

Chapter 6

Enrollment, Course Offerings, and Instructional Practices in Two-Year College Mathematics Programs

This chapter reports estimated enrollment and instructional practices in courses offered in Fall 1995 in the approximately 1023 two-year college mathematics programs in the United States. Total enrollment in two-year colleges, average class size, trends in availability of mathematics courses, enrollment in mathematics courses offered outside of mathematics programs, and services available to mathematics students are also included in this chapter. The data are compared with the results of the 1966, 1970, 1975, 1980, 1985, and 1990 CBMS surveys.

This survey did not include the approximately 600 (mostly small) two-year colleges that operate for profit, many of which do not have mathematics programs.

Unlike previous surveys, computer science courses taught outside the mathematics program and the faculty who taught them were not considered part of the "mathematics program" in the 1995 survey. So except for Tables TYR.15 and TYR.16, this report does not include computer science courses taught, for example, by a separate computer science department.

The numbers given for two-year colleges in this report were projected from a stratified random sample of 250 non-profit two-year colleges with mathematics programs. Survey forms were returned by 163 colleges (65% of the sample), 156 public and 7 private. For more information on the sampling procedure used in this survey, see Appendix II. A copy of the two-year college questionnaire may be found in Appendix V.

Highlights

- Although the number of students enrolled in two-year colleges dropped 8% between 1990 and 1994, enrollment in courses taught in two-year college mathematics programs continued to climb.
- Two-year colleges accounted for 46% of all collegiate mathematics enrollment.
- Enrollment in remedial classes accounted for over half of mathematics program enrollment. However, courses at the remedial level accounted for less than half of the overall increase in enrollment in mathematics courses from 1990 to 1995.
- Mathematics courses that showed big percentage increases were pre-algebra, elementary algebra, college algebra, precalculus, mathematics for elementary school teachers, and elementary statistics. Large percentage drops in enrollment occurred in arithmetic, non-mainstream calculus, finite mathematics, and mathematics for liberal arts.
- Courses such as linear algebra, mathematics for liberal arts, and mathematics for elementary school teachers were offered at fewer than half of the two-year colleges with mathematics programs.
- The average section size in all mathematics courses was 25.5 and the average section size of individual courses did not vary much from that. Fewer than 1% of sections had an enrollment above 60.
- Part-time faculty members were 65% of the total faculty and taught 38% of the sections. This percentage varied by type of course, with part-time faculty members teaching 47% of remedial courses and 17% of mainstream calculus courses.
- The predominant instructional method continued to be the standard lecture method in all except some computer science courses. The graphing calculator was widely used in precalculus and calculus courses. Group projects were a part of about one in five calculus courses, as was a writing component.
- Virtually all two-year colleges with mathematics programs had diagnostic or placement testing. Ninety-three percent had a math lab or tutorial center.

Enrollment, Class Size, and Course Offerings

Trends in the number of two-year college students, 1966-1994

About 5,400,000 students were enrolled in two-year colleges in Fall 1994. Between 1990 and 1994, the number of students enrolled in two-year colleges in the United States fell 8% (see Table TYR.1). Enrollment in two-year colleges in Fall 1994 constituted 38% of the

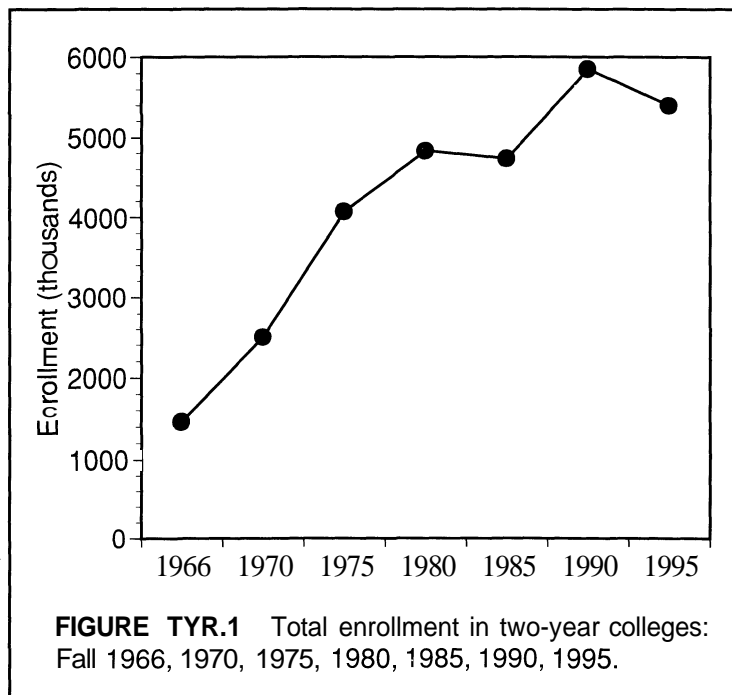
total enrollment in postsecondary institutions [National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), available on the NCES web page]. The IPEDS survey found that the vast majority of two-year college students (94%) were enrolled in public colleges rather than in private or for-profit colleges.

TABLE TYR.1 Total enrollment and percentage part-time in two-year colleges: Fall 1966, 1970, 1975, 1980, 1985, 1990, 1994.

	1966	1970	1975	1980	1985	1990	1994
Number of students	1,464,099	2,499,837	4,069,279	4,825,931	4,730,235	5,850,803	5,396,636
Percentage part-time	46	48	54	63	65	65	64

Source 1966-1990: Community, Junior, and Technical College Directory, 1967, 1972, 1976, 1981, 1986, and 1991, AACJC, One Dupont Circle, NW, Washington, DC 20036.

