



Office of Research
and
Information Services

Graduate Enrollment and Degrees: 1986 to 2004

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Introduction

This report presents a summary of the findings of the 2004 CGS/GRE Survey of Graduate Enrollment, a joint project of the Council of Graduate Schools and the Graduate Record Examinations Board. The publication of this report marks the eighteenth year of the survey that began in 1986. The 2004 Enrollment Survey was distributed, via the internet for the first time, to institutions that are members of the Council of Graduate Schools or one of the four regional graduate associations: the Conference of Southern Graduate Schools (CSGS), the Midwestern Association of Graduate Schools (MAGS), the Northeastern Association of Graduate Schools (NAGS), and the Western Association of Graduate Schools (WAGS).¹

The survey results presented here are based upon responses from 627 (85%) of the institutions in the survey sample of 738. The tables and analyses that follow are divided into two chapters. Chapter 1 highlights the results of the fall 2004 survey, including a profile of graduate enrollment for each of the four regional associations. Chapter 2 presents trends in graduate enrollment and degrees over the 1986 to 2004 period. The tables in Chapter 2 describing year-to-year changes in enrollment and degrees include data from the approximately 450 institutions that have consistently responded to the enrollment survey.

This report subdivides doctoral institutions into two categories, Research I (based on the 1994 Carnegie classification system) and Doctorate-Granting (all other institutions that grant the doctorate as their highest degree). This categorization was undertaken in response to requests from CGS members for data that are more directly comparable to individual institutions.

The 627 responding institutions represent 37 percent of the approximately 1,700 institutions in the U.S. that offer graduate programs. The responding institutions enroll 79 percent of the national total of 1.9 million graduate students, grant 82 percent of the 482,000 master's degrees, and grant virtually all of the 44,000 doctorate degrees awarded by U.S. universities. Since the responding institutions represent such a large percentage of the total graduate enrollment and degrees, the trends reported here are consistent with overall national figures.

This document is part of the Council's continuing effort to provide information that is useful to graduate administrators. Comments or suggestions for improving this report—or for additional types of publications—are welcome.

¹ The survey population of the CGS/GRE Survey of Graduate Enrollment is limited to graduate institutions in the United States. Data on graduate enrollment and degrees in Canadian institutions are published by the Canadian Association for Graduate Studies at <http://www.uottawa.ca/associations/cags-aces>.

Acknowledgements

We thank the Graduate Record Examinations program, especially David Payne for his support of this project and Dawn Piacentino for directing the project at ETS. We thank Cindy Evans of ETS for her work on the distribution of the survey questionnaires, the processing of responses, and for developing the survey database. Janice Goggins in the CGS office deserves special mention for her management of the layout and publication of the final report. We also thank Selena Alston, Maria Doulis and Meghan Birch of CGS for assisting in the data collection and data analysis of the report.

Finally, we thank the graduate deans and their staffs for responding to the Survey of Graduate Enrollment. Their investment of time and effort is the basis for the completeness and accuracy of this report.

Chapter 1
Fall 2004 Graduate Enrollment

Table 1.1

Profile of fall 2004 graduate enrollment

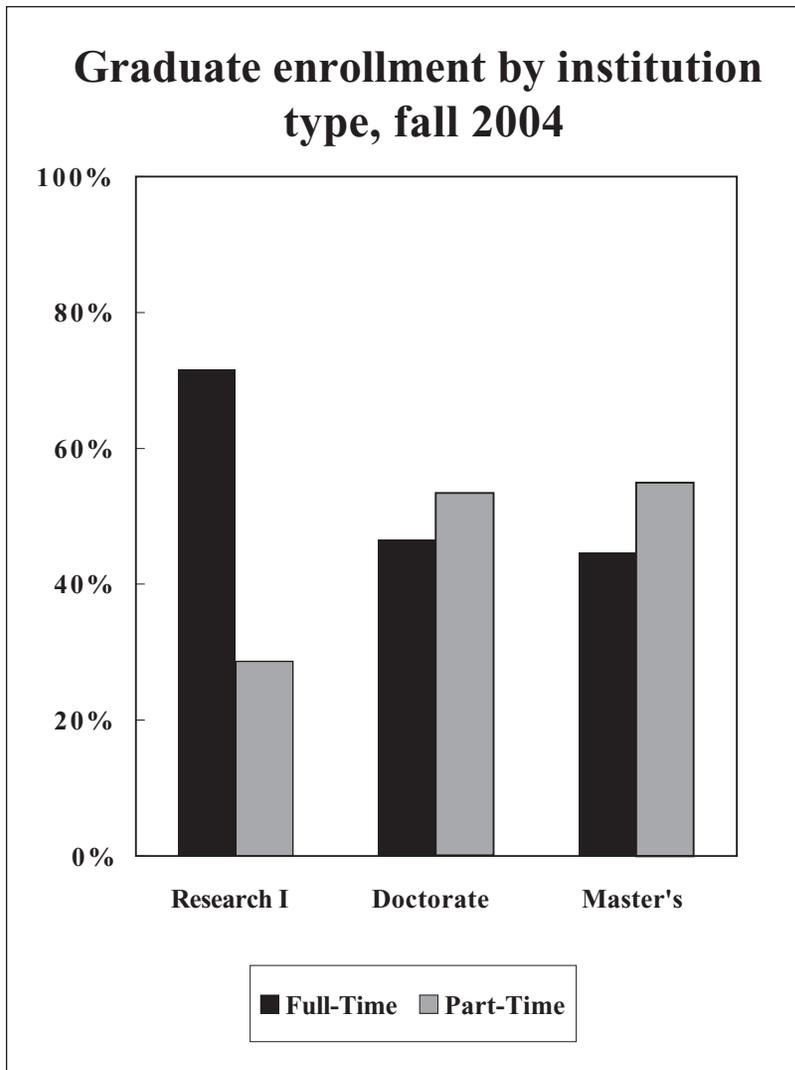
Institution Type	Total ¹	Men		Women		Full-Time		Part-Time	
Total	1,503,540	634,467	43%	854,735	57%	785,261	54%	670,000	46%
<i>Public</i>	980,910	412,202	43%	557,194	57%	484,197	51%	467,159	49%
<i>Private</i>	522,630	222,265	43%	297,541	57%	301,064	60%	202,841	40%
Research I*	493,987	246,627	51%	241,363	49%	330,808	71%	132,665	29%
<i>Public</i>	371,761	180,398	49%	185,312	51%	241,357	68%	112,801	32%
<i>Private</i>	122,226	66,229	54%	56,051	46%	89,451	82%	19,864	18%
Doctorate-Granting*	638,204	258,157	41%	375,006	59%	290,523	46%	334,623	54%
<i>Public</i>	404,811	164,156	41%	237,249	59%	180,888	46%	215,790	54%
<i>Private</i>	233,393	94,001	41%	137,757	59%	109,635	48%	118,833	52%
Master's-Granting*	371,349	129,683	35%	238,366	65%	163,930	45%	202,712	55%
<i>Public</i>	204,338	67,648	33%	134,633	67%	61,952	31%	138,568	69%
<i>Private</i>	167,011	62,035	37%	103,733	63%	101,978	61%	64,144	39%

¹NOTE: Because not all institutions responded to all items, detail variables may not sum to total. Percentages are based on total of known gender or enrollment status.

*Institutions are divided into three categories based on the 1994 Carnegie Classification of Institutions of Higher Education and degrees granted. Research I: The most research-intensive universities in the U.S. Annually, these institutions each convey at least 50 doctoral degrees and receive at least \$40 million in federal research support. Doctorate-Granting: Institutions that grant the doctorate as their highest degree but are not classified as Research I by the Carnegie system. This category includes institutions classified as Research II, Doctorate-Granting I and II, Comprehensive, Liberal Arts, and Other Professional institutions that grant the doctorate. Master's-Granting: Institutions that grant the master's degree as their highest graduate degree.

Source: CGS/GRE Survey of Graduate Enrollment

Table 1.1



- CGS member and affiliated graduate institutions enrolled more than 1.5 million graduate students in the fall of 2004. Fifty-seven percent of graduate students were women, while men accounted for 43 percent of the total.
- Nearly two-thirds of students pursued graduate degrees at public institutions, which enrolled 980,910 graduate students in 2004.
- Doctorate-Granting institutions accounted for 42 percent of total graduate enrollment, followed by Research I institutions with 33 percent and Master's-Granting institutions with 25 percent of graduate enrollment.
- More graduate students were enrolled on a full-time basis, with 785,261 students reported as full-time and 670,000 as part-time.
- The figures in Table 1.1 highlight the enrollment differences across type of institution. The graduate student population at Research I institutions was evenly distributed between male and female students (51% male and 49% female) but a larger percentage of students enrolled full-time (71%) than part-time (29%). Doctorate-Granting institutions, in contrast, reported that 59 percent of their graduate students were women and 54 percent were part-time. At Master's-Granting institutions, women constituted 65 percent of graduate enrollment, and 55 percent of the graduate students attended on a part-time basis.

