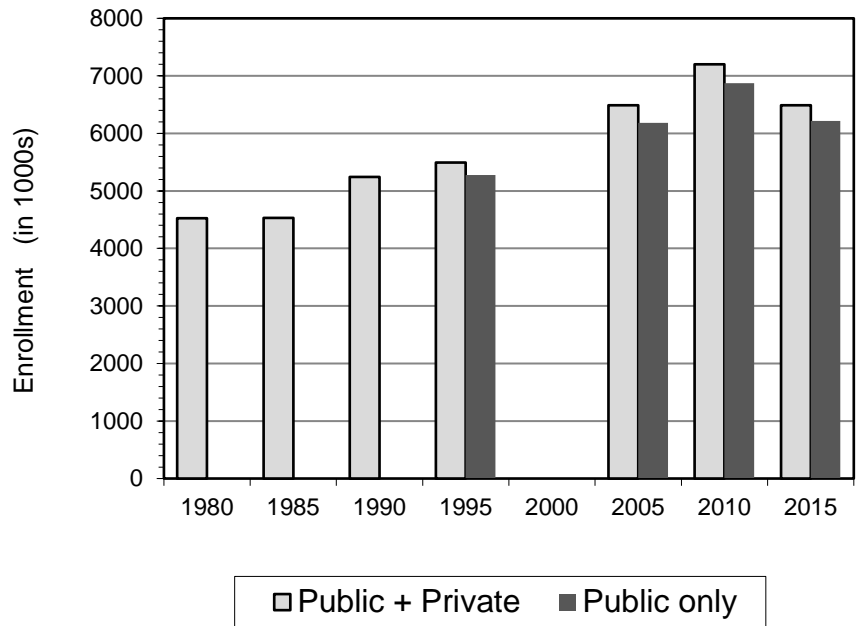


**TABLE TYE.1** Total institutional enrollment (in thousands) and percentage of part-time enrollments in two-year colleges in fall for 1980 through 2010 and projected enrollments for fall 2015.<sup>1</sup> Enrollments include distance learning but not dual enrollments.

	1980	1985	1990	1995	2000	2005	2010	2015
<b>Public + Private</b>								
Number of students	4,525	4531%	5,240	5,492	5,948	6,488	7,684	6,491
Percentage part-time	61	63%	64	64	63	59	56	61
<b>Public only</b>								
Number of students	4,328	4270%	4,996	5,277	5,697	6,184	7,218	6,216
Percentage part-time	63	65%	66	65	65	61	59	61

<sup>1</sup> Data for the first three rows are from Table 303.70 for the NCES publication "Digest of Education Statistics: 2016." The full report has not been released, but selected tables are available. These data were downloaded in June 2017 from [https://nces.ed.gov/programs/digest/d16/tables/dt16\\_303.70.asp?current=yes](https://nces.ed.gov/programs/digest/d16/tables/dt16_303.70.asp?current=yes). Data for the percentage part-time for public institutions are from Projections of Education Statistics to 2024, Table 14, available from <https://nces.ed.gov/pubs2016/2016013.pdf>



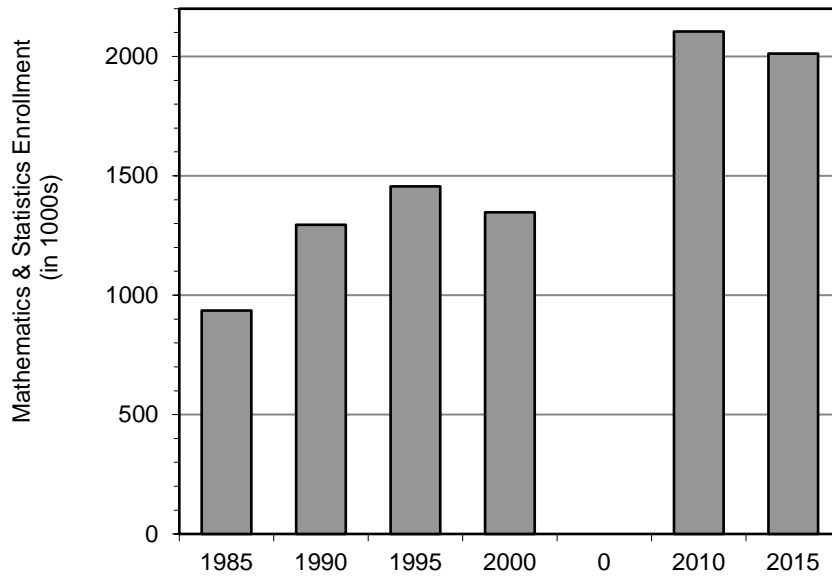
**FIGURE TYE.1.1** Total enrollments (all disciplines) in public & private two-year colleges in fall 1980 through fall 2015 and in public-only two-year colleges in fall 1995 through fall 2015.

**TABLE TYE.2** Enrollments in mathematics and statistics (no computer science) courses in mathematics programs at two-year colleges in fall 1985, 1990, 1995, 2000, 2005, 2010, and 2015.