Source 1994: American Association of Community Colleges, 1994 Fall Survey.



Trends in enrollment in two-year college mathematics programs, 1966-1995

While overall two-year college enrollment dropped, enrollment in mathematics courses, including statistics, in mathematics programs continued to climb, increasing by 12% in five years.

Table TYR.2 includes enrollment only in mathematics courses and does not include computer science courses even if taught within the mathematics program. Thus, the enrollments in Table TYR.2 for the years 1966-1990 are less than those in similar tables in previous reports that included computer science enroll-

ments inside and outside the mathematics program. For this report those enrollments were subtracted from the total so that the data from 1966-1990 are comparable to 1995, when the survey didn't collect information on computer science enrollments outside the mathematics program.

The survey found that the average two-year college with a mathematics program had 12 students who were mathematics majors and intended to transfer to a four-year college or university. This was less than a quarter of one percent of all two-year college students.

TABLE TYR.2 Enrollments in mathematics courses in Mathematics Programs at two-year colleges: Fall 1966, 1970, 1975, 1980, 1985, 1990, 1995.

	1966	1970	1975	1980	1985	1990	1995
Enrollment	343,000	571,000	864,000	953,000	936,000	1,295,000	1,456,000

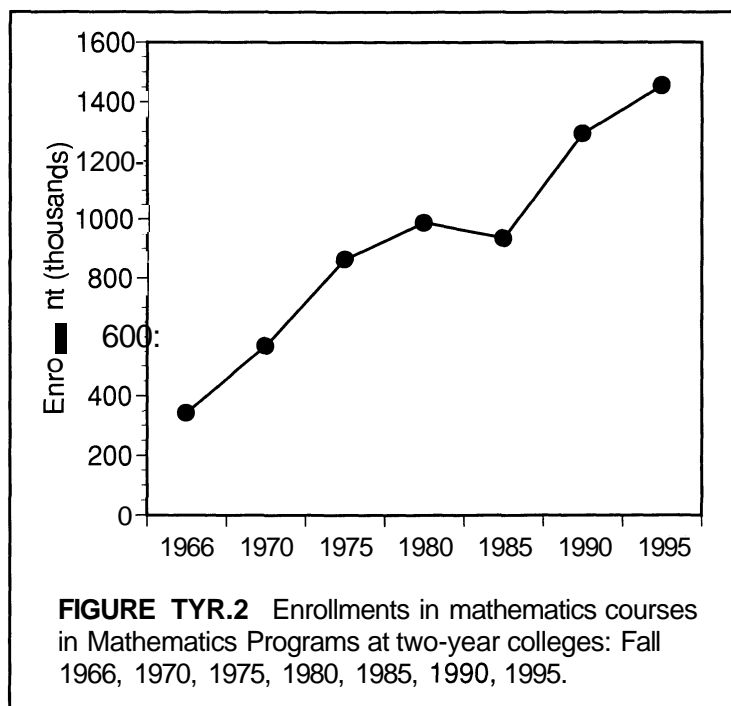


TABLE TYR.3 Enrollment (in thousands) in mathematics and computer science courses in Mathematics Programs at two-year colleges: Fall 1966, 1970, 1975, 1980, 1985, 1990, 1995.

Course number	Course	1966	1970	1975	1980	1985	1990	1995		
Remedial level										
1	Arithmetic/Basic mathematics	32	57	100	146	142	147	134		
2	Pre-algebra	na	na	na	na	na	45	91		
3	Elementary algebra (high school level)	35	65	132	161	181	262	304		
4	Intermediate algebra (high school level)	37	60	105	122	151	261	263		
5	Geometry (high school level)	5	9	9	12	8	9	7		
Precalculus level										
6	College algebra (level is above Int. algebra)	52	52	73	87	90	153	186		
7	Trigonometry	18	25	30	33	33	39	43		
8	College algebra & trigonometry (combined)	15	36	30	41	46	18	17		
9	Precalculus/elementary functions	7	11	16	14	13	33	48		
10	Analytic geometry	4	10	3	5	6	2	2		
Calculus level										
11	Mainstream calculus I	{	40	58	62	73	80	}	53	58
12	Mainstream calculus II								23	23
13	Mainstream calculus III								14	14
14	Non-mainstream calculus I	na	na	{	8	9	13	}	31	26
15	Non-mainstream calculus II	na	na						3	1
16	Differential equations	2	1	3	4	4	4	6		
Other math courses										
17	Linear algebra	1	1	2	1	3	3	5		
18	Discrete mathematics	na	na	na	na	0)	1	3		
19	Finite mathematics	3	12	12	19	21	29	24		
20	Mathematics for liberal arts/math apprec	22	57	72	19	11	35	38		
21	Mathematics for elementary school teachers	16	25	12	8	9	9	16		
22 & 23	Business math	17	28	70	57	33	26	25		
24	Technical mathematics (non-calculus based)	19	26	46	66	31	17	17		
25	Technical mathematics (calculus based)	1	3	7	14	4	1	2		
Statistics										
26	Elementary statistics (with or without prob.)	4	11	23	20	29	47	69		
27	Probability (with or without statistics)	1	5	4	8	7	7	3		
Computing										
28	Data processing	na	na	na	na	36	21	2*		
29	Computers and society	na	na	na	na	na	10	10		
30	Introduction to software packages	na	na	na	na	na	na	21		
31	Issues in computer science	na	na	na	na	na	na	(1)		
32	Computer programming I	3	10	6	58	37	32	6		
33	Computer programming II	na	na	na	na	5	8	1		
34	Advanced programming and data structures	na	na	na	na	6	3	1		
35	Database management systems	na	na	na	na	na	4	1		
Other math and computer science courses										
36	Miscellaneous courses	10	17	36	64	28	43	30		
Total		348	584	874	1048	1034	1393	1498		

(1) means fewer than 500 and na means not available.

Mainstream calc is for math, physics, sci & engr; non-mainstream for bio, soc & mgmt sci.

* The computing enrollments for 1995 include only courses taught within Mathematics Programs. For earlier years they include estimates of enrollment in computer science courses taught outside Mathematics Programs.

Trends in enrollment in specific courses, 1966-1995

Remediation still comprises over half of mathematics program enrollment. However, Tables TYR.3 and TYR.4 show that courses at the remedial level accounted for less than half of the overall increase in enrollment in mathematics courses from 1990 to 1995. Enrollment in remedial-level courses increased 10%, but enrollment in precalculus-level courses increased by 20%.

Mathematics courses that showed big percentage increases were pre-algebra, elementary algebra, college algebra, precalculus, mathematics for elementary

school teachers, and elementary statistics. Enrollment in pre-algebra more than doubled in five years. Enrollment in elementary statistics continued its rapid growth, having gone from only 4,000 students in Fall 1966 to 69,000 students in Fall 1995. For the first time this made it larger than enrollment in the first semester of mainstream calculus. For every 100 two-year college students who began a calculus sequence (mainstream, non-mainstream, or outside mathematics programs) in Fall 1995, there were 95 who enrolled in introductory statistics or probability (inside or outside mathematics programs).

TABLE TYR.4 Enrollment (in thousands) in mathematics and computer science courses by type of course in Mathematics Programs at two-year colleges: Fall 1966, 1970, 1975, 1980, 1985, 1990, 1995.

Course numbers	Type of course	1966	1970	1975	1980	1985	1990	1995
1-5	Remedial	109 (32%)	191 (33%)	346 (40%)	441 (42%)	482 (47%)	724 (52%)	800 (53%)
6-10	Precalculus	96 (28%)	134 (23%)	152 (17%)	180 (17%)	188 (18%)	245 (18%)	295 (20%)
11-16	Calculus	42 (12%)	59 (10%)	73 (8%)	86 (8%)	97 (9%)	128 (9%)	129 (9%)
28-35	Computing	5 (1%)	13 (2%)	10 (1%)	95 (9%)	98 (10%)	98 (7%)	43* (3%)
26-27	Statistics	5 (1%)	16 (3%)	27 (3%)	28 (3%)	36 (3%)	54 (4%)	72 (5%)
17-25,36	Other	91 (26%)	171 (29%)	266 (31%)	218 (21%)	133 (13%)	144 (10%)	160 (11%)
1-36	Total all courses	348 (100%)	584 (100%)	874 (100%)	1048 (100%)	1034 (100%)	1393 (100%)	1498 (100%)

Note: This table was constructed using TABLE TYR.3. Notice that the breakdown into type of course is different from that in Table SE.3 and Appendix I for four-year colleges and universities.

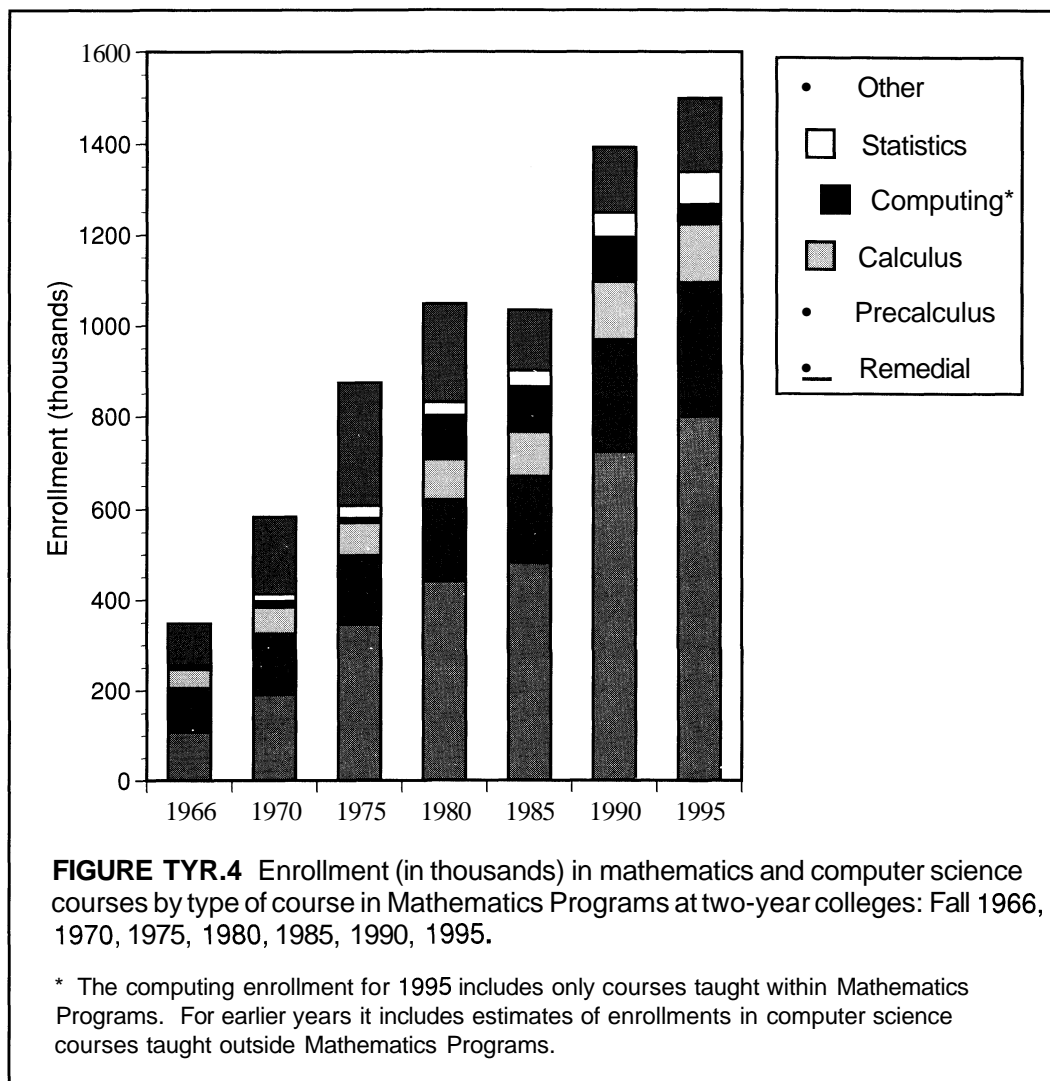
* The computing enrollment for 1995 includes only courses taught within Mathematics Programs. For earlier years it includes estimates of enrollments in computer science courses taught outside Mathematics Programs.

