Corrections to the 2006 Annual Survey of the Mathematical Sciences (Third Report)

The following tables which appeared in the November 2007 issue of *Notices of the AMS* reported some incorrectly tabulated data on degrees awarded and graduate students. As a result these tables have been reprinted below. All figures adjusted since the original report are in red.

Table 5A: Undergraduate Degrees Awarded (hundreds), Fall 2006

	GROUP								
	I Public	I Private	II	III	Va	M	B	I, II, III, Va, M, & B	IV
Total Undergraduate Degrees Awarded	24	10	23	18	3	45	123	246	6
(Standard error)						*(2)*	*(11)*	*(12)*	
Statistics only	1	0	1	1	0	1	2	5	4
Computer science only	1	0	1	2	0	3	18	25	0
Female Undergraduate Degrees Awarded	9	3	8	7	1	20	51	100	3
Statistics only	0	0	0	0	0	1	1	3	2
Computer science only	0	0	0	0	0	1	2	4	0

Table 5B: Undergraduate Degrees Awarded (hundreds)
Groups I, II, III, Va, M & B Combined

Fall	2002	2003	2004	2005	2006
Total Undergraduate Degrees Awarded	217	220	244	234	246
Female Undergraduate Degrees Awarded	91	90	102	93	100
Percentage female	42%	41%	42%	40%	40%

Table 5C: Masters Degrees Awarded (hundreds), Fall 2006

	GROUP							
	I Public	I Private	II	III	Va	M	I, II, III, Va & M	IV
Total Masters Degrees Awarded	5	3	7	8	2	18	43	14
(Standard error)						*(1)*	*(1)*	
Statistics only	0	0	1	2	0	2	5	10
Computer science only	0	0	0	1	0	4	5	0
Female Masters Degrees Awarded	2	1	3	3	0	9	18	8
Statistics only	0	0	0	1	0	1	2	5
Computer science only	0	0	0	0	0	2	2	0

Table 6A: Graduate Students, Fall 2006

	GROUP								
	I Public	I Private	II	III	Va	I, II, III, & Va	M	I, II, III, Va, & M	IV
Total Graduate Students									
Full-time	3095	1456	3285	2465	684	10984	2810	13794	4527
(Standard error)							*(148)*	*(148)*	
First-year full-time	626	477	880	808	169	2960	1078	4038	1442
Part-time	160	231	469	935	106	1902	2412	4314	779
(Standard error)							*(168)*	*(168)*	
Female Graduate Students									
Full-time	766	342	1056	908	207	3279	1132	4411	2127
First-year full-time	177	128	288	304	64	961	438	1400	708
Part-time	70	43	212	377	21	723	1102	1824	424
U.S. Citizen Graduate Students									
Full-time	1803	657	1974	1353	346	6133	2237	8371	1731
(Standard error)							*(136)*	*(136)*	
First-year full-time	363	179	543	474	84	1643	838	2481	628
Part-time	124	125	372	716	94	1430	2129	3559	481
(Standard error)							*(153)*	*(153)*	

Table 6B: Full-Time Graduate Students in Groups I, II, III, & Va by Sex and Citizenship

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total full-time graduate students	9003	8791	8838	9637	9361	9972	10444	10707	10565	10984
Female	2691	2770	2766	3016	2899	3136	3215	3245	3111	3279
% Female	29%	32%	31%	31%	31%	31%	31%	30%	29%	30%
% U.S. citizen	57%	55%	53%	53%	49%	51%	54%	55%	56%	56%
Total first-year graduate students	2386	2458	2664	2839	2875	2996	2711	3004	2832	2960
Female	836	859	866	879	1014	1038	902	983	851	961
% Female	35%	35%	33%	31%	35%	35%	33%	33%	30%	32%
% U.S. citizen	55%	55%	53%	54%	53%	55%	56%	60%	59%	55%

2006 Annual Survey of the Mathematical Sciences in the United States

(Third Report)

Faculty Profile
Enrollment and Degrees Awarded Profile
Graduate Student Profile

Polly Phipps, James W. Maxwell, and Colleen A. Rose

This Third Report of the 2006 Annual Survey gives information about faculty size, departmental enrollments, majors, and graduate students for departments of mathematical sciences in four-year colleges and universities in the United States. Prior to 2000, these data were included as part of the Second Report.

The 2006 Annual Survey represents the fiftieth in an annual series begun in 1957 by the American Mathematical Society. The 2006 Survey is under the direction of the Data Committee, a joint committee of the American Mathematical Society, the American Statistical Association, the Institute of Mathematical Statistics, the Society of Industrial and Applied Mathematics, and the Mathematical Association of America. The current members of this committee are Richard Cleary, Amy Cohen-Corwin, Richard M. Dudley, John W. Hagood, Abbe H. Herzig, Donald R. King, David J. Lutzer, James W. Maxwell (ex officio), Bart Ng, Polly Phipps (chair), David E. Rohrlich, and Henry Schenck. The committee is assisted by AMS survey analyst Colleen A. Rose. Comments or suggestions regarding this Survey Report may be directed to the committee.

Introduction

The Annual Survey of the Mathematical Sciences collects information each year about departments, faculties, and students in the mathematical sciences at four-year colleges and universities in the United States. The information presented in this report was gathered on a questionnaire called the Departmental Profile which was mailed to all mathematical sciences departments in Groups I, II, III, IV, Va, and M and to a stratified random sample drawn from Group B. The questionnaire gathered information about the number of faculty in various categories, the recruitment of new faculty, undergraduate and graduate course enrollments, bachelors and masters degrees awarded during the preceding year, and the number of graduate students, all as of fall 2006. The 2006 First Report presented data collected earlier about faculty salaries (pages 252–67 of the February 2007 issue of *Notices of the AMS*). Definitions of the various departmental groupings used in the Annual Survey reports can be found on page 1344 of this report.

The careful reader will note that a row or column total may differ slightly from the sum of the individual entries. All the table entries are the rounded values of the individual projections associated with each entry, and the differences are the result of this rounding (as the sum of rounded numbers is not always the same as the rounded sum). Further details on the statistical procedures used with the survey are described on page 1344.

