow you to respond to the question, there will be an awkward 4 second (feels longer) silence and then they will ask the next question on the sheet (also a good thing to practice). The more specific examples you can give the better and usually leading with the example to support the philosophical point leads to more memorable comments. That is, responses like "I like to use active learning in my classes" are much weaker than "When I taught X at Y I used TPS questions in every class period, ..." and even if you eventually get to the example, the fluffy intro has probably turned off the interviewers brain. Remember that they are probably interviewing 8-10 people per sitting, all of whom know the same collection of buzzwords.

Why this job? The first question of almost every interview is something along the lines of "Why are you a good fit for this job/our college?" Use this as an opportunity to make it clear that you understand the priorities of the school and how they view themselves and their student populations. Always use positive modifiers and don't talk down to them⁴².

This is sometimes a frustrating question for people, since the obvious answer "I, like the other 500 people who responded to your ad, want a job and the market is a disaster." is unlikely to be helpful, even though it is true that many more people than even get preliminary interviews would probably be more than proficient if hired. However, it is necessary for you to use this question to express and defend your affirmative interest in the school and position. Your answer doesn't have to be long but should be enough to convey that you understand what your (potential) future colleagues do all day.

Teaching This is usually the central part of these interviews. Expect to talk about your experiences teaching, what a normal day in your class looks like, how you encourage participation, and how you might create your own syllabus for a class. You should have lots and lots of examples prepared here, particularly for things like "What is your favorite teaching moment?" and "Tell us about a time something went wrong when you were teaching and what you did to fix it." which are classic questions. Note that your response to the second one should focus on how you grew from the experience, with bonus points if it is a funny story. This is also the place where your research into their department can shine the most. Make sure you know how their major is structured and which courses you would be excited to teach right away.

More than any other section, this is a place where you can show some introspection and talk about ways in which you are still developing. Your interviewing audience is full of people who (mostly) care a great deal about teaching effectively and how much of a struggle it is to become an excellent instructor. The assumption is not that you are already a fully developed professor but rather that you are on the right path to growing into one and have thought through some of the fundamental challenges of teaching mathematics. Personally, I have found talking about the challenges of designing effective assessments rewarding but your mileage may vary.

Also, more than any other section, be prepared to defend the comments you have made in your teaching statement. At one JMM interview, 75% of the time was spent going line by line through my statement, asking for examples and reasoning behind the claims that I had made. This can be a great opportunity to dive deeper into some issues that you care about but offers some potential for danger if you got carried away with fluffy buzzwords in order to meet your page count...

Research Particularly at the types of places that hold these interviews, research likely means research with undergraduates. At these schools, do not make your research the focus of the majority of your answers. They are likely to ask you to explain your research as if you were talking to a sophomore math major and ask what types of senior thesis projects you could supervise. Another common question is how you will be able to continue doing research while also teaching a 3/3 or higher load. Be prepared to talk about how you

⁴²You would be shocked at some of the stories I have heard.

research influences your teaching and what achievable goals you have for the next few years, given that type of teaching commitment.

Diversity and Inclusion These questions can range from very broad to very specific. Sometimes the committee will simply ask how you promote these values in your courses while other committees will ask you to respond to detailed scenarios with commentary both on your personal response and how you would encourage the department to respond. Frequently, schools will use this as a chance to talk about the demographics in their student pool and introductory classes and the questions may be framed in these terms. Additionally, some schools will ask about how your research or efforts contribute to these concepts in the broader community beyond the math department. If you have thought through these issues in preparing your diversity statement, this is a good place to highlight some of the things you wrote about. Note that even if a department does not ask for a diversity statement, they are still likely to ask questions in this category (100% of my preliminary interviews in 2020 contained at least one question in this category).

5.5.4 Your Questions

It is always good to have some questions to ask, that at least make it appear like you have carefully researched the department. These can be landmines as you don't want to ask questions that suggest you are really interested in something the job isn't (e.g. appearing too focused on research) or that you haven't done enough research (e.g. things that are easily googleable). At this point there is likely to be about 5 minutes remaining in the interview, so don't expect essay length answers. That said, I have found that committees will frequently pass questions around to each other and this is the most discussion friendly portion of the interview, so don't expect to be able to ask more than 3 or 4 questions. Potential examples of candidate questions are given in Section 14.9.

Additionally, your questions don't actually have to be looking for information. Some places will explicitly ask if there is anything else you want to say about your candidacy but even if they don't you can still use this time to advocate for yourself. If there is a portion of your background that you don't feel like you got to express effectively enough during their questions this can be an opportunity to brag about your accomplishments. For example, "I really enjoyed supervising undergraduate research projects as a part of [insert fancy REU here], what opportunities are there for involving students in research at [their school]?" This is definitely another skill to practice, as you can't control the questions that they ask, but by the time you sit down for the interview, you should know which parts of your background you want to advertise.

5.5.5 Wrap-up

After winding down answers to your questions, hopefully the chair will provide details about their timeline - when the department is going to discuss the candidates and when you should expect to hear back from them either way. If they don't, this is definitely something you should ask about. Finally, there is usually some awkward waving goodbye and then the screen goes black. Maybe if you get "lucky" you will overhear them making some commentary before managing to find the button to turn off the screen.

5.5.6 Follow up

Particularly for non-JMM interviews the full department may not be back together until January and so it may be more than a month before the next round decisions get made. A lot of this depends on the structure of the committee and department and there aren't any universal rules. Either way, most on campus interviews happen the last couple of weeks of January through mid-February.

5.6 JMM

JMM is a bit of a funny animal compared to Zoom or telephone interviews. Note that many places will be flexible if you can't attend the JMM and will offer to let you Zoom instead. However, if you are attending than it can be useful if you prefer face-to-face discussions. Additionally, committee members will occasionally attempt to attend your talk, which can either be a positive or negative, depending on your nerves and how cute your Beamer slides are. The interviews themselves take place in the Employment Center, which you

have to register for on MathJobs by clicking a single, well-advertised button. You can read more details and some depressing statistics at the [AMS page](#).

The interview center is an incredibly unpleasant place consisting of long rows of interview cubicles and a holding area where interviewees sit and evaluate each others interview attire nervously until they get called back. At least in San Diego, the interview areas were subdivided into sections with individual tables for the various interviewing schools. This meant that you sometimes got the awkward experience of interviewing with a school, leaving the subdivision, reentering the holding area, and then returning to the exact same subdivision to interview with a different group of people, while watching the people who just interviewed you interview someone else.

The interview begins when one of the faculty members walks up to the holding pen and calls your name, at which point you walk over to the entrance and shake hands. Awkward small talk about travel and the weather happens until you get to the their table for more hand shakes and introductions. At this point, it becomes very similar to the descriptions above, except you can't google things or bring notes.

5.7 Post Interview

Some people like to send thank you emails to committees, or at least the person you corresponded with to set up the interview. Not everyone does and it probably doesn't have a huge impact either way. Other types of follow up emails include withdrawing from the search if you decided it didn't seem like the job was a good fit or expressing continued interest in the position to fish for timeline details. Good luck!

6 On Campus Interviews

This section is devoted to examining some of the common components of the on-campus faculty interview⁴³. Unlike the preliminary interviews discussed in Section 5 there is a lot more flexibility in what can happen in these interviews. The interview day⁴⁴ tends to include some mix-and-match collection of presentations, individual meetings with faculty, and more formal interview components. As always, Dr. Karen captures lots of good advice [here](#). Hopefully, during your initial communications, the department will assign one or more faculty members to 'supervise' your visit, doing things like escorting you between offices and buildings, meetings you at your hotel in the morning, making sure that you have the right cables to connect to their projectors, or just keeping an eye on the overall schedule. This is the person you should contact with questions or concerns both before and during your visit.

The on-campus visit is usually the final part of the interview process, which means that you have made it into the top 3-5 candidates. While this is a great sign, you also need to still be in full interviewing mode as the other people being brought to campus are also likely to be excellent candidates. The on-campus experience is also a great opportunity for you to get a sense of the institution and the department. If you end up accepting an offer, this will⁴⁵ be your home for several years⁴⁶ and getting to know the personalities and environment you will be embedded in is important as you start to decide your future. Having made it to this stage means that the department really likes your application and is seriously considering you as a future colleague - keep this in mind during the stressful parts of the experience.

6.1 The Invitation

Most of the invitations that I have received to participate in on-campus have been over email but a few institutions made the invitation in a phone call. There are always some logistical details to work out, so it usually requires a few emails back and forth anyway. You will probably be communicating with both the chair of the search committee as well as department administrator. Some initial questions to consider are the dates you would be interviewing, who will make the travel arrangements, what the schedule will be

⁴³Many more details about the specific occurrences during my interviews are presented in the email sections below.

⁴⁴which may stretch over a couple of days

⁴⁵hopefully

⁴⁶at least

for the visit⁴⁷, whether there are specific presentations or materials you should prepare, and what sorts of backgrounds you should expect from people attending your presentations.

After you receive the invitation, you should reach out to your academic network and mentors to see if they know anything about the department or specific faculty members that you might be compatible with. Particularly if you are in an applied discipline, many departments will ask if there are faculty members outside of math/stats that you would like to meet with on your visit. They also might ask if there are administrative units that you would like a chance to speak with while you are there. This can be a great opportunity to do some additional research into the institution and demonstrate your engagement and interest in the local climate. In your responses to the invitation and follow up questions be sure to be professional but also to convey your excitement! At this point in the process, **everything** you do is being evaluated.

6.2 Travel

The university is likely to have a fairly constrained range of dates available for you to visit but will hopefully offer a few choices to work with your schedule. My experience has been that most schools have at least a little flexibility to offer⁴⁸ but you do have to advocate for yourself. Similarly, you should definitely request for reasonable flight⁴⁹ times - you don't want to be arriving/departing on the 5am red eye. Personally, I prefer to make the arrangements and get reimbursed later but many places will prefer to book the travel for you. This is something you arrange with the administrative assistant, who will also usually book your hotel directly. If you are making the arrangements, make sure that your transit times are compatible with the schedule, as some places prefer to have dinner with you the evening before the official interview begins, while others simply start by picking you up from the hotel in the morning. It is usually good practice to let the administrator, or whoever is coordinating your interview, know when you have arrived.

Make sure to consider travel from the airport as well, if someone from the department is coming to pick you up, you will want to travel in nicer clothes than if you are taking a shuttle or a taxi. This is something that depends a lot on the size of the institution, the town it is located in, and how convenient the local transportation options are. I've experienced everything from 45 minute car rides with a faculty member on the hiring committee, to taxis and hotel shuttles, to multiple hour bus rides, to having to rent a car and drive 90 minutes because there weren't any convenient local options. Job interview season is usually during the worst part of winter weather in many parts of the country, so you should also take the climate into account when figuring out how to travel.

6.3 Job Talk

By this point, you should have a very polished research talk to give. You will however want to do some adjustment for each institution that you visit. Partially, this comes from the fact that there are different audiences to target (proportion of faculty in your area, number of students attending, balance of pure and applied faculty, etc.) but also the specifics of the position that you are being considered for. For example, a common topic being considered by a lot of current hiring committees is your ability to design and supervise student projects - your research talk can be a great place to discuss some of those ideas. Also, particularly in places where there isn't a separate teaching presentation, your department and presentation skills are being evaluated in addition to the technical content. Being able to project a friendly, informative, and competent teaching persona is an important skill to demonstrate in these talks.

Remember that the point is to convince them that you are an interesting person doing work that will continue to lead to publications, grants, student projects, etc. Additionally, the majority of the audience will not be researchers in your field, so providing context and "broader impacts" of your work is important. While it is true that the "best evidence of future success is past performance" means that you should spend some time highlighting your most exciting publications and contributions, it is also critical to highlight what you are going to be doing next and to show that you understand what you would contribute immediately if they offered you a faculty position. It can also be helpful to address some of the job-specific aspects in your

⁴⁷or at least when you can expect to see the schedule, since some components of the final schedule are likely to be in flux right up until you arrive

⁴⁸they do **want** to interview you, after all...

⁴⁹or other transport

presentation directly, such as highlighting potential future collaborative projects and how your work fits in with the department's vision of itself.

Here are some specific) things that I have observed that may be useful for job candidates presenting over Zoom:

- Setup. Two monitors seems like a big plus for the presenter, since it means you can share just the screen with the slides. However, you must mount the camera on the screen you are looking at - totally weird experience to have the speaker spend the entire talk looking up and to the right instead of into the camera.
- Jokes. Proceed with caution! This is (obviously - if you took my ethics class :)) always true but exacerbated in an environment where you aren't getting any body feedback from the audience. Everything is going to fall flat anyway because:
- Attention. Zooming makes multitasking too tempting. For regular job talks, most of the department will haul themselves into the physical classroom and fewer of them will be typing on their laptops than at say a regular colloquium. However, on the internet, everyone thinks they're a god (or is that a dog?) and a large proportion of the attendees will be typing merrily away on other things with their cameras and microphones turned off. This also means that you have to be really careful about:
- Figures. When everyone is attending on their laptop/ipad/phone and has shrunk you to half screen anyways so they can tweet/grade papers/watch youtube at the same time, it is really tough to make out details in your tiny figures. No one else has the presentation up on a separate monitor!
- Diction. The sterile environment at the beginning of the talk and the lack of personal connection means that the uhhhhms and ahhhhs get magnified and become an increasingly easy excuse for people to tune out to refocus on their minesweeper games. Seriously, if you uhhm every bullet point of your about me slide, no one is going to listen to the content on any of your other 65 slides... This is also really important in the question and answer period, since people will tune back in for that but dictive mistakes appear to show a lack of confidence that can be the death-knell of your hiring probability.
- Pointers. A white mouse pointer on white background slides makes it really tough to see what is supposed to be highlight. Also, the draw-on-slide feature should be used with extreme caution - it is hard to free-hand nice diagrams with a mouse and even circling things can be a challenge.
- Posture. Honestly, you are probably better off rearranging your furniture/setup so that you can stand facing the camera. Hard to give a convincing, energetic presentation of why you are the best candidate and why your research is the most exciting from a slouched sitting position. I am well aware of how silly it is for me to be giving other people posture advice but ... just tell yourself I'm preparing for a career as an out-of-touch professor who spends all their time telling other people what to do.
- Background. Resist the urge (believe me, I know how hard it is) to use your favorite Virtual Zoom Background (TM). The visual artifacts when you move (because you are standing...) are quite distracting and detract from your message. Find a blank wall or a bookshelf to stand in front of (making sure to remove the embarrassing titles before the talk...).
- Hierarchy (the more nested bullet points the better...). This one is more personal/less universal but with slides scrolling past on the screen it is much harder to grasp the overall structure of a talk without some explicit guidance. Make use of the structuring tools available in your presentation software to continually remind people of where you are in the talk and how it relates to the whole picture.
- Bandwidth. Get your roommates to stay off of the wifi during your talk, particularly if you are going to attempt high difficulty maneuvers like including videos in your slides. Garbled or disrupted connections can be a huge problem, since you won't necessarily get feedback for some amount of time (everyone else has their mikes off and no one really wants to be the one to interrupt and point out that they didn't catch the last three minutes of your talk...) and even just regular tech flickering is enough to break the immersion of your audience and send them scattering to check their iPhones while they wait for the static to settle down.

6.4 Teaching Demo

This isn't really as much about "teaching" a class, as it is about showing off your skills, comfort in the classroom, and familiarity with pedagogical techniques. Mathematicians⁵⁰ can be a little over-literal about this sort of thing ("but they told me I was supposed to...") but the real goal here is to convince them to hire you, not to give the best-for-students possible 30 minutes on [insert-topic-here]. Don't be afraid to throw in an example or discussion that is aimed at the faculty who are attending⁵¹ rather than just speaking to the students the entire time.

There is a ton of variability in what constitutes a teaching demonstration:

- **Topics:** Maybe the most standard example is guest lecturing in an actual class⁵² but even for this, they may ask you to simply fill in for the normal content of that day's lecture or present on a topic that is relevant for the class. Some places will instead simply ask you to prepare a lesson on something you are comfortable with, or have you choose from a list of traditional calculus topics.
- **Audiences:** If it is a guest lecture, there will probably be the regular students with some faculty in the back of the room. If it is a mock lecture, there will still be faculty in the back of the room but maybe no actual student participants. In this case, the faculty will sometimes invite some advanced students to visit in order to get their perspective.
- **Evaluation:** I've had examples where each student and faculty member was handed a rating sheet and rubric while I was setting up for the lecture and responses were solicited from everyone. In other cases, it is just another piece of information for the chair/committee and there isn't any formal evaluation.

At universities that highly value teaching, this can be the most important part of the interview, and it is worth putting a significant amount of time into your preparations. At these institutions, many of your one-on-one interviews after the presentation will contain questions about how you prepared for the demo, what sorts of alternatives you considered, what you found difficult about planning, and other similar topics. You should also be prepared to discuss how this fits into your broader philosophies around lecture and course design. Thus, it can be very helpful to take notes as you are preparing the demonstration and to seriously consider how you would approach the material if it were actually situated in a course. You can raise some of these issues in the presentation itself but it should only be a small portion of the total time. For example, it frequently makes sense to introduce your demo with a statement like: "I prepared this lesson as if it were occurring in a 200 level class, where in the previous lecture we covered topic X and in this lecture we are building on that to discuss Y in order to get to Z next week." or something along those lines.

6.5 One-on-One Meetings

The bulk of your visit will probably be spent in meetings with individuals or pairs of current faculty members in the department. Sometimes you will be assigned an office and they will cycle through to visit, otherwise you will travel around the hallway to their offices. Either way, these 30-60 minute discussions are a draining and complicated part of the process. The people you are meeting with may not have read your materials carefully⁵³ and you will likely answer very similar questions over and over again - it is critical to remember that they haven't heard your answers, no matter how many times you have given them before. The more research oriented the position, the more likely you are to be able to get them to tell you about their research for a large portion of the meeting time. I highly recommend this approach if possible, since you will be doing plenty of talking overall.

This is also a good chance to get to meet and chat with your potential future colleagues and collaborators. The vast majority of these conversations will be friendly and amicable and can be a great source of information about the department and its culture. This is a great place to find out how these other faculty members view the new position you are being considered for in the grand scheme of the department and what roles you might be expected to fill early on. This is also a place where some research about the faculty members

⁵⁰ok, me

⁵¹and evaluating

⁵²although maybe not for the whole period

⁵³or at all...

you are going to meet with in advance can pay big dividends. If you are able to get the schedule in advance, you should look through all of the faculty webpages of people you are going to meet and get a sense of their mathematical interests and background. They will probably have read at least a little bit about you and so having some knowledge about them can help get the conversation started.

6.6 Committee Meetings

Many institutions also schedule a meeting with the full hiring committee during your visit. This tends to be a lot like a more in-depth version of the preliminary interview, with people who have read your application documents closely. These discussions tend to be a little more probing and a little less conversational than the one-on-one meetings and may follow a prepared script where each candidate is asked the same questions. This interview tends to occur at the end of the day in most schedules and so should give you a chance to expand on conversations you have had with other faculty members or ask deeper questions about things you have learned about the department and your potential role. This is also a likely followup spot for questions about your presentations earlier in the day. This also seems to be the setting for some deeper philosophical questions about your approach to teaching and research and how you think those would fit in with the ethos of the department.

6.7 Deans, Provosts, and Presidents, oh my!

Most visits include at least one meeting with someone up the food chain from the department. These meetings tend to feel very formal but the purpose can vary widely depending on the institution. You should be prepared to answer questions like those in the prelim interview section and also remember to focus your responses for someone who doesn't necessarily have any background in your research area.

Here is a⁵⁴ list of dean types⁵⁵ that I prepared for a friend who was getting ready for an interview, based on my experiences:

- **R1:** Only care about money and prestige. How much can you bring in, how will you fund your research plans, what are your startup needs, etc. Obviously not relevant here but if I write it down I don't have to think about it anymore.
- **Sanity check:** For liberal arts colleges, my most common experience with Deans have been as sanity checks on the department (I stole that terminology directly from some of the Deans in question). In this case, it is more of a formal rule type of process, usually put in place because the physics chair in the 70s hired a bunch of his grad student buddies or something, rather than any specific concerns about the current math department. They'll still probably ask a few questions - when I interviewed at [redacted] the dean asked "Tell me about something that went wrong in your teaching and what you did about it." as well as a couple of basic cv questions and our whole chat was over in less than 15 minutes.
- **Institutional priorities:** At some other places, the Dean-level role in the interview process is to ask the diversity questions as well as any other campus-level initiatives (how does your teaching/research/service fit with the mission of the college, etc.) that might be awkward for the departments to ask directly. This type of interview may also cover a little of what you might be able to contribute to whichever collection of buzzwords the campus is pushing at the time (undergrad research, interdisciplinarity, writing across the majors, etc.).
- **Paperwork/Processes:** Some Deans have no formal role in the hiring process and so their job during the interview is simply to tell you some more about the formal details of the position. Things like the hiring process, tenure expectations, how often you will be evaluated, what the contracts look like, that sort of thing. Usually some discussion of benefits and perks too, although I have always completely tuned out these types of interviewers, since I knew I wasn't going to actually remember/process the content anyway, so who knows what sorts of things they actually said.

⁵⁴slightly hyperbolic

⁵⁵Admittedly exaggerated for comic effect

- **Hands-on:** Some smaller places where the department structure is not very hierarchical (so this doesn't apply much to [redacted]) the Dean can actually be the main line manager for the department. This also happens sometimes at places with unionized faculty where there are more official rules that have to be followed for everything. In this case, the Dean probably has actual feelings about the direction of the position and what sort of person they (or the upper administration more broadly) want. In this case, this is more of an actual interview, closer to an in-person one-person preliminary skype.
- Probably more but this is where my taxonomy started to fall apart :)

As far as questions, it can't hurt to ask about ways advancement/promotion/growth opportunities - what should you expect your career to look like if you take the job? Also a good place to ask about campus wide initiatives or centers, say for pedagogy support or extra math support for athletes if it isn't managed through the math department. Never hurts to ask something interdisciplinary, just to let them burn some time talking about their commitment to fostering connections between departments. Also don't be afraid to ask questions you already know the answers to from the department - in my mind at least, there are really just run out the clock interviews, where you just have to clear the bar of not-a-sociopath.

6.8 Meeting the Chair

Much like the meetings with those further up the administrative ladder, the role of the chair in the interviewing process depends on their status in the department and search committee, which you frequently won't know until arriving on campus. In some departments, the chair is a permanent position with a lot of long term administrative control of the department. In other places, the chairship may rotate between faculty members (mainly as a collective burden sharing arrangement). In either case, the chair may simply just have want to discuss the official duties and expectations of the position and basics of the department. Alternatively, and this is more likely in the first situation, the chair may have final authority over the hiring process, in which case the interview may be very detailed.

Regardless of the chair's role in the hiring process, if you are hired by the institution, the chair will likely play a large part in your next several years as you get started in a faculty role. Thus, the impression you leave in this interview can be critically important for your long term success. It also means that this is a particularly important place to 'reverse interview.' If this is the chair that will be overseeing your startup and tenure case, do they seem like someone reasonable that you can work with/for? The chair is also a good person to ask about medium/long term goals of the department in terms of growth, areas of emphasis, new programs or minors, connections to other departments, and other administrative details. This means that this conversation is a good place to get information about expectations for tenure, the structure of teaching evaluation, and other similar administrative topics.

6.9 Meeting Students

The role of students in the hiring process can vary significantly depending on the type of institution you are considering. During most visits you will at least have a little time to meet with students, either during a campus tour or lunch. During these meetings you should be careful to clearly delineate your behaviour from theirs, assuming a more distant posture than you normally would.

6.10 Meals

Since you are on campus all day, you will have several meals and coffee breaks taken with faculty members or students. Lunch is usually on campus or ordered in while dinner tends to be at a nearby restaurant. This is still part of the interview, so don't relax too much! Ordering messy foods is always a mistake.

6.11 Breaks

lol. Some schedules will come with built in “break” periods⁵⁶ for you to catch your breath, run to the restroom, browse your email for other job offers, etc. However, the individual components of these interviews all tend to run long, so these periods are actually built into the schedule so that there is some flex time to get things back on track. Thus, don’t just assume because it is in the schedule that you will actually get a full 30 minutes to “relax” or even worse to try and tune up your presentation slides. If⁵⁷ you do need a minute to yourself, don’t be afraid to let your escort/interviewer know - they are people too and should be willing to accommodate.

6.12 Post Interview

Send thank you notes⁵⁸. Don’t be a barbarian!

7 Getting and Negotiating an Offer

Initial communication about an offer is almost always delivered over the phone⁵⁹ by the dean, chair, or head of the search committee. This is a super exciting moment but also a time when you need to carefully consider your options and responses. It is always appropriate to express your excitement about the offer but you should never accept it on the spot. During the initial call, you should try to get a sense of the timeline for you to provide a formal response, as well as the basic parameters of the offer, so you know where the negotiation is starting from. You should also try to get some information about the process, who you will be negotiating with, and how you will communicate. Many institutions will prefer to do the negotiation over the phone but in my experience it is easier to work asynchronously over email.

As with the on-campus visit offer, the first thing you should do after thanking them and hanging up the phone⁶⁰ is to reach out to your mentors and advisors to get as much specific advice as you can. The whole topic of negotiations and offers is one that is heavily contingent on the type of institution that you are dealing with and people with more experience can be much more helpful with guidance the more details they know⁶¹. See the subsection on context below for more discussion of this issue.

7.1 Timelines

The type of institution will usually determine how long you will be given to respond to the offer. And, like all the other parts of this miserable asynchronous process you will undoubtedly end up having to make some decisions with less than perfect information about future potential offers. It is pretty standard to be offered two weeks to make a final decision but if you are engaged in active negotiation during that time, this is unlikely to become a strict cut-off. My sense is that research universities (for which there tends to be a more complex negotiation process) are more flexible about the deadlines, while smaller schools tend to use them more aggressively.

During my last search, the first offer I received was presented with a one-week hard deadline. After a lot of time on the phone with the Dean, I eventually ended up turning down the offer because I was still waiting to hear back from other places. Almost a month later, the school offered me the position again, with a longer deadline to decide. Regardless of the official deadline, you should always respond to emails and calls from the department promptly and in good faith. The flip side of having a deadline is that you can use this to request updates from other schools where you are under consideration. I included an example email that I sent in Appendix 13.6. Finally, having an offer means that you should start withdrawing from jobs that are less exciting⁶² than the one that currently wants to hire you.

⁵⁶Other schedules will have you committed down to the minute, including specific scheduling for how long it should take you to walk between buildings...

⁵⁷When!

⁵⁸at least emails

⁵⁹or these days with an email asking you to call them

⁶⁰ok, maybe the second thing after jumping up and down for joy

⁶¹All caveats about advice from other people in Section 2 still apply

⁶²to you!

7.2 Negotiation

It is expected that you will negotiate the terms of your initial contract⁶³, even if you don't have another offer. As with all things job hunt related, [Dr. Karen](#) has some useful advice⁶⁴. Negotiating effectively is a difficult skill and not something that most graduating Ph.D. students have much experience in, so the more advice and guidance you can get from mentors the better. Just like with preliminary interview questions, you might find it helpful to get your officemates/friends to hold 'practice negotiations' for you, where you get some practice trying out saying some of the common phrases.

A non-exhaustive list of items that you might be able to negotiate includes:

- Timeline to respond to the offer
- Salary
- Summer support
- Student funding
- Teaching load
- Number of preps
- Teaching releases
- Startup budget (travel, computers/software, office furnishing?)
- Administrative support
- Moving expenses
- Pre-move visits
- Junior sabbaticals
- Lab/Office space
- Publishing funds
- Professional development support (Project NeXT)
- Starting date
- Spousal hiring⁶⁵

The relative priority of these items will depend both on what matters to you, as well as what kinds of things are on the table. The department should send you an email early in the process with an official offer letter attached, which will provide the starting point for negotiating. Usually this information has already been conveyed over the phone in one of your initial calls but it can be helpful to have it written down. Examples of a couple of negotiation emails that I sent this year are included in appendices [13.7](#) and [13.8](#).

In general, you should focus on your positive attributes and contributions in your framing, not abstract notions of fairness or deservedness. For things like salary, you can usually get a reasonable idea of what other people in similar positions are getting paid. For example, at public universities like ours, everyone's salary is a matter of public record and available on the internet. Note that it is not required to have another offer to negotiate your offer! Making an offer represents a significant commitment on the part of the university

⁶³Several years ago, one of my friends received a postdoc offer at their dream school and accepted right away. The chair called back an hour later and told them that they had to negotiate to at least get the experience, and after some discussion, they ended up with increased salary and moving costs.

⁶⁴In particular, I adapted some text from [this article](#) when drafting some of my negotiation emails.

⁶⁵I don't have any personal experience with this and have read a ton of conflicting advice on the subject, so this isn't covered directly in the main text below.

and the point in between them making the offer and you accepting it represents the strongest position and leverage that you have to advocate for your future.

While negotiating can feel like an adversarial experience, the truth is that there are usually plenty of people at the offering institution that are on your side. Looking back to the discussion of chairs and deans in the previous section shows that there is a great deal of diversity in terms of administrative structures, so there isn't generic advice that will apply to all situations. That said, I have frequently found department chairs to be effective advocates in attempting to extract additional concessions from deans and the best case scenario is when you can collaborate with someone in the institution to help get you what you need.

7.3 Context

An important consideration throughout the negotiation process is the context of the university you are working with. The current market is quite complex and for some institutions, some items on the list above may simply be non-negotiable. Part of the process⁶⁶ includes discovering which items have some wiggle room. One key mistake that applicants make is attempting to change components of the offer which are not flexible but unfortunately, it usually isn't possible to know what these constraints will be in advance. This is one reason that it pays to be respectful and professional in your communication during the negotiation process - usually the people you are working with will understand that you may not grasp all of the complex interacting variables and will be happy to inform you about immovable numbers but an aggressive approach can signal that you are out of touch with the mission of the institution and can lead to offers being rescinded.

A common consideration along these lines is salary inversion. In many places, the rate of increase of faculty raises has not kept up with inflation and demand, and hence new faculty members are expecting pay rates that exceed those of tenured associate professors, which can be a source of conflict and even lead to strict salary caps for new hires. In math departments, there can also be apparent differences between pure and applied faculty, for example. Thus, the offered salary may not be negotiable⁶⁷ but some of the other items may be discretionary to the department or chair and have more flexibility.

To reiterate, these values and variables vary significantly between fields and institutions and there are very few general rules that apply to all situations. Dr. Karen has prepared a couple of tables comparing values at different universities and within the same university but different fields [here](#) and as an example, here are the values that I encountered this year, along with the changes after negotiating:

	SLAC	R2	R1
Salary	80k \mapsto 95k	75k \mapsto 85k	80k \mapsto 80k
Startup	20k \mapsto 35k	15k \mapsto 25k	20k \mapsto 37k
Moving	5k \mapsto 7k	4k \mapsto 4k	5k \mapsto 10k
Course Releases	0 \mapsto 0	0 \mapsto 3	2 \mapsto 2
Teaching load	3/4 \mapsto 3/4	3/3 \mapsto 3/2	1/2 \mapsto 1/2

7.4 Wrapping up

Once you have agreed to terms, you will usually have to sign a physical document and either scan or email it back to an HR department. There also may be additional paperwork⁶⁸ that you need to complete. At this point you absolutely should withdraw from all places where you are still under consideration. Then, it is time to celebrate!

8 Surviving the Process

Sometimes it can feel like everything about the entire application process is designed specifically to ruin your mental health. Everything is very opaque, it is hard to get good feedback, there is lots of waiting

⁶⁶including your research into the institution

⁶⁷even with another offer

⁶⁸degree verification, background checks, etc.

while nothing is happening and then when things start to happen, most of them are negative⁶⁹. Also, as a bright, motivated person with a Ph.D. you have spent your entire life applying to and succeeding at academic challenges but all of a sudden so much of the process is out of your hands. There isn't any way to work harder or more creatively at this point and the emphasis on recommendation letters and "potential" can lead applicants to feel very powerless.

How you deal with this sort of situation of course depends heavily on your personality and general disposition and there really isn't any general advice that will work in all situations⁷⁰. The best I can think to do is outline some of the specific negative thought patterns that I have encountered⁷¹ and maybe more usefully, what poor behaviors they led towards.

8.1 Academic Friends

The job market can be really tough on friendships, particularly if you and your closest collaborators are all applying for the same jobs⁷². There used to be a semi-formalized type of agreement that pairs of graduating Ph.D. students at Dartmouth would adopt to root for each other and provide a venting audience. The platonic ideal of this relationship would be Person A who got the interview/job at Fancy University B would say mean things about the school for not hiring Person C, while C, who was rejected by B, would congratulate B on their excellent decision making skills in hiring A. It isn't clear to me how well this worked in practice but having people you can talk to honestly about the frustrations of the process is super helpful.

This is true for both good news and bad news. The fact that your friends are on the market probably also means that they are living in their own private hellscape and excitedly gushing about your new interview can be hard to hear for someone who hasn't had any. Just recognizing this and empathizing can go a long way towards helping preserve your relationships during this period.

8.2 non-Academic Friends

How do you explain the market to non-academics? Let me know when you find out. Lots of people mean well, but the constraint refrain of "You just got your Ph.D. why can't you stay and teach at [your Ph.D. Institution]?" gets old rapidly.

8.3 Asynchronicity

One of the things that I struggled with most during the process is that there isn't any sort of unified timeline for the various stages at each school. In fact, the hiring departments know this and are frequently involved in a sort of game-theoretic battle over who to make offers to when. The most common place to worry about this problem from a practical perspective is when you actually start getting offers, sometimes before even having preliminary interviews scheduled. This is stressful and discussed more below in the 2020 interview season letters.

However, even during the initial application part of the process I found myself heavily influenced by recency bias - "Oh no, I got rejected from two liberal arts schools today, I guess I should apply to 20 more." which is not a healthy way to approach applications. Instead, it is probably wiser to make a plan⁷³ and attempt to stick to it.

9 2018 Traveling

These are the (lightly) edited and [redacted] emails that I sent to friends at Dartmouth while traveling for job interviews in 2018. I ended up attending 6 on-campus interviews scattered across 2.5 trips (the last set of visits was scheduled while I was out on the first trip).

⁶⁹almost everyone gets rejected from most jobs that they apply to...

⁷⁰True about everything in this document

⁷¹experienced

⁷²Your best case scenario would be to borrow my friends, who are awesome.

⁷³Remember Section 3?

9.1 Day 0

Subject: Updates: day 0
From: ddeford
Date: Mon, January 22, 2018 9:57 pm

Hi,

Well, I didn't even make it out of the office today before the craziness started. First email, setting the schedule for [redacted] on Wednesday, meeting back-to-back-to-back with President of the College, Provost of the College, and then a Dean. I should have asked Dan and Tom a few more questions... Second email, [redacted]!

Trying to take some deep breaths while I try to figure out how to respond.

The 29th deadline is actually the NSF deadline this year, so [redacted] has been wrong about this the whole time: <http://www.ams.org/profession/employment-services/deadline-coordination/deadline-coordination>. Overall this is probably good news because it means postdoc invites/announcements should be coming out soon but it really screws up my plan since I was counting on having until Feb. 15 to have to make any serious decisions, e.g. I have already accepted two invitations to interview in February.

Cheers,
Daryl

9.2 Day 1

Subject: Updates: day 1
From: ddeford
Date: Wed, January 24, 2018 12:03 am

Heyas,

Bus ride: [redacted] was on the same Dartmouth Coach, also out interviewing. He has OPINIONS, definitely unhappy he didn't get an interview for [redacted]. Didn't get much done as far as my talk slides go.

Train ride: Trains are great! Why aren't I traveling by train everywhere? (*googles amtrak from Boston to San Francisco* - prices are not that much different than flying ... wait, how many days!?!)

Hotel (actually a giant B& B): Interesting. Huge, old 3 story house converted into a hotel. Many of the original furnishings, looks pretty neat overall. Has character and floral wallpaper. Bed is soft and the heat is for some reason turned up to 78+ in the whole building, preventing any sort of enjoyment of softness. Took an hour to find thermostat/adjust thermostat/ wait for baseboard heaters to turn off. Now a frigid 65 in my room (on the top floor unfortunately). Couldn't manage to unlock the front door of the building after I went to grab my bag, luckily the woman at the front desk took pity on me and opened it for me.

Dinner with a couple faculty + spouse: Probably about as well as could be expected. Nothing too awkward, seem like nice people. Should have ordered a salad since everyone else did (first faux pas of the interview?). They obviously like living in Providence and working at the college. Not much L^AT_EX happening in the department. Apparently the President of the college is likely to talk sports to me tomorrow, so all of the sessions with the custodial staff are paying off. Best moment: the child of the couple is taking an MBA class with the other faculty member. Definitely a parent-teacher conference vibe. Managed to open the front door in only 3 tries afterwards. Talk writing: ...

Emails: Another day of over 50 incoming (54 with 8 minutes to go 'til midnight). Nothing super exciting although [redacted]

That is all the fun I have for now. Still need to finish the slides for tomorrow, although the ones for Friday are coming in to shape (I promise I had a good reason for doing them in this order). Hope all is well there!

Cheers,
Daryl

9.3 Day 2

Subject: Updates: day 2

From: ddeford

Date: Wed, January 24, 2018 11:28 pm

Howdy,

Campus interviews are pretty exhausting. Here are some thoughts.

Day started with eggs-over-easy fried by the (very friendly) proprietor of the B& B, which in hindsight was not a particularly suit friendly foodstuff (no disaster but why take the risk?).

Successfully made it to the department for a “Meeting with Department Faculty.” Not really an interview, in that they mostly wanted me to ask them questions. Everyone was friendly and the department seems to have a nice vibe overall. The campus is larger than Dartmouth, I think, with very similar architecture (homogeneous brick buildings and greening copper roofs). However, unlike Dartmouth the classroom buildings and office buildings are disjoint so you can’t teach in the math building (apparently formerly an insane asylum with underground tunnels for bringing transporting the patients to the building - fact number one I learned on the walk to the department) but rather in one of several classroom buildings scattered around the campus. These are sort of interesting, as each classroom building has several faculty lounges for coffee, relaxing, etc. where you can stop between lectures. Classrooms and class sizes are quite small.

Nice community atmosphere, in my wanderings around campus with various math faculty members, lost count of the number of times they waved at familiar faculty, admin, students going past. Lots of faculty connections across departments for mentoring, teaching, and socializing. There are at least 3 separate faculty book clubs and math/cs shares a building with sociology (apparently there is constant raiding of the sociology coffee maker by mathematicians because there is not a kitchen on the math floor but the sociologists seem ok with it).

Research talk was held in one of the lecture buildings. When we arrived in the room, no one knew how to turn the projector on. Someone from IT was supposed to meet us there but only arrived after we had been poking at the console for 5 minutes. The person they sent was a student worker and as soon as he walked in, two of the math faculty left to go find someone else to help. Eventually, after much prodding of the projector with a pen (more on this in a minute) the screen turned on and I was forced to confront the fact that I hadn’t ever actually ever plugged the chromebook in to anything or thought about how to manage the dual screen situation. Luckily, the right set of buttons was found and we were off. 7 or 8 undergrads showed up as well as almost the entire math faculty and everyone seemed pretty happy.

About the pens. So I gave one pen to the IT guy so he could poke the projector on the ceiling and then ended up taking the rest of the pens out of my pocket and placing them on the lectern. They are still there as far as I know. This led to me hanging on to my laptop bag as security blanket replacement for the rest of the visit (it contained an unopened bag of blue crystal bics).

Survived lunch and the campus tour. loled (internally) at the fact that everyone there refers to the college as [redacted]. Not much L^AT_EX happening on campus it turns out, although one faculty member does require it of his second semester algebra classes. They were very flummoxed by the schedule of the Dartmouth quarter system. Lots of interesting discussion of types of assessments used in classes. Then it was time for back-to-back-to-back meetings with College President, Provost/SVPAA (Senior Vice President of Academic Affairs), and Dean of the Sciences.