Large percentage drops in enrollment occurred in arithmetic, non-mainstream calculus, finite mathematics, and mathematics for liberal arts.

The most common courses listed by mathematics program heads in the "other" category were specific computer courses such as a course in APL, mathematics for health careers, and a second semester of technical mathematics. A few two-year colleges offered courses in the use of computer software that can be helpful in studying and using mathematics.

Mainstream calculus includes the calculus courses taught to mathematics, physics, and engineering majors. Non-mainstream calculus includes the "soft" calculus courses most often taught to biology, behavioral sciences, and business majors.

Computer science enrollments in 1995 cannot be compared with those of previous surveys, because those surveys included courses taught outside the mathematics program.



Trends in availability of mathematics courses

Tables TYR.5 and TYR.6 show that students in many two-year colleges will not be able to complete the lower division mathematics requirements of certain majors. Courses such as linear algebra, mathematics for liberal arts, and mathematics for elementary school teachers were offered at fewer than half of the two-year colleges with mathematics programs.

Just 17% of two-year college mathematics programs offered a high school-level geometry course in Fall 1995. The enrollment in this course was extremely small compared to the two courses—elementary algebra and intermediate algebra—that traditionally flank it in the high school curriculum.

TABLE TYR.5 Percentage of the 1023 two-year college Mathematics Programs teaching selected mathematics courses at least once in 1994-1995 or 1995-1996.

Course number	Course	Percentage of two-year colleges teaching course
1	Arithmetic/Basic math	70
2	Pre-algebra	46
3	Elem. algebra	85
4	Intermediate algebra	84
5	Geometry	17
6	College algebra	79
7	Trigonometry	71
8	College algebra & trig	17
9	Precalculus/elem. fns.	39
10	Analytic geometry	7
11	Mainstream calculus I	83
12	Mainstream calculus II	79
13	Mainstream calculus III	65
14	Non-mainstream calculus I	52
15	Non-mainstream calculus II	10
16	Differential eqs.	53
17	Linear algebra	30
18	Discrete math	12
19	Finite math	31
20	Math. for lib arts/math apprec	46
21	Math for elem. school teachers	43
22	Business math (not transferable for credit towards bachelor's)	28
23	Business math (transferable for credit towards bachelor's)	11
24	Technical math (not calculus based)	33
25	Technical math (calculus based)	11
26	Elem. statistics	80
27	Probability	5

TABLE TYR.6 Percentage of the 1023 two-year college Mathematics Programs teaching selected mathematics courses: Fall 1970, 1985, 1990, 1995.

Course number	Course	Percentage of two-year colleges teaching course			
		1970	1985	1990	1995
11	Mainstream calculus I	na	na	na	83
16	Differential equations	49	40	53	53
17	Linear algebra	17	24	34	30
18	Discrete mathematics	na	3	21	12
19	Finite mathematics	19	27	46	31
20	Math for liberal arts/ math apprec	na	25	35	46
21	Math for elem school teachers	48	31	32	43
24	Technical math (non-calculus based)	41	42	36	33
25	Technical math (calculus based)	19	18	6	11
26	Elementary statistics	41	61	69	80

Average number of students per section

Tables TYR.7 and TYR.8 show that in Fall 1995 the average section size in all mathematics courses was 25.5, and the average section size of individual courses did not vary much from that. Fewer than 1% of sec-

tions had an enrollment above 60. In 1990, the average section size was 27.8. The decrease in average section size can be attributed largely to remedial-level sections, which dropped from an average of 29 in 1990 to 25.7 in 1995.

TABLE TYR.7 Average section size by type of course in Mathematics Programs at two-year colleges and percentage of sections with enrollment above 60: Fall 1995.