Table 1.2

Graduate enrollment by field, fall 2004

Major Field	Total	Men	Women	Full-Time	Part-Time				
Total	1,503,540	634,467	43%	854,735	57%	785,261	54%	670,000	46%
Biological Sciences*	66,593	31,464	47%	35,129	53%	51,403	78%	14,737	22%
Business	221,245	125,127	57%	95,304	43%	125,685	56%	97,189	44%
Education	295,191	75,542	26%	219,577	74%	114,281	39%	180,996	61%
Engineering	105,767	83,074	79%	22,693	21%	72,245	68%	34,673	32%
Health Sciences	98,799	22,553	23%	76,246	77%	61,472	61%	38,604	39%
Humanities & Arts	100,876	42,603	42%	58,273	58%	65,581	66%	33,454	34%
Physical Sciences	105,518	71,771	68%	33,742	32%	71,978	69%	32,788	31%
Public Administration and Services	54,252	13,598	25%	40,654	75%	30,225	57%	22,390	43%
Social Sciences	110,748	42,167	39%	65,581	61%	73,265	67%	35,684	33%
Other Fields**	97,694	38,204	39%	59,490	61%	45,157	47%	51,482	53%

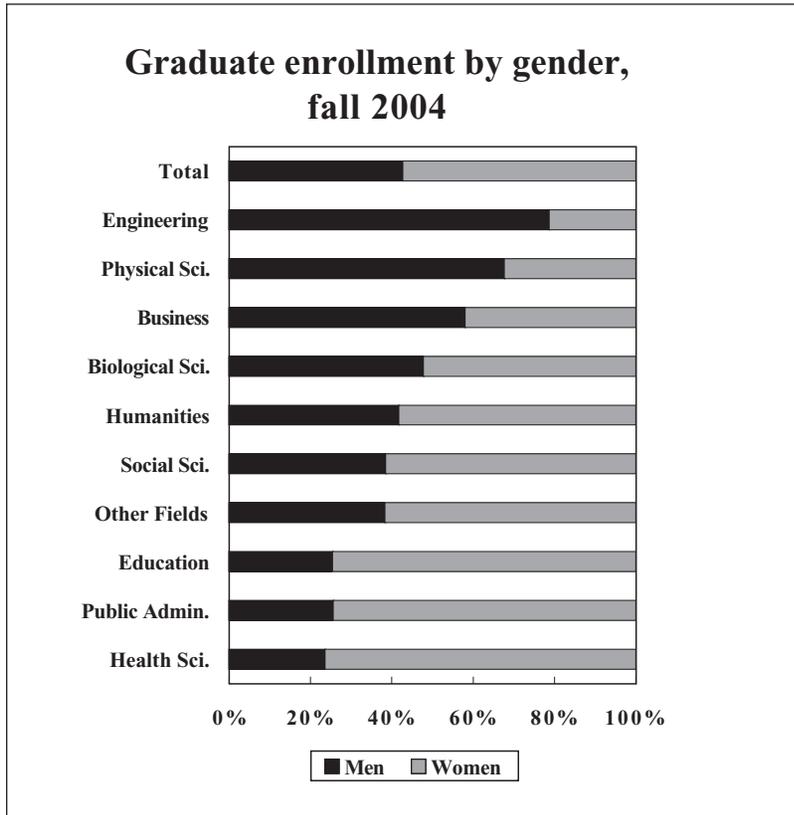
NOTE: Because not all institutions responded to all items, detail variables may not sum to total. Percentages by field are based on total of known gender or enrollment status.

*"Biological Sciences" includes agriculture.

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

Source: CGS/GRE Survey of Graduate Enrollment

Table 1.2



- The fields of education and business enrolled the largest numbers of graduate students, accounting for 21 percent and 16 percent of fall 2004 graduate enrollment, respectively. These two fields also had the highest proportions of part-time students of the fields shown in Table 1.2. At the same time, education and business contrast markedly in their percentages of men and women students. Graduate enrollment in business was 57 percent male; in education it was 74 percent female.
- Consistent with previous years, the fields of engineering, physical sciences, and business enrolled the highest percentages of men, while the health sciences, public administration, and education had the highest percentages of women students.

Table 1.3

**Fall 2004 graduate enrollment
by institution type and citizenship**

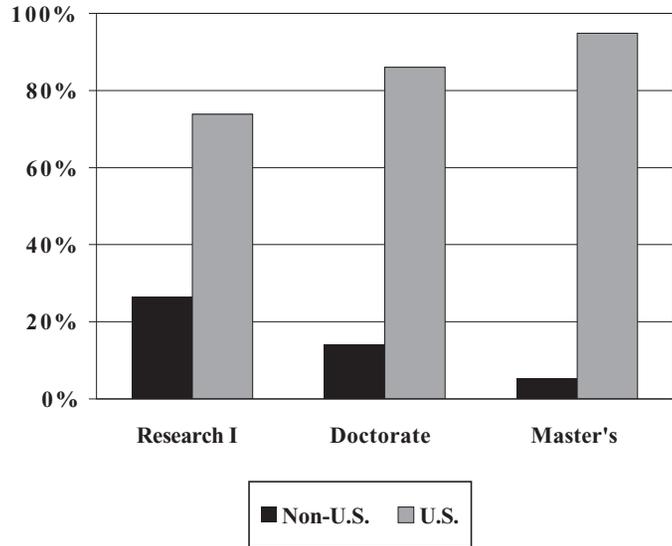
Institution Type	Total	U.S. Citizens and Permanent Residents		Non-U.S. Citizen Temporary Residents	
Total	1,503,540	1,129,606	83%	224,820	17%
<i>Public</i>	980,910	757,309	84%	149,442	16%
<i>Private</i>	522,630	372,297	83%	75,378	17%
Research I*	493,987	335,730	74%	120,431	26%
<i>Public</i>	371,761	259,521	75%	85,697	25%
<i>Private</i>	122,226	76,209	69%	34,734	31%
Doctorate-Granting*	638,204	501,910	86%	80,503	14%
<i>Public</i>	404,811	329,023	86%	54,389	14%
<i>Private</i>	233,393	172,887	87%	26,114	13%
Master's-Granting*	371,349	291,966	92%	23,886	8%
<i>Public</i>	204,338	168,765	95%	9,356	5%
<i>Private</i>	167,011	123,201	89%	14,530	11%

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

*For explanation of institution type categories, see Table 1.1 on page 2.

Source: CGS/GRE Survey of Graduate Enrollment

Graduate enrollment by institution type and citizenship, fall 2004



- In the fall of 2004, 224,820 non-U.S. citizens enrolled in CGS member and affiliated institutions, accounting for 17 percent of total graduate enrollment. Public and private institutions had similar percentages of international students enrolled in graduate programs.
- Reflecting the concentration of international students in doctoral programs in science and engineering fields, more than one-half of non-U.S. graduate students (120,431) were enrolled at Research I institutions, representing 26 percent of graduate enrollment on those campuses. International students accounted for 14 percent of enrollment at Doctorate-Granting institutions, and just 8 percent at Master's-Granting institutions.

Table 1.4

Fall 2004 graduate enrollment by field and citizenship

Major Field	Total	U.S. Citizens and Permanent Residents	Non-U.S. Citizen Temporary Residents		
Total	1,503,540	1,129,606	83%	224,820	17%
Biological Sciences*	66,593	46,892	74%	16,833	26%
Business	221,245	163,651	83%	34,404	17%
Education	295,191	261,084	96%	12,075	4%
Engineering	105,767	51,429	50%	50,675	50%
Health Sciences	98,799	83,540	90%	8,837	10%
Humanities & Arts	100,876	79,723	86%	13,173	14%
Physical Sciences	105,518	59,041	59%	41,639	41%
Public Administration and Services	54,252	46,986	95%	2,358	5%
Social Sciences	110,748	83,751	83%	16,798	17%
Other Fields**	97,694	80,604	89%	10,340	11%

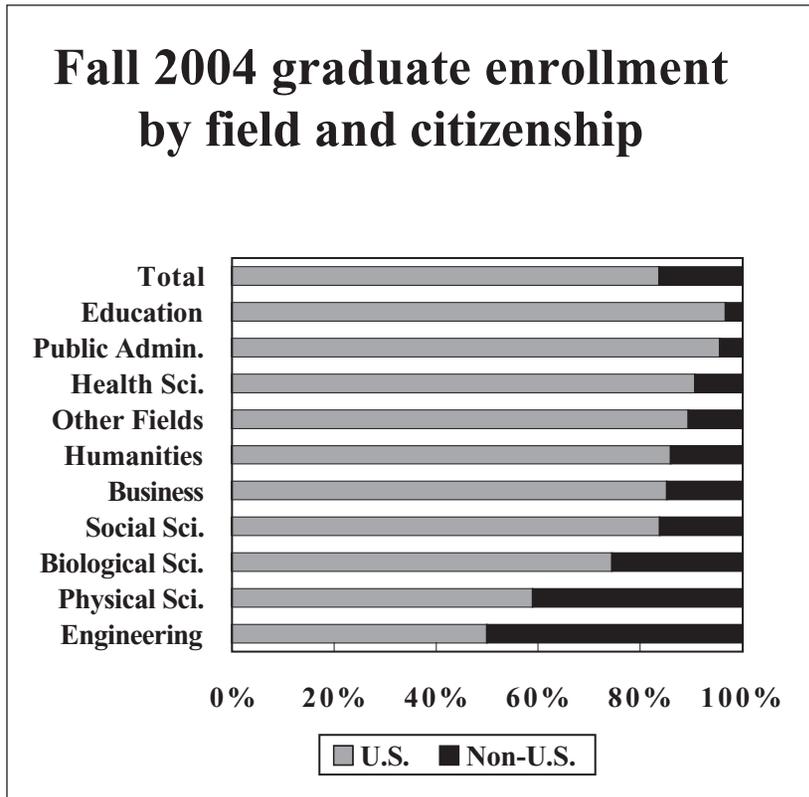
NOTE: Because not all institutions responded to all items, detail variables may not sum to total. Percentages by field are based on total of known citizenship.

*"Biological Sciences" includes agriculture.

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

Source: CGS/GRE Survey of Graduate Enrollment

Table 1.4



- As the two largest fields for U.S. citizen enrollment, education and business accounted for 38 percent of U.S. students. In contrast, non-U.S. citizens were concentrated primarily in science and engineering fields.
- Two fields – engineering and physical sciences – had the highest percentages of non-U.S. graduate enrollment, at 50 percent and 41 percent, respectively. The 50,675 international students in engineering and the 41,639 in the physical sciences represented 41 percent of total non-U.S. citizen graduate enrollment. At the same time, just 10 percent of U.S. graduate students enrolled in engineering and the physical sciences.
- Additional fields with substantial international student enrollment in 2004 were the biological sciences (26%), social sciences (17%) and business (17%).
- Education (4%) and public administration (5%) had the lowest percentages of foreign enrollment.