Everyone told me in advance that the president interview would be mostly him talking about sports. That is ... not what happened. He grilled me pretty thoroughly about my research and intentions. He had obviously studied my file carefully and had clearly read/thought about all of my documents. In particular, he was concerned about “data analytics” being a fluffy buzzword and the fact that I had written too many papers, as well as being interested in the math ethics. I did make a BCS analogy (about Cathy O’Neil style weapons of math destruction algorithms) at one point to try to nudge things towards athletics but it only provided a temporary diversion before the interrogation resumed. I guess there was one more medium length discussion of the Australian Open (tennis). Overall, I think it went ok but he is clearly a force on campus. Worst zinger of the interview: he asked how many specific philosophy classes I had taken as an undergraduate - my (foot-in-mouth) response: “Well, I was kind of in a hurry to graduate and become a mathematician, so I finished in 3 years and took almost exclusively math classes.” Him: “Hmmm... so

you don't actually have any experience with a liberal arts education in your own life but now you want to be part of our environment here..."

Comically, if you have read my response to their mission statement, I concluded the first paragraph by saying that his early 2000's commencement address was inspiring and motivated most of my specific responses. At the time I had no idea that a) he was still the college president, b) that he was going to be reading what I wrote, and c) I was going to have to sit on his couch and explain my commitment to the liberal arts. That specific quote never came up in our chat but AWKWARD.

Provost/SVPAA was a friendly guy whose parents, grandparents, and siblings all went to Dartmouth. He mostly talked and I listened in our interview about tenure expectations, hiring process, etc. We did talk briefly about axiomatic voting theory, which led him on a nice tangent about some of the convoluted systems that some of the departments use to vote on things like hiring, chairs, tenure, etc. He apparently is the one who will call on the phone if they decide to offer me the job - pretty firm one week deadline if they do.

Final meeting ended up being with the interim, associate dean since the no-adjective dean was away at a conference. She made it very clear that her responsibility in the process was as a sanity check on the department to make sure that I wasn't totally crazy. Not a super comforting interviewing technique but we talked some about data analysis in sociology and seemed to get along pretty well. I sort of flubbed the diversity question here but gave good answers to everything else. She was the only one with a checklist of questions to ask and did go through the question of what college level financial support/startup that I would need pretty carefully. I pitched some potential interdisciplinary class ideas to her that went over well.

Finally, it was time to return to the department to say goodbye. The chair (who was great and super helpful all day) offered to take me on a tour of ICERM but I was totally fried at that point and passed. Not exactly sure what happened next but I am now in Boston (worse tap water) waiting for tomorrow's plane to San Francisco.

(some) Perks of working there (no particular order):

- surprisingly good travel funding
- pretty good internal grant opportunities
- A fair amount of control over both your own teaching schedule and developing new classes (pretty much free reign to design and run topics courses of interest to students)
- lots of collaboration possibilities, both teaching and research
- It turns out that the tap water in Providence is excellent.
- Apparently the town has the highest # of restaurants per capita in the US
- The drivers are almost shockingly well behaved and friendly - no honking, nice merging, not super aggressive (this is, I assume, a set of learned behaviors caused by the fact that most of the two way streets are too narrow to fit cars going both ways at the same time, so if politeness hadn't become the norm no one would be able to get anywhere because they would all crash all the time).
- Pre and post tenure sabbaticals
- Summer funding for junior faculty research
- Generous library budget (unfortunately library coordinator job already taken)
- Also your faculty ID lets you use the Brown libraries for free (and attend any events/workshops at ICERM that you want)

Emails: Only 33 today, nothing exciting except a .pdf rejection from Harvard and a polite response to my rejection of the UA postdoc.

Job Talks: Need to do some major rewrites before [redacted]. Got away with some fluffiness here since no one does data but need to be sharper. Also, still waffling on what I should teach for the demo lesson.

I'm sure more stuff happened but that's what I've got for now.

Cheers,

Daryl

p.s. Holy Fuck! I just saw [redacted]'s email. No [redacted]!?! That actually came up in three separate discussions today since some of my letter writers mentioned it but I didn't write about it in any of my documents. Which reminds me that wow do people read what you write carefully.

9.4 Day 3

Subject: Updates: day 3

From: ddeford

Date: Fri, January 26, 2018 12:01 am

Howdy, Howdy, Howdy, from the west coast.

Just traveling and writing talks today. Realizing now that I should have used this opportunity to learn the names of the states that I was flying over – maybe on the way back I guess. Very impressed with the chromebook battery, so far. Really wish there was a “delete” key and not just backspace though. Also, big fan of the MSP airport even though I have never had a connecting flight in the same concourse as the one that I landed in. Oddly, second flight was longer and on a larger plane but much less comfortable, even with a lower seat #.

Talk slides are starting to get into shape (not going to disclose the number of frames in my 60 minute talk but it has gotten to the point that I can no longer compile it on the chromebook, so I typed the rest of the slides but will have to build it with the big laptop this evening), either I am going to be impressive or a complete meltdown, not clear which (maybe a little of both). Not really prepared to teach the class either but hopefully I can kind of run it like a GSS. Cultural things are tough to tell in advance but maybe it will work out. Still need to put together some Sage widgets, since I probably bragged about doing that in the JMM interview.

Only have to meet with 2 deans tomorrow, no presidents or provosts. Still it is a packed 12 hour 8am-8pm schedule so we'll see what happens. Everybody on the faculty there is very personable, so it will likely be a struggle to match the energy levels for the whole day. The tour is apparently going to be guided by undergraduates, with no faculty supervision, so I will have to add a new set of questions to memorize. Lola's list is a pretty good starting place, overall. I think it is after I teach the class, so definitely some potential for disaster.

Emails: 36 by 6 pm East Coast time. Interesting tidbits include rejection from U Toronto, more detailed schedules for future interviews, and a response from [redacted] about the time series stuff. She seems like she had a super busy Fall semester, with a teaching overload, but is getting in to a more reasonable schedule now and pretty happy.

Uptick pattern of webpage hits from Orlando (home of [redacted]). Not sure what I would do if they invited me to interview. For that matter, not entirely sure what I am doing about [redacted] either. I don't know if I had told you guys this but I actually had accepted a National Merit Scholarship to attend [redacted] as an undergraduate right out of high school but with things being the way they were I never managed to get there and ended up working at 7Up instead. Would be a weird, cyclic convergence.

I'm enjoying the long distance version of the [redacted] stuff but I am sorry for whatever kinds of conversations you are having to have with the locals. That doesn't seem like fun at all. That plus the hiring committee tensions seems like a recipe for disaster. Maybe I will just actually never come back to the department and go camp out [redacted] or something...

Cheers,

Daryl

9.5 Days 4 and 5

Subject: Updates: days 4-5 (I don't really know any more)

From: ddeford

Date: Sat, January 27, 2018 2:27 pm

Hiyas,

Sorry for not sending an update last night, by the time I was done with the interviews I was too fried to even figure out how to turn the lights off in the hotel room to say nothing of connecting to the wifi. Traveling (and furiously writing my [redacted] talk) today. The [redacted] schedule is more like an R1 interview, 2.5 FULL days of meetings and presentations + 3 other people competing for the same job also on site sounds like a recipe for a pretty draining experience.

Emails: On the order of 45+ yesterday (too lazy to go check the exact number but three+ pages in squirrelmail). Highlights: poor Scott, Dan checked in to see how things are going, lots of pre/post travel spams both from airlines and departments.

Phone Calls: The chair from [redacted] called while I was interviewing and then sent an email asking to call later when I didn't pick up. I responded this morning outlining my current travel/interview schedule and offered to talk anytime after 10pm EST before Thursday. We'll see what happens. Queen's College (Brooklyn) also called, to schedule an on campus talk, at 5:30 pacific time this morning. I was still stumbling around trying to get all of my parts in the right places when I picked up the phone and ended up accidentally removing myself from their search. It wasn't until about 20 minutes after hanging up that I realized what I had done. Don't tell [redacted] that I blew my best chance to end up in NYC.

San Fransisco review: Tap water- pretty good. Restaurants - Spectacular (seriously, I will never think about eggplant in the same way again). Views of the city, bridge, and bay from the top of the hill - incredible. Traffic - pretty rough. Airport - needs more moving sidewalks. Fog - omnipresent.

Interview Review: Executive summary: Whoa! Very impressive, sort of hoping they will just make me an offer now and then I can cancel the rest of my trip.

Details: Picked up at the hotel at 8 by [redacted]. First stop was the top of the lion steps in the center of the city to see the view over the bay. Then to the department, sat and chatted in the faculty lounge area over coffee. They had two "tests" for me to really begin the day. First, they took me to one of the faculty members offices and asked me to identify a portrait on the wall - turned out to be Bach. Next went to the library and had to come up with the title of a math book that they didn't have in their collection. A little stressful, kinda fun, very impressive math stacks.

First real interview of the day was with the Dean. We had a good chat and he seemed to be on board with everything. Very supportive of the math department's plans and my thoughts on fitting in to the campus. I ended up answering the why would you take this job over a postdoc question a lot. The organizational structure there is a little different because the faculty is unionized but it seems to work out really well, at least in the math department. For example, the department doesn't vote on tenure cases for its members.

Rushed right off after this to teach a class. The room was packed with 30+? students and 10ish faculty members. Took a few minutes to get the class engaged and answering questions but it picked up after a few minutes. Definitely got some good laughs out of everyone. The board layout was a little funny because it was a 3 panel whiteboard but the center board was covered by the projector screen I was using to show some slides/sage widgets for the class ([redacted]). On the way in the students and faculty were all handed review/response sheets to fill out when I was lecturing. A similar thing happened during the research talk \mapsto not good for the nerves.

After class we headed to the faculty dining room for lunch. Fried catfish tacos were excellent. Good chatting with the department, they obviously get along really well and are all pulling the same direction. Lots of real estate/commute/food conversations as well as plans for the math and data science programs. The faculty are really plugged in to the student experiences and obviously have great relationships with the students, keeping track of them after they graduate and providing a really supportive environment.

After lunch I met with the undergraduate data science faculty members. They are doing some really great things with the program and have put a lot of thought into building the program thoughtfully. Also some neat research, that is both very interesting to me and really high quality. It is great to see data science done well/right in practice. I think I would fit in pretty well, although the dress code here is definitely a little more formal than Dartmouth.

Then four students took me on a walking tour of the campus. There are a huge number of steps but the view from the upper campus of the city/bay is seriously impressive. There is also a surprising amount of green space (grass, trees (including palm), gardens, etc.) for a campus in the middle of the city. I got the same sense from the students that I did from the faculty: very engaged, really interested in doing things outside of the classroom, appreciative of the level of faculty attention, active in mathematical student groups, etc.

Meeting with Dean #2 was an hour but mostly just informational. I doubt I absorbed much by that point but certainly nothing crazy. One interesting facet, for research they count papers from graduate school towards you tenure case which is an interesting approach. Technical break down of teaching, research, service is 60-20-20 and the teaching load is 2-2-2-3 over two years (semesters).

Pre-talk tea (usually weekly) was pretty impressive although Friday afternoon meant that attendance was down. Research talk went smoothly with plenty of questions and discussions from both the data faculty. I called out some of the undergraduate research questions explicitly but it was tough to see how well that went over with them. Only ended up using 2/3 of my slides due to questions but luckily I had put a references slide at that point, so I just ended it there with no one the wiser.

Dinner was at a Burmese restaurant about a mile from campus with incredible food (and beer). They ordered everything for the table and we just shared/tried everything, very fun environment. Lots of good conversation and more confirmation that it would be a nice place to end up. It is always a little weird at that point since they can't offer the job but also want to know how likely you would be to take it if they did offer it but you can't say you would definitely take it since there isn't an official offer and...

Then crashed.

They seemed to be aware of my offer from [redacted] but don't have any room to defer. I will probably [redacted] this evening, which is sad, but I think the right decision. Probably other entertaining things happened but this is already pretty long so I will just apologize for the declining length/laughs ratio and sign off.

Cheers,

Daryl

9.6 Day n+1

Subject: Re: Day n+1 updates

From: ddeford

Date: Sun, January 28, 2018 11:57 am

Heyas,

Congratulations on the interview! That has to be a good feeling although I'm sure that the postdoc offers are coming. How intensive is the [redacted] interview going to be? Might be good practice even if you end up with better options before then. I'm glad your thesis timing is coming together as well. Even trying to think about that stresses me out pretty badly so mostly I am not.

Any word from [redacted]? I don't want to keep sending her updates if those are going to be a net mental space negative and certainly my prose style doesn't resonate as well with her on top of the 1st world problems issue. (I mentioned the first world problems thing at [redacted] and they thought it was hysterical - although everyone was a few beers in at that point so maybe it had more to do with that...)

Along with my very-personalized-thank-you emails to [redacted]. Also, I am now flying to Orlando after Michigan, if nothing else it will be fun too see where I could have been.

Starting to come down with a sinus infection, definitely some pain/pressure in the left sinuses and definitely feel like I am running a fever. If it stays at this level it should be ok but I feel a little bad for everyone I am sitting on the plane with/meeting for interviews/etc. but honestly I will feel pretty lucky if this is the worst it gets since I am not really doing anything that resembles a healthy lifestyle.

At least it is cold outside in [redacted], maybe I can soak some in to counter the fever :) I think I have come up with a reasonable hook for my talk so hopefully it will come together well.

Cheers,

Daryl

9.7 Day something or other

Subject: Updates: day something or other

From: ddeford

Date: Tue, January 30, 2018 2:41 am

Hi,

Sorry for the lack of updates the last couple of days, I was way too fried to even consider trying to explain all the craziness as it has happened.

[craziness redacted]⁷⁴

On that topic, I am currently in [redacted], which is an incredibly beautiful city. I had forgotten how nice it is here, definitely somewhere to consider retiring, just for the views. The hotel I am staying in has butlers and is currently also hosting the New Mexico cattle rancher's conference ... does not compute. Tap water is nothing special but the fireplaces are pretty spectacular.

The perks of this position are crazy. In addition to salary, discretionary research funds, collaboration travel funds, and a trip to your external mentor's campus every year there is breakfast (free) every morning, catered buffet lunch (\$10) every afternoon, and tea (fancier than ours) at 3:30 everyday. Plus, complete freedom to just do research - any research you want. Lots of future faculty type development stuff too. Dog friendly campus.

The interview process is similarly crazy. I am here visiting with three other candidates (all very friendly people doing cool stuff, two molecular biologists and one applied mathematician). Another group of 5 interviewed last week. We gave our job talks back to back to back to back today. I was up until 2 am finishing mine (went with a possibly ill-advised last minute topic switch of the final third of the talk) and had to give the first talk at 9am.

I definitely gave the worst talk of the day, which is a little frustrating but definitely not undeserved. Everybody else simply did better. They warn you in advance that the audience will ask lots of questions throughout and that is definitely the case. They also videotaped the talks so that they can distribute them over the internet to the external faculty members to review. [redacted] Definitely fielded a bunch of questions about how Dan is doing today, he is super popular here.

Tomorrow (today now, I guess) is the really crazy day. 9-5 with a 1 hour lunch break \mapsto 1 on 1 half-hour interviews, with no breaks other than lunch and tea. I am envisioning a really draining experience. Also, since I couldn't talk about networks in the talk everyone thinks I am primarily a time series researcher. Looking forward to a lot of awkward chats with # Real scientists.

My flight leaves at 6:30am on Wednesday (I think this means I get to see an eclipse?) and I am planning to be in on campus on Thursday at least for a little while before I have to drive to [redacted] that night. I think [redacted] would be really disappointed if I didn't at least consider their campus. I am currently still scheduled to visit [redacted] and [redacted] next week but may end up canceling if the other stuff works out.

Emails: I have **sent** 12 emails so far this evening. Highlights include sending a recommendation letter for a math 8 student (he is going to the other Budapest math semester, sorry), submitting an abstract for a talk that I agreed to give before I knew how bananas my life was going to turn out (but I may want the organizer to [redacted] so I need to keep him happy, just in case), and canceling my interview with Metron. Still on my to do list is an email to Maxine about a problem she emailed me about, somehow I missed that one on my first pass through the list.

Hope all is well there!

Cheers,

Daryl

9.8 Halfway!

Subject: Updates: end of the first half!

From: ddeford

Date: Wed, January 31, 2018 2:24 am

Hiya,

All right, three interviews down, three still scheduled (at least for now). Flying home tomorrow (flying at 6:35 am, which means leaving the hotel at 5am, which means getting up in 4 hours -I'm sure it seemed like a good idea at the time). Have to get home in time to do some laundry before driving to Connecticut (and stopping by the department) on Thursday.

⁷⁴Someday, maybe once I have tenure, I will uncomment these paragraphs in the .tex file.

(not the only) Incredible mistake of the day: was wondering why I hadn't received an email to check in for my flight, turns out I had booked the return for 2/28 not 1/31. Oops. Luckily was able to change it for actually tomorrow. Shocking I haven't done more dumb things like that so far.

Next mistake: We (me + 3 co-interviewees) were supposed to catch a shuttle from the hotel to [redacted] campus at 8:30 to start interviews at 9. We (me + 2 co-interviewees) got to the lobby a little early and were sitting by the fireplace. Unbeknownst to us, the fourth applicant thought she was running late and so skipped the lobby and met the shuttle out front. Having gathered one patron, the shuttle left. Always a good start to the interview day to end up 45 minutes late to a day that is supposed to have 12 thirty minute back-to-back interviews.

Comically, my first (ended up being canceled due to lateness) interview was supposed to be with [Redacted] (inventor of the [Redacted] theorem, etc.) who sent that sort of inscrutable email a month ago about interviewing 8 postdoc candidates, but wasn't clear about how or when. Probably just as well, I don't think he was really impressed with my talk topics or approaches.

The next 8 hours were a blur. We each had a conference room to sit in and the faculty and postdocs (and head of the institute) came around and asked us questions for 30 minutes each. All told, 12 separate meetings with 16 total people (and 1 dog). Mostly the questions fell in to three broad categories: Detailed technical questions about the job talk, more general questions about plans for future research, and questions about institutional fit/possibilities for collaboration. There were also the standard requests for questions from my end and a few odd tangents. In particular, I talked at the beginning of my talk about the need to incorporate humanity into algorithms and this led to some really in depth philosophical discussions that [redacted].

I can totally see why this is a magical place for scientists. Not only do they get an incredible amount of support and a really interdisciplinary environment but they can be (and frequently are) PIs on grants. Apparently scientists have a super high hit rate moving from [redacted] to R1 faculty jobs but I can definitely see why it is tough to convince mathematicians to let you back into a math department afterwards. I did learn about some fun new random walk problems from a Peter Doyle disciple though.

Only a couple of really aggressive interviewers. Mostly they were friendly if not super clear on what it is that I would want to do all day. The crazy thing was that the most aggressive guy asked to collaborate later on either way, so maybe it was a test? I don't really know. I definitely felt a lot like I was kind of surviving the interviews and it seemed like most of the other candidates had better conversations overall.

This would be ok, since I am unlikely (at this point) to take the [redacted] offer, even if they made one to me. It seems like an incredible opportunity for a lot of people but I'm not sure I would be a great fit. I still don't have [redacted] (kind of murky, I don't really know what the formal status is).

Haven't really fully unpacked all the interviewing today so I think I will leave it there. Hope you are well!

Cheers,

Daryl

Subject: Re: Updates: end of the first half!

From: ddeford

Date: Wed, January 31, 2018 1:53 pm

Greetings again!

Well, everything seems to have gone well so far although the chromebook is a little skeptical of turbulence. And getting to see the eclipse in the desert at the airport was a pretty nice benefit. If I had been smarter (typo not originally on purpose but left in the form that I typed it) I would have booked window seats on opposite sides of the planes so I could balance out my sleeping positions but clearly didn't think that through all the way. My plan is to come in around 10 tomorrow, I'm not sure when I am going to head out but I think it is about a 3.5 hour drive to [redacted]? Twice that long to do bus + train unfortunately...

[redacted]

Too bad about [redacted], although given how they ran the JMM portion of their search I don't have a ton of confidence in their overall approach. I thought that [redacted] already had several on campus interviews lined up at JMM, but maybe they didn't work out? I guess the postdoc deadline was just yesterday so even though it feels like limbo forever things are still moving, opaquely and slowly. Hopefully having the job candidates around hasn't been too soul sucking!

Cheers,
Daryl

9.9 Back from Connecticut

Subject: Updates: back from Connecticut
From: ddeford
Date: Sat, February 3, 2018 12:30 pm

Hey,

Warning: Slightly more honest than usual description of the events and campus (i.e. don't tell [redacted]).

Drive down was fine, pretty rainy but nothing exciting. Left late enough to miss all the Connecticut traffic, so that was pretty nice. Got to the hotel (15 min. north of the campus apparently) about 10pm so plenty of time to prepare for the lecture. Put some nice examples together (borrowing heavily from [redacted]'s ideas earlier in the day) and prepared some challenge paradoxes just in case they mastered the earlier stuff rapidly.

Tap water rankings: Pretty bad. Didn't actually drink any water on the campus but the hotel water wasn't very good. Felt like there weren't a ton of water fountains around the campus either.

Emails: Only about 20. A couple postdoc rejections and schedules for my interviews next week. The schedules are pretty busy although one of them does have me sitting through a whole 200 level class in the middle of the day? [redacted]'s has a couple of HR mandated "interview" segments where I guess the responses are more heavily weighted/formal, although obviously everyone is actually interviewing/judging you all day anyway.

Mental state going in: Didn't really know a ton about the school/students other than what [redacted] has been telling me (she is a big fan) and the fact that we had a nice chat at JMM and seemed to get along pretty well. The schedule that I had was a little sparse, only 5 specified items but long chunks of time devoted to each. In particular, it wasn't super clear where I was supposed to park, what the name of the math building was or how to get there, etc.

Arrival: Found a visitor parking lot eventually and wandered around trying to follow my phone .pdf map until I stumbled on to the science center, which is what I assumed SC stood for in the room numbers on my schedule. The building is a little bit of a maze (with various 2 story wings that are only connected on the ground floor) but I eventually discovered the math office. The setup is a little interesting in that there is an entry area of the main hallways with the administrative assistant that leads to a separate hallway with all of the faculty offices.

Started off with an hour long chat with the chair. Not much mathematics (comically, I own his book and have read it reasonably closely but his first math-related remark was something like "I know you are an applied mathematician so I don't think we will have any math interests in common") but some about teaching and the growth of the university (they are expanding like crazy). We also talked some football and travel as it didn't seem like there was actually a ton to discuss. I felt a little awkward but he seemed ok with it.

Aside: Meeting and talking with the chair all day was a very strange experience for me as it was a little like looking at a possible (but not particularly desirable) future. A slightly awkward guy who does a pretty good job in the classroom (likes to teach at 8am). Some light OCD, multiple door locks/checks, familiar mannerisms. Runs all the administrative stuff in the department competently and seems to keep people pretty happy. Wrote a book about combinatorial laplacians on graphs that has no Amazon reviews. Has a Who's Who of faculty members framed on his wall above his Ph.D. diploma (maybe ironically? I was scared to ask). Attends a lot of NY sporting events.

[redacted]

At the other end, it would be soooooo much easier to simply [redacted] and teach a 4-4 effectively enough. This seems to be the option here in some sense. I definitely got the impression that this is pretty much a high teaching load but low prep work/development (more on this later) where people are pretty content to leave their work at work and not do too much in the evenings/weekends.

Somehow, I want to end up in the middle but certainly there are temptations to reinvent and head for one of the extremes where at least the path is clearer. Obviously, it is mostly just scary to commit to something. –end aside

Learned some interesting facets about the position. About 15 years ago? they removed differential equations from their required math curriculum and started offering it one semester every other year. The recent expansion and changing student interest demographics means they need to offer more sections of it and also a numerical methods class. This means they want to hire an “applied mathematician” (they aren’t really sure what this means since they haven’t ever had one or interacted with any as far as I could tell) to teach these and probability.

The biggest driving factor is apparently the addition of a 3+2 engineering program (3 years for a STEM degree at [redacted] and then a followup 2 years to get an engineering degree at somewhere like Columbia) where the target engineering schools have requirements about what coursework the students should have at [redacted]. This program is being managed by a first year hire in the (now 2 person) physics department.

The physicist (who was the only person to ask an almost substantive research question, in the setting of undergraduate research) is a friendly guy who seems to be dedicated to running good class environments (more on this after I describe how my class went). He actually spent the last 15 years at Yale working in the instructional faculty and has a ton of nice things to say about the way that the math department there does the instructional part. In particular, he spoke very highly of the current director (who [redacted] at JMM?).

After some other faculty members started coming in to the department I had 15-30 minute meetings with everyone else. Some of them had looked through my materials and asked specific questions and others definitely hadn’t. Nothing too earth shattering but it is definitely a complicated process to be shuffled from person to person and reset the interview mentality + come up with new questions for everyone. Only one aggressive faculty member who made it clear that he would be quite upset if I ended up coming and was a bad teacher so that students would want to take his class instead of mine... also made it clear that it would be my job to manage the undergraduate math clubs if hired.

Off to class: So we went down the hall to the classroom. Students wandered in and the faculty sat in the back. Apparently there is a marker shortage so they don’t leave them in the classroom but they were kind enough to give me one out of the storeroom to lecture with. The actual professor of the class came in, told the students to put their phones away and introduced me. I started with an outline and then asked a warm up question to build variations on: What is the probability that the sum of 2 dice is an 8?

...

Silence

...

“Ok, maybe it was too early in the morning for that question. How many possibilities are there for the first die?”

...

Eventually someone says “6”

...

“How about the other die?”

...

“So how many total options are there”

-no hesitation this time: 12!

uhhhmmm... “Well, let’s make a table and see how it works out.”

So mentally, I start abandoning all of my prepared examples and reset to give just a bare bones description of the definitions and use easy problems to motivate (still did the non-commutativity of conditional probability - thanks [redacted]! - which impressed the faculty but probably didn’t really sink in for the students.)

Literally every time I asked a question I got a chorus of wrong answers: What is $(1/6)(1/6)$? ... $1/12!$ What is the probability a red card is an ace? ... $1/52!$, one half of one sixth is? ... $1/3$ Lots of shouting of random, possibly free associated answers.

Did manage to get plenty of eventual participation and finished on time having “covered” all of the topics but was pretty shaken. The faculty seemed pretty happy with how it had gone. After the class went back to finish the rest of the faculty interviews. Started with grumpy old statistics non-TT professor who went on a 15 minute rant about how undergraduates never read everything and do badly on his exams because they

don't ever take their noses out of their phones and are very whiny "these days". After this rant he assures me that he loves teaching and the experience there, very unconvincingly.

This ties back in to the eventual chat with the physics professor who (coming from Yale) was a little shocked with the way some of his classes have gone, which by that point in the day I understood. We had actually a pretty good chat about ways to encourage successful participation in classes and how to handle the variety of backgrounds students might have. I think I offered some useful suggestions.

Went to lunch with a few of the faculty members in one of the student cafeterias. Comically, there is a faculty dining room but it is mostly filled with athletics coaches so doesn't get used by the instructional faculty much. Food was pretty good, tilapia. I just realized I should have been reviewing the cafeterias along with the tap water this whole time (quick notes – nothing terrible at any of them so far [redacted] was not really memorable, [redacted] was great, [redacted] was fantastic). Lots of discussion of my experience teaching math 1 and how classes with lots of athletes work both at [redacted] and Notre Dame. Pretty relaxed. Also learned who told [redacted] about my visit, nothing nefarious, just a chance conversation in the hallway.

Met with the Dean for no more than 14 minutes. She asked a couple of broad questions and then she: tell me about something that went wrong in your teaching and what you did about it. Specifically didn't answer questions about the structure of the math department contributions to the engineering program. I got the sense all along that the campus is sort of like one of those early 2000's tech companies spiraling out of control. Huge growth, just bought two new campus extensions, a dozen new buildings in the last 5 years, comically all named after current president, provost, board members, etc. but not much of a global plan. Sort of like hanging on to the roof of a car speeding down the freeway.

Next was a campus tour with the chair. Saw all the new buildings including the new 1950's style diner named for the University president. Also there is a bar on campus in the basement of the student center. It was cold out, not great for touring, and super windy. At least the snow had stopped by the time we went out. Not a ton of students around on a Friday, the crazy class scheduling system accounts for some of that and it sounds like there is a fair amount of commuting to NY for weekends.

That was the last scheduled event but there was still 45 minutes before we could leave for dinner, so I just sat quietly in the chair's office while he finished up his work for the week. This is where we had the discussion of not taking work home for the weekend/over breaks. Dinner was at an American food grill (lots of hockey games on tvs) about 10 minutes down the freeway in a long collection of strip malls. Service was almost comically bad but the food was pretty good. Much of the conversation was the mathematicians interviewing the physicist which worked fine for me since I was pretty fried at that point. Drive home afterwards was uneventful.

BTW adjuncts: So the math department has 5 Ph.D.s currently and four more masters teaching faculty but is running 30 sections of entry level stats this semester and who knows how many sections of calculus. There is apparently a huge adjunct teaching population that got mentioned a few times but I didn't ever meet any of them. It sounds like they probably get about \$4000 per section per semester. Also, there really isn't any coordination between multi section courses, separate exams, homework, lectures, etc. the syllabi are at least nominally standardized but there are certainly concerns about students having taken a prereq with Prof. A but now moving in to Prof. B's class a la my one aggressive interviewer.

[redacted]

Cheers,

Daryl

9.10 Trip 3 Day -1

Subject: Updates: trip 3 day -1

From: ddeford

Date: Mon, February 5, 2018 11:38 pm

So I made the mistake of looking at the other candidates giving colloquia at [redacted] over the next couple of weeks. Ouch! Somehow it feels more personal than the mathjobs wiki - they all have at least 20 papers and do much more real applied maths than I do. Definitely going to need to reframe my current here-are-some-neat-undergradute-research-questions talk...

Subject: Re: Updates: trip 3 day -1
From: ddeford
Date: Tue, February 6, 2018 10:06 am

Yeah, it is crazy to see what is going on in the R1 market outside of Dartmouth. I guess it will be good experience to see what it is like if I can handle the environment/expectations. Hopefully they aren't too aggressive... Got rejected from [redacted] this morning, so it seems like some more information is trickling out.

[redacted]
Cheers, Daryl

9.11 Trip 3 Day 0

Subject: Update: Trip 3 Day 0
From: ddeford
Date: Tue, February 6, 2018 8:40 pm

Well, the email tally is way up over 50 for today due to an unpleasant travel dilemma. The flight out of Boston was a little delayed because of the weather so even after a sprint across the length of the Dulles airport I wasn't able to make the flight to Grand Rapids. The woman at the customer service counter claimed the earliest she could get me to Michigan was 11:30am tomorrow, so I took the tickets and headed to terminal D (from A). Luckily I looked at the tickets more closely when I was halfway there and realized they were actually getting me there at 11:30pm with a 20 hour layover in Texas.

This led me to purchase my own tickets going to Atlanta (departing in half an hour) and then Chicago (departing an hour later) and then flying in to Grand Rapids at 9:30am tomorrow. I will apparently miss a meeting with an associate dean and the campus tour, but given the current weather I feel ok about that part. Will my suitcase (and most importantly the suit) be in Michigan? Not sure.

I feel pretty solid about my presentation for [redacted] (currently 73 slides for 25 minutes) but am still doing some waffling/working over the [redacted] talk. Trying to settle on a balance between interpretable for the general non-networks audience and suitably impressive for the applied people. Probably a little silly since a) they aren't likely to hire me and b) I would rather go to [redacted] or [redacted] but ...

Also, I emailed Dan late last night about my choice of external committee member and scheduling a defense. [redacted]

Cheers,
Daryl

Subject: Update: Trip 3 Day 0 Part 2
From: ddeford
Date: Wed, February 7, 2018 1:49 am

Howdy from Chicago, where it is currently snowing pretty hard. Not entirely sure that I am actually going to get out of here in the morning...

Comical emails since arriving: I turned down the UMass Amherst Visiting Position (email arrived at 11:35 pm?) and my "host" at [redacted] is apparently an expert in Floer Theory, not quite sure what to make of that.

Cheers, Daryl

Subject: Re: Update: Trip 3 Day 0 Part 2
From: ddeford
Date: Wed, February 7, 2018 9:15 am

At least from my perspective, going to tea has been a mistake for years ... but you are more charitable than I am over all. Still waiting at the airport ... comically, my flight is delayed because a flight from Akron has taken 4 hours to get here from Ohio ... double comically Ohio Wesleyan, which I assume is in Ohio but I guess I haven't ever actually checked, sent me two emails in the last 5 minutes to do a phone interview for a 3 year visiting Data Analytics position addressed to '(soon-to-be) Dr. DeFord', so I guess [redacted]

isn't the only one. I assume that [redacted] can take some pleasure in me rejecting somewhere (probably) in Ohio.

Funny about [redacted], I never got a good sense for his global feelings about Dartmouth after he left again (and his feelings about [redacted]-at least the students- seem in doubt, lol. I have actually given up on asking the students question for that reason, I never found a way to word it that didn't come out possibly offensive or at least invite obvious comparisons to the "Dartmouth Experience."). He is pretty plugged in to the global math community (e.g. [redacted]) but I don't know how that reflects on Dartmouth. Relaxed is nice, and suit+slippers is funny. I hadn't thought of that but it totally makes sense for Skype. The rigidity of some mathematicians about the scripts is fun. Too much rule following, sometimes.

Bummer about the long term commitment thing. Frustrating that they didn't advertise it in such a way that you were warned about their expectations but maybe they will take it as a challenge to convince you to come and stay forever :) You should still leave for somewhere more compatible with your life goals but they don't need to know that.

Cheers,
Daryl

9.12 Trip 3 Day 1

Subject: Update: Trip 3 Day 1

From: ddeford

Date: Wed, February 7, 2018 7:34 pm

Howdy from actual Michigan,

Due to some complicated issue with an Ohioan plane my entry into the glorious state of Michigan was delayed a couple of hours. Final travel time from Dartmouth to [redacted] - 27 hours (It is an 803 mile drive from Hanover straight to Grand Rapids my travel path covered approximately 2100 miles, I actually could have driven to [redacted] and back in the time it took me to fly there). I was at the gate by 6:00 but we didn't end up leaving until 10:15 or so. Luckily the professor waiting for me in the Grand Rapids airport was a good sport about it and the chair of the hiring committee did a ton of work remaking my schedule several times.

Pro to having someone waiting for me at the airport: No waiting, got to campus as quickly as possible.

Cons to having someone waiting for me at the airport: No opportunity to change out of the clothes I had been wearing for 27 hours, or to shave, or to stuff the big laptop in my luggage.

I did the whole interview wearing gray slacks and my gray sweater with the pockets, without having shaved since Monday night, wearing deodorant purchased in an airport bookstore. Not sure exactly what message it sent/how it was perceived but maybe they will grade on a curve. Department dress code is nicer than Dartmouth but less formal than [redacted]. There is a 13 person Math Education group in the faculty so there is some extra professionalism pull from that direction, I think.

I got the abbreviated freeway tour on the way in, Grand Rapids seems like a very nice place, overall. Asked some leading questions about the open access movement on campus, they really are committed to OERs and other sorts of broadly defined scholarship, which is pretty neat. Tenure requirement for research: 2 peer reviewed papers.

As soon as we arrived on campus I was whisked off to meet with three undergraduates and the department chair. The students seemed to be doing cool stuff and pretty engaged/happy with the department. I asked them some questions and we chatted some and then they interrogated me pretty well. They were definitely well prepared with good questions about my teaching approaches, how I would handle office hours, etc. but definitely weren't quite as disciplined at hiding their expressions in response to my responses. At one point a funny discussion of a pie your professor in the face for pi day fundraiser broke out. I think I navigated this pretty well but it was an interesting way to start the day.

Then, I had 10 minutes to tweak my talk slides before heading over to the full department interview (I removed the dot product stuff and dropped my number of slides from 73 to 69). I took sort of a backwards approach to the talk, starting out with two topics not mentioned in my abstract (Trees and Multiplicities) giving a 3 minute intro plus full slide of possible related undergraduate research questions for each. Then I

used the remaining 15 minutes to talk time series analysis. Seemed to go over pretty well with the audience and they even caught a typo on one of my slides, so at least one person was paying attention.

I ended on the 26 minute dot and then it was time for the whole department interview. Pretty much half an hour of them asking questions about my teaching experiences, plans, and thoughts. Good in-depth questions, I showed off some Sage widgets and didn't wax too philosophical. Some follow up questions and some obvious interest in pedagogy from the audience.

Then it was off to the search committee interview: 6 on 1 and much more in depth examination about research (20 min) and teaching (40 min). Went a little more philosophical here about some aspects of data education, the place of mathematics in a modern liberal arts university, and how I feel about linear algebra education.

Next I stayed put as the committee left and several other faculty members came in to chat about the department life, organization, answer questions, new faculty experience, etc. Everybody seemed very friendly and they are all definitely happy to be at [redacted]. Also some odd Dartmouth connections: one classmate of Scott's at Penn, one student of a Dana collaborator, one Pete Winkler devotee, and two people who knew of Sergi. Luckily, no [redacted] questions.

Then I met with the search committee chair individually to talk about the hiring process and tenure expectations. I was getting pretty loopy at this point but I think mostly managed to keep my facial muscles from wiggling/spasming too much (I am not well optimized for this much attentive smiling). Spending the night in the airport was not good for my concentration abilities. Straight from this meeting to a short meeting (12 minute) with the Associate Dean. I asked a few questions about interdisciplinary stuff and (apparently) passed the sanity check.

Finally, went out to brief dinner near the airport with a chatty faculty member who is really hoping that I will come to collaborate with him on some interesting brain/neural projects that he is working on with a local medical researcher and a quieter younger faculty member. It was nice, although I was a little out of questions to ask at that point.

It is a funny part of the interview that I haven't been able to do well with anywhere yet. Part of the closing interview/dinner is apparently for you to convince them that you are really interested/them to sell you on the place but I have found that after a whole day of asking and answering questions I am not able to effectively/sufficiently communicate my intentions at that point. Definitely a weak point in my overall interview performance.

Apparently I was the last of the visitors for this position so they are planning to make an offer by next Friday at the latest. Overall, I was really impressed with a lot of things here. The department is really serious about undergraduate education and really serious about innovative pedagogy and scholarship. Department is friendly/supportive and the students seem to be doing well. They are trying to manage the applied math question thoughtfully although part of this job would be to help lead/develop the new concentration and the data science portion seems to have currently crystalized out of the math department, although it seems like this is a function of the current staff not an exclusionary principle on the part of the other departments. Some kind of funny tension with the stats department but I don't think it would really affect me too much. Definitely an institutional interest in encouraging collaborations and a math department interest in poaching some social scientist class hours. They are also doing some sweet stuff with linear algebra education here!

Currently sitting in the GRR airport (highly recommended: quiet, clean, and compact) waiting for the flight to Orlando, which at the time of this email has been delayed 2.2+ hours. Currently scheduled to arrive in Florida after midnight, which bodes well for my interview starting at 7:30 am tomorrow. Not sure how long the cab ride is from the airport to the hotel but at least I should finally be able to change clothes.

Funny emails of the day: [redacted]. A couple of visiting data science position nibbles that I have been declining using the excuse of the hope of TT offers. Also 4 emails from Frontier about the flight I am currently waiting for: moving the departure time backwards, forward, backwards, and finally forwards again. I don't think they actually have any idea when the plane is going to take off.

Never managed to try the tap water but did set off the scanner on my carryon bag with a water bottle in it on the way in here.

That is all I have got.

Cheers,

Daryl

9.13 Trip 3 Conclusion

Subject: Updates: trip 3 day ?

From: ddeford

Date: Fri, February 9, 2018 4:55 pm

Hiyas,

Picking up where we left off last time: The plane from Michigan to Orlando ended up being 2.5+ hours late taking off. Also, it turns out that flying to/from Orlando comes with a high probability of planes full of young children. Not an ideal environment for working, thinking, or sleeping. Landed about 12:30 and made it to the hotel around 1:30. The campus is about 40 minutes from the airport/downtown portion of Orlando and not nearly as child-filled.

Taxi driver from airport was a little nuts - drove 85 in a 55, argued loudly with the voice and directions from the gps, couldn't figure out how much to charge me for the ride. After this experience I had the hotel request a taxi for me on the way back, assuming that they might have a relationship with a slightly less wacky personality. Relationship yes, but just different wackiness, not less.

