



Office of Research  
and  
Information Services

# Graduate Enrollment and Degrees: 1986 to 2001

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## *Introduction*

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This report presents a summary of the findings of the 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 fourteenth year of the Survey that began in 1986. The Enrollment Survey is mailed each year 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).<sup>1</sup>

The survey results presented here are based upon results from 635 (89%) of the institutions in the survey sample of 716. The tables and analyses that follow are divided into two chapters. Chapter 1 highlights the results of the fall 2001 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 2001 period. The tables in Chapter 2 describing year-to-year changes in enrollment and degrees include data from the approximately 430 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 635 responding institutions represent 38 percent of the approximately 1,700 institutions in the U.S. that offer graduate programs. The responding institutions enroll approximately 74 percent of the national total of 1.8 million graduate students, grant 72 percent of the 457,000 master's degrees, and grant virtually all of the 41,000 doctorate degrees awarded by U.S. universities. Since the responding institutions represent such a large percentage of the total enrollment and degrees, the trends reported here tend to be 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.

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<sup>1</sup> 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*

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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 Stella Devries of ETS for her work in the printing and mailing of the survey questionnaires, the processing of responses, and in the development of the survey database. Janice Goggins in the CGS office deserves special mention for her unflagging efforts to contact survey nonrespondents and her meticulous work on the tables, graphs, and text in this report. We also thank Lisa Jordan of CGS for editing and final assembly 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.

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**Chapter 1**  
*Fall 2001 Graduate Enrollment*

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**Table 1.1**

## Profile of fall 2001 graduate enrollment

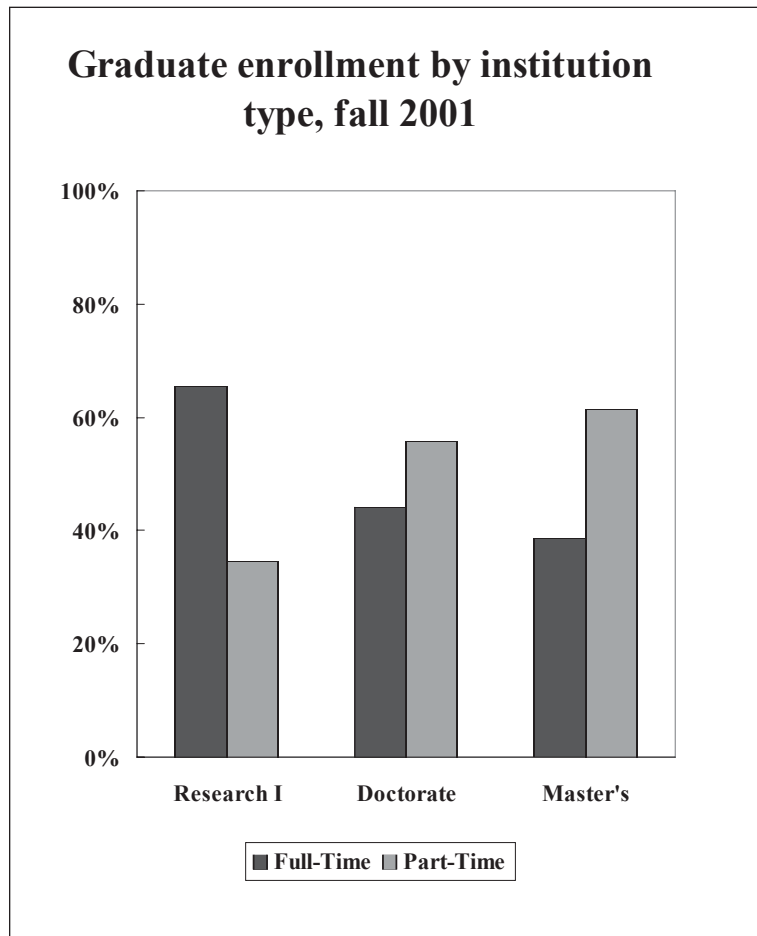
Institution Type	Total	Men	Women	Full-Time	Part-Time				
<b>Total</b>	<b>1,284,146</b>	<b>558,505</b>	<b>44%</b>	<b>720,023</b>	<b>56%</b>	<b>652,273</b>	<b>52%</b>	<b>604,455</b>	<b>48%</b>
<i>Public</i>	870,429	374,046	43%	493,446	57%	427,448	50%	422,091	50%
<i>Private</i>	413,717	184,459	45%	226,577	55%	224,825	55%	182,364	45%
<b>Research I*</b>	437,964	222,629	51%	215,335	49%	235,706	66%	123,834	34%
<i>Public</i>	334,712	167,027	50%	167,685	50%	157,590	60%	105,026	40%
<i>Private</i>	103,252	55,602	54%	47,650	46%	78,116	81%	18,808	19%
<b>Doctorate-Granting*</b>	547,313	228,893	42%	315,205	58%	235,706	44%	299,075	56%
<i>Public</i>	358,302	148,463	41%	209,305	59%	157,590	45%	193,102	55%
<i>Private</i>	189,011	80,430	43%	105,900	57%	78,116	42%	105,973	58%
<b>Master's-Granting*</b>	298,869	106,983	36%	189,483	64%	114,338	39%	181,546	61%
<i>Public</i>	177,415	58,556	33%	116,456	67%	50,741	29%	123,963	71%
<i>Private</i>	121,454	48,427	40%	73,027	60%	63,597	52%	57,583	48%

NOTE: 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 88 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. 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 1.2 million graduate students in the fall of 2001. At 56% of graduate enrollment, women are the majority group in graduate education, with men accounting for 44% of the total.
- Nearly two-thirds of students pursue graduate degrees at public institutions, which enrolled 870,420 graduate students in 2001.
- Institutions in the Doctorate-Granting category accounted for 43% of total graduate enrollment, followed by Research I with 33%, and Master's-Granting institutions with 23% of graduate enrollment.
- Consistent with earlier years, a majority of graduate students were enrolled on a full-time basis, with 652,273 students reported as full-time and 604,455 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 is majority male (51%) and full-time (66%). Doctorate-Granting institutions, in contrast, report a majority of women graduate students, and 56% of their students as part-time. At Master's-Granting institutions, women constitute 64% of graduate enrollment, and 61% of the graduate students attend on a part-time basis.

**Table 1.2**

## Graduate enrollment by field, fall 2001

Major Field	Total	Men		Women		Full-Time		Part-Time	
<b>Total</b>	<b>1,284,146</b>	<b>558,505</b>	<b>44%</b>	<b>720,023</b>	<b>56%</b>	<b>652,273</b>	<b>52%</b>	<b>604,455</b>	<b>48%</b>
Biological Sciences*	60,042	29,269	49%	30,304	51%	46,455	32%	13,075	68%
Business	203,291	117,774	59%	82,614	41%	99,498	36%	99,724	64%
Education	274,511	71,326	26%	200,922	74%	89,297	33%	180,315	67%
Engineering	94,250	73,929	80%	18,303	20%	60,313	66%	31,530	34%
Health Sciences	89,224	22,518	25%	65,926	75%	56,032	63%	32,345	37%
Humanities & Arts	91,889	38,018	42%	51,970	58%	60,018	67%	29,386	33%
Physical Sciences	100,899	66,652	67%	32,370	33%	66,029	67%	32,677	33%
Public Administration and Services	44,459	11,168	26%	32,515	74%	23,812	55%	19,496	45%
Social Sciences	98,244	38,666	40%	58,066	60%	61,937	64%	34,255	36%
Other Fields**	99,631	36,923	37%	61,545	63%	42,013	43%	56,319	57%

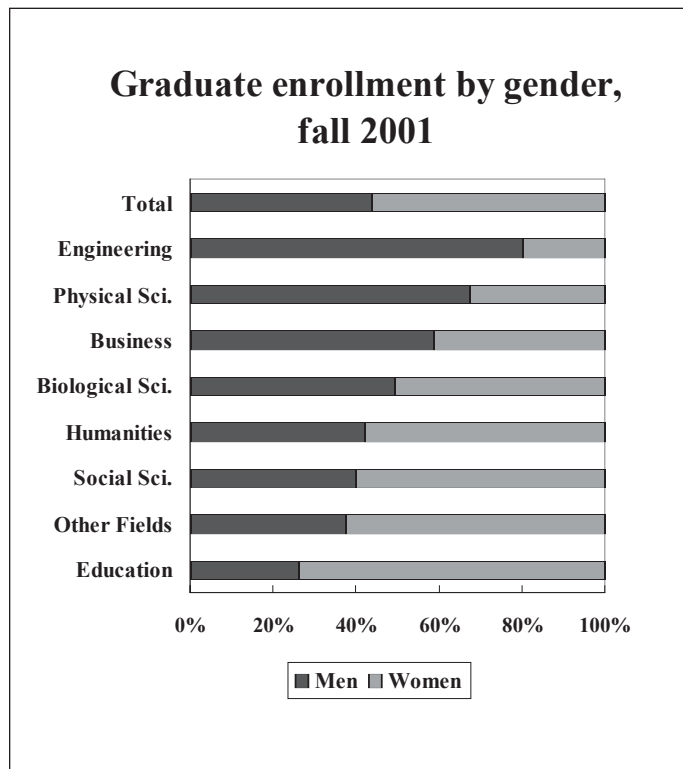
NOTE: Because not all institutions responded to all items, detail variables may not sum to total. Percentages are based on total of known gender or enrollment status.