	1985	1990	1995	2000	2005 <sup>1</sup>	2010 <sup>1</sup>	2015 <sup>1</sup>
Mathematics & Statistics enrollments in TYCs	936,000	1,295,000	1,456,000	1,347,000	1,739,000	2,105,000	2,012,000

<sup>1</sup> Data for 2005, 2010, and 2015 include only public two-year colleges. 2015 data include 94,000 dual enrollments from Table SP.18 and 225,000 distance enrollments from Table TYE.12.

Note: Data for 1990, 1995, and 2000 in Table TYE.2 differ from corresponding data in Table S.1 of Chapter 1 because the totals in TYE.2 do not include any computer science courses, while the totals in Table S.1 do.



**FIGURE TYE.2.1** Enrollments in mathematics and statistics courses (no computer science) in mathematics programs in two-year colleges in fall 1985, 1990, 1995, 2000, 2005, 2010, and 2015. (Data for 2005, 2010, and 2015 include only public two-year colleges. 2015 data include 94,000 dual enrollments from Table SP.18 and 223,000 distance enrollments from Table TYE.12. )

**TABLE TYE.3** Enrollment in thousands in mathematics and statistics courses (not including dual enrollments; including distance enrollments) in mathematics programs at two-year colleges in fall 2000, 2005, 2010, and 2015.

Course Number	Type of course	2000	2005	2010	2015
<b>Precollege level</b>					
1	Arithmetic & Basic Mathematics	122	104	146	71
2	Pre-algebra	87%	137	226	127
3	Elementary Algebra (High School level)	292%	380	428	277
4	Intermediate Algebra (High School level)	255%	336	344	299
5	Geometry (High School level)	7%	7	6	8
<b>Precalculus level</b>					
6	College Algebra (above Intermediate Algebra)	173%	206	230	292
7	Trigonometry	30%	36	45	51
8	College Algebra & Trigonometry (combined)	16%	14	11	13
9	Introduction to Mathematical Modeling	7%	7	18	2
10	Precalculus/Elem Functions/Analytic Geometry	48%	58	64	87
<b>Calculus level <sup>1</sup></b>					
11	Mainstream Calculus I	53%	51	65	66
12	Mainstream Calculus II	20%	19	29	34
13	Mainstream Calculus III	11%	11	15	19
14	Non-mainstream Calculus I	16%	21	20	26
15	Non-mainstream Calculus II	1%	1	2	0
16	Differential Equations	5%	4	6	7
<b>Other mathematics courses</b>					
17	Linear Algebra	3%	3	5	7
18	Discrete Mathematics	3%	2	2	5
19	Elementary Statistics (with or w/o Probability)	71%	111	134	251
20	Probability (with or w/o Statistics)	3%	7	3	28
21	Finite Mathematics	19%	22	18	40
22	Mathematics for Liberal Arts	43%	59	91	97
23	Mathematics for Elementary School Teachers I <sup>2</sup>	18%	29	21	12
24	Mathematics for Elementary School Teachers II <sup>3</sup>	na	na	8	3
25	Other Mathematics Courses for Teacher Preparation <sup>3</sup>	na	na	1	1
26	Business Mathematics (not transferable)	14%	22	16	16
27	Business Mathematics (transferable)	19%	17	4	10
28	Technical Math (non-calculus-based)	13%	16	17	21
29	Technical Math (calculus-based)	2%	1	1	3
30	Other Mathematics Courses (not transferable) <sup>4</sup>	14%	28	33	31
31	Other Mathematics Courses (transferable) <sup>3</sup>	na	na	14	12
<b>Total all Two-year College math courses</b>		<b>1347</b>	<b>1696</b>	<b>2024</b>	<b>1918</b>

Note: 0 means fewer than 500 enrollments and na means not available. Round-off may make column sums seem inaccurate.

<sup>1</sup> Mainstream calculus is for mathematics, physics, science & engineering. Non-mainstream calculus is for biological, social, and management sciences.

<sup>2</sup> In 2005 and earlier surveys there was a single course listed as *Mathematics for Elementary School Teachers*.