After asking where I was from/what I was doing in Orlando, she started in by saying "Oh, I took the Chinese guy they interviewed on Tuesday to the airport too. I'm sure you will get the job! After all, you are an American so you have a big advantage." The conversation went downhill from there as she expressed a very broad range of not particularly thoughtful political opinions, mostly motivated by her brief readings of twitter feeds. She also drove slowly, under the speed limit on the freeway, and charged 3/2 as much as the initial ride.

After arriving in the hotel (under construction) with no front door (reception was at a card table in a hallway) and only 2 open floors of rooms (out of 7) I did a little slide tweaking and faculty googling and then crashed. Up at 6 so I could meet my faculty host at 7 (for breakfast). For those of you keeping score at home, that is not much sleep for two days in a row. The faculty member met me in the lobby and drove us to campus in her sports car, pretty entertaining ride. Dartmouth actually interviewed her for a faculty position (Erik's?) several years ago.

The plan was to get coffee (not breakfast?) on campus at the bookstore but they didn't open until 8 so we stopped by the math department to say hi to the administrators. My first meeting was supposed to be with the associate dean at 8:30, so we headed out to wander around the campus (temperature 78 humidity 97) until the meeting was supposed to start. She was very friendly but the first substantive question she asked was: "So if we hired you, what postdoc would you take first?" This was the first evidence that the R1 interview process was going to be different from my earlier experiences.

Meeting with the Dean was funny, he did 95% of the talking. Mostly an overview of the campus (growing), faculty (growing), student body (growing), and funding situation (complicated). He had no idea which position I was there interviewing for or what my background was. He also expressed surprise that I was graduating this term and didn't have any postdoc experience. The discussion of tenure expectations was short: the department committee cares some about your research productivity and impact but the rest of the hierarchy: chair, dean, provost are primarily concerned with the number and value of the grants that you attract.

This seems like a reasonable place for the [redacted] facts blurb. It is currently the second largest university in the US (after ASU) although it plans to be the largest in 2 years. Currently there are approximately 66,000 (not a typo) undergraduates. Definitely a little bit of an inferiority complex compared to [redacted] and [redacted] and has been aggressively trying to recruit and expand to build the research profile. They have programs in Big Data in the stats department and Data Science in the CS department but not a ton of math involvement yet. Lots of new buildings etc. the place is really exploding.

Class sizes are huge, calculus and below range in size up to 450 students (not a typo) and classes schedules run from 7:30am until 8 or 9pm. There was a lot of teasing of one professor in the department for his small calculus class this term of 180 students. Most classes above diff eq run at 40-60 students although graduate classes are much smaller. Teaching load is 2-2 with some possibility of course releases for early faculty or grant funding buyouts. Advising Ph.D.s frequently starts in your first year after teaching a graduate class, i.e. your second term.

The Ph.D. program seems like kind of a disaster. Very applied and currently has an attrition rate of

2/3 (not a typo) admitting 15 a year and graduating 5 a year. However, their current plan is to expand, maybe doubling the total number of students. I didn't get a great sense of what exactly is going on (and didn't meet any students today, although one came to my talk and asked a rambling, confusing question that I eventually managed to interpret/field). The program has been around since 1993 but mostly has placed students in industry and CC teaching jobs (there is a local CC that also has 60,000 students) although a few recent students have gotten postdocs at reasonable places.

After meeting with the Dean it was off to meet with the chair who is apparently the one who will really make the final decision. This interview didn't go great: more questions about postdocs and background. I got the sense there that everyone had taken postdocs and only moved into TT when they had too (because who would ever actually want to teach?!? - direct quote.). I completely fucked up the what new class would you teach question as well. He clearly has some agendas for this position but I am not entirely clear on what they are. I think he thinks about dimension reduction only in the setting of manifold learning. And some sort of rigid definition of computational math that I never quite managed to parse.

Also, there was definitely a little bit of Ivy envy from him and throughout the day- you are at a fancy university now why aren't you staying at the fancy places, what is wrong with you? I definitely got the sense that overall I have a very different value system, in terms of what is important to me about being a faculty member than the majority of the people in that department. All sorts of odd vibes of this sort throughout the day, why take a tt job straight out of grad school, why not somewhere more impressive, but also some amount of trying to show off and wanting to be competitive with places like that.

Next was an interview with the 3-person search committee. They were friendly but disappointed that I didn't have any grant writing experience or current funding. A few teaching questions where my answers were mostly not a great match for their perspective. Designing things for 50+ person class environments is a different animal. This was counterbalanced by their odd surprise that I had taught classes while at Dartmouth (their grad students almost never teach as part of the program and they mostly didn't teach while they were grad students). Also, the MathCounts stuff came up but it wasn't clear it was a real positive for everyone.

(On the MathCounts note: the Regional competition was yesterday and Crossroads won again. Maxine placed first and Crossroads had 6 of the top 12)

Then off to the talk. Audience was mostly faculty with a couple of grad students. My presentation was ... divisive ... is probably the best word for it. A few people seemed onboard and very happy, most people looked sort of bored, and one woman in the back was super displeased. I mentioned that they don't do any networks in that department and so in my introduction slides I went through some of the simple network dynamics- diffusion and random walks. She interrupted my definitions of a simple random walk and the graph Laplacian immediately and complained that it wasn't really about the graph at all and just a Markov chain plus "the dynamics don't make any sense." I tried to explain how it works and why it was useful but she was super aggressive and had some really strong beliefs about what I was trying to say. It was very odd. For the entire rest of the talk she kept rolling her eyes and whispering to the person next to her, not a great feeling.

Once we got past that I got in to the center of my talk and things seemed to go better but overall I really screwed up by not formatting things in more of a theorem environment, horrible but impressive equations type format. Like all of those awful [redacted] talks and all of the ridiculous [redacted] talks, etc. When I got to the end there were a bunch of fairly aggressive questions, including another set from the woman in the back. One of the search committee members finally jumped in to help explain but she wasn't having any of it. I probably should have cut her off earlier and offered to explain more in person later but I was honestly a little shocked that anyone didn't understand at least the overview and basics of the main points I was making and kept trying to offer what to me were super low level explanations but only increased her confusion because she was really thinking about something entirely different. Later on (i.e. there is more to this story) I got a sense of what she was so confused about but several people who weren't at the talk had apparently heard about how it went by the end of the day and mentioned it to me.

Wandered out into the hallway with one of the committee members to gather people for lunch and the woman was there again, although at this point I finally did manage to put her concerns off for later. Lunch was at one of the university cafeterias with four faculty members. It really hammered home the scale of the university. It takes a lot of lunching space to house even a reasonably small fraction of 66,000 students. They don't have trays, even though it is all you can eat, because they don't want you to eat that much.

Pretty funny. Discussion topics were mostly students, the graduate program, and benefits.

Campus tour was with one of the faculty members who couldn't come to my talk because of teaching. He walked me around (a small part of) the campus (temperature 80+ humidity 98%) which was again not great for my core body temperature. We talked about my research and he seemed ok with everything. He showed me the labs they use to teach (well, actually they just plop the kids down in a computer lab with some of that iterative learns your learning rate software with a few TAs in the room) the lower than calculus level classes and part of the geology collection which is in one corner of the math building basement. We also walked through the library which reminds me that because of the type of land they are built on (former swampland) the buildings can't be very high so instead they tend to sprawl horizontally. Some of the library stacks actually (not actually) let you see the curvature of the earth as you look down them.

Having survived the preliminary events, it was now time for the truly complicated part: 1,2,3, or 4 on 1 interviews. For 5 straight hours. I sat in the room and they came in individually to ask questions until the next person knocked on the door and then there would be an awkward transition and the next person would come to ask questions. The interrogators fell into three categories: the talk-question woman and her cohort, the interested, and the disinterested. Disinterested took two forms: either apologetic: "Sorry, I'm not in your research area and can't ask anything reasonable" or passive "Do you have any questions for me?" The interested parties were mostly pure mathematicians who were really happy with my talk and wanted to chat about various ways that applied math uses pure math and what other sorts of questions I might be interested in. Overall, a few good chats, a bunch of meh chats, and a few really unpleasant ones.

There is obviously some divisiveness there but I think the schedules are such that there aren't too many interactions between the two camps on controversial topics. The department identity is pretty applied but mostly the pure folks stay out of the way and do their own thing without much outreach from the applied side. Trying to sit in the middle made me some friends with the (smaller) pure faculty but alienated some of the applied faculty.

Age was also a really interesting factor in how people interacted with me. The faculty members who were hired in the '80s on average were much happier to interact with me and much more on board with my work and presentation. It seems like 30 years ago I might have been a nice fit in the department. Those interviews were definitely a welcome rest from some of the more aggressive things from certain other people.

The other interesting division I noticed was between people who were obviously trying to decide if they thought I was good enough and people who already assumed that I was and were trying to convince me to come or figure out how likely I was to come. This was something else that split over age/type of math lines but really made for a confusing process since I never knew if the next person through the door was going to be trying to evaluate my background or my intentions.

Speaking of that, unfortunately my first interview block was crashed by the talk woman and she actually hung out for well over the allotted time. We made a little progress in communicating but by the end she was still not even close to happy with me. For a while she just kept shouting "There's no time here, you only have one sample!" and "you can't take a derivative there is no 't' here" while I tried to explain how matrix Laplacians work. The multiplex thing apparently literally blew her mind.

The sad part is that she is friends with one of the faculty members that I was actually interested in talking to. He does quite interesting work on factorizations and compressed sensing as well as PCA. However, he was there for the entire "discussion" and seemed just as confused as she was and backed her up on the misinterpretations of my work. Not a great experience. At least she finally left after the backlog at the door got too big.

Teaching was only brought up in two of the interviews total. I bombed another question here by saying that I hadn't ever had to deal with instances of academic dishonesty. Apparently that is a consistent and serious issue there (shockingly it is hard to police 450 person classrooms). The other person I discussed teaching with ended up asking me questions by the end (a lot like [redacted] and the physics guy at [redacted]). Not exactly a comforting impression of how much education is actually happening there. That reminds me, the question woman interrupted her hassling of me to go on a five minute rant about how most of the students in the university shouldn't actually be in college and in any other country they wouldn't be and a huge percentage of the can never learn anything no matter how it is taught so it doesn't really matter how the teaching goes.

Finally, it was over and I had to meet with the chair again. Here I again blew two questions by not having refined-enough answers: "What funding agencies or departments would you apply to with your first

grants?” and “What kind of computational math do you do?” Then he asked a few questions about startup costs and talked about their timeline a little. The whole thing was a crazy mix of all the previous interviews: some evaluation, some convincing, etc. and represented well the schizophrenia of the entire department. I left his office very confused but didn’t really have a chance to think because it was now off to dinner with the associate chair, two committee members, and the host.

It was a fancy, reservations or you’ll never get in, totally packed with people and too loud to hear anything place. We were there for two hours and it felt much longer. The food was excellent though. Finally got back to the hotel a little after 9, putting the bow on a 14 hour day.

Emails: A bunch, mostly uninteresting. I did get one interview from a school that I had applied to that was downgrading the position from TT to renewable 1 year teaching contracts which I declined to move forward with.

Tap water: Didn’t try it. The department provided those 3.5 oz bottles. I wasn’t familiar with the brand.

Flight home was uneventful. Currently sitting on the Dartmouth Coach in Boston traffic. I assume we will get to Hanover eventually. No more travel planned so I should be around all next week.

Cheers,
Daryl

10 2019 Application Emails

I started preparing for the application season at the end of the summer.

10.1 Starting the Process

Heyas,

I hope you are having fun getting ready for [redacted]! Since our summer program ended on Friday it must officially be job prep season (at least for me) and I made the initial pass through mathjobs to click the red x button on the (currently 435) jobs that I am definitely not applying to this evening. I suppose that means the next step is generating many pages of documents convincing people to hire me...

My plan is to make my process and materials available to y’all if you think that might be helpful. Certainly, it was very beneficial to me to have our shared directory last time around but ymmv. Sadly, most of my life has moved over to overleaf instead of dropbox these days so at least for now I am going to do most of the document prep/editing here: [https://www.overleaf.com/\[redacted\]](https://www.overleaf.com/[redacted]) Once I get to the point of doing the actual cover letters for jobs I may move everything into dropbox again but we’ll cross that bridge when we get there.

[redacted] Any thoughts would definitely be appreciated.

My Current thoughts: [redacted] It seems like everyone except for me has pretty strong feelings about where I should end up but as always, I am too big of a chicken to actually commit to wanting anything specific. That said, until you tell me it is a bad idea my current plan is to apply to TT jobs (no postdocs or anything else temporary) in a mix of R1 and (sufficiently snooty)LACs in math, cs, and stats. Honestly, I would prefer to settle in a math department but a lot of the advice and interest that I have gotten so far suggests that I am much more likely to be successful in the stats/cs/data science world. In order to keep things a little more reasonable, I am definitely only applying to jobs at schools where I know the name of the school in advance.

My plan is to use [redacted]-type departments as a backup plan (since I can apply to them through mathjobs easily) so the main applications really will be only to serious places. This makes me a little nervous, since it isn’t really clear that I will be competitive for these jobs but based on what I’m hearing around here I think this is the best plan. I’m doing some traveling over the next couple months (including to your alma maters :)) to get some outside opinions and workshop my materials a little. I’m also going to apply to a couple of [redacted] jobs ([redacted], [redacted], etc.) but mostly just as a backup-backup plan.

Timelines: My first pre-interview stuff is happening at [redacted] in a couple of weeks. The target department there is [redacted] which is technically under the school of [redacted] and is looking for someone with data experience who want to work with actual social scientists (the current makeup is pretty bio-heavy).

After that I am taking a liberal arts focus for the September trip (plus heading down to [redacted] for a day somewhere in there) - [redacted] is hiring in [redacted] and I will be speaking in at least one of their classes in addition to the regular colloquium. After that I am probably going to go to [redacted] and hit a mix of places (probably at least [redacted] and [redacted]). Hopefully, I will get some good feedback.

It sounds like a lot of the R1 TT jobs in math start looking at applications on Nov. 1 and some of the CS jobs start on 10/15 (monsters!) so it is definitely a compressed timeline compared to last time around. Luckily, I'm not teaching in the Fall and most of my paper deadlines are early in Sept, so there should be plenty of time left for panicking ... :)

Anyway, no need to respond to this email unless it makes you happy - I'm mostly just procrastinating the papers that I am supposed to be writing for those Sept. deadlines...

Hope you are well!

Cheers,

Daryl

10.2 post-First Deadline

Howdy!

Hope you both are great!

I'm well into the job applying slog at this point, so I figured I would send an update with the comical happenings so far. As will apparently become traditional, here are some weird notes from this week:

[redacted]

Ok, back to the actual job stuff. I got through the first 10/15 deadlines ok (and [redacted]'s ridiculous 10/8 deadline). I think I applied to everything I wanted to (or at least have forgotten/deleted from the spreadsheet about the places that I didn't make it in time for :)). [redacted]

Obviously, I wouldn't have made it to that point without y'all taking time to look at things and make suggestions, so thanks again! The one thing I screwed up was not getting my diversity statement together in time. [redacted] wanted one on 10/15, so I submitted a really terrible one at approximately 1:30am on 10/16. Since revised to be slightly less terrible but that was a little embarrassing. Luckily, it wouldn't be anything close to my top choice anyway, so not really worrying about it.

Submitting with all the docs on Overleaf has been an interesting experience. The one thing that really drives me nuts is that the pdfs are always named after the name of the project not the.tex file. This means that currently, when I just downloaded the cover letter for [redacted] it was [redacted](35).pdf. I'm sure I am going to rename and upload something wrong at some point. Speaking of wrong uploads, currently the [redacted] is the leader in that I generated 6 different cover letters for them because I kept making typos, spelling errors, etc. Oops!

No movement from the 10/15 schools yet but I did also apply to [redacted] which had a 10/18 deadline (Friday). [redacted] had offered to send thoughts on the market, so I applied to the job on 10/17 (a whole day early for probably the only time ever! until this week when I'm getting ahead on the 11/1 stuff...), finally finished up and sent an email to her on Sunday 10/20 and then got an email back from the department chair the next day 10/21 asking for a Skype interview! It turns out I met (and hit it off with) everyone on the hiring committee except one person while I was there, so should be interesting.

[redacted] then emailed me back a couple of days later with some really helpful advice. I wish I had emailed her sooner because she made me rethink several things and was super thoughtful and interesting. I'm still processing it a little but will eventually try to write through it some in my job notes. Even though the chairs office is right next to hers and one of the other hiring committee members is right across the hall, they hadn't told her anything, so I guess I won't get too much of an inside scoop into the process :)

They wanted to have the Skype interview next week and finding quiet places to skype in the Stata center is pretty much impossible, so I figured I would repeat the original experience and do the interview from Dartmouth. I had already been thinking about going up there to a) [redacted], b) see the (2/3)16 since I had promised I would come by at some point, and c) see Dan (also to nudge him about the letter). Plus, [redacted]. So, long story short, Katie and I are going to Hanover for a couple of days, so I can do a 20 minute skype interview in a familiar office. David said that I shouldn't think of this as [redacted] 2.0 but the parallels seem pretty strong to me!

Now the next big task is getting all (or at least all of the MathJobs compatible - I am leaning more and more towards the only applying to things that are available on mathjobs approach) applications in for 11/1. I'm about halfway there it looks like, although it is kind of a boring process, so I haven't managed to do it in a concerted fashion consistently. I am keeping the spreadsheet reasonably updated but haven't added sheet 2 and sheet 3 yet, so have left on some of the places that I decided I wasn't going to apply to (most recently [redacted] and UNM who wanted physical copies of letters mailed through the post office).

One interesting facet has been the relative rate at which I can pump out reasonable cover letters. Last time around it looks like I managed to submit approximately 36 applications on Nov. 1 whereas this year I've only managed to get through 8 in a 3 hour window today. More customization = slower typing (well copy and pasting, anyway). I do think that some of the recent teaching cover letters have been really good but the research ones are just kind of silly. Luckily, they probably won't get read at those kinds of places.

Still trying to figure out exactly what kind of stats/ratings I will use when it is actually time for interviews. Definitely brussel sprouts, probably available number of soda/energy drink flavors in convenience stores, possibly hotel/campus wifi upload speeds, unlikely quality and diversity of local radio stations, absolutely no tap water since I did that last time and ended up with the worst tap water in the country. Any suggestions would be welcome.

≈ 1,500 words is probably about right to wrap this up, especially since I need to apply to 11 more jobs today (including three where my application was solicited - I haven't yet figured out how this means I am supposed to address the cover letter differently but I suppose I will figure something out).

Cheers,
Daryl

10.3 Speedy Applications

After whining about being slow in the last email, I tried to apply to 10 jobs in an hour just now to see if it was possible. I picked the remaining R1 schools that didn't want much in the way of customization and were hiring generally, not in a specific field. Starting at 5pm, we had the following:

- 5:10 applied to [redacted] a little customization but nothing huge. I do know one person there whose previous job I am also applying for.
- 5:28 applied to [redacted], misread their announcement the first time. Obviously not an R1 school and they have someone there who does redistricting stuff, so it took some tuning. It was during this interval that I also discovered I had left a sentence fragment at the end of a paragraph in my [redacted] cover letter, which I copy-pasted to start this one. So some of the time was devoted to actually writing that sentence and updating that application.
- 5:38 applied to [redacted]. Here I already knew the external to math people I wanted to mention, so it was pretty straight forward.
- 5:44 applied to [redacted]. Nothing exciting whatsoever except that they have a named complex systems group.
- 5:48 applied to [redacted]. They didn't require a cover letter but I wrote half of one before realizing.
- 5:58 applied to [redacted]. I would be the worst fit in the world there so I didn't do much customization before submitting, after flipping through their webpage. Wasn't smart enough to just not apply. Did notice that I had listed the wrong position on the [redacted] one, so had to go back and update right at 6.

Overall, not terrible with 6 in 60 minutes but at the absolute best case scenario of not much thinking required. Definitely not on par with the crazy zip through last time.

Cheers,
Daryl

10.4 First Skype of the Year

Heyas!

Well, stage 2 of the [redacted]-ification of this years job process went pretty well, I think :)

The interview was scheduled for 1:30 and Dan wanted to meet from 11-1, so we headed out about 8 to drive up to Dartmouth. Timing worked out about right with the leaving Boston traffic, although that obviously cut in to the preparation time for the actual interview. Mostly my preparation process consisted of memorizing the course numbers for the CS courses there are trying to remember the last names of everyone I met with while visiting (I still managed to screw one of them up anyway, although I did get his first initial right, so I think it should be worth partial credit).

I also did some amount of looking back at the notes from skype interviews last time around and making sure that I had at least an idea of what I would say to any of those questions. The one thing I wrote down in preparation was descriptions of the classes that I was going to pitch to build on my own to add to their curriculum, since that can be kind of antagonistic (“well, I noticed you don’t really have a class that covers [fundamental skill]” can be a little aggressive and I wanted to have the phrasing right to not step on any toes. See note below for how I messed that up anyway.

Having been through the 20ish minute interview process many times before I wasn’t super concerned, although the CS angle was a little interesting. Probably a little over prepared in terms of questions but under prepared in terms of focused responses, I definitely wandered a little bit and didn’t hit all of the bullet points in their questions. Need to remember to keep things a little tighter later: 2-3 sentences of general exposition and then an example. I did get in examples for almost everything but wandered a little on the way. I probably did some stumbling over trying to replace Math with CS in my canned answers but I don’t know how that will play out on the tape :)

Questions (Abbreviated - not direct quotes. Mostly because I was just listening for keywords and wouldn’t have done a good job of capturing the exact wordings anyway, sort of like oral qual questions I guess. I suppose one could go to the tape but I don’t have access to that.):

- Why liberal arts and why here in particular?
- How do you tailor your teaching to liberal arts students?
- How will you support diversity and inclusion in classroom and research?
- How will you:
 - balance time
 - include undergraduates
 - use resources
 - etc.
 - for research (this was all one question)
- Which specific classes would you see yourself teaching?
- The job ad wants someone who is willing to teach systems classes, do you fit that?
- What about parallel programming, compilers, data structures (followup)

Then, they asked if I had some questions, so I went with:

- Opportunities to design new classes?
- Average class sizes?
- What do students do after graduation?
- Are those industry connections formal or individual?
- College programs for supporting interdisciplinary learning opportunities? Specific department targets?

The one really funny part was I started out by being really excited about one of their intro course designs only to find out that one of the people on the call actually designed the class, so I felt a little suck-up-y. Little did I know that 6 minutes later I was going to again gush about a class that seemed perfect for my background, only to find out that it was the baby of someone else on the committee. They took pains later on to point out that there weren't ownership issues but it definitely felt awkward in the moment.

Overall there were no enormous gaffes and they laughed at most of the jokes, so hopefully it was ok. I'm not perfectly aligned for the topics they really want to hire to teach but they seemed willing to be flexible as long as I was willing to consider branching out. The timeline seems planned for a week and a half or so until notifications about the next step, so we'll see what happens.

Definitely had my first real panic moment the night after the interview. I woke up at 2am feeling like "AAAAAHH What if no one decides to hire me!?! I didn't apply to enough jobs!" Luckily, it was 2am so I didn't get up and apply to more things right then but did consider it. The roller coaster continues...

Cheers,
Daryl

10.5 Just Waiting

[redacted]

- I'm working on a bit about the cafe downstairs in this building but for now would just like to present you some of the items on today's menu boards without (too much) commentary:
 - Fajita Bar
 - Murgh Malai kebab
 - Turkey Bolognese
 - Craisin-Blueberry 3 cheese pizza
 - Marscapone, green apple, cinnamon sugar pizza
- I applied to the data science job at [redacted] within 2 minutes of it being posted today...
- ... I mean, I don't have a mathjobs addiction, what are you talking about?
- Wearing shorts at work today (all week), because even though it was a balmy 21 degrees when I left the apartment this morning, it is still about 80 in the office. Tried long pants yesterday and didn't enjoy it very much. Luckily the skype interview with [redacted] was on a holiday, so I only had to wear a suit (with (matching) crocs....) for the 27 minutes of the interview itself. Still haven't figured out what I am going to do if I need to skype from here.
- My visitor last week was vegan, which led me to eat a "beet-pineapple" burger with beet hummus. It was as messy as you would expect, which is just what you want when you are trying to impress someone....
- By my estimation, I have listened to the full soundtrack for the animated version of the Hobbit approximately 40 times in the last week. There is probably a separate bit here too but in terms of songs listened to while working my list over the last few years has been:
 - Dartmouth pre-thesis: Trombone Shorty at Jazzwoche Burghausen and Glenn Miller
 - Dartmouth pre-thesis (Fridays): Maynard Ferguson
 - Dartmouth during thesis: Bach Mass in B Minor and Takuya Kuroda
 - Dartmouth during thesis (Fridays): Herbie Hancock and Hugh Laurie
 - MIT pre-job applications: Bach English Suites played by Schiff and Toccatas played by Gould
 - MIT now: The (animated) Hobbit Soundtrack
- Interestingly?, the very first thing on my youtube watch history is the Henry Mancini theme for the old Pink Panther movies.

Content: I don't actually have very much exciting to report. It has been about a month since the [redacted] interview, so I guess that really did turn into [redacted] 2.0 and [redacted] is supposed to be sending out the on campus interview invites nowish? (They were going to make the decision last Friday and then ask for administrative approval). Will probably email the [redacted] people when either I get an email from [redacted] or become convinced that [redacted] isn't emailing.

Definitely feels like a different version of the experience that last time, as I am not applying to very much these days, only a couple this week, just kind of waiting to see how the first set turns out. However, it turns out that waiting isn't actually very fun. Probably hitting the refresh button on my email too frequently and it feels like the rate of new jobs appearing on MathJobs has really slowed. I haven't clicked the green checkmark on a new posting in about a week.

In other, undoubtedly not super healthy obsessions, google tracking still works fine. Actually, the search console has become my newest addiction, although someone did spend 11 minutes on my site after clicking through from mathscinet (sadly my stats are much better on google scholar...) and there has been a recent uptick in hits from Philadelphia (maybe Swarthmore?)

Actually, for the first time ever "daryl deford" has entered the top 10 of searches that bring people to my website. The current list of queries (sorted by number of clicks generated) is:

1. zeller's congruence calculator
2. daryl deford
3. caesar cipher activity
4. taylor's inequality
5. modern cryptography pdf
6. gerrychain
7. lagrange interpolation problems with solutions pdf
8. taylor inequality
9. lagrange interpolation pdf
10. lagrange interpolation

That said, the Taylor error notes are by far the most downloaded .pdf from my website, although for the first time the written qual book has climbed into the top 5. The Zeller's Congruence Calculator⁷⁵ has by far the highest click-through ratio at 68% and average position at 1.4 (this is a little crazy, since it means that on average, if you google for Zeller's Congruence my page for that will be listed higher than my main page is if you google my name!).

It does look like most of the hits on the qualbook page are local but there are even a few international ones (India, UK, Canada, and apparently 1 click from Chile) from people just googling things like "real analysis qual solutions".

Hope you are all well!

Cheers,

Daryl

⁷⁵[link](#) It actually turned out pretty well, given that I typed it up while sitting in a room waiting to teach a latex workshop that no one turned up for :) Originally it was just a blank page with the calculator but people kept clicking it, so I wrote up the details and got MathJax to work for the formulas.

10.6 First Rejections

Salutation: Greetings!

Apology: Sorry about the font! I am not very good at GMAIL.

Funny Intro: The currently complete set of (15!) Scenes from Stata is attached. The recent ones wandered a little from how I had originally conceived the project, so I am putting those on hiatus until I can figure out what it is that I am actually trying to do. I promise I will come up with something funny for actually-traveling email intros.

Since that isn't actually funny, I will tell you what happened when I walked out to my car this evening: I had to drive to Tufts today (and my car was parked in a Friday street cleaning spot, so it needed to be moved anyway) and as you will see below, it had been ... a day. In the morning, I parked in the all day parking strip down the hill from the math department - parking in front of the Tufts math department is dangerous because the town line goes through the department and hence the front door is in Somerville and the back door is in Medford and my parking pass only works on Somerville streets.

Anyway. When I was walking up the street to the car I was pushing the unlock-the-door key fob and could hear the beeping but the yellow lights were only flashing on the back. This was concerning, since our front headlights keep going out and I had just used up the last spare one a couple of weeks ago (That's right! This has been such a consistent problem that we keep spare headlights in the car). As I got closer and kept furiously pushing the button I was more and more confused until I was level with the front door of the car and reached down for the door handle. At about this point, I realized that the beeping was coming from further up ahead and the car I was trying to get in was the same make/model/year as ours but no tennis balls in the window. Just a parking coincidence in the "most densely populated city in New England ... more cars per square mile than there are in Boston and Cambridge. To be exact, there is one vehicle for every 1.6 Somerville residents."⁷⁶

Title Topic: So both [redacted] and [redacted] listed jobs in their respective math departments for someone with a data science focus and I sent in my applications about a month ago (well before the deadline). Justin was out there recently to visit some people and nudged them to look at my application. A couple of days ago, he got an email back from a professor there saying "Well, Daryl seems great but I guess he decided not to apply to our job..." which he forwarded to me with a "?"

I panicked for a minute before going to the job portal and sending a screenshot of my "Application Completed" screen back. The whole thing seemed a little odd, so I did some googling and realized that the correspondent was in the Stats department, not Math, and that they are also trying to hire Data Science faculty (both campuses got funding for data science initiatives and it turns out that the money was divided between math and stats). I quickly filled out the stats applications at both places - since it was the same back end it let me use the same documents (although I did tweak the cover letters to list the appropriate departments!).

The letters however, turned out to be slightly more complicated. Most of you probably haven't played with the [redacted] application system recently but the way it currently works is to have you enter the contact information, then press submit. This adds the name of the recommender to a list but you then have to go through a separate "Send Request" panel to actually have an email sent to them. Once you push the button it takes you to a screen that shows you a draft of the email that will be sent to your letter writer, along with a fill-in-the-blank section where you can enter a special message, if you want. Anyway, although the documents and names transferred over, you still have to push "Send Request" again on the new application and click through the draft email. When you do however, it does use the previously submitted letter and marks that part of the application complete.

"Pretty straightforward," I thought at the time. However, it turns out that it does send a new email to your recommenders, only now with confusing text saying that the application has applied for a different job (but it doesn't tell them what) and saying that they have the option to submit a new letter for this new, unnamed job. Luckily, Tom sent me an email asking for clarification and I was able to explain to everyone what was happening. I think everything is in the right place now and Dan even submitted customized statistics letters to the two schools.

Also, it turns out that the Stats department and Math department hadn't talked about launching duplicate ads for hiring from the same initiative and now the Stats department is mad about Math poaching

⁷⁶**References:** [1] <https://www.somervillema.gov/departments/parking-department>

their candidates. So I managed to unintentionally start some complicated interdepartmental drama, without even stepping on campus. Somehow this feels like it should be a comical story but I haven't quite figured out how to tell it yet. Part of the problem is that it is tough to communicate the sense of panic that then mellowed down into emotional confusion after getting Justin's email and then discovering that I had applied properly. That said, I've tried telling it outloud 3x now and none of those went particularly well either, so maybe I'm just slipping.

Other funny CA school news: [redacted] just sends you a link to send to your recommenders. If certain people in your life only read the subject lines of emails, it can be hard to get them to click the link...

Sad Part: It looks like I will not be going to OH. [redacted] emailed me at 6am this morning. She said lots of nice things but at the end of the day my background was too similar to that of the department chair, so they went with people who do differenter stuff than people who are already there. If you will permit me one snarky remark in this context, [redacted for meanness - I was a little frustrated]

Anyway, I got further in their process than I expected to after visiting, so I can't really complain about anything. Definitely more conflicted than disappointed, I know that having had the interview impacted some of my decision making but it has been fun to daydream about for the last few weeks. Now I have to decide (not today - nothing good would come of that) if I actually want to apply to more liberal arts places. I had left some off of my list because of these early interviews.

I had already decided to email [redacted] once I heard from [redacted], so I fired off a quick email to the head of their department asking for an update. He asked me to call him on the phone, which was a hard to interpret sign. [redacted] He also said lots of nice things but they did end up really wanting someone to teach operating systems, which really isn't me. He was very supportive and said that [redacted], which was a nice sentiment, even if it doesn't actually help me [redacted].

This one was always a long shot - the mathjobs ad pointed out the systems focus - but it did seem like an awesome place when I visited. Nice for more daydreams the last month too. I was mostly quiet on the phone call - probably could have handled it better but it is tough to figure out how to respond to "We really liked you but it doesn't matter." The call ended kind of awkwardly but it was mostly my fault, although he did ask if I had any questions, which I wasn't prepared for and kind of fumbled. I kind of understand how this happens but it does seem pretty inefficient. Last time around, I was more upset when I found out that [redacted] and [redacted] had done the same thing.

Wrap up: That's today's zeroth world problems rant⁷⁷. Feel better today than I did last weekend after [redacted]. Back to clicking refresh on google analytics :)

Soothing Homily: I'm sure it will all work out!

Valediction: Cheers,

Name: Daryl

10.7 Fridays...

[redacted],⁷⁸

Here are today's Blurbs:

- [redacted] Moral #1 of this email: Procrastination is bad.
- Partially, Saturday was a mess because [redacted] or productivity (a theme begins to develop)
- Today's funny rejection email (reproduced here in its entirety):

– Hello

I am writing to inform you that our search for tenure-track positions in statistics and data science has moved to its final stages.

Thank you for your interest in St. Olaf College.

⁷⁷**Footnote:** As always, I am very aware of the (relative and absolute) privilege of my position in the market and doing some research about Kate's question about reference letters for graduate school was a good reminder of how crazy things can be out there. While it would have been great to end up at either place (and to be done with the whole process...) I'm not that stressed - that is just the way the market goes.

⁷⁸100% generated by the patent-pending [Salutation and Valediction Calculator](#).

- I didn't (won't) respond but thought about sending a: "Can you confirm this means that you aren't going to hire me?" type email.
- As you will see below, I have been digging in to the emails I received last time around for various procrastination purposes. The rejection from St. Olaf in 2018 was much friendlier:
 - Dear Candidates,

I write to update you on the progress of the search at St Olaf. We have selected a group of finalists from a very competitive pool of applicants. Although you were not selected in this group we appreciate your interest in St Olaf College and wish you the best in your search.

Happy New Year!

- Scenes from near-Stata: They are currently demolishing the Google office across the street (and sadly, the wonderful quinoa bowl restaurant that used to live on the ground floor). That is, giant wrecking balls, cranes, etc. are being used right next to the MIT subway station. The construction has been going on for months but it has only been the last week or so that the demolition has been in full swing. In order to protect pedestrians from flying debris, a covered tunnel was erected on the sidewalk leading to the next intersection. This was fine for the first stage of the construction but now that things re exploding and being torn down by giant construction equipment, people want to stand and watch the excitement. (continued below)
- (continued from above) However, if you walk into the wooden tube, you can't see the construction work because of the tube itself. This has led to traffic jams as people instead wander out into the street to rubberneck the demolition. In order to restore regular traffic flow to the area, they had to add plastic covered viewing portals to the wooden tunnel walls, so that people could stand around in the hallway and not the road. To me, this seems on par with the Sachem emails about not following the bears...

About Fridays: Just a few days ago (i.e. on Friday) I was thinking to myself that Fridays were a real bummer during job season, since surely no one would send out interview invitation emails on Friday. Hence, all of my repeated refreshing of my job email account wasn't likely to do any good. This is probably exacerbated by the upcoming holiday, with faculty members all over the country thinking to themselves that they can finally look at the applications once classes have wound down a little (i.e. Thanksgiving week is the Friday of November).

However, after wallowing for a while, I realized that all I had was some vague intuition but maybe some data could be brought to bear on the problem. The available data set consisted of my old math.dartmouth email account where I collected JMM invites last year. The final tally refuted my hypothesis, as between last time and this time I received 3 preliminary interview invitations⁷⁹ on each week day except for Friday, where there were 6 (plus one on a Sunday). This gives a chi-squared value of 2 from the uniform distribution over weekdays, if I have algebraed correctly. Thus, I had unfairly maligned the final day of the work week with my initial whining.

As far as emails offering on campus interviews, the current tally is 3 on Tuesday, one on Thursday, and one on Saturday, so a little less clear. Also, Providence offered me their job on a Friday last time, so really I was just wrong all the way around. Tuesday is also the day I got the most visits to my website over the last year⁸⁰, followed by W, M, Th, Fr. Broken out by day of the month, the ordering is: 18, 17, 19, 5, 22, 20, 16, 26, 11, 29, 21, 23, 25, 28, 7, 9,, 2, 3, 12, 1, 10, 24, 8, 15, 6, 13, 4, 14, 30, 27, and last and least 31.

The 18th wins by a full 24 visitors over the 17th. It looks like Tu and Th are the big winners in terms of google searches too, although I'm not 100% sure I got the data exactly right for that one. Nevertheless, the overall conclusion does not support feeling bad about email refreshing on Fridays. However, the data does support not hoping to hear anything during the period between Nov. 15 and Dec. 7, which is a little less fun.

Hope you are well!

⁷⁹skype, JMM, etc.

⁸⁰Actually, since January. I was too lazy to go back and add in December 2018.

Cheers,
Daryl

10.8 Interlude

My wife and I have hosted Thanksgiving for my graduate school class for the last seven years. This has gotten a little tougher since we all graduated but still managed to land a houseful of people for the holiday week. The big takeaway from our conversations was that the preceding emails were too long and I was banned from sending emails whose main text⁸¹ had more than 750 words.

The day after Thanksgiving I finished applying for jobs and promptly caught pneumonia, delaying some of the following emails.

10.9 Disease Fueled Ramblings

Hey y'all,

Sorry for missing last week's collection of meetings, phone calls, and most importantly, heavily constrained emails!

[health information redacted]

Actual job updates:

- Made it past the first cut (so they requested letters from people) at [redacted] (CS), [redacted] (Data Science), [redacted] (Mathish), and [redacted] (lol).
- The city that generated the largest number of hits on my webpage over the last week was Honolulu... unless you include suburbs in which case it is tied with Austin
- Other hits for the week include Boulder, Claremont, Pomona, and Oakland

Future travel updates (apparently my new rule is no consecutive weeks instead of once a month):

- Jan: JMM
- Feb: (hopefully job interviews, where the hope is at most two per week)
- Mar: Talk on new research⁸² at [redacted] then having [redacted] come visit in reciprocity from him inviting me there.
- Apr: Undergrad colloquium at [redacted] One week off and then public lecture in [redacted]

It is amazing how much nonsense you can end up signed up for if you aren't smart enough to say no to things.

Cheers,
Daryl

10.10 Speed Application 2: Subtitle Needed

Salutations friends,

Preamble Still catching up on partially written earlier emails (plus some bonus content from today's phone interview - more details below). The main content here is from a few days before Thanksgiving following up on the original how-many-jobs-can-I-apply-to-in-an-hour contest from back before the OH interviews. Mostly, I was just a lllliitttttle overwhelmed with the number of things left to apply to and figured it couldn't hurt to try and assemble a few more out. One advantage to finishing this up now is I can provide some additional context for things that happened since then.

Blurbs

⁸¹broadly interpreted

⁸²This is also a story for another email but definitely a little [redacted].

- Today was the last day of antibiotics, so I tried to swing by the office to pick up some papers off my desk. Bad idea! Just the elevator ride up was enough to have me out of breath.
- Luckily, this meant that I only sat at my desk for long enough to catch my breath and then rode the elevator back down and went home.
- The first email I received after arriving home had a subject line stating: **Power is Down On All 3 Gates Tower Elevators**
- Those elevators were the location of the first Scenes from Stata Episode... cf. Appendices
- This would have been a real problem, since the other reason I needed to get home was to take a phone interview with [redacted]. I imagine it would have been tough to do in a metal box that I couldn't breathe in anyway.
- This week's most embarrassing rejection email award goes to UOK (they are holding their on campus interviews this week):

Dear Applicant,

Thank you for your interest in the position of Assistant Professor Position at the University of Oklahoma.

Please fill out the attached Confidential Data form electronically and email it back to Dayna Gifford at the University of Oklahoma Equal Opportunity Office. At the end of the form there is a button for automatic email to the Equal Opportunity Office. Please do not email the completed form to the search address; instead, you may either use the button on the form or you may email the completed form to Dayna Gifford at dgifford@ou.edu

Thank you.

