

Appendix I

# Enrollment in Department Courses in Four-Year Colleges, Universities: Fall 1970, 1980, 1985, 1990, 1995

FALL 1995

TABLE A-1

Enrollment in Mathematics Courses (thousands)

COURSES						1995 Enrollment							
						Math Dept.				Stat. Dept.			
	1970	1980	1985	1990	1995	Univ. (PhD)	Univ. (MA)	Coll. (BA)	Subtotal Math Dept.	Univ. (PhD)	Univ. (MA)	Coll. (BA)	Subtotal Stat Dept.
<i>Remedial</i>													
1. Arithmetic	4	14	15	6	7	3	2	3	7				
2. Gen. Math (Basic Skills)	19	49	31	17	13	6	3	4	13				
3. High School Elem. Alg.	25	74	75	68	56	14	25	17	56				
4. High School Int. Alg.	50	104	130	170	131	35	54	42	131				
5. Other Remedial	N/A	N/A	N/A	N/A	15	2	1	12	15				
Subtotal Remedial	98	241	251	261	222	60	84	78	222				
<i>Precalculus</i>													
6. Coll. Alg.	92	160	150	202	195	70	68	56	194	1			
7. Trigonometry	31	38	37	37	42	22	12	8	42				
8. Comb. Coll. Alg. & Trig.	113	61	78	35	45	13	12	20	45				
9. Elem. Function Pre Calc	38	72	74	72	83	36	18	29	83				
10. Anal. Geo.	10	8	3	6	3	2	1		3				
11. Math for Lib. Arts	74	63	59	53	74	18	24	32	74				
12. Finite Math	47	95	88	80	59	24	18	17	59				
13. Bus. Math	18	48	37	37	40	18	15	7	40				
14. Math for Ele. Sch. Teachers	89	44	54	62	59	14	21	24	59				
15. Other Precal	30	14	13	8	14	5	4	5	14				
Subtotal Precalculus	542	603	593	592	614	222	193	198	613	1			

NOTE: Read numbers in braces from top to bottom. For example, {<sub>0</sub><sup>2</sup> is 20 (in thousands). The numbers represent total enrollment for all courses included within the upper and lower horizontal lines.

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TABLE A-1

## Enrollment in Mathematics Courses (thousands)

COURSES	1970	1980	1985	1990		1995	1995 Enrollment				1995 Enrollment			
				Ma Sc Dept.	Stat Dept.		Math Dept.				Stat. Dept.			
							Univ. (PhD)	Univ. (MA)	Coll. (BA)	Sub total Math Dept.	Univ. (PhD)	Univ. (MA)	Coll. (BA)	Sub total Stat Dept.
<i>Calculus</i>														
16. Mainstream Calc I				201		192	84	42	66	192				
17. Mainstream Calc II	$\begin{Bmatrix} 3 \\ 3 \\ 5 \end{Bmatrix}$	$\begin{Bmatrix} 4 \\ 0 \\ U \\ J \end{Bmatrix}$	$\begin{Bmatrix} 4 \\ 0 \\ 2 \end{Bmatrix}$	88		83	42	16	25	83				
18. Mainstream Calc III,IV., etc.				84		62	34	14	14	62				
19. Non-Mainstream Calc I	$\begin{Bmatrix} N \\ / \\ U \\ A \\ J \end{Bmatrix}$	$\begin{Bmatrix} 1 \\ 0 \\ U \\ J \end{Bmatrix}$	$\begin{Bmatrix} 1 \\ 2 \\ 9 \end{Bmatrix}$	148		98	50	27	20	97	1			
20. Non-Mainstream Calc II				15		14	10	2	2	14				
21. Differential Equations	31	44	45	41		33	20	8	5	33				
22. Discrete Mathematics	N/A	N/A	14	17		16	4	6	6	16				
23. Linear/ Matrix Alg.	47	37	47	43	1	32	15	7	10	32				
24. Other Calc.	N/A	N/A	N/A	10		9	5	2	2	9				
Subtotal Calculus	413	590	637	647	1	539	264	124	150	538	1			
<i>Adv. Level</i>														
25. Trans. (Int.) to Proofs	N/A	N/A	N/A	5		7	2	2	3	7				
26. Mod. Algebra (I,II)	23	10	13	12		13	4	3	6	13				
27. Num. Theory	4	1	3	4		2	1		1	2				