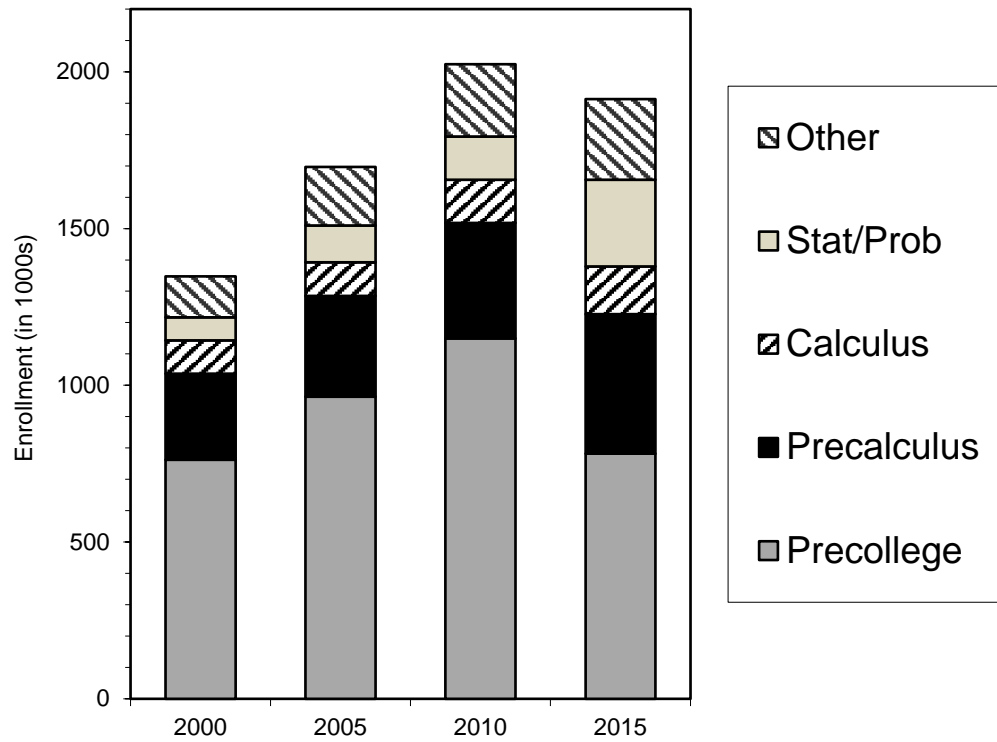
<sup>3</sup> This course was not listed in 2005 and earlier surveys.

<sup>4</sup> In 2005 and earlier surveys there was a single course listed as *Other Mathematics Courses*.

**TABLE TYE.4** Enrollment in 1000s (not including dual enrollments; including distance enrollments) and percentages of total enrollment in mathematics and statistics courses by type of course in mathematics programs at two-year colleges in fall 2000, 2005, 2010, and 2015.

Course numbers <sup>1</sup>	Type of course	1995	2000	2005	2010	2015
1-5	Precollege Level	800 (56%)	763 (57%)	964 (57%)	1150 (57%)	782 (41%)
6-10	Precalculus Level	295 (21%)	274% 0%	321 (19%)	368 (18%)	445 (23%)
11-16	Calculus Level	129 (9%)	106% 0%	107 (6%)	138 (7%)	152 (8%)
19-20	Statistics, Probability	72 (5%)	74% 0%	118 (7%)	137 (7%)	280 (15%)
17-18 & 21-31	Remaining Courses	130 (9%)	130% 0%	186 (11%)	231 (11%)	259 (13%)
1-31	Total, all courses	1426 (100%)	1347% 1%	1696 (100%)	2024 (100%)	1918 (100%)

<sup>1</sup> For names of specific courses see Table TYE.3.



**FIGURE TYE.4.1** Enrollment in 1000s (not including dual enrollments; including distance enrollments) in mathematics and statistics courses by type of course<sup>1</sup> in mathematics programs at two-year colleges in fall 2000, 2005, 2010, and 2015.

<sup>1</sup>For names of specific courses in each course grouping, see Table TYE.3.

**TABLE TYE.5** Percentage of two-year college mathematics programs teaching selected mathematics courses in fall 2010 and in fall 2015.

Course number	Type of course	Fall 2010	Fall 2015
1	Arithmetic & Basic Mathematics	50	36
2	Pre-algebra	49	44%
3	Elementary Algebra (High School level)	82	75%
4	Intermediate Algebra (High School level)	79	72%
5	Geometry (High School level)	7	8%
6	College Algebra (above Intermediate Algebra)	76	79%
7	Trigonometry	55	57%
8	College Algebra & Trigonometry (combined)	12	20%
9	Introduction to Mathematical Modeling	9	5%
10	Precalculus/ Elementary Functions/ Analytic Geometry	53	54%
11	Mainstream Calculus I	79	80%
12	Mainstream Calculus II	61	65%
13	Mainstream Calculus III	56	54%
14	Non-mainstream Calculus I	25	26%
15	Non-mainstream Calculus II	5	0%
16	Differential Equations	21	25%
17	Linear Algebra	19	24%
18	Discrete Mathematics	11	12%
19	Elementary Statistics (with or w/o Probability)	73	83%
20	Probability (with or w/o Statistics)	5	5%
21	Finite Mathematics	27	23%
22	Mathematics for Liberal Arts	44	62%
23	Mathematics for Elementary School Teachers I	55	41%
24	Mathematics for Elementary School Teachers II	27	17%
25	Other Mathematics Courses for Teacher Preparation	2	4%
26	Business Mathematics (not transferable)	20	25%
27	Business Mathematics (transferable)	6	12%
28	Technical Mathematics (non-calculus-based)	26	38%
29	Technical Mathematics (calculus-based)	3	9%
30	Other Mathematics Courses (not transferable)	19	23%
31	Other Mathematics Courses (transferable)	18	10%



**TABLE TYE.6** Percentage of two-year college mathematics programs teaching selected mathematics courses in the fall terms of 2000, 2005, 2010, and 2015.