\*"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 enroll the latest numbers of graduate students, accounting for 24% and 18% of fall 2001 graduate enrollment respectively. These two fields also have the highest proportion 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 is 59% male; in education it is 74% female.
- The fields of engineering, physical sciences, and business enroll the highest percentages of men, while the health sciences, education, and public administration have the highest percentage of women students.
- In general, there is a relationship between the distribution of enrollment by full- and part-time attendance and the graduate degree being pursued. Where the master's degree predominates (business and education), most students attend part-time, and where the doctoral degree is the focal degree (biological sciences, physical sciences, and humanities) full-time study is the norm. However, in engineering, where the master's degree is considered a professional degree, the majority of graduate students are enrolled on a full-time basis.

**Table 1.3**

**Fall 2001 graduate enrollment  
by institution type and citizenship**

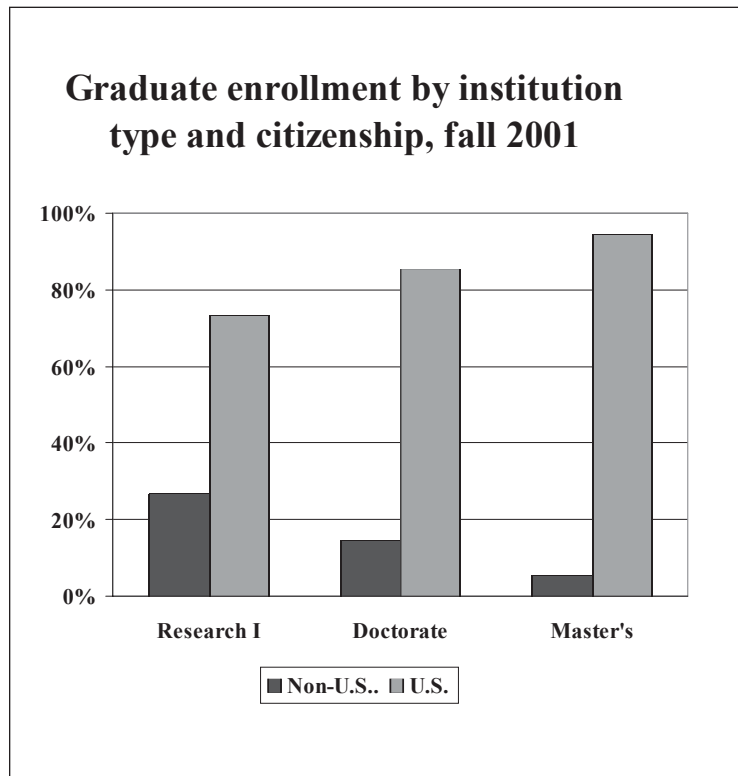
Institution Type	Total	U.S. Citizens and Permanent Residents		Non-U.S. Citizen Temporary Residents	
<b>Total</b>	<b>1,284,146</b>	<b>971,635</b>	<b>83%</b>	<b>196,091</b>	<b>17%</b>
<i>Public</i>	870,429	677,589	83%	138,262	17%
<i>Private</i>	413,717	294,046	84%	57,829	16%
<b>Research I*</b>	437,964	298,574	73%	109,776	27%
<i>Public</i>	334,712	238,021	75%	79,831	25%
<i>Private</i>	103,252	60,553	67%	29,945	33%
<b>Doctorate-Granting*</b>	547,313	426,294	85%	72,370	15%
<i>Public</i>	358,302	287,715	85%	49,042	15%
<i>Private</i>	189,011	138,579	86%	23,328	14%
<b>Master's-Granting*</b>	298,869	246,767	95%	13,945	5%
<i>Public</i>	177,415	151,853	94%	9,389	6%
<i>Private</i>	121,454	94,914	95%	4,556	5%

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

*Table 1.3*



- In the fall of 2001, 196,091 non-U.S. citizens enrolled in CGS member and affiliated institutions, accounting for 17% of graduate enrollment. Both public and private institutions had similar percentages of international students enrolled in graduate programs.
- Institution type was a major differentiating variable in the enrollment of non-U.S. students, reflecting the concentration of international students in doctoral programs in science and engineering fields. More than one-half (109,776) of non-U.S. graduate students were enrolled at Research I institutions, representing 27% of total graduate enrollment on those campuses. International students accounted for 15% of enrollment at Doctorate-Granting institutions, and 5% at Master's-Granting institutions.

**Table 1.4**

**Fall 2001 graduate enrollment  
by field and citizenship**

Major Field	Total	U.S. Citizens and		Non-U.S. Citizen	
		Permanent Residents		Temporary Residents	
<b>Total</b>	<b>1,284,146</b>	<b>971,635</b>	<b>83%</b>	<b>196,091</b>	<b>17%</b>
Biological Sciences*	60,042	42,391	75%	13,911	25%
Business	203,291	147,658	84%	27,588	16%
Education	274,511	240,223	97%	8,071	3%
Engineering	94,250	42,546	49%	44,941	51%
Health Sciences	89,224	73,901	90%	8,165	10%
Humanities & Arts	91,889	70,534	85%	12,491	15%
Physical Sciences	100,899	52,831	57%	40,086	43%
Public Administration and Services	44,459	38,664	96%	1,588	4%
Social Sciences	98,244	73,696	83%	14,864	17%
Other Fields**	99,631	80,826	89%	9,551	11%

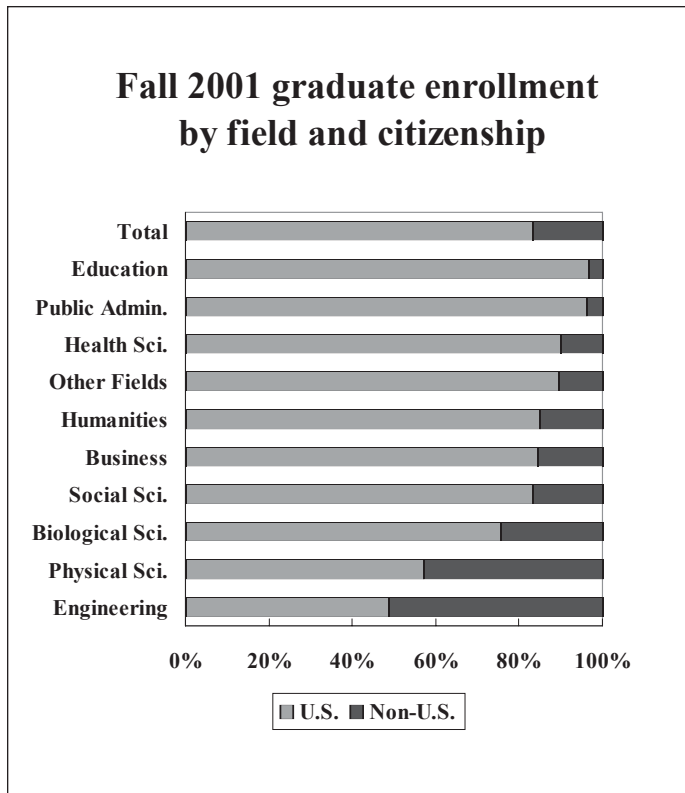
NOTE: Because not all institutions responded to all items, detail variables may not sum to total.  
Percentages are based on total of known citizenship.

\*"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 45% of U.S. students. In contrast, non-U.S. citizens are concentrated primarily in science and engineering fields.
- Two fields—engineering and the physical sciences—had the highest percentages of non-U.S. graduate enrollment, at 51% and 43% respectively. The 44,941 international students in engineering and the 40,086 in the physical sciences represented 45% of total non-U.S. citizen graduate enrollment. For U.S. graduate students, just 11 % were enrolled in engineering and the physical sciences.
- Other fields with substantial international student enrollment in 2001 were the biological sciences (25), social sciences (17%), and business (16%).
- Public administration (4%) and education (3%) had the lowest percentage of foreign enrollment, again reflecting the interest of international students in science and engineering fields.

