

DEPARTMENTAL CHARACTERISTICS

This chapter contains five tables on a variety of topics. Information is presented on various services available to departmental majors in the three disciplines, such as placement exams, honors programs, and graduate school advising. Mathematics requirements of mathematics and statistics tracks (or options) are given. The type of office space available to full-time faculty in the three disciplines, as well as the number of support staff positions and institutional travel funds expended in 1989-90 are presented.

Almost all of the topics in this chapter are new to the 1990 survey. Hence comparisons can be made only among the three disciplines and by type of school. The general theme is one of disparity between disciplines and types of departments on each issue.

For information on four-year college and university mathematics see

Tables D.1, D.2, D.3, D.4, D.5.

For information on four-year college and university statistics see

Tables D.2, D.3, D.4, D.5.

For information on four-year college and university computer science see

Tables D.1, D.3, D.4, D.5.

TABLE D.1 Features available to majors in four-year college and university Departments of Mathematics, Statistics and Computer Science; percent of departments or programs with the feature by type of school: Fall 1990.

	Mathematics Departments				Computer Science Departments				Statistics
	Univ (PhD)	Univ (MA)	College (BA)	ALL MATH DEPTS	Univ (PhD)	Univ (MA)	College (BA)	ALL CS DEPTS	Univ (PhD)
Number of departments	165	236	1020	1421	136	105	238	479	53
Placement exams	62%	70%	45%	51%	60%	67%	92%	77%	38%
ETS advanced placement credit	95%	88%	85%	86%	79%	67%	100%	87%	26%
Dept exam credit	53%	28%	22%	27%	40%	34%	51%	44%	32%
Honors calculus	67%	24%	9%	18%	50%	23%	37%	38%	32%
Dept or institution honors prog	83%	67%	56%	61%	66%	54%	63%	62%	60%
Intern/coop program	44%	60%	49%	50%	83%	76%	51%	66%	26%
Regular problem solving opportunities	69%	63%	25%	37%	23%	31%	90%	58%	19%
Research projects	59%	47%	37%	41%	83%	80%	87%	84%	57%
Senior exams	6%	13%	34%	27%	1%	13%	2%	4%	0%
Senior project or thesis	23%	36%	28%	29%	50%	38%	83%	64%	19%
Special lectures/ colloquium	67%	66%	39%	47%	88%	74%	49%	66%	72%
Study areas	41%	46%	49%	47%	40%	41%	90%	65%	15%
Math or CS club	67%	86%	44%	54%	74%	90%	93%	87%	26%
Regular social activities with faculty	21%	45%	53%	48%	30%	55%	7%	24%	26%
Graduate school advising	90%	92%	96%	94%	89%	67%	92%	86%	79%
Other career advising	82%	92%	96%	94%	86%	90%	100%	94%	59%

TABLE D.1 Placement exams are those administered by the department or institution. Departmental exam credit is college credit for passing departmental or institutional placement exams. In the 1970 CBMS survey, 48% of four-year colleges and university mathematics departments reported using their own placement exams as against 51% in 1990, while in 1970, 90% had advanced placement credit as against the 1990 figure of 86%. The remaining categories were not reported in previous surveys.

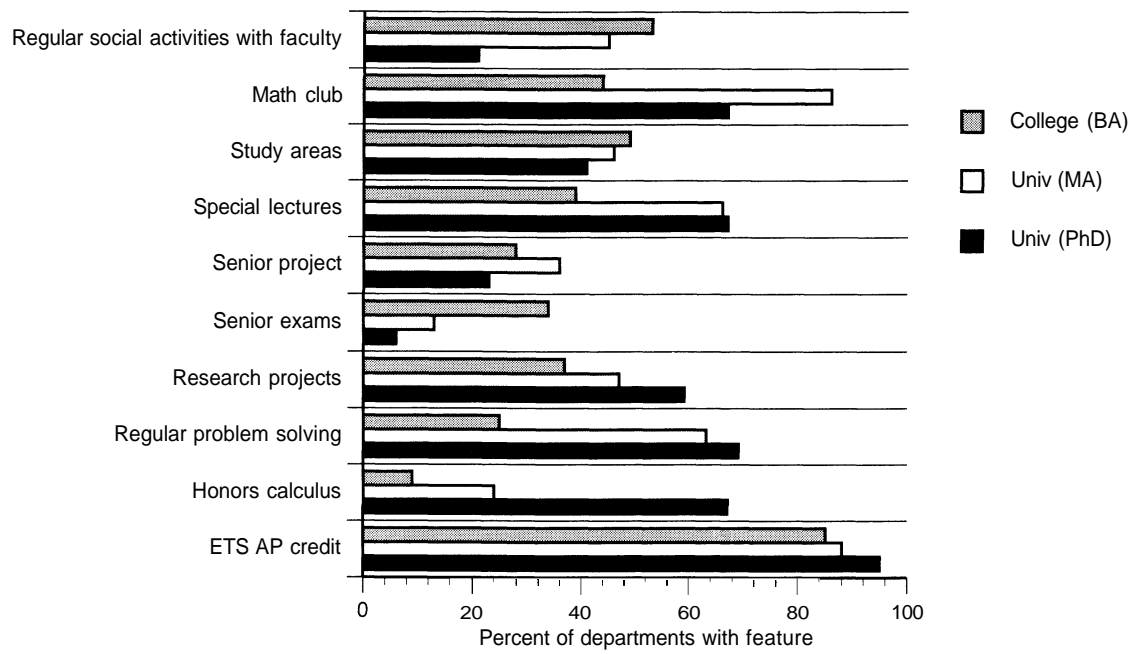


FIGURE D.1.1 Features available to majors in four-year college and university Departments of Mathematics by type of school: Fall 1990.

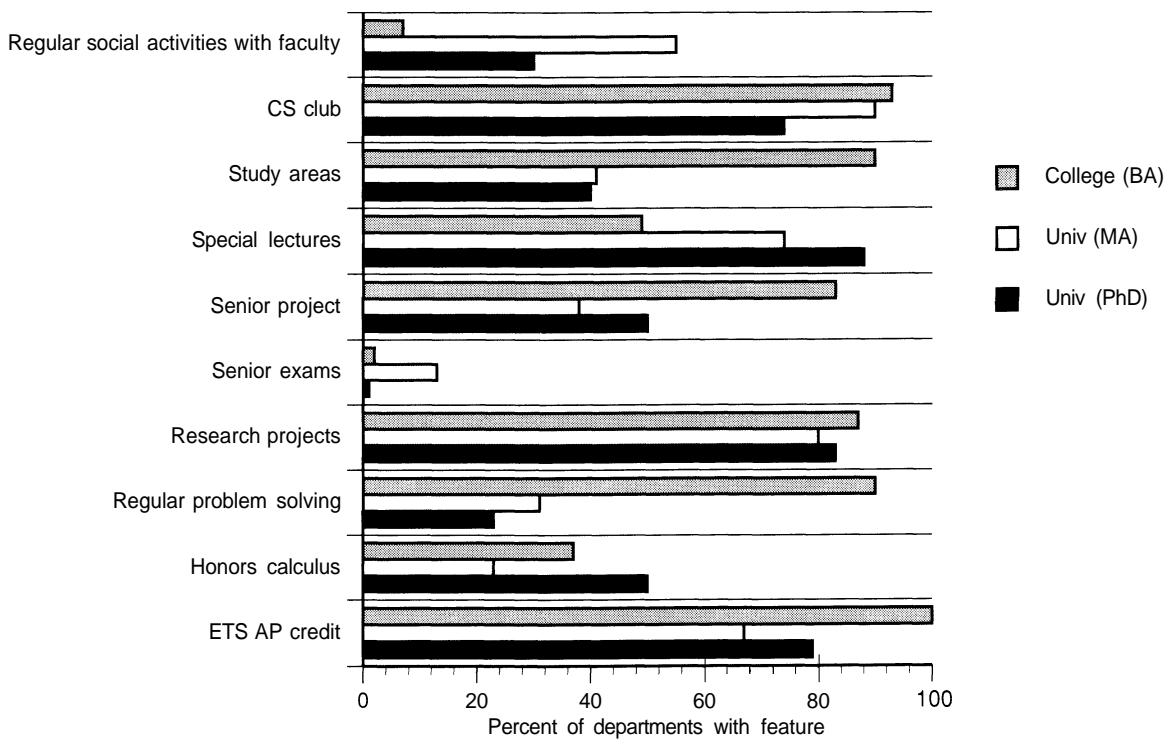


FIGURE D.1.2 Features available to majors in four-year college and university Departments of Computer Science by type of school: Fall 1990.

TABLE D.2 Percent of four year college and university Mathematics options (tracks) that require certain junior-senior courses or other curricular features in Departments of Mathematics by type of school; also for Statistics options (tracks) in Univ(PhD) Stat Depts: Fall 1990.