Course number	Type of course	Percentage of two-year colleges teaching course			
		2000	2005	2010	2015
11	Mainstream Calculus I	94%	82	79	80
16	Differential Equations	59%	25	21	25
17	Linear Algebra	39%	19	19	24
18	Discrete Mathematics	19%	12	11	12
19	Elementary Statistics (with or w/o Probability)	83%	78	73	83
21	Finite Mathematics	32%	28	27	23
22	Mathematics for Liberal Arts	50%	56	44	62
23	Mathematics for Elementary School Teachers I <sup>1</sup>	49%	59	55	41
28	Technical Mathematics (non-calculus-based)	36%	35	26	38
29	Technical Mathematics (calculus-based)	9%	5	3	9

<sup>1</sup> In 2005 and earlier there was a single course listed as *Mathematics for Elementary School Teachers*; the enrollment for that course is listed here.

**TABLE TYE.7** Average on-campus section size by type of course in mathematics programs at two-year colleges in fall 2005, 2010, and 2015. Also percentage of sections with enrollment above 30 in fall 2010 and 2015.

Course numbers <sup>1</sup>	Type of course <sup>2</sup>	2005 average section size	2010		2015	
			Average section size	Percentage of sections with size > 30	Average section size	Percentage of sections with size > 30
1-5	Precollege Level	23.9	24%	20%	19.2	19%
6-10	Precalculus Level	23.6	26%	34%	24.7	31%
11-16	Calculus Level	20.0	21%	25%	25.4	34%
19-20	Elem. Statistics, Probability	25.9	28%	38%	25.5	33%
1-31	Total, all courses	23.0	24%	23%	21.7	25%

<sup>1</sup> For names of specific courses see Table TYE.3.

<sup>2</sup> For specific course section size see Table TYE.8.

**TABLE TYE.7.1** Average distance learning section size by type of course in mathematics programs at public two-year colleges in fall 2015. Also percentage of sections with enrollment above 30 in fall 2015.

Course number <sup>1</sup>	Type of course <sup>2</sup>	2015 average section size	Percentage of 2015 departments with average size > 30
1-5	Precollege Level	22.6	18%
6-10	Precalculus Level	20.1	0%
11-16	Calculus Level	18.7	0%
19-20	Statistics, Probability	22.5	0%
1-31	Total, all courses	20.7	0%

<sup>1</sup> For names of specific courses see Table TYE.3.

<sup>2</sup> For specific course section size see Table TYE.8.1.

**TABLE TYE.8** Average on-campus section size for public two-year college mathematics program courses in fall 2015.

Course number	Type of course	Average section size	Course number	Type of course	Average section size
1	Arithmetic & Basic Mathematics	20	17	Linear Algebra	23
2	Pre-algebra	24	18%	Discrete Mathematics	27
3	Elementary Algebra (High School level)	23	19%	Elementary Statistics (with or w/o Probability)	25
4	Intermediate Algebra (High School level)	15	20%	Probability (with or w/o Statistics)	35
5	Geometry (High School level)	30	21%	Finite Mathematics	28
6	College Algebra (above Intermediate Algebra)	25	22%	Mathematics for Liberal Arts	20
7	Trigonometry	24	23%	Mathematics for Elementary School Teachers I	19
8	College Algebra & Trigonometry (combined)	25	24%	Mathematics for Elementary School Teachers II	19
9	Introduction to Mathematical Modeling	10	25%	Other Mathematics Courses for Teacher Preparation	16
10	Precalculus/Elem Functions/Analytic Geometry	26	26%	Business Math (not transferable)	19
11	Mainstream Calculus I	26	27%	Business Math (transferable)	24
12	Mainstream Calculus II	26	28%	Technical Math (non-calculus-based)	15
13	Mainstream Calculus III	24	29%	Technical Math (calculus-based)	20
14	Non-mainstream Calculus I	26	30%	Other Mathematics Courses (not transferable)	22
15	Non-mainstream Calculus II	26	31%	Other Mathematics Courses (transferable)	21
16	Differential Equations	22			

**TABLE TYE.8.1** Average distance learning section size for public two-year college mathematics program courses in fall 2015.