Course numbers	Type of course	Average section size	Percentage of sections with enrollment above 60
1-5	Remedial	25.7	1.3
6-10	Precalculus	28.0	0.2
11-16	Calculus	23.5	0.1
28-35	Computer	22.9	1.4
26-27	Statistics	27.9	0.7
1-36	All courses	25.5	0.8

For names of specific courses see TABLE TYR.3

TABLE TYR.8 Average section size for selected two-year college mathematics courses: Fall 1995.

Course number	Course	Average section size
Remedial		
1	Arithmetic/basic math	21.7
2	Pre-algebra	22.9
3	Elementary algebra	26.4
4	Intermediate algebra	28.8
Precalculus Level		
6	College algebra	28.5
9	Precalculus/elem. functions	29.1
Other Courses		
11	Mainstream calculus I	25.0
12	Mainstream calculus II	23.2
13	Mainstream calculus III	19.0
14	Non-mainstream calculus I	25.6
17	Linear algebra	18.7
20	Math for lib. arts/math apprec	25.1
21	Math for elem. school teachers	23.8
26	Elementary statistics	27.9

Courses taught by part-time faculty members

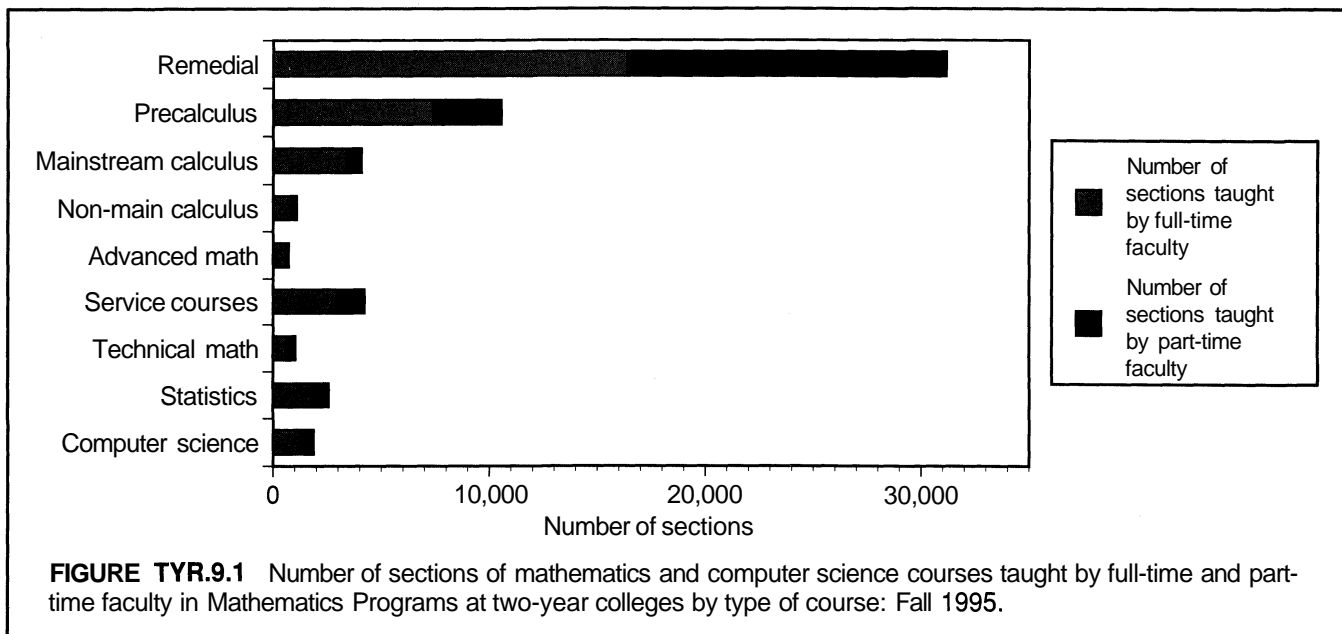
Part-time faculty members were 65% of the total faculty (see Table TYR.17) and taught 38% of the sections. This percentage varied by type of course, as shown in Table TYR.9, with part-time faculty members teaching

47% of remedial courses and 17% of mainstream calculus courses. In 1990, part-time faculty members taught 42% of the sections. In 1985, the percentage was 28%.

TABLE TYR.9 Number of sections and number and percentage of sections taught by part-time faculty in Mathematics Programs at two-year colleges by type of course: Fall 1995.

Course numbers	Type of course	Number of sections	Number of sections taught by part-time faculty	Percentage of sections taught by part-time faculty
1-5	Remedial	31155	14768	47
6-10	Precalculus	10540	3109	29
11-13	Mainstream calculus	4066	698	17
14-15	Non-main calculus	1085	257	24
16-18	Advanced math	707	113	16
19-23	Service courses	4214	1284	30
24-25	Technical math	1024	414	40
26-27	Statistics	2566	809	32
28-35	Computer science	1864	623	33
1-36	All courses combined	58749	22569	38

For names of specific courses see TABLE TYR.3.