	Mathematics Departments			ALL Math Depts	Univ (PhD) Stat Depts
	Univ(PhD)	Univ(MA)	College(BA)		
Number of departments	165	236	1020	1421	53
Total number of tracks offered	581	675	1979	3235	83
PERCENT OF TRACKS REQUIRING:					
Analysis/Advanced Calculus	70%	66%	65%	66%	30%
Modern Algebra	56%	70%	78%	72%	6%
Geometry/Topology	14%	33%	42%	35%	6%
Linear Algebra	73%	66%	69%	69%	47%
Problem Solving/Modeling	18%	18%	22%	21%	4%
A sequence of 2 or more courses	79%	65%	62%	65%	59%
At least 6 Jr-Sr semester courses	94%	92%	77%	83%	66%

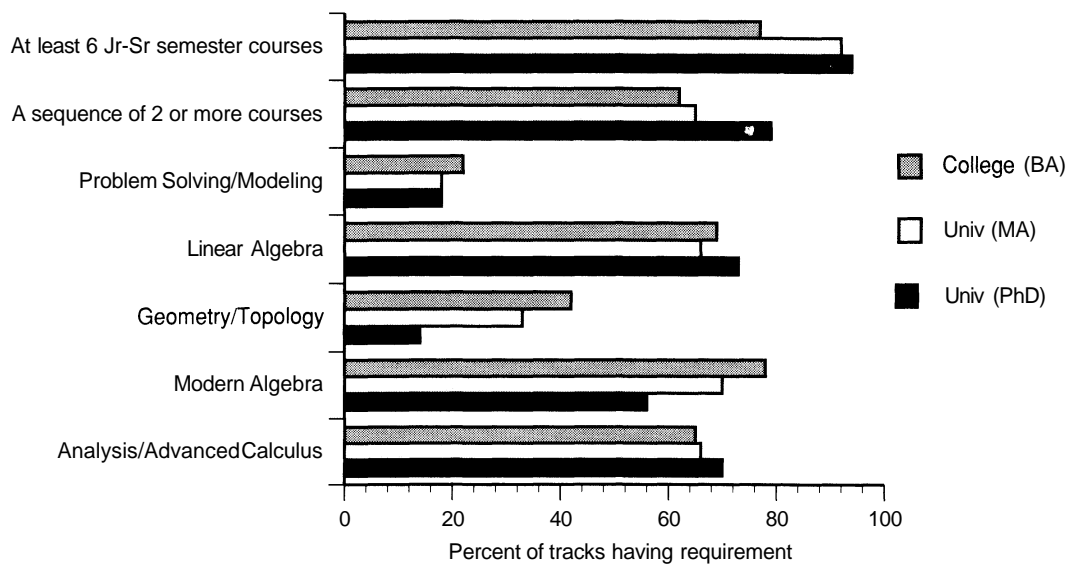


TABLE D.2.1 Percent of four-year college and university Mathematics options (tracks) that require certain junior-senior courses or other curricular features in Departments of Mathematics by type of school: Fall 1990.

TABLE D.2 Information on the percent of options that require, say, all of the first four courses, is not available. Information on computer science programs is presented in Tables CS.1, 2, 3, and 4.

TABLE D.3 Type of office for full-time faculty in four-year college and university Departments of Mathematics, Statistics and Computer Science by type of school: Fall 1990.

	Number of full-time faculty	% with private office	% with 2 person office	% other office
Math depts				
Univ (PhD)	6427	94%	5%	1%
Univ (MA)	5058	78%	17%	5%
College (BA)	7926	83%	10%	7%
ALL MATH	19411	85%	10%	5%
Stat depts				
Univ (PhD)	668	98%	2%	0%
Univ (MA)	53	100%	0%	0%
College (BA)	14	-	-	-
ALL STAT	735	98%	2%	0%
CS depts				
Univ (PhD)	2746	98%	2%	0%
Univ (MA)	1408	98%	2%	0%
College (BA)	1164	83%	9%	8%
ALL CS	5318	95%	3%	2%