Table 1.5

U.S. graduate enrollment by ethnic group, fall 2004

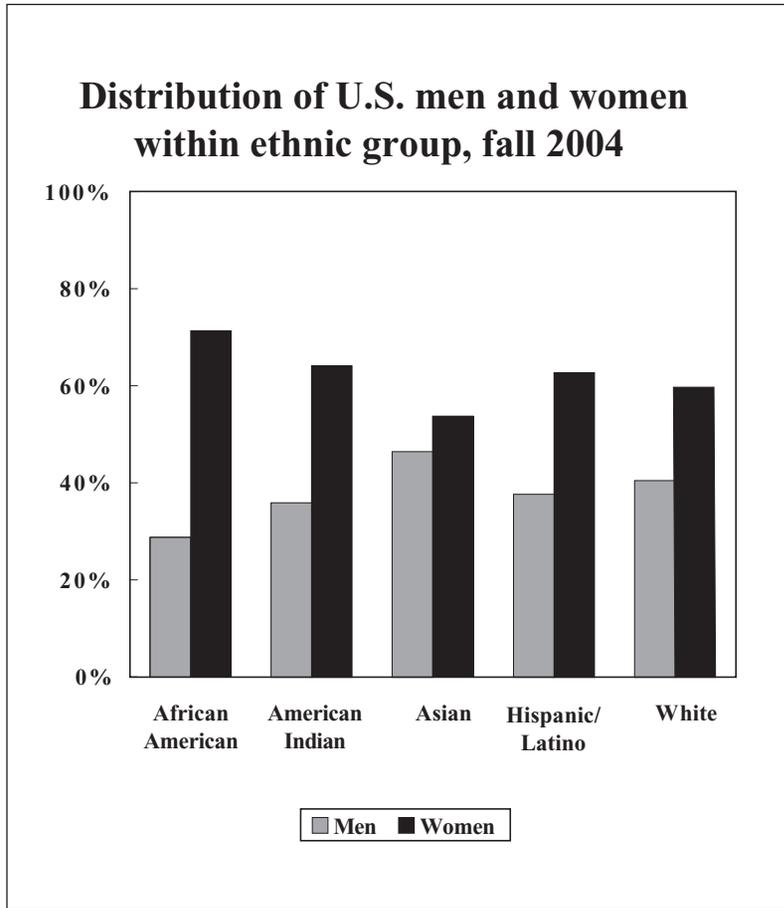
Ethnic Group	Total		Men		Women	
Total U.S. Citizens and Permanent Residents	1,129,606	100%	437,291	100%	678,539	100%
African American	125,029	11%	35,933	8%	88,189	13%
American Indian	8,138	1%	2,883	1%	5,177	1%
Asian	72,712	6%	33,340	8%	38,793	6%
Hispanic/Latino	86,765	8%	32,320	7%	54,033	8%
White	836,962	74%	332,815	76%	492,347	73%

NOTE: Because not all institutions responded to all items, detail variables may not sum to total.

Percentages by gender are based on total of U.S. citizens and permanent residents.

Source: CGS/GRE Survey of Graduate Enrollment

Table 1.5



- Of the 1,129,606 U.S. citizen and permanent resident graduate students enrolled in surveyed institutions, 292,644, or 26 percent, were members of minority groups.
- African Americans were the largest minority group among U.S. citizens, with 125,029 students, or 43 percent, of fall 2004 minority graduate enrollment.
- Hispanic/Latino and Asian enrollment totaled 86,765 and 72,712, respectively. American Indians accounted for 8,138 students enrolled in graduate programs in fall 2004.
- Women comprised over half of the enrollment of every minority group. African Americans had the highest percentage of women graduate students, with more than twice as many women enrolled in graduate programs as men (88,189 women and 35,933 men).

Table 1.6

Graduate enrollment by ethnic group and field, fall 2004
(U.S. citizens and permanent residents only)

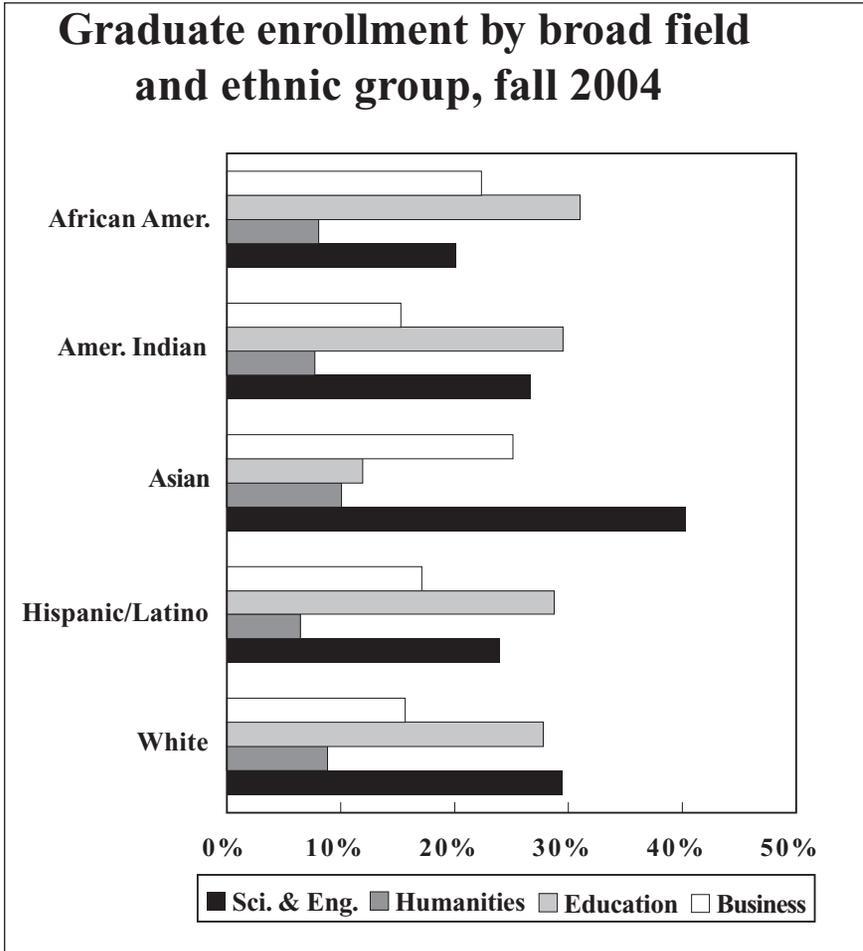
Major Field	African American		American Indian		Asian		Hispanic/Latino		White	
Total	125,029	100%	8,138	100%	72,712	100%	86,765	100%	836,962	100%
Biological Sciences*	2,296	2%	311	5%	3,877	6%	2,367	3%	38,041	5%
Business	22,573	22%	1,063	15%	15,379	25%	11,686	17%	112,950	16%
Education	31,297	31%	2,045	30%	7,259	12%	19,965	29%	200,518	28%
Engineering	3,080	3%	258	4%	7,532	12%	3,449	5%	37,110	5%
Health Sciences	8,110	8%	536	8%	6,156	10%	4,534	7%	64,204	9%
Humanities and Arts	4,164	4%	564	8%	3,421	6%	5,745	8%	65,829	9%
Physical Sciences	3,323	3%	268	4%	7,071	12%	3,381	5%	44,998	6%
Public Administration and Services	8,434	8%	548	8%	1,807	3%	4,480	6%	31,717	4%
Social Sciences	8,437	8%	800	12%	4,761	8%	7,230	10%	62,523	9%
Other Fields**	8,775	9%	501	7%	3,624	6%	6,538	9%	61,166	9%

NOTE: Because not all institutions responded to all items, detail variables may not sum to total. Percentages by 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



- The concentration of graduate students in the fields of education and business (see Table 1.2) was reflected in enrollment patterns for four of the five U.S. ethnic groups. Asian U.S. citizens and permanent residents were a partial exception to this finding, with relatively even distribution across fields. Asian U.S. citizens and permanent residents had the lowest percentage of any group in education (12%) and the highest in business (25%), engineering (12%) and the physical sciences (12%).
- Education was the primary field of choice for African Americans, Hispanics/Latinos, American Indians, and Whites, with similar enrollment percentages within ethnicity, ranging from 28 percent for Whites to 31 percent for African Americans.
- Business was also a popular field for members of U.S. ethnic groups: Asians (25%), African Americans (22%), Hispanics/Latinos (17%), Whites (16%), and American Indians (15%).

