

Master's Degrees in Physics

Council of Graduate Schools

April 15, 2009

Patrick Mulvey

Statistical Research Center

American Institute of Physics

Types of Physics Degrees, Class of 2007

Bachelor's	5,755			
Master's	1,603	Enroute	779	
		Exiting	824	Master's Dept. 238
PhDs	1,460			PhD Dept. 586

```
graph LR; B["Bachelor's 5,755"]; M["Master's 1,603"]; P["PhDs 1,460"]; E["Enroute 779"]; X["Exiting 824"]; MD["Master's Dept. 238"]; PD["PhD Dept. 586"]; M --> E; M --> X; X --> MD; X --> PD;
```

Number of Universities by Highest Physics Degree Awarded

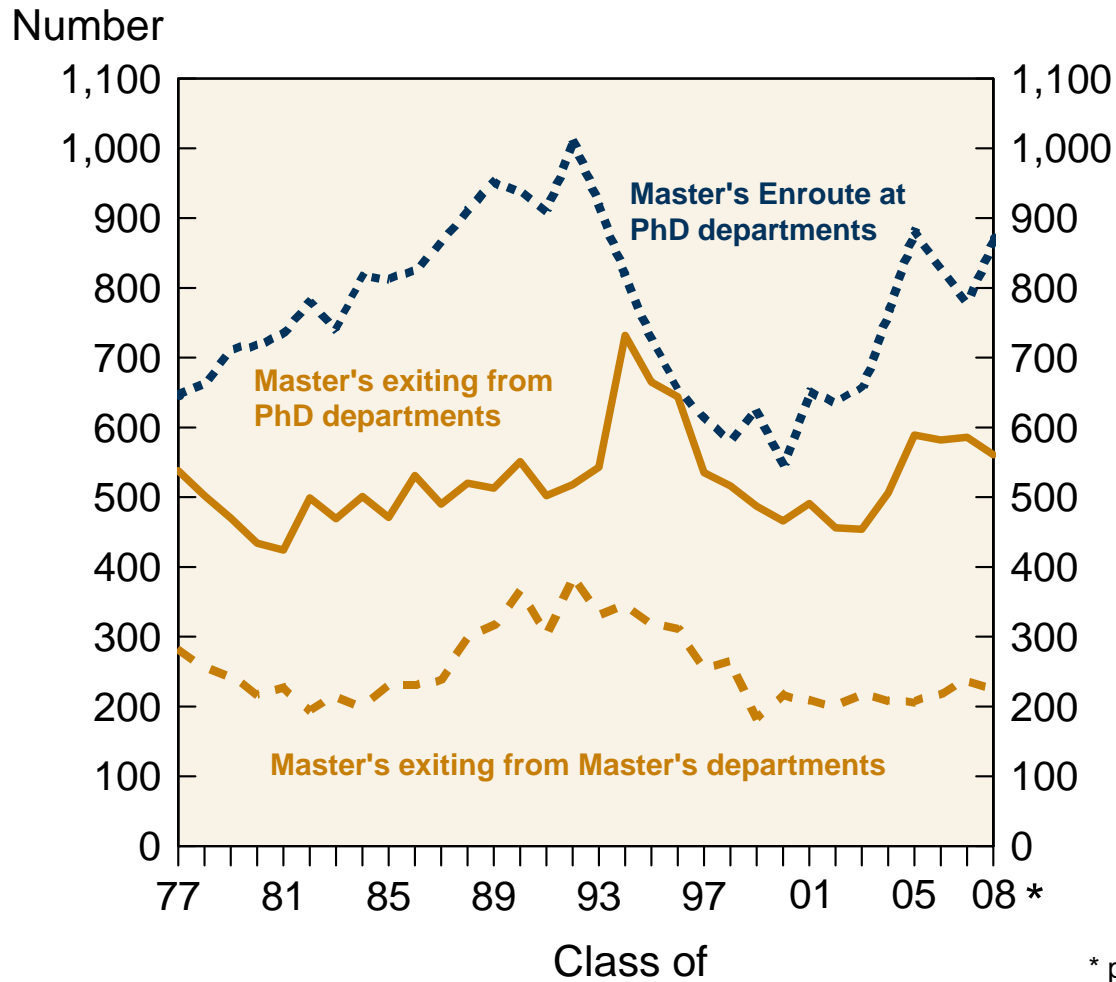
Academic

Year	Bachelor's	Master's	PhD
2008	510	64	183
2005	513	66	180
2000	517	71	182
1995	517	71	177
1990	499	79	178
1985	487	85	176
1980	502	96	174
1975	559	121	171
1970	529	138	172

Footnote: Five universities have 2 physics PhD-granting departments

Source: AIP Statistical Research Center

Master's degrees conferred by type of degree and department, 1977-2008.