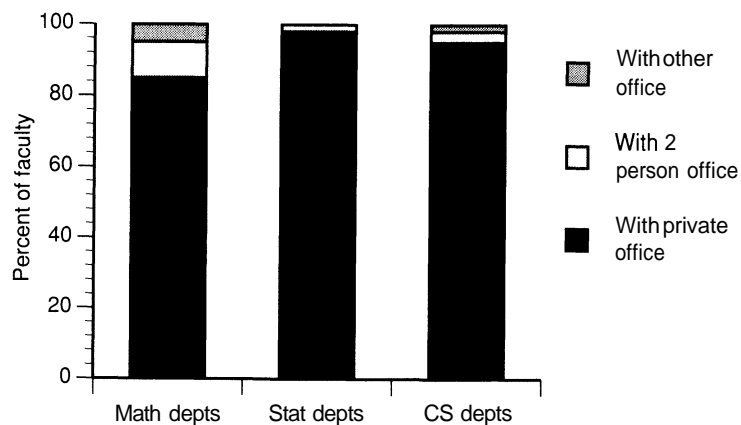


FIGURE D.3.1. Type of office for full-time faculty in four-year college and university Departments of Mathematics, Statistics and Computer Science: Fall 1990.

TABLE D.3 This is the first time this information has been collected.

TABLE D.4 Average number of support staff positions per full-time faculty member in four-year college and university Departments of Mathematics, Statistics and Computer Science by type of school: Fall 1990.

	Univ (PhD)	Univ (MA)	College (BA)	ALL
Departments				
Math depts	0.14	0.09	0.06	0.1
Stat depts	0.28	0.09	-	0.28
CS depts	0.28	0.2	0.14	0.23

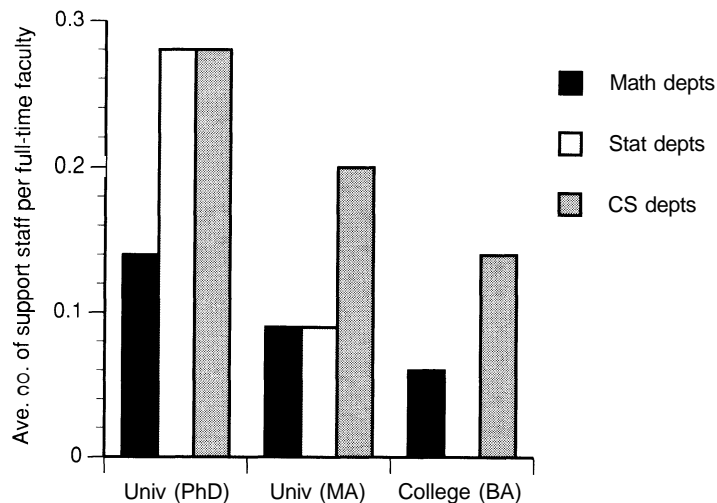


FIGURE D.4.1 Average number of support staff positions per full-time faculty member in four-year college and university Departments of Mathematics, Statistics and Computer Science by type of school: Fall 1990.

TABLE D.4 Support staff are only those positions (or fractions) supported from institutional funds. Those support staff supported from research funds are not included. This table is new.

TABLE D.5 Institutional travel funds expended in 1989-90 per full-time faculty member in four-year college and university Departments of Mathematics, Statistics and Computer Science by type of school.

	Univ (PhD)	Univ (MA)	College (BA)	ALL
Department				
Mathematics	\$266	\$246	\$286	\$269
Statistics	\$316	\$212	-	\$302
Computer Science	\$601	\$385	\$434	\$507

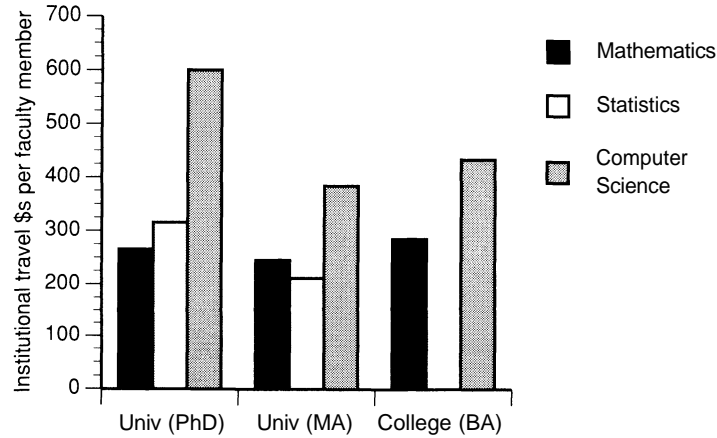


FIGURE D.5.1 Institutional travel funds expended in 1989-90 per full-time faculty member in four-year college and university Departments of Mathematics, Statistics and Computer Science by type of school.

TABLE D.5 Travel funds from research grants or other external sources are not included. This is a new table.