The Search Committee

- After much silly soul searching I applied to the [redacted] jobs yesterday. I also sent an email to [redacted] and an extra special cover letter (i.e. one extra sentence on top of the default).
- It looks like I will be visiting [redacted] a couple of times in March/April (yes this screws up my only-travel-every-other-week plan). They are paying, so happy to come hang out at [redacted] too!
- It turns out that the email interface for MIT's mail is not super user friendly. At least, that is my excuse for spending (literally) 6 minutes moving the same set of emails to the jobs subfolder,
-
-
- ...
- from the jobs subfolder.
- Definitely doesn't have anything to do with me being waaaaayyyy out of it on pneumonia medication... Bear this in mind for the interview story below.

Main Content

Here is what happened when I tried again to apply to a bunch of jobs in a row. Spoiler: didn't get close to the 2017 rate at any point.

- Preprocessing: opened the list of (17) job ads in Mathjobs portal. Kicked off at exactly 11:30

- JK interrupted for 6 minutes by [redacted] with question about ssh protocols
- 11:43 decide not to apply to [redacted] - too much stats teaching. Also decided not to apply to [redacted] - not sure how things actually ended with [redacted] and not worth the mental stress. This is actually maybe one of the dumber decisions I made during the job process but oh well...
- 11:51 applied to [redacted] - Breaking my rule about not applying to places I had never heard of before seeing the mathjobs posting. This should have been a sign that things were going down a dark path...
- Another interruption to talk about "intro to cs" classes. [redacted] is applying to TT jobs for the first time after 4 years of postdoc-ing and struggling with the teaching statement, because he hasn't ever taught anything. CS is a weird place right now.
- 12:11 applied to [redacted]- They require two teaching letters but it is through interfolio so the letters aren't designated. All of my letters at least mention teaching so I just go with it.
- 12:14 Applied to [redacted] (3 mins total - that's more like it!) Some web hits from there since then, reinforcing my belief that optimizing is useless anyway. Didn't ever ask [redacted] about the position, since I don't know what his status is like there now.
- 12:27 Applied to [redacted] - Took a little while because of slow uploads at their job site, also they have a weird reference system where you just type things in a text box. Followup: their HR department emailed me at 10pm on Thanksgiving eve asking me to reenter the emails of my references so they could be emailed again...
- They were the one school where I really felt I blew the job interview at the JMM last time. During the interview they gave me plenty of chances to recover from my dopery but I simply could not insert my foot in my mouth fast enough. I remember it as sort of an out of body experience, watching myself say dumb things while realizing a fraction of a second after launching in to each answer - OMG why can't you just take the opportunity they are offering you not to sound like a complete twit.
- Obviously, I get a lot of benefit from approaching interviews/lectures/etc. the way that I do (lots of unprepared free associative burbling) but this is one case where it really went off the rails. Mostly due to my (inaccurate) preconceived notions of what the focus of the job was. Good learning experience - bad feeling.
- 12:44 Applied to [redacted] - they had an awkward website for uploading which slowed me down. One of the few branch campuses that I applied to but given that the main campus math department wouldn't hire me because of research fit it seemed worth looking at.
- 1:11 applied to [redacted] - accidentally left on a note in the cover letter about Colorado Springs... no way to fix! Made it past the first round anyway, as they solicited my letters this week.
- 1:38 applied to two jobs at [redacted] - some waffling but nothing very interesting.
- 1:52 finished with [redacted]- Once I realized that even though I had met someone from there in this department 3 days ago I was too lazy to look up his name to put him in the cover letter, I realized it was time to shut it down for the day (plus the [redacted]/[redacted] gaffe).

Bonus Material

I forgot to mention in the previous email that I had a phone interview today with [redacted] in Portland. Seems like a nice place, 10 person combined math/cs department looking to spin up a data science major. The email asking for the interview included the current draft of the courses they are planning to offer, which consists of 8ish classes but a very stats heavy not particularly applied looking upper division curriculum. Also all their intro to programming is in C++.

The scheduling was through Google calendar, which does the funny automatically update for timezone feature (which worked fine here, in particular because I forgot timezones existed). However, it did get my phone number wrong by putting it in their area code. Luckily I noticed and emailed them about 20 minutes before the call was supposed to take place.

After the introduction and position description (which nicely included the teaching load 2-3 max 2 preps),

- the first questions were pretty standard:
 - Why liberal arts and why data science at [redacted] specifically?
 - What does a normal day look like in your classroom?
 - How do you promote inclusivity in your teaching?
 - Which of our data classes would you be comfortable teaching?
 - What kind of research do you do?
 - What sort of support would you need to continue your research?
- Then there was a more complicated set:
 - How would you change our outline of the data science major?
 - What can you do to help us form relationships with local businesses to provide projects/jobs for our students?
- Then it was my turn:
 - How many majors?
 - Lots of double majors?
 - Average class size?
 - Interdisciplinary collaborations?
 - Can we escape C++?

I was definitely a little loopy, even out of the elevator but got through most of my responses ok, with only 1 coughing fit. Definitely not as many jokes as usual.... Wasn't really sure how to answer the research question, since I usually assume that isn't why somewhere like this would rule me out but sort of forgot that I didn't have previous connections here. Also wasn't sure initially about how aggressive to be about how to overhaul the major, since obviously that is something they have put a lot thought in to already (incidentally, I liked how Kenyon handled this part of their interview). Decided to be a little more assertive in the question part with the C++ query on this topic. They are done interviewing now and will do on campus stuff in Jan.

Next up Skype with [redacted] on Thursday...

[redacted],

Daryl

10.11 More Rollercoasters

Bookkeeping: Without the footnotes, we slide in under 750.

Funny news: Someone from [redacted] is browsing my webpage right this minute! (and hung out for a total of 17 more minutes) Specifically, looking at the presentations page, after clicking through from the application uploaded to their portal. I exchanged emails yesterday with their department administrator (same one as when I visited before) about the inefficacies of their application system. She responded with a hysterical email about the new bureaucracy overheads and apparently forwarded the info up the chain. Other than that, all 27 people who clicked in the last 24 hours came from different cities (not necessarily different metro regions).

cw: all the first worldiness: You'd think that the the downhill part of the rollercoaster would be the bad part, after some rejections or reading scary posts on the internet about how strong the market is this year (see <https://academia.stackexchange.com/a/140647>, JMM's own stats⁸³, or the [mathjobswiki](#)⁸⁴, etc.)

⁸³The employment center website suggests that at best 30% of the people there get a single offer (and that fewer than 50% of the people there get on campus interviews). For those of you who have sat in the cattle pen, think about how that squares with your glances around the room

⁸⁴Looks like I didn't make the cut at [redacted], as of yesterday. Actually a little bit of a relief, given my current position on the roller coaster. I'll probably do a full analysis of the R1 interview pools later this cycle but even this early the answer seems to be that you must have a Harvard, Stanford, or Princeton Ph.D. along with a named postdoc at MIT, Columbia, Oxford, etc. Although at least so far, it hasn't required multiple postdocs to make the list (unless your first one wasn't named - seriously!).

but the uphill parts come with their own challenges. A very familiar feeling of the steep initial slope of the ride as your stomach floats up your esophagus/sinks into your pancreas. The panic of having applied for too many jobs and having to withdraw from a bunch or getting stuck in a suboptimal deal because of the asynchronous nature of the process definitely stings. It is also a forward looking feeling, just like looking ahead to the big drop or loop on the coaster. To say nothing of all of the extra time it takes to interview with places under the if-they-were-the-only-option-would-I-go-there metric. I (think?) that felt less true last time but it was such a different situation (and as I'm discovering) with a compressed range there was no need to worry about R1 vs. LA and Math vs. SDS vs. CS. Maybe I'm only remembering the end stages though.

Today's (well yesterday's) meta-panic due to two new interview requests for next week with [redacted] and [redacted]. I almost sent [redacted] a funny email about the first one, until I realized that he went to [redacted] instead. Luckily I'd only typed a couple of sentences before checking. More trouble with acronyms, I guess. Tomorrow's silliness is a 45 minute Skype interview with [redacted].

More data: The spreadsheet of applied jobs + results so far is listed as [redacted] here (you'll have to compile it - green button on the top left of the right panel): [url redacted] probably complete(?) at this point although I certainly can't vouch for perfect accuracy (for example, for some reason I had several schools randomly duplicated - now all the duplicates are places where I applied to multiple departments). Had to get rid of the "excitement level" column since [redacted] will probably want to see it and I didn't want to have to defend 'meh' as a rating of some of his favorite department. Also just deleted the jobs I didn't/haven't/won't apply to, so it sits at just under 80 :) Sadly not color coded yet like the last one but I'll probably try to get around to that before JMM next month. Sorry about the inconsistent use of acronyms for school names, they're definitely all over the place (why is it not UHawaii or UH, for example), and I don't have a good excuse other than I just named them after what occurred to me at the time I was entering the data.

Cheers,
Daryl

10.12 80 jobs

Heyas,

Bookkeeping: Sneaks in under the limit, even counting the footnotes.

Preamble: Finally catching all the way up on important things (read: really procrastinating getting back to work now that I can sit up for longer than 5 minutes at a time - standing for 5 minutes is still out, going back to doctor tomorrow)! Why yes, I do have a [redacted] due in 7 days and sooooo many meetings to make up for after cancelling everything the last two weeks.

Final Applications: After the last speed run, I was pretty close to the 80⁸⁵ job limit. Wasn't really interested in applying to more branch campuses of state schools and didn't have anything super exciting left on my mathjobs list so I took a quick pass through the CRA list (which mostly has CS jobs) and grabbed a couple. Also, was definitely feeling a little bit of the why-would-any-math-department-ever-hire-me stuff and it is true that there are a lot of really desperate CS departments out there (including [redacted]... plus some of the ones I applied to), with rapidly expanding enrollments and a shrinking market driven by too many other opportunities for the other good candidates who wouldn't really like to teach anyway.

CS: Big question that I didn't tackle before applying - how do I decide between an R1 CS offer and a LA Math job? What scale even makes sense to compare them? Still noodling a little, although really too late now, I guess. [redacted] thinks it would be good, and it is probably true that I would be a better fit as a mathematician in a CS department than a funny computational guy in a Math department as a researcher. This is a reasonably sized flip-flop based on my original thoughts. Still also trying to figure out how much the environment matters - originally at MIT I missed the math flavored people a lot but I've done some adjusting as well. An interesting thing about the CS applications is that they frequently required pdfs of your three best papers - I do think this is an area that another year here would have helped my application strength but obviously not my mental health at all. Did a little more A/B testing here but not really that interested in the results.

⁸⁵I'm pretty sure that was the agreed number..

AJO: The rest of the CS jobs I found through (A)cademic (J)obs (O)nline, which is the new multi-department version of MathJobs. It definitely has kind of a weird feeling, because the interface isn't exactly the same but the 90% that is, is very comforting, particularly given the number of hours I've spent staring at the original portal. Same nice single upload features and [redacted].

Final Breakdowns:

- States applied to: 30
- Top 6 states: CA(13), TX(6), MA(5), IL(4), NC (4), PA(4)
 - Tracks population/number of universities pretty well up to Florida, which I didn't apply to because that was the **one rule**.
- Department type: 7 ACM, 8 CS, 18 SDS⁸⁶, (the rest) Math
- Ranking: 15 LA, 18 R2⁸⁷, (the rest) R1
- Site: 4 AJO, 3 IF, 14 UW, (the rest) MJ
- ⁸⁸

Consistency: So how'd I do in terms of keeping up with my initial thoughts about this year's trip through the market? Eh! I'm a little surprised that the "mode" job is an R1 Math department, although to be fair, those are the easiest to apply to since they don't look at the cover letters anyway... and the least likely to hire me. Easily spent the most time applying to math LA jobs. Still processing the overall landscape but not too disappointed. Definitely won't lead to much generalization experience, sorry!

Froot Loops⁸⁹,
Daryl

11 2019 Skype in Earnest

After wrapping up the applications, it was time to start accepting Skype interviews. I did about a dozen this year, mostly after recovering from pneumonia.

11.1 [redacted] redux

Healthy Yams,

Bookkeeping: Ignoring everything not about [redacted] (including the bad Pratchett does Rowling fanfic) gets us there.

Fun fact: I was interested in how the 750 limit compared to what happened in the unconstrained setting two years ago. The median value over 15 emails was actually 724, although the mean is 950 at least in part due to the fact that the final [redacted] email was a whopping 2926 (and 2187 whining about [redacted]). Come to think, I might have split up that original [redacted] screed the first time. Plus this includes some number of extra \LaTeX commands but also some redactions. Short story, medium \rightarrow Y'all are more reasonable than I initially gave you credit for :)

Spotted at Stata today: The world's largest rolling pin. Seriously, looked like something a troll named Uerart the ShishKaBobulator would have waved around the campfire in LoTR VII: Revenge of the House-Aelves. ‘ ”These dwarf muffins need more yeast!” as he points menacingly at the smaller denizens while the club accidentally mashes a bag of slightly moist leeks hanging from his patched, leather apron, embroidered with the touching phrase ”Knead the chef” ’, etc. (I have been reading some terrrrrrbbble SFF prose while out sick and would like to make some feelings very clear: R.A. Salvatore is a hack and Brent Weeks is a coward.)

⁸⁶Some of these are new positions in data science in math departments but I was too lazy to disambiguate these clearly. Also see next footnote.

⁸⁷Sloppily and liberally defined, like the naming scheme

⁸⁸Why do the number switch from left to right? No idea!

⁸⁹like cheerios but...

More real-life comedy: the actual guy wielding it (to make naan, I think?) couldn't have been more than 5'2". More hobbit than uruk-hai, the club is significantly wider than his shoulders and can't actually be that efficient to use. Got to be an OSHA violation to make breadstuffs with equipment heavier than you are.

Health Silliness: Before I get to the main event, the nurse said I should come back in to urgent care since I still am not breathing all that well. The result was that I didn't actually end up going yet because walking across the street from the office would have been too much work. Super loopy for the actual interview - I feel a little like I imagine it feels like to be [redacted]. Managed to talk with a very airy aspect but who knows how coherent I was.

Daily Invites: [redacted] I actually just emailed a former [redacted] grad (not that one) last night about one of his student researchers contacting me incessantly. Interestingly, the interview email points out that their skype short-list consists of 26 people and there are only 30 available time slots, so I guess first-come-first-serve is a little important if you have conflicts. Now going back-to-back-to-back next week, just like a mini JMM. The number of pre-JMM LA interviews probably means that I am going to have a fairly relaxed trip to Denver!?! There are actually only 5 schools left on my list that have signed up for EC tables at this point...

The less said about my March to May travel schedule the better at this point but in just a few short weeks the goal has shifted to not traveling more than once per week, for non-job related events.

[redacted] **Wrap-up:** [redacted]

Was a little nervous going in due to how badly the interview went last time an R1 school wanted to talk to me (those 2926 words strike again). Still feel conflicted (and loopy). More thinking to be done but no words left to think them at you.

Chocolate Eels RSP⁹⁰,

Daryl

11.2 Asynchronously First

Well, it was bound to happen eventually. Looks like the first on campus visit of the year will be to [redacted], January 6ish. Single day visit, medium ambitious scheduling for the timeframe:

- Breakfast with Natural Sciences Director
- Meeting with Dean
- Meeting with Chief Equity, Diversity, and Inclusion Officer
- 50 minute teaching presentation (applications of eigenvalues to data science with Python - fake audience)
- 20 minute research presentation (broad faculty audience)
- Lunch
- Campus tour with students
- Small group meetings with math/cs faculty⁹¹ (+external committee members, biology? I think)
- Detailed interview with full hiring committee
- Dinner

The email also promised breaks but I've grown skeptical of such commitments.

Initial reactions: A little more real, a lot more sick to my stomach (and not just because of the bad sweet potatoes we had laying around after Thanksgiving ... although also, ick!). The teaching topic is probably magical Christmas land for me, although I will need to rein in hard the temptation to squeeze in too much. Also, one advantage to pneumonia - no way I can talk for 50 minutes without breathing (closer to 50 seconds at the most right now :)) Will rehearse appropriate pacific northwest leg kicks.

⁹⁰Respect(ively),(fully), and (ably)

⁹¹It is a combined department, although the offered job title is assistant professor of Data Science.

They are making the travel arrangements this time but it will be interesting to see how many frequent flyer miles I accumulate this cycle. The only additional detail in the email was that the salary is negotiable between 80-105k for a 9 month contract. Not sure how to think about that either, seems better than lots of places last time, although there is an SDS premium. Last time I looked that was in the neighborhood of some R1 straight math jobs.

Bright lines: Can't be pressured into accepting early. Being pre-JMM helps with that, although I guess that is kind of their point. Going in feels like a lose-lose scenario no matter what just due to the timing but hopefully everyone will be understanding. Three and a half weeks is a long time away, so lots can happen, obviously.

Cheers,
Daryl

11.3 Geography Woes

Bookkeeping: Not even close.

Geography: As you all know, I'm not all that great with the whole locations/names of schools/etc. thing... Particularly with respect to SLACs, which mostly fall outside of my historical purview (e.g. David discovered last month that I had no idea that [redacted] (2,000 undergraduate SLAC) and [redacted] ($\approx 30,000$ student R1) were different places after I sent him some very confusing text messages about his visit to one of them...). Also, I will never be able to tell WI apart from MN (MI gets a temporary reprieve out of the equivalence class because of the mitten thing, although a) MN also suggests a mitten to me and b) the abbreviation thing is hard: $MI = Mn+wI$).

On Friday, another one of those confusions came down, [redacted]

Should be an interesting interview tomorrow - luckily since they are on the other coast the interview isn't until 5pm, leaving plenty of time for googling. Seems like a nice place. One crazy factoid: the current VAP in the department has already done 6 years of postdocs ([redacted] and [redacted]). I have been gathering stats on this sort of stuff and it is truly incredible how awkward the current math market is for people outside of a couple of narrow bands of backgrounds.

Cheers,
Daryl

11.4 Interview Woes

Beep, Beep, Beep!

Beep, Beep, Beep.

Bookkeeping: If you remove quotes from the committee (and the blurbs, which are officially preamble in my scoring system) it slides under.

Blurbs:

- Two new skype invites today. The MS program at [redacted] wants to chat on Thursday. The CS department at [redacted] wants to chat 1/13. Sad to have to be scheduling things that far in advance.
- Got lucky with direct flights (only 6 hours) to/from Portland for the 1/6 interview.
- Planning to actually try to go back to the office tomorrow, although that is a little contingent on [redacted]
- Attached a funny [redacted]
- [redacted]
- New author review: Pierce Brown-unsubtle.

Oops: It isn't anything more than I deserved, after not knowing what a [redacted] was as of a couple of days ago, but the interview did not really go that well today. First, the excuses:

- 4:30 pm is just too late in the day for me to be coherent,

- particularly while still hopped up on antihistamines,
- particularly after spending all day writing [redacted]],
- particularly for an actual open field position, instead of a data-y one,
- etc.

Also, since I stayed home, I setup the table in the second bedroom to keep the cats away and not have the background be the giant collection of SFF books on the main bookshelf. However, the cats still wanted to be in the room, so then I had to shut them in the other bedroom so they would stop clawing the door to come interview too. It turned out I should have just let the cats do the whole interview but I didn't consider that in advance.

I should say, I was really impressed by the interviewers and their questions/approach - all the failing here is on me. They started out with the standard intros and a promise to make it more like a guided conversation, even though the questions had to be scripted. I did not really help out with the conversation piece, which was my bad.

- How has your background prepared you to be an effective teacher, scholar, and mentor at Pomona?
 - Great way to frame the first question from their end but rattled me a little, since it derails some of the obvious platitudes. Also in the moment I forgot the verbiage they use for senior theses and their seminar, which I'm blaming on the drugs.
- Which three of our advanced classes would you be interested in teaching?
 - Again, great question that I fumbled my way through a little. Luckily I had the tab with the course list open.
- Tell us how you would handle teaching one of those classes (or how you have taught in the past) from a high level perspective. What are the goals, how do you approach course design, how do you assess, what is the content?
 - Another awesome question, answerable by people who have/haven't taught before, trying to get at some fundamental details about your thoughtfulness. At this point I was wearing out and walked through the Math 36 Dartmouth stuff but way more ummming and repetition than I would usually go for.
- Explain your research interests to us like we are sophomore linear algebra students.
 - Classic, although I'm still hard-wired to give the networks based answer. Should probably practice a more general one that includes redistricting.
- How do you see your research interests developing in the future here?
 - Finally talked about some redistricting stuff after two sentences about networks. They seemed on board and I incorporated some explicit undergrad project stuff.
- Since we are a small department, you might have to supervise projects out of your normal research area, what would you feel comfortable with?
 - Algebra because [redacted]]. More continuous applied stuff, disease modeling, etc. really fading by this point.
- The next question begins with a scenario that we want you to respond to: "Imagine you are teaching a calculus class and you run into one of your minority students in the hallway. You know that the student has missed the last several days of class. You stop to chat with the student and they say they are planning to drop the course. You ask if they have been to the [peer tutoring thing] and they say yes but they didn't feel comfortable because it was cliquish and not helpful." I think there was some other stuff but I couldn't even hold the whole scenario in my head. "How would you respond and how should you encourage the department as a whole to respond?"

- Again, after 20 minutes retrospection this seems like a great way to set up this question but also a little harsh. I fumbled through an answer about recruiting and training peer tutors as well as making sure that you personally were available to the student (small class sizes means this is feasible, etc.). Kind of trailed off with, I think those are the important things...
- Then it was time for questions from me, which was deeply uninspired - too much practicing in the data science context:
 - Programming languages used in classes
 - Interdisciplinary learning opportunities
 - Where do students go after graduating
- It turned out this was the part where they wanted to chat a little but I didn't pick up on it until the interview was over, so there was some awkward staring at faces...
- Their timeline is interesting, not going to make any decisions about visits until after third week of January.

Honestly, it is a little relief to have bombed one both because it means one fewer awkward conversation to have eventually plus I have been a little (much) too cavalier about some of this and it is a pretty low cost way to get reminded. Also, there is some sort of gambler's fallacy version of this where screwing this one up means better things for other ones :)

Cheers,
Daryl

11.5 Interview Week 1 Part II

Howdy,

CW: Dumb decisions with sharp implements or: Today (well last night) in reasons why I am not yet ready to be operating heavy machinery. After wrapping up [redacted], I headed into the kitchen to take some nyquilesque pills before bed. Being a little out of it already, I knew there was no way I was dexterous enough to get the pills out of the blister pack without cutting myself on the plastic, so I decided to grab the 9in bread-loaf slicing knife to separate the pills. Predictably, I did manage to open the package, as well as the tip of my finger. Good thing I was done typing for the night, I guess.

BTW: If you were wondering in what sense yesterday's author is unsubtle - I just exhibited it with the story above... I'm pretty sure he started a whole new trilogy in order to have the fact that he spent two sentences describing a particular type of flower in book 2 of the first trilogy matter. All of his Chekhov's guns are loaded. ALL OF THEM!

BookKeePinG: Felt bad about cheating on the last one, so will keep this one shorter.

Menu: Today's pizza flavors in the basement has something for everyone: (pork, bacon, pineapple, and jalapeno - regular cheese) vs. (Carmelized onion, fig, blu cheese, and walnut - vegan cheese)

Weather: It is extra depressing in my office when it snows because the skylight you can see through the window gets covered and everything is just gray.

Today's Interview: Went really well, I think (12:00 is much better than 4:30). After yesterday's debacle I decided to go blue shirt, no tie under the jacket. Some skype difficulties to start with but still got going within 1 minute of the official start time (plus we ended up running 3/(13) minutes over, so plenty of face time). I don't remember all the questions but it was very conversational, I spent a lot of time talking about Math 36 and a little about my failures to integrate active learning into Math 1. Overall impression - Marcia would love them. Some Qs (the only funny thing was they used the "at [redacted]" verbiage in each question statement - this was also an open area position, so I stayed out of the data minefield a little better.):

- Why [redacted]? - Cheated here and talked about knowing "cool" [redacted] graduates...
- Talk about a class, what went well, what didn't. One good follow up here about the types of writing assignments.

- How would you encourage diversity and inclusion (at [redacted])?
- Have you had experiences in classes where students felt uncomfortable speaking up, what did you do? Another good follow up about experiences incorporating active learning.
- What upper division classes could you teach? (slight awkwardness of poaching numerical analysis from the numerical analyst)
- What topics course for sophomore/junior level students would you design? Pitched both social choice and networks here, since they were willing to let me keep talking.
- Tell us about an undergraduate research project you could supervise. What background would students need? Are there hard math problems associated with this work? Do the students have to have a computational background?
- I asked a few questions and we chatted a bit about why I hate mathematica.
- Sounds like they are going to meet the week of Jan. 6 and let the interviewees know on Jan 10ish.

Big day with [redacted] at 12:30 tomorrow! A little nervous about this one - looks like videorecording again and a weird format - listed 10 potential interviewers who may attend due to their availability... They also split the candidate pool into data-science and not categories and are interviewing the data scientists now but waiting for the notes until January? All sort of oddness.

Ciao,
Daryl

11.6 30th Prelim!!

Calamari*,

BookKeeping: Sending this out early in order to keep the word limit constrained. Exact minus footnotes.

Pizza Flavors: (Mushroom, onion, pepper (mop?) with white sauce and vegan cheese) vs. (Tandoori chicken, regular sauce regular cheese)

Whining: Y'all are lucky that I'm too much of a grumpy old man to figure out how to put emoji in email subject lines... Unless I've counted incorrectly (lol, there is no way I got this exactly right) today was my 30th first round interview between phone/skype/zoom/JMM/hangouts/and other mysterious proprietary systems. Sadly, given my propensity to speak off the cuff (i.e. make stuff up constantly) I haven't quite yet figured out how to make my commentary on this process valuable to other people. I may take a stab at Ye Olde' guide to skype interviews later this week so I can stop writing about the boring parts and only highlight the weirdness (if there is any).

That said, I expect some weirdness tomorrow:

- The interview with [redacted] is with Zoom but audio only:
 - “Then when the time comes, click on the link I’ll send you in the calendar invite. Please note that we are doing all interviews by ** audio only ** to insure uniformity, as some interviewees may not find it convenient to connect using video; we therefore ask you to have your camera turned off if you connect by computer.”
- They also have a very rigid process:
 - “Our university has a very strict recruitment protocol and we have to ask all the candidates the same questions during the interview. The follow up questions would naturally depend on your answer. There will be time at the end to answer your questions. You may also email me or the other members of the committee with questions after the interview. ” item
- Finally, [redacted- too mean] (same department chair).

- Then, a couple of hours later, I have an interview with [redacted] for a position in their MS in Data Science program.
 - Lots of conflicted feelings here, plus I would rather be in the math department but...Definitely some possibilities of fireworks (sorry, don't know how to put emojis in the body of emails, either)

Interview: I'm getting bored transcribing questions and starting to doubt the actual usefulness of this entire approach (this is in no way an excuse for my inability to remember everything that they asked... :)) but I will at least set up the scene:

I was definitely a little more nervous this time, so went to setup and furiously google the department about an hour early in my extra office cubicle ([redacted] has seen it but basically there used to be another research group located in two cubicles (5ish grad students in each) in the alcove/hallway outside my office (3 postdocs / 3 grad students / belonging to 3 total research groups). They moved downstairs to be closer to the million dollar knitting machine (not entirely why they moved but funny enough to bring up) and removed all the furniture except one broken desk and a whole bunch of miscellaneous broken computer parts. Nobody locked the door, so I have been using it as extra space for the last 4 months. The window has a prettier view of the inside of the building than mine does...)

The interview went pretty well, I think - not as good as [redacted] but waaaayyyy better than [redacted]. Overall, it felt very conversational and they seemed pretty willing to allow me to wander around - my 10 seconds later feeling is that I didn't get to brag about as many things as I normally would like to but they were really focused on various data science aspects of the job and actually didn't really ask any of the standard teaching focused questions, which left me a little rattled. There were 7 of them seated around a table plus another who joined from vacation on the beach (I could see the sunrise over the ocean behind her hotel balcony). The camera was located high up on a monitor, so it looked like I was awkwardly hovering over them.

I still don't entirely understand their process but they are apparently zooming 8 data science prospectives today and will let us know next week if any of us are cool enough to come visit them there. Got some weird facial signals throughout so not super confident.

Creme Brulee,
Daryl

11.7 Wrapping up Week 1

Chopin Op. 28***,

BookKeeping: Two interviews means I get twice as many words, right? right?⁹² Actually, y'all are getting off lucky - I'm still having a lot of trouble sleeping and this email came very close to getting the 5000 word short story about [redacted]

Tidbits:

- Got to reject my first paper for plagiarism yesterday. The authors copied the first paragraph of the paper from two Wikipedia articles, so it wasn't exactly hard to detect (after scanning through the paper, [redacted] I went back to the beginning for a full read through and thought the initial verbiage was a little off from the rest. One quick google search provided the proof).
- First JMM request came through today: [redacted]. same person who interviewed me last time. Hopefully he doesn't remember. Scheduled for Thursday in case we get stuck in Michigan.
- I also got the details and schedule for my [redacted] visit today. Highlight include:
 - 8am breakfast meeting with the Dean
 - My current position is apparently at MIT University, Somerville, MA
 - Two 30 minute breaks in an 11 hour schedule

⁹²This ticks in at exactly 1500 if you count everything (except the subject line). If that makes you sad, just pretend I sent it as two separate emails, with the subject line split at the word subject. Actually, this reminds me that when I praised your reasonableness at selecting 750 based on the calculation from last time, I had forgotten that several of those emails were sent on the same day, so there is at least a little bit of historical justification for my diurnal verbosity.

- A 20 minute research presentation placed in a 1 hour block
 - ...
 - I am being housed in a dorm room on campus.
- My pin for my phone account is [redacted]

New overleaf alert: Funny story about interview notes: I'll admit to being a little blasè about them at this point but got a comical reminder today that not everyone is in the same boat. [funny story redacted]

Anyway, this was funny timing since I had just complained to y'all yesterday that I didn't feel like my current format of reporting on interviews was super helpful to anyone. Thus, now having a at least a clear target audience in mind, I have started an offshoot of the job notes focused just on these types of interviews here: <https://www.overleaf.com/read/wmrdmrnmgrpr> Don't know yet if it will come together to anything reasonable or useful but it does save the interested reader from having to plow through the currently 45,000 words and 75 pages that the overall market comments have landed at. Hoping to pass 50k by the end of the year, although at least as of now I don't have any more interviews scheduled until Jan. 6, so commentary will have to shift focus a little.

Today's interview blurbs:
[redacted]

- [redacted] was funny, with the zoom-but-no-video-interview. They started by pointing out that they were still required to read questions to me, even if I ended up answering them as part of an earlier question. This warning turned out to be prescient, as no fewer than four times someone said, "Well, you already answered this earlier but I have to read it to you anyway."
- I mostly took those opportunities to add additional details or reinforce things but it was an awkward question dynamic.
- The questions fell in to the traditional 4 broad categories, Why here?, Research plans?. Teaching experiences?, Diversity? but due to their constraints they had to have several questions per section, to cover common non-responsive response types.
- The only one I really flubbed was the first teaching (non-research supervision) question, where they prefaced it by saying it would require some introspection and then asked what words would your colleagues or students use to summarize your teaching? I only tried a single buzzword (interactive) by giving up on the question as asked and just blurbing about my background and philosophy for awhile. Part of the problem here is that I originally fell in to the trap of trying to address the question to honestly, when in reality I should have just ignored their framing from the get-go.
- The chair also cut in about half-way through (probably after the second teaching question but I don't exactly remember) to point out that each of my answers was just a little too long, so we weren't quite on schedule... I gave (slightly - godness⁹³ knows it is hard for me to shut up sometimes) shorter answers for the remaining half and we ended up finishing their portion of the interrogation 10 minutes earlier than he expected, which left plenty of time for me to ask them questions.
- One thing I really don't enjoy about this process is the pigeonholing - I get that it is convenient for them but viewing me as a "redistricting researcher" seems a little reductive.
- Actually, this is probably one place where it is nice that they couldn't see my face, as I bristled a little at some of their responses to my questions. In general, I would prefer video or in person to judge their reactions live but it is true that since they couldn't see me, I could eye roll and check my email during the interview.

[redacted]

- Well, it was fast - started talking at 3:02 and hung up at 3:14

⁹³Originally a typo but I kind of like it

- I was a little frustrated to realize 4 minutes before the interview that I had forgotten to take a caffeine pill half an hour earlier. It definitely hurt my performance a little but apparently not my ability to speak at great speed (just the ability for my brain to keep in front of my tongue, oops!).
- At their request, I wore headphones for the interview but I'm not sure it contributed anything except making me look a little sillier (my headphones clash with my tie).
- I do like them a lot but probably fair that I'm not a perfect candidate for their data science job. It honestly is a little like a cool kids table at high school kind of thing. Somehow an applied networks Ph.D. and a CSAIL postdoc focused on data stuff isn't enough cred. And honestly I agree with them but it didn't stop me from applying.
- Two people that I interviewed with last time were on the call and definitely made jokes about "I know I've asked you this question before but what has changed ..."
- They definitely had much more freedom to ask whatever they wanted (at one point the department chair referred to me as a renaissance man as a researcher, which certainly wasn't scripted - or super positive, in this case) but even given sufficient rope, I don't think I was able to construct a bridge between where/what I am and what they really want/need.
- That said, in terms of efficacy of interview stuff, I would rank them right behind Pomona in terms of doing a nice job of asking the right questions.
- Will have to think about whether it would be better for me to withdraw and ask them to instead nudge my app to the math department up the rankings, with a promise that I could come hang out...
- part of the problem is that the faculty are unionized, so there are stricter lines than might otherwise exist around job responsibilities.
- For example, [redacted]

Interview Wrapup: Well, that concludes this week's worth of interviews. Overall in likelihood of moving on, probably [rankings redacted]. Now I guess it is time to prep for visiting [redacted]? Oh, and I guess some research. and recommendation letter writing. and some paper writing? maybe some software writing? somehow I'll keep busy.

Coda,
Daryl

11.8 Fridays Again

Hey y'all,

BookKeeping: lol⁹⁴

Lots of miscellaneous emails today derailed what was originally a very short email, sorry!

Blurbs:

- Today's friendly rejection emails: UC-Boulder and OK State
- Scheduling for [redacted] is now done(ish). Looks like I will be around the 2-5 and 23-25 of March or something like that.
- Had pretty much convinced myself to withdraw from the [redacted] data science position but got an email asking for a second skype interview on Jan. 6. Plus Justin gave me his don't remove your self from job pools until they do speech again, which was helpful. Obviously Jan. 6 doesn't work because of the [redacted] interview but now withdrawing feels more awkward. Still debating and any feedback welcomed - still leaning towards dropping out on Monday but will have to keep thinking.
- I just received an email from [redacted] that begins "Whoa dude!" - I think he is enjoying retirement.

⁹⁴Besides, y'all are on vacation now, so you have plenty of "free" time to read... ©

- I promised David a story about disappointing MIT theses, so here it goes: [super redacted]
- Tutoring silliness: [redacted]
- I got a mysterious email from the chair of the math department at [redacted] asking me to call his cell #. After wandering down the hall to find some cell service (which is non-trivial in the Stata Center - I ended up in the alcove with the funny no dancing signs) he offered me an on campus interview. Anyway, it looks like I am flying straight there from JMM rather than coming back to the East coast for a day.
- I did some more work on the preliminary interview notes. Could definitely use suggestions for common interview errors. I had trouble brainstorming any but I'm sure there are lots. 9 more bullets needed to make the spacing work out right...

Original Draft of the email before things happened: I figured that with the holidays, etc. there probably wouldn't be much excitement today and even went so far as to send updates to my Dartmouth letter writers telling them that things were probably going to quiet down until the new year. Since I wasn't going to be interviewing any more, I figured I would tackle the mathjobswiki analysis.

It was too depressing/hard(not as easy to track people down from several years ago) to do the older ones, so instead I figured I would just track this year's and keep it up to data as posts happen (actually I did the first 16 candidates from the old ones to start with but didn't enjoy it very much and stopped before trying again. Princeton wins there too.). Averages so far reflect 4/3 postdocs for 10/3 years as the average values with modes of 1 and 3 respectively. The clear winner in terms of institution is Princeton/IAS but this is also a little skewed by the fields of the first couple of jobs, lots of Sarnak, etc. students around. I'll do a more complete analysis once a few more get posted but it is definitely not a site for the faint of heart⁹⁵.

Cheers,
Daryl

11.9 Scheduling Silliness

Heyas,

I hope you all had/are having excellent holiday breaks! Things are quiet here, nothing super exciting going on.

BookKeeping: Daily amortization is a useful concept...

BookReviewing: This week's author is Canadian Sebastien de Castell: [redacted]

Speaking of puns: [redacted]

ScheduleBooking: I have many thoughts (read: complaints) about the asynchronous nature of the job market. Today's whining concerns the data science people at [redacted]. The preliminary discomfort comes from not knowing what might happen in a second skype interview. However, the real problem is that they apparently only have one day available for these interviews. They originally asked if I would sign up for a slot on the 6th, which wouldn't really fit in with the on-campus interview that day (don't want to spend one of my 30 minute breaks interviewing with someone else...).

After getting some excellent advice, I emailed back asking if I could interview later in the week. The response was that the 8th would be too late, since that is when they are meeting with the Dean but maybe they could get people together to do it on Sunday (flying from BOS to PDX 8am to 11:30am) or Tuesday (flying from PDX to Boston 9am to 6:30 pm) with a 1+ hour drive from the college to the airport each way. Maybe I will end up trying to do it from the airport? or maybe that is self-sabotaging, due to feeling conflicted about the job overall. I emailed back telling them about my flight schedule but didn't really want to give too many details (this is similar to graduate schools asking where else you have applied/ been accepted - doesn't feel good to admit you are being interviewed somewhere that the place you are talking to would rate beneath themselves). We'll see what happens!

This highlights another problem - the fact that 1 day interviews take 3 days including travel time. Some of it worked out ok last time because I could train/drive around the Northeast but it is much harder to get

⁹⁵One awkward realization has been the number of people who get at least one mathjobswiki level interview who still aren't in tenure-track jobs. I hadn't really thought about that group of people existing, although it technically includes me ([redacted], lol).

out west from here without a (minimum) 6 hour flight. One downside to having better results so far with Pacific Ocean type places, I guess. Already scheduled to be gone 12 days in January.

Cheers,
Daryl

11.10 One Week To Go

Howdy!

BookKeeping: Had to trim some stuff to stay under 1000. Looks like 965 including footnotes.

Scenes of entering the Stata Center: First of all, they are doing some construction in the large courtyard outside the building, so it takes an extra 25 or so steps to get inside. Not really worth complaining about, except it is pouring outside today, so those extra steps are through muddy puddles (should probably buy some new shoes before interviewing). Anyway... Walking in the door, the first thing you are greeted with is the prank drinking fountain hooked up to a fire hydrant but the first relevant thing is the cafe, where the morning crew is already up making sandwiches. Technically, this is a work day, although only in the sense that the cafe is open and some of the doors are unlocked. They also aren't making custom sandwiches today, and my guess is that the robots vastly outnumber the employees.

When you get off of the elevator at the fourth floor you are presented with an immediate dilemma, namely you are in a small alcove separated from the hallway by what appears to be a solid glass wall. There are two ways past the wall it turns out but which one will set off the alarm is inconsistent day to day. The first approach is to swipe your ID card next to a reader mounted on the wall, after which if you are lucky the central panels of the wall will retract briefly to allow you through. The other option is to try to pull the handle attached to a separate panel which opens into the hallway like a traditional door. This one has a scary sign warning you that it should only be used in case of emergency and is by far the most commonly used by everyone who shows up before 9am. Alternatively, you could walk to a different bank of elevators and come up somewhere with a lower chance of setting off an alarm but where is the fun in that?

Details of how to turn off the alarm don't fit under the word limit :) Will have to wait for next time....