Table 1.7

Regional profile of graduate enrollment, fall 2004

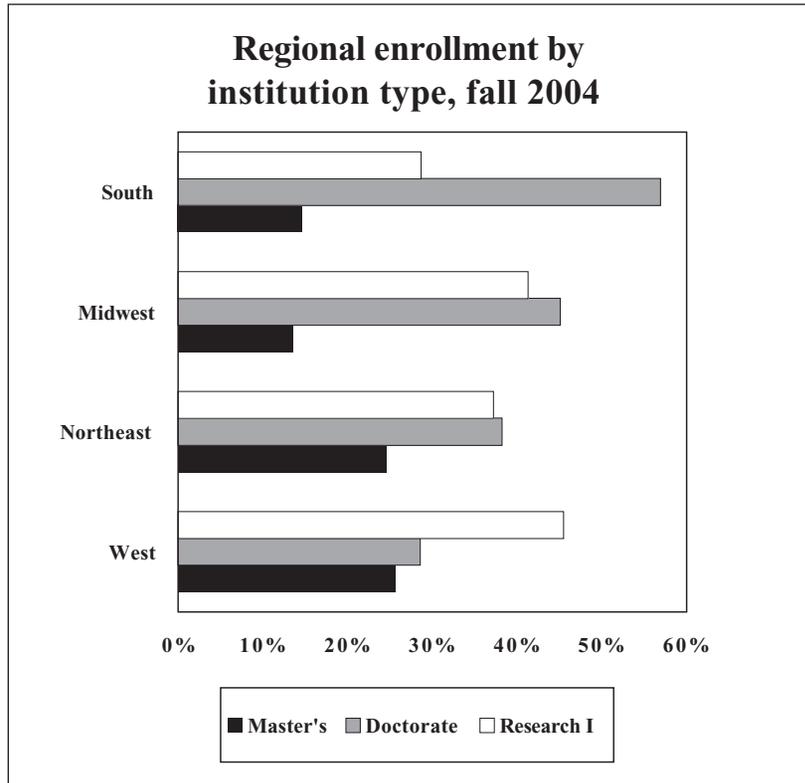
	CSGS*		MAGS*		NAGS*		WAGS*	
Total Enrollment	448,109	100%	353,747	100%	200,159	100%	236,499	100%
Public	373,122	83%	265,398	75%	116,546	58%	205,548	87%
Private	74,987	17%	88,349	25%	83,613	42%	30,951	13%
Research I	128,364	29%	146,027	41%	74,542	37%	107,849	46%
Doctorate-Granting	254,862	57%	160,036	45%	76,559	38%	67,874	29%
Master's-Granting	64,883	14%	47,684	13%	49,058	25%	60,776	26%
Men	186,181	42%	157,554	45%	83,887	43%	107,721	46%
Women	256,465	58%	194,746	55%	110,753	57%	126,932	54%
Full-Time	216,788	50%	179,758	53%	101,152	52%	144,584	62%
Part-Time	219,000	50%	158,127	47%	93,845	48%	87,330	38%
Non-U.S. Citizen Temporary Residents	63,194	15%	61,182	19%	33,791	20%	35,923	17%
U.S. Citizen and Permanent Residents**	362,879	85%	264,497	81%	136,591	80%	173,607	83%
<i>African American</i>	56,075	15%	24,373	9%	13,203	10%	7,791	4%
<i>American Indian</i>	2,407	1%	2,132	1%	500	0%	2,603	1%
<i>Asian</i>	15,294	4%	12,164	5%	8,590	6%	22,771	13%
<i>Hispanic/Latino</i>	27,845	8%	9,057	3%	5,604	4%	21,201	12%
<i>White</i>	261,879	72%	216,771	82%	108,694	80%	119,241	69%

NOTE: A number of institutions are members of more than one regional association; accordingly the totals of the four regionals may sum to a number greater than total graduate enrollment.

*CSGS - Conference of Southern Graduate Schools; MAGS - Midwestern Association of Graduate Schools; NAGS - Northeastern Association of Graduate Schools; WAGS - Western Association of Graduate Schools.

**Percentages by region of enrollment for U.S. ethnic groups are based on number of U.S. citizens and permanent resident graduate students.

Source: CGS/GRE Survey of Graduate Enrollment



- Consistent with previous years, of the four regional associations, CSGS institutions enrolled the largest number of students (448,109), followed by MAGS (353,747), WAGS (236,499) and NAGS (200,159).
- In contrast to the other three regions, where private institutions accounted for a quarter or less of graduate enrollment, private institutions enrolled 42 percent of the graduate students in the NAGS region, reflecting the concentration of private institutions of higher education in the northeast.
- WAGS institutions enrolled the highest percentage of full-time students (62%) and had the highest percentage of enrollment in Research I institutions (46%). This reflects the influence of large research-oriented campuses in the west, especially the University of California system.
- WAGS is also the most diverse of the four regions, with the highest regional percentages of Asian (13%) and Hispanic/Latino enrollment (12%). CSGS has the highest regional African American enrollment (15%).

Table 1.8

Graduate applications by field, fall 2004

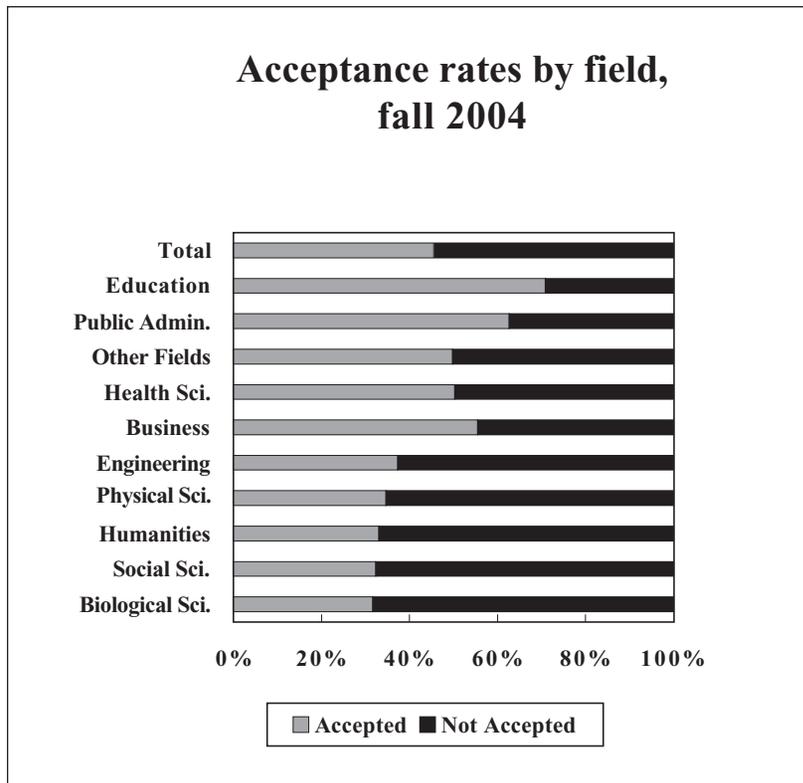
Major Field	Total Applications	Accepted Applications		Applications Not Accepted	
Total	1,256,773	570,646	46%	672,698	54%
Biological Sciences*	77,070	24,274	32%	51,594	68%
Business	167,134	91,397	56%	72,710	44%
Education	134,828	96,028	71%	38,728	29%
Engineering	161,471	60,173	37%	101,027	63%
Health Sciences	81,231	40,753	50%	40,072	50%
Humanities & Arts	134,216	44,752	33%	88,992	67%
Physical Sciences	146,345	50,946	35%	94,941	65%
Public Administration and Services	39,667	24,907	63%	14,634	37%
Social Sciences	159,817	51,852	33%	107,397	67%
Other Fields**	80,688	39,688	50%	39,705	50%

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*



- CGS member and affiliated institutions report receiving more than 1.2 million applications for graduate study. Engineering, business, and social sciences led in the number of applications in fall 2004, each receiving 13 percent of total applications. The physical sciences received 12 percent of total applications, followed by education and humanities with 11 percent of applications each.
- Fewer than half of the 1,256,773 applicants were offered admission. The wide range of acceptance rates – from a low of 32 percent for the biological sciences to a high of 71 percent in education – reflects the unique circumstance of each field. For example, the low overall acceptance rate in the social sciences reflects the fact that clinical psychology programs receive hundreds of applications for very few openings, thus generating an unusually low acceptance rate.
- Graduate programs in education are often part of the service mission of universities and therefore tend to have higher acceptance rates into graduate programs. Public administration, which includes social work, is another field where the service mission of universities may result in a higher acceptance rate than the current 46 percent overall average.

Table 1.9

Graduate degrees awarded by field, 2003-2004

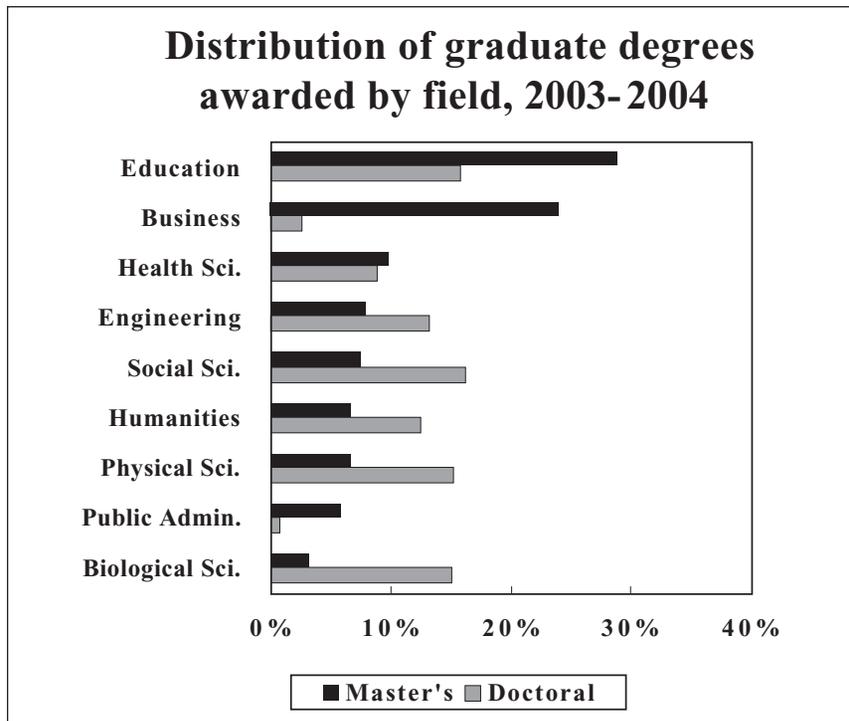
Major Field	Total	Master's				Doctoral				
		Men	Women	Men	Women	Men	Women			
Total	397,200	162,344	42%	225,081	58%	43,738	22,584	53%	20,338	47%
Biological Sciences*	9,246	3,924	44%	5,091	56%	5,255	2,885	56%	2,255	44%
Business	81,644	46,921	59%	32,958	41%	1,005	609	62%	380	38%
Education	92,055	21,679	24%	67,966	76%	5,923	1,932	34%	3,728	66%
Engineering	29,222	22,931	79%	6,256	21%	5,605	4,513	81%	1,092	19%
Health Sciences	25,465	5,105	20%	19,799	80%	3,597	1,294	37%	2,247	63%
Humanities & Arts	21,271	8,243	40%	12,568	60%	4,611	2,114	46%	2,443	54%
Physical Sciences	24,221	15,318	65%	8,406	35%	5,618	3,984	71%	1,596	29%
Public Administration and Services	19,483	4,416	23%	14,645	77%	375	146	40%	217	60%
Social Sciences	23,238	8,515	38%	14,098	62%	6,330	2,750	44%	3,518	56%
Other Fields**	23,800	8,886	38%	14,486	62%	1,726	903	53%	808	47%

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

*"Biological Sciences" includes agriculture.