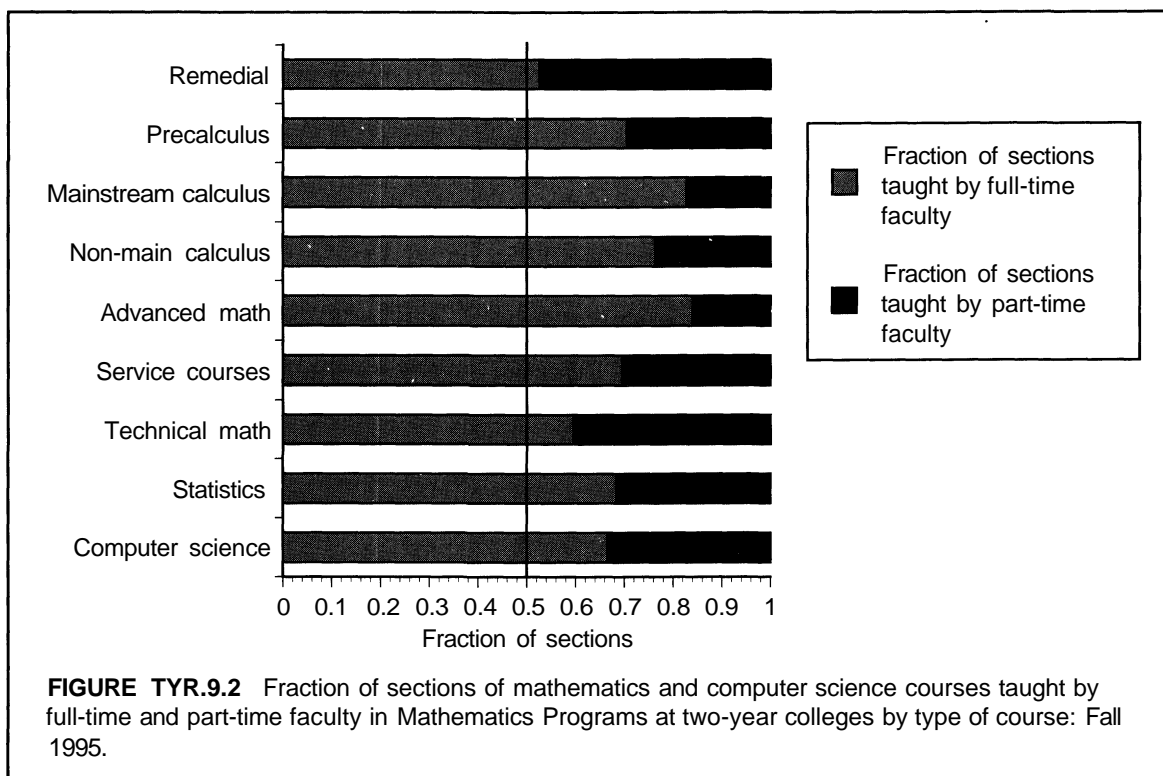


TABLE TYR.10 Percentage of sections using various instructional methods by course in Mathematics Programs at two-year colleges: Fall 1995.

Course number	Course	Percentage of sections that							Number of sections	
		use graphing calculators	include a writing component such as reports or projects	require computer assignments	assign group projects	meet at least once a week in a classroom equipped with computers for students	are taught mostly by the standard lecture method	are taught mostly by computer-aided instruction		are taught by television
1	Arithmetic/Basic math	(1)	5	12	9	17	67	3	0)	6166
2	Pre-algebra	1	2	5	7	13	76	2	(1)	3980
3	Elem. algebra	4	4	7	7	10	75	1	(1)	11553
4	Intermediate algebra	17	7	3	11	7	81	(1)	(D	9148
5	Geometry	13	9	9	15	5	73	7	(1)	307
6	College algebra	38	10	8	13	4	88	1	(1)	6523
7	Trigonometry	49	11	9	14	2	89	(1)	(1)	1700
8	College algebra & trig	51	11	25	17	15	66	1	(1)	596
9	Precalculus/elem fns.	55	9	10	15	8	82	0)	(1)	1633
10	Analytic geometry	65	0	18	12	12	65	0)	0)	88
11	Mainstream calculus I	65	20	23	22	15	82	3	(1)	2325
12	Mainstream calculus II	63	13	16	18	12	84	3	(1)	1008
13	Mainstream calculus III	63	16	26	22	18	86	4	1	733
14	Non-mainstream calculus I	44	17	8	20	5	88	(1)	(1)	1010
15	Non-mainstream calculus II	52	16	22	22	13	79	(1)	(1)	75
16	Differential eqs.	41	23	22	23	13	78	3	(1)	337
17	Linear algebra	43	21	27	28	13	88	(1)	(1)	247
18	Discrete math	25	42	44	39	42	61	3	(1)	123
19	Finite math	26	5	20	9	3	89	0)	(1)	863
20	Math for lib arts/math apprec	7	24	16	17	6	81	1	(1)	1531
21	Math for elem. schl teachers	22	48	17	54	10	79	(1)	(D	654
22	Business math (not trans.)	3	9	5	14	9	66	(1)	2	903
23	Business math (trans.)	30	11	16	18	11	83	8	(1)	263
24	Tech math (not calc. based)	27	7	3	13	5	71	(1)	(1)	901
25	Tech Math (calculus based)	25	18	4	4	(1)	65	(1)	(1)	123
26	Elem. statistics	29	39	46	29	21	94	8	1	2477
27	Probability	50	51	45	31	34	75	2	(1)	89
28	Data processing	(1)	(1)	43	(1)	43	43	8	(1)	84
29	Computers and society	(1)	73	92	24	74	58	7	(1)	427
30	Intro to software packages	(1)	5	86	2	95	15	29	(1)	916
31	Issues in computer science	(1)	100	100	100	100	100	(1)	(1)	3
32	Computer programming I	(1)	37	89	20	68	63	16	(1)	271
33	Computer programming II	(1)	33	88	24	92	43	37	(1)	69
34	Adv. prog. & data structures	(1)	23	83	13	83	70	13	(1)	39
35	Database manag. systems.	(1)	(1)	22	19	19	22	(1)	(1)	55
36	Other courses	9	23	35	17	29	69	5	(1)	1528
1-36	All courses combined	20	11	14	13	13	77	2	(1)	58749

(1) less than half of 1%

Instructional Practices

Table TYR.10 gives the percentage of sections that used various instructional practices in the different courses. The predominant method was the standard lecture method in all except some computer science courses. Computer science courses tended to meet in a room equipped with computers for students and computer assignments were required. The graphing calculator was used widely in precalculus and calcu-

lus courses. Very few sections of any course were taught by television and very few were taught by computer-aided instruction, except for some computer science courses.