Content: Back in the (quiet⁹⁶) office today. Normal long to-do list with the additional challenge of deciding whether to apply for a backup plan job at [redacted] or not. Probably not necessary at this point but I still haven't actually decided not to do it (deadline is tomorrow). The real thing looming is the first on campus interview of the year (one week from today) which means some amount of lesson planning and job talk prepping should happen. [redacted] wants a 50 minute lecture on eigenvalues as motivated by data science for a linear algebra class and a 20 minute research talk. [redacted] wants a 55 minute research talk that should be [redacted]. Perhaps that means I should just keep not breathing and talk faster and faster as the talk goes on.

Oh, and I guess a JMM talk in between the two. On the topic of JMM: [redacted]

It definitely feels less stressful preparing this time around. Several factors, I think. First, looking back at emails from last time, it appears that I only had 8 days of warning total before the invitation and the first interview (plus it was only a couple of days post the wild and crazy San Diego experience which had already left me pretty fried). Second, apparently that was the first time I had actually talked about my thesis work in public, which meant writing the job talk was more work (I'm actually more nervous about the 20 minute version at this point, since, well...) . I certainly remember lots of frantic typing on the bus/train/plane during that period. The biggest factor is [redacted]

Whiny Musings: You lucked out that what originally went here didn't fit under the word limit :)

Happy New Year!⁹⁷

Daryl

11.11 JMM Disasters

BookKeeping: Holiday sale! Blurbs are half price.

Mostly just blurbs:

⁹⁶Well, until I got here and started whistling anyway. Apparently Glenn Miller's Tuxedo Junction is stuck in my head - hard to explain that one. I countered by listening to Benny Goodman on YouTube but am only making marginal headway.

⁹⁷Odds that this is the last email I send y'all in 2019? Pretty low :)

- Apparently today is a more official holiday, as there isn't anyone here except for the cleaning staff. I got a moderately aggressive look when I stepped off the elevator this morning for interrupting serious janitorial work. This also means that more doors are locked than usual, which provides new, exciting opportunities to set off alarms.
- To turn off the alarm, sometimes you can swipe your card at a nearby proximity monitor. The funny one of those is a pair of wooden doors that lead to our wing (the proximity sensor is outside, so if you've set it off you have to let the doors close again because they open out). The doors have magnetic locks, so each one only opens in one direction. By far, the most common way that the alarms get triggered is someone running in to the wrong direction door face first (as someone who spent many years at Kemeny, where the opposite side was the one that opened, this has been a constant feature of the last 18 months), which vibrates the door against the magnet.
- For these doors, there is a giant red button on the inside you can press that will usually stop the beeping. It is not labelled and is hidden in a recessed cement panel, so it takes a while for someone to spot it. This leads to the most common response to setting off the alarm - ignoring it. The record (as far as I have observed) for the doorway one was almost 16 hours before someone shut it off. The problem is that the alarm noise is not really loud enough to be annoying if you are in an office and if you are out of your office, you are probably walking somewhere important (like heading out to count the number of stairs per stairwell on the way to the ping pong table) so stopping to find the red button would seriously set back scientific progress.
- I finally withdrew my application from [redacted], since it violated my rule about only applying to places that I had heard of before seeing the mathjobs posting. It was kind of fun to push a new button on mathjobs. I've clicked so many different ones over the last couple of years...
- Also, there haven't been any new mathjobs postings in several days and it is seriously throwing me off. Clicking all of those little red 'x's has been a stress relieving ritual for months (over 1,200 jobs rejected) and I haven't even applied anywhere since November.
- Website hits suggest that I also probably should have withdrawn from the [redacted] job, since that doesn't sound like an entertaining JMM interview.
- Someone downloaded the qualbook from South Korea last week. Also, two people in Hanover downloaded it on Christmas day, which seems rough.

redacted This is just like the Friday and word count thing all over again.

- Apparently, at this point in my life I am incapable of writing a paper that is not at least 30 pages long. [redacted] Going to blame it on the giant colorful pictures.
- Now the long emails make sense... I guess I should include more pictures. A picture subtracts a thousand words, right? That's the saying.
- Here are some West Virginias I made for Very Important research purposes yesterday. After Arkansas, WV has been one of my favorite state examples to use but I don't really have a good reason for either of them. Somewhere I have some really nice looking examples of triangulated states but I'm not exactly sure where they ended up. This one has sort of an origami turkey feel:
- [gif of West Virginia being squashed into a rectangle redacted]
- Coordinates are in Lat/Long, just to annoy the geographers.
- I also looked at a bunch of maps of MI yesterday for a collaborator at Duke. The UP + islands really make it a pain to work with:
- [Colorful Michigans redacted]
- Notice that the COUSUB plot provides definitive proof the MI is in the midwest!

- Bonus question, which one is gerrymandered?
- Interestingly, the census just connects things willy-nilly across the lakes but doing that with actual districts would get you in a lot of trouble. The high degree nodes around the border are all at least 95% water but not unpopulated. Nobody is really sure what the population values reflect but the Charles River just down the street here is its own census block with a population of 12, as of 2010. Just the river, not the surrounding banks.
- Should probably decide at some point when to email [redacted]. On replay (late at night) I definitely screwed a few things up in the interview.
- I'm thinking for the research talk, I may just walk through one specific paper and not even pretend to talk about general research stuff.
- On the holiday topic, [redacted] handles them even weirder than MIT. They have a set collection of days every year where the library lets all the employees go home early but they don't announce or even acknowledge it in advance. Thus, you still have to get up at 5 to be at the library by 7 today (in order to check out 2 books) so that she could be told at 7:11 that she could leave at 2 and then later told at 11:34 that she could actually leave at noon.
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- This was me failing at escaping the listicle segment by pushing the return key with the cursor in the wrong spot! ... still bad at GMAIL.

(true) Story time: Pre-JMM car trouble is apparently a thing. Two years ago when preparing to get ready for the miserable experience of shaking dozens of hands, I had left the laundry and packing until the night before we were supposed to fly to San Diego. It was freezing and blizzardy in Hanover and we already had piles of snow surrounding the apartment. The snow plows had been going all day and formed a nice, icy speed bump at the exit to our parking lot but it wasn't likely to matter because we had a washer and dryer (since departed to the warmer climes of [redacted]).

Just after putting the first load of shirts-that-you-wear-with-ties-under-suitcoats in the washer my phone rang. [redacted]

What turned out to be the awkward, silent pause of this particular call was however interrupted by something significantly more exciting, as a loud splashing noise from the laundry room heralded gallons of soapy water apparently pouring out of the wall on to the ground. Rushing towards the gurgling, we discovered that although the inflow pipes were kept gloriously warm with insulation, the drainage pipe had frozen in the -10 degree weather and there was nowhere for the washer to escape except all over the floor.

It turns out that opening the washer lid will of course stop it from trying to drain into the icy pipe but the initial instinct to try to do something about the fountain spraying from the wall prevented me from taking the common sense approach for long enough that there was water everywhere. Eventually Katie suggested the logical course of action and we were left with the exciting prospect of finally putting every towel we owned to use at once. This had actually been a long-term dream of ours, as by far the most common wedding gift we received was towels and having moved them with us from Washington to New Mexico to Utah back to Washington (5 total apartments, including one where the roof caved in from snowfall while I was at my first

JMM - see the theme developing? Sadly, we couldn't use the towels there because it was carpet ... also, it was snowing through the giant hole in the roof into our bedroom.) to Vermont (2 apartments) to New Hampshire without making a significant dent in the pile of them. On second thought, there aren't a ton of ways for that quest to ever have ended well but hindsight, etc.

The water on the floor was really only the second largest problem - namely now half of my interview clothes were soaked and there was no way to wash/dry the rest, with the coach trip to the airport approaching in a few hours. Luckily, the thriving metropolis of Lebanon, NH has everyone's favorite 24 hr self service tanning salon/laundry facility. Thus, we bundled up the clothes and towels into our large collection of plastic tubs and set out into the blizzard. We traveled all of 25 feet before spinning out going over the plowed sidewalk bump and smacking the rear of our car into one parked across the street.

After a futile trip around the block in the freezing weather to knock on a bunch of doors and ask if anyone knew whose car it was (this prompted some surprisingly grumpy reactions, including one guy who threatened to set his pit bull on me for knocking on the door), we eventually left a detailed note and headed out to do the laundry. The actual damage wasn't super significant (our rear bumper was a little squashed and a part of the tail light cover was chipped, while their door just ended up with a small dent). It was a little awkward to promptly be fleeing the eastern seaboard after damaging someone's car but the owner of the car actually texted me the repair invoice while we were at the San Diego Zoo and due to the magic of bank transfers, we never actually met in person.

Addendum: Our first week in Somerville, someone ran in to the same spot in our car while it was parked in front of our apartment late one night and smashed the rest of the tail light cover (and vastly enlarged the dent). Ruling this a mostly cosmetic injury, we haven't ever gotten around to getting it repaired.

This year: All this is to say: our car has a flat tire. No drama or anything - just ran over a nail in the gas station parking lot while trying to inflate the tires due to normal winter temperature pressure loss.

Cheers,
Daryl

11.12 I've been using these ...

... wrong all this time: [redacted]

Other news: The [redacted] people emailed me back yesterday and asked for an interview on Sunday. It looks like I should just have time to arrive in Portland, drive to Forest Grove, check in with security to get to the dorm room, and then not be able to field the zoom call because I won't be able to connect to the campus wifi. That is my guess anyway :)

Cheers,
Daryl

11.13 Back to Work!

Heya!

BookKeeping: Not bad!

Blurbs:

- The sign that yesterday was a real holiday is reflected in the number of people who clicked on my webpage: 0.
- The sign that today is not a real holiday: the cafe downstairs is back to selling coconut curry tofu pizza.

Awful state of the day: Montana. and Florida. also California. I know what/how is responsible for the last two though (the Everglades and [redacted], respectively). Montana simply remains an enigma shrouded in buffalo excrement.

Also, I think the MI pictures from last time didn't actually send in the email, so here is Take 2 of that: [ugly pictures of Michigan redacted]

Travel Prep: Managed to wrap up some writing that I had been putting off for a loooooonnnng time last night (ok, at 1:47 this morning) so now I guess I can stop procrastinating preparing my job talks. To

be fair, I have had 6 tabs open with examples to think about on my laptop for the last several days, I just haven't, you know, taken any positive actions. Plus having all those tabs open stresses me out, I'm really a one tab at a time person (*guiltily looks at top of desktop screen to see two email clients, google scholar, and three github pages open - the overleaves live in a separate tab but I justify that differently :) *).

I'm becoming more enamored with the idea of just talking about one paper for the research portion at [redacted]. One caveat is that (as Justin reminded me and I actually experienced at Grand Valley but had forgotten about) the 20 minute talk/60 minute session setup means that they are likely to spend the remaining 40 minutes grilling me, using the talk as a jumping off point. Given that, maybe I want a bit of fluffy philosophizing at the beginning before starting in on my list of jokes [redacted].

Still a little flummoxed by the teaching demo (you know, the actually important one). I don't have a good sense from them (or their prompt) whether or not they actually have any idea what a "data science" motivation for eigenvalues might be. Or even what data science is, for that matter. I'm tempted to take a dynamical systems/difference equations approach, since that leads to some nice, interactive visualizations but is a little suspect motivationally. On the other hand, actual applications like PCA or spectral clustering a) are really more about the eigenvectors than the eigenvalues and b) require them to think about matrices very differently. Plus, the computations they can actually do are ... not very interesting (and who wants to have to remember where the minus signs go in the quadratic formula?).

I guess the real problem is that the applications rely on symmetric matrices and the spectral theorem (orthogonal eigenvectors, etc.) while the operator version is more about geometry. Also, the neat actual eigenvalue relations to dynamics are ... probably a little too complicated for a 50 minute sophomore class. Although they would have nice animations, I guess. Lots to think about in the next 24 hours or so.

Also, I should probably practice my blackboard writing a little. I've gotten too CS-y I guess, mostly slides, not so much of the actually writing things down. Given that my handwriting tends towards incomprehensible at the best of times ... maybe my lectures should just be long email threads.

Cheers,
Daryl

12 2020 Traveling

Not very much happened between the last skype interview on 12/20 and the beginning of the year. The travel season officially kicked off with an 8am flight out of BOS on Sunday 1/5.

12.1 Trip 1 Day 1: Disaster

JFC friends,

It has been a ridiculous adventure and I haven't even started the official interview yet. Also, I can't actually send you this email yet, for reasons detailed below.

TL;DR However much the craziness factor has tailed off in the last couple weeks or so of emails, we are back in action! Full blown, [redacted]-level bananas stories below!

BookKeeping: All the words! I can't use my favorite word counter because, well, you'll see. But suffice it to say I expect a lot of complaining when I return to Cambridge. Sorry! (actual apologies for the spacing, which is a bad side effect of having originally typed in notepad)

Chronologically: Felt a little different than the last time I set out - no coach trip for one thing. Still plenty of complicated details to figure out though. When I had originally googled, it looked like well over an hour from the airport to the university but looking this morning it is closer to 35 minutes which isn't too bad. No excitement on the way to the airport. Being Boston, the line at Dunkin Donuts was longer than the line at security. Also, the regular security line was much shorter than the TSA precheck line, which was fun.

Always good to start the day with an airline delay! Something, something turbulence, late plane from somewhere. Only an hour delay but a little nerve wracking to start. Luckily I hadn't finished either of my talks, so it gave me a little extra time to work with the wife (can you feel the foreshadowing?). And given the shocking prices Alaska wanted to charge for in flight service that turned out to be reasonable.

I settled on eigenbuildings for the motivating example for eigenvalues - to go along with spectral clustering and a little PCA. Won't explain much about the methods but rather will just say something like eigenvalues

in this setting tell us about information content. Downloaded some pictures of buildings at the school from google images and it all seems to be working fine. Not as funny as the Tom \mapsto Einstein figure from GSS a few years ago but that is probably just as well.

Made it on to the flight only to be seated next to an unhappy 3 year old. Sadly the new laptop is slightly too large to be able to actually see the screen while typing when the person in front reclines but a v-shaped configuration, looking down seems to work alright, although I don't think the angle is great for my neck... Update, I eventually got abdominal cramps, not from the airline food but the actual ab muscles from sitting funny to hold up the screen. Luckily I was in the aisle and could stand up to shake it out.

Finished off the research slides in the first couple of hours. Ended up settling on 45 frames for 20 minutes, with only a few animations. Compiling it once ate about 3% of my battery, so I mostly typed (well, copy-pasted from papers) and then planned to fix errors later. Didn't make too many mistakes overall, so it turned out ok. Will probably trim it some before the actual presentation but I think it is a robust starting point (JK swelled to 47 frames after editing :)).

Then it was time to actually outline some of the teaching material. (moar gifs!) is the order of the day. Not sure I will actually get the interactive component together but I will show them colorful things I suppose. Came together on an OK outline, although I'm still not quite sure what they wanted exactly. At the very least, I will say some data-y words and not prove any theorems.

Arriving in PDX, collecting luggage, and getting the car were no trouble. Although the car people always want to upsell you ridiculous things and I wasn't in the mood to banter. Hooked up the phone to bluetooth and took off (now Google was estimating a 50 minute drive time, which turned out to be accurate. When I googled before it was 3am pst, when there is obviously less traffic.) Got to the exit of the parking garage when then car loudly announced "Turn left here" and if I hadn't been buckled in I would have jumped through the roof. Not cool enough for all this hip technology, I guess.

About 20 minutes later a horrible beeping started. I kept looking around but there wasn't anything on the console, or the phone, or the display screen. Eventually, I spotted the blinking passenger seatbelt light - apparently the combination of my phone and the receipt from the car rental place was enough to trigger the passenger sensor but only after hitting 55 mph. There wasn't any obvious way to turn it off and it quit beeping after a while. Another 15 minutes or so and there was a *beep-boop* "speed trap ahead" Sure enough, there was a state trooper in the median flagging people. Luckily, I was proceeding at my standard, grandmother-like pace so I wasn't in any danger. I only jumped about half as high for this announcement as the first one.

Made it to Forest Grove without too much trouble although there was a bit of a rainstorm on the freeway. The administrative assistant had marked two parking lots on the map and then told me to call security when I arrived to be let in to the room. I pulled in to the first lot at 1:45 (remember the [redacted] interview was at 3) feeling ok on time. The parking lots all had scary "No overnight parking signs" that my printed out parking pass felt a little insufficient to cover.

I found the building my room was supposed to be in and called the security number. After about a dozen rings someone picked up, clearly through a walky-talky, and was very confused. Finally, he said I needed to come to their office to get the key to the room but he wouldn't be back for a few minutes because he was unlocking someone else's door. I wandered over to security in the rain and eventually he stepped out of the door, handed me a clipboard with a key (and parking pass number 2) attached and said: "Go in the main door and it is the first room on your right. Just leave everything in the room when you leave, no need to check out." and then walked back in his office building.

Fair enough. So I headed back to the main entrance to the dorm building, only to discover it was locked. My key would actually go in the lock but couldn't turn and no combination of button pushing outside seemed to make any difference. At this point I could start to feel the countdown clock in the back of my head but there was still plenty of time, maybe 2:05 at this point. As I was debating heading back up the street to the security office, I saw a note pinned to one of the maps on the clipboard he handed me. The note directed me to a bamboo fence with a sign that says: "Private Access Only!".

It turns out that the entry to this particular room is behind the bamboo gate but how do you open it? Well, there is a metal latch you can feel if you reach your arm through the bamboo and sufficient wiggling of the latch, that you can't really see through the bamboo, lets you in to a patio area with sure enough, a door. The door opens with your key and perhaps you start to feel some relief. There is a nice bag on the counter with a water bottle, a collection of local newspapers and some granola bars (and parking pass #3 -

all different colors and sizes). Move the bag in from the car, hang up a suit, and now it is only 2:18, plenty of time to prepare for the zoom call...

...except, as I joked about but apparently did not tap on sufficiently much wood for, what about the wifi!?! The packet on the clipboard contained directions for signing in to the guest wifi so I turned on the laptop typed in the password and was greeted with “?errmsg=Authentication failed” please try again. hmmm... Tried it out on my phone, tried various combinations and capitalizations, nothing. Agitation levels, increase!

Ok, there is still time to go somewhere else, let’s see Forest Grove public library, nope, closed for Sunday. uhhmmm.... other libraries, nope, no time to drive to an open one. Well, how about campus IT - called their number it rang for 1 minute and then went to voicemail. I guess I could go back and ask the security guard... Trudge back across campus, knock on the door, “No, I don’t know anything about wifi passwords, blah, blah, blah, technology is hard, the IT people have to set all his passwords for him too... maybe the person in the room next to yours could help, they are some sort of RA, just go next door and knock.”

Ok, back to the dorm (except I can’t get in the main building but there is a door that leads there from my room). Time is tick, tick, ticking but maybe this person can help. I go to the door that leads to the main hallway (has one of those viewer things, so I can see the other doors). It is locked. No problem, I have a key. Key goes in the door but won’t turn, just like the main entrance. Much frustrations are had.

(At some point along this journey I had used the restroom (7 hour flight + 1 hour car ride = full bladder) and as I’m getting increasingly agitated, I realize that the water hasn’t stopped running the entire time I’ve been trying to sign in to the stupid wifi. Sure enough, the gasket is broken, so I end up turning the water to the toilet off so I can hear myself think... Mostly angry thoughts about the wifi) Now for the rest of the email you can imagine the water draining sound instead of the tick, tick, ticking of the clock as a way to build up dramatic tension.

At this point, I am resigned to doing the interview from my phone, which is not awesome but at least will probably work. I download the zoom app with a minute to spare and everyone signs on. I’m pretty flustered, given the running all over campus, no wifi (also how am I going to finish prepping my talks?!?), and a broken toilet. Bright red face Daryl is not a great look, particularly over a camera phone. Also, I feel bad, since they are all skyping from home on a Sunday because I obviously couldn’t skype with them tomorrow.

Anyway... the interview kicks off and they inform me that this is the “semi-final” round, down to 6 people and choosing three to bring on campus. Mostly, this is a proxy for the drinking event at JMM the first time for the other job (except they aren’t buying me beer long-distance). Really, they just wanted me to ask them insightful questions. I nail the first one, as by the time they have all finished answering, 15 of our 20 minutes are up and I had to say very little. I ask another couple of soft questions to push us over 20 and then they jump in with another version of the why are you a good fit for our job question.

I knew this was coming, I’ve even answered this exact question, to this exact person, three times now. And yet,:

I blow the answer so badly, [redacted] just sits there with his head in his hands. Seriously, as I am talking, realizing how badly it is going, the zoom screen switches to his face because the loudest noise anyone is making is him rubbing his hands in his eyes, trying to block out the nonsense that is pouring out of me. That image is going to haunt me for a while. I would love to email him and [redacted] to apologize but, no wifi. The interview peters out after that with the closing words “I hope everything goes well with your interview tomorrow, well not that well, I guess...”

I really fucked up by not taking some caffeine before the interview but I was so busy running around trying to get on the internet it didn’t even occur to me until I hung up. That situation has now been rectified (hence this screed, in part) but too little, too late. Somehow, I think if I were a completely different person I could have made the [redacted] thing work, they even talked about the math department in the interview but I couldn’t quite land the right interjection and as I’m sure you have guessed, I was too chicken to email [redacted] anyway. What a (self-inflicted) mess.

To recap: No internet, not prepared for tomorrow, blew [redacted] interview, no toilet. Reduced to mindlessly entering the wrong password into the browser over and over again, hoping that this time it will work. I eventually emailed the admin to ask if she would send it to me but there isn’t much going on on Sunday in [redacted], so I’m not hopeful. Currently planning a 10 pm run to Wal-Mart in the next town over to use the restroom before bed... Everywhere else here appears to be closed. Also, the nearest gas station

doesn't have a convenience store attached - how can you expect the poor 7-up salespeople of the world to make their quotas if you aren't hawking their product to thirsty drivers-through?

***mini-rant-about-things-that-wouldn't-be-worth-complaining-about-except-for-the-rest-of-everything:**
First of all, of course it's raining, it's Portland. Seriously, there is moss growing all over the fire lane both because everything is constantly too wet to catch on fire anyway and because it's growing on everything else because it is always raining. Secondly, "cities" whose non-college attending population tops out in the double digits do not need one way streets! Particularly multi-lane one-way streets. Hanover gets a pass because when it was originally layed out they were horse drawn carriage paths but seriously, it's the west coast. There are cars everywhere. Why must you do this! Also roundabouts on rural freeways. ***rant over (well, this one.)***

This reminds me, I didn't get any suggestions for rating topics other than asparagus, so I'm adding shower water pressure and convenience store soda selection to the list.

On top of everything else, all the clocks in the room are wrong. A) they didn't fall them back for Daylight Savings (which doesn't help the paranoia when you are already off three hours on timezones) and B) even if they had, the minutes still don't line up with I) my laptop (which is showing EST - since no internet - and also driving me nuts) or II) each other. Feeling about an untied shoelace away from a nervous breakdown. Can you imagine if this were a more impactful interview ... I would literally be :)

Anyway, if I get one ... "that definition of the graph laplacian doesn't make any sense" tomorrow I will probably just walk out of the interview. For that matter, I might just walk straight to meet you all in Denver to cool off. Hmmm... Google says I wouldn't make it in time but bicycling might work.

Cheers,
Daryl

12.2 Trip 1 Day 2: Resolution

Howdy,

Apology: [redacted] didn't even really reduce the volume of parentheticals. Also, this is a little raw and possibly intemperate, definitely working through some stuff about the market as whole in advance of JMM, etc. next week.

Today's Email Blurbs:

- In addition to the [redacted] thing (any suggestions for how much salary to ask for this time around?), [redacted] also wants to chat at the JMM. I'll find somewhere else to withdraw from to compensate. Also [redacted] emailed to say that I hadn't filled out their form successfully - that turned out to be true because I was pouting about having to fill out their dumb references form having already submitted letters through mathjobs. I went back and filled in AlreadySubmitted(at)mathjobs.org for all of the emails as a compromise. After clicking submit I realized I should have just not filled it out in order to be the compensation for [redacted].
- MathReviews sent me an email that one of my reviews is late. I always find their emails delightfully anachronistic since they never updated the text from when they used to snail mail the reminders.

BookKeeping: The five stages of word counting:

1. It isn't that many words over the limit.
2. I'm not the one who had a problem in the first place.
3. Look, I'm not traveling anywhere else until next week, just amortize.
4. I can't believe I let it get this out of control.
5. Too late to go delete stuff now.

(but seriously, if you think about it as words per hour of interview, it comes out ok ... clearly still in stage 3)

Today: Obviously, this is actually day 3 of the trip but I wasn't in any shape to coherently expound last night. They were determined to wring a full 11 hours out of me, although technically I did get a 12 minute

break to go drop off my bag before we headed out to dinner. The time zone difference meant I was up at 4:30 and off to the airport early, enjoying the delightful⁹⁸ Portland traffic. Once again, the precheck line was much longer than the regular boarding lane. I wandered around for an hour plugging my laptop charger into what were increasingly obviously not working outlets (over 20, all over the terminal - after the first few it was really just a quest to find a powered one) before giving up and sitting down to get a little work done anyway. One brief moment of panic before I realized that when I fiddled with the wires in the office last week my desktop IP address got reset. Flight back was uneventful. The BOS airport has moved the rideshare parking for terminal B a loooooong ways from the exit - I walked out from baggage claim following an older gentleman whose cursing got more expressive and colorful every time we had to turn a new corner. Much like the emergency exit sign in the “no dancing” alcove at MIT, the path takes you up two escalators to a skybridge to more moving sidewalks and then eventually down four floors on an elevator.

Yesterday: Of course, the actually interesting content here is what happened during the interviews. Not nearly as many fireworks as Sunday (too wet to light the fuses) but still plenty of comical moments. Woke up at 5 to finish prepping examples for the teaching demo. Once I got wifi access I was able to start uploading interactive stuff to my website just in case but after the original technical difficulties I decided not to risk it and just planned on running through it myself and asking them questions instead of having them type anything. I also removed the questions about implementation from the “worksheet” portion, since I didn’t want to add any additional complexity to what was likely to be a pretty cold starting audience anyway.

It was still pouring rain when I walked to the math building, which was luckily just across the parking lot. Even with an umbrella staying completely dry is out of the question and walking around in a wet suit all day is no fun...

Common Questions: Extracting these here because repeating them as often as I answered them in the blow-by-blow account below would be just as boring as actually experiencing it was:

- Why [redacted]? (see also, But you’re at MIT?, Why liberal arts?, Why would you want to come here?, and in one memorable example described in more detail below: What do you actually know about [redacted]?)
 - The way the phrasing of this has changed since last time is really interesting. No more focus on number of papers but more on types of schools. Luckily I’ve gotten plenty of practice answering it. This is one of the things that really makes me wonder how in touch with the market the interviewers are.
- How did you get into data science?
 - This was a new one, usually asked by the kind of mathematician who capitalizes Data Science, even verbally.
- Which of our data science classes would you be excited to teach?
 - Boy, I really wish I had had internet access to study these yesterday..
- What do you think of our curriculum so far?
 - Danger! Will Robinson. Mostly I talked about ways to “enhance” the curriculum by incorporating long term projects and ways to promote accessibility to non-math majors.
- Do you have any questions for us?
 - OMFFFFFFG. This is obviously something that I struggle with personally and I really hate this portion of the interview. Especially when it is the 8th meeting of the day. What else could I possibly ask you that I haven’t already had the opportunity to ask anyone and everyone else in

⁹⁸(not sarcastic - I’ve always thought that driving in NYC is like being chased down by wave after wave of ravenous cheetahs - each battling all the others to be the most aggressive predator, while as you move up the coast into New England it is more like being engulfed by a pack of wolves - still predatory but all moving together with a collection of agreed upon social graces, everyone speeding the same amount and no need for turn signals since they all understand each other by pheromones. Driving out here is more like wandering with a herd of giraffes, reasonably graceful but not speedy. (Don’t bother fact checking the animal metaphors - my grasp of biology is no better than my grasp of geography))

the department? I so rarely have genuine questions whose answers I care about but it has become a traditional part of the dance routine.

- How about this weather? How was the flight in? Are you doing ok?
 - Filler questions, deserving of canned⁹⁹ responses.

Setting the Stage: (gleaned from chats throughout the day) The advertised position is technically Assistant Professor of Data Science, located in the Department of Mathematics and Computer Science. The math and cs people are located in different buildings and mostly leave each other alone curriculum wise, although they all seem to get along, it is just a pure/applied type split. The chair and the bulk of the department are pure mathematicians and the CS faculty is very applied - no TCS people at all. In some sense, a better job for me here would be as a TCS person to bridge the gaps and rescue their currently disastrous data structures/algorithms course.

Their hope is that this position will spearhead the development of their newly introduced data science major. You read that correctly, the major has launched and has its first cohort of freshman, with no faculty and none of the upper division courses developed¹⁰⁰. The way they went about this is actually fascinating - they read a bunch of reports from places like the National Academy about how there is an urgent demand for data science curricula that has solid math foundations and just said ok, we'll do that¹⁰¹. As far as I could tell, none of them had ever talked to people who currently teach in data science programs elsewhere in the country. A bunch of people diligently took notes every time I brought up examples of courses or programs at other schools. [redacted]

This means a lot of the conversations were centered around what-ifs (once we got past the MIT thing) about how to build the program, what I thought of their outline and proposed courses, where projects and data might come from, etc. From my perspective, what they really need is a senior hire, as tossing a junior faculty member into this situation seems like it has potential to be a giant disaster. Maybe more accurately, it felt to me like their plan is to give the new hire remarkable powers to design the curriculum without the hope of much guidance. Obviously, part of the point that there aren't a ton of "senior faculty data scientists" since the role of data scientist in the modern form has existed for long enough to develop such people (particularly ones applying for jobs at SLACs). It always feels like an awkward situation to have a bunch of senior mathematicians deferring to me as the # `realdatascientist` when they have spent years(?) getting the program to this point. This overreification of data things from mathematicians is a little baffling to me. Their current outline also really probably wants a real statistician, instead of me, but I guess if I ended up there I would probably have the flexibility to put those courses on hold until I could convince them(?) to hire someone more appropriate for that part of the role... or figure out what they actually mean by data science anyway.

Interview Segments: (If I don't describe questions specifically, assume they asked everything on the common questions list)

First meeting of the day was with the Director of Natural Sciences (like a sub/super(?) dean but not a VP, I think). We drove to breakfast in her car because of the rain, just a couple of minutes from campus¹⁰². The cafe was large and eeeeeempty and she had a lot of questions about gerrymandering. Didn't eat a ton, since starting out with a heavy meal seemed like a mistake. I spent most of the time talking and worked in a bunch of pointers about undergraduate research, ethics education for data scientists, and what collaboration with social scientists is like - this is another funny facet of the position there. The university is divided up in a bunch of funny ways because it has a bunch of graduate professional schools and there doesn't appear to be much interaction between the physical sciences world and social sciences. I'm obviously a little biased because of my preferred applications but in a bunch of chats it was clear that several of the people I was talking to had never thought about data science outside of applications to STEMish things.

⁹⁹ pun very much intended

¹⁰⁰This is not the first time they have done this - they launched a bioinformatics program a few years ago and still don't have any bioinformaticians. It seems to be working out pretty well - I talked with some of the biologists and CS people involved and none of them really understand why it has been successful but everyone is pretty happy with it.

¹⁰¹What a hysterically math-y approach - "We read the papers about it so of course we can make it work." Definitely something I could see myself doing ... "I know the graduate handbook from cover-to-cover of course I understand what's coming."

¹⁰²just like everything else in [redacted]. It is a lot like a less pretentious version of Hanover, with at least more variety in restaurant options, if maybe not the same type of quality. And as mentioned before, the same ridiculous one way streets. I think Katie and I would be very happy there.

Then it was back to the math department to meet with the chair of the search committee and one of the computer scientists. They definitely hadn't rehearsed their approach because she led with, "We don't have any specific questions but just wanted to chat and get to know you a little better," rapidly followed up by his "Actually, I have a whole list of questions here..." Nothing earth shattering or surprising in this session, so it was a good warmup for the rest of the day. They did have one followup question based on something I had said in the phone interview that someone had taken notes on (they both had marked up copies of my CV) but it was really just another version of "How would you incorporate projects into these classes?" I asked about student trajectories and grad school preparation and then we wrapped up.

Another walk outdoors to the Dean's office. She led off the conversation with "I need you to understand some things about our students..." as a prelude to her version of the why did you apply here dance. The emphasis was very much on, "Are you sure you know what you would be signing up for?" which I think I fended off ok. We also talked some about the tenure process, which is quite standard, and the third year review process (right after your second year) which is medium aggressive. I asked a little bit about publication domains and potential partisan entanglements with redistricting work and she was unconcerned by both.

The really interesting part of the discussion centered around actually building the new courses for the major. I pointed out that constructing the program from scratch and developing new materials was likely to be an iterative process and that compared to a standard teaching load they seemed to be asking a lot. Her immediate response was that whoever is hired ought to negotiate (with her, it turns out) a teaching release for the first couple of years. Good sign that not everyone there is totally unrealistic about the amount of effort that they are looking for out of this position.

Philosophical whinging (interlude): Part of my struggle with the market this year has been the fact that I do think I could be successful¹⁰³ at lots of these places, comments above about statisticians notwithstanding, but I'm not convinced that A) all of these places really know what they are looking for and B) that I'm really the best fit for what they need. In some sense that is a wildly conceited perspective (zeroth world problems all the way here) and obviously they are the ones with access to information about who is in the applicant pool but I can't help feeling like if I were on the hiring committee I would hope for a better candidate than me. This is the same thing that led to my regrettable waffling on the phone with [redacted] on Sunday. In that case, they actually know what they want but it isn't clear to me that those candidates are in their pool either (similar to the mystical senior data scientist), so maybe I would be ok? Should find out about that one tomorrow, I guess. That is when they are getting confirmation from their dean to invite candidates.

Back to the regularly scheduled interrogations: Back through the rain¹⁰⁴ to the math department for a 3 on 1 interview with non-hiring committee mathematicians. We settled in around the table and then I got hit with the first surprising question of the day: "What have you read recently?" I know it makes sense to help humanize and chat with people but when I'm in interview mode these questions just melt my brain. In this case, since it was a lead off, I didn't know what I was being judged on so I added a preamble of "Well, since it is the middle of the miserable job application season and I need something to do while procrastinating in between refreshing my email, ..." while I tried to figure it out. I eventually said most of the words in the title of "The Long Way to a Small, Angry Planet" in definitely the wrong order and then wasn't sure if they wanted something math-y so I followed up with Dan's "Stalking the Riemann Hypothesis" which caught the attention of one of the interviewers who had some follow up questions.

They then went around the table and talked about what they had read recently while I tried to recompose and then jumped back in with some of the standard questions. One of them also asked if I had any formal training in stats since Dartmouth is known for not having that. There was also an interesting question about what resources mathematicians could use to get "read up" on data science. This provided me with an excellent opportunity to rant about the state of textbooks for complex networks (and the whole graphs vs. networks thing, since I can't seem to leave that alone) but not anything directly responsive to the question.

All of the chats had run over a few minutes at this point, so the 30 minute break that was supposed to

¹⁰³and happy - would be thrilled to end up here, for example, if it came to that.

¹⁰⁴I previously joked that no one in NC carries an umbrella in the rain because it is so humid they are all soaked from the inside out all the time anyway. Turns out the same is true in Portland, they are just always getting soaked from the outside and are ok with it. When we walked out of the restaurant after dinner (into the rain) one faculty member turned to another and said, unironically "This really did turn in to a beautiful evening, the temperature is great!"

happen before the teaching demo turned in to just long enough to make sure all the cables were plugged in properly and juggle a couple of pieces of chalk (only the colored chalk was Hagoromo, the white chalk was that garbage that [redacted] prefers) as the audience filed in. Pretty much the entire department turned up, as well as the Director and three undergraduates (two of whom were actually officially on the search committee, although I didn't know it at the time). As is traditional, the faculty sat in the back and the students sat in the front row :)

It was a weird audience experience. I led with an overview and then a small worked example of spectral clustering before moving over to the podium to display some larger (and more colorful) examples in python. Laughs in the right places, so they were clearly following, but there was a marked reluctance to actually answer questions (e.g. OK, so now we are multiplying these, what should the first entry be? Nothing.) Focused on the spectral gap (ER vs. Karate club) and how the first few eigenvalues can be used to tell the number of clusters in an SBM without even looking at the graph, which got some ooohs from the class. Switched over to image compression and showed SVD examples on pictures of their math building and logo from google. This didn't sink in as well. Spent a little longer on this part than I had planned since I hadn't rehearsed the boardwork for the spectral clustering part.

Then it was back to the blackboard for standard definitions, computations, etc. I was pretty pleased with how my framing came together but getting them to answer questions was super difficult. Most of you have been forced to watch me lecture occasionally, so you know that I like to have sort of an informal, conversational rapport but no one wanted to even answer stuff about multiplying 2x2s. This didn't keep me from maintaining my patter but did get in my head a little. I had a whole thing worked out about matrices like $\begin{bmatrix} 1 & 2 \\ 3 & * \end{bmatrix}$ but pushed it a little too hard.

I wrapped up with what had been intended to be part 3 of 4 of the class - a set of discussion questions split into T/F, construct an example, and prove/disprove. Even getting them to talk about them in pairs/triples was a challenge but eventually most of them got into it. I actually came pretty close to just abandoning it and ending the class before a little whispering started and then more discussion sparked. I took revenge by mocking some of them for getting one of the T/Fs wrong. Probably a bad impulse to indulge in an interview :) Zooming through the answers collectively with everyone actually worked fairly well after they got going but only getting the buy-in I wanted in the 55th minute of a 1 hour class was a little disappointing.

Overall, different people seemed happy about very different parts and I feel ok about how it went. Towards the end of the day I fielded a bunch of questions about whether or not that was representative of an actual class I might teach and I spent some time describing why I had struggled with the prompt and how I would have formulated things in an actual class setting.

Once I unplugged my computer it was immediately time for the campus tour (in the drizzle¹⁰⁵) with two of the students. They were both very friendly and earnest and we had a good chat on the walk about what they liked about the department and college, what student life is like, how much interaction with faculty, favorite local events, tutoring opportunities for students, math clubs, etc. The campus isn't very large (but is very attractive as long as you are ok with moss all over your trees), so we covered most of it in the allotted 1/2 hour and then they dropped me off for lunch (pretty good Indian food) with the non-math/CS members of the hiring committee.

One of them is from biology and the other is from public health. The guy from public health started off grilling me about what I know about sociologists (I had mentioned [redacted]'s work with middle school networks in the teaching demo) and what skills I bring to collaborations with social scientists in general. I got through that ok and then we moved on to talking about the data science program and how to integrate non-math/cs students into the courses. They were both very friendly and willing to talk about their experiences, so I was able to eat more here than at breakfast. It was definitely good for getting a broader sense for how the rest of the college views the potential for having a data science program. Lunch was an hour, so still a lot of talking but overall it was (relatively, as these things go) relaxing.

This left me wildly unprepared for the raw hostility I was met with back in the CS building meeting the last two CS faculty members. Q1 was "What do you know about [redacted]?" from a very unhappy looking guy. This turned out to be his version of why did you apply here but I didn't figure that out until after some digs about "fancy places" I had studied and my "clear" unpreparedness to actually be useful to

¹⁰⁵Got bored of typing it at this point but just imagine that every 30 minutes you wander outside to get a little damp before the next interview.

their student body (Math 1 was ... not sufficient). Other memorable quotes included, “Do you actually like teaching?” and complaints about too much theoretical content in my teaching demo.

During the interrogation about which classes I would be willing/able to teach, at one point I (getting increasingly flustered) said I would be “Fine” teaching a particular collection of courses, which was pounced on immediately: “Fine?!? What do you mean fine?!? could you do it or not? I took a deep breath and went with, “It would take some prep work but I would be happy to teach them, just not tomorrow.” “But you’d be ready to go on Monday?” “Come on, the term doesn’t start ’til the 31st...” Not sure how to score that one.

It turned out they were also disappointed that I hadn’t made it clear I was going to need substantial new computational resources - their hope was to force the department to buy a new “super server” with this hire. This interview felt a lot like a good cop/ bad cop mafia shakedown but I was awarded a nice handshake afterwards from the bad cop, after delivering me back to the math department, so maybe it was ok? Also, neither of them are on the hiring committee so who knows what the actual impact is.

