Should I go to grad school?

Pros & Cons

- Freedom to learn and explore
- Join an active research community
- Chances to travel, meet people, have fun
- Low pay
- Stress
- Tough job markets, delayed career stability
Typical Ph.D. Program Timeline

- **First 2 years**
  - Take core courses
  - Study and take qualifying exams
- **Next 2-4 years**
  - Work closely with an advisor (and a research group or lab)
  - Complete a big, independent thesis project
  - Work on smaller papers and collaborations
Grad School Myths: Busted

- Myth: graduate school is too expensive.
- Fact: Ph.D. and some Masters programs offer grants for full tuition, stipends (salaries) and teaching jobs.

- Myth: you have to get into a top-ranked program.
- Fact: there are lots of good programs. You’re better off with a great advisor at a low-ranked program than the reverse.

- Myth: graduate school is for “geniuses.”
- Fact: you can keep growing as a mathematical/statistical thinker. Success takes independence and persistence. It’s about finding the right advisor, project, and community, not just about talent.

- Myth: graduate school is only for future professors.
- Fact: Math & Stat Ph.Ds go on to research and teaching jobs, but also to jobs in business, industry, government, and more.
How to Choose a Graduate Program

- Potential advisors/research community
- Location
- Big vs. small
- Community among graduate students
- Teaching responsibilities
- Amount and duration of stipend support
Your Application

- **Reference Letters**: usually 3
- **Transcript**: solid foundation in your field, good grades, challenging courses
- **Personal Statement**: about 2 pages
- **Resume/CV**: relevant academic experience, projects, professional experience
- **GRE Scores**: general and subject tests, not required for all programs
Tips for Reference Letters

- Ask faculty who have seen you do independent, challenging work.
- Get to know your professors.
- Be active in the Swarthmore Math/Stat community.
- Ask for recommendations at least a month in advance of the due date.
- Provide a complete list of programs you’re applying to and due dates.
- Share your application materials and ask for feedback.
Tips for Statements

- Show that you know what you’re getting into, and are prepared to succeed.
- Your background: interests, research experience, independent projects.
- Your plan: goals, potential research area, potential advisors.
- Tailor one paragraph to the specific school and program you’re applying to.
- Your plan doesn’t need to be very specific and is not binding.
- Start early, get feedback, edit!
Outside Fellowships

- NSF Graduate Research Fellowships Program (NSF GRFP)
- National Defense Science and Engineering Graduate Fellowship (NDSEG)
- Graduate Fellowships for STEM Diversity
- Hertz Fellowship
- Paul & Daisy Soros Fellowships for New Americans
- The American Mathematical Society’s Fellowships Page
- The American Statistical Association’s Fellowships and Grants Page
- Swarthmore’s Fellowships & Prizes Site
Timeline

- Spring or Summer: make an appointment and take the GRE General Test
- Spring or Fall: Attend GRE practice sessions
- April: first chance to take GRE Subject Test
- Summer: draft personal statement & resume, begin selecting schools
- September: request recommendation letters, get professors’ feedback on your list of schools and application materials
- September: second chance to take GRE Subject Test
- October: third chance to take GRE Subject Test
- October: Finalize list of schools
- October-November: NSF GRFP and other fellowship due dates
- December-January: application due dates
- March-April: results announced