Table 1.5

### U.S. graduate enrollment by ethnic group, fall 2001

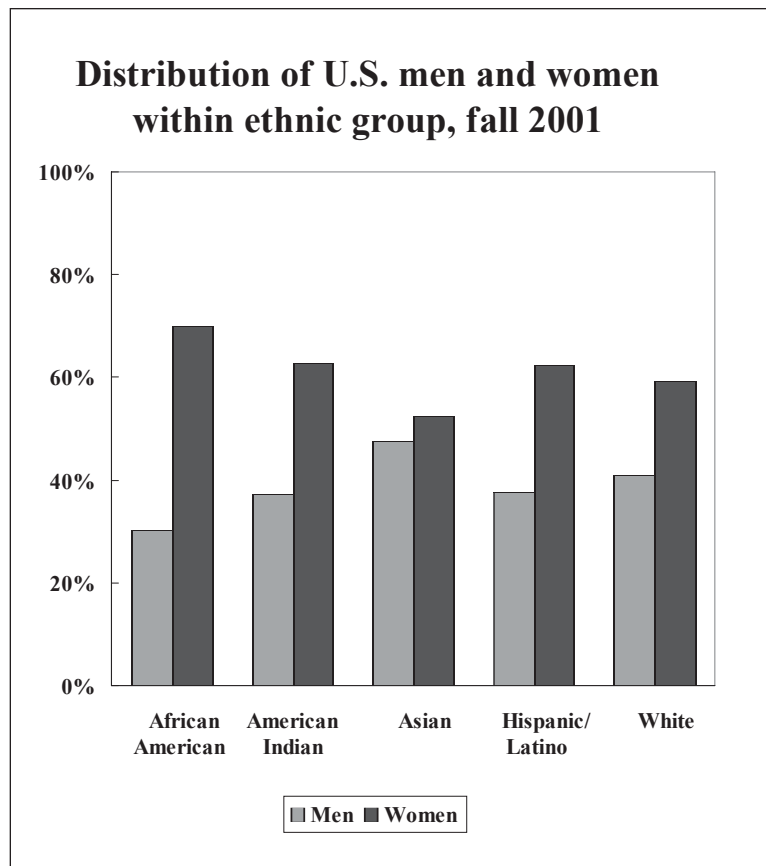
Ethnic Group	Total		Men		Women	
<b>Total U.S. Citizens and Permanent Residents</b>	<b>971,635</b>	<b>100%</b>	<b>377,676</b>	<b>100%</b>	<b>569,330</b>	<b>100%</b>
African American	98,307	10%	29,102	8%	67,403	12%
American Indian	6,514	1%	2,360	1%	3,996	1%
Asian	56,513	6%	26,311	7%	28,912	5%
Hispanic/Latino	69,066	7%	25,347	7%	41,923	7%
White	741,235	76%	294,556	78%	427,096	75%

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

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

Source: CGS/GRE Survey of Graduate Enrollment

*Table 1.5*



- Of the 971,635 U.S. citizen and permanent resident graduate students enrolled in surveyed institutions, 230,400, or 24%, were members of minority groups.
- African Americans were the largest minority group among U.S. citizens, with 98,307 students, or 43% of fall 2001 minority graduate enrollment.
- Hispanic/Latino and Asian enrollment totaled 69,066 and 56,513 respectively. American Indians accounted for 6,514 students enrolled in graduate programs in fall 2001.
- Women comprised more than half of the enrollment of every U.S. ethnic group. African Americans had the highest percentage of women graduate students, with more than twice as many women enrolled in graduate programs as men (67,403 women and 29,102 men).

**Table 1.6**

**Graduate enrollment by ethnic group and discipline, fall 2001  
(U.S. citizens and permanent residents only)**

Major Field	African American		American Indian		Asian		Hispanic/Latino		White	
<b>Total</b>	<b>98,307</b>	<b>100%</b>	<b>6,514</b>	<b>100%</b>	<b>56,513</b>	<b>100%</b>	<b>69,066</b>	<b>100%</b>	<b>741,235</b>	<b>100%</b>
Biological Sciences*	1,840	2%	289	5%	3,361	6%	2,072	3%	34,829	5%
Business	15,889	19%	723	12%	11,887	23%	10,365	17%	108,794	15%
Education	26,305	32%	1,770	30%	6,150	12%	18,855	31%	187,143	25%
Engineering	2,164	3%	200	3%	6,590	13%	2,251	4%	31,341	4%
Health Sciences	5,973	7%	473	8%	5,599	11%	3,511	6%	58,345	8%
Humanities and Arts	3,475	4%	512	9%	2,964	6%	4,899	8%	58,694	8%
Physical Sciences	3,306	4%	303	5%	7,094	14%	2,706	4%	39,422	5%
Public Administration and Services	6,683	8%	478	8%	1,271	2%	3,521	6%	26,711	4%
Social Sciences	7,266	9%	726	12%	3,517	7%	6,060	10%	56,127	8%
Other Fields**	9,116	11%	505	8%	3,674	7%	6,419	11%	61,112	8%

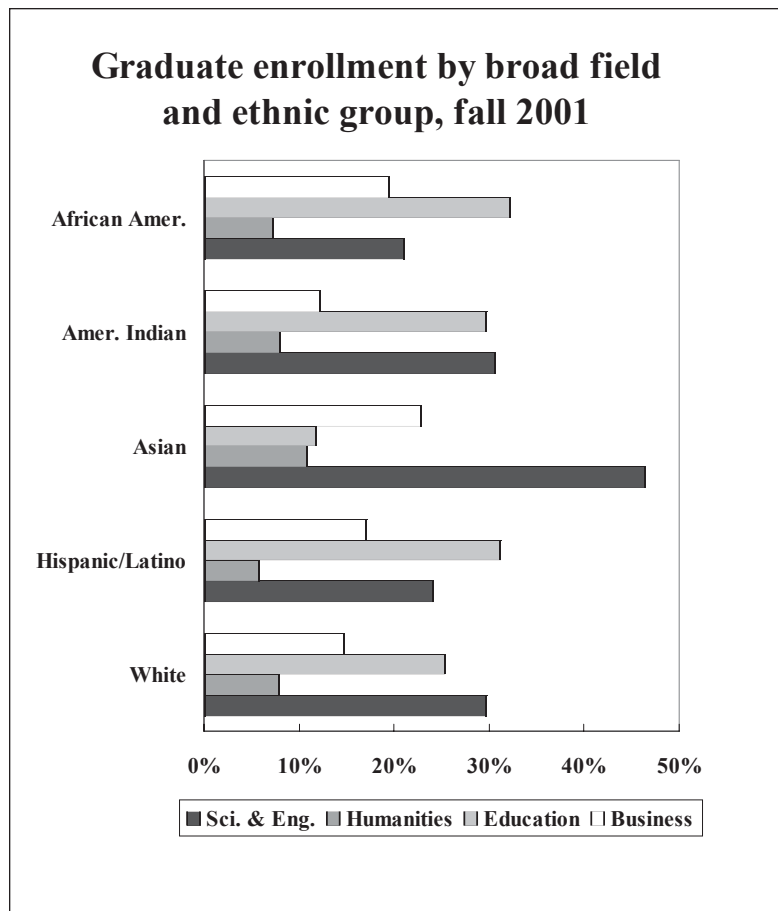
NOTE: Because not all institutions responded to all items, detail variables may not sum to total. Percentages are based on total of known field.

\*"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 1.6**



- The concentration of graduate students in the fields of education and business (see Table 1.2) is reflected in enrolment patterns for four of the five U.S. ethnic groups.
- Asian U.S. citizens and permanent residents are the principal exception to this finding, with the lowest percentage of any group in education, and the highest in business, engineering, and the physical sciences.
- Education is the primary field of choice for American Indians, African Americans, Hispanics/Latinos, and Whites, with enrollment percentages ranging from 28% for Whites to 32% for African Americans.
- Other popular fields for members of U.S. ethnic groups were business for Asians (23%), African Americans (19%), Hispanics/Latinos (17%), Whites (16%), and social sciences for American Indians (12%) and Hispanics/Latinos (10%).