Next up was the department chair and another math faculty member. I was still trying to process the previous interview a little and they led with asking me for questions so I made a dumb faux pas and asked about the CS perspective (since it was on my mind). Recovered eventually by talking in great detail about ways to incorporate projects throughout the new curriculum and possible sources of data at municipal agencies. Got stumped for a second trying to figure out what level of answers was needed for “What sort of data structures are data scientists using these days?” before the followup “I know python has lists and dictionaries” which let me breathe a sigh of relief. I did pitch that they should separate their data structures and algorithms course or at least make them more compatible by focusing on combinatorial optimization and graph structures.

Foot-in-mouth part II of this chat was during the discussion of intro data science courses, which had been left off of the data science plan, apparently because the chair is developing his own, separate from the major. This isn’t documented anywhere but I apparently stepped on some toes with some of my commentary (and complaints about R, which I quickly backtracked in the context of non-majors to save some face). This did lead to a funny followup at one point where they asked, “What is Julia?, I think I heard about it at a conference once’.”

Back across campus to the big admin building to meet with the VP of Diversity, Equity, and Inclusion. She was very soft spoken and several times stressed that this was just an informal talk. Mostly we chatted a little bit about the types of training her office offers and what programs/resources they have for first generation students. She had some questions about probabilistic modeling from my cover letter and we talked about some of the ways that redistricting research makes use of community-based data. On the way out, I received a bunch of handouts and about their statistics and efforts.

Next it was prep time for the research talk, although as with the teaching prep, everything was running behind, so again there wasn’t time for much more than making sure all the cables were plugged in properly. There was also a funny scheduling issue here. The original email had asked for a 20 minute research talk but there was an hour booked in the schedule. Nobody was really sure when I asked about it, so I prepared both versions just in case. Finally, someone told me to plan to talk for half an hour. I ended up talking for about 40 minutes using the 20 minute presentation and then fielding questions for the rest of the time.

I think the plan to use a paper was sound in principle but didn’t quite play out the way I had hoped in practice. For one thing, you still have to wander (at a solid rate of 1 breath per five minutes) through a big chunk of the gerrymandering intro in order for the problem/methods to make sense but then the punchline is not very satisfying and with no TCS people around, the cool technical details don’t seem as important. I did wrap up with a long list of related potential project questions, which I think was well-received but it certainly wasn’t as good as any of the Ohio talks.

The conclusion of the research talk meant that it was time for the final formal interview of the day: facing down the entire hiring committee at once. We went in to a conference room and I got stuck at the end, staring at five mathematicians, one computer scientist, the biologist and public health faculty members, the two undergraduates from the tour, and the director. Definitely a slightly more adversarial-feeling setting :)

They asked some new questions here which was a fun change of pace at hour 8.5 of the interview. Talked some about backwards design and how I might actually run the entirety of the course from my teaching demo and what I felt was a reasonable amount of material per lecture. Also some thoughts about how and when to incorporate ethics aspects into individual projects and how much students should do in terms of

building their own software tools from the ground up instead of using prebuilt packages. One of the students asked a couple of nice questions about growing a community around data science among the students that she had prepared in a notebook.

This also meant that I needed to come up with some fresh questions for them. Again, exactly what you want after a full day of talking to people about the same four things. I asked about the technical writing requirement, which turned out to be a sore topic (and another not yet defined course that students are supposed to take next year) and the depth of the connection with Intel. I also tried to probe a little about other sources of stats instruction on campus (other than a smattering of just-in-time methods courses, it sounds like there isn't any). This eventually ran down and after one final round of handshakes it was time for dinner with just three of the committee members.

We walked to a weird fusion place that had excellent appetizers (seared ahi and parmesan green beans), disappointing entrees (Korean BBQ tacos), and no brussell sprouts in sight. Just water around the table, thankfully no pressure to drink. Conversation was reasonably relaxed. I finally asked some questions about the town, schools, commutes, housing and they were happy to chat about non data things. Luckily, they mostly carried the conversation without much need for interjection from me. After declining dessert and a brisk walk back to campus, it was time for a final final round of handshakes, exactly 11 hours after the first one.

Then I crashed.

Wrap up: Overall, everyone was very friendly and I enjoyed chatting with them about pedagogy. Seems like a great department and a wonderful landing spot if it all turned out that way. I don't know exactly who would be more in over their heads between me and them if I took the job but it definitely has given me a lot to think about. They are interviewing two more people and are planning to make an offer right afterwards, probably while I am at [redacted]. Still pretty fried at this point, so haven't really engaged any higher order cognitive processes to figure out what to do about anything.

Cheers,

Daryl

12.3 Full Asynchronicity

Heyas,

BookKeeping: Moderately responsible :) 679 words with no blurbs or footnotes.

Debacle #1: The first cows have come home to roost (starting things off right with more mixed animal metaphors). This was originally going to be an extended riff on some fun new graffiti that has popped up around the inside of the Stata center recently and whether or not robotic sounding emails from hiring committees are better/worse than personalized ones but ... there have been some new developments and I was threatened with grievous bodily harm if I went over the 750 word limit again this week.

I was peacefully minding my own business, sending comical emails about John Baez to Metron employees and ranking the various annoying aspects of JMM participation for a future missive (and you know, doing some real work) when an email arrived from the Dean at [redacted] asking if I would call so they could make me an offer. I'm not entirely sure what happened there - at the last interview of the day the chair was very clear that they wouldn't be making a decision for at least two weeks while they interviewed other people.

Nevertheless, after a suitable period of deep breaths and a phone call to a trusted source of reliable information and useful commentary, I responded to the email and within 20 minutes, the phone rang. I did a lot of waffling during the deep breathing period - while I do think I would be happy long term in the [redacted] job, I also think there are other places that I would enjoy more on the list of places that skyped me. Plus, [redacted] :)

The plan going in to the phone call was a) get information about the details of the offer and b) find out how long they would be willing to wait for an answer to see what I could feasibly do with the time period. With JMM next week, it is tough to imagine anything happening right away but I do have an open slot the next week and maybe could nudge one of the places I had skyped to accelerate the process. Either way, I will probably email some places ([redacted]) and ask for a status update/expedited process if the timeline works out.

The call itself was short (7 minutes or so) and a little awkward. it sounded like there may have been some communication gaps between the chair and the Dean and she led off with a couple of questions asking if I

was even still interested in the position. Having expressed my continued interest (and delight with everyone I met on Monday), I brought up the timeline issue but didn't make much progress. Their initial request was that I negotiate throughout the weekend by phone or email and make a final decision within a week. I pointed out that with JMM next week (which the department knew about) and scheduled interviews the week after that it would be difficult but she didn't give much ground other than "maybe a couple of days" - direct quote.

We agreed that she would send me the preliminary offer details this evening and then that I would respond with counter offers/clarifying questions/etc. by Monday and then we would go from there. She prefaced the offer details by apologizing about the amounts due to the size of the school but it didn't sound unreasonable to me, particularly as an initial offer:

- Salary: 90k
- Startup: 20k
- Moving: 5k
- Travel/yr: 1.5k
- Computer: ?

Then we awkwardly ended the call.

Only getting a week to decide is disappointing. It seems hard to justify accepting (no matter how many birds in hand/bush aphorisms occur) without having a better sense of the rest of the market but at the same time - it is a reasonable offer at a reasonable place. Maybe the universe will count this as this year's JMM disaster? Definitely some stewing this weekend...

I'll send the funny email tomorrow.

Cheers,

Daryl

12.4 Robotic Emails

BookKeeping: Nerdy graffiti bumped in favor of more rollercoaster whining. Total: exactly 750

Automated Emails:

redacted rejected me from their TT job (well, technically they haven't said anything but they already scheduled interviews with their shortlist candidates¹⁰⁶) but sent me an (very) automated email inviting me to apply for a temporary position.

- The level of roboticism of some of these emails is quite interesting. Some schools have clearly run every communicate through 12 layers of bureaucracy and at least 4 lawyers, while others are happily bumbling along personably, quite unaware of all of the potential pitfalls that were undoubtedly assiduously avoided by the prior method.
- Emotional responses vary. It is tough to get too offended at the vague signally towards "many qualified candidates" or "our committee worked diligently" (although sometimes the emails do not make it clear that you have been rejected *cough* Oklahoma *cough* are a little more frustrating¹⁰⁷) while personal emails admit a much larger range of responses.
- For example, it will probably be a while before I completely recover from Kenyon's commentary but I also feel quite positively disposed towards RHIT and Bowdoin for their individual thoughtfulness towards emailing.
- Negotiations with [redacted]'s CS department have spanned the whole spectrum.

¹⁰⁶Thanks MathJobsWiki

¹⁰⁷I will admit to sending sarcastic "So does this mean that I didn't get the job?" emails in a fit of pique, occasionally. The best one was [redacted](?) a couple of years ago where the chair responded with an aggressively unpleasant comment of his own.

- Originally, I received an email directly from a faculty member, describing the process, asking that recommendation letters (already submitted through the application system) be emailed directly to him, and warning that an administrative assistant would be setting up a poll for skype interview times.
 - Eventually, the first poll came (automated from SurveyMonkey) and I filled out some values. It also had some complicated/confusing additional requests for info that I eventually figured out.
 - *A month passes*
 - Unexpectedly, I receive a new email from the administrative assistant that consists only of a link to a new poll, no details or requests. Clicking on the poll shows a different collection of dates and times, mostly during my trip to [redacted]. I fill out the new poll and click submit.
 - *A day passes*
 - I receive a form email, requesting an interview at 8am on Friday that contains a summary of the original email with a new detail: they will ask three questions and I am allowed to ask exactly one. The signature at the bottom of the email is the same faculty member as before but it was sent by a different administrative assistant.
 - Overall, it is actually a little comforting - a smooth automated process would probably have fewer inconsistencies but being in contact with actual human beings is nice.
- Metron and friends have also been fun
 - A similar thing dichotomy occurs with the consulting type people. The emails from Matthew at Metron have been very personal and individualized, referencing our previous history, while AppliedMathematicsInc was a very bland cut-and-paste paragraph (after they emailed, I remembered I had bailed on them last time because of a conflict with a TT interview. Didn't get the sense that they remembered.)
 - The funnier email from Metron came from one of the scientists that I interviewed with last time. He forwarded me something that he had sent me two years ago during the recruitment process which I had promised to respond to and then apparently never did.

Roller Coaster (redux): Just as I was trying to word an appropriate negotiation email¹⁰⁸ to [redacted] I got a friendly email from the chair at [redacted] rejecting me. Not a surprise, since it was for a pure position but still enough to turn the “Eep! No one else will ever hire me” factor up to 11. Really a funny switch from everyone saying that I should turn down this job since I'll surely get hired somewhere else. Decided to go to bed rather than doing anything rash and sent the email this morning instead.

Cheers,
Daryl

12.5 JMM Prep

Hiyas,

BookKeeping: I believe our agreement was that appendices don't count... This also pushes the full set of notes over 60k words and to exactly 100 pages¹⁰⁹ footnotes. I'd better end up in a job soon or no one will ever be able to read the whole thing. Maybe I'll chicken out and just accept the [redacted] job to spare us all from that fate :) Since I'm seeing most of you in Denver next week, may slow down until [redacted] happens.

Other signage updates: The alcove with the horrible emergency escape plan (Appendix I) and the long notice about loud noises (Appendix D) has updated the “No dancing” signs to say “No Dancing, No Music, No Skits” all crossed out with one of those red interdictory signals.

JMM Prep: lol

Actual JMM Prep: David and I looked over the list of attendees, that should count for something. Schedule is much lighter this time than last time and I assume since it is Denver in January we aren't going

¹⁰⁸Another thing they don't train you to do in grad school...

¹⁰⁹and 110

to try to go to the zoo. Current plan is to write the talk Wednesday night, since Thursday is a little busier. Also, I guess I should probably write my talks for [redacted] but that hasn't trickled up to the top of the todo list yet.

Watched emails never boil: The email I sent the [redacted] Dean was complicated so I don't really expect an answer yet but that hasn't stopped me from refreshing my job email client at least every 2 minutes since I sent the initial email.

Arboreal Defenestration: We have been joking since we adopted David and Alea's couch that the only way it was leaving this apartment was through the window... Today we watched our neighbors evaluate the feasibility of this plan when they tossed their Christmas tree out of their third floor apartment. Still seems like a method with positive potential.

Cheers,
Daryl

12.6 JMM 2020 ReCap

Howdy! (lots of cowboy hats and pickup trucks here in Denver),

Overall a mildly eventful week, I guess. Not nearly as fun as last time when I had no responsibilities but not nearly as stressful as two years ago. I'm definitely enjoying the thought of never having to do a 30 minute preliminary interview ever again. The big news, I suppose, is that I finally got over myself and turned down the [redacted] offer. This occupied lots of whiny mental space over the week but there isn't anything particularly interesting to say at this point - it would have been a perfect backup option, with the salary a nice perk to make up for teaching/developing all those stats classes but that also explains why they weren't excited about waiting for me to make a decision. Obviously, I will feel incredibly dumb now if no one else decides to hire me :)

BookKeeping: The consensus seemed to be that doubling the word count would be in (almost) everyone's best interest, which I will try to take into consideration going forward. I also awarded myself a 500 word bonus for only sending one email this week so this is quite acceptable: i.e. exactly¹¹⁰ at the newly manufactured limit. There was also a request to improve the consistency of section labeling but I'm having a tough time imagining topping "arboreal defenestration".

Text is a little dry since I got most of the funniest parts out in person, with hand gestures.

Initialization: Travel to Denver was smooth, which seems pretty lucky, given the potential for disaster of BOS-DTW-DEN in January. Undoubtedly saving up all of the bad weather luck to get stuck in the Chicago airport overnight again... Reserved the hotel through the conference webpage but probably should have done some additional due diligence. The weather wasn't terrible, so the walk to the conference wasn't awful (at least when the sun was up) but they tried to charge us \$50 per day for breakfast and the housekeeping staff had an odd habit of sorting our toiletries into neat rectangles on the bathroom counter. Also, they felt very strongly that both of our toothbrushes should end up in David's array?!?

After checking in and fending off the aggressive front desk staff (maybe they get a commission on breakfast sales?) we headed for the nearest brussel sprout selling restaurant. They were quite good, getting a rating of "excellent but not life changing" when dipped in the memorable spicy soy sauce. Sadly, the culinary part of the conference went down hill from there (culminating in a roasted vegetable dish that to be fair did include something that may have originally been a brussel sprout but by the time it reached our table had the texture somewhere between a deviled egg that accidentally got left out overnight after a new year's party and a rubber superball. The less said about the flavor, the better.), although we did venture into a "grill" that listed foie gras right next to pig ears on its menu and found a ramen place that had a remarkable grilled whole squid.

Digression: The causes of the restaurant problems were manifold. First of all, many of the restaurants more than 4 blocks from the convention center shut down around 5pm, which forces the large crowds of people-on-foot into an increasingly small feeding radius as the evening goes on. This means it is difficult to get in anywhere without a 45/75 minute wait, which doesn't match up well with collective conference scheduling when there are evening sessions/events. The second factor was entirely my fault for being poorly calibrated to the Denver food scene, as we ventured into several places where David successfully managed to extract quite edible dishes while I was frequently presented with a plate of something that couldn't be

¹¹⁰approximately

distinguished from particularly garishly colored playdough (and not the fun peanut butter kind). Finally, the 0% humidity means that you really just want to sit anywhere that will provide you with liquid that is not as “mineral rich” as the hotel tap water. This leads to all sorts of poor decision making.

Back to the main narrative: Properly nutritioned, we were finally ready to join the 5,500 mathematicians stuffed into the Colorado Convention Center. Actually, stuffed is really the wrong word as the convention center was built with hallways large enough to drive cattle through. One downside to this setup is that there is nowhere to sit, so the vast majority of meetings/conversations happened in the hotel across the street. (This also had the enormous benefit of greatly decreasing the likelihood of having to talk to people you don’t want to see...)

Employment Center: No matter which city it is located in, the employment center always manages to emit the same vibe of hopeless despair. This was exacerbated in Denver by the fact that you couldn’t access the wifi from inside the room, so people spent more time staring at each other. There were many more informally dressed applicants this year than I remember seeing before, not just the black-suit-three-sizes-too-small-with-white-athletic-socks outfits that have become a mainstay of unfortunately-advised grad students, but people who had clearly made a conscious decision to show up in jeans. I think overall there were more men without ties than with, which I support as a matter of practicality but am not quite convinced is the optimal choice at this point.

Interview Highlights:

- **Redacted:** We talked a lot about coaching middle school mathcounts teams, which was fun. They already knew I had an offer, which was a little awkward, but overall it was a very relaxed, conversational interview. Will probably break my rule and send them a followup email directing them to my middle school lesson plan webpage.
- **Redacted:** All sorts of craziness here. After all the previous emails, they never actually told me where to meet them, so I wandered down to the EC and was eventually collected by someone I didn’t recognize. They had two tables and although my initial interviewers weren’t people I knew, after the other interview ended the other contingent wandered over, so eventually I was interviewing 1 on 4, having met two of them in San Diego. The “chat” went well over an hour and they seemed pretty serious - I will have to offer a substantially higher salary expectation this time around.
- **Redacted:** The most contentious of the interviews by far. It was the same two interviewers as two years ago and they clearly remembered me. I definitely missed the initial opportunity to apologize for how badly the interview went last time. We spent the vast majority of the interview covering the “Why would you want to come here?” question from a variety of angles. I stayed with my vanilla responses the first few times but eventually they went for a very direct “No but seriously, ...” which led me to go a little off script talking about ethical AI and prioritizing technical tools over societal implications. At the very least, they were willing to let me keep talking and we went a few minutes over time, so they clearly hadn’t decided to toss my application yet. Fumbled the final question a little when they asked for a one word summary of what I wanted out of my next position(?). We’ll see what happens, I guess.
- **Redacted:** They were a little disorganized and haven’t made it very far into their hiring process yet. The second interviewer showed up 8 minutes into the session and got a recap from the first interviewer about how I had done so far, in front of me. Sounds like I could earn tenure in about 3 years. They aren’t bringing people on campus until March however, so this seems like an unlikely landing spot, overall.
- **[redacted]:** I probably only said 20ish words during the whole “interview”, while my interlocutor quoted Eisenhower and gave a up-goer-5 level description of Bayesian target tracking at me. Apparently they do a lot of consulting work for something about submarines and feel strongly that “you can’t teach curiosity”.
- **[redacted]:** I realized the night before that I don’t have nearly as much experience talking to computer science departments as math ones. Luckily it turned out fine. In an earlier email, they had pointed out that they were going to ask three questions and I was allowed to ask one. However, we got through

their three questions in about 7 minutes, so I got to ask several, which would have been helpful if I had had any good ones to ask. Getting the lighting set up right in the hotel for the skype call actually turned out to be the biggest problem for this interview (the sun was coming up when the interview started and the glare through the window off the skyscraper next door was an issue). They specifically asked “Why Burlington?” at one point, so I brought up the Skinny Pancake (but left out the world’s tallest filing cabinet).

- **Redacted:** [Redacted]
- **My Talk** Seemed to go pretty well (particularly for having finished it a whopping 35 minutes before the start time). 37 frames in 10 minutes, including 8 gifs. A couple of pretty good questions afterwards and no serious damage done to anyone’s reputation.

[redacted] Prep: [redacted] I also got a note from someone in the department who sent me the list of other candidates who were interviewing (Yes, I googled them. No, it wasn’t an enjoyable experience. Someday, I will learn...). The schedule arrived on Thursday, along with a request for a job talk title, abstract, and a personal bio. The title was by far the hardest part, although luckily David was around to actually do the picking. Still working on the job talk but I have a 5 hour layover in the [redacted] airport tomorrow to finish it off. [redacted] Targeting about 110 frames for 50 minutes.

Other places: The chair at UMass Amherst reached out to see if I was still available. I apparently did not make the cut at Boise State. People from UHawaii keep clicking on my webpage.

Other top visitors this week include Penn State, Stanford (probably [redacted]), Yale, and a particularly persistent netizen from Budapest who loaded at least 27 pages during their visit. For the first time in a long time, my homepage is getting more clicks than my notes on Taylor series or Lagrange interpolation. The MCMC notes are getting some more attention recently too (maybe I should go fix all those typos!) - I wish google indexed github a little more effectively.

Tech Annoyance: Really giving tmux a workout this week, as the hotel internet is making putty/winscp wildly unstable - it is worse than working with “Tufts Secure”.

Cheers,
Daryl

12.7 Interlude

After returning from [redacted], things were very quiet for a couple of weeks, with no new campus invitations and no new offers. This was not very much fun and also means that the emails from this period don’t contain very much useful job content.

12.8 New Stairwell

Howdy,

BookKeeping: Making up for some previous tomes.

Adventure: I explored a new stairwell today, after ducking down a different hallway to avoid following someone I didn’t want to talk to. Like many things at MIT, it is unobjectionable locally and comical globally. In this case, the exterior walls of the stairwell look out over a nice grassy courtyard and provide a view of the “Great Dome” looming over a building numbered in the 20’s. Or at least, they would, except the walls are made out of the same gritty, darkish plexiglass that was used to for the skylights near my office and there really isn’t much hope of making out much more than blurry shapes. Globally, his provides a stark contrast to the stairwell in the “no dancing” alcove, whose walls are made out of actual glass that is cleaned frequently, providing a view of the gritty, darkish industrial buildings across the street.

Blurbs:

- They apparently replaced the pizza pans over the holidays with smaller radius dishes. Correspondingly, they are cutting fewer slices per pizza (to not have to recalculate the calorie values on the menu?) and so all slices must be folded for consumption.

- There is exactly no new job news to report. I've given up hope of being able to write anything useful about the [redacted] visit, so you'll just have to imagine it for now. Metron has remained very serious about hiring me, so I agreed to go visit on 3/11 since I have to be in VA for a conference anyway.
- I even applied for a new job today, just in case! (Don't tell [redacted] :)¹¹¹
- Since there hasn't been any actually job related news to write about, I've started editing the advice section of the job notes to cover more details about specific parts of on-campus interviews. Not anything super exciting yet, except some slightly rude comments about what "break" means in the schedule.

Hope you are all doing well!

Cheers,

Daryl

12.9 Asynchronicity, all of the

Heyas,

This has not been a terribly exciting week so far¹¹² - my hope was that places that were making invite decisions would get on things this week (particularly given that nothing happened last week at all) but we are 1/2 way through now and the silence is/has been deafening. The latest invite I got last time around was 1/26, so that doesn't feel great, although I will continue to tell myself that JMM was a week later, too.

That said, I know that several schools are making their decisions this week, so Monday felt like a fair time to start waiting impatiently. [redacted] finally rejected me in the middle of the night (excellent email to wake up to this morning), which was not a surprise since I bombed part of the skype interview but they had responded nicely to my prod about the initial [redacted] offer and I had convinced myself that maybe everyone else had bombed worse. Plus, I've been helping run practice interviews for people here and I know that compared to the majority of people running around at JMM ... but obviously if you are actually competing for the job, the majority is irrelevant, and out of 500ish applicants there is plenty of room in the tails.

Anyway, definitely wearing out the refresh inbox button (actually the MIT email doesn't have one but closing the tab and reopening it gives you enough time to hope deeply that there will be something in bold at the top of the box

[Calvin and Hobbes gifs redacted for copyright purposes]

... the less said about gmail's "buttons" the better from my perspective.) So I was excited to see the inbox(1) symbol appear¹¹³, until I noticed that the sender was the Dean from [redacted]. Full text presented here:

Hi Daryl,

Given that it has taken our search committee longer than they anticipated to move ahead, I wanted to circle back around to you just one last time. Where are you at this point in your search? Have you accepted an offer at another school at this point? If not, would you be interested in re-opening our conversation?

It is funny, since I've thought about this scenario a lot¹¹⁴ actually but hoped that if it was going to happen, it would be late enough to actually matter. Since JMM and the [redacted] adventure, I've had a lot of time to mull over exactly what it is that I'm supposed to be doing at this point. Common (and unresolved) questions include: [redacted]? [redacted]? [redacted]? etc.

Nothing really coherent to say at this point. I won't respond until after eating many carbohydrates.

Cheers,

Daryl

12.10 Continuing (lack of excitement)

Context: Rewarding myself for having gone over three minutes between email checks* by writing this email (in a text editor, with the browser closed).

¹¹¹or at least remind him that I'm definitely under consideration at under 50 jobs by now...

¹¹²journeys to new stairwells notwithstanding

¹¹³Obviously, most of the time this happens it is unrelated to job stuff.

¹¹⁴This is a whole other email but how are you supposed to tell the plausible daydreams from the insane ones?!?

Stata oddness: Our favorite alcove with the angry signs about dancing is being used as a break space for a conference being held down the hall. Since it is an official event (TM) (i.e. lots of people standing around in suits and name tags) a collection of chairs was arranged in the alcove for visiting dignitaries to sit in while they munch on carrot sticks and gossip about the impeachment.

So far, reasonably normal, except that the arc of chairs (MIT does have some standards after all - it looks like the curve was layed out with a ruler before the chairs were placed just so) faces not towards the large glass windows (whose view we encountered yesterday) but rather right towards the interior wall, which contains the elevator bank and restroom entrances. Thus, if you have the misfortune to be exiting the toilet or the elevator during break time, you are immediately confronted with a large collection of (geometrically pleasingly arranged) besuited individuals staring right at you.

[redacted] **Continues:** I emailed [redacted] back this morning, saying I was still interested in the position and hadn't accepted another offer yet. The response came within 5 minutes, which was impressive, since it was just before 6am on the west coast:

Thanks for the message. This is good news for us – you remain our committee's top choice. As you know, this is the group's first data science hire and they were overly optimistic about how quickly they would be able to move as a committee, but they are fantastic faculty and will be fantastic colleagues.

What is your current timeline looking like? I will take this information back to the committee.

I replied an hour later saying that I had some other interviews lined up over the next couple of weeks and was hoping to make a final decision in mid-late February. Note the change in tone that appears here versus the last time we communicated when there was a strict deadline.

I guess I will probably send out some more mass emails ~~begging~~ asking politely if people will interview me soon. Still trying to weigh the obnoxiousness of pointing out recently (i.e. since the applications were submitted in November) accepted papers off the preprint list - my guess is that [redacted].

Cheers,
Daryl

12.11 Polling off the Band-Aid(TM)

Heya,

Exciting scenes from the cafeteria: The same display board lists both “Marscapone, blueberry, raspberry, and basil pizza” and “Franks and Beans”, separated only by a few lines of print. Sadly, I was walking past too late to actually see what these abominations looked like in person but imagination is perhaps enough.

Metaphors: The roller coaster has broken down a little¹¹⁵, so I'm auditioning new candidates (see subject line). And emailing people to ask if they are still considering hiring you definitely has the right sort of anticipatory-feeling-before-peeling-off-a-bandage-to-reveal-a-gruesome-wound to be accurate. On a physical level, we seem to have run out of the pickle shaped/colored bandages that we brought from Dartmouth, which is also disappointing.

Polls: I mostly emailed places that didn't fall into the category of open rank/field R1 positions. Also, only math departments, since the other ones probably aren't quite there yet.

Responses: Rejected by [redacted], [redacted], [redacted], and [redacted]. Apparently still live at UMass Amherst but maybe only until next Wednesday(?) I didn't really understand the email¹¹⁶. Ignored by everyone else - actually this reminds me that some of the places I emailed the first time around never responded. I guess that kind of is a response, in a way.

Big chicken: While I sent the first email on this topic around 8am - I still haven't actually managed to email [redacted].

Cheers,
Daryl

¹¹⁵Not entirely, as I did worry for about 32 seconds during lunch whether the list of places I asked people to poke was too large. But then I figured given the paucity of places that were still considering me, there wasn't too much that could go wrong. The roller coaster has officially become the Disneyland TeaCups (TM).

¹¹⁶By which I mean, the email did not contain nearly enough information to make any logical inferences. And the chair misspelled my name...

12.12 That’s Australian for ...

... Yikes!

As America just celebrated its favorite television advertising holiday, this seemed like an appropriate subject line¹¹⁷.

Apparently, my body has decided on an infection-based grading scheme for stress levels. Happily, it turns out that this trip through the job market is not as bad as teaching at Dartmouth the first time. Alternatively, postdoc health insurance is way better than grad student dental coverage, so I saw someone earlier this time. Alternatively to the Alternatively, fingers turn out to be much easier to treat than faces.

Either way, the view of my current malady was enough to draw an unsolicited and apparently entirely genuine “Crikey” from the very Australian RN who was staffing the MIT health center on Saturday.

BookKeepingThings: Not even close to the limit.

Caterskates: Very delayed bridge construction has rerouted my normal bus route along a residential street that intersects the “Somerville Community Path”. Yesterday morning, rather than being delayed by the normal fact that the road isn’t actually wide enough for a bus plus cars we were instead held up by the world’s slowest rolled skater crossing the road/path. She was wearing bright teal skates and moving slower than a literal caterpillar (which very well could have been the same color). The bus driver today avoided this dilemma by stopping right on the path, blocking the various walkers, joggers, bicyclists, and other mobile-morning people and forcing them to go around us instead.

JobThings: Mostly more rejections, although a surprisingly large number of places just haven’t emailed me back. Someone from one of places that I emailed clicked on my webpage over the weekend but it has been several weeks since I emailed them originally (obviously it is not necessarily the case that the clicker was the emalee). I understand that departments are big messy places but I have been surprised at the number of people/schools that just didn’t say anything.

UMass Amherst apparently wants me to come interview soonish, although their communications have been confusing at best. This awkwardly reinforces my feelings about the R1 market, as the only two places that were willing to chat with me were [redacted]. That said, I seem to have mostly struck out on the SLACs, so I guess I can’t complain too much. And people from UHawaii do keep clicking on my webpage, so maybe there is some unsolicited hope after all.

ChickenThings: No, I still haven’t emailed [redacted]. I did add an item to my to-do list that says “Email [redacted] you coward” but that has not actually shamed me into contacting them.

OtherThings: lol. I’m sure that would require more brain space.

Cheers,

Daryl

12.13 MIT Miscellany

Howdy¹¹⁸,

BookKeeping: Still very reasonable (I’m still ramping back up to full blown normality)

MIT Dishes: Today’s menu includes “humane Bolognese” and a vegetarian “dumpling soup bar with miso broth” that for some reason incorporates shrimp dumplings. The pizza flavors are all boring though. However, the pizza purveyors are now working double duty grilling burgers (regular, turkey, or vegetable) to order, although the condiment selection ... fits in the topping paradigm exemplified by the pizza selections (e.g. pickled jalapenos - yes : ketchup - no).

MIT Payment: I can’t believe that we’ve made it this far into the process without discussing the silliest part of eating in the MIT cafe. After you collect your food from one of the various filling stations, you stand in line to checkout. Each checkout stand has a touchscreen with the various options listed that gets used to calculate the final total. However, once the total is calculated, it must then be entered by hand into a separate card reader to actually process your payment. How many errors per day get made at this step?!? which is completely opaque to the customer. Additionally, the card reader is spectacularly slow (I think I did complain about this somewhere way back dozens of emails ago), so by far the largest portion of the

¹¹⁷Actually, my guess is that some of you have not seen the original: <https://www.youtube.com/watch?v=uCG6N1w6zp0>

¹¹⁸redacted

waiting experience/reason for lines existing is the snail-like flow of electrons from these external readers to validate the cards. Not very MIT, in my opinion.

MIT Signs: A confusing new sign popped up outside of one of the restrooms around the corner here, directing those looking for gender neutral facilities to newly designed areas of the 8th and 9th floors. Totally reasonable, except there are at least two gender neutral restrooms on our floor, in one case a literal 21 second (by cell phone stop watch) walk away from the new sign. This feels like a similar debacle to the eight-line-of-text emergency-exit pathway.

Job Things: Nothing new from any of the places that I emailed previously but Metron wants to have a pre-interview skype chat next week with their ‘Senior Corporate Recruiter’. Should be fun. It also sounds like I made the short list at the [redacted], although they haven’t yet gotten approval from the dean to invite people to campus, so who knows what is going on there. Lots of good advice from Justin this morning about interviewing at Amherst, which I’m sure will be useful if they ever actually give me an interview date.

Cowardice Continues: But at this point I’m resigned to waiting until something good happens so that I can send the email to generate the bad-feeling response. Yay for planning!

Cheers,
Daryl

12.14 A tale of two emails

Greetings,

Today’s pizza flavors: Mascarpone, roasted shallots, and dried apricots

Burger Update: Apparently there is only one person in the kitchen trained in the noble art of burger flipping. Thus, when he goes on break (as he apparently was when I wandered past the kitchen area on my way to an actually very interesting talk about [redacted]) there is no one who can prepare the burgers and they have to turn people away. This makes both the potential customers and the woman who makes the schedules upset.

BookKeeping: Very literally. Also, it has been a while, so I’m appealing to paragraph 3 subsection IVa of our agreement.

Workspaces: Finding somewhere private to hold a meeting (or god-forbid a skype interview) in the Stata center can be tough. I have the benefit of the empty cubicle next door that they forgot to lock (which doesn’t have a ceiling but to be fair, neither do some of the other meeting spaces) but other people tend to be forced to take shelter in hallway alcoves or stairwell entryways. Sometimes, as I am currently watching out my window, this leads people to set up their laptops on the banister overlooking the stairs in front of the linguistics department. So far today I have seen three different two-person meetings take place in this fashion, set up on the brick railing overlooking the stairwell. You would think that brick would provide sufficient friction to keep the laptops in place but I just watched one tumble over the edge and smash on the cement two floors below, so it isn’t a perfect system.

Robot Heist: One of the robots that I have gotten used to walking past every morning has disappeared! The office door is standing open and the only remaining items of furniture are a moldy couch, two colorful roly chairs, and a circular (homemade?) coffee table whose legs only hold it 4-5 inches off the ground. This¹¹⁹ threw off my whole day!

Actual Prologue: [redacted]

Real World Prologue: To Recap: At the beginning of the week I was possibly holding an offer from [redacted], UMass Amherst had promised me a response this week, and [redacted] seemed likely to make an offer to someone since they were interviewing their last candidate on Monday. Other than that, all the recent news had been bad or non-existent.

Book the First: Recalled to Life On Tuesday, [redacted] emailed checking in to see if I was still available. I said yes and they said they were waiting for approval from the dean to interview me. On Thursday, they emailed a proposed visit schedule and I agreed to come interview and give a colloquium on 2/21. This felt like a good option all week, which was a big improvement over anything from last week.

Book the Second: The Golden Thread I just got off the phone with the chair at [redacted] who offered me their position. [redacted] I left my phone volume on all week starting at 3pm on Wednesday for

¹¹⁹Ok, not only this...

this, so I guess I wasn't totally numb¹²⁰.

Book the Third: The Track of a Storm The actual two emails that prompted this email.

- I finally emailed [redacted] on Thursday. They have not responded, which seems to send a pretty clear signal. Wish I knew what went wrong there.
- The UMass Amherst story is weirder. Three weeks ago, the chair emailed and asked if I was still available. I said "Yes, please interview me." Two weeks after that, I hadn't heard anything, so I asked for an update and he said that he would know by Wednesday this week. On Monday, I got an email from the search committee chair, asking if I was still available and if they could schedule the interview ASAP. I replied within 57 minutes "Yes, I can drive down whenever." Then, silence. And more silence. The silence stretched until Thursday, when I emailed asking for an update (a few minutes before emailing [redacted]). More silence until noon today:
"I apologize for the confusion and for my overly optimistic message earlier this week. We have been put on hold for now by the higher ups for further interviews. I will be in touch as soon as I know more. Again sorry for the back and forth, I am sure it is a bit of a stressful time."
- Some people around here are really upset with them, while I'll admit that I have been laughing a fair amount - this was the kind of response that fit into my currently cynical view of the whole process.
- I replied pleasantly (and I assume there was some additional grumpier back-channel communication), which generated an additional apology but no clarity.

Who really knows anything at this point?!?!?? (not me)

Cheers,
Daryl

12.15 I'm a what now?!?

Heyas,

BookKeeping: Under, which is surprising, given the feelings.

Pizza flavor: Hawaiian with Basil? It looked like real Canadian bacon but with entire basil leaves dropped on top.

Prelude: The chat with Metron's senior recruiters was funny. They went out of their way to stress that the audience for the talk would be all Ph.D.s and that the talk should focus exclusively on fiddly math details. The interview is pretty straightforward compared to faculty positions - a one hour lecture and then four 45 minute meetings with research scientists, plus lunch.

Preparation: [redacted] Justin has been very helpful, although obviously working things out at MIT is very different than [redacted]. .

[redacted]: cw - all the 0th world whininess (I mean, yes, I know that I'm in a remarkably enviable position, given the market and everything else, but somehow, telling yourself that doesn't change feelings much, although it apparently really ramps up comma use.)

So. I haven't really slept much since getting the phone call on Friday. I guess maybe I should start with the ending, which makes just as much sense as everything else: [whiny paragraphs redacted]

I'm not doing a great job of explaining this at all, which makes sense, because I don't really understand it either. Will try to send a more contentful update after the phone call tomorrow.

Cheers,
Daryl

12.16 Games of Telephone

New rejections: It has been a while since I received an unsolicited rejection. Today's very personal message is courtesy of ASU:

Dear applicant,

¹²⁰see redacted comics

Job # 14045, Assistant or Associate Professor in Statistics at Arizona State University's School of Mathematical and Statistical Sciences, has been filled.

We wish you all the best in your job search.

Obviously, I was not a likely candidate there. Still feel a little dumb about the number of these types of postings that I applied to. Spent too much time listening to people that I should have known better than to listen to about my likely eventual placement.

The other rejections veered from the shockingly robotic to overly obsequious. Message from [redacted] through MathJobs:

Subject: Tenure Track CS Position Halted

The Department of Math and Computer Science has halted their current Tenure Track CS faculty position search

Didn't even get a concluding period(.) for the message. Guess they should have hired me after all. On the other hand, WPI went way over the top:

Dear Daryl Robert DeFord,

Thank you for considering employment with Worcester Polytechnic Institute (WPI). We appreciate your interest in WPI and the time you have invested in applying for the Tenure Track Assistant/Associate Professor in Applied Mathematics opening. After careful review of your qualifications, we have decided to pursue other candidates whom we feel more closely meet our needs at this time. I would like to add that we appreciated very much the opportunity to review your materials.

WPI is growing and new opportunities are posted regularly at <https://careers.wpi.edu>. We hope that you will keep us in mind and encourage you to apply again when relevant opportunities arise. We wish you success in your job search and in all of your future career endeavors.

Sincerely,

Give me the robot version every time.

Where to Call: If nothing else, trying to find a spot for a phone conversation in the Stata center is always a challenge. For one thing, actually getting cell service inside the giant steel and concrete monstrosity is always a challenge, no matter how many skylights exist. Secondly, the fact that a bunch of the nearby spaces don't have roofs is a little off-putting. Thirdly, the reservation system, combined with the fact that no one shows up on time to anything, really makes it hard to estimate what is being used.

In my wanderings, I found an empty room and set up my stuff at around 1:03 (by the way, for those of you actually keeping score at home, the time of the call was 1:30, I am just bad at time zones). Out of an abundance of caution, I checked the scheduling system and saw that the room was reserved for a talk at 1 and the reservation had been made at 10:23 this morning, so it wasn't super likely that the reserver forgot. I left and moved to the fishbowl next door, and then watched as the first talk attendee wandered in to the room about 1:12. The actual speaker didn't make it until after 1:20.

Anti-calamity: [redacted]

Other things: [redacted] Will undoubtedly generate plenty of fun...

Cheers,

Daryl

12.17 Back on the road

Howdy, Howdy, Howdy,

The full details of the [redacted] story are still judgmentally staring at me from the Drafts folder but will have to wait because we are moving on to new and exciting things. Most of the time since the last missive has been spent not hearing anything (which is to say, I'm still refreshing my inbox at an unhealthy rate and it isn't making my life better) but there have been a few developments. Current statuses of interest:

[redacted]]

Actual (Travel/pro)logue:

([redacted] context refresher: The position is data-flavored but flexible (they are also making a pure hire this year - just interviewed a postdoc from [redacted] who does cluster algebras) 2/3 math 1/3 data science (which is a joint program with CS). 3-3 teaching load (except for some weird calculus math) in a liberal arts + MA environment. JMM interview was disorganized but everyone seems very friendly.)

Much like with [redacted], there appear to be some organizational struggles, so I had to email them on yesterday to find out where I was supposed to go after arriving at the airport (I still don't have a schedule for tomorrow, although apparently someone is meeting me at the hotel in 8 hours to take me to breakfast). To be fair, I've also been a little unprepared (I tried to walk out the front door without having packed a tie to go with my suit this morning) as I had sort of been hoping that the process would have been wrapped up by now. Anyway, they kindly gave me the address of the hotel and asked me to text the chair when I arrived so she could take me to dinner.

The flight leaving Boston was delayed for an hour because the earlier flight arriving from [redacted] was held up because the temperature got under 40 and everything ground to a halt (since this was the first delay of the interview season, I have nothing to complain about whatsoever). While I was waiting at the airport this morning, I got an email from a [redacted] faculty member asking if we could meet tomorrow at 8 instead of 9 for breakfast and warning me it was going to be unseasonably cold (i.e. 40 ish) so I should bring a coat. Thoughtful, if slightly unnecessary. The flight itself was uneventful and reasonably productive, although I couldn't get the wifi to work. I did put together some SC specific slides to replace the WA ones from [redacted]. I haven't thought much about SC as a state before but it has kind of a pleasing shape, overall.

Upon arrival, I discovered that it was pouring rain and blowing hard enough to make an umbrella pretty useless. The airport smelled amazing (which is a weird thing to type but was totally true - lots of good restaurants, I guess) and eventually I found my way to the hotel. After a few minutes to unpack my soggy suitcase, the chair arrived to take me to dinner. This was a 90 minute event at an Asian fusion place near campus. No brussel sprouts in sight but they did make an excellent pad thai, although it was a chopsticks-only sort of place, which made dignified eating a struggle. The conversation mostly centered on [redacted], which made for an interesting preinterview. For someone with more social graces, it probably would have been very relaxing but I think I got through it ok.

Anyway, as always, the travel day is really only the introduction to the main event, so hopefully I will get over myself and have some more entertainment for you tomorrow.

Cheers,
Daryl

12.18 [redacted] (Inter/Over)view

Hey Y'all,

Not a full, minute-by-minute script of today's excitement but at least some highlights. Might get the full version done on the plane later.

Door-to-door interview time: 12.5 hours.

[redacted] review: The city is pretty cool. I'm a big fan of the architecture downtown and the College itself is a fun mix of brick buildings and old houses converted into English departments. Plus, coming from Boston, it is hard to argue about palm trees (and dolphins!!!). The department members all clearly love living here.

Department review: Seems great. Lots of friendly people who obviously like working with each other. Some funny discussions of autonomy levels for multi-section classes but I got the sense that everyone I talked to really enjoys their jobs/lifestyles.

Quote of the day: Well, we bought this tree 15 years ago, then it took 10 years to bear fruit but it turned out to be a blood orange, so we still don't have limes.

Most popular Dartmouth affiliate of the day: [Redacted]?!? I had completely forgotten that he went here but he is still fondly remembered. Coincidentally, I could not come up with the word "seminar" as in "teaching seminar" all day. And it came up a lot.

Funniest story of the day: Within 20 minutes the department forgot where I was, we got lost and went to the wrong restaurant, and then when we got to the right restaurant we had a combined zero wallets.

Best part of offer: Tenure in 4 years. (some terms and conditions may apply, although not as many as you might expect).

Did you say ... offer: So I knew I was the last candidate interviewing but didn't really have a sense for how things were going throughout the day (due to a lot of confusion throughout the day about which of the people in charge believed what the position actually was). Before my talk, the chair asked if I could find

my way back to the hotel after my final meeting and then they could come pick me up an hour afterwards. Weirdly, after the last people left the room I was interviewing in, the hallways were empty (not that strange at 4:30 on a Friday but turned out to be portentous). I chatted briefly with the administrative assistant about reimbursement procedures and then promptly got super lost just trying to exit the building.

Checked my email on the walk back to the hotel to discover terms of the offer from [redacted] in my inbox. [redacted] Crafted a suitable response about needing a few days to discuss it with my wife and then headed down to the lobby to go to dinner. Was immediately greeted with “So how much is it going to cost us to get you?”

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“JK, the Dean does the money stuff. We just had a department meeting and provided a hurricane doesn’t blow away the college before HR processes the paperwork on Monday, the offer is yours. ”

...
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...

Then we had a 2.5 hour dinner.

Cheers,

Daryl

12.19 [redacted] Details

Heyas,

Disclaimer: Everyone was very friendly and I enjoyed the conversations, so there aren’t really any fireworks or anything in the section below.

Scheduling: At no point during the day did I ever actually see the schedule for the interview, so it was always an adventure to find out what was coming next...

Actual Interview: As promised, I was met at the hotel at 8am by a faculty member who didn’t recognize me until I put my hat on. Apparently the tuxedo juxtaposition that Google images likes (<https://images.app.goo.gl/FkJUAPSCS9rpRKC6>) is still causing problems. We wandered down the street towards some cafes (one false start at a place that only served bagels) and eventually found a reasonably quiet place.

The first question of the interview was: “Your research is all over the place. What’s up with that?” Other notable questions during breakfast included, “Do you think of yourself as a mathematical physicist?” (@[redacted]: ouch) and “But what do these topics really have to do with each other.” He also asked for an overview of the talk I was going to give later since he wasn’t going to be able to attend.

After finishing up a reasonable burrito a piece we walked onto the campus proper. The main building and its lawn have apparently been common movie sets over the years (the Patriot, most popularly, I guess). The campus is a neat collection of old houses and standard looking brick buildings, with lots of trees (and moss growing from the trees) and other greenery. The paths between buildings are cobbled-over versions of the original carriage roads and it is a neat place to walk around.

We ended up in his office to chat a little more and I sketched out the contents of my research talk. He asked a really nice version of the “What might keep you from taking this job” question and we chatted a lot about the relationship to the CS department and current formulation of the graduate program. The grad program is currently only evening masters students but they have a proposal that is working its way through committees to add a small Ph.D. program.

Luckily, he knew where I was supposed to be going next and escorted me down to chat with a statistician. I asked a lot of questions here about the relationship between the stats classes to each other and the other departments and what sorts of software they require the students to learn. The big questions she had for me concerned my willingness to teach evening classes and Bayesian statistics in particular. I’m not really sure what kinds of upper division classes I would end up teaching since you only do one per term but lots

of different people seemed to have hopes about what that might be. We also talked about daily teaching schedules and how they aligned with the evening teaching for grad classes. I go the sense that the chair tries really hard to provide maximal flexibility for everyone.

Next was a 2-on-1 meeting to chat about lower division teaching a little, as well as some discussion about projects with students with one of the rockstars of the department. She brought a cute little dog in her backpack, so I don't really remember a ton of what happened in conversation. I know we talked a little about how much flexibility there was in terms of course design and a little about the math competition they run for local high school students, which was happening the next day.

Another applied faculty member came to pick me up and walk me to the Dean's office, by way of the "Faculty House". The college has leaned in to the fact that a bunch of the buildings on campus are converted houses and has converted one into a grown up version of the Kemeny lounge. Free coffee, soda, etc. as well as some nice dining areas and couches set up in various rooms. Something like \$ 5 per month gets you access, although there wasn't anyone there taking attendance or anything. My guide was disappointed that someone had already told me about the movie sets and we eventually arrived at the Dean's office, which sits right next to a full pterodactyl skeleton inside a fairly new building.

The Dean was originally hired as the chair of the CS department and so had a good perspective on how the various programs ought to fit together. We had a good chat about potential futures of the data science program and he seemed bullish on the prospect of the Ph.D. program getting passed soon. I think he was one of the people who felt it was important that this hire take over the undergrad data science program but also do some teaching in service of the CS departments masters in data science. Definitely still a little confusing!

Back to the math department to try and tweak my talk slides for 15 minutes (downshifting some of the data focus, since the audience was going to be mostly pure, and ramping up the student research focus, since that seemed important). They put me in an adjunct office but then apparently the person who put me there left to go lecture, so no one knew where I was. Eventually someone knocked on the office door and I came out, totally unaware of the fact that I had been lost.

The faculty member escorting me to lunch is the previous chair, who was [redacted]'s undergraduate advisor 30 years ago. It takes us 12 minutes and 4 (not joking) false starts in different directions (should we walk past the library, no he already saw that, ok well what if we got past the new chemistry building, which exit takes us there again...) before we finally pick an elevator and head out of the building. We walk down a bunch of residential side streets before ending up at a fancy looking bistro.

"Wait, that isn't the right name of the restaurant. Well, it looks good, let's go in"*Flags down a passing waitress to get directions to the other place**Lots of arm waving but we apparently know where we are headed now*"Just a couple more blocks"

As we are crossing the street, he grimaces and slaps his knee. As I'm wondering if I'm going to have to carry him back to the department, he says he forgot his wallet. We walk into the right restaurant and then call the department to ask one of the administrative assistants to meet us halfway with the wallet and finally sit down to eat. The conversation was very interesting because he was chair for quite a while and so had lots of information about the administrative processes and procedures. In particular, he gave me some leverage for the negotiation process. We also talked some about alligators and other wildlife.

After lunch it was back to the department for back-to-back-to-back 2-on-1 meetings with pure mathematicians. The first one was with the number theory contingent, where I talked about the fun Euler Phi theorems with Dan. They were impressed that I hadn't gone entirely to the dark side (one of them I had met before at two conferences in 2013 and one in 2014, back when I was a real mathematician). Next were the cluster algebraists who asked questions about the isospectral stuff with Peter. I was not entirely prepared to discuss orbifolds but it seemed to go over all right.

One of the cluster algebraist got super excited about some of the game theory and random walk versions of the gerrymandering work, while the other one got bored with the applied stuff and wandered out once it was clear that Hodge Series != Hodge Conjecture. The last chat before the talk was with a statistician and my first CS faculty member of the day, where we talked about what their department's plans for the overlap with this position looked like.

The job talk generated lots of questions, although they didn't laugh at quite as many of the jokes as I hoped for. I had to give the "Mathematicians often suggest that we blow up the whole system and replace it with * but that doesn't actually help the current court cases and reform efforts ..." blurb a couple of

different times but overall it was good engagement. I aimed a little high in terms of technical background but no one seemed offended and there were only a couple of students, so I didn't feel too bad.

Once the talk wrapped up, I had one more chat with a computer scientist while (as I learned later) the math department ran off to vote on whether to offer me the job or not. After we wrapped up, I was cut loose to walk back to the hotel. This was the point where I got the final offer from the [redacted] people and led to the part where the [redacted] people offered me the job.

We went to dinner at a seafood place with a nice view of the river (and sunset over the ocean). There were some pelicans out and I guess a little later in the year they get sea turtles and dolphins all the time visible from the patio. Lots of discussion of real estate and sales pitches for why coming there would be a great idea. Service was kind of slow (and I was kind of slow, not having expected to be in the situation of actually being offered the job) but the food was quite good and they served beer bottled in town.

Dropped back at the hotel around 8:30, just in time for the decision-panic to set in. Didn't schedule the flight back intelligently (since I had to leave the hotel at 5:30 am) but nothing eventful on the way back.

Negotiation part III: My phone rang at 9am this morning (a miracle in-and-of itself in the Stata center). The chair was calling to put together an initial set of details for the offer letter. We talked for about 1/2 an hour and the possibilities seem better than I thought based on the public salary records. They seem willing/likely to beat [redacted]'s salary number and also seemed flexible about computer startup. It is another place where the chair does the arguing with the Dean and reports back, so we'll see what happens, probably tomorrow. The way they handle summer salary is a little funny but not a deal-breaker and it sounds like NSF-type funding would be magical in all sorts of ways.

It also sounds like if I agree to take over the directorship of the undergraduate data science program in year 3ish that I could get a permanent 2-2 load, plus check the necessary service box for tenure, all at once.

Definitely a lot to think about...

Cheers,

Daryl

12.20 A Decision

Heyas,

More rejections:

Dear Applicant, Thank you for the interest in the position at Washington University in Saint Louis. We received many excellent applications and selection of a future colleague was both a challenge and an exciting opportunity.

The search for the position is now complete. We wish you the best of luck in your job search.

Regards,

Believe me, the amount that I care about your challenging and exciting opportunity cannot be observed without a scanning electron microscope. Also, I applied for positions in two departments there but the email didn't specify which one I was rejected from ...

Then [redacted]:

Dear Daryl,

I'm writing to let you know that we have now filled both our tenure-track positions, so our search is closed. From beginning to end this year's search was remarkably competitive, and we were impressed with all of our candidates. Thank you for taking the time to skype with us in December, and we wish you the best in your job search.

Best wishes,

Given that they decided to hire pure mathematicians instead of applied, this was not a surprise. Still ambivalent on the almost-personability of the email.

Bathroom taps: I was in a restroom today in the Stata center with 5 sinks, 4 different styles of faucets, 3 different styles of handles for the H/C taps, 2 different styles of paper towel dispenser (two of each - 3 on one wall and 1 on another), and only 1 type of paper towel (although there are several types in use throughout the building). Skype room: Sadly, I lost my personal skype cubicle to our extra large collection of interns (they moved in 6 desks yesterday). Luckily, they don't actually come in until afternoon most days, so as long as I hold morning chats, it shouldn't matter too much.

Gerrymandering Buzz: [redacted]

Other Gerrymandering email: Someone reached out to complain that some recent analysis of PA must be wrong because my plots only showed 17 districts but there ought to have been 18. I haven't heard back since pointing out that the x-axis was numbered 0-17 ... also not super kindly. This was apparently the wrong week to be emailing me.

Censored! not redacted: So my adventure in [redacted] is getting increasingly weird. Now not only am I giving a talk in the official Council Chambers at City Hall but my talk title has been censored! Apparently the word gerrymandering has too many negative connotations, so my alliterative "Graphs, Geometry, and Gerrymandering" has been replaced with something boringer.

Enough stalling: ...

The Decision: I'm heading to WSU! Will probably write more about this decision process at some point but it definitely offers more room to grow and hopefully more freedom to pursue the things I care about.

Awkward Invites: Literally 42 minutes after receiving the final contract from [redacted], the University of Arizona asked if I would like to interview. I went back and looked and I made an enormous mistake in my cover letter there, so add that to the stockpile of R1s don't look at cover letters examples...

Turnabout: This also means that I started rejecting places today. Mostly the entire city of Portland and the surrounding suburbs. Nothing interesting happened after I told them I was going to accept an offer elsewhere. Turning down [redacted] was less fun but clicking the "I'm off the market" button on MathJobs was sort of exciting.

Cheers,

Daryl

13 Document Examples

13.1 2018 Cover Letter Text

Dear [committee people]

I am a graduate student working in the mathematics of data analysis under the supervision of Professor Daniel Rockmore. I expect to receive my Ph.D. from Dartmouth College in June of 2018. I am writing to apply for the [title] position advertised on Mathjobs #[number]]. At [name of school], I could teach a wide variety of mathematics courses, contribute to the community in mathematical data science and applications of discrete mathematics, and supervise student research in this area. Additionally, I would be excited to collaborate with faculty members in the social sciences on interdisciplinary projects.

My main research interests concern the underlying mathematics of discrete data analysis and I have published research papers in network science, graph theory, and combinatorics. My recent projects focus on developing new mathematical methods for more accurately representing collected data, such as multiplex networks where nodes can interact in multiple ways and the development of more accurate null models for time series.

The program at Dartmouth has prepared me to teach courses and students of all levels in a rigorous liberal arts environment. Last year, I was awarded the Dartmouth College Graduate Teaching award, given to the graduate student across the entire college who best exemplifies the properties of a college instructor. My classes frequently incorporate data from my research and I have experience incorporating a wide variety of data sets and computational tools into my classes. In support of my application, four recommendation letters addressing my research and teaching will be sent separately. Please contact me if you require any further details. I will be presenting at the Joint Mathematics Meetings on Wednesday Jan. 10, at 8:45 and I would enjoy meeting with your committee to discuss my application. Thank you for your time and consideration.

13.2 2020 Cover Letter (Research)

I am a postdoc currently working on applied problems motivated by political redistricting in the Geometric Data Processing Group under Professor Justin Solomon and affiliated with the Metric Geometry and Gerrymandering Group under Professor Moon Duchin. My Ph.D. in Mathematics, focusing on dynamical operators on social networks, was awarded by Dartmouth College under Professor Daniel Rockmore in June

2018. I am writing to apply for a tenure track Assistant Professor position in Mathematics with an emphasis on Data Science advertised on MathJobs.

At [your school], I could teach a wide variety of courses in data science and applied methodology, contribute to the interdisciplinary research community in mathematical data science, and supervise students in these areas. Outside of the department I would be excited to develop interdisciplinary projects with faculty members associated with the Department of Political Science using my background in network science and extending my work on political redistricting. In addition to my theoretical work, a main contribution of my postdoc has been developing the open-source statistical software GerryChain, which has already been used for applied projects all over the country. This work also leads to many natural collaborations with the Data Science Institute and several of its research groups.

My main research interests concern the underlying mathematics of discrete data analysis and I have published research papers in computational redistricting, applied network science, and combinatorics. During my postdoc, I have worked on a variety of problems related to MCMC methods for generating ensembles of graph partitions, including computational complexity analysis and defining new proposal algorithms. This project has also allowed me to work on analyses with immediate relevance to real-world political problems, including contributing to an amicus brief submitted to the Supreme Court. My graduate work focused on developing new mathematical methods for more accurately representing annotated data, such as multiplex networks where nodes can interact in multiple ways and the development of more accurate null models for time series data. In 2018, my thesis was awarded the Hannah Croasdale Award, which is a college-wide award awarded annually to the graduating PhD recipient who best exemplifies the qualities of a scholar.

My experience teaching Calculus and Mathematical Modeling courses at Dartmouth have prepared me to teach courses and students of all levels in a university environment. In 2017, I was awarded the Dartmouth College Graduate Teaching award, given to the graduate student across the entire college who best exemplifies the properties of a college instructor. My classes frequently include data from my research and I have experience incorporating a wide variety of data sets and computational tools into my classes. While at MIT, in addition to designing a January term course on computational redistricting, I have supervised several student research projects, some of which have led to research publications. I have also organized and supervised the Voting Rights Data Institute which is an interdisciplinary REU that has included over 80 students over the last two years.

In support of my application, several recommendation letters addressing my research and teaching will be submitted separately. Please contact me if you require any further details. Thank you for your time and consideration.

13.3 2020 Cover Letter (Teaching)

I am a postdoc at MIT working on mathematical problems motivated by political redistricting under Professor Justin Solomon and affiliated with the Metric Geometry and Gerrymandering Group under Professor Moon Duchin. My Ph.D. in Mathematics was awarded by Dartmouth College under Professor Daniel Rockmore in June 2018. I am writing to apply for the Assistant Professor position in Mathematics advertised on Mathjobs.

At [your school], I could teach a wide variety of mathematics and data-driven courses, contribute to the community around mathematical data science, and supervise undergraduate researchers in these areas. The ability to teach and work with students as strong and motivated as yours is a large part of why I would be excited to join your department and I would be delighted to participate in supervising capstone experiences. Much of my research is motivated by trying to build better probabilistic and discrete models to represent social data and this is an area where there are many opportunities for students with a liberal arts background to contribute.

My teaching experience at Dartmouth has prepared me to teach courses and students of all levels in a rigorous liberal arts environment like yours. In 2017, I was awarded the Dartmouth College Graduate Teaching award, given to the graduate student who best exemplifies the properties of a college instructor. During my time at MIT, I designed and taught a January term course on computational redistricting and co-taught an STS course at Tufts on Mathematical Models in Social Context. The last two summers I have helped organize and run the Voting Rights Data Institute (VRDI), an eight week interdisciplinary REU program for students from all backgrounds that focuses on computational research projects related to political

redistricting. My experiences with this program have provided me with experience in introducing students to mathematical ideas, motivated by their interests in social causes. These types of projects are perfect settings to engage students from diverse backgrounds who have historically underrepresented perspectives in STEM fields.

I am particularly motivated to teach in a liberal arts focused department, where students are prepared to grapple with the societal context of quantitative tools. My current position has allowed me to work in an interdisciplinary and collaborative environment and I would be excited to share these experiences with the students at [your school]. Already, this project has also allowed me to work on, and involve students in, analyses with immediate relevance to real-world political problems, including submitting an amicus brief to the Supreme Court and analyzing legislative reforms in Pennsylvania, Virginia, and Missouri. My teaching statement describes in more detail how my approaches inside and outside the classroom relate to the broader liberal arts mission.

In support of my application, several recommendation letters addressing my teaching and research will be submitted through the MathJobs website. Please contact me if you require any further details, I would enjoy meeting with your committee to discuss my application. I will be speaking at the JMM on Friday at 3pm. Thank you for your time and consideration.

13.4 2018 Withdrawal Email

Dear [redacted],

Thank you for taking the time to interview me at the JMM. I really appreciate the opportunity and it was a pleasure to meet you and learn more about your department. After some careful consideration of my situation, I have decided to withdraw my application for your position.

Best wishes,
Daryl DeFord

13.5 2018 Waiting Email

Dear [redacted]],

Thank you for taking the time to interview me at the JMM, I really appreciate the opportunity and your consideration. It was a pleasure to meet you and learn more about your department (and to see [redacted]). After our discussion, I feel like my strengths and research interests would complement the current makeup of your department and I would be excited to join your faculty.

Best wishes,
Daryl

13.6 2020 Prodding Email

Dear [redacted],

I really enjoyed meeting with your committee last month and am still interested in your department's position. I have started to receive faculty offers from other departments and was wondering if you could update me on the progress of your search. In particular, am I still under consideration for the position and if so, what is the likely timeline. I am still trying to negotiate deadlines to respond to these other offers but would prefer to join your department.

Thanks for your time,
Daryl

13.7 2020 Negotiating Email 1

Thank you again for the generous offer. I am excited about the opportunity this position would represent. I'm still a little surprised by the timeline - during the final interview with the committee it sounded like there were still at least a couple of weeks before a final decision could be made. I would appreciate any flexibility that you could offer as I evaluate my options.

With respect to the specifics of the offer I would like to request a salary of 105,000 reflecting my experience generating and supervising undergraduate data-focused projects and extensive connections within the field.

I would also like to request a larger startup fund of 35,000, particularly as the startup can be used to fund undergraduates for projects (and purchase data and resources to support those projects). One of the focuses during my discussions with the department was getting students started early, working on projects that they could take significant ownership of and use throughout their journey at [redacted] to reinforce the material they are learning in classes.

Another issue that I would like to address formally (probably in consultation with the department?) is an expected timeline for developing new courses. Since the major and program are new, much of the course material will be created as the initial cohort progresses through the program. As currently outlined, I believe the plan is to develop three brand new courses next year for sophomores and then an additional two courses (including capstones) per year for the next two years. Does this seem accurate? Also, is the expectation that I will be solely responsible for generating and teaching these classes?

I would also like some clarification on courses that I will be teaching outside of the data science major. I would be perfectly happy (and excited) to teach broadly in both halves (Math/CS) of the department as necessary but would like to have some confirmation of the department's plans. I believe this is already done at least at the departmental level for faculty members who teach both Math and CS classes (recently algebra by CS faculty?).

13.8 2020 Negotiating Email 2

Thanks again for the offer to join your department, I am excited about the opportunity this position represents. It would be great to chat on the phone on Thursday. Most of my commitments wrap up before 9am Pacific, so I am pretty flexible on timing. I will definitely be free between 9:30 and 11:30, as well as 1:30 to 4:00, or anytime after 5pm. Below is an update on my current status on the market and a couple of questions about the offer and position.

I do currently have one other offer and am currently waiting to hear back from a couple of other schools. For reference, my competing offer salary is 95k, but that is in a larger metro region. I understand that you may not have significant flexibility in these areas but would appreciate the opportunity to negotiate the salary and start-up budgets. In particular, if the equipment category of the start-up package includes computers, I would like to request additional funding to purchase at least one dedicated machine for data science projects as well as sufficient resources for continuing to make my data sets publicly available.

Blah, blah, blah filler questions.

(in a follow up it became clear that there was not room to negotiate on salary, so I directly asked for more startup funding for computing, which was approved)

14 Preliminary Interview Examples

In the spirit of old style qualifying exam dumps, these are my recollections of some preliminary interviews. The ones from this 2020 are less detailed because I had already generated the big lists of questions below, so there was less need to focus on remembering the specifics. Instead, I got to focus on answering the questions and being conversational.

14.1 2017 Small State School

Setup The call was held over gotomeeting, they sent me a link in an email the day before the interview. After clicking on the link you have to download and install the software (a little bit of a surprise if you aren't expecting it) luckily I clicked early enough to get through that process before the actual meeting was supposed to start. A little bit of microphone fiddling and then we were on our way.

Introduction There were five of them seated around a large conference table with my face on a big screen at the head of the table. It looked like they had all printed out my application documents and referred to them/made notes on them throughout the presentation. Went around the table and introduced themselves (just names, no titles or research areas).

Questions After a brief, "Thanks for meeting with us," "Likewise" segment, they jumped in with the questions. They each had at least one assigned questions plus a couple of follow up questions/comments. It

was pretty condensed timewise, so for most questions I gave a two or three sentence general answer, followed by a single specific example.

- Tell us a little about your background and why you are interested in this job.
- What classes have you taught?
- What experience do you have mentoring undergraduates?
- Do you have problems that are suitable for undergraduate projects?
- How much service do you contribute to your department?
- Can you explain some more about your work at Crossroads?
- What type of advanced course for undergraduates/Master's students would you like to design here?
- Do you have experience collaborating with industry or other departments?

Reverse Questions After getting through those, they asked if I had any questions. The first one they all went around and said something about, after that just a single person answered.

- Can you tell me a little about the student population?
- Are there specific collaborations with other departments that you are trying to build?
- What types of data analysis projects are currently happening?
- Can you tell me more about the senior thesis process?

Wrap up I asked my last question at exactly 15 minutes in and then we ended after that answer with requisite pleasantries.

14.2 2017 Small Catholic College

Setup They called right at 11:00. Hadn't really thought too much about how to answer the phone ... at least for me Skype would have been much better. The main speaker introduced himself and then the rest of the committee. He read a prepared statement describing the college and department and then one at a time each of the committee members introduced themselves individually and asked a question. They each added a blurb setting the context for their question, for example the teaching questions were prefaced by a remark about the teaching load (3-3) or the emphasis on liberal arts teaching, while one of the research questions was prefaced by "Well, we are close to Boston and other big universities..."

Questions

- Tell us about a great teaching moment.
- Which of our classes are you most excited to teach?
- How did you get interested in your research area?
- How did you manage to publish so many papers in graduate school?
- What are your research and teaching plans over the next 2/5 years?
- Do you have experience supervising undergraduate research?

Reverse Questions After getting through those, they asked if I had any questions. The first one they all went around and said something about, after that the two who teach the class answered. After these they asked a couple of other questions (below).

- Can you tell me more about the senior thesis process or how independent studies work?

- I read a little bit about Math 290 (intro to proofs). Can you tell me some more about the structure of the class, do you use a textbook, how long do you spend on logic vs. proof structure etc.

Questions

- Can you collaborate with the computer scientists in the department?
- Why do you want to teach at a liberal arts college instead of taking a research postdoc?

Wrap up They asked the last question after 16 minutes and that was time up. They promised to email more about the job next week.

14.3 2020 SLAC CS Department

Setup Skype. Four committee members, three of which I knew personally, so the environment was pretty relaxed overall. They had already seen my job talk, so didn't need as many research details.

Questions

- Why liberal arts and why here in particular?
- How do you tailor your teaching to liberal arts students?
- How will you support diversity and inclusion in classroom and research?
- How will you:
 - balance time
 - include undergraduates
 - use resources
 - etc.
 - for research (this was all one question)
- Which specific classes would you see yourself teaching?
- The job ad wants someone who is willing to teach systems classes, do you fit that?
- What about parallel programming, compilers, data structures (followup to previous)

Reverse Questions

- Opportunities to design new classes?
- Average class sizes?
- What do students do after graduation?
- Are those industry connections formal or individual?
- College programs for supporting interdisciplinary learning opportunities? Specific department targets?

14.4 2020 Fancy Midwestern SLAC

Setup Held over Zoom. Only three interviewers, seated around a laptop in one of their offices.

Questions

- Why [our school]?
- Talk about a class, what went well, what didn't. One good follow up here about the types of writing assignments.

- How would you encourage diversity and inclusion at [our school]?
- Have you had experiences in classes where students felt uncomfortable speaking up, what did you do? Another good follow up about experiences incorporating active learning into intro classes.
- What upper division classes could you teach?
- What topics course for sophomore/junior level students would you design?
- Tell us about an undergraduate research project you could supervise. What background would students need? Are there hard math problems associated with this work? Do the students have to have a computational background?
- Then we chatted a bit about why I hate Mathematica.

14.5 2020 Fancy Californian SLAC

Setup Over Zoom. There were 8 faculty members sitting around a table, plus one joining on her laptop from vacation (view of sun rising over the ocean from hotel balcony).

Questions

- How has your background prepared you to be an effective teacher, scholar, and mentor at [our school]?
- Which three of our advanced classes would you be interested in teaching?
- Tell us how you would handle teaching one of those classes (or how you have taught in the past) from a high level perspective. What are the goals, how do you approach course design, how do you assess, what is the content?
- Explain your research interests to us like we are sophomore linear algebra students.
- How do you see your research interests developing in the future here?
- Since we are a small department, you might have to supervise projects out of your normal research area, what would you feel comfortable with?
- The next question begins with a scenario that we want you to respond to: “Imagine you are teaching a calculus class and you run into one of your minority students in the hallway. You know that the student has missed the last several days of class. You stop to chat with the student and they say they are planning to drop the course. You ask if they have been to the [peer tutoring thing] and they say yes but they didn’t feel comfortable because it was cliquish and not helpful.” I think there was some other stuff but I couldn’t even hold the whole scenario in my head. “How would you respond and how should you encourage the department as a whole to respond?”

14.6 2019 West Coast R1

Setup Skype. Only two committee members, although I had emailed with the other one the previous day.

Questions

- Tell us about the theoretical and applied aspects of your research
- What does your overlap work with economics look like?
- Which courses in our program would you be able/willing/interested to teach?
- If you could design a course from scratch, what would it look like?
- What funding sources would you be able to bring in?
- What governmental, commercial, etc. collaborations would you be able to bring with you? What about ones that are specific to the area?

Reverse Questions

- Existing commercial collaborations?
- How do the topics work for the major?
- Who teaches the ethics class?
- Other social science connections beyond economics?

14.7 2019 Pacific Northwest SLAC

Setup Phone interview. Not sure how many people total contributed. They emailed me the prospective course list a few days earlier for the new major.

Questions

- Why liberal arts and why data science at [here] specifically?
- What does a normal day look like in your classroom?
- How do you promote inclusivity in your teaching?
- Which of our data classes would you be comfortable teaching?
- What kind of research do you do?
- What sort of support would you need to continue your research?
- How would you change our outline of the data science major?
- What can you do to help us form relationships with local businesses to provide projects/jobs for our students?

Reverse Questions

- How many majors?
- Lots of double majors? which departments?
- Average class size?
- Interdisciplinary collaborations?
- Can we escape C++?

14.8 Sample Questions (Department)

Here are some of the types of questions that I have been asked at preliminary interviews:

- Why do you want to teach at a school like ours?
- Why do you like the liberal arts model?
- What do you like about our department?
- Why would you want to take this job rather than a postdoc?
- What are your long term career goals?
- How do you think you will transition from graduate school to a full teaching load?
- How will you balance research, teaching, and service?
- What service have you performed that goes above and beyond basic responsibilities?

- Which of our classes are you most excited to teach?
- What classes have you taught?
- What is your favorite teaching moment?
- How do you promote diversity and inclusion in the classroom?
- What would you do to encourage a student who doesn't feel comfortable speaking in class?
- What is a time something went wrong when you were teaching and what did you do?
- What aspects of your teaching need development?
- What type of course would you like to design?
- Can you briefly explain your research interests?
- What are your research goals over the next 3-5 years?
- What funding sources and grants will you be applying for next year?
- What industry or government connections do you have?
- What experience do you have working on commercial projects?
- What programming languages are you comfortable teaching with?
- Where could you get our students internships?
- What is your favorite theorem?
- Can you supervise undergraduate research projects?
- What background would students need to work with you?
- Can you collaborate with faculty members in other departments?
- What does an ideal data science program look like?
- If you had to design a whole applied math curriculum from scratch, what would it look like?
- Where else are you interviewing?
- Do you have any other offers already?
- Would you actually take this job if we offered it to you?

14.9 Sample Questions (Candidate)

Many of these should be prefaced with a reference to your research into the department (i.e. "I noticed that your website has examples of past senior theses, ...")

- How large are the lower/upper division classes?
- How many majors are there?
- Is the department growing?
- How many double majors do you have?
- Which departments are most common for double majors or minors?
- Would I have the opportunity to design new classes?

- Is there a college wide teaching development center?
- Is there institutional support for developing interdisciplinary learning opportunities?
- Are there specific departments on campus you are looking to develop more connections with?
- What sort of math software do people use in their classes (e.g. MatLab for linear algebra or Mathematica/Maple/Sage for advanced classes)?
- What proprietary software licences does the department have access to?
- What is the administrative process for supporting undergraduate research/theses?
- Is there summer support for undergraduate research?
- Does the department support student summer internships?
- What are the students like? Do most of them live on campus? etc.
- What do most of your math students do after graduation?
- How good is the university library system? Is there a math librarian?
- How much \LaTeX is used in the department? Is it required for some classes?
- What sort of computational resources does the department/campus have access to?
- Do most of the data–science focused classes take place in the math department? or CS? or Stats? etc.
- What is the standard teaching load?
- Is the number of preps limited?
- How do courses get assigned?
- What sort of junior faculty development programs exist?
- Can I get funding for ProjectNext?¹²¹
- Is there travel funding for research?
- What percentage of time is spent of research/teaching/service?
- What sort of committees do junior faculty serve on?
- Is it possible to take a pre-tenure sabbatical?
- Which national organizations (MAA, AMS, etc.) does the department belong to?

¹²¹Some schools expect you to ask this and will mark you down if you don't.

A Scenes from Stata: Part I - The Labyrinth

Scene: Daryl has just entered an elevator, there are no robots in sight.

Daryl: *Pushes button for 4th floor*

Poor Confused Guy: *Wanders towards elevator atrium, looks lost.*

Daryl: *Holds door open*

PCG: *Walks in to elevator*

PCG: Thanks.

Daryl: *Moves out of way so PCG can push button*

PCG: *Looks at buttons*

PCG: *Looks away*

PCG: *Looks back at buttons*

Daryl: *Thinking* Must be headed up to the 4th floor too.

PCG: *Looks away*

PCG: *Looks back at buttons*

PCG: *Stops door from closing*

PCG: How do you get to the second floor?

Daryl: *Looks at buttons numbered B,1,3,4,...*

Daryl: Of the 8 elevators I know about on this level, only one of them goes to that floor. Where are you trying to get to?

PCG: 259?

Daryl: Which building, 32D or 32G?

PCG: G.

Daryl: So we are in the D part right now and the building aren't connected on the second floor except for a complicated-to-get-to internal 'skybridge'. What you need to do is walk all the way around the ground floor then up the staircase that looks like it goes up to some glass double doors, not the one that just goes up over your head. Through the glass doors there is a hallway and more....

PCG: *flees*

Daryl: *returns to office, looks at Stata Center floor plans to discover there is no G259.*

PCG: *Hopelessly lost forever, probably*

End Scene

B Scenes from Stata: Part II - The Monsters

Scene: Daryl is escorting a middle school student towards a classroom reserved for tutoring. It is evening-time and the building is mostly devoid of (human) occupancy.

Daryl: How was your dance performance last weekend?

Student: It was fi ... OMG THERE'S A RAT!

Cute Little Mouse: *Peaks head out from behind garbage can*

CLM: *Hides back behind garbage can*

Daryl: Yeah, that can be a little bit of a problem around here...

Student: *Hyperventilating* I'm not going in there.

Parent: It will be fine.

Student: Nuh-uh!

Daryl: Uhhmm... We can find another room, don't worry about it.

Daryl: *Shuts door to original room*

CLM: *Hopelessly lost forever, probably*

A new, empty room is found

Daryl: How about this one?

Student: My feet are never touching the floor here again.

Student *Spends the next two hours with feet raised above floor*

Daryl: Ok, let's look at the problems from last week...

*The next 108ish minutes pass quickly, many geometric series are evaluated, Σ notation is introduced, and philosophical questions, such as "Yeah but is .9999999999999999 **actually** equal to 1?" are mostly dodged*

We rejoin the flow of conversation

Daryl: *Scribbling illegibly on whiteboard*

Daryl: ... so you see this is really just the AM-GM inequality disguised as a problem about quadratic polynomials...

Daryl: *Spots spider lowering itself down from ceiling towards head of student*

Daryl: *Stares for just a second too long; gets caught by student who also sees the spider*

Less Cute Spider: *Lands on student's scratch paper*

Student: *Mass panic and exodus from room*

Daryl: *Shouting after fleeing student*

Daryl: Maybe we should meet at the public library next week.

End Scene

C Scenes from Stata: Part III - Clouds Above

Scene: An arbitrary csail inbox.

A normal Tuesday

from: PI **Subject Line:** Cloud Computing Service #1

Body: Please stop using this service, it is charging our lab account too much! We have lots of credit on Cloud Computing Service #2, move your jobs there.

24 hours later

from: PI **Subject Line:** CCS#1: Final Warning

Body: We get charged for data storage as well, not just compute time. Please backup everything by the end of the week, I'm deleting the group account on Friday. Poor Confused Grad Students 1-5, it looks like you all have significant amounts of data uploaded please confirm your progress.

The next weekend

from: PCGS 2 **Subject Line:** Re:CCS#1: Final Warning

Body: Wait, this Friday, or next Friday?

from: PCGS 5 **Subject Line:** Can't log in to group CCS#1 account

Body: Did somebody change the password?

A month or so passes

from: PI **Subject Line:** CCS#2

Body: We just burned through [medium large sum of money] in the three days leading up to [conference deadline]. Don't worry, that is why we write grants to fund your research but now that the deadline has passed, lets clean up the instances and data storage.

Another week

from: PI **Subject Line:** CCS#2: Urgent!

Body: Over the last 12 weeks we have burned through [a huge sum of money] on CCS#2 computing power. Our support for this program is dwindling and if we cross the [a huge sum of money + a small amount of money] boundary (as is likely to happen in the next couple of days if a couple of you don't change your behavior...) everything will stop automatically and all of your data/etc. will disappear. Don't let that happen!

The very next day

from: PI **Subject Line:** CCS#2 More Credits

Body: A generous donor recently provided us with [a large sum of money] in CCS#2 credits. However, last time they all got used up in hours due to a poor implementation decision. Let's formulate a policy to keep that from happening again...

Some time passes

A normal Tuesday

from: PI **Subject Line:** Close your CCS#2 instances!

Body: I just discovered that several of you have inactive instances charging us every month - probably left over from the last minute experiments for [recent conference] submission. Kill them now!

24 hours later

from: PI **Subject Line:** CCS#2: Final Warning

Body: We get charged for data storage as well, not just compute time. Please backup everything by the end of the week, I'm deleting the group account on Friday. Poor Confused Grad Students 1, 2, 5, and 8 it looks like you all have significant amounts of data uploaded please confirm your progress.

this scene never ends...

D Scenes from Stata: Part IV - Counting is Hard!

Scene: Mostly the fourth floor hallways.

Prologue

Daryl: *Sends an email scheduling an IAP class*

“I’d like to hold class on these four days at 1 in the afternoon. The classes will build on each other, so students will need to commit to at least three of the sessions, and everyone must attend the first one.”

Administrators: *Schedules the class at 8am and tells all the students the classes will be independent so they can pick and choose when to attend*

Students: *Start emailing Daryl about specific dates they want to attend*

Daryl: *Sends slightly aggressive email questioning competence of administrator*

Administrators: *Unmoved by passionate email - assigns the 8am meetings to a room in building 34*

Main Adventure

Daryl: I guess I’d better go find the classroom I’m supposed to teach in.

