



Graduate School: Lessons and Resources

Presentation for Econ Club - K-State

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PhD - What to expect

- First year: two semesters of micro/macro/econometric theory (and maybe math econ)
- End of first year/summer: Qualifying exams
- Second year: field courses (i.e. the courses you're actually interested in)
- End of second year/summer: Write a paper
- Third year: present paper to a few faculty + cohort members; prep your A-exam
- End of third year/summer: Take A-exam
 - Basically a set of three research ideas (proposals) that you promise to complete, barring substantial issues along the way

PhD - What to expect, cont'd

- 4+ years: do that research!
- Last year (typically 5th or 6th): on the “job market” - mostly have time to perfect presentation skills and apply for jobs, don't count on this time for major research
- **Job market paper “JMP” is very important in economics and the two other papers are less important; contrasts with other social science fields like sociology
- Entrepreneurial - you mostly set your own agenda which has its pros and cons

PhD - What to expect, cont'd

Practicalities

- Master's programs are typically not funded
- PhD programs ARE funded (usually)
 - TA/RA/Fellowship; the first two require work, typically 5-15 hours a week
- Tuition waiver + small stipend + (at least in my case) health insurance
- Other benefits: college campus stuff! (gyms, entertainment, social structures, free food)
- Can I leave or will my life be over?
 - Many people leave and are happy in their jobs!

PhD - Should I do one?

General (unsolicited) advice: Don't do one unless you are fairly sure that whatever job you want *needs* one

Who hires PhDs?

- Public policy/economics research: universities/think tanks/IMF/World Bank
- Consulting: Analysis group
- Government Orgs: BLS, Census, FDA
- Private sector: Amazon, Airbnb

Cornell historical placements: <https://economics.cornell.edu/historic-placement-phd-students>

PhD - How do I know if I would like research jobs?

General (unsolicited) advice: Get related work experience (and get paid!)

Why?

- Teach you how the “sausage” is made with small opportunity cost; did I mention, you get paid?
- Learn practical things you need to know to do research in grad school (that no one will teach you and you will have to learn on your own)
 - (These slides made in) LaTeX
 - Programming language including STATA, R (open source), MATLAB/Julia (macro), python (web scraping etc)
 - Datasets
- Gives you time to think about the type of research that interests you and how you may go about answering some of these questions

PhD - How to find relevant experience?

What might be related work experience (note, some of these may require a master's degree):

- Research positions at think tanks or the Federal Reserve/IMF/World Bank
- [Research Assistant Positions – at NBER](#)
- Pre-doctoral programs
- Work as a research assistant for faculty - EconTwitter and [@econ_ra](#)
 - Prof. Doleac put together a twitter thread [here](#)
- Development: J-PAL, IPA, SEGA; check large (and well funded) universities, many have research labs

Relevant experience, cont'd

AEA Summer and Scholarship Programs

Purpose: “AEASP is a prestigious program that enables students to develop and solidify technical skills in preparation for the rigors of graduate studies ... All students receive 2 months of intensive training in microeconomics, math, econometrics and research methods with leading faculty. At 3 credits per class, students have the opportunity to earn 12 college credits.”

Eligibility: “The program is designed for students who, by their background, life experience, and scholarship can show they will bring greater diversity to the economics profession. There are no formal requirements other than that an applicant does not already have a PhD in economics.”

Relevant experience, cont'd

The PhD Excellence Initiative

Purpose: “Thanks to funding by the Alfred P. Sloan Foundation, the PhD Excellence Initiative drives diversity in the field of economics by offering rigorous, post-baccalaureate fellowships to high-achieving scholars of color, setting them on the path to pursue doctoral degrees and research careers at the nation’s top institutions.”

Relevant experience, cont'd

The Sadie Collective

Purpose: “By empowering and equipping Black women in quantitative sciences, The Sadie Collective addresses the pipeline and pathway problem in economics, finance, data science, and public policy through curated content creation, programming, and mentorship.”

List of groups dedicated to promoting diversity in Economics

56 groups/orgs:

https://diversity-in-cornell-economics.github.io/pages/related_groups.html

What do I need to apply to a PhD Program?

- Math!
 - Linear algebra/Matrix theory and Analysis are must haves
 - Calculus may be a pre-req for Analysis and taking all the Calc 1-3 will be helpful regardless
 - To jump straight into PhD from undergrad, you will have much more success if you take these classes as undergrad
 - Otherwise a master's program + high score on GRE math section is fine

What do I need to apply to a PhD Program?, cont'd

- GRE - most important is math score
- Personal statement - one page reason you want to study econ at that school
- Reference letters
- Sometimes a writing sample
- If you're international, TOEFL test
- Money for grad school applications 50 to 100 per app (600 total)

How do I prep?

- Applications typically due Dec through early spring
- Study for and take the GRE
- Pick the schools you're interested in
 - First, decide whether you want to do applied micro (Labor/Health/Education/Environment/Public Policy) or more theory/structural based (Macro/Micro/Metrics/IO)
 - Choose schools that are good at the fields you are interested in, but at the very least good in the broad category you're hoping to study (interests can change quite a bit)
 - Select a range of tiers - a few safety schools and a few reaches
 - You can always ask faculty or coworkers where you might have a good chance of getting in
- Write personal statement and gather other materials
- Stay organized with passwords and deadlines, etc

I found myself in grad school, now what?

General advice:

- Just do something! (ie when you're stuck working on something is better than not doing anything even if that something isn't as important as what you are avoiding)
- Make sure you take time off
 - Mental health is no joke, "*Graduate School Can Have Terrible Effects on People's Mental Health*", The Atlantic
<https://www.theatlantic.com/education/archive/2018/11/anxiety-depression-mental-health-graduate-school/576769/>
- Don't completely change your study habits - your habits got you into grad school after all
- Find a way to enjoy what you do instead of seeking validation from others - most of academic work and especially grad school is criticism

Other helpful resources

I endeavor to keep a running list of resources on my website:
`https://www.christa-deneault.com/resources`

AEA website: `https://www.aeaweb.org/`

DICE at Cornell: `https://diversity-in-cornell-economics.github.io/`