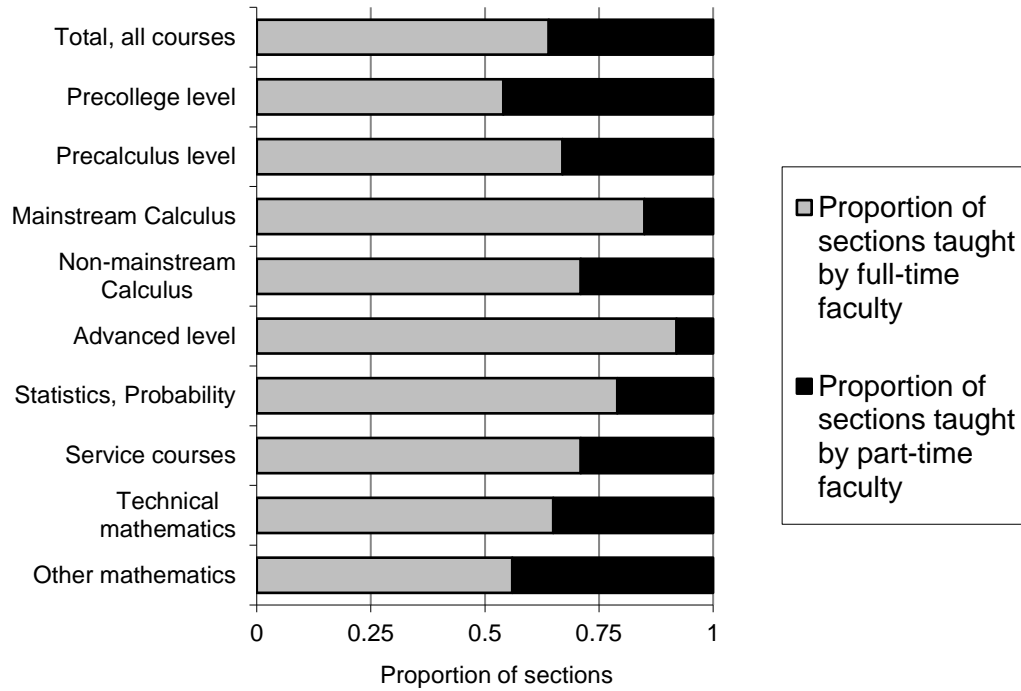
Course number	Type of course	Average section size	Course number	Type of course	Average section size
1	Arithmetic & Basic Mathematics	18	17	Linear Algebra	17
2	Pre-algebra	20	18%	Discrete Mathematics	24
3	Elementary Algebra (High School level)	23	19%	Elementary Statistics (with or w/o Probability)	19
4	Intermediate Algebra (High School level)	22	20%	Probability (with or w/o Statistics)	26
5	Geometry (High School level)	NA	21%	Finite Mathematics	23
6	College Algebra (above Intermed. Alg.)	20	22%	Mathematics for Liberal Arts	20
7	Trigonometry	15	23%	Mathematics for Elementary School Teachers I	14
8	College Algebra & Trigonometry (combined)	13	24%	Mathematics for Elementary School Teachers II	13
9	Introduction to Mathematical Modeling	23	25%	Other Mathematics Courses for Teacher Preparation	NA
10	Precalculus/Elem Functions/Analytic Geometry	20	26%	Business Math (not transferable)	19
11	Mainstream Calculus I	17	27%	Business Math (transferable)	18
12	Mainstream Calculus II	14	28%	Technical Math (non-calculus-based)	16
13	Mainstream Calculus III	11	29%	Technical Math (calculus-based)	27
14	Non-mainstream Calculus I	24	30%	Other Mathematics Courses (not transferable)	17
15	Non-mainstream Calculus II	NA	31%	Other Mathematics Courses (transferable)	21
16	Differential Equations	17			

NA = Not applicable.

**TABLE TYE.9** Number of sections and number and percentage of sections taught by part-time faculty in mathematics programs at public two-year colleges by type of course in fall 2010 and 2015 (excluding distance learning and dual enrollment sections).

Course number <sup>1</sup>	Type of course	2010			2015		
		Number of sections	Number of sections taught by part-time faculty	Percentage of sections taught by part-time faculty	Number of sections	Number of sections taught by part-time faculty	Percentage of sections taught by part-time faculty
1-5	Precollege level	45131	26069%	58%	36108	16515	46%
6-10	Precalculus level	12588	3940%	31%	15793	5173	33%
11-13	Mainstream Calculus	5155	558%	11%	4396	666	15%
14-15	Non-mainstream Calculus	959	259%	27%	882	254	29%
16-18	Advanced level	616	69%	11%	761	62	8%
19-20	Statistics, Probability	4090	1573%	38%	9661	1977	21%
21-27	Service courses	5673	2258%	40%	7014	2053	29%
28-29	Technical mathematics	1533	264%	17%	1433	501	35%
30-31	Other mathematics courses	2272	974%	43%	1845	813	44%
1-31	Total, all courses	78018	35965%	46%	77893	28014	36%

<sup>1</sup> For names of specific courses see Table TYE.3.



**FIGURE TYE.9.1** Proportion of sections of mathematics and statistics courses taught by full-time and by part-time faculty in mathematics programs at public two-year colleges by type of course<sup>1</sup> in fall 2015.

<sup>1</sup>For names of specific courses see Table TYE.3

TABLE TYE.10 Percentage of on-campus sections using different instructional methods by course in mathematics programs at public two-year colleges in fall 2015.

