

TABLE TYF.1 Number of full-time permanent, full-time temporary faculty, other full-time faculty, and part-time faculty paid by two-year colleges (TYC) and by a third party (e.g. dual-enrollment instructors) in mathematics programs at two-year colleges in fall 2000, 2005, 2010, and 2015.

Two-Year Colleges	2000	2005	2010	2015
Full-time permanent faculty	6960	8793	9790	8314
Full-time continuing faculty	961	610	1083	1221
Other full-time faculty				266
Part-time faculty paid by TYC	14887	18227	23453	17888
Part-time, paid by third party	776	1915	2323	2359

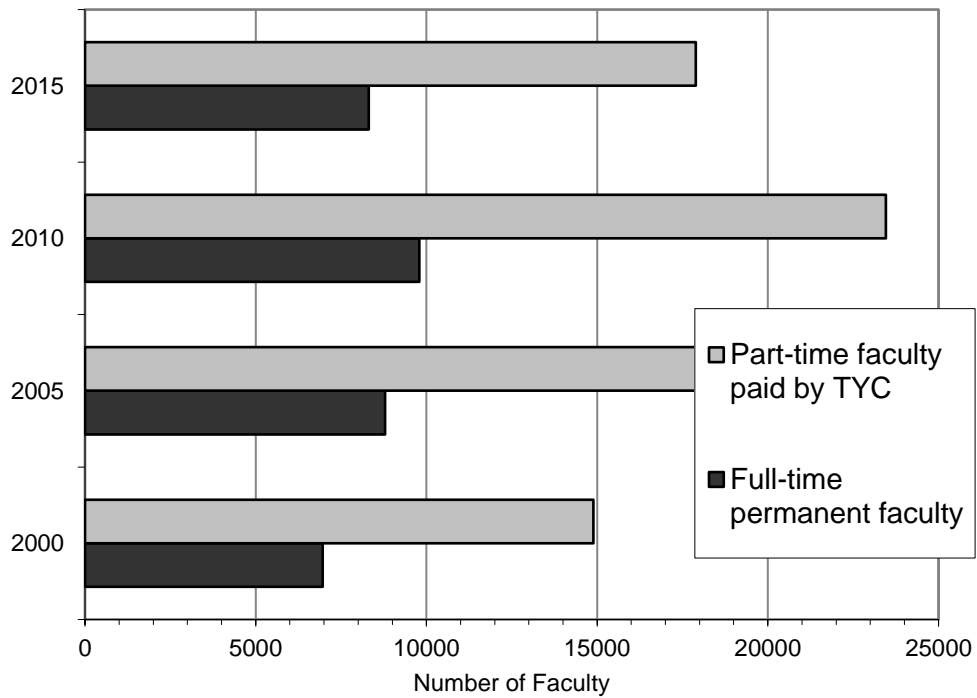


FIGURE TYF.1.1 Numbers of full-time permanent faculty and part-time faculty paid by TYC in mathematics programs in two-year colleges in fall 2000, 2005, 2010, and 2015.

TABLE TYF.2 Teaching assignment for full-time permanent faculty, and teaching and other duties of part-time faculty, in mathematics programs at two-year colleges in fall 2015, with 2010 data in parentheses.

	Teaching assignment in weekly contact hours					
	<10	10 to 12	13 to 15	16 to 18	19 to 21	>21
Percentage of two-year colleges	3	10	68	8	6	5
	(3)	(7)	(76)	(8)	(3)	(3)
Full-time Permanent Faculty						
A. Average weekly contact hours: 18 (15)						
B. Percentage who teach extra hours for extra pay at their own two-year college: 74% (65%)						
C. Percentage teaching 1-3 extra hours for extra pay: 38% (47%)						
D. Percentage teaching 4-6 extra hours for extra pay: 39% (39%)						
E. Percentage teaching 7 or more extra hours for extra pay: 23% (14%)						
Part-time Faculty						
F. Percentage who teach 6 or more hours weekly: 64% (54%)						
G. Percentage of two-year colleges requiring part-time faculty to hold office hours: 29% (28%)						

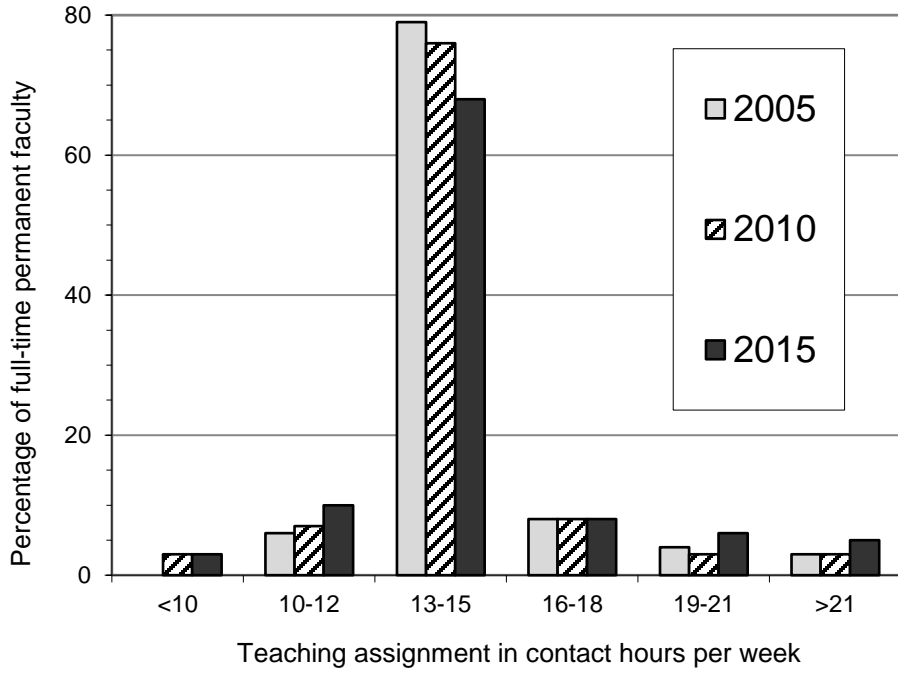


FIGURE TYF.2.1 Percentage of full-time permanent faculty with various teaