A Brief Overview of Graduate Education in Economics

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Who is going and coming?

- SOME GENERAL INFORMATION ABOUT WHO IS GOING TO GRADUATE SCHOOL AND WHEN

Graduate Admission by Field

Table 1.15

Graduate Admissions Applications by Field and Degree Level, Fall 2007

Major Field	Total Master's Applications	Accepted Applications		Total Doctoral Applications	Accepted Applications		Total Applications	Accepted Applications	
Total	917,010	504,613	55%	489,390	123,197	25%	1,406,400	627,810	45%
Biological Sciences*	30,895	14,199	46%	62,440	12,977	21%	93,335	27,176	29%
Business	155,784	78,719	51%	16,490	2,526	15%	172,274	81,245	47%
Education	115,163	85,862	75%	22,240	10,299	46%	137,403	96,161	70%
Engineering	105,897	50,055	47%	76,525	20,718	27%	182,422	70,773	39%
Health Sciences	76,728	39,248	51%	23,622	8,701	37%	100,350	47,949	48%
Humanities & Arts	85,136	33,578	39%	59,775	12,255	21%	144,911	45,833	32%
Physical Sciences	64,229	30,893	48%	86,991	22,761	26%	151,220	53,654	35%
Public Administration and Service	39,613	27,150	69%	3,402	1,138	33%	43,033	28,288	66%
Social Sciences	69,334	40,257	58%	98,369	17,948	18%	167,703	58,205	35%
Other Fields**	71,531	42,380	59%	15,115	4,113	27%	86,646	46,493	54%

NOTE: Because not all institutions responded to all items, detail variables may not sum to total. Percentages are based on total of known acceptance status.

*"Biological Sciences" includes agriculture.

**The category "Other Fields" includes architecture, communications, home economics, library sciences, and religion.

Source: CGS/GRE Survey of Graduate Enrollment and Degrees.

Major Field Recipients (1977-2007)

TABLE 2. Major field of study of doctorate recipients for selected years, 1977–2007

Field of study	1977		1982		1987		1992		1997		2002		2007	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Social sciences	6,260	19.7	6,026	19.4	5,998	18.5	6,481	16.7	7,285	17.1	6,826	17.1	7,191	15.0
Anthropology	385	1.2	333	1.1	352	1.1	320	0.8	434	1.0	496	1.2	509	1.1
Economics	837	2.6	761	2.4	821	2.5	910	2.3	1,030	2.4	908	2.3	993	2.1
Political science/international relations	900	2.8	727	2.3	685	2.1	855	2.2	997	2.3	882	2.2	933	1.9
Psychology	2,990	9.4	3,158	10.2	3,172	9.8	3,262	8.4	3,557	8.4	3,206	8.0	3,294	6.9
Sociology	725	2.3	568	1.8	423	1.3	495	1.3	577	1.4	547	1.4	576	1.2
Other social sciences	423	1.3	479	1.5	535	1.7	639	1.6	690	1.6	787	2.0	886	1.8

Demographics of Doctorate Recipients

TABLE 9. Percentage of doctorate recipients who attended community college, broad field of study, sex, and citizenship status, 2007

Demographic characteristic	All doctorates	Life sciences[a]	Physical sciences[b]	Social sciences[c]	Engineering	Education	Humanities	Other fields
All doctorate recipients	13.8	15.0	9.4	16.2	6.4	23.8	13.3	14.2
Sex								
Male	12.3	15.0	9.3	15.7	6.4	23.7	14.5	11.8
Female	15.6	15.0	9.6	16.6	6.7	23.8	12.1	16.5
Citizenship status								
U.S. citizen	21.0	21.7	18.3	21.1	16.9	26.5	16.1	22.9
Non-U.S., permanent resident	6.8	6.3	7.6	8.6	3.6	10.7	5.5	8.4
Non-U.S., temporary visa	1.9	2.0	1.2	2.1	1.5	5.4	3.6	2.4

[a] Includes agricultural sciences/natural resources, biological/biomedical sciences and health sciences.
[b] Includes mathematics and computer & information sciences.
[c] Includes psychology.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2007 Survey of Earned Doctorates.

Graduate Enrollment by Race/Ethnicity

Table 1.7

Graduate Enrollment by Race/Ethnicity and Field of Study, Fall 2007

(U.S. Citizens and Permanent Residents Only)

Major Field	Native American/ Alaska Native		African American		Asian/Pacific Islander		Hispanic/ Latino		White, Non-Hispanic	
Total	10,168	100%	170,167	100%	79,288	100%	100,218	100%	916,369	100%
Biological Sciences*	343	5%	3,013	3%	4,435	7%	2,856	4%	37,739	5%
Business	836	11%	17,639	16%	14,126	23%	9,561	13%	95,558	13%
Education	2,226	30%	38,616	34%	8,245	13%	22,008	31%	208,701	29%
Engineering	263	3%	3,269	3%	7,949	13%	3,295	5%	37,753	5%
Health Sciences	781	10%	10,613	9%	7,569	12%	5,339	7%	79,067	11%
Humanities and Arts	581	8%	4,325	4%	3,353	5%	6,344	9%	64,199	9%
Physical Sciences	309	4%	3,444	3%	5,744	9%	3,185	5%	42,941	6%
Public Administration and Services	574	8%	10,389	9%	1,885	3%	4,925	7%	32,940	5%
Social Sciences	953	13%	13,722	12%	5,432	9%	8,784	12%	69,170	10%
Other Fields**	672	9%	8,439	7%	3,695	6%	5,431	8%	59,147	8%

NOTE: Because not all institutions responded to all items, detail variables may not sum to total. Percentages by race/ethnicity are based on total of known field.

*"Biological Sciences" includes agriculture.

**The category "Other Fields" includes architecture, communications, home economics, library science, and religion.

Source: CGS/GRE Survey of Graduate Enrollment and Degrees.

Where can you get information about schools?

- http://www.vanderbilt.edu/AEA/gradstudents/Schools.htm

THE FOUR COMPONENTS OF APPLYING TO GRADUATE SCHOOL

1. **GRE/GMAT**
   - GRE quantitative score was 772 (out of a possible 800), and the average GRE verbal score was 562 (out of a possible 800) for the entering Ph.D. class of 2002.
   - Among students in tier 1 schools*, the average was a combined 1360

   * Tier 1 (ranked 1-6): Chicago, Harvard, MIT, Princeton, Stanford and Yale

   - At the **University of Alabama** the combined average GRE was 1370. GMAT was 685.
   - At **Middle Tennessee State University** the average GRE was 1100.

THE FOUR COMPONENTS OF APPLYING TO GRADUATE SCHOOL

2. **GPA/Classes taken**
   - Math
   - Logic

3. **Letters of Recommendation**

   Be sure that the writer can talk about what you can do. Not just how nice you are.

4. **Personal Statement**

TIMELINE

- **Months: May to September**
  - **Activities**: Research and Begin Selecting Schools
    - To decide which program is the best fit, potential students should examine their own qualifications (including their GRE scores, their GPA, and their mathematical preparation) as well as the methodological approach, fields of specialization, predominant ideology, size of program, program culture (cooperative, competitive, etc.), typical time-to-degree, required examinations, financial aid, emphasis on mathematics, job prospects, and location of the programs to which they apply.
    - For those who wish to pursue **academic careers**, the availability of training in teaching methods during graduate school may also be a consideration. **Some applicants find it useful to contact students at their target schools to find out about current students' perceptions and experiences in the program.** When choosing schools, it is typically not wise to go to a school because of a desire to work with one specific faculty member, since faculty tend to be fairly mobile during their careers.

TIMELINE

- **Month: September**
  - **Activities**: Practice for the GRE.
    - This could include using an on-line preparation website, a printed or electronic study guide (widely available at bookstores), or taking a specific course. The test is administered by Educational Testing Service, and their website (www.ets.org) provides extensive information on the GRE.
- **Month: October**
  - **Activities**: Practice for the GRE.
    - Contact individuals to solicit letters of recommendation. Potential factors to consider when soliciting letter writers are the degree to which he/she can assess your potential abilities in graduate school (including your mathematical background and your analytical skills) and his/her prestige. Non-native speakers may also want to have supplementary letters addressing written and verbal communication skills.

TIMELINE

- **Month: November**
  - **Activities**: Re-take the GRE, if needed, Prepare Applications and Statement of Purpose
- **Months: December to Early January**
  - **Activities**: Applications Generally Due
- **Months: February to April**
  - Acceptance Letters Received
- **Month: August**
  - Begin Graduate School

WHAT ABOUT FUNDING?

- The National Science Foundation awards funding through its Graduate Research Fellowship Program.
- Cornell offers information about various fellowships available to graduate students, and also provides a link to a searchable database of fellowships, scholarships, research grants, post doctorates, dissertation awards and internships called the "Fellowship Notebook".
- EconPhD.net offers general information about applying to graduate school. For information specifically about funding, scroll down a bit to the section titled "How much funding could I get?".

MORE FUNDING

- The University of Pennsylvania offers Financial Aid Links for graduate students.
- Duke University provides a summary of the costs associated with applying to and attending graduate school.
- The American Institute of Economic Research provides a description of their fellowship program.

WHAT CAN YOU DO WITH A GRADUATE DEGREE IN ECONOMICS?

- Median earnings of economists by highest level of degree for persons of all ages observed in 2003 are given in the table below by gender.

Highest Degree	Men	Women
BA	$65,000	$49,000
MA	$80,000	$60,000
PhD	$96,000	$83,500

Source: Source: Nathan E. Bell, Nicole M. Di Fabio, and Lisa M. Frehill, "Salaries of Scientists, Engineers and Technicians: A Summary of Salary Surveys." The Commission on Professionals in Science and Technology (CPST: Washington, DC 2007) selected curricula from pages 41, 43, and 48.

Professors, Teachers and Researchers of Economics

- Look around….many professors are here

Government and Not-for-profits

- Governments at every level hire economists to manage and evaluate their operations. The Office of Personnel Management (OPM) of the Federal government provides information about Federal employment opportunities. Their USAJobs site lists thousands of openings of all kinds in many locations across the country. Search on "economist" to find information about specific current opportunities. There are often openings for economists with BA, MA, and PhD degrees.
- The OPM website also gives general information about Federal pay scales. BA economists with little experience are (to simplify a bit) at grade GS-7, with MAs at GS-9, and PhDs at GS-15.

Government and Not-for-profits

- The Federal Reserve Board and its affiliated regional Federal Reserve Banks also hire economists and research assistants at various levels of education.
- Economists are valued in the Foreign Service and civil service in the State Department, and as analysts with the Central Intelligence Agency.
- International agencies of many kinds hire economists for a variety of roles. Additional languages, strong communication skills, experience with diverse cultures, and statistical skills are often important. The World Bank, for example, offers jobs for economists.

Economic Consulting

- Economics graduates with good analytic and communication skills find employment with consulting firms.
  - McKinsey & Company,
  - Boston Consulting Group,
  - Bain & Company, Accenture,
  - Charles Rivers Associates,
  - Mathematica Policy Research, and
  - NERA Economic Consulting.
- Analysts with consulting firms often work with data, develop models of specific markets, and provide testimony in public hearings and in lawsuits. Many consulting firms invite application for employment through their websites.

Corporate World & The MBA

- Although the economics major does not provide training for specific occupations, it provides the logical structure that pays off in understanding the big picture, the context for entering several fields in the corporate world. Its emphasis on logical thought and problem solving skills has universal value. Many employers seek to hire graduates with these skills.

CONCLUSIONS

- It's worth it on any level!!