Course Number	Type of course	Percentage of sections taught that		Total number of on-campus sections in fall 2015
		Have common Department exams %	Use a Homework Management system %	
1	Arithmetic & Basic Mathematics	67	72	3070
2	Pre-algebra	64	80%	4986
3	Elementary Algebra (High School level)	61	68%	10198
4	Intermediate Algebra (High School level)	38	43%	17580
5	Geometry (High School level)	45	32%	274
6	College Algebra (above Intermed. Algebra)	49	68%	10333
7	Trigonometry	19	53%	1900
8	College Algebra & Trigonometry (combined)	15	50%	499
9	Introduction to Mathematical Modeling	5	47%	116
10	Precalculus/Elem Functions/Analytic Geometry	31	61%	2947
11	Mainstream Calculus I	12	36%	2405
12	Mainstream Calculus II	14	32%	1241
13	Mainstream Calculus III	14	33%	749
14	Non-mainstream Calculus I	9	66%	880
15	Non-mainstream Calculus II	0	0%	2
16	Differential Equations	5	25%	311
17	Linear Algebra	4	22%	280
18	Discrete Mathematics	6	13%	169
19	Elementary Statistics (with or w/o Probability)	39	55%	8915
20	Probability (with or w/o Statistics)	65	65%	745
21	Finite Mathematics	10	77%	1291
22	Mathematics for Liberal Arts	43	57%	3996
23	Mathematics for Elementary School Teachers I	27	30%	514
24	Mathematics for Elementary School Teachers II	32	48%	118
25	Other Mathematics Courses for Teacher Preparation	42	79%	51
26	Business Math (not transferable)	24	38%	670
27	Business Math (transferable)	14	23%	373
28	Technical Math (non-calculus-based)	41	48%	1265
29	Technical Math (calculus-based)	13	47%	168
30	Other Mathematics Courses (not transferable)	58	75%	1348
31	Other Mathematics Courses (transferable)	21	79%	497



**TABLE TYE.11** Percentage of mathematics programs at public two-year colleges which implemented a "Pathways"<sup>1</sup> course sequence, the types of courses implemented, and the Fall 2015 enrollment.

Pathways course	Percentage		Fall 2015 Enrollment
	Yes	No	
Implemented a Pathways course sequence	58	42	
Implemented Pathways course in:			
a. Foundations	51	49	76338%
b. Quantitative Reasoning/Literacy	59	41	45203%
c. Statistics	63	37	56342%
d. Other	32	68	14631%

<sup>1</sup>Pathways is defined to be a redesign of a mathematics sequence that provides students with an alternative course or sequence to/through developmental mathematics and to/through a college-level mathematics or statistics course.

**TABLE TYE.11.1** Percentage of mathematics programs at public two-year colleges reporting significant change in last five years, by type of course, and by content, delivery methods, and instructional strategies.

Area of change and activity	Arithmetic, Pre-Algebra, Beginning Algebra, Intermediate Algebra	Statistics	College-Level Non-STEM: College Algebra, Math for Liberal Arts, Finite Math, Quantitative Reasoning	STEM: College Algebra/ Trigonometry, Precalculus, Calculus and above
<b>Content</b>				
i) Students collect, organize, and analyze real data	12	36%	20	13
ii) Student solves contextually-based problems/applications	26	31%	34	38
iii) Course includes modeling	15	21%	23	29
iv) Course focuses on quantitative reasoning	27	23%	36	16
v) Course has less symbol manipulation and more emphasis on conceptual understanding	19	23%	28	8
<b>Delivery Methods</b>				
i) Emporium model	33	2%	5	6
ii) Students complete prescribed modules	36	4%	3	7
iii) Flipped Classroom	16	9%	16	15
iv) Accelerated pace	43	6%	6	6
v) Slower pace	11	1%	5	2
<b>Instructional Strategies routinely include:</b>				
i) Group work	35	30%	35	24
ii) Use of handheld devices	15	26%	25	26
iii) Use of computer programs or internet	46	31%	36	34
iv) Use of Excel spreadsheets	9	31%	18	5
v) Guided questioning and less lecturing	27	17%	26	19
vi) Active learning strategies	38	33%	42	33

TABLE TYE.12 Percentage of distance-learning enrollments (distance-learning courses are courses in which the majority of instruction occurs with the instructor and the students separated by time and/or place) among all enrollments (excluding dual enrollments) at public two-year colleges in fall 2010 and 2015, and total enrollments (in 1000s) in those courses.

Course Number	Type of course	2010	2010	2015	2015	2015
		Total Enrollments <sup>1</sup> (1000s)	Percentage Distance Enrollments	Total Enrollments <sup>1</sup> (1000s)	Distance Enrollments (1000s)	Percentage Distance Enrollments
1	Arithmetic & Basic Mathematics	146	7%	71	9	13%
2	Pre-algebra	226	6%	127	9	7%
3	Elementary Algebra (High School level)	428	9%	277	38	14%
4	Intermediate Algebra (High School level)	344	7%	299	33	11%
5	Geometry (High School level)	6	0%	8	0	0%
6	College Algebra (above Intermed. Algebra)	230	14%	292	38	13%
7	Trigonometry	45	10%	51	4	9%
8	College Algebra & Trigonometry (combined)	11	12%	13	1	7%
9	Introduction to Mathematical Modeling	18	4%	2	1	46%
10	Precalculus/ Elementary Functions/ Analytic Geometry	64	5%	87	10	12%
11	Mainstream Calculus I	65	3%	66	4	6%
12	Mainstream Calculus II	29	1%	34	2	5%
13	Mainstream Calculus III	15	0%	19	1	4%
14	Non-mainstream Calculus I	20	8%	26	3	13%
15	Non-mainstream Calculus II	2	0%	0	0	0%
16	Differential Equations	6	2%	7	0	1%
17	Linear Algebra	5	4%	7	0	6%
18	Discrete Mathematics	2	12%	5	1	13%

Note: 0% means less than one-half of one percent.