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TABLE A-1

Enrollment in Mathematics Courses (thousands)

COURSES	1970	1980	1985	1990		1995	1995 Enrollment				1995 Enrollment			
				Ma Sc Dept.	Stat Dept.		Math Dept.				Stat. Dept.			
							Univ. (PhD)	Univ. (MA)	Coll. (BA)	Subtotal Math Dept.	Univ. (PhD)	Univ. (MA)	Coll. (BA)	Subtotal Stat Dept.
28. Combinatorics	0	1	4	2	1	2	1	1		2				
29. Actuarial Math.	N/A	N/A	N/A	2		1	1			1				
30. Logic/Foundation of Math.	14	4	6	2		3	1	1	1	3				
31. Discrete Structures	N/A	N/A	7	3		3	1	1	1	3				
32. History of Mathematics	4	2	2	2		3		1	2	3				
33. Geometry	13	4	7	8		6	2	2	2	6				
34. Math. for Sec. Sch. Teachers	7	1	5	4		5	1	3	1	5				
35. Adv. Calc. I, II, Real Analysis	31	15	19	16		11	5	3	3	11				
36. Adv. Math. for Engr. & Physics	12	14	10	10		8	5	2	1	8				
37. Adv. Linear Alg.						4	3	1		4				
38. Vector Anal.	$\left\{ \begin{matrix} 5 \\ \end{matrix} \right\}$	$\left\{ \begin{matrix} 8 \\ \end{matrix} \right\}$	$\left\{ \begin{matrix} 1 \\ 4 \end{matrix} \right\}$	$\left\{ \begin{matrix} 9 \\ \end{matrix} \right\}$		3	2	1		3				
39. Adv. Diff. Equations	N/A	1	4	2		3	3			3				
40. Partial Diff. Equations	2	2	5	2		1	1			1				
41. Numerical Analysis	N/A	10	13	8		6	3	1	2	6				
42. App. Math. (Math. Modeling)	1	2	4	2		2	1		1	2				
43. Complex Variables	7	3	5	4		2	1		1	2				
44. Topology	5	1	2	1		1	1			1				
45. Senior Sem./Ind. Study in Math.	N/A	4	2	2		3		1	2	3				
46. Other Adv. Level Courses	7	6	7	11		5	2	2	1	5				

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TABLE A-1

## Enrollment in Mathematics Courses (thousands)

COURSES	1970	1980	1985	1990		1995	1995 Enrollment				1995 Enrollment						
				Ma Sc Dept.	Stat Dept.		Math Dept.				Stat. Dept.						
							Univ. (PhD)	Univ. (MA)	Coll. (BA)	Subtotal Math Dept.	Univ. (PhD)	Univ. (MA)	Coll. (BA)	Subtotal Stat Dept.			
<i>Adv. Level</i>																	
58. Int. to Oper. Research				4		1			1	1							
59. Int. to Lin. Programming	{ N/A }	{ 2 }	( ! )	3		1			1	1							
60. Other Oper. Research				1													
Subtotal Advanced Math	135	91	138	119	1	96	41	25	30	96							
Mathematics Total	1188	1525	1619	1619	2	1471	587	426	456	1469	2						

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TABLEA-2

Enrollment in Statistics Courses (thousands)