Table 1.7

## Regional profile of graduate enrollment, fall 2001

	CSGS*		MAGS*		NAGS*		WAGS*	
<b>Total Enrollment</b>	<b>394,578</b>	<b>100%</b>	<b>306,994</b>	<b>100%</b>	<b>176,111</b>	<b>100%</b>	<b>208,098</b>	<b>100%</b>
Public	326,726	83%	247,724	81%	101,036	57%	175,985	85%
Private	67,852	17%	59,270	19%	75,075	43%	32,113	15%
Research I	118,632	30%	126,760	41%	68,343	39%	93,188	45%
Doctorate-Granting	221,163	56%	136,849	45%	70,014	40%	64,721	31%
Master's-Granting	54,783	14%	43,391	14%	37,754	21%	50,189	24%
Men	168,730	43%	140,355	46%	77,824	44%	94,364	46%
Women	225,848	57%	164,488	54%	98,287	56%	112,297	54%
Full-Time	187,078	49%	155,491	52%	85,164	49%	116,603	59%
Part-Time	195,835	51%	144,485	48%	89,834	51%	81,404	41%
Non-U.S. Citizen Temporary Residents	58,782	16%	54,918	19%	33,593	21%	32,294	18%
U.S. Citizen and Permanent Residents**	319,845	84%	228,446	81%	122,693	79%	150,455	82%
<i>African American</i>	46,587	15%	19,264	8%	11,986	10%	6,465	4%
<i>American Indian</i>	2,026	1%	1,681	1%	467	0%	2,197	1%
<i>Asian</i>	11,974	4%	10,351	5%	7,264	6%	16,662	11%
<i>Hispanic/Latino</i>	23,461	7%	6,526	3%	4,855	4%	17,294	11%
<i>White</i>	235,797	74%	190,624	83%	98,121	80%	107,837	72%

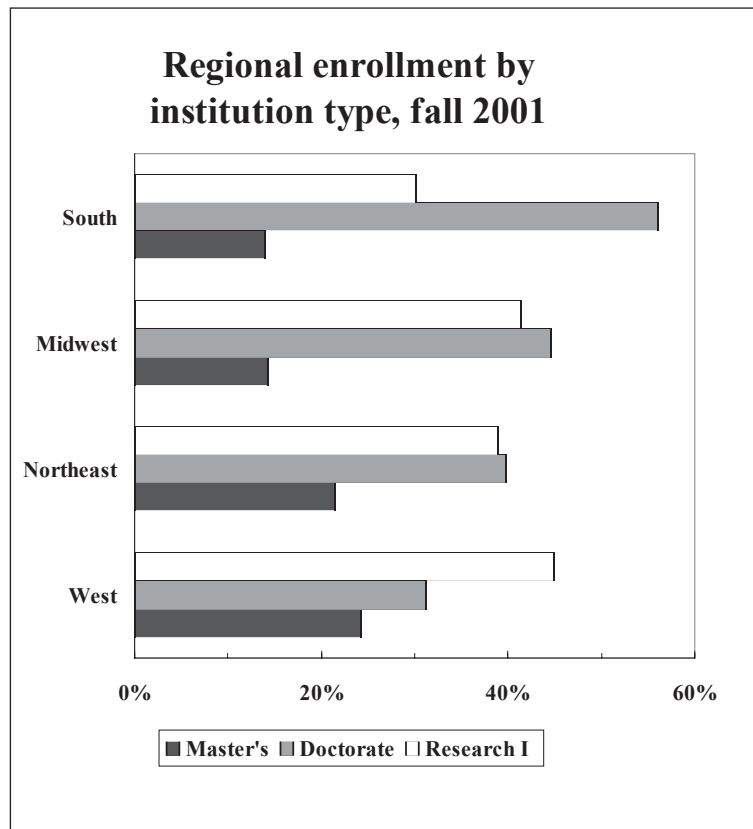
NOTE: A number of institutions are members of more than one regional association; accordingly the totals of the four regionals may sum to a number greater than total graduate enrollment.

\*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 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

**Table 1.7**



- Of the four regional associations, CSGS institutions enroll the largest number of graduate students at 394,578, followed by MAGS (306,994), WAGS (208,098), and NAGS (176,111).
- While public institutions enroll more than 80% of graduate students in the other regions, private institutions enroll 43% of the graduate students in the NAGS region, reflecting the concentration of private institutions of higher education in the northeast.
- WAGS institutions enroll the highest percentage of full-time students (59%) and have the highest percentage of enrollment in Research I institutions. 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 regionals, with the highest percentage of Asian and Hispanic/Latino enrollment.

**Table 1.8**

## Graduate applications by field, fall 2001

Major Field	Total Applications	Accepted Applications		Applications Not Accepted	
<b>Total</b>	<b>1,116,862</b>	<b>509,922</b>	<b>46%</b>	<b>603,356</b>	<b>54%</b>
Biological Sciences*	70,738	23,250	33%	47,443	67%
Business	155,408	67,867	44%	87,316	56%
Education	101,317	72,730	72%	28,488	28%
Engineering	176,197	70,433	40%	105,210	60%
Health Sciences	69,179	32,703	48%	35,880	52%
Humanities & Arts	95,640	36,515	39%	58,258	61%
Physical Sciences	136,154	52,176	38%	83,473	62%
Public Administration and Services	27,982	18,918	68%	9,046	32%
Social Sciences	121,782	43,756	36%	77,385	64%
Other Fields**	78,454	45,838	59%	32,486	41%

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

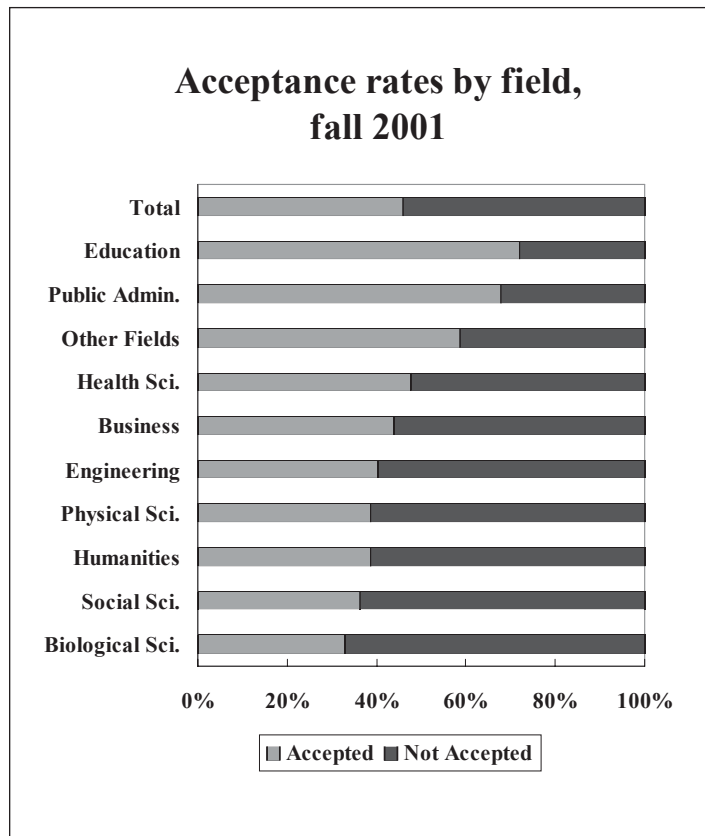
Percentages are based on total of known acceptance status.

\*"Biological Sciences" includes agriculture.

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

Source: CGS/GRE Survey of Graduate Enrollment

**Table 1.8**



- CGS member and affiliated institutions received more than 1.1 million applications for graduate study. Engineering and business led in the number of applications in fall 2001, receiving 17% and 15% of total applications, respectively. Social sciences received 13% of total applications, followed by physical sciences (12%) and education with 10% of applications for fall 2001 enrollment.
- Less than one-half of the 1,116,862 applications were accepted. The wide range of acceptance rates—from a low of 33% for the biological sciences to a high of 72% in education—reflects the singular 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 48% overall average.

**Table 1.9**

## Graduate degrees awarded by field, 2000-2001

Major Field	Total	Master's				Doctoral				
		Men	Women	Men	Women	Total	Men	Women	Men	Women
<b>Total</b>	<b>333,350</b>	<b>134,060</b>	<b>42%</b>	<b>184,480</b>	<b>58%</b>	<b>40,099</b>	<b>21,157</b>	<b>55%</b>	<b>17,161</b>	<b>45%</b>
Biological Sciences*	8,669	3,825	46%	4,563	54%	5,051	2,834	58%	2,074	42%
Business	68,049	40,378	61%	26,238	39%	845	556	67%	270	33%
Education	82,713	19,749	25%	60,597	75%	5,603	1,900	35%	3,483	65%
Engineering	22,277	17,276	78%	4,802	22%	4,904	4,011	82%	887	18%
Health Sciences	26,114	5,711	22%	20,034	78%	2,961	1,276	43%	1,662	57%
Humanities & Arts	17,649	6,848	40%	10,207	60%	4,645	2,176	48%	2,381	52%
Physical Sciences	19,763	12,272	64%	6,856	36%	5,360	3,848	73%	1,457	27%
Public Administration and Services	16,044	3,707	24%	11,777	76%	308	129	44%	162	56%
Social Sciences	20,426	7,830	40%	11,986	60%	5,863	2,674	47%	3,047	53%
Other Fields**	19,833	6,963	37%	11,648	63%	1,519	771	54%	668	46%