* preliminary data

AIP Statistical Research Center, Enrollments and Degrees Survey.

Departments with the master's as the highest degree offered averaging 5 or more physics master's degree per year, classes of 2004, 2005 and 2006.

	Annual Average
Ball State U (IN)	9
Christopher Newport U (VA)	8
CA State U, Fresno	6
Cleveland State U (OH)	6
San Diego State U (CA)	6
U of Mass, Boston	6
Appalachian State U (NC)	5
CA State U, Fullerton	5
City College (NY)	5
Miami U (OH)	5
U of Louisville (KY)	5
U of Mass, Dartmouth	5
Western Illinois U	5

Note: List includes only those departments who contributed degree data for all 3 years.

AIP Statistical Research Center, Enrollments and Degrees Report.

Characteristics of 1st Year Physics Graduate Students, Fall 2006.

	Master's Granting	PhD Granting
Gender	%	%
Male	76	80
Female	24	20
Citizenship		
U.S.	60	56
Foreign	40	44
Total 1st Year Enrollments	320	2,647

Source: AIP Statistical Research Center

Tuition Waivers and Type of Financial Support 1st Year Graduate Students at Master's Granting Depts.

Percent with Tuition Waivers

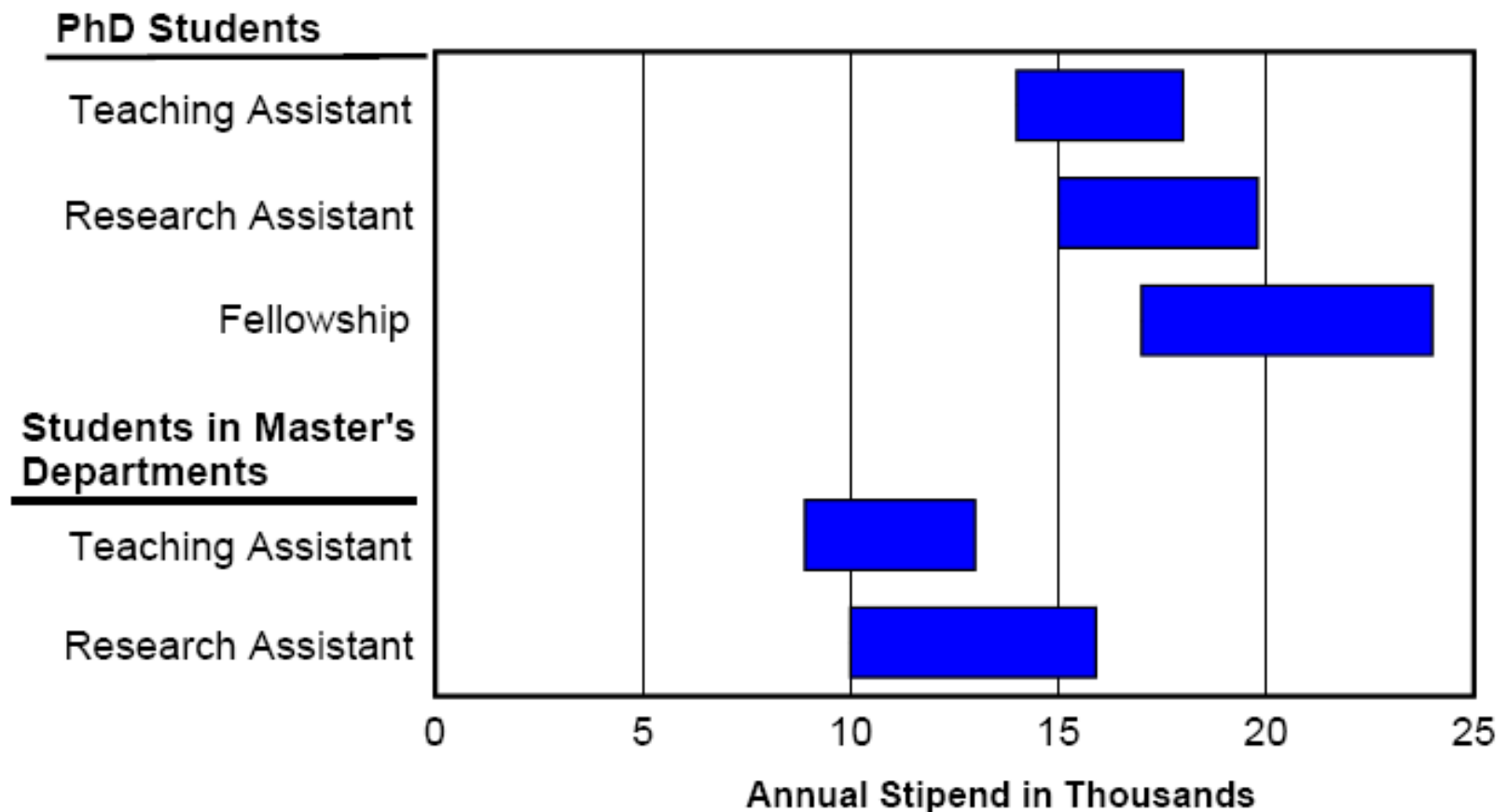
	%
Full	66
Partial	20
None	14

Primary Source of Financial Support

	%
Teaching Assistantship	68
Research Assistantship	20
Fellowship	3
Self-funded and Other	10