COURSES	1995 Enrollment						1995 Enrollment									
	1970	1980	1985	1990		1995	Math Dept.				Stat. Dept.					
				Ma Sc Dept.	Stat Dept.		Univ. (PhD)	Univ. (MA)	Coll. (BA)	Sub total Math Dept.	Univ. (PhD)	Univ. (MA)	Coll. (BA)	Sub total Stat Dept.		
Statistics Courses																
<i>Elem. Level</i>																
47. Ele. Stat. (no Calc. Prereq.)	36	87	115	61	23	132	17	29	51	97	33	2				35
48. Prob. & Stat. (no Cal. Prereq.)	21	17	29	26	7	26	6	6	6	18	7	1				8
49. Other Elem. Level	N/A	N/A	N/A	N/A	N/A	6					6					6
Subtotal Elem. Level	57	104	144	87	30	164	23	35	57	115	46	3				49
<i>Upper Level</i>																
50. Math. Stat. (Calc. Prereq.)	16	16	24	13	4	16	5	3	4	12	4					4
51. Probability (Calc. Prereq.)	11	13	15	11	2	10	3	2	3	8	2					2
52. Stochastic Processes	0	N/A	0	1	0											
53. Appl. Stat. Analysis	7	8	11	5	5	9	1	1	4	6	3					3
54. Design & Anal. of Experiments	1	2	1	1	0	1					1					1
55. Regression (and Correlation)	N/A	1	1	1	1	1					1					1
56. Sen. Seminar/ Ind. Studies in Stat.	N/A	0	0	0	0											
57. Other Up. Lev. Statistics	1	3	1	6	2	7	1	1		2	5					5
Subtotal Upper Level	36	43	63	38	14	44	10	7	11	28	16					16
Statistics Total	93	147	207	125	44	208	33	42	68	143	62	3				65

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TABLE A-3

Enrollment in Computer Science Courses<sup>(a)</sup> (thousands)

COURSES						1995 Enrollment							
						Math Dept.				Stat. Dept.			
	1970	1980	1985	1990	1995	Univ. (PhD)	Univ. (MA)	Coll. (BA)	Subtotal Math Dept.	Univ. (PhD)	Univ. (MA)	Coll. (BA)	Subtotal Stat Dept.
Computer Science Courses													
<i>Lower Level</i>													
61. Computers & Society	N/A	N/A	69	34	14	1	4	9	14				
62. Intro. to Software Packages	N/A	N/A	N/A	28	18	2	3	12	17		1		
63. Issues in Comp. Sci.	N/A	N/A	N/A	1	6			6	6				
64. Com. Prog. I (C101 '91) <sup>b</sup>	38	154	129	33	17	1	5	11	17				
65. Com. Prog. II (C102 '91) <sup>b</sup>	N/A	32	28	8	5		2	3	5				
66. Adv. Prog. & Data Str.	N/A	N/A	15	5	4		1	3	4				
67. Database Man. Systems	N/A	N/A	7	3	2		1	1	2				
68. Discrete Mathematics	N/A	N/A	12	3	2		1	1	2				
69. Other lower level service courses	N/A	N/A	90	19	7		1	6	7				
Subtotal Lower Level	38	186	350	134	75	4	18	52	74		1		1
<i>Middle Level</i>													
70. Intro. to Comp. Systems	26	16	18	2	6		1	5	6				
71. Assembly Lang. Prog.	N/A	N/A	24	6	2		1	1	2				
72. Intro. to Comp. Organization	3	12	14	2	1			1	1				
73. Intro. to File Processing (CS5)	N/A	7	10	2									
74. Other Mid. Level Courses	N/A	N/A	N/A	N/A	4		1	3	4				
Subtotal MiddleLevel	29	35	66	12	13		3	10	13				

(a) 1970, 1980 and 1985 enrollments are combined from both departments of Mathematical Sciences and separate departments of Computer Science; 1990 and 1995 enrollments are from Mathematical Sciences Departments only.

(b) Refers to courses described in Computing Curriculum 1991, Report of the ACM/IEEE-CS Joint Curriculum Task Force, ACM 1991 Survey.

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TABLE A-3

Enrollment in Computer Science Courses<sup>(a)</sup> (thousands)

COURSES						1995 Enrollment							
						Math Dept.				Stat. Dept.			
	1970	1980	1985	1990	1995	Univ. (PhD)	Univ. (MA)	Coll. (BA)	Subtotal Math Dept.	Univ. (PhD)	Univ. (MA)	Coll. (BA)	Subtotal Stat Dept.
75. All Upper Level Courses Combined	39	100	142	34	12	2	4	6	12				
Total Computer Science	106	321	558	180	100	6	25	68	99		1		

(a) 1970, 1980 and 1985 enrollments are combined from both departments of Mathematical Sciences and separate departments of Computer Science; 1990 and 1995 enrollments are from Mathematical Sciences Departments only.