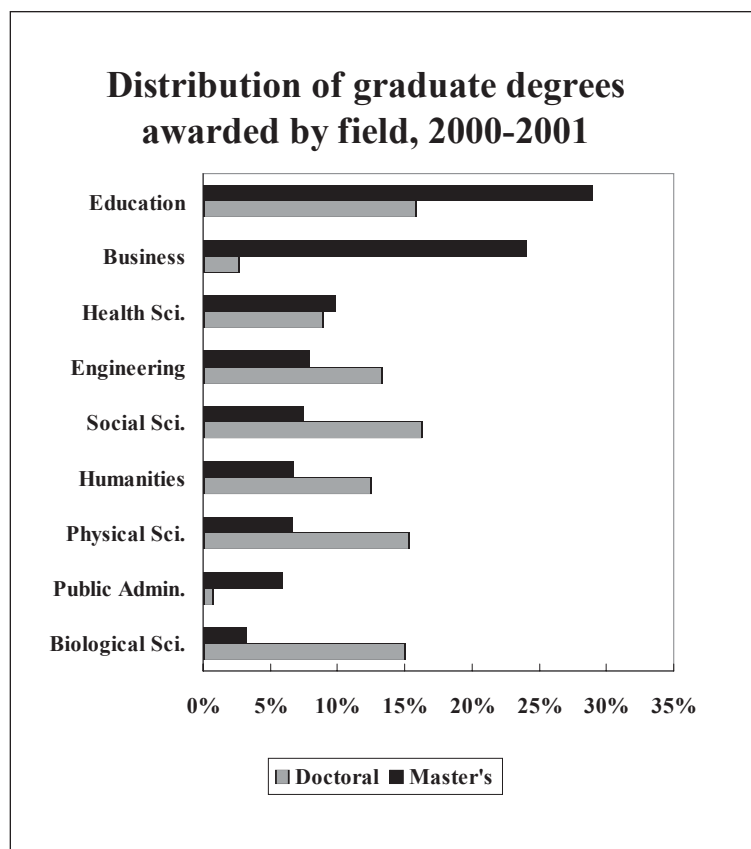
NOTE: Because not all institutions responded to all items, detail variables may not sum to total. Percentages are based on total of known gender.

\*"Biological Sciences" includes agriculture.

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

Source: CGS/GRE Survey of Graduate Enrollment

**Table 1.9**



- Responding institutions awarded 333,350 master's degrees and 40,099 doctoral degrees in the 2000-2001 academic year.
- The largest numbers of master's degrees were awarded in the fields of education and business, respectively representing 27% and 22% of the master's degrees granted by the responding institutions.
- Women earned more than half of the master's degrees awarded in 2000-2001. In the fields of health sciences and public administration, women accounted for 78% and 76% of the master's degrees granted, respectively.
- The leading fields in the number of doctoral degrees were the social sciences and education, with 16% and 15%, respectively, of the doctorates awarded in 2000-2001. The physical sciences, biological sciences, and engineering followed as the next three fields for number of doctoral degrees awarded.
- Men earned 55% of the 40,282 total doctorates in 2000-2001. Although men were the overall majority of doctorate recipients, women earned the majority of doctoral degrees in education, health sciences, humanities, public administration, and social sciences.



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## Chapter 2

### *Trends in Graduate Enrollment and Degrees 1986-2001*

This chapter presents two types of data: total figures for 2001 and trend data from 1986 to 2001 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**

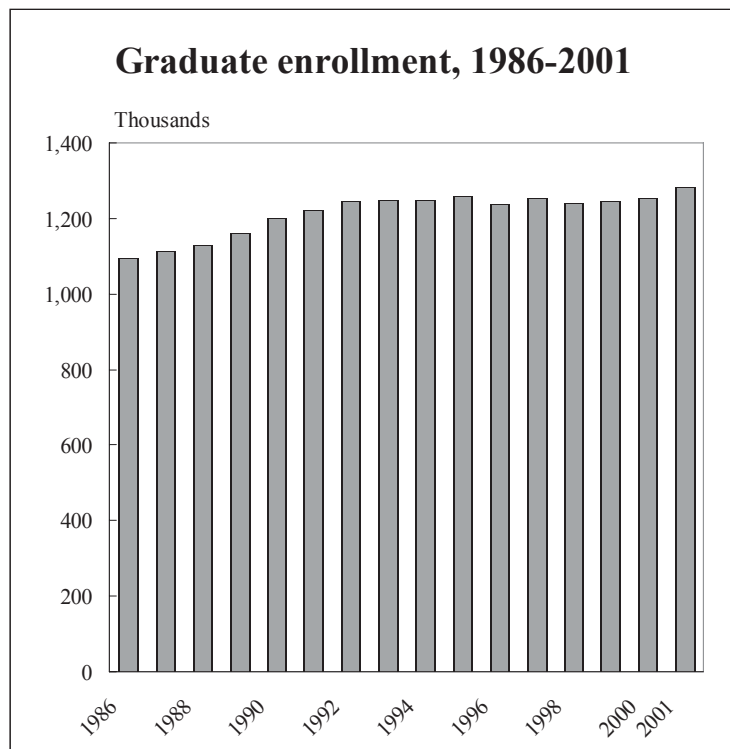
## Trends in graduate enrollment, 1986 to 2001

	2001	% Change 2000 to 2001	Average Annual % Change 1986 to 2001
<b>Total Enrollment</b>	<b>1,284,146</b>	<b>3%</b>	<b>1%</b>
<i>Men</i>	558,505	3%	0%
<i>Women</i>	720,023	2%	2%
<i>Full-time</i>	652,273	4%	2%
<i>Part-time</i>	604,455	1%	0%
Citizenship			
<i>U.S. Citizens and Permanent Residents</i>	971,635	2%	1%
<i>Non-U.S. Citizen Temporary Residents</i>	196,091	9%	4%

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 1998, graduate enrollment rebounded with a 2% increase from 1999 to 2000. In the last year, that growth accelerated, rising by 3% from 2000 to 2001. Over the 1986 to 2001 period, graduate enrollment has grown at a 1% average annual rate.
- Both the number of men and women enrolled in graduate programs increased, from 2000 to 2001, with the number of men increasing by 3% and the number of women by 2%. One of the chief reasons for the overall increase in graduate enrollment during the last two decades has been the sustained growth in the number of women, increasing at a 2% annual pace over the 1986-2001 period. In contrast, the average annual growth rate for men over the past 16 years has been less than 1%.
- The number of U.S. citizens enrolled in graduate programs increased by 2% from 2000 to 2001. At the same time, non-U.S. citizen enrollment increased by 9%. Since 1986, the number of international students has grown at a 4% annual rate while the number of U.S. students has grown by 1% per year.

**Table 2.2**

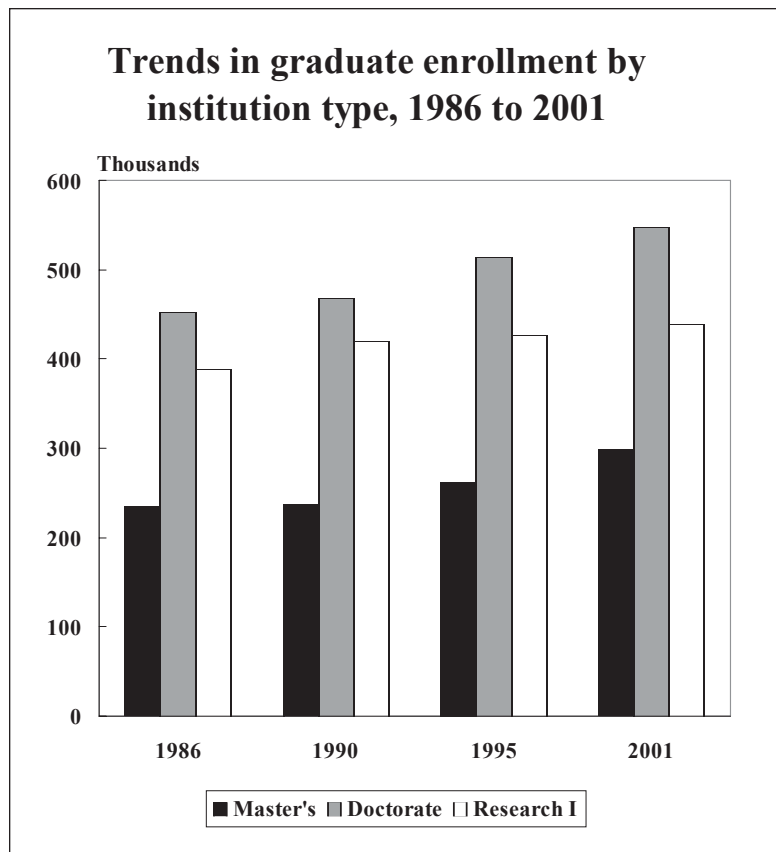
**Trends in graduate enrollment by institution type,  
1986 to 2001**