Helpful Officemate: Well, we are in building 32 and I think building 34 is that way

(Un)HO: *Points down hallway*

Daryl: Thanks!

Daryl: *Walks down hallway*

Daryl: *Looks at office numbers: 36-411Z, 36-412E, 36-415WTF, etc. *

Daryl: hmmm... Must have gone too far.

Daryl: *Retraces steps back to elevator clearly labelled 32*

Daryl: *Faces direction indicated by (Un)HO and sees a spot ahead through some wooden double doors where the floor switches from nauseatingly colored and tiled carpet patters to kind of boring laminate*

Daryl: *Inspecting the floor covering transition point shows a clear switch between a set of bathrooms numbered 32-* and 32-*+1 and a closet, numbered 36-3(*)-7*

Daryl: *Begins to believe that this is some sort of platform $9\frac{3}{4}$ nonsense and considers running in to the wall*

Daryl: *Frantically searches the orthogonal hallways looking for a path that curves back to 34 from 36*¹²²

Daryl: *I guess I could try walking all the way to the end of the hallway*

Daryl: *Reaches an alcove covered with official MIT signs with a red circle with a cross running through it over some text that says:

NO DANCING
or
LOUD MUSIC BEFORE 6PM
IN THE BUILDING 36 LOBBIES
Must be a recognized MIT Dance Club¹²³

¹²²These hallways lead to a stairwell to the roof (5 floors up), building 26, and a dead end. None of them appear to have anything to do with 34. The hallway to 26 is interesting for several reasons. First, it contains the vast majority of the lasers on the MIT campus. Second, it is split between two departments, who have chosen to mark their respective territories by painting their doors different colors, red for one and green for the other. Finally, the hallway ends at an alcove in Building 16 where you are presented with paths that lead to either Building 12 or Building 56.

¹²³Capitalization, boldface, and sizes preserved from original

Daryl: *Texts a picture of sign to send to friend-who-dances-in-Cambridge to see if they are somehow responsible for the breaches of decorum that led to all this official signage*

F-W-D-I-C: LOL No

F-W-D-I-C: Sounds like fun though...

Daryl: ...

Daryl: Do you know where building 34 is?

F-W-D-I-C: LOL No

Daryl: *Wanders through the atrium, which is full of old CRT computer monitors on shipping pallets with attached signs that say do not disturb, property of [Lab whose headquarters is in Building 36]

Daryl: *Sees a large sign¹²⁴ on the wall that says “4th floor - Building 36” next to another hallway.*

Daryl: I guess I can’t get any more lost

Daryl: *Walks towards the new hallway*

Daryl: *Spots small¹²⁵ sign on door “Entering Building 34”*

Daryl: *Much rejoicing, some tears, a little embarrassment*

Daryl: *Finds classroom right around corner*

Daryl: *Continues walking down hallway to see what comes next*

Daryl: *Stumbles into building 38*

Daryl: *Wanders back to office in a daze*

Daryl: *32,36,34,38 ... 32,36,34,38 ... 32,36,34,38 ... 32,36,34,38 ... 32,36,34,38 ... 32,36,34,38 ... 32,36,34,38*

End Scene

PostScript: Day 1 of the IAP

In my email reminding students about the class, I didn’t provide directions to the room, since I assumed that anyone who had been around long enough to actually successfully register for the course could probably find their way around better than I managed to. I will leave it up to your imaginations out of 40, how many people¹²⁶:

- a) Made it to the room on time.
- b) Made it to the room while I was still lecturing.
- c) Made it to the room after class was over but while I was still there answering questions and chatting with attendees from categories a) and b).
- d) Made it to the room after I had left and sent snarky emails asking where I was.
- e) Gave up and went back to bed after getting lost only to email me after waking up from their naps to complain that the room was hard to find and ask for lecture notes.
- f) Are (probably) still lost somewhere in the bowels of the Stata center, sure that just around the next corner they will find me lecturing on computational redistricting.

¹²⁴at least 18 in. tall made out of something shiny

¹²⁵Maybe 4in - not shiny

¹²⁶All categories except 1 are non-empty

PostPostScript

While I don't want to blame F-W-D-I-C for anything, there was apparently some type of escalation from the broader MIT dancing community as the original signs were replaced with new ones that say¹²⁷:

**Absolutely NO USE of 4th, 5th and
8th
Floor Lobbies**

**Must be MIT Staff or Student
ALL OTHERS ARE TRESPASSING**

**Must RESPECT RLE Property
And Personnel at All Times**

**Noise and Music Will Be Kept at an
Acceptable Level
So it Will Not Bother Building Occupants**

**Doors, Stairwells, and Hallways
Will Remain Free and Clear at All Times**

POLICE TAKE NOTICE

PostPostPostScript

In the interest of complete-and-total¹²⁸ honesty, my solution to the problem of the IAP listing being malformed was to offer two versions of the course - one that matched the administrative vision of people showing up for one-off sessions at 8am in the morning and another that corresponded to my initial vision of cumulative afternoon lessons. I will leave it up to you to judge the relative reasonableness and sanity of this approach.

¹²⁷Capitalization, boldface, sizes, and colors preserved from original (seriously)

¹²⁸up to artistic licence anyway...

E Scenes from Stata: Part Ia - The Labyrinth redux

Subtitle: Seriously where is the second floor?

Scene: Daryl has just entered a different elevator, along with Busy Professor and Confused Student. There are three robots in sight.

BP: *Pushes button for 4th floor*

Daryl: *Thinking: Yes! I don't have to push anything and can just hide in the corner.*

CS: *Looks at buttons*

CS: *Looks away*

CS: *Looks back at buttons*

Daryl: *Thinking: not again*

PCG: *Pushes 9th floor button*

Daryl: *Thinking: thank goodness*

CS: *Announces* I forgot where I was going to a second

Awkward silence followed by the ding of arrival at the 4th floor

Elevator: Opens door

BP and Daryl stride into the hallway

CS: *Looks at buttons numbered B,1,3,4,...*

CS: Wait, is there no second floor?

BP: No

BP: *Keeps striding*

Daryl: *Stops striding*

Daryl: Well actually, ...

CS: *Eyes light up as exciting knowledge is about to be exchanged*

Elevator: Closes door

CS: *Last second lunge for the hold – door button fails*

CS: *Hope fades from eyes as the door slowly closes on my description of how to reach the 2nd floor*

Elevator: Heads for top of building

Daryl: *Walks away rapidly*

End Scene

F Scenes from Stata: Part V - Orientation

Scene: First day of work.

Someone, probably: Good luck!

End Scene

G Scenes from Stata: Part VI - Job Advice

Scene: A hallway on the way to the coffee machine/sink. The Mario theme is playing on a tuba in the background from a SoundTube(TM)¹²⁹. Daryl comes around the corner to find Fancy, Tenured CS Professor surreptitiously unplugging the noise.

Daryl: Hi...

FTCSP: You saw nothing!

Daryl: It drives me nuts too, happy to support this minor act of vandalism by looking the other way.

The screechy video game noises having been temporarily eradicated, we awkwardly head the same direction towards the caffeine

FTCSP: So I hear you're on the job market¹³⁰

Daryl: *thinking: Here we go....*

Daryl: Yup, doing all of that exciting stuff

FTCSP: I'm sure you'll be fine

We have arrived at the kitchen area, which is around another corner, there really isn't room for two people to stand in there at the same time, so I am standing around the corner in the hallway waiting to be dismissed

Daryl: *thinking: phew that wasn't too bad*

FTCSP: *Takes a deep breath to dive in*

Daryl: *thinking: I guess I deserved that*

FTCSP: *Medium length monologue that assumes¹³¹ I'm heading to one of a very small collection of fancy places to start up my own lab.

Daryl: *Nods along in the right places*

It doesn't help, since there isn't a line of sight

FTCCSP: ... Actually the interviewing process is pretty fun.

Daryl: Wait, what?

FTCSP: Sure. You get a bunch of time where people are forced to listen to you talk about your research

Daryl: hmm...

FTCSP: I have one piece of advice about the one-on-one interviews

Daryl: Sure, I would love to hear it

FTCSP: Just ask them what their research is on, everybody likes to talk about that and it can burn some time in a long day. Don't worry about listening, they probably weren't really listening to you either.

Daryl: Fair enough

FTCSP: *Finishes cleaning/filling mug*

Awkwardly walk different directions

End Scene

¹²⁹You can buy your own here!

¹³⁰I know that FTCSP has read my application materials and at least one of my reference letters but I didn't provide them.

¹³¹No advice on how to get interviews/tune applications. His default assumption appeared to be that I was just going to get to on campus interview wherever I applied. Said FTCSP actually has a bunch of really thoughtful writing on his webpage about how to grad student well but there are blind spots here that you could drop a whole pod of orcas through.

H Scenes from Stata: Part VII - Changing Elevation

Scene: How do we go up, or down? Having already encountered the dilemmas posed by elevators, our merry band of adventurers attempts to travel on foot. All of the stairwells described below are accessible from my office without walking past an elevator.

Going Up

In the D wing of building 32, the 4th and 5th floors share some open space. That is, the ceiling of much of the office space in the 4th floor is actually the floor of the 6th floor, except for places where there are walkways or offices on the 5th floor. There are also windy spiral staircases, in the middle of the open space, that go between the floors. Unless noted otherwise, directions begin facing out my office door.

- Turn right and walk down half a hallway. On the left is a closed door leading to a very traditional looking industrial stairwell. To reach the fifth floor, you go up 23 stairs divided up into 4 landings of 6, 6, 6, and 5 stairs each. The doors exiting this stairwell require key card access to unlock. Hope you brought your id...
- Walk straight ahead and turn right, then left, and then right again to jog around the temporary office cubicle in the hallway corner. You will be facing a wooden spiral staircase with solid railings. 20 steps up will deposit you on the 5th floor, separated from the elevators by a glass wall and eventually a wooden door. This is a useful staircase, as the entry to our lab area is guarded by a key card access door on the 4th floor but if you simply take the elevator to 5, you can come down the spiral staircase past the locked door.
- Start at the first spiral staircase and through the doors that the staircase renders uselessly insecure. Continue straight across the hallway (trying not to trip over the tour groups who congregate here under the soundtube playing Mario music) to another set of (ostensibly) locked doors, also made irrelevant by spiral staircase #2 (around the corner to the right). This staircase takes 18 steps to get up one floor and has bright orange railings with large gaps. Giant lego blocks for the robots litter the floor beneath.
- Start at the tour hallway and turn right to join the tour groups until you reach the giant red room described in Appendix J. Turn left and a door will be on your left to another industrial stairwell. This one has 22 stairs in three sets of 7, 8, and 7 stairs. This stairwell returns in our discussion of the ping-pong table below in Appendix K.

Going Down

Trying to reach the ground floor is somehow even more awkward than going up. All directions begin in the giant red room (Appendix J).

- The two industrial stairwells mentioned above also go to the ground floor, averaging 22ish stairs per floor to the bottom.
- Immediately upon entering the room, turn right and continue down the corridor that leads past the linguistics department. Head down 33 stairs to reach a set of glass doors that aren't too hard to open. You have now reached the third floor headquarters of the W3C. Eleven more stairs down places you on a second floor landing, which has no rooms or offices but is the one place that an elevator stops on the 2nd floor, just randomly in a hallway. Finally, 35 more steps deposits you on the ground floor.
- Exiting the room onto the patio and walking around the awkward steel fence that cuts the patio in half, next to the exterior of the two story giant yellow cone room, you are faced with a tunnel going down. There isn't much light but if you take the 40 stairs down into the darkness (32 plus a right turn into 8 more) you are faced with a door that is always locked from the other side. Exiting the shed leaves you on the 2nd floor patio and you can either take the 36 stairs down the amphitheatre to the food truck or 40 additional stairs down the back of the building to the gym entrance and parking lot.
- Crossing the entire room you can head down 34 stairs to an impossible-to-open set of glass doors. Should you conquer them, you are on a third floor open passageway and after a quick left, right, left, you can take 47 stairs down to the ground floor (no exit to second).

End Scene

I Scenes from Stata: Part IVa - Escape Route

Scene: The same 4th floor alcove in Building 36 whose odd collection of signs was discussed in Appendix D has now appeared on Twitter: [link](#). On a recent visit to the site a new sign had appeared, offering the following wheelchair-accessible route for escaping the building:

- Go down the hallway to building 36
- Take the elevator to the 3rd floor
- Head West (probably a little hard to tell from the inside of a giant steel box) to building 38
- Take another hallway to building 39
- Take another hallway to building 37
- Take the elevator (that hopefully the hallway ends at?) in 37 to the 4th floor
- Take another hallway (no compass direction provided this time) to building 35
- Take another hallway to building 33
- Take another hallway to building 9
- Take another hallway to building 7
- Exit at building basement.

I haven't yet tried to take this route but hopefully anyone who does try takes a picture beforehand. Also, what if there is an actual emergency!!! I also don't know at what point the fourth floor turns in to the basement but that is only one of many questions raised by this sign. I should say though, that in contrast to the no dancing signs, this one has uniform capitalization, no extraneous bolding, and all of the fonts are the same size.

A month or so after the wheelchair-accessible route was posted, some new signs appeared describing the non wheelchair-accessible route. These signs consist of some informative guidelines¹³²:

- In the event of a fire alarm or declared emergency, the Institute Policy is to EVACUATE THE BUILDING IMMEDIATELY by the nearest exit or enclosed stairway.
- The Institute policy is NOT TO FIGHT FIRES.

Please leave and assemble in the following location:

Exterior Point A: in front of BLDG 44

Alternate Point B: in front of BLDG 46 - plaza between 46 & 48

in case of inclement weather, please meet in the following location:

Interior Location: BLDG 32

Alternate: Lobby 37

- **DO NOT USE THE ELEVATOR in case of a fire**

This is followed by a pictogram showing two routes to stairwells. The first set of stairs described is right next to the sign and not that hard to find. The other points you a loooooong way down the hallway towards Building 32 and a stairwell that I didn't describe in Appendix H since it is past an elevator. This stairwell is poorly marked and I have definitely seen people looking for these stairs walk down the wrong hallway in building 36, end up in building 34 and then be lost forever.

¹³²Capitalization and color in original.

J Scenes from Stata: Part VIII - The Red Room

Scene: The middle of the 4th floor. The Stata Center is composed of two buildings that are only connected on a few of the floors (usually I tell people that it is the even floors but the reality is a little more complicated than that (cf. Appendix K)). The connection on our floor is a giant room with red/orange floor tiles¹³³. There is a wood paneled square closet, used as an administrative office for some of the cooking staff) in the center of room (that the ping pong table sits on top of).

Entering the space from the direction of my office you are actually standing on blue floor tiles. These tiles stretch in an arc around the left side of the room and you can follow them to the other half of the building. Directly to the left is a restroom (Appendix L) and stairs (Appendix H) and to the right is a hallway leading to the Linguistics department, stairs heading down, and one of the large lecture rooms with abominable acoustics that appears as an odd growth from the outside of the building. The air space above the line that separates is filled by a metal curtain that hangs down from the ceiling (so it is approximately 18 feet since the ceiling goes up to the bottom of the 6th floor) that separates the blue “pathway” from the red “meeting/eating” area.

If you continue along to the left, about halfway around the arc, you will encounter some glass double doors that lead to the “bar”. I’ve never actually seen any bar type activity in here (although there is a nice-looking bar with stools in front of it) but it is also where they serve/prepare food for the faculty dining, which takes place on the red carpet area. I’ve never actually eaten here either, although it is maybe allowed, the rules are a little unclear. The food is related to the food from the cafe downstairs (cf. Appendix N).

After the entrance to the bar you encounter a glass walled lab space full of robots and poor graduate students who have to program the robots with people walking by watching their every key stroke. The hallway wraps around the lab towards the elevators. If you skip the hallway you arrive at some stairs going down and the other large lecture hall that is wrapped in yellow metal bumps. The right side of the room is all glass doors, arranged in pairs, leading out to the balcony¹³⁴ where I take phone calls.

The really fascinating thing is how often the room gets reconfigured for different types of events that take place at all times of night or day. The setup/cleanup also happens incredibly rapidly, sometimes shifting between multiple versions within a couple of hours. The most common event types are

- **Standard:** A collection of rectangular tables and chairs scattered around the space. Frequently used by students for studying in groups or skyping. There aren’t nearly enough power outlets to make this super useful but people tend to float in and out as their power runs down.
- **Dining:** Lunch setup starts around 10. The tables are arranged in rows and table settings are setup, frequently with flower arrangements in the middle. They don’t usually all get used for lunch but sometimes research groups reserve larger tables for meetings with visitors, particularly when the weather is bad and walking outside would be unpleasant.
- **Poster Presentations:** The tables and chairs are removed and replaced with poster stands. Usually a mix of paper and large screens for digital posters.
- **Cocktail Parties** The rectangular tables and chairs are replaced by tall tables appropriate for standing around and placing your drink on.
- **Speeches** Everything is removed and people just sort of cluster around the wooden cubicle.
- **Overflow space from talks:** Sometimes popular talks are oversubscribed in the ugly rooms with bad acoustics. Because no one ever shows up on time for everything, the back of the room slowly fills up with sitters and standers until the pressure forces some people out of the doorway. The clustering spills out in concentric circles with people trying to lean in and see a part of the screen from further and further away from the actual entry.

End Scene

¹³³The floor tiles are actually funny thing: there are no air ducts in the building, the entire area under the raised-floor system is a plenum, and the heavy cement-filled-steel floor tiles form part of the thermal regulation system for the building.

¹³⁴This is a weird concept in a building like the Stata Center. Just outside these doors is the smaller balcony from the 6th floor, which means you can stand outside when it rains, and stairs that eventually lead down to the second floor balcony. Also, the ugly outsides of those large lecture halls.

K Scenes from Stata: Part IX - Ping-Pong

Scene: From time to time, as you wander¹³⁵ in the red room (cf. Appendix J) you might wonder to yourself Where is that infernal racket coming from?

The Journey

Our quest begins at the¹³⁷ SoundTube. Heading towards the rhythmic sounds of clinking cutlery and the receptive ping-ponging we only make it a couple of steps before encountering the historical antecedent to our story. To the right is a pair of double glass doors leading to a dark room where an ancient coach and dusty robot keep each other's silent company. In the before-times¹³⁸ there were no doors or walls and this was the brightly-lit rec area complete with foosball, pool, and yes, a ping pong table. The foosball and pool tables now reside on the second floor landing down the third staircase described in Appendix H but the object of our journey was ... elevated.

As part of a hiring initiative a new faculty member negotiated for additional space in the building and was awarded the open common area for their lab. Over the past 18 months a wall was installed separating the area from the hallway and the room was recarpeted. However, the faculty member has yet to appear, and so the room is mostly just empty. Occasionally, you spot people holding skype conversations¹³⁹ there, in the dark, on the couch that was removed from underneath our spiral staircase¹⁴⁰. Several months ago, several students were spotted in there on a couple of consecutive days, unpacking boxes of computers and assembling the sad robot. It has remained empty since.

Arriving at the entrance to the red room, the ping-ponging is louder and beyond the metal hanging curtains we can spot that the wood-paneled cubicle in the center of the room does not go all the way to the ceiling but rather goes up 15 ft where it is met by a plastic mesh curtain¹⁴¹. There appears to be a curving walkway suspended above the open space of the room that leads to an entrance in the mesh. Having spotted our target, we take an immediate left and enter the stairwell heading upwards. At the 5th floor landing we encounter two doors, which unlike the remainder of the exits from this stairwell do not have keycard locks.

Taking the door on the left we enter a small alcove, facing an ancient refrigerator with a large steel lock across its handle and a slightly less ancient¹⁴² vending machine. As the vending machine's refrigeration unit kicks into gear, a closer inspection reveals that it has not dispensed cans in several years. Two¹⁴³ buttons have cardboard signs taped on top that say "Broken" while orange lights declare three of the remaining flavors as empty. Messages throughout the years are scribbled on the face of the machine, including one that someone took the trouble to print on a labelmaker: "This machine hasn't worked since December of 2016, why is it still plugged in?"

Leaving the alcove, we spot the other door that leads to the stairwell¹⁴⁴ and more importantly the curvy, unsupported skybridge leading to the top of the wooden enclosure. Crossing the bridge,¹⁴⁵ the table is still out of sight until we push through the mesh wall and turn around a mysterious post. The play area is approximately two ping-pong tables long and two ping-pong tables wide but with only a single ping-pong table sitting in the middle. The table is old, and the legs are held up and balanced by a collection of even older paddle faces. There are several, filing cabinets scattered around the outside of the area, filled with a miscellaneous assortment of bicycle locks, old course advertisements, and chess pieces.

Epilogue

If you continue past the ping-pong area you will pass a locked door on the left that leads to the completely inaccessible upper floor of the bar area. Continuing along the second half of the floating passageway leads to an emergency exit door. Thus, the only way in or out is past the broken vending machine.

¹³⁵or heaven forbid, try to deliver a lecture on generative models for social networks to an uninterested¹³⁶ crowd of students...

¹³⁷currently unplugged cf. Appendix G

¹³⁸that is, just before I arrived here.

¹³⁹as someone who once drove 127.2 miles to find somewhere quiet to take an interview call, I understand.

¹⁴⁰too many people sleeping on it during the day. The couch was replaced by some egg-shaped star-trek chairs in the lounge that are much too unstable to sleep on.

¹⁴¹that keeps the balls from falling down into distinguished visiting guest's lunches.

¹⁴²A faded sticker attached to the bill slot reads "I LIKE COBOL".

¹⁴³but only two of the six

¹⁴⁴the purpose of two doors that lead to the same room, five feet apart, with no obstructions, is another unsolved mystery.

¹⁴⁵while looking down on the cafeteria scene below

L Scenes from Stata: Part X - Rest Stops

Scene: Toilet humor. As with the staircases explored in Appendix H, there are a wide variety of restrooms within an easy walk of home base. Much like the spirals vs. industrial hallways, there is no apparent rhyme or reason for the differences. This story also plays out over both horizontal and vertical levels. Although the initial visits are all on the same floor, for plumbing reasons restrooms are usually “stacked” vertically as well. As we will see, the Stata Center manages to contain two dimensions worth of inconsistency in fixtures, paint colors, and floor tilings. For obvious reasons, this survey only describes the properties of the Men’s restrooms, beginning with:

- The most commonly used restroom for residents of our wing¹⁴⁶ lies along the left wall of the red room (Appendix J) right next to the stairs leading to the ping-pong table. There are two stalls, one small and one large, as well as two urinals, one small and one large, separated by a standard steel divider. There are also two sinks but they are the same size. Traveling vertically we discover:
 - Nothing. This restroom lies directly underneath the broken vending machine encountered in Appendix K. Further exploration would have required more stair climbing.
- Continuing across the red room and down the hallway into the G portion of the building there is a single stall all gender restroom just past the elevators. Right next to the all gender restroom is another restroom with three stalls, one longer than it is wide, one wider than it is long, and one small square, as well as two equal height urinals separated by a divider. There are three sinks with push button nozzles but the hot water button only produces water for ~ 3 seconds before shutting off. Just inside the doorway are some coat hooks and a shelf for you to forget your laptop on¹⁴⁷. Traveling vertically we discover:
 - Very similar setups all the way up. However, in addition to the Men’s rooms to the left of each elevator, there are also Women’s rooms to the right on each floor.
- A short distance down the hallway in the other direction from our wing is a small inlet with single stall Men’s room. This is actually the closest facility to the office but as far as I can tell is never used by people from our building. The lock on the door is a little fiddly, and after my experience traveling in [redacted] I haven’t gone back inside. Traveling vertically we discover:
 - The other door on the inlet leads to a full-size Women’s room. These alternate as you go up and down the building, so on the 5th floor there is a single stall Women’s room and a full-size Men’s room with 4 stalls and 1 urinal while the 6th floor is like the 4th floor.
- Further down this hallway is the exciting alcove described in Appendix D. This restroom has five regular sized stalls and one large stall, all with bright orange walls, as well as seven urinals, all along a wall in a row with no dividers. Unlike the other urinals in the building, the ones here have basins that are constantly filled with water. There are also five sinks with turnable spigots and three paper towel dispensers. Traveling vertically we discover:

Floor 1: Here there are six regular sized stalls and six urinals. The walls of the stalls are a hideous, faded pale yellow color.

Floor 2: Much like the 4th floor except the floor tiles are older and all the stalls are the same size.

Floor 3: Like the second floor except with bright yellow walls.

Floor 4: described above

Floor 5: Like the third floor, except for signs saying “Flush when finished!” above the urinals.

Floor 6: Just like the 4th floor, including the larger stall.

Floor 7: Like the 5th floor but with no angry signs.

Floor 8: Like the second floor, except the floor is gritty, like someone visited the beach.

¹⁴⁶and hence the one I am least likely to visit, due to the awkwardness of constantly being in there with people you work with.
¹⁴⁷until someone either a) steals it or b) sends an email to all of CSAIL telling you that they found it and where you can pick it up.

M Scenes from Stata: Part XI - Projection

Scene: Setting up for a talk in a 5th floor seminar room.

Speaker: I have an ancient MacBook and forgot to bring my converter cable

Daryl: No worries, I'm sure we can track down the right thing somewhere. Let's try all the ones laying around the lectern first. *Much fruitless plugging of cables ensues*

Daryl: I'll go see if I can get one from The Infrastructure Group.

Daryl: *Walks down spiral staircase #1 (cf. Appendix H) to office*

Daryl: Hey, does anyone know how to get to the TIG office?

Officemates: Yes!

Daryl: Great! How?

Officemates: *Thinking*

Officemate #1: Uhhmmm...

Officemate #2: Well...

Officemate #3: You kind of...

Officemate #4: I think the fastest way is ... wait, hmmm...

Daryl: ...

Officemate #1: Take the stairs by the bathroom (cf. Appendix L) down to the lab on the 3rd floor, then turn left, go through the doors, go down another set of stairs in the middle of the room, ...

Officemate #1: Actually, probably easier if I just go with you.

Daryl and Officemate #1 head off on an adventure

TIG: What can I do for you?

Daryl: I need a Mini-DisplayPort to HDMI cable to plug an old MacBook for a presentation

TIG: Which room?

Daryl: 507

TIG: ...?

Daryl: D507

TIG: *typing into computer* Is that one of the seminar rooms with a projector on the ceiling?

Daryl: *nods*

TIG: Ok, here you go. Bring it back by 4.

Daryl: Thanks!

Daryl: *Thinking* hmmm... how do I get back? was it right down the hallway, the left up some stairs? Wasn't there a robot over there before?

Daryl: *Hopelessly lost*

Daryl: *Wanders randomly through the hallways, taking every right turn and staircase downwards until arriving at the ground floor. Takes an elevator going up, arriving 15 minutes late to the talk. Mails the converter back to TIG in a inter-office mail envelope to avoid returning to TIG.*

End Scene

N Scenes from Stata: Part XII - Chow Time

Scene: If you aren't able to hunt for your dinner (cf. Appendix B) you may instead take advantage of one of the many available dining options, without even wandering out into the wilds of downtown Cambridge.

- Seminar snacks
 - CSAIL maintains a mailing list (Vultures at CSAIL: sign up [here](#)) that lists all the free food options as a result of seminars, lab meetings, etc. throughout the day. A working keycard means that you could never shop again.
- Vending options
 - According to the [official guide](#) of MIT vending machines there is a single vending machine in the Stata center - through a doorway off a side hallway on the $\frac{1}{2}$ floor stairwell on the way down to the parking garage. However, as we discovered in Appendix K, all is not as it seems. Also, there is another one in building 36, which is attached (cf. Appendix D).
- Food trucks
 - Not quite as exciting as the science center up the road at Harvard but there is a food truck that parks on the lawn outside so often that it shows up on Google maps: [link](#).
- Faculty dining
 - Open from 11:30 to 1:30 in the red room (cf. Appendix J). Not entirely clear on who counts as faculty or what the rules are. Usually a couple of entrees (disjoint from the cafe 30 feet below) and a large soup/salad menu. Today's offerings:
 - **Entrees:** Tofu ranchero with peppers and onions and Roast beef with barbecue sauce
 - **Soups:** Vegetable, Vegetable and Barley, Vegetable and chicken, Broccoli cheese, Fiesta pork, Yomato tortellini, Beef and Noodle, Miso with wild mushrooms, Loaded baked potato
- The Cafe
 - Situated right inside the door on the ground floor, the cafe consists of a variety of stations and a large salad bar. Of particular interest is the fact that the credit card readers in this area are the slowest in the country. Partial list of this week's offerings:
 - * **Pasta:** Gnocchi with butternut squash oil, and basil pesto, Penne with salmon alfredo sauce, Cheese ravioli with alfredo sauce, Cajun Shrimp pasta
 - * **Comfort:** Macaroni and cheese, Bacon wrapped pork loin with honey dijon glaze, Chipotle, black bean, and sweet potato chili, Portobello stroganoff, Thai fried quinoa
 - * **Pizza:** Discussed in emails above. Always pepperoni, cheese, and two "other" flavors
 - * **Tandoori:** Aloo mutter, Pork rogan josh, Roasted chili broccoli, Fresh naan
 - * **Soups:** Creamy tomato, chicken and rice, American chop suey, smoked ham and bean
 - * **Sandwiches:** Greek wrap on a white wrap with feta cheese, hummus, kalamata olives, and roasted vegetables, Turkey club on ciabatta with mayonnaise, smoked gouda cheese, bacon, lettuce and tomatoes, Caprese on a spinach wrap with pesto mayonnaise tomatoes, basil, mozzarella cheese, and spring mix, and Tuna club with bacon on a ciabatta roll with cheddar cheese
- The Cafe Coffeeshop
 - The coffee shop next to the cafe is staffed by MIT employees but separate from the Cafe it is attached to. It serves a large collection of fancy pastries, some fruit, and I guess coffee¹⁴⁸. There are also breakfast sandwiches but they aren't advertised or listed anywhere, you just have to know they exist and ask for them.

¹⁴⁸Universally recognized as subpar. Most of the coffee actually consumed in the building comes from a combination coffee-house/pizzeria across the train tracks that run under building 46.

O Scenes from Stata: Part XIII - Lab Meetings

Scene: A not-quite large enough seminar room. Attendees at five past the starting time¹⁴⁹ include: the PI, a smattering of sleepy postdocs, most of the graduate students, some enthusiastic undergraduates, and one attendee from the previous meeting who has fallen asleep that no one wants to wake. There are snacks of some sort on the table¹⁵⁰.

PI: Ok, let's get started. I have some announcements: As you all remember from Appendix C, we are having some billing issues with ...

Grad student #1: *Arriving late¹⁵¹ tries to open glass door but it is locked. While fishing sleepily for ID card, another grad student gets up to let them in. *

PI: Also, [fancy conference in exciting city] is coming up. Make sure to book your travel through the office early, We don't want a repeat of last time...

PI: Does anyone else have any announcements?

Everyone: *Awkward Shuffling*

Grad student #2: *Arriving later¹⁵² tries to open glass door but it is locked. While fishing sleepily for ID card, another grad student gets up to let them in. *

Everyone: *Awkward Shuffling Continues*

PI: Great! Today's presentation is by [grad student #3] as a practice talk for [other upcoming event]. Since they are traveling already, they will skype in to give the talk.

The viewing screen is awkwardly placed in middle of wall

Everyone: *Awkward shuffling of chairs to see screen*

Grad student #3: *Giant image of head projects onto screen, upside down*

Everyone: *Giggling ensues, buttons are pushed, problem is not resolved*

PI: Well, why don't you just put up your slides, which is what we want to see anyway...

Grad student #3: *Slides appear, right side up*

Grad student #3: So this is a preliminary version of a talk I'm going to give ...

Grad student #4: *Arriving latest¹⁵³ tries to open glass door but it is locked. While fishing sleepily for ID card, another grad student gets up to let them in. *

The slides begin to auto-advance. No one knows how to set them up so grad student #3 can click through them.

Grad student #3: Talks for a minute, slide advances, closes slides so we see their face upside down, reopens slides to the correct one, repeat for 20 minutes.

PI: So that is all the time we have today, send your comments and questions to grad student #3.

Everyone: *Grabs snacks on way out*

AFTPMWHFA: ZZZZZZZZZZZZZZZ

¹⁴⁹Nothing ever gets going on time here. One of the local, weekly seminars has not started within 15 minutes of the scheduled time this entire term. Recently, I was scheduled to give a talk at 12, so I showed up around 11:45 to set up technology, etc. When noon rolled around, the only people in the room were me and the poor guy who had come to deliver the food for the seminar - even the organizer didn't show up until 12:08 and I didn't start talking until 12:22.

¹⁵⁰There appears to be no consistency week to week of what might appear.

¹⁵¹relatively

¹⁵²relatively

¹⁵³objectively

P Scenes from Stata: Part XIV: Wall Coverings

We've already covered the confusing hallways, stairways, and building structure but what (besides robots) are you actually walking past while trying to find your way between 32 and 36? The main accoutrements would be familiar to anyone who has spent a significant amount of time in academic buildings but the Stata Center does have a few unique sights to offer:

Lab spaces: Many of the interior walls are transparent, so you can see in any of the lab spaces that border the main hallways¹⁵⁴. Even more excitingly the complicated stairwell structure means you can frequently look through the walkways down a couple of floors to see people working in their offices down below.

Nerdy Graffiti On the ground floor there are some two story chalkboards that surround common seating areas. Sometimes these get used for study groups to work out problem or student clubs to advertise events. Occasionally, people will bring in ladders so they can write messages further up that don't get erased as frequently. One chalkboard in particular hosts a daily art installation, usually uploaded here: <https://www.instagram.com/chalkoftheday/>

A brand new feature has popped up recently (and the original motivation for this digression): students are apparently using chalk messages on the giant concrete columns holding up the building** to pass homework hints to each other. Spotted on the ground floor this morning: "Apply the contrapositive of lemma 1.18 for problem 6" It seemed like a fun game to get in on, so I found a nice quiet pillar on the third floor and contributed a "Use the trick from example 4 on problem 2" to the scenery.

Nerdy non-Graffiti In addition to the robots wandering around there are also some neat interactive items. Highlights include an alcove with a large working mechanical computer that uses billiards balls rather than marbles and 6 plasma TVs glued together connected to an Xbox Kinect that allows people to interact with different colorful visualizations. This is a big favorite with children and the young-at-heart more generally. The ping-pong area (Appendix K) also falls into this category.

Boring Stuff There are also the standard office labels and directional aids. The latter are completely useless and I'm convinced that twice as many people as necessary get lost after reading the sign posted outside our lab space (not just because it completely confused me on my first day here). I ended up completely befuddled at the front desk of the linguistics department before someone took pity on me and walked me back to the right area. The same person found me lost again on the wrong floor of the wrong building about 3 hours later - a very impressive start to my MIT career.

Advertisements In addition to the standard course and talk ads¹⁵⁵, many labs or groups maintain their own video displays showing research snippets. The obnoxious tuba-plays-the-mario-theme-song (Appendix G) is one example, as are all of the soft robot fish demos. Our groups version is classier (and quieter) - wall mounted plastic display boxes showing the first pages of recently accepted papers. In addition to ads which people you see, there are also ads placed that exist to prevent you from seeing things. The obvious downside to the transparent walls is the working-in-a-fishbowl experience, which feels like it can detract from a productive research environment. Thus, several labs cover the hallway walls with old posters and other research detritus to provide a more private working space.

Actual Art 50/50 celebrating famous pranks and # actualart. Current prank displays include a standard water fountain connected to a fire hydrant and a large ceramic cow that was apparently stolen from a restaurant and placed on the roof of a campus building. Art installations include a police car mounted on a pedestal over one of the chalkboards and a giant collection of regular sized paper cranes arranged like a chandelier hanging from a ceiling with a bunch of mirrors. Some of the windows inside stairwells also have random (and very dusty) crane-themed projects. There is also a 20 foot portrait of the current MIT president, which doesn't look as terrible as you might be worried about as I would be at having my image blown up that large.

¹⁵⁴Leaving the building on Friday I watched someone trying to train a robot to pour cereal into a bowl. Looks like Cinnamon Toast Crunch will be the fuel of the future.

¹⁵⁵which they do an admirable job of keeping updated. Several people travel the halls and elevators around 6:30am every morning replacing the talks from the previous day with the current set. Sometimes the ads are placed earlier than a day before the talk but they rarely survive beyond the day of the talk itself. The signs in the elevators are also impressively maintained.

Q Scenes from Stata: Part XV: A New Stairwell

I explored a new stairwell today, after ducking down a different hallway to avoid following someone I didn't want to talk to. Like many things at MIT, it is unobjectionable locally and comical globally. In this case, the exterior walls of the stairwell look out over a nice grassy courtyard and provide a view of the "Great Dome" looming over a building numbered in the 20's. Or at least, they would, except the walls are made out of the same gritty, darkish plexiglass that was used to for the skylights near my office and there really isn't much hope of making out much more than blurry shapes. Globally, this provides a stark contrast to the stairwell in the "no dancing" alcove, whose walls are made out of actual glass that is cleaned frequently, providing a view of the gritty, darkish industrial buildings across the street.

Besides stumbling on this new, fundamentally MIT design decision walking down the new hallway provided a fresh dialogue:

Scene: Just entering a hallway in building 36 that connects building 34 to an outdoor walkway to building 32. The outdoor walkway is technically covered by the indoor walkways that connect the buildings on floors 3-8 but is also technically a driveway that leads to parking for the childcare center. A delivery truck is backing up through the walkway and two well-coiffed gentlemen in suits have narrowly avoided being squashed by dashing into the hallway.

As I proceed up the hallway towards 32 the gentlemen are peering around corners into classrooms, loudly exclaiming about the numbering and turning back to look longingly at the truck blocking the view of the Stata Center. In the 90 seconds it takes me to reach their position, they several times march confidently a few feet down the hall, before returning to the door and consulting a map. My prayers to make it past them uninterrupted were unheeded (the god of mathematicians pointedly doesn't offer service covering the engineering complex).

W-CG1: Excuse me, we are lost.

Daryl: *sighs*

W-CG1: We're trying to get to building

Daryl: *Audibly - accidentally* Oh, no!

W-CG1: 34

Daryl: *Internally - Wait, I know this one.*

Daryl: Oh, sure. You're almost there, just go down this hallway, turn le...

W-CG2: *Interrupting*

W-CG2: That can't be right, we just left 32 but all the doors on this hallway say 36.

Daryl: Yes, it turns out tha...

W-CG2: *Interrupting*

W-CG2: I just don't understand where 34 is. We must have missed it somewhere.

Daryl: Well, what happened historically is that originally there were two freestanding build...

W-CG2: *Interrupting*

W-CG2: But that doesn't make any...

Daryl: *Interrupting*

Daryl: Just try not to think about it too much.

W-CG1: You were saying?

Daryl: Turn left at the end of the hallway into an alcove, the first big door on your right is the entrance to 34.

W-CG2: But I just don't...

W-CG2: I mean, we were just in...

W-CG1: *starts pulling W-CG2 down the hall*

W-CG2: and now we're trying to get to...

W-CG2: But somehow we've ended up in...

W-CG2: But somehow we've ended up in... *distressed muttering*

Daryl: *Internally - What about elevation?!?*

Daryl: Wait! What floor are you trying to get to?

W-CG1: Well at one point we were on the third floor but now we seem to be on the ground? There was a truck
...

Daryl: Right, but what floor are you trying to get to?

W-CG1: 5

Daryl: So there aren't any elevators or stairs in 34, so you're going to need to go...

W-CG2: *Interrupting*

W-CG2: What do you mean there aren't any stairs! Who is responsible for this travesty?

Daryl: *Internally - not the poor soul who was dumb enough to keep walking down the hallway instead of
hiding in the restroom until you wandered back into the roadway*]

Daryl: Well, 34 is really just classrooms squished in a glorified hallway betwee...

W-CG2: *Interrupting*

W-CG2: *disconcerted muttering*

W-CG1: You were saying?

Daryl: At the opposite end of the alcove from the entrance to 34 is a stairwell. Go up to 5 and then walk
through the alcove on that floor into 34. There is a big sign by the door.

Daryl: *Rapidly turns and walks away - narrowly avoids collision with bicyclist trying to squeeze between the
building and the truck, which is somehow still backing up through the walkway*

W-CGs: *Hopelessly lost forever*

End Scene.