Faculty Size

Table 1A gives the number of faculty for different categories of faculty broken down by survey group, Table 1B gives the same information for females only, and Table 1C gives some percentages based on the information in Tables 1A and 1B. The estimated total number of full-time faculty in the mathematics groups (Groups I, II, III, Va, M, and B combined) is 22,086, up just 183 from last

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Highlights

The changes in the numbers of faculty in various categories from 2005 to 2006 were modest. The estimated number of full-time faculty in all mathematics groups combined is 22,086 (with a standard error of 399), up slightly from 21,903 last year. The number of nondoctoral full-time faculty is 4,107, up moderately from 3,804 last year. The number of part-time faculty is 6,543, almost unchanged from 6,526 last year.

Women comprise 27% of the full-time faculty in mathematics in fall 2006 compared with 26% in fall 2005. The size of the standard errors make it possible that some of the changes observed are due solely to sampling error.

The number of doctoral full-time non-tenure-track faculty continued its slow but steady climb for 2006. For the doctoral mathematics departments this number reached 1,461, up 44% over its 1999 figure of 1,014. For Group M the 2006 figure reached 283, only slightly higher than in recent years. For Group B the 2006 figure of 545 was the highest reported since 1998 but only 6% above the 1999 figure of 514.

Among the doctoral full-time math faculty in fall 2006, women comprised 12% of the tenured and tenure-track faculty and 25% of the non-tenure-track faculty. For Group M faculty these same percentages are 25 and 28 respectively, and for Group B faculty they are 27 and 25 respectively. Among the nondoctoral full-time faculty in all math departments combined, women comprise 53%.

The number of tenured and tenure-track positions under recruitment during 2005-2006 was the highest reported over the past five years. Furthermore, the number of new doctoral hires is up 28% over last year, to 701 for positions beginning in fall 2006. The number of new doctoral hires into tenure-track positions is up 38% to 406 for fall 2006, with all the increase coming in Group M and Group B departments where the total was 362, up 84% from fall 2005's figure of 230.

Among the 230 individuals hired into tenure-track positions in the doctoral mathematics departments, two out of three (152) held a non-tenure-track position when hired and 80% of these were postdoctoral positions. For the 613 individuals hired into tenure-track positions in Groups M and B combined, just under half (292) held a non-tenure-track position when hired and just under half of these were postdoctoral positions.

The number of full-time graduate students at doctoral mathematics departments continued its steady climb over the past ten years reaching a new high of 11,686 for fall 2006. The number of women among these graduate students also reached a new high of 3,478, maintaining its percentage at 30%, a figure typical over this ten-year period. The percent of U.S. citizens among the total full-time graduate students remains steady at 56%.

year, with a standard error of 399. The doctoral mathematics departments (Groups I, II, III, and Va) are up 13 full-time faculty members, Group M is up 173 faculty members, and Group B is down 3. Given the size of the standard errors, these changes are clearly not significant. The total faculty size in the statistics and biostatistics group (Group IV) is up to 1,702 this year from 1,626 last year, a 5% increase.

This year the estimated number of part-time faculty in Groups I, II, III, Va, B, and M combined is up to 6,543, essentially unchanged from last year's estimate of 6,526. The number of non-tenure-track doctoral faculty (including postdoctoral positions) is estimated at 2,289 this year, up 5% from 2,180 last year. Another category that has been increasing the past few years is the nondoctoral full-time faculty; this year this group is estimated at 4,107 in Groups I, II, III, Va, M, and B combined, up from 3,804 last year, an 8% increase. In Group IV the number of part-time faculty decreased from 254 last year to 201 this year, and the number of non-tenure-track doctoral faculty increased from 376 last year to 402 this year due to the increased number of postdoctoral appointments.

Table 1D gives an eight-year history of tenured/tenure-track, non-tenure-track, and part-time faculty for Groups I, II, III, and Va combined, for Group M, and for Group B. Also shown for each number in this table is the percentage of females. Comparing the 2006 values to the 1999 values, we see that for Groups I, II, III, and Va combined the number of tenured/tenure-track faculty is down 2%, the number of non-tenure-track doctoral faculty is up 44%, and the number of part-time faculty is down 7%. Likewise for Group M, the number of tenured/tenure-track faculty is down 6%, the number of non-tenure-track doctoral faculty is up 94%, and the number of part-time faculty is down 16%. Finally in Group B, the number of tenured/tenure-track faculty is up 45%, the number of non-tenure-track doctoral faculty is up 6%, and the number of part-time faculty is up 19%.

Table 1E gives a summary of the various types of faculty found in departments of mathematical sciences by sex and group.

Tables 1F and 1G give more information about two types of faculty: full-time faculty without a doctorate and part-time faculty. The top half of Table 1F is a somewhat condensed version of the doctoral full-time faculty in Table 1A broken down by sex. The bottom half of Table 1F shows this same information for the 4,107 full-time faculty who do not have doctoral degrees. The majority of these faculty, 3,436 (84%), are found in Groups M and B departments. Table 1G shows the part-

Table 1A: Total Faculty, Fall 2006

	GROUP									
	I Public	I Private	II	III	Va	I, II, III, & Va	M	B	I, II, III, Va, M, & B	IV
Total full-time faculty *(Standard error)*	**1763**	**997**	**2553**	**2211**	**276**	**7800**	**4695** *(108)*	**9591** *(384)*	**22086** *(399)*	**1702**
Doctoral full-time faculty	1707	989	2289	1882	262	**7129**	3683	7167	**17979**	1639
Tenured	1109	551	1574	1275	172	**4681**	2479	4614	**11774**	851
Untenured, tenure-track	179	95	311	367	35	**986**	921	2009	**3916**	386
Postdoctoral appointments	269	218	238	52	32	**809**	30	24	**863**	150
Other non-tenure-track *(Standard error)*	150	125	166	189	23	**652**	252 *(24)*	521 *(68)*	**1426** *(72)*	252
Nondoctoral full-time faculty	56	8	264	329	14	**671**	1012	2424	**4107**	63
Total part-time faculty *(Standard error)*	**132**	**48**	**399**	**522**	**27**	**1128**	**1493** *(112)*	**3922** *(366)*	**6543** *(383)*	**201**

time faculty broken down by sex and whether they have a doctoral degree. Comparing Table 1G to last year's table, we see that the biggest decline in part-time faculty is in doctoral part-time faculty (down 19% from 1,633 last year to 1,326 this year).