Institution Type	2001	Average Annual	
		% Change 2000 to 2001	% Change 1986 to 2001
<b>Total Enrollment</b>	<b>1,284,146</b>	<b>3%</b>	<b>1%</b>
<i>Public</i>	870,429	3%	1%
<i>Private</i>	413,717	2%	1%
Research I*	437,964	3%	1%
<i>Public</i>	334,712	3%	1%
<i>Private</i>	103,252	3%	1%
Doctorate-Granting	547,313	2%	1%
<i>Public</i>	358,302	3%	2%
<i>Private</i>	189,011	2%	1%
Master's-Granting	298,869	4%	2%
<i>Public</i>	177,415	4%	2%
<i>Private</i>	121,454	0%	2%

\*Institutions are divided into three categories based on the 1994 Carnegie Classification of Institutions of Higher Education and degrees granted. Research I: The 88 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

*Table 2.2*



- In the last year, graduate enrollment increased by 3% at Research Universities, by 2% at Doctorate-Granting institutions, and by 4% in the Master's-Granting category.
- The overall 1986 to 2001 increase in graduate enrollment occurred across all institutional types, with master's institutions growing at a faster pace than other institutional categories. In addition, there was virtually no difference in overall enrollment growth at public and private institutions.
- Graduate enrollment at Master's-Granting institutions has grown at an annual rate of 2% over the last 16 years. Meanwhile, Research I and Doctorate-Granting institutions have experienced a 1% annual growth rate since 1986.

**Table 2.3**

**Trends in graduate enrollment by field, 1986 to 2001**

Major Field	2001	Average Annual	
		% Change 2000 to 2001	% Change 1986 to 2001
<b>Total</b>	<b>1,284,146</b>	<b>3%</b>	<b>1%</b>
Biological Sciences*	60,042	1%	1%
Business	203,291	4%	1%
Education	274,511	3%	1%
Engineering	94,250	5%	1%
Health Sciences	89,224	-2%	3%
Humanities and Arts	91,889	1%	1%
Physical Sciences	100,899	6%	1%
Public Administration and Services	44,459	0%	2%
Social Sciences	98,244	1%	1%
Other Fields**	99,631	2%	2%

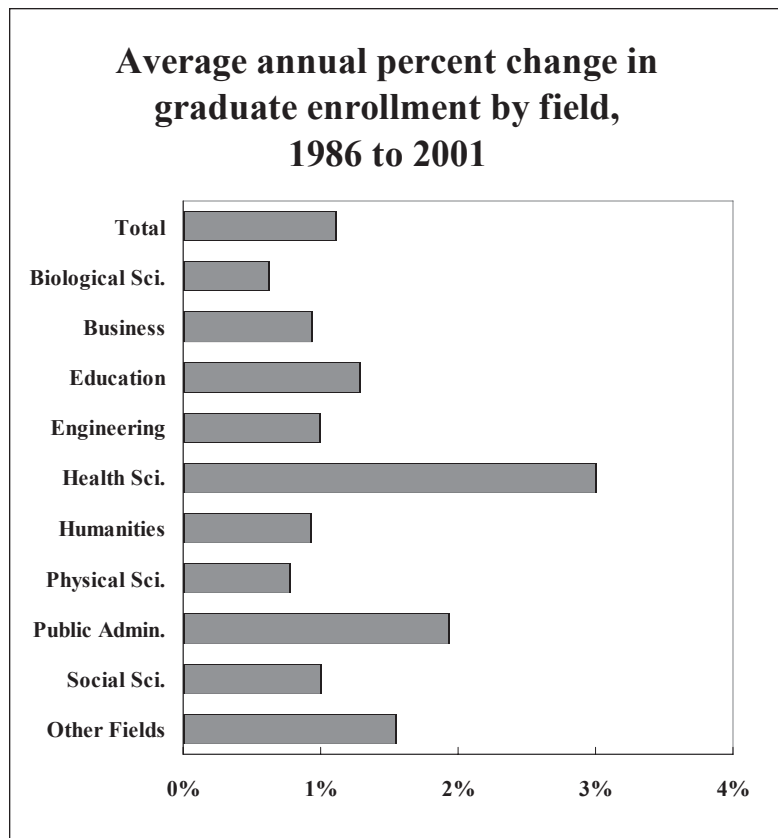
NOTE: Because not all institutions responded to all items, detail variables may not sum to total.

\*"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 2.3*



- The overall growth of graduate enrollment over the last 15 years is reflected in enrollment increases in all ten major fields displayed in Table 2.3.
- Since 1986, the fields public administration and health sciences have grown the most rapidly, rising at annual rates of 2 and 3 percent, respectively.
- In the last year, however, enrollment growth was lead by the physical sciences, business, and engineering, increasing by between 4 and 6 percent. With the exception of the health sciences, which decreased by 2%, all fields posted enrollment increases from 2000 to 2001.
- One of the major contributing factors to the enrollment growth in engineering and the physical sciences is the increase 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 two-fifths of graduate enrollment in these fields.

Table 2.4

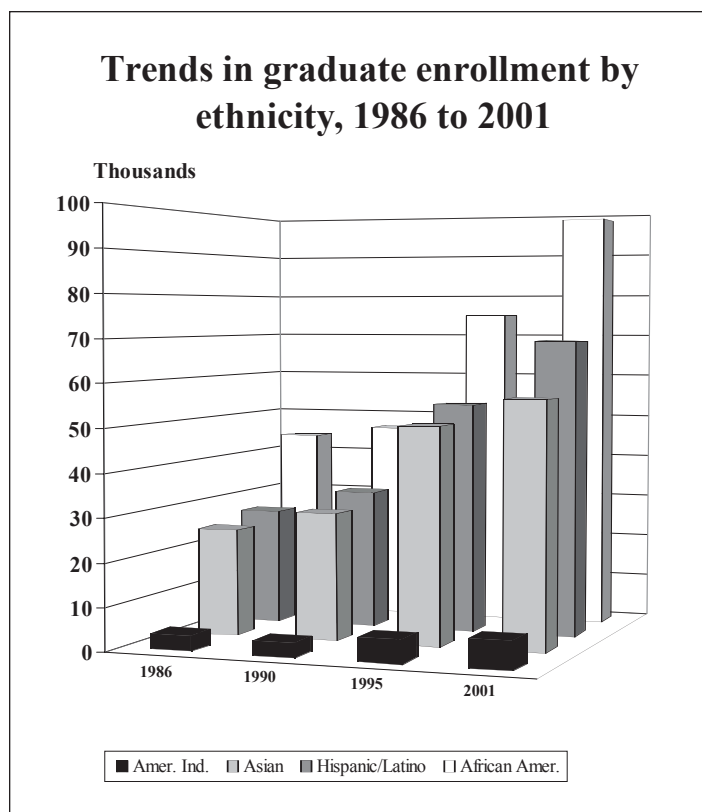
**Trends in graduate enrollment by ethnicity, 1986 to 2001**  
**(U.S. citizens and permanent residents only)**

	2001	% Change 2000 to 2001	Average Annual % Change 1986 to 2001
<b>Total U.S. Enrollment</b>	<b>971,635</b>	<b>2%</b>	<b>1%</b>
<i>Men</i>	377,676	1%	0%
<i>Women</i>	569,330	2%	2%
African American	98,307	4%	5%
<i>Men</i>	29,102	3%	4%
<i>Women</i>	67,403	3%	6%
American Indian	6,514	6%	4%
<i>Men</i>	2,360	6%	3%
<i>Women</i>	3,996	6%	5%
Asian	56,513	7%	6%
<i>Men</i>	26,311	5%	4%
<i>Women</i>	28,912	8%	8%
Hispanic/Latino	69,066	6%	6%
<i>Men</i>	25,347	5%	5%
<i>Women</i>	41,923	7%	8%
White	741,235	1%	0%
<i>Men</i>	294,556	4%	-1%
<i>Women</i>	427,096	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

**Table 2.4**



- As with total graduate enrollment, U.S. citizen enrollment increased from 1986 to 2001. This growth has been driven by steady enrollment increases in the number of women and minority students. In contrast, the number of U.S. men enrolled in graduate programs is roughly equal to the number in 1986.
- One of the most notable trends in graduate education over the past 15 years has been the growth in the number of U.S. minority students pursuing graduate degrees. The African American, Asian, and Hispanic/Latino groups all grew at an average annual rate of 5% to 6% from 1986 to 2001.
- In the last year, Asian enrollment increased by 7%, Hispanic/Latino and American Indian enrollment by 6% and African American enrollment grew by 4%. As with total enrollment, the number of women enrolled in graduate programs has grown at a faster pace than that for men across all underrepresented groups.
- White graduate enrollment increased by less than 1% from 2000 to 2001. The number of White men enrolled in graduate programs has decreased by more than 10% since 1995 and is now below the level achieved in 1986.