<sup>1</sup> Does not include dual enrollments.

TABLE TYE.12 (continued) Percentage of distance-learning enrollments (distance-learning courses are courses in which the majority of instruction occurs with the instructor and the students separated by time and/or place) among all enrollments (excluding dual enrollments) at public two-year colleges in fall 2010 and 2015, and total enrollments (in 1000s) in those courses.

Course Number	Type of course	2010	2010	2015	2015	2015
		Total Enrollments <sup>1</sup> (1000s)	Percentage Distance Enrollments	Total Enrollments <sup>1</sup> (1000s)	Distance Enrollments (1000s)	Percentage Distance Enrollments
19	Elementary Statistics (with or w/o Probability)	134	17%	251	31	12%
20	Probability (with or w/o Statistics)	3	7%	28	2	9%
21	Finite Mathematics	18	11%	40	4	11%
22	Math for Liberal Arts	91	17%	97	19	19%
23	Mathematics for Elementary School Teachers I	21	11%	12	2	17%
24	Mathematics for Elementary School Teachers II	8	20%	3	1	32%
25	Other Mathematics Courses for Teacher Preparation	1	0%	1	0	0%
26	Business Math (not transferable)	16	19%	16	3	21%
27	Business Math (transferable)	4	7%	10	1	11%
28	Technical Math (non-calculus)	17	7%	21	3	12%
29	Technical Math (calculus)	1	37%	3	0	6%
30	Other Math Courses (not transferable)	33	7%	31	2	7%
31	Other Math Courses (transferable)	14	19%	12	1	13%
Total Enrollments		2024	9%	1918	225	12%

Note: 0% means less than one-half of one percent.

<sup>1</sup> Does not include dual enrollments.

**TABLE TYE.12.1** Percentage of mathematics programs reporting use of distance learning in public two-year colleges in fall 2015.

A. Award transfer credit for distance learning not taught by faculty at your institution	
a. Yes	58
b. No	42
B. Limit distance learning credits that can be counted toward graduation	
a. Yes	1
b. No	99
C. Department taught distance learning courses in 2013-2015	
a. Yes	87
b. No	13
D. Instructional materials created by:	
a. Faculty	14
b. Commercially produced materials	19
c. Combination of both	67
E. Format of majority of distance learning	
a. Complete online	69
b. Hybrid	22
c. Other	8
F. Requirements of distance learning faculty to meet with students	
a. Never	5
b. For scheduled meetings	12
c. Specified office hours per week	32
d. Not applicable	51
G. How distance learning students take majority of tests	
a. Not monitored	11
b. Online, but using monitoring technology	10
c. At monitored testing site	47
d. Combination of above	32
H. Distance learning practices	
a. Same exams as in face-to-face	67
b. Same outlines as in face-to-face	97
c. Same course projects	77
d. More course projects than in non-distance learning course	12
I. Distance learning instructors evaluated in same way	
a. Yes	93
b. No	7

**TABLE TYE.12.2** Percentage of departments with distance learning that described various factors as significant challenges or somewhat of a challenge in fall 2015.

Type of course	No challenge	Somewhat of a challenge	Very significant challenge
A. Maintaining a standard and reliable network/user platform.	54	38	8
B. Maintaining a level of rigor in distance learning mathematics courses equivalent to courses offered face-to-face.	42	41	17%
C. Faculty knowledge about technology.	56	35	8%
D. Student success rates in online distance mathematics courses are lower than face-to-face courses with similar content.	22	38	40%
E. Student success rates in online distance mathematics courses are higher than face-to-face courses with similar content.	62	33	4%