Female Faculty

Table 1B gives a complete breakdown of all categories of female faculty by group and shows small increases in the (estimated) number of female faculty in all categories, except Group I Public. For 2006–2007 the estimated total number of full-time faculty in Groups I, II, III, Va, M, and B combined is 22,086, of which 6,063 (27%) are females, up from 5,638 (26%) last year. In Group B the estimated number of doctoral female faculty increased from 1,859 last year to 1,903 this year, tenured female faculty increased from 1,080 to 1,158, untenured but tenure-track female faculty decreased from 614 to 610, and non-tenure-track doctoral female faculty (including postdoctoral appointments) decreased from 166 to 135. In Group M the doctoral full-time female faculty increased from 883 last year to 916 this year.

Table 1C compares the number of full-time and female full-time faculty that fall into each reporting group for fall 2006. The percentage who are female in each group is given in the bottom row of Table 1C. These percentages vary considerably among the groups, from a low of 13% for Group I Private to a high of 33% for Group B.

Table 1D contains information about the percentage of female faculty among the tenured/tenure-track and non-tenure-track doctoral full-time faculty and among the part-time faculty for the years 1999 to 2006.

Table 1E gives the male/female breakdown by count and percentage for Groups I, II, III, and Va combined, Groups M and B combined, and Group IV for various categories of faculty. It shows that the percentage of women is generally higher in statistics (Group IV) than in the doctoral mathematics groups (Groups I, II, III, and Va combined) and that the percentage of tenured faculty who are women is highest in Groups M and B combined.

Table 1F shows that of the 4,107 nondoctoral full-time faculty in Groups I, II, III, Va, M, and B combined, 2,194 (53%) are females. From Table 1G we see that in these same groups there are 6,543 part-time faculty, of which 2,642 (40%) are females.

Faculty Recruitment

Table 2A contains detailed information on the number of full-time doctoral faculty positions in mathematical sciences departments under recruitment during 2005–2006 for employment beginning in the academic year 2006–2007. Among mathematics departments (Groups I, II, III, Va, M, and B), 1,798 positions were under recruitment, up 6% compared to those under recruitment during 2004-2005. Of those 1,798 positions, 1,595 (89%) were available to new doctoral recipients, and of those 1,595 positions, 1,073 (67%) were tenured/tenure-track positions. The 1,073 tenured/tenure-track positions open to new doctoral recipients is up 11% from the 969 such positions under recruitment in 2004–2005. The total number of tenured/tenure-track full-time doctoral positions under recruitment in Groups I, II, III, Va, M, and B combined is 1,231, up from last year's 1,176 (an increase of 5%). In Groups I, II, III, and Va combined, the total number of posted doctoral positions open at the associate/full level decreased from 100 last year to 93 this year.

Table 1B: Female Faculty, Fall 2006

	GROUP									
	I Public	I Private	II	III	Va	I, II, III, & Va	M	B	I, II, III, Va, M, & B	IV
Female full-time faculty *(Standard error)*	**244**	**128**	**505**	**525**	**47**	**1449**	**1470** *(47)*	**3144** *(464)*	**6063** *(466)*	**469**
Doctoral full-time faculty	211	125	333	344	38	**1051**	916	1903	**3869**	437
Tenured	79	34	143	175	18	**449**	527	1158	**2133**	156
Untenured, tenure-track	38	18	80	98	5	**240**	309	610	**1159**	136
Postdoctoral appointments	55	37	42	13	8	**155**	10	18	**183**	47
Other non-tenure-track	39	36	68	57	7	**207**	70	117	**394**	98
Nondoctoral full-time faculty	33	3	172	181	9	**398**	554	1241	**2194**	32
Female part-time faculty	54	4	181	211	5	**455**	615	1572	**2642**	85

Table 1C: Full-Time Faculty, Fall 2006

	GROUP								
	I Public	I Private	II	III	Va	M	B	IV	TOTAL
Full-time faculty									
Number	1763	997	2553	2211	276	4695	9591	1702	**23789**
Percentage of total full-time faculty	7%	4%	11%	9%	1%	19%	40%	7%	**100%**
Female full-time faculty									
Number	244	128	505	525	47	1470	3144	469	**6532**
Percentage of total female full-time faculty	4%	2%	8%	8%	1%	22%	48%	7%	**100%**
Percentage female full-time faculty within group	14%	13%	20%	24%	17%	31%	33%	28%	**27%**

Table 1D: Faculty Counts and Percentage Female, Fall 1999-2006

	1999	2000	2001	2002	2003	2004	2005	2006
Groups I, II, III, & Va								
Doctoral full-time faculty								
Tenured/tenure-track	5765	5568	5598	5616	5559	5604	5686	5668
Percentage female	9%	9%	10%	10%	10%	11%	11%	12%
Non-tenure-track	1014	993	1233	1274	1343	1314	1401	1461
Percentage female	22%	21%	21%	23%	25%	25%	24%	25%
Part-time faculty	1217	1399	1467	1504	1389	1355	1054	1128
Percentage female	38%	37%	38%	35%	35%	37%	37%	40%
Group M								
Doctoral full-time faculty								
Tenured/tenure-track	3599	3670	3191	3188	3005	3113	3351	3400
Percentage female	20%	21%	23%	22%	22%	23%	24%	25%
Non-tenure-track	146	262	183	276	230	277	263	283
Percentage female	56%	29%	24%	39%	33%	48%	36%	28%
Part-time faculty	1768	1906	2323	2393	1952	1888	1842	1493
Percentage female	43%	35%	36%	37%	37%	37%	37%	41%
Group B								
Doctoral full-time faculty								
Tenured/tenure-track	4580	5486	5665	5569	6172	5770	6875	6623
Percentage female	25%	22%	24%	23%	26%	25%	25%	27%
Non-tenure-track	514	407	504	507	460	472	516	545
Percentage female	24%	30%	29%	36%	20%	29%	32%	25%
Part-time faculty	3298	3580	4197	4117	3997	4846	3630	3922
Percentage female	41%	40%	43%	45%	42%	44%	41%	40%

Table 2B condenses the information in Table 2A. It also reorganizes the doctoral hires into one section for new doctoral hires and another for other doctoral hires (so excludes posted doctoral positions that were temporarily filled with a person without a doctorate). Table 2C is derived from Table 2B, with the percentage of the filled positions that were tenured/tenure-track included in the table.