Table TYR.11 gives the percentage of calculus sections that assigned group projects and that had a writing component. There was a large increase in both categories between 1990 and 1995.

TABLE TYR.11 Percentage of calculus sections in Mathematics Programs at two-year colleges that assign group projects and that have a writing component: Fall 1990, 1995.

Course number	Course	Percentage of sections that assign group projects		Percentage of sections that have a writing component		Number of sections	
		1990	1995	1990	1995	1990	1995
11	Main. Calculus I	4	22	5	20	2062	2325
12	Main. Calculus II	3	18	4	13	1004	1008
13	Main. Calculus III	0	22	4	16	782	733
14	Non-Main. Calc. I	5	20	4	17	1148	1010
15	Non-Main. Calc. II	2	22	2	16	na	75

Services Available to Students

Table TYR.12 gives the percentage of two-year colleges with mathematics programs that offered various

services to students. Other services mentioned by mathematics program heads included e-mail for students, review sessions, and peer study groups.

TABLE TYR.12 Percentage of the 1023 two-year colleges offering various services to students: Fall 1995.

Service	Percentage of two-year colleges offering service
Diagnostic or placement testing	98
Math lab or tutorial center	93
Advising by a member of the mathematics faculty	65
Opportunities to compete in math contests	29
Honors sections	17
Mathematics club	14
Special mathematics programs to encourage minorities	11
Lectures/colloquia for students, not part of math club	9
Special mathematics programs to encourage women	8
Other	2

Math labs

Ninety-three percent of two-year colleges with mathematics programs had a math lab or tutorial center.

Table TYR.13 gives the services available within the math labs. More than half of math labs offered tutoring by students, media such as videotapes, computer-

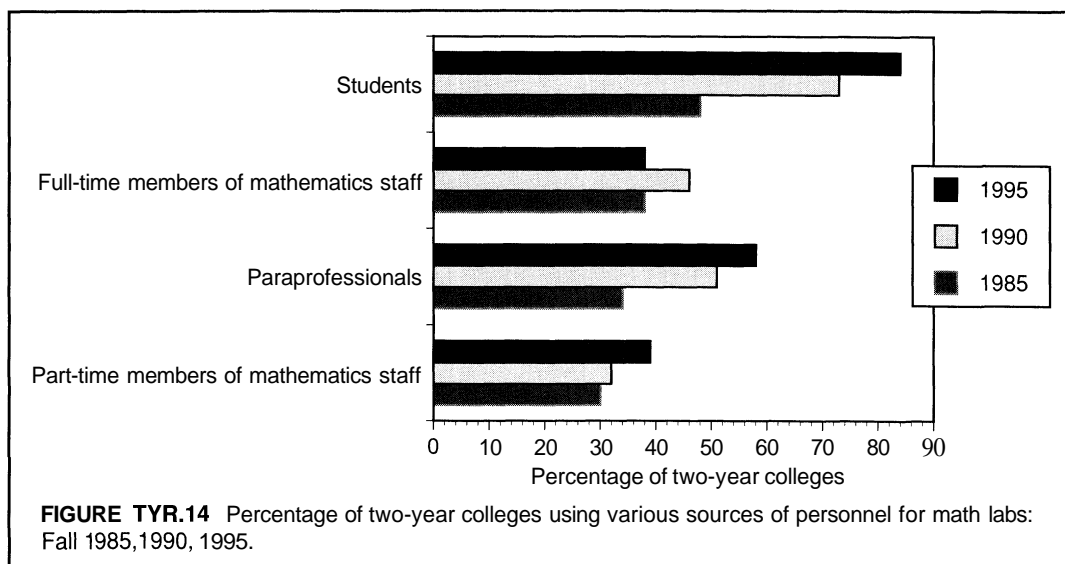
aided instruction, and computer software. (The 1990 CBMS survey found that computer facilities were more common in the larger two-year colleges.) The math labs increasingly are staffed by students and paraprofessionals (see Table TYR.14).

TABLE TYR.13 Percentage of the 950 two-year colleges with math lab or tutorial center that offer various services to students in the math lab or tutorial center: Fall 1995.

Service offered in math lab/ tutorial center	Percentage of two-year colleges with math labs/tutorial centers that offer the service
Computer-aided instruction	69
Computer software such as computer algebra systems or statistical packages	65
Media such as videotapes	70
Tutoring by students	84
Tutoring by paraprofessionals	58
Tutoring by part-time mathematics faculty	39
Tutoring by full-time mathematics faculty	38
Other	4

TABLE TYR.14 Percentage of two-year colleges using various sources of personnel for math labs: Fall 1985, 1990, 1995.