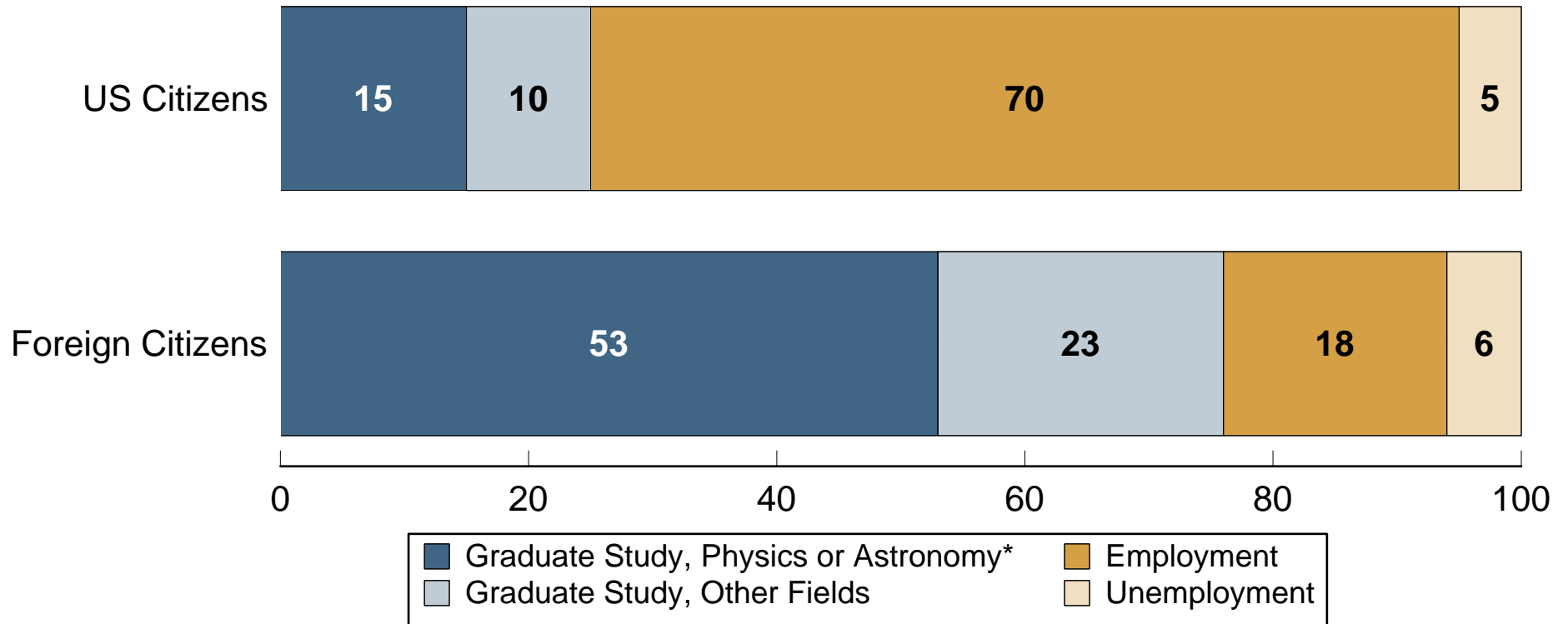
Source: AIP Statistical Research Center

Typical Stipends Full-time physics graduate students



Typical stipends are the middle 50%, i.e. between the 25th and 75th percentiles. 98% of the PhD students and 77% of the master's students received the support types listed above.

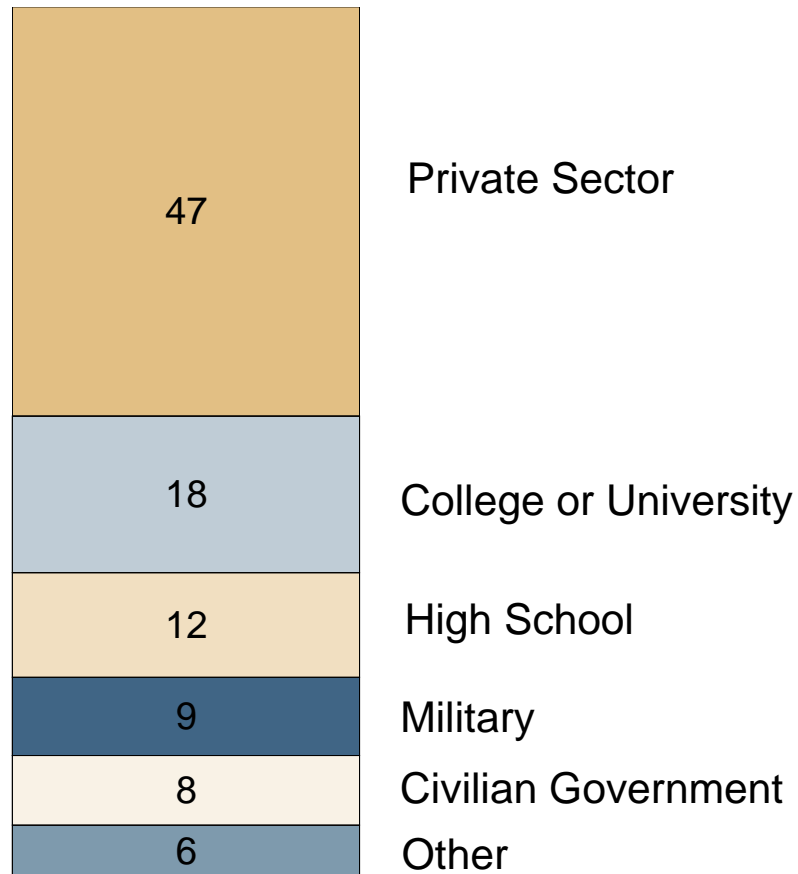
Initial outcomes of exiting physics master's by citizenship, classes of 2005 & 2006.



* At a different department from the one where they received their Master's degree.

AIP Statistical Research Center, Initial Employment Survey.

Employer distribution of full-time US employed physics master's, classes of 2005 & 2006.



AIP Statistical Research Center, Initial Employment Survey.

Features that Distinguish a Professional Master's in Physics

- Active external advisory committee
- Require coursework outside the physics department
- Require an internship off campus
- Cater to part-time students, e.g. many evening classes
- Develop Specialized skills that are valued in the workplace

Professional Science Master's PHYSICS

Alfred P. Sloan Foundation

www.sciencemasters.com

**Appalachian State Univ.
Arizona State Univ.
Case Western Reserve Univ.
Illinois Institute of Technology
New York Univ.
Oregon State Univ.
Rice Univ.
Univ. of Arizona
Univ. of Houston – Clear Lake
Univ. of Northern Iowa
Univ. of South Carolina
Univ. of Utah
Western Carolina Univ.**

**Engineering Physics
Nanoscience
Physics for Entrepreneurship
Health Physics
Physics
Applied Physics
Nanoscale Physics
Applied and Industrial Physics
Physics, Technical Management
Applied Physics
Modeling of Corporate Applications
Science Instrumentation
Science Entrepreneurship**