This year the estimated total number of new doctoral hires in mathematics departments is up 28% (to 701 from 547) from last year; it is up 12% (to 271 from 241) in Groups I, II, III, and Va combined, and up 40% (to 430 from 306) in Groups M and B combined. The number of new doctoral tenure-track hires in the math groups combined is up 38% as a result of a small decrease in Groups I, II, III, and Va combined (down to 44 from 65) and a very large increase in Groups M & B combined (up to 362 from 230). Among the new doctoral hires in Groups I, II, III, and Va combined, 15% of all males and 20% of all females took tenure-track positions. In contrast, for new doctoral hires in Groups M and B combined, 79% of all males and 91% of all females took tenure-track positions. From Table 2C we see that in Groups I, II, III, and Va 16% of the hires of new doctoral recipients are in tenured/tenure-track positions (last year it was 27%), while in Groups M and B 84% of the new doctoral hires are in tenured/tenure-track positions (last year it was 75%).

From Table 2B we find that the total number of full-time doctoral positions filled in mathematics departments (Groups I, II, III, Va, M, and B combined) is up to 1,435 from 1,385 last year (an increase of 4%); it is up 1% in Groups I, II, III, and Va combined and 5% in Groups M and B combined. This year Groups I, II, III, and Va combined filled 581 doctoral positions, of which 230 (40%) were tenured/tenure-track positions. Last year these same groups filled 574 doctoral positions, of which 266 (46%) were tenured/tenure-track. Groups M and B combined filled 854 doctoral positions this year, and 613 (72%) of these were tenured/tenure-track positions. Last year these two groups filled 811 doctoral positions, of which 562 (69%) were tenured/tenure-track.

Beginning with the 2004 Annual Survey, departments were asked to report the number of doctoral hires into tenured/tenure-track positions

Table 1E: Summary of Full-Time and Part-Time Faculty, Fall 2006

	GROUP					
	I, II, III, & Va		M & B		IV	
	Male	Female	Male	Female	Male	Female
Full-time faculty	**6351**	**1449**	**9672**	**4614**	**1233**	**469**
Percentage	81%	19%	68%	32%	72%	28%
Doctoral full-time faculty	6076	1051	8032	2819	1202	437
Percentage	85%	15%	74%	26%	73%	27%
Tenured	4232	449	5409	1684	695	156
Percentage	90%	10%	76%	24%	82%	18%
Untenured, tenure-track	747	240	2011	919	249	136
Percentage	76%	24%	69%	31%	65%	35%
Postdoctoral appointments	652	155	26	28	103	47
Percentage	81%	19%	48%	52%	69%	31%
Other non-tenure-track	446	207	586	187	155	98
Percentage	68%	32%	76%	24%	61%	39%
Nondoctoral full-time faculty	273	398	1641	1795	31	32
Percentage	41%	59%	48%	52%	49%	51%
Part-time faculty	**673**	**455**	**3229**	**2187**	**116**	**85**
Percentage	60%	40%	60%	40%	58%	42%

Table 1F: Doctoral and Nondoctoral Full-Time Faculty, Fall 2006

	GROUP					
	I, II, III, & Va		M & B		TOTAL	
	Male	Female	Male	Female	Male	Female
Doctoral full-time faculty	**6076**	**1051**	**8032**	**2819**	**14108**	**3869**
Tenured	4232	449	5409	1684	9641	2133
Untenured, tenure-track	747	240	2011	919	2757	1159
Postdoctoral appointments	652	155	26	28	678	183
Other non-tenure-track	446	207	586	187	1032	394
Nondoctoral full-time faculty	**273**	**398**	**1641**	**1795**	**1913**	**2194**
Tenured	14	8	503	237	517	245
Untenured, tenure-track	3	1	195	209	198	210
Postdoctoral appointments	2	0	0	0	2	0
Other non-tenure-track	255	389	942	1349	1198	1738

Table 1G: Part-Time Faculty, Fall 2006

	GROUP				
	I, II, III, & Va		M & B		
	Male	Female	Male	Female	TOTAL
Doctoral part-time faculty	308	93	737	187	**1326**
Nondoctoral part-time faculty	365	362	2492	1999	**5218**
TOTAL	**673**	**455**	**3229**	**2187**	**6543**

Table 2A: Recruitment of Doctoral Faculty, Fall 2006

	GROUP									
	I Public	I Private	II	III	Va	I, II, III, & Va	M	B	I, II, III, Va, M, & B	IV
Posted Doctoral Positions										
Total number[1]	**176**	**137**	**201**	**157**	**27**	**699**	**351**	**748**	**1798**	**180**
(Standard error)							*(47)*	*(77)*	*(90)*	
Tenured/tenure-track	64	47	100	124	21	**535**	305	570	**1231**	140
Open to new doctoral recipients	123	98	168	125	23	**536**	321	738	**1595**	131
Tenured/tenure-track	22	17	71	103	16	**229**	281	563	**1073**	104
Open at assoc/full level	22	18	15	32	7	**93**	39	56	**189**	56
Reported Hires for Above										
Total number	**159**	**122**	**176**	**121**	**21**	**599**	**282**	**651**	**1531**	**122**
Male doctoral hires	123	97	129	89	15	**453**	184	348	**985**	75
Tenured/tenure-track	30	22	53	60	11	**176**	140	244	**560**	51
Female doctoral hires	36	21	41	24	6	**128**	81	241	**450**	44
Tenured/tenure-track	9	6	17	19	2	**54**	70	159	**283**	32
Male temporary hires	0	3	4	6	0	**14**	16	33	**62**	3
Female temporary hires	0	1	1	1	0	**4**	2	28	**34**	0
Total new doctoral hires	92	67	67	36	10	**271**	140	290	**701**	**71**
Male new doctoral hires	70	55	49	31	6	**211**	74	169	**454**	41
Tenured/tenure-track	1	5	7	15	5	**32**	57	135	**225**	27
Female new doctoral hires	22	12	17	5	5	**60**	66	121	**247**	30
Tenured/tenure-track	3	1	4	1	2	**12**	60	110	**182**	20
Unfilled positions	**17**	**15**	**25**	**36**	**7**	**100**	**69**	**93**	**262**	**59**

[1] Number of full-time doctoral positions under recruitment in 2003–2004 to be filled for 2004–2005.