Source	Percentage of two-year colleges using source		
	1985	1990	1995
Students	48	73	84
Full-time members of mathematics staff	38	46	38
Paraprofessionals	34	51	58
Part-time members of mathematics staff	30	32	39



Placement into courses

In 70% of the colleges, a student must speak with an advisor before registering for his or her first mathematics course. In another 10% of the colleges, whether advisement was mandatory depends on the course in which the student wanted to register.

Virtually all (98%) two-year colleges with mathematics programs had diagnostic or placement testing to help students decide which course to take. In 76% of those colleges, the exams were used for mandatory placement into mathematics courses. In the others, placement was advisory.

In 22% of the colleges, a student may enroll in a mathematics course without completely satisfying the recommendations/prerequisites for the course (such as having a certain placement test score or passing a prerequisite course). In another 12% of the colleges, bypassing some of the prerequisites is possible for some courses, but not for others.

Mathematics Courses Taught Outside Mathematics Programs

It has long been the case in two-year colleges that a significant number of mathematics courses are

taught by other departments. From 1970 to 1995, enrollment in mathematics courses outside mathematics programs increased by 115% while enrollment in mathematics courses inside mathematics programs increased by 155%. In 1970, the outside enrollments were 12% of those within mathematics programs. In 1995 these enrollments were 11% of those within mathematics programs.

Previous reports had higher percentages because many computer science courses were included in the outside enrollments. The estimates in Tables TYR.15 and TYR.16 do not include computer science and data processing courses.

Just over half of the outside enrollments were in remedial courses taught in a developmental studies division or learning center. Much of the rest of the outside enrollment was in business math taught in a business division. Tables TYR.15 and TYR.16 give the enrollments in mathematics courses that were offered outside mathematics programs. These enrollments were estimated by mathematics program heads. Thus, they are not as accurate as the numbers given for enrollment within mathematics programs.

TABLE TYR.15 Estimated enrollment (in thousands) in mathematics courses taught outside of Mathematics Programs at two-year colleges: Fall 1970, 1975, 1980, 1985, 1990, 1995.

Course	1970	1975	1980	1985	1990	1995
Arithmetic/Pre-algebra	14	27	18	18	42	54
Elem algebra (high school)	na	na	na	na	38	41
Int algebra (high school)	na	na	na	na	27	10
College algebra	na	na	na	na	6	2
Trig or precalc (college)	6	17	29	3	3	1
Calculus or Diff eqs	(1)	4	8	(1)	4	1
Business math	36	53	70	50	32	26
Statistics & probability	6	14	12	7	15	9
Technical math	na	na	25	23	10	8
Other	9	12	10	4	4	1
Total	71	127	172	105	181	153

(1) less than 500

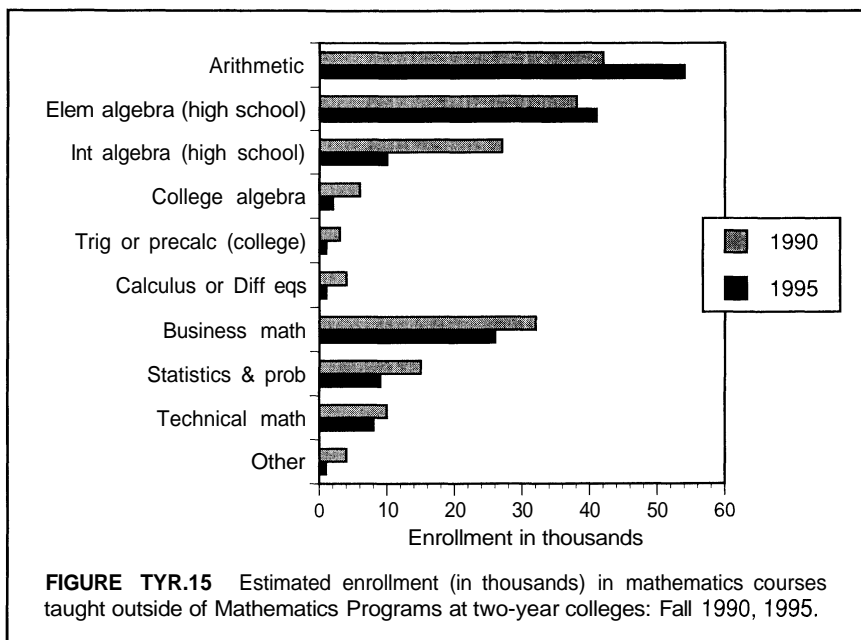


FIGURE TYR.15 Estimated enrollment (in thousands) in mathematics courses taught outside of Mathematics Programs at two-year colleges: Fall 1990, 1995.

TABLE TYR.16 Estimated enrollment (in thousands) in mathematics courses taught outside of Mathematics Programs at two-year colleges by division where taught: Fall 1995.

Course	Natural Sciences	Occupational Programs	Business	Social Sciences	Developmental Studies/ Learning Center	Other	Total
Arithmetic/Pre-algebra	9	1	2	0	40	2	54
Elem algebra (high sch)	7	0)	0	0	33	1	41
Intalgebra (high sch)	5	0	0	0	5	(1)	10
College algebra	2	0	0	0	0	0	2
Trig or Precalc (college)	(1)	(1)	0	0	0	0	1
Calculus or Diff eqs	1	0	0)	0	0	0	1
Business math	2	1	23	0	0	0	26
Statistics & probability	(1)	0	6	3	0	1	9
Technical math	1	5	0	0	0	2	8
Other	0	(1)	1	0	0	(1)	1
Total	27	7	32	3	78	6	153

(1) less than 500