

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 <i>(Standard error)</i>	1763	997	2553	2211	276	7800	4695 <i>(108)</i>	9591 <i>(384)</i>	22086 <i>(399)</i>	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 <i>(Standard error)</i>	150	125	166	189	23	652	252 <i>(24)</i>	521 <i>(68)</i>	1426 <i>(72)</i>	252
Nondoctoral full-time faculty	56	8	264	329	14	671	1012	2424	4107	63
Total part-time faculty <i>(Standard error)</i>	132	48	399	522	27	1128	1493 <i>(112)</i>	3922 <i>(366)</i>	6543 <i>(383)</i>	201

Faculty Profile

The Departmental Profile, sent in fall 2006 to mathematical sciences departments at four-year colleges and universities as part of the Annual Survey, gathered information about faculties at these schools in fall 2006; this section presents some of that data. The 2006 First Report presented data collected earlier about faculty salaries (pages 239–44 of the February 2007 issue of the Notices of the AMS).

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 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

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 <i>(Standard error)</i>	244	128	505	525	47	1449	1470 <i>(47)</i>	3144 <i>(464)</i>	6063 <i>(466)</i>	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%

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-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

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		TOTAL
	Male	Female	Male	Female	
Doctoral part-time faculty	308	93	737	187	1326
Nondoctoral part-time faculty	365	362	2492	1999	5218
TOTAL	673	455	3229	2187	6543

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

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 number¹ <i>(Standard error)</i>	176	137	201	157	27	699	351 <i>(47)</i>	748 <i>(77)</i>	1798 <i>(90)</i>	180
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

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

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.

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.

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 trend 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.

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 <i>(Standard error)</i>	38	15	73	61	3	190	103 <i>(19)</i>	221 <i>(36)</i>	514 <i>(41)</i>	27
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