Table 2B: A Summary of Recruitment of Doctoral Faculty, Fall 2006

	GROUP		
	I, II, III, & Va	M & B	IV
Posted Doctoral Positions			
Total number	**699**	**1099**	**180**
Tenured/tenure-track	355	876	140
Open to new doctoral recipients	536	1059	131
Tenured/tenure-track	229	844	104
Reported Hires for Above			
Total doctoral hires	**581**	**854**	**119**
Tenured/tenure-track	230	613	83
Previously in non-tenure-track	152	292	21
Previously in postdoc	121	137	18
Total new doctoral hires[1]	**271**	**430**	**71**
Tenured/tenure-track	44	362	47
Male	211	243	41
Tenured/tenure-track	32	192	27
Female	60	187	30
Tenured/tenure-track	12	170	20
Total not-new doctoral hires	**310**	**424**	**48**
Tenured/tenure-track	185	251	36
Male	242	290	35
Tenured/tenure-track	144	191	24
Female	68	134	14

[1] New doctoral hires are individuals who have held a doctorate for less than one year at the time of hiring.

filled by individuals who held a non-tenure-track position the previous year and of those, how many were in postdoctoral appointments. For Groups I, II, III, and Va combined, 152 individuals reported having held a non-tenure-track position the previous year (66% of the 230 tenure-track hires), with 121 (53%) having held a postdoctoral appointment the previous year. This compares with last year's figure of 161 (61%) positions filled by individuals who held a postdoctoral appointment the previous year. For Groups M and B combined, 292 individuals (48% of the 613 tenure-track hires) reported having held a non-tenure-track position the previous year, with 137 (22%) having held a postdoctoral appointment the previous year. This compares with last year's figure of 83 (15%) positions filled by individuals who held a postdoctoral appointment the previous year.

The estimated number of not-new doctoral hires in mathematics departments is 734, down from 838 last year. The total of not-new doctoral hires into tenured/tenure-track positions in all the mathematics groups combined is 436, down 18% from last year. It is down 8% in Groups I, II, III, and Va combined (to 185 from 201 last year), and down 24% in Groups M and B combined (251 from 332).

Figure 1 shows the number of full-time doctoral positions posted for all groups combined except Group IV, as well as the number of those that were tenured/tenure-track and the number unfilled for the years 1994 to 2006. The number of positions posted and the number of available tenured/tenure-track positions steadily increased, reaching a maximum in 2001. These numbers declined for the next two years. This year both the number of positions posted and the number of tenured/

Table 2C: Positions Posted and Filled, Fall 2006

Positions	GROUP		
	I, II, III, & Va	M & B	IV
Posted positions opened to new doctoral recipients	536	1059	131
% tenured/tenure-track	43%	80%	79%
Positions filled by new doctoral recipients	271	430	71
% tenured/tenure-track	16%	84%	66%
Positions filled by not-new doctoral recipients[1]	310	424	48
% tenured/tenure-track	60%	59%	75%

[1] Not-new doctoral recipients are individuals who have held their doctorate for more than one year.

tenure-track positions posted increased over the previous two years.

Faculty Attrition

Table 3 displays losses of full-time mathematical sciences faculty due to retirements and deaths over the past year for each departmental grouping. The fall 2006 faculty attrition rate for Groups I, II, III, Va, M, and B combined is 2.3%, and it is 1.6% for Group IV. For fall 2006, Group Va had the lowest attrition rate at 1.2%, while Group II had the highest at 2.9%.

Figure 2 shows the trends in these attrition rates between 1993 and 2006. While the rates vary from group to group and from year to year within each group, for most of the 1990s the dominant tend was one of increasing attrition for all groups combined. In the late 1990s attrition leveled off then began dropping in 2003, reaching a new low for 2006.

Enrollment Profile and Degrees Awarded Profile

The Departmental Profile Survey obtained information about course enrollments and numbers of undergraduate degrees awarded in mathematical sciences departments. Tables 4A and 4B give the total undergraduate and total graduate enrollments in mathematics courses in fall 2006 for each group. The estimated total undergraduate enrollment in fall 2006 for all groups combined is 2,170,000. Table 4A gives these totals for fall 2001 to fall 2006. Total undergraduate enrollments for all groups combined is down 2% from last year; the total is up 29% in Group Va.

Table 4B gives total graduate enrollments for fall 2001 to fall 2006. Total graduate course enrollments for all groups combined is down 2% from last year; the total is up 11% for Group III,

Figure 1: Number of Full-Time Doctoral Positions under Recruitment
Groups I, II, III, Va, M, & B Combined, Fall 1994 to Fall 2006