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

Source: CGS/GRE Survey of Graduate Enrollment



- Responding institutions awarded 397,200 master’s degrees and 43,738 doctoral degrees in the 2003-2004 academic year.
- The largest numbers of master’s degrees were awarded in the fields of education and business, representing 23 percent and 21 percent of the master’s degrees granted by the responding institutions, respectively.
- Women earned more than half of the master’s degrees awarded in 2003-2004. Women accounted for 80 percent of the master’s degrees granted in health sciences, 77 percent of the master’s degrees granted in public administration and 76 percent in education.
- The leading fields in the number of doctoral degrees were the social sciences and education each representing 14 percent of the doctorates awarded in 2003-2004.

Chapter 2

Trends in Graduate Enrollment and Degrees 1986-2004

This chapter presents two types of data: total figures for 2004 and trend data from 1986 to 2004 described by annual percent change statistics. To be included in the percent change calculations, institutions must have consistently responded to the enrollment survey. In the Chapter 2 tables, the statistic “average annual percent change” represents the average percent by which the graduate student population would change each year to account for the total change over the calculated period. The average percent change statistic provides a convenient summary measure of change over time and, like a moving average, is not influenced by unusual single-year fluctuations in the enrollment data.

Table 2.1

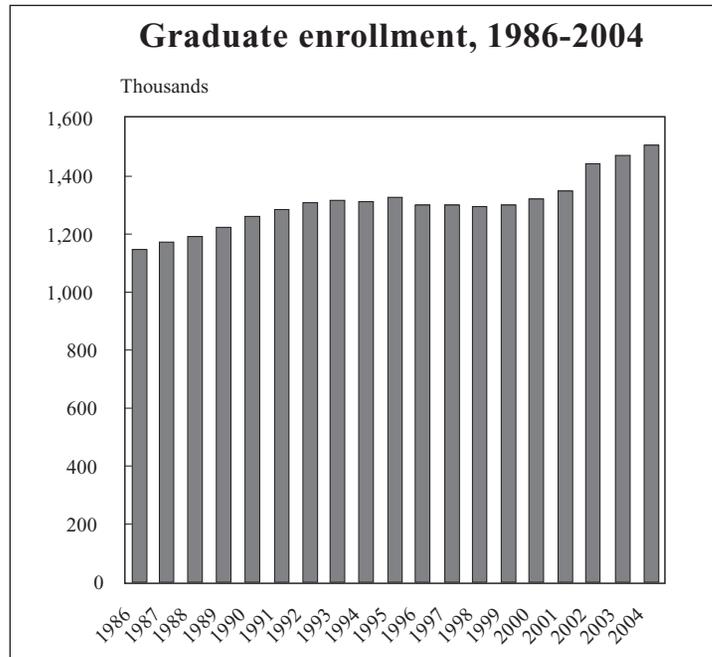
Trends in graduate enrollment, 1986 to 2004

	2004	% Change 2003 to 2004	Average Annual % Change 1986 to 2004
Total Enrollment	1,503,540	2%	2%
<i>Men</i>	634,467	1%	1%
<i>Women</i>	854,735	3%	2%
<i>Full-time</i>	785,261	0%	3%
<i>Part-time</i>	670,000	4%	1%
Citizenship			
<i>U.S. Citizens and Permanent Residents</i>	1,129,606	2%	1%
<i>Non-U.S. Citizen Temporary Residents</i>	224,820	-3%	3%

NOTE: Because not all institutions responded to all items, detail variables may not sum to total.

Source: CGS/GRE Survey of Graduate Enrollment

Table 2.1



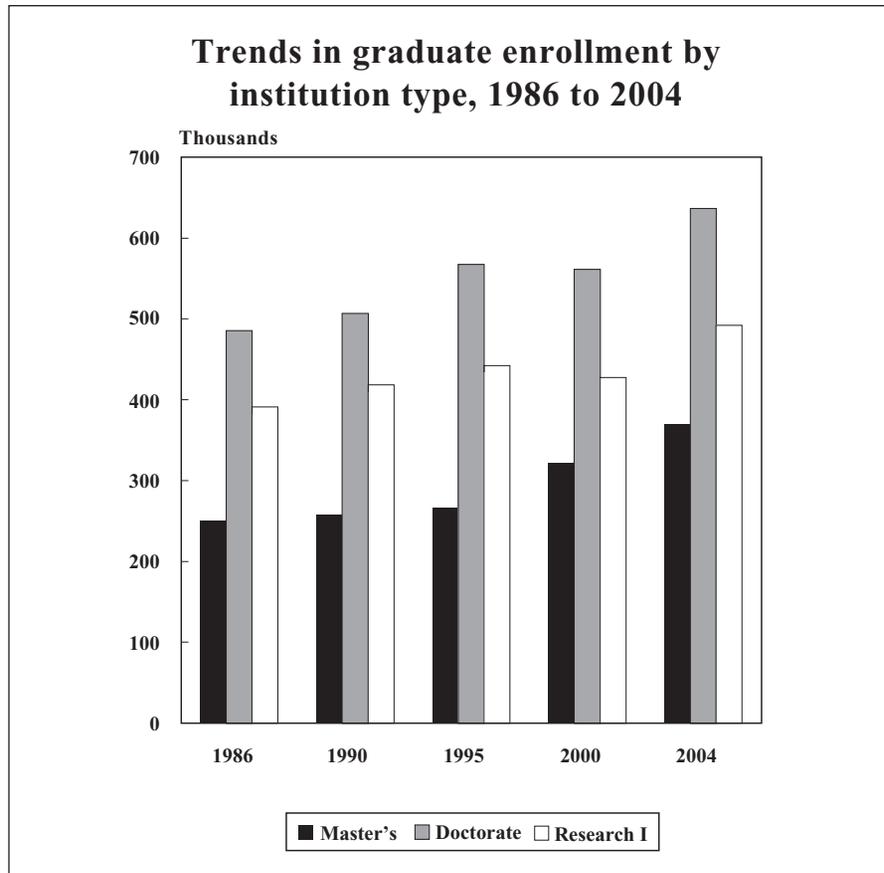
- Following a slight decline from 1996 to 1999, graduate enrollment entered a growth period. In the last year, that growth continued, rising by 2 percent.
- One of the chief reasons for the overall increase in graduate enrollment over the last two decades has been the sustained growth in the number of women students, increasing at a 2 percent annual pace over the 1986-2004 period, and 3 percent between 2003 and 2004.
- Between 2003 and 2004, there was a 2 percent increase in U.S. citizen and permanent resident enrollment. At the same time, non-U.S. citizen enrollment declined by 3 percent. Overall, however, the number of international students has grown at a 3 percent annual rate since 1986, while the number of U.S. students has grown by only 1 percent per year during the same time period.

Table 2.2

**Trends in graduate enrollment by institution type,
1986 to 2004**

Institution Type	2004	% Change 2003 to 2004	Average Annual % Change 1986 to 2004
Total Enrollment	1,503,540	2%	2%
<i>Public</i>	989,910	1%	2%
<i>Private</i>	522,630	4%	2%
Research I*	493,987	0%	1%
<i>Public</i>	371,761	0%	1%
<i>Private</i>	122,226	3%	1%
Doctorate-Granting	638,204	2%	2%
<i>Public</i>	404,811	2%	2%
<i>Private</i>	233,393	2%	1%
Master's-Granting	371,349	5%	2%
<i>Public</i>	204,338	0%	2%
<i>Private</i>	167,011	19%	4%

*Institutions are divided into three categories based on the 1994 Carnegie Classification of Institutions of Higher Education and degrees granted. Research I: The most research-intensive universities in the U.S. Annually, these institutions each confer at least 50 doctoral degrees and receive at least \$40 million in federal research support. Doctorate-Granting: Institutions that grant the doctorate as their highest degree but are not classified as Research I by the Carnegie system. This category includes institutions classified as Research II, Doctorate-Granting I and II, Comprehensive, Liberal Arts, and Other Specialized. Master's-Granting: Institutions that grant the master's degree as their highest graduate degree.
Source: CGS/GRE Survey of Graduate Enrollment



- In the last year, graduate enrollment increased by 5 percent at Master's-Granting and 2 percent at Doctorate-Granting institutions, while Research I universities enrollment remained steady. Though few in number of institutions, the largest growth was in private Master's-Granting institutions where graduate enrollment grew by 19 percent.
- The overall 1986 to 2004 increase in graduate enrollment occurred across all institutional types. In addition, there was only a small difference in overall enrollment growth at public and private institutions.
- Over the last 18 years, graduate enrollment at Master's-Granting and Doctorate-Granting institutions has grown 2 percent annually, while Research I institutions have had a 1 percent growth annually since 1986.