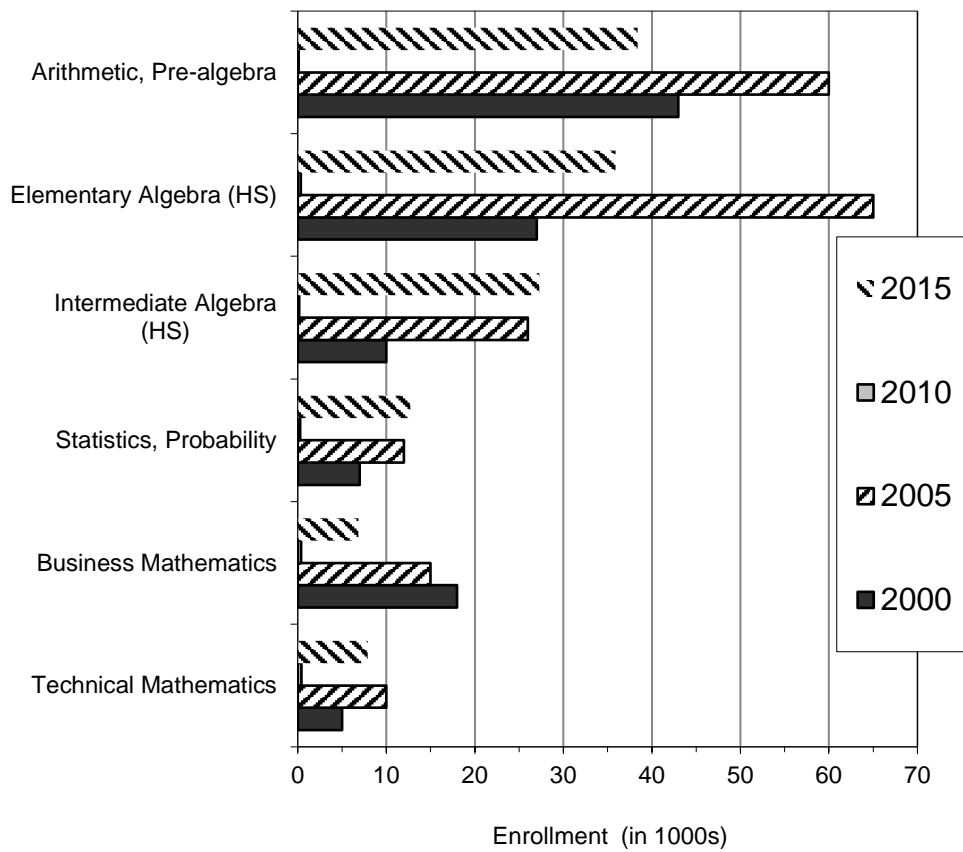
**TABLE TYE.13** Percentage of two-year colleges offering various opportunities and services to mathematics students in fall 2005, 2010, and 2015.

Opportunity/Service	2005	2010	2015
A. Diagnostic or placement testing	97	90	94
a. Colleges that usually require placement tests of first-time enrollees	97	100	78%
b. Colleges that periodically assess the effectiveness of their placement tests	81	75	79%
B. Advising by a member of the mathematics faculty	40	42	49%
C. Opportunities to compete in mathematics contests	37	41	40%
D. Honors sections	24	20	28%
E. Mathematics club	22	31	32%
F. Special mathematics programs to encourage minorities	15	11	15%
G. Lectures/colloquia for students, not part of math club	6	16	21%
H. Special mathematics programs to encourage women	7	6	15%
I. K-12 outreach opportunities	25	32	46%
J. Undergraduate research opportunities	9	14	17%
K. Independent mathematics studies	38	36	41%
L. Other	4	13	5%

**TABLE TYE.14** Estimated enrollment (in 1000s) in mathematics and statistics courses taught outside of mathematics programs at two-year colleges in fall 2000, 2005, 2010, and 2015.

Course Number	Type of course	Enrollment (in 1000s)			
		2000	2005	2010	2015
1-2	Arithmetic & Basic Math, Pre-algebra	43	60	48	38
3	Elementary Algebra (High School level)	27	65	38	36
4	Intermediate Algebra (High School level)	10	26	29	27
19-20	Elementary Statistics, Probability	7	12	12	13
26-27	Business Mathematics	18	15	19	7
28-29	Technical Mathematics	5	10	7	8
	Total	110	188	152	129





**FIGURE TYE.14.1** Estimated enrollment (in 1000s) in mathematics and statistics courses taught outside of mathematics programs at two-year colleges in fall 2000, 2005, 2010, and 2015.

**TABLE TYE.15** Estimated enrollment (in 1000s) in mathematics courses taught outside of mathematics programs at public two-year colleges, by division where taught, in fall 2015.

Course Number	Type of course	Mathematics Enrollment (in 1000s) in Other Programs			
		Developmental Education Dept/Division	Occupational Programs	Business	Other Depts/ Divisions
1-2	Arithmetic & Basic Math, Pre-algebra	36	2%	0	1
3	Elementary Algebra (High School level)	34	2%	0	1
4	Intermediate Algebra (High School level)	27	0%	0	1
19-20	Elementary Statistics, Probability	2	0%	3	7
26-27	Business Mathematics	0	0%	6	0
28-29	Technical Mathematics	4	3%	0	1
	Total	103	6%	10	10

Note: 0 means less than 500 enrollments and this may cause column sums to seem inaccurate.

**TABLE TYE.16** Percentage of two-year colleges in which some of the precollege (remedial) mathematics course offerings are administered separately from, and not supervised by, the mathematics program – e.g. in a developmental studies department or program – by type of course in fall 2000, 2005, 2010, and 2015.

Mathematics Outside of the Mathematics Department		2000	2005	2010	2015
Percentage of Two-year Colleges with some precollege mathematics courses outside of mathematics department control		29	31	29	32
Course number	Type of Course				
1-2	Arithmetic & Basic Math, Pre-algebra	17%	20	24	23
3	Elementary Algebra (High School level)	12%	15	13	22
4	Intermediate Algebra (High School level)	4%	7	7	16