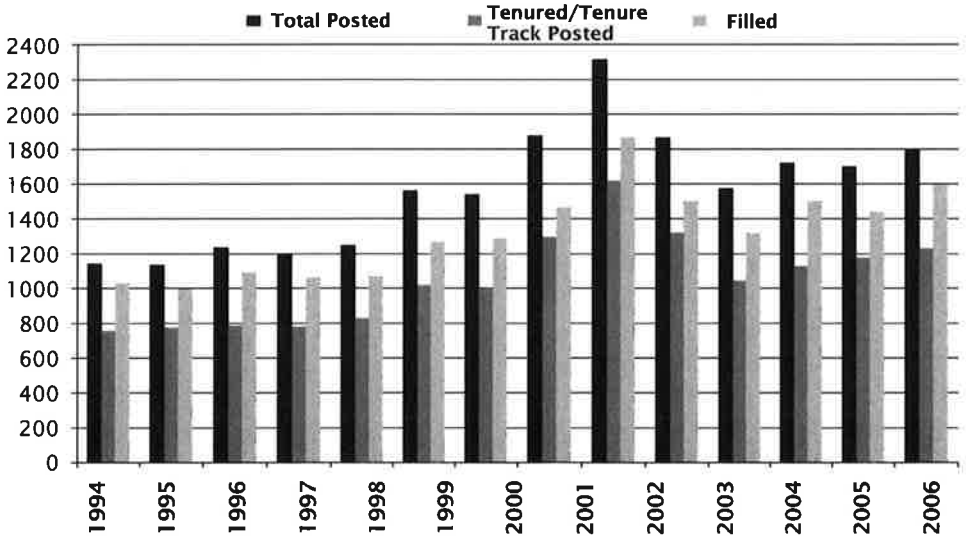
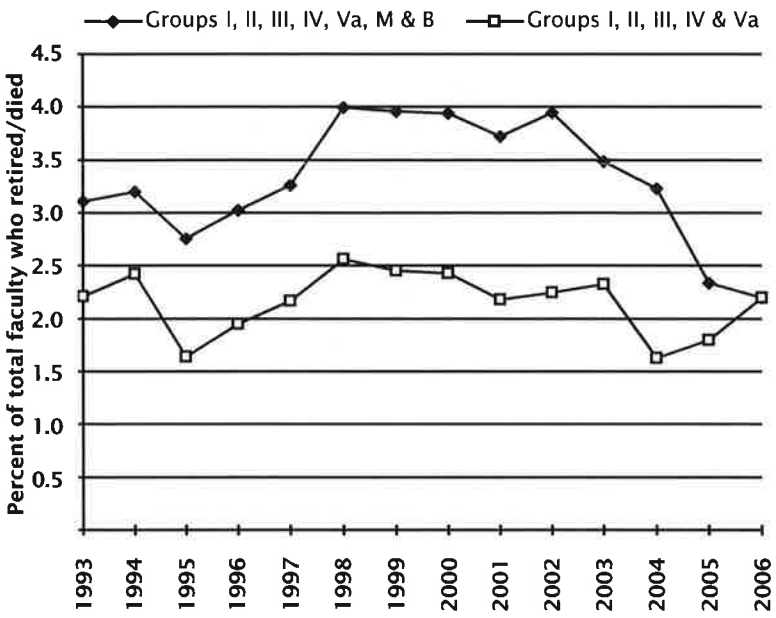


Table 3: Faculty Attrition,[1] Fall 2006

	GROUP									
	I Public	I Private	II	III	Va	I, II, III, & Va	M	B	I, II, III, Va, M, & B	IV
Full-time faculty who retired or died										
Total number	38	15	73	61	3	**190**	103	221	**514**	27
(Standard error)							*(19)*	*(36)*	*(41)*	
Percentage	2.1%	1.5%	2.9%	2.8%	1.2%	**2.4%**	2.2%	2.2%	**2.3%**	1.6%

[1] Number and percentage of full-time faculty who were in the department in fall 2005 but were reported to have retired or died by fall 2006.

Figure 2: Faculty Attrition



down 11% in Group I Pu, and down 6% in Group M.

The historical data on enrollment numbers presented in Tables 4A and 4B for fall 2001 to fall 2006 suggest a trend of gradually increasing undergraduate and graduate enrollments.

Table 4C gives the undergraduate enrollments per faculty member and the graduate enrollments per faculty member for each group. Table 4D gives the undergraduate enrollments per faculty member in each group for fall 2001 to fall 2006 and shows a slightly downward trend over the period shown.

For a comprehensive survey of undergraduate courses, please refer to the report of the 2005 CBMS survey. This publication is available from the AMS website at www.ams.org/cbms/.

Undergraduate and Masters Degrees

Tables 5A and 5C display the number of undergraduate and masters degrees reported for 2005–2006 for each departmental group. Table 5B shows the total undergraduate degrees awarded for the period 2001-2002 through 2005-2006. (These data were not collected prior to 2002.) After the drop reported last year, the number of undergraduate degrees awarded has rebounded somewhat this year. The number of masters degrees awarded in mathematics decreased from 4,300 reported in 2005 to 4,000 reported in 2006.

The reader should be aware that at least 44 of the 189 departments in the 2006 Group M population and at least 274 of the 1,041 departments in the 2006 Group B population also offer a computer science program in addition to their offerings in mathematics. In some instances, these computer programs account for a major fraction of the department's undergraduate degrees. This year's estimated 23,800 undergraduate degrees awarded includes 500 in statistics and 2,400 in computer science. (The report of the 2005 CBMS survey provides a more comprehensive study of departmental bachelors degrees.) Of the 4,000 masters degrees awarded, 500 were in statistics, and 500 were in computer science.

Graduate Student Profile

Table 6A summarizes information gathered by the 2006 Departmental Profile survey about graduate students enrolled in fall 2006. This table gives the number of full-time, full-time first-year, and part-time graduate students for each type of graduate department. These same numbers are also given for female graduate students and for U.S. citizen graduate students.

The estimated total number of graduate students in all mathematics groups combined increased from 13,068 in 2005 to 14,496 in 2006, and the total number of full-time graduate students in Groups I, II, III, and Va combined increased from 10,565 in 2005 to 11,686 in 2006. The number of U.S. citizen full-time graduate students in Groups I, II, III, and Va combined increased by 10% to 6,501. The number of first-year full-time students in Groups I, II, III, and Va combined increased by 12%, from 2,832 last year to 3,161 this year (both the number of first-year U.S. citizens and the number of first-year non-U.S. citizens were up). The

Table 4A: Total Undergraduate Course Enrollments (thousands)

Fall	GROUP								
	I Public	I Private	II	III	Va	M	B	IV	Total
2001	176	42	279	246	12	513	743	81	**2092**
2002	187	41	275	250	16	507	774	76	**2125**
2003	185	41	283	255	17	498	774	72	**2125**
2004	159	42	277	261	16	492	782	72	**2101**
2005	177	43	273	249	12	509	872	70	**2205**
2006	172	43	290	251	15	496	826	77	**2170**
(Standard error)						*(8)*	*(26)*		*(27)*

Table 4B: Total Graduate Course Enrollments (thousands)