Table 2.3

Trends in graduate enrollment by field, 1986 to 2004

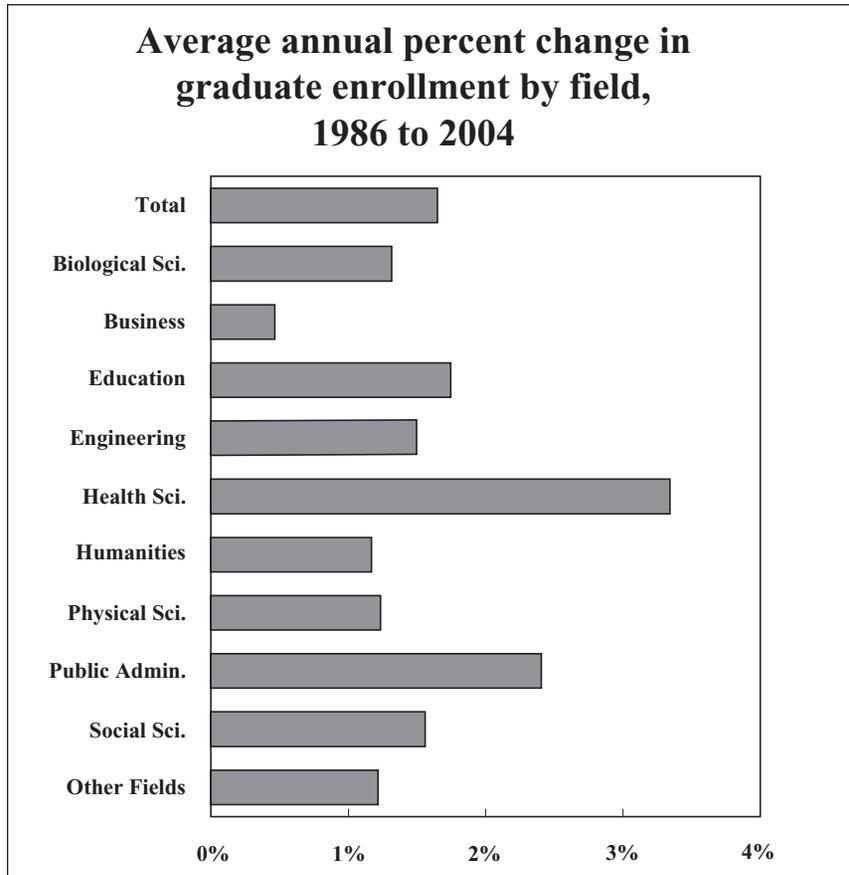
Major Field	2004	% Change 2003 to 2004	Average Annual % Change 1986 to 2004
Total	1,503,540	2%	2%
Biological Sciences*	66,593	3%	1%
Business	221,245	-2%	0%
Education	295,191	2%	2%
Engineering	105,767	-3%	2%
Health Sciences	98,799	7%	3%
Humanities and Arts	100,876	2%	1%
Physical Sciences	105,518	-1%	1%
Public Administration and Services	54,252	5%	2%
Social Sciences	110,748	0%	2%
Other Fields**	97,694	-6%	1%

NOTE: Because not all institutions responded to all items, detail variables may not sum to total.

*“Biological Sciences” includes agriculture.

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

Source: CGS/GRE Survey of Graduate Enrollment



- The overall growth of graduate enrollment over the last 18 years is reflected in enrollment increases in nine of the ten major fields displayed in Table 2.3.
- Since 1986, enrollment in the health sciences has grown most rapidly, rising at an annual rate of 3 percent.
- Between 2003 and 2004, there were considerable differences in growth by field. Enrollment growth was led by the fields of health sciences, which increased by 7 percent, and public administration, which grew by 5 percent.
- One of the major contributing factors to the recent enrollment decline in engineering and the physical sciences has been the decrease in the number of international students enrolled in U.S. graduate programs. As shown in Table 1.4, these are the fields with the highest concentration of international students, accounting for over two-fifths of international graduate enrollment.

Table 2.4

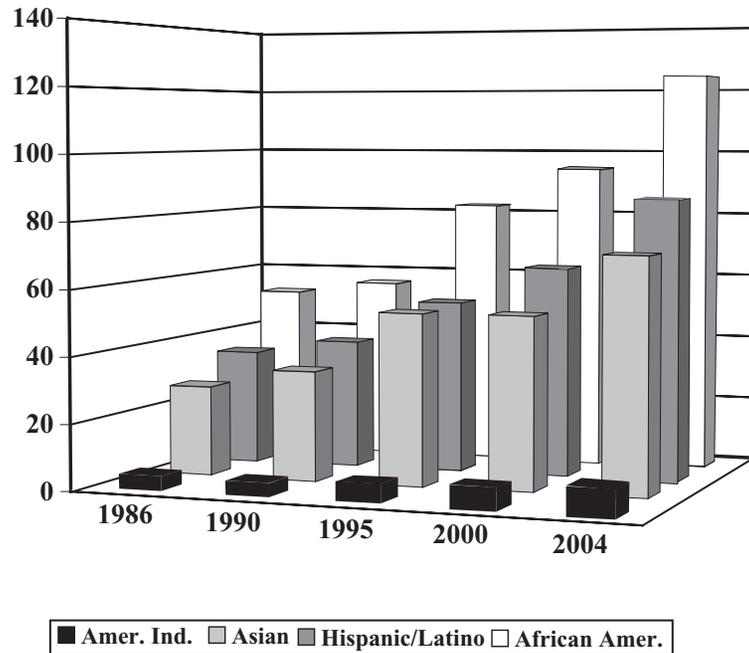
Trends in graduate enrollment by ethnicity, 1986 to 2004
(U.S. citizens and permanent residents only)

	2004	% Change 2003 to 2004	Average Annual % Change 1986 to 2004
Total U.S. Enrollment	1,129,606	2%	1%
<i>Men</i>	437,921	1%	0%
<i>Women</i>	678,539	2%	2%
African American	125,029	3%	5%
<i>Men</i>	35,933	3%	4%
<i>Women</i>	88,189	3%	6%
American Indian	8,138	4%	4%
<i>Men</i>	2,883	6%	3%
<i>Women</i>	5,177	3%	5%
Asian	72,712	3%	6%
<i>Men</i>	33,340	3%	4%
<i>Women</i>	38,793	4%	7%
Hispanic/Latino	86,765	4%	5%
<i>Men</i>	32,320	5%	5%
<i>Women</i>	54,033	4%	7%
White	836,962	1%	0%
<i>Men</i>	332,815	1%	0%
<i>Women</i>	492,347	1%	1%

NOTE: Because not all institutions responded to all items, detail variables may not sum to total.
 Source: CGS/GRE Survey of Graduate Enrollment

Trends in graduate enrollment by ethnicity, 1986 to 2004

Thousands



- As with total graduate enrollment, U.S. citizen enrollment increased from 1986 to 2004. This consistent 1 percent growth has been driven by steady increases in the number of women and minority students. In contrast, the number of U.S. men enrolled in graduate programs has been relatively steady since 1986.
- One of the most notable trends in graduate education over the past 18 years has been the growth in the number of U.S. minority students pursuing graduate degrees. Enrollment by American Indian, African American, Asian, and Hispanic/Latino groups grew at an average annual rate between 4 to 5 percent from 1986 to 2004, while White enrollment was virtually unchanged.
- Between 2003 and 2004, enrollment among all ethnic groups grew, led by Hispanics/Latinos and American Indians (4% each).

Table 2.5

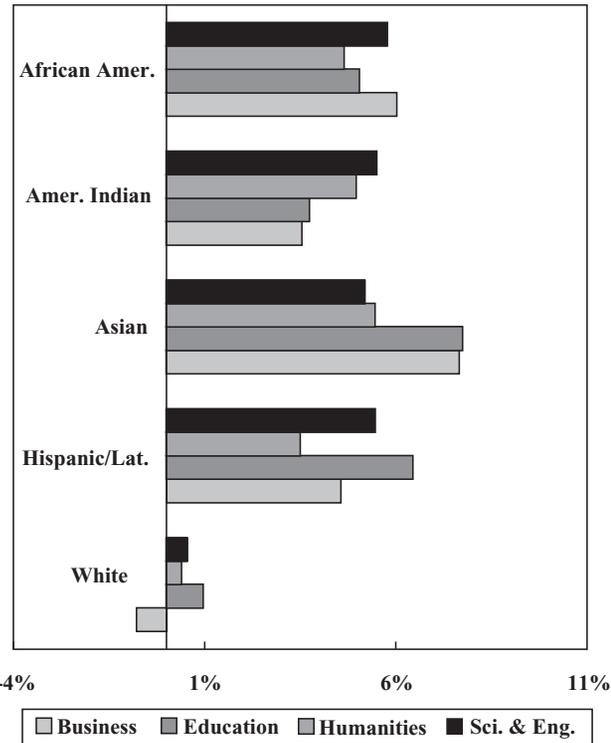
Graduate enrollment by ethnic group and field, 1986 to 2004 (U.S. citizens and permanent residents only)