Table 2.5

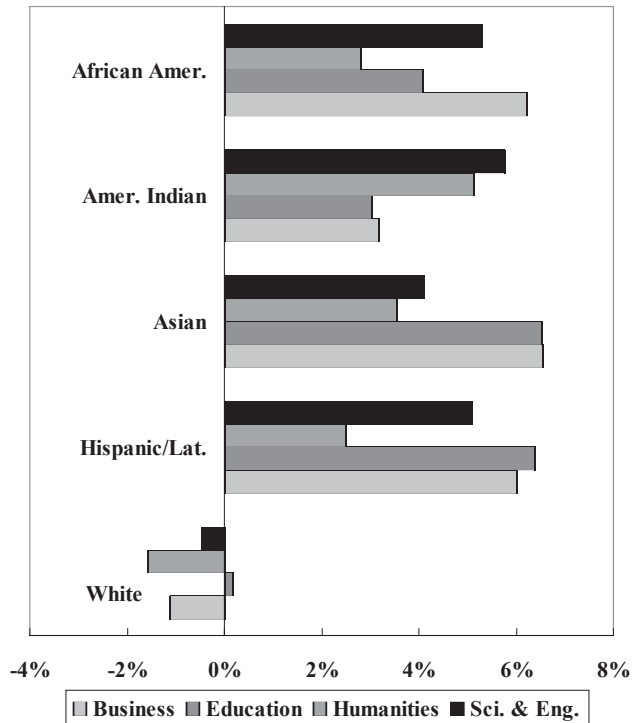
## Graduate enrollment by ethnic group and field, 1986 to 2001 (U.S. Citizens and permanent residents only)

	Average Annual			Average Annual			Average Annual		
	2001	% Change 2000 to 2001	% Change 1986 to 2001	2001	% Change 2000 to 2001	% Change 1986 to 2001	2001	% Change 2000 to 2001	% Change 1986 to 2001
	<b><i>African American</i></b>			<b><i>American Indian</i></b>			<b><i>Asian</i></b>		
<b>Total</b>	<b>98,307</b>	4%	5%	<b>6,514</b>	6%	4%	<b>56,513</b>	7%	6%
Biological Sciences*	1,840	-4%	4%	289	7%	7%	3,361	-3%	6%
Business	15,889	4%	6%	723	-7%	3%	11,887	9%	7%
Education	26,305	6%	4%	1,770	-2%	3%	6,150	2%	7%
Engineering	2,164	-1%	5%	200	10%	5%	6,590	6%	2%
Health Sciences	5,973	3%	7%	473	-2%	6%	5,599	4%	9%
Humanities and Arts	3,475	4%	3%	512	8%	5%	2,964	4%	4%
Physical Sciences	3,306	4%	4%	303	2%	5%	7,094	8%	3%
Public Admin.& Serv.	6,683	6%	5%	478	15%	7%	1,271	3%	8%
Social Sciences	7,266	4%	5%	726	6%	6%	3,517	3%	6%
Other Fields**	9,116	17%	5%	505	6%	5%	3,674	-3%	5%
	<b><i>Hispanic/Latino</i></b>			<b><i>White</i></b>					
<b>Total</b>	<b>69,066</b>	6%	6%	<b>741,235</b>	1%	0%			
Biological Sciences*	2,072	-2%	4%	34,829	0%	0%			
Business	10,365	6%	6%	108,794	1%	-1%			
Education	18,855	3%	6%	187,143	-1%	0%			
Engineering	2,251	1%	4%	31,341	-2%	-2%			
Health Sciences	3,511	9%	9%	58,345	-4%	2%			
Humanities and Arts	4,899	4%	3%	58,694	0%	-2%			
Physical Sciences	2,706	9%	3%	39,422	0%	-2%			
Public Admin.& Serv.	3,521	8%	6%	26,711	-1%	1%			
Social Sciences	6,060	5%	6%	56,127	0%	0%			
Other Fields**	6,419	-2%	5%	61,112	3%	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 2001**



- 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 for the Hispanic/Latino group varied from 3% in the humanities to 9% in the health sciences.
- Despite its recent downturn, graduate enrollment in the health sciences increased for all ethnic groups from 1986 to 2001. Average annual growth rates ranged from 2% for Whites to 9% for Hispanics/Latinos and Asians.
- Even with this strong pattern of growth, there have been decreases in some enrollment categories over the past year. The number of African Americans decreased in the biological sciences and engineering. Asian American and Hispanic/Latino enrollment decreased by 3% and 2% in the biological sciences. American Indian enrollment, while increasing by a total of 6% in the last year, fluctuated from a 15% increase in public administration to a 7% decrease in business.

**Table 2.6**

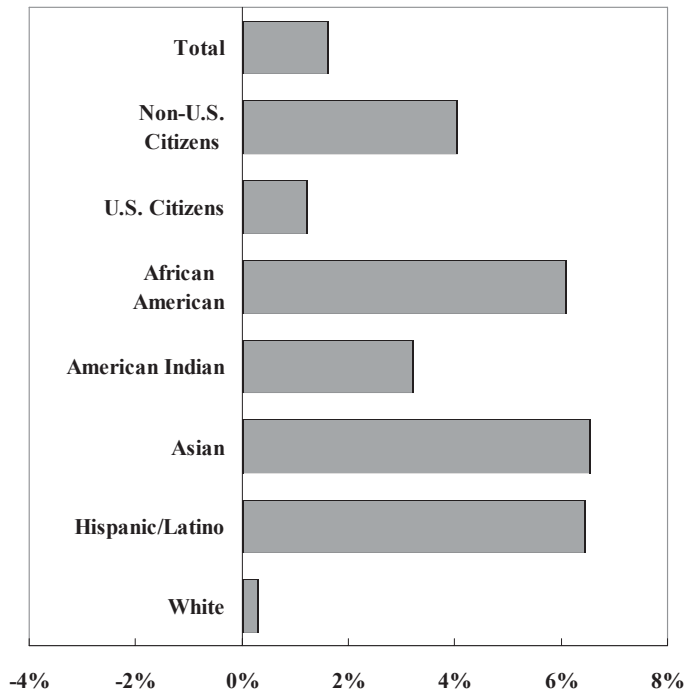
### **First-time graduate enrollment by citizenship and ethnic group, 1986 to 2001**

	2001	% Change 2000 to 2001	Average Annual % Change 1986 to 2001
<b>Total First-Time Enrollment</b>	<b>315,930</b>	<b>5%</b>	<b>2%</b>
Non-U.S. Citizen Temporary Residents	57,606	6%	4%
U.S. Citizens and Permanent Residents	222,995	4%	1%
African American	21,741	5%	6%
American Indian	1,529	1%	3%
Asian	14,507	14%	7%
Hispanic/Latino	17,468	8%	6%
White	167,750	3%	0%

*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 2001**



- The number of students enrolled in graduate programs for the first time was up strongly, increasing by 5% from 2000 to 2001. Over the 1986 to 2001 period, the average annual increase in first-time enrollment was 1%.
- Much of the growth in U.S. citizen and permanent resident first-time enrollment was the result of increases in the enrollment of members of U.S. minority groups. Over the 16-year period of the Enrollment Survey, African American, Hispanic/Latino, and Asian graduate enrollment increased on average by between 5% and 7% per year.
- In the last year, U.S. citizen and permanent resident first-time enrollment increased by 4%, lead by increases in the number of Asian and Hispanic/Latino graduate students.
- The number of new international students enrolled in U.S. graduate programs increased by 6% from 2000 to 2001.