Fall	GROUP							
	I Public	I Private	II	III	Va	M	IV	Total
2001	7	5	9	9	2	14	26	72
2002	10	4	11	10	3	12	29	79
2003	10	5	11	11	2	16	31	87
2004	9	4	12	10	2	12	31	81
2005	10	4	13	9	2	16	29	84
2006	9	4	13	10	2	15	29	82
(Standard error)						*(1)*		*(1)*

Table 4C: Undergraduate and Graduate Enrollments per Full-Time Faculty Member, Fall 2006

	GROUP							
	I Public	I Private	II	III	Va	M	B	IV
Undergraduate Course Enrollments Number per full-time faculty member	98	43	105	113	56	106	82	45
Graduate Course Enrollments Number per full-time faculty member	5	4	5	5	8	3	—	17

Table 4D: Undergraduate Enrollments per Full-Time Faculty Member

Fall	GROUP							
	I Public	I Private	II	III	Va	M	B	IV
2001	101	47	114	120	41	118	94	57
2002	107	43	114	121	50	117	95	55
2003	104	42	113	121	46	121	89	46
2004	90	44	113	126	49	120	89	49
2005	96	44	108	116	43	113	91	43
2006	98	43	105	113	56	106	82	45

Table 5A: Undergraduate Degrees Awarded (hundreds), Fall 2006

	GROUP								
	I Public	I Private	II	III	Va	M	B	I, II, III, Va, M, & B	IV
Total Undergraduate Degrees Awarded	**23**	**8**	**19**	**16**	**3**	**45**	**123**	**238**	**5**
(Standard error)						*(2)*	*(11)*	*(12)*	
Statistics only	1	0	0	1	0	1	2	**5**	3
Computer science only	1	0	1	1	0	3	18	**24**	0
Female Undergraduate Degrees Awarded	**8**	**2**	**7**	**7**	**1**	**20**	**51**	**97**	**2**
Statistics only	0	0	0	0	0	1	1	**3**	1
Computer science only	0	0	0	0	0	1	2	**3**	0

Table 5B: Undergraduate Degrees Awarded (hundreds)

Fall	2002	2003	2004	2005	2006
Total Undergraduate Degrees Awarded	217	220	244	234	238
Female Undergraduate Degrees Awarded	91	90	102	93	97
Percentage female	42%	41%	42%	40%	41%

number of female full-time graduate students in Groups I, II, III, and Va combined increased from 3,111 to 3,478.

In Group IV the number of full-time graduate students increased by 11% to 4,787 and the number of U.S. citizen full-time graduate students increased by 16% to 1,831. The first-year full-time graduate students in Group IV increased by 179 to 1,524 and the number of first-year full-time U.S. citizens was up from 550 to 664. The number of female full-time graduate students in Group IV increased from 2,076 to 2,249, an 8% increase.

The percentage of full-time graduate students who are U.S. citizens in the mathematics groups combined is 60% while the percentage of full-time graduate students who are U.S. citizens in Group IV is 38%; the percentage of women is 32% in mathematics groups combined and 47% in Group IV. The number of full-time graduate students in Group M increased from 2,503 to 2,810.

The number of part-time graduate students in Groups I, II, III, and Va increased 15% to 2,027 this year, and in Group IV increased 10% to 823. Group III has 985 (49%) of the part-time graduate students in the doctoral mathematics groups. In the doctoral mathematics groups, 38% of the part-time graduate students are females and 75% are U.S. citizens, and in Group IV 54% of the part-time graduate students are females and 62% are U.S. citizens. The number of Group M part-time graduate students decreased from 3,181 to 2,412, with a standard error of 168 this year and 341 last year. For Group M, 46% of the part-time graduate students are females and 88% are U.S. citizens.

Table 6B gives the total number of full-time and full-time first-year graduate students in Groups I, II, III, and Va combined, and the percentages of women and of U.S. citizens in each category, for fall 1997 through fall 2006. From these data we can see that total number of full-time graduate students in the doctoral mathematics groups has been generally increasing since 1999, with this years enrollment the largest reported. Similarly, the number of full-time graduate students who

Table 5C: Masters Degrees Awarded (hundreds), Fall 2006

	GROUP							
	I Public	I Private	II	III	Va	M	I, II, III, Va & M	IV
Total Masters Degrees Awarded	**5**	**2**	**6**	**7**	**1**	**18**	**40**	**12**
(Standard error)						*(1)*	*(1)*	
Statistics only	0	0	0	1	0	2	5	8
Computer science only	0	0	0	1	0	4	5	0
Female Masters Degrees Awarded	**2**	**0**	**3**	**3**	**0**	**9**	**17**	**6**
Statistics only	0	0	0	1	0	1	2	4
Computer science only	0	0	0	0	0	2	2	0

are U.S. citizens has been increasing since 2002 and remains stable this year at 56%. The number of first-year full-time graduate students who are U.S. citizens had been increasing until 2004 when it reached 60%, dropping slightly last year and then again this year to 55%. The percentage of females among full-time graduate students in the combined mathematics groups has remained relatively stable over the 10-year period shown.

Previous Annual Survey Reports

The 2006 Annual Survey First and Second Reports were published in the *Notices of the AMS* in the February and August 2007 issues respectively. The previous version of this report, the 2005 Annual Survey Third Report was published in the *Notices of the AMS* in the December 2006 issue. These reports and earlier reports, as well as a wealth of other information from these surveys, are available on the AMS website at www.ams.org/employment/surveyreports.html.

Acknowledgments

The Annual Survey attempts to provide an accurate appraisal and analysis of various aspects of the academic mathematical sciences scene for the use and benefit of the community and for filling the information needs of the professional organizations. Every year, college and university departments in the United States are invited to respond. The Annual Survey relies heavily on the conscientious efforts of the dedicated staff members of these departments for the quality of its information. On behalf of the Annual Survey Data Committee and the staff, we thank the many secretarial and administrative staff members in the mathematical sciences departments for their cooperation and assistance in responding to the survey questionnaires.