	Average Annual			Average Annual			Average Annual		
	2004	% Change 2003 to 2004	% Change 1986 to 2004	2004	% Change 2003 to 2004	% Change 1986 to 2004	2004	% Change 2003 to 2004	% Change 1986 to 2004
	<i>African American</i>			<i>American Indian</i>			<i>Asian</i>		
Total	125,029	3%	5%	8,138	3%	4%	72,712	2%	5%
Biological Sciences*	2,296	16%	5%	311	8%	7%	3,877	5%	6%
Business	22,573	8%	6%	1,063	11%	4%	15,379	8%	8%
Education	31,297	4%	5%	2,045	1%	4%	7,259	15%	8%
Engineering	3,080	8%	6%	258	-5%	6%	7,532	-6%	3%
Health Sciences	8,110	5%	8%	536	6%	5%	6,156	6%	9%
Humanities and Arts	4,164	0%	5%	564	2%	5%	3,421	-1%	5%
Physical Sciences	3,323	3%	5%	268	-4%	4%	7,071	-4%	4%
Public Admin. & Serv.	8,434	7%	6%	548	-3%	6%	1,807	9%	8%
Social Sciences	8,437	-7%	5%	800	-2%	5%	4,761	-1%	7%
Other Fields**	8,775	11%	5%	501	-6%	3%	3,624	-3%	6%
	<i>Hispanic/Latino</i>			<i>White</i>					
Total	86,765	8%	5%	836,962	1%	0%			
Biological Sciences*	2,367	7%	4%	38,041	2%	0%			
Business	11,686	2%	5%	112,950	-2%	-1%			
Education	19,965	17%	6%	200,518	0%	1%			
Engineering	3,449	13%	6%	37,110	-1%	0%			
Health Sciences	4,534	6%	8%	64,204	5%	2%			
Humanities and Arts	5,745	10%	3%	65,829	2%	0%			
Physical Sciences	3,381	19%	4%	44,998	0%	-1%			
Public Admin. & Serv.	4,480	26%	3%	31,717	2%	2%			
Social Sciences	7,230	15%	6%	62,523	-1%	1%			
Other Fields**	6,538	-8%	2%	61,166	-5%	0%			

NOTE: Because not all institutions responded to all items, detail variables may not sum to total. Percentages 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

Table 2.5

Average annual percent change in graduate enrollment by ethnic group and broad field, 1986 to 2004



- Since 1986, graduate enrollment has increased across nearly all ethnic groups and fields, although some fields and ethnic groups experienced more substantial growth than others.

- Within ethnic groups, there is considerable variation in the percentage change in graduate enrollment across fields. For example, the average annual percent change from 2003 to 2004 for Hispanics/Latinos varied from an 8 percent decline in Other Fields to a 26 percent increase in public administration.

- Between 2003 and 2004, the leading growth fields by ethnic groups were biological sciences for African Americans (+16%), business for American Indians and African Americans (+11% and +8%), education for Hispanics/Latinos and Asians (+17% and +8%), physical sciences for Hispanics/Latinos (+19%), engineering for Asians and Hispanics/Latinos (+15% and +13%) and public administration for Hispanics/Latinos and Asians (+26% and +9%).

Table 2.6

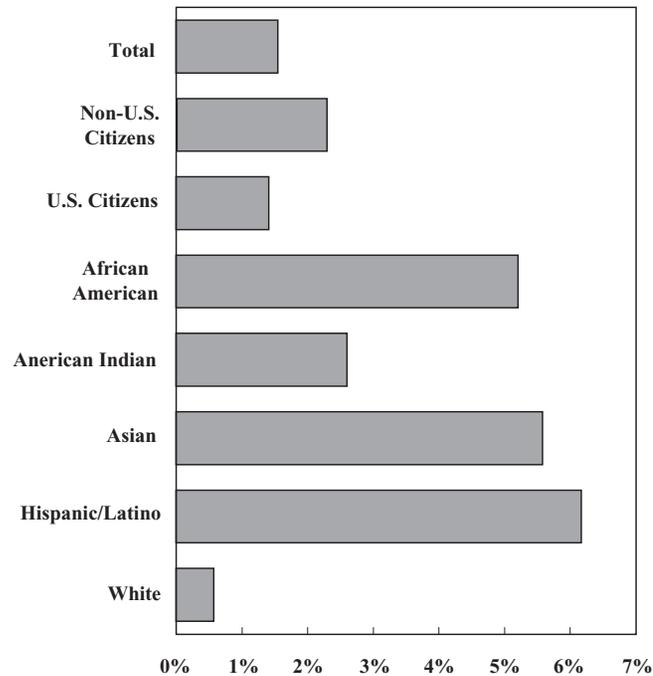
**First-time graduate enrollment by citizenship
and ethnic group, 1986 to 2004**

	2004	% Change 2003 to 2004	Average Annual % Change 1986 to 2004
Total First-Time Enrollment	327,856	2%	2%
Non-U.S. Citizen Temporary Residents	49,184	-3%	2%
U.S. Citizens and Permanent Residents	254,464	2%	1%
African American	25,114	4%	5%
American Indian	1,661	7%	3%
Asian	17,699	-1%	6%
Hispanic/Latino	19,817	7%	6%
White	190,173	1%	1%

Source: CGS/GRE Survey of Graduate Enrollment

Table 2.6

Average annual percent change in first-time enrollment by citizenship and ethnic group, 1986 to 2004



- The number of students enrolled in graduate programs for the first-time increased at a 2 percent annual rate over the 1986 to 2004 period.
- In the last year, overall first-time enrollment increased by 2 percent, driven by increases in American Indian, Hispanic/Latino and African American first-time enrollment.
- The number of non-U.S. citizen students enrolled for the first-time in U.S. graduate programs decreased by 3 percent from 2003 to 2004. While first-time enrollment figures tend to be more volatile than total enrollment, this is the third straight year of decline.

Table 2.7

Trends in graduate applications by field, 1986 to 2004

Major Field	2004	% Change 2003 to 2004	Average Annual % Change 1986 to 2004
Total	1,256,773	-12%	3%
Biological Sciences*	77,070	-14%	3%
Business	167,134	-16%	2%
Education	134,828	-5%	3%
Engineering	161,471	-33%	3%
Health Sciences	81,231	-4%	3%
Humanities and Arts	134,216	3%	4%
Physical Sciences	146,345	-21%	4%
Public Administration and Services	39,667	0%	3%
Social Sciences	159,817	-4%	4%
Other Fields**	80,688	-16%	1%

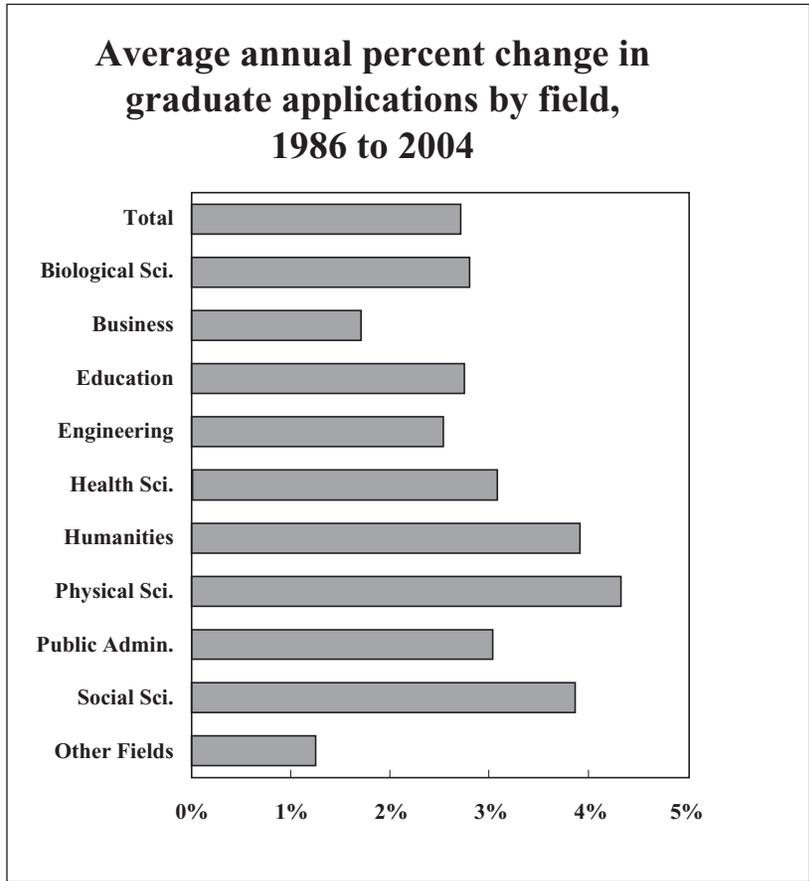
NOTE: Because not all institutions responded to all items, detail variables may not sum to total.

*“Biological Sciences” includes agriculture.

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

Source: CGS/GRE Survey of Graduate Enrollment

Table 2.7



- In general, demand for graduate education has been strong over the 1986 to 2004 period, resulting in an average annual increase of 3 percent in applications submitted for graduate study. Average annual growth was between 1 percent and 4 percent across all fields.

- The recent trend is considerably different. Applications for graduate study were down 12 percent in 2004 from 2003, with double-digit decreases in engineering (-33%), physical sciences (-21%), business and other fields (-16% each), and biological sciences (-14%). These declines directly reflect the decreases in international applications, which typically make up a disproportionately large amount of graduate applications.

- Applications increased for only one field, humanities, which experienced a 3 percent increase from 2003 to 2004, while applications for public administration remained stable.

Note: Because these data track the number of applications and not applicants, some fraction of these trends may be the result of changes in the number of applications submitted per individual. However, absent a collective change on the part of students submitting applications to graduate school, it is likely that these data reflect actual changes in the number of students interested in graduate education.