**Table 2.7**

**Trends in graduate applications by field, 1986 to 2001**

Major Field	2001	% Change 2000 to 2001	Average Annual % Change 1986 to 2001
<b>Total</b>	<b>1,116,862</b>	6%	3%
Biological Sciences*	70,738	4%	3%
Business	155,408	4%	3%
Education	101,317	6%	2%
Engineering	176,197	6%	4%
Health Sciences	69,179	2%	3%
Humanities and Arts	95,640	1%	3%
Physical Sciences	136,154	11%	2%
Public Administration and Services	27,982	0%	3%
Social Sciences	121,782	4%	3%
Other Fields**	78,454	6%	2%

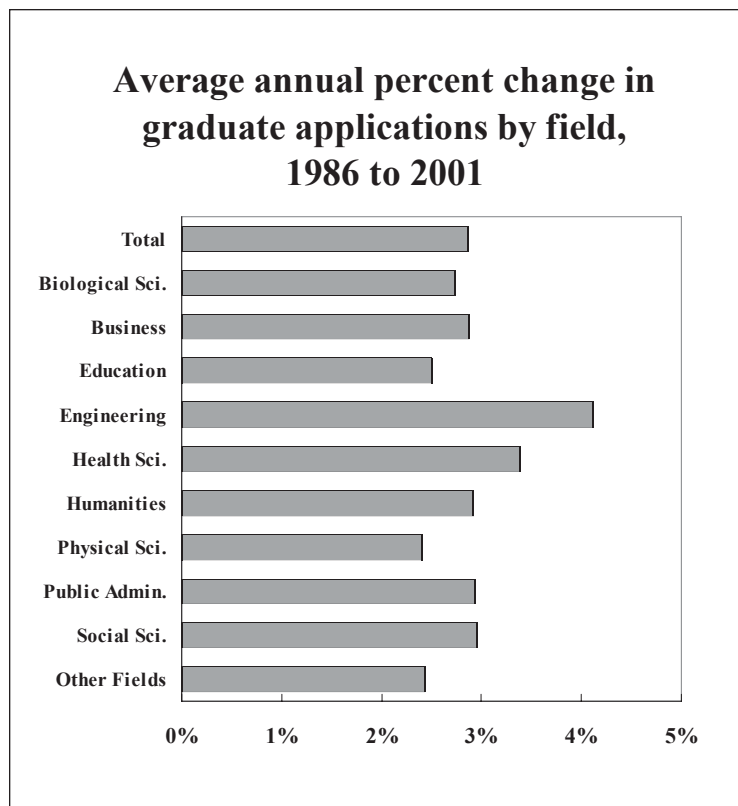
NOTE: Because not all institutions responded to all items, detail variables may not sum to total.

\*"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 2001 period, resulting in an average annual increase of 3% in applications submitted for graduate study. In the last year, however, graduate applications jumped by 5%, a marked turn-around from the decreases experienced from 1995 to 1998.
- The number of applications for graduate study increased across all fields from 2000 to 2001, although at highly variable rates, from a high of 11% in the physical sciences to low of less than 1% in the humanities.
- The rapid growth in graduate applications in engineering and the physical sciences reflects the upswell in interest from international students for graduate study in the U.S. In the past two years, applications have increased by more than 20% in these two fields.

*Note:* Because the data reported here are on *applications* rather than individual applicants, some portion of the findings could be the result of changes in the number of applications submitted per individual. However, absent a collective change in the behavior 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.

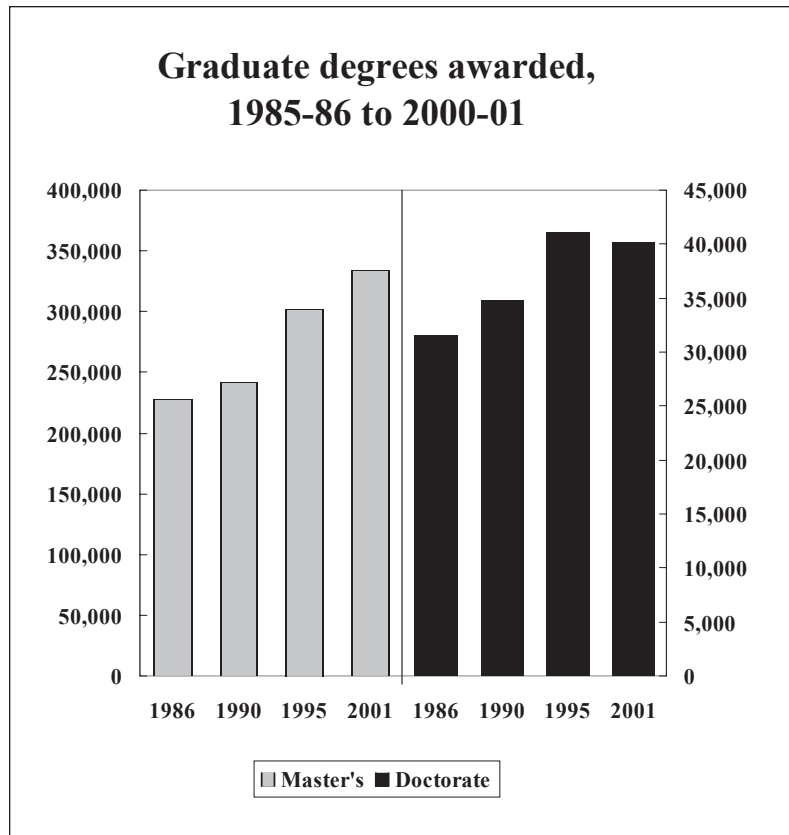
**Table 2.8**

## Graduate degrees awarded, 1986 to 2001

	2001	% Change 2000 to 2001	Average Annual % Change 1986 to 2001
<b>Master's Degrees</b>	<b>333,350</b>	<b>3%</b>	<b>3%</b>
Public	216,099	3%	3%
Private	117,251	4%	2%
Research I	106,299	3%	2%
Doctorate-Granting	147,898	3%	3%
Master's-Granting	79,153	2%	3%
<b>Doctoral Degrees</b>	<b>40,099</b>	<b>0%</b>	<b>2%</b>
Public	27,982	0%	2%
Private	12,117	0%	1%
Research I	26,731	-1%	1%
Doctorate-Granting	13,368	0%	2%

*Source: CGS/GRE Survey of Graduate Enrollment*

*Table 2.8*



- Over the 1986 to 2001 period, the number of master's degrees granted increased by 3% per year and the number of doctorates increased by an average of 2% per year.
- All institutional categories exhibited increases in the granting of master's degrees from 1986 to 2001, 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.
- In contrast, the number of doctoral degrees granted decreased slightly in the last year. The number of doctoral degrees granted by research universities decreased by 1% and was virtually unchanged in the other institutional categories.

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## Appendices

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# Appendix A

## 2001 CGS/GRE Survey of Graduate Enrollment Questionnaire

INSTITUTION NAME: \_\_\_\_\_ GRE INSTITUTION CODE: \_\_\_\_\_

I. Graduate Enrollment for 2001 Fall term	FIRST TIME			TOTAL (Includes First Time)		
	MEN	WOMEN	TOTAL	MEN	WOMEN	TOTAL
Full Time						
Part Time						
<b>Total</b>						

II. Number of Degrees Conferred between July 1, 2000, and June 30, 2001, by Sex	MASTERS	DOCTORAL
Men		
Women		
<b>Total</b>		

III. Number of Complete Applications Submitted for 2001 Fall Term	TOTAL
Accepted	
Not Accepted*	
<b>Total</b>	

\*includes rejected and other

IV. Graduate Enrollment by Ethnicity for 2001 Fall Term	FIRST TIME			TOTAL (Includes First Time)		
	MEN	WOMEN	TOTAL	MEN	WOMEN	TOTAL
Non-Resident Aliens						
U.S. Citizens & Resident Aliens	American Indian/Alaskan Native					
	Asian or Pacific Islander					
	Black, Non-Hispanic					
	Hispanic -- Total					
	Puerto Rican					
	Mexican American					
	Other Hispanic					
	White, Non-Hispanic					
Other or Unknown						
<b>Total</b> (Should match total row in question I)						

### Instructions for Completing Enrollment Survey Data Sheets

Please provide as much information as you have available. If you cannot provide information for a particular question, or section of a question, please enter "NA" (Not Available) in the corresponding boxes and continue to the next question. Enter "0" (ZERO) when the information you are supplying is a zero (for example, if you do not have part-time students you would enter "0" in all boxes pertaining to numbers of part-time students).

In questions I to IV, the sum of all categories should equal the total (i.e., men + women = total enrollment, full time + part time = total enrollment, etc.). If discrepancies are found within any question we will contact you for verification.

In question II, if the highest degree your institution offers is a master's or specialist degree, enter "X" (Does Not Apply) in the three boxes corresponding to number of doctoral degrees awarded.

#### Enrollment Status Definitions

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

**Full Time** ..... Students 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 Time** ..... Students who are enrolled in graduate degree programs who are NOT pursuing graduate work full time as defined above.

#### Ethnicity Definitions

**Non-Resident Alien** ..... A 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 Native** ..... A 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

**Islander** ..... A 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 Hispanic** ... A person having origins in any of the Black racial groups of Africa (except those of Hispanic origin).

**Hispanic - Total** ..... A 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 ñ 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

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

**Contact: Peter D. Syverson**  
phone: (202) 223-3791  
email: psyverson@cgs.nche.edu

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

**Contact: Stella Devries**  
phone: (609) 683-2035  
email: sdevries@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 710 institutions that are members of the Council or its regional affiliates. These institutions account for 74 percent of graduate students enrolled in the U.S. and 72 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 survey 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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