Table 6A: Graduate Students, Fall 2006

	GROUP								
	I Public	I Private	II	III	Va	I, II, III, & Va	M	I, II, III, Va, & M	IV
Total Graduate Students									
Full-time	3219	1709	3402	2596	760	11686	2810	14496	4787
(Standard error)							*(148)*	*(148)*	
First-year full-time	651	560	911	851	188	3161	1078	4240	1524
Part-time	166	271	486	985	118	2027	2412	4439	823
(Standard error)							*(168)*	*(168)*	
Female Graduate Students									
Full-time	797	401	1094	957	230	3478	1132	4611	2249
First-year full-time	184	150	298	320	71	1024	438	1462	749
Part-time	73	50	219	397	23	763	1102	1865	448
U.S. Citizen Graduate Students									
Full-time	1875	771	2045	1425	384	6501	2237	8738	1831
(Standard error)							*(136)*	*(136)*	
First-year full-time	378	210	562	499	93	1742	838	2581	664
Part-time	129	147	385	754	104	1519	2129	3648	509
(Standard error)							*(153)*	*(153)*	

Table 6B: Full-Time Graduate Students in Groups I, II, III, & Va by Sex and Citizenship

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total full-time graduate students	9003	8791	8838	9637	9361	9972	10444	10707	10565	11686
Female	2691	2770	2766	3016	2899	3136	3215	3245	3111	3478
% Female	29%	32%	31%	31%	31%	31%	31%	30%	29%	30%
% U.S. citizen	57%	55%	53%	53%	49%	51%	54%	55%	56%	56%
Total first-year graduate students	2386	2458	2664	2839	2875	2996	2711	3004	2832	3161
Female	836	859	866	879	1014	1038	902	983	851	1024
% Female	35%	35%	33%	31%	35%	35%	33%	33%	30%	32%
% U.S. citizen	55%	55%	53%	54%	53%	55%	56%	60%	59%	55%

Definitions of the Groups

As has been the case for a number of years, much of the data in these reports is presented for departments divided into groups according to several characteristics, the principal one being the highest degree offered in the mathematical sciences. Doctoral-granting departments of mathematics are further subdivided according to their ranking of "scholarly quality of program faculty" as reported in the 1995 publication *Research-Doctorate Programs in the United States: Continuity and Change.*[1] These rankings update those reported in a previous study published in 1982.[2] Consequently, the departments which now comprise Groups I, II, and III differ significantly from those used prior to the 1996 survey.

The subdivision of the Group I institutions into Group I Public and Group I Private was new for the 1996 survey. With the increase in the number of Group I departments from 39 to 48, the Data Committee judged that a further subdivision of public and private would provide more meaningful reporting of the data for these departments.

Brief descriptions of the groupings are as follows:

Group I is composed of 48 doctoral-granting departments with scores in the 3.00–5.00 range. Group I Public and Group I Private are Group I doctoral-granting departments at public institutions and private institutions respectively.

Group II is composed of 56 doctoral-granting departments with scores in the 2.00–2.99 range.

Group III contains the remaining U.S. doctoral-granting departments, including a number of departments not included in the 1995 ranking of program faculty.

Group IV contains U.S. doctoral-granting departments (or programs) of statistics, biostatistics, and biometrics reporting a doctoral program.

Group Va is applied mathematics/applied science doctoral-granting departments; Group Vb, which is no longer surveyed as of 1998–99, was operations research and management science.

Group M or Master's contains U.S. departments granting a master's degree as the highest graduate degree.

Group B or Bachelor's contains U.S. departments granting a baccalaureate degree only.

Listings of the actual departments which comprise these groups are available on the AMS website at www.ams.org/outreach.

[1]Research-Doctorate Programs in the United States: Continuity and Change, *edited by Marvin L. Goldberger, Brendan A. Maher, and Pamela Ebert Flattau, National Academy Press, Washington, DC, 1995.*

[2]*These findings were published in* An Assessment of Research-Doctorate Programs in the United States: Mathematical and Physical Sciences, *edited by Lyle V. Jones, Gardner Lindzey, and Porter E. Coggeshall, National Academy Press, Washington, DC, 1982. The information on mathematics, statistics, and computer science was presented in digest form in the April 1983 issue of the* Notices, *pages 257–67, and an analysis of the classifications was given in the June 1983* Notices, *pages 392–3.*

Remarks on Statistical Procedures

This report is based on information gathered from departments of mathematical sciences in the U.S., separated into groups by highest degree granted as defined on this page. Groups for doctoral-granting departments are I (Public), I (Private), II, III, IV, and Va. Groups M and B consist of those departments offering masters and bachelors degrees respectively.

The questionnaire on which this report is based is sent to every doctoral department and starting with this year's survey to every masters department. It is sent to a stratified random sample of Group B departments, the stratifying variable being the undergraduate enrollment at the institution.

The response rates vary substantially across the different department groups. For the doctoral departments it ranges between 75 and 90 percent. For Group M it ranges between 50 and 60 percent. For Group B, the response from the approximately 350 sampled departments drawn from the 1,040 total bachelors departments typically ranges between 40 and 45 percent. For most of the data collected on the Departmental Profile form, the year-to-year changes in a given department's data are very small when compared to the variations among the departments within a given group. As a result of this, the most recent prior year's response is used for a nonresponding department, provided the response is within three years of the current survey. After the inclusion of prior responses, standard adjustments for the remaining nonresponse are then made to arrive at the estimates reported for the entire groups.

Beginning with the 2001 Annual Survey, standard errors were calculated for some of the key estimates for Groups M and B. Standard errors are calculated using the variability in the data and can be used to measure how close our estimate is to the true value for the population. As an example, the number of full-time faculty in Group M is estimated at 4,695, with a standard error of 108. This means the actual number of full-time faculty in Group M is most likely between 4,695 plus or minus two standard errors, or between 4,479 and 4,911. This is much more informative than simply giving the estimate of 4,695.

Estimates are also given for parameters that are totals from all groups, such as the total number of full-time faculty. Standard errors are ignored for the doctoral groups since the number of missing responses for each group is so small that the standard errors that could be computed are insignificant compared to those for Groups M & B. Using the standard errors for M and B, it is possible to calculate a standard error for the total. For example, an estimate of the total number of full-time faculty in all groups but group IV is 22,086, with a standard error of 399.

Standard errors, when calculated for an estimate, appear in the tables in parentheses underneath the estimate.