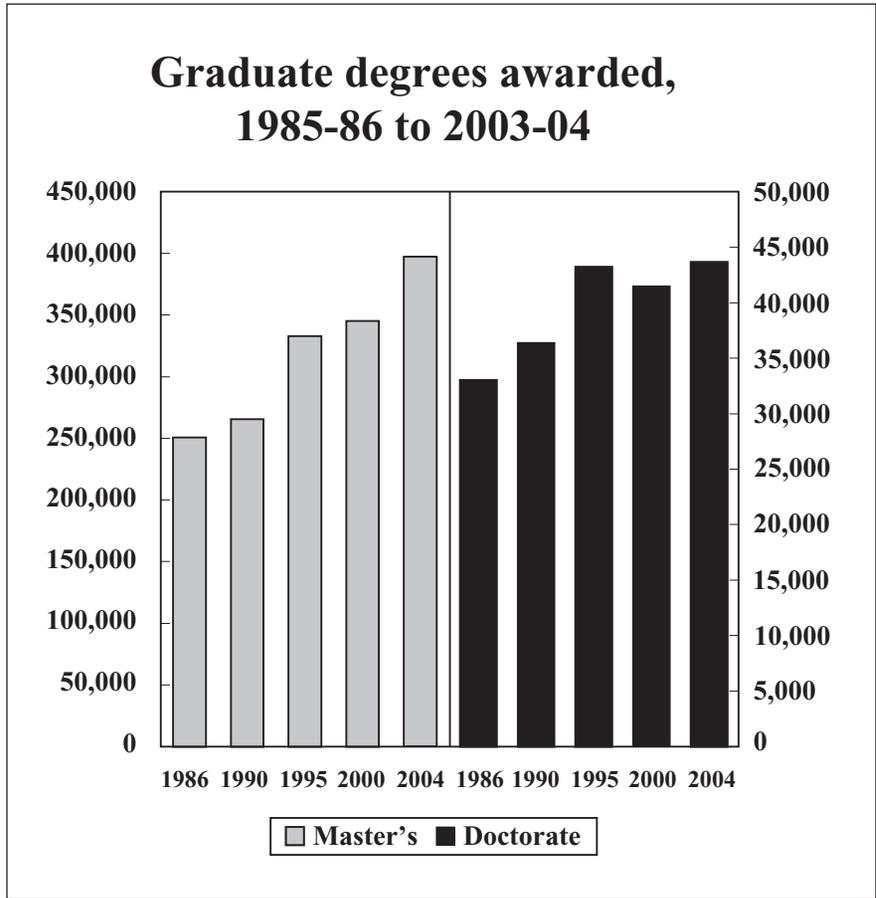
Table 2.8

Graduate degrees awarded, 1986 to 2004

	2004	% Change 2003 to 2004	Average Annual % Change 1986 to 2004
Master's Degrees	397,200	7%	3%
Public	251,907	10%	3%
Private	145,293	2%	3%
Research I	122,822	7%	2%
Doctorate-Granting	175,877	7%	3%
Master's-Granting	98,501	8%	3%
Doctoral Degrees	43,738	0%	2%
Public	29,347	-3%	2%
Private	14,391	5%	1%
Research I	27,294	1%	1%
Doctorate-Granting	15,456	-3%	2%

Source: CGS/GRE Survey of Graduate Enrollment

Table 2.8



- Over the 1986 to 2004 period, the number of master’s degrees awarded increased by 3 percent per year and the number of doctorates increased by an average of 2 percent per year.
- All institutional categories exhibited increases in the granting of master’s degrees from 1986 to 2004, with the number of degrees granted by Research I, Doctorate-Granting, and Master’s-Granting institutions rising by an annual average of between 2 and 3 percent.
- The number of master’s degrees granted is closely tied to graduate enrollment trends in the preceding years. As shown in Table 2.1, graduate enrollment began a new growth phase in 2000. That increase in the number of graduate students is reflected in the master’s degree data—from 2003 to 2004 there was a 7 percent increase in the number of master’s degrees granted.
- In contrast, doctoral degrees, representing a smaller portion of total graduate degrees, are not as sensitive to overall graduate enrollment trends. From 2003 to 2004, the number of doctoral degrees granted was steady, with public institutions decreasing by 3 percent and private institutions increasing by 5 percent.

Appendices

2004 CGS/GRE Survey of Graduate Enrollment Questionnaire

CGS/GRE Survey of Graduate Enrollment

Institution: 2004 _____ **Data Sheet**
 GRE Institution Code: _____

Print

I. Graduate Enrollment for 2004 Fall Term						
	First Time			Total (Includes First Time)		
	Men	Women	Total	Men	Women	Total
Master's						
Doctorate						
Total						
Full Time						
Part Time						
Total						

II. Number of Degrees Conferred between July 1, 2003 and June 30, 2004			
	Men	Women	Total
Master's			
Doctorate			
Graduate Certificate			

III. Number of Completed Applications Submitted for 2004 Fall Term			
	Master's	Doctorate	Total
Accepted			
Not Accepted			
Total			

IV. Graduate Enrollment by Ethnicity for 2004 Fall Term							
		First Time			Total (Includes First Time)		
		Men	Women	Total	Men	Women	Total
Non-Resident Aliens							
U.S. Citizens and Resident Aliens	American Indian / Alaskan Native						
	Asian / Pacific Islander						
	Black, African American						
	Hispanic, Latino						
	White						
Other or Unknown							
Total							



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Instructions for Completing Enrollment Survey Data Sheets

Data for graduate programs offered by all divisions, schools, colleges, or departments of your institution should be reported in this survey. Please note the following:

- Data should be reported for all matriculated students in graduate programs that lead to master's or higher degrees other than first professional degrees.
- Do not include the J.D., M. Div., D.D.S., M.D., D.V.M., and D.P.T.
- Master's programs in such areas as business (e.g. M.B.A.), fine arts (e.g. M.F.A.), health sciences (e.g., M.P.H.), public administration (e.g. M.P.A.), and social work (e.g. M.S.W.) are part of this data collection effort.

Enrollment Status Definitions

First TimeStudents admitted and enrolled for the first time in graduate degree programs at your institution for the fall term.

Full TimeStudents enrolled for credit in graduate degree programs who are engaged full time in training activities in their field; these activities may embrace any appropriate combination of study, teaching, and research, depending on your institution's own policy.

Part TimeStudents who are enrolled in graduate degree programs who are NOT pursuing graduate work full time as defined above.

Ethnicity Definitions

Non-Resident AlienA person who is not a citizen or a national of the United States and who is in this country on a visa or temporary basis and does not have the right to remain indefinitely.

American Indian or Alaskan NativeA person having origins in any of the original peoples of North America, and who maintains cultural identification through tribal affiliation or community recognition.

Asian or Pacific IslanderA person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands. This area includes, for example, China, Japan, Korea, the Philippine Islands, and Samoa.

Black, Non HispanicA person having origins in any of the Black racial groups of Africa (except those of Hispanic origin).

Hispanic - TotalA person having origins in any of the original peoples of Puerto Rico, Mexico, Cuba, Central American, South America, or other Spanish culture, regardless of race. On the data sheet this total is further broken down into three Hispanic subgroups-Puerto Rican, Mexican Americans, and Other Hispanic (Cuban, Central American, South American or other Spanish culture.)

White, Non-Hispanic.....A person having origins in any of the original peoples of Europe, North Africa, or the Middle East (except those of Hispanic origin).

CGS/GRE Survey of Graduate Enrollment Taxonomy

Biological Sciences

Agriculture
Biological Sciences

Business

Accounting
Banking and Finance
Business Administration
and Management
Business, Other

Education

Administration
Curriculum and Instruction
Elementary Education
Evaluation and Research
Higher Education
Secondary Education
Special Education
Student Counseling
and Personnel Services
Education, Other

Engineering

Chemical
Civil
Electrical and Electronics
Industrial
Materials
Mechanicals
Engineering, Other

Health Sciences

Health and Medical
Sciences

Humanities and Arts

Arts–History, Theory,
and Criticism
Arts–Performance and
Studio
English Language and
Literature
Foreign Language and
Literature
History
Philosophy
Humanities and Arts, Other

Physical Sciences

Chemistry
Computer Sciences
Earth, Atmospheric, and
Marine Science
Mathematical Sciences
Physics and Astronomy
Natural Sciences, Other

**Public Administration and
Services**

Public Administration
Social Work

Social Sciences

Anthropology
Economics
Political Science
Psychology
Sociology
Social Sciences, Other

Other Fields

Architecture and
Environmental Design
Communications
Home Economics
Library and Information
Sciences
Religion and Theology
All Other Fields

Appendix C

Council of Graduate Schools
One Dupont Circle, NW, Suite 430
Washington, DC 20036-1173
www.cgsnet.org

Contact: Heath A. Brown
phone: (202) 223-3791
email: hbrown@cgs.nche.edu

Graduate Record Examinations Program
Educational Testing Service
Princeton, NJ 08541-6000
www.gre.org

Contact: Cindy Evans
phone: (609) 683-2035
email: cevans@ets.org

The CGS/GRE Survey of Graduate Enrollment

Since 1986, the Council of Graduate Schools and the Graduate Record Examinations Board have conducted an annual survey of graduate enrollment and degrees at the approximately 738 institutions that are members of the Council or its regional affiliates. These institutions account for 79 percent of graduate students enrolled in the U.S. and 82 and 98 percent, respectively, of master's and doctoral degrees awarded by U.S. institutions.

Methodology

The survey is conducted each fall. Institutions provide data on graduate enrollment and applications for the fall term, and data on degrees conferred during the previous (12-month) school year. Total data, as well as data from up to 51 individual disciplines, are collected from each institution. Consistently, more than 90 percent of the institutions complete and return the survey.

Data

Enrollment: Includes enrollment by gender, ethnicity, citizenship, enrollment status (full-time and part-time), and first-time enrollment for the fall term. Racial/ethnic data reported in this study are collected from institutional records that are based upon

the self-report of the graduate students. Accordingly, the number of students in any given racial/ethnic category is subject to individual interpretation on the part of students as they complete registration forms. Applications: Includes the number of complete applications submitted for the fall term, applications accepted, and applications not accepted. Degrees: Includes the number of master's and doctoral degrees conferred by gender.

Reporting

The data are cross-referenced by institutional variables such as public or private affiliation, highest degree granted, and institution-type categories based on the Carnegie Classification system. Discipline data are grouped into nine broad fields plus "other." Trends in graduate enrollment and degrees since 1986 are reported in addition to the single-year data.

Data Availability

Survey results are published in the annual *Graduate Enrollment and Degrees*, available from CGS <http://www.cgsnet.org/>. Early release data and special reports are also published in the Council's newsletter, the *Communicator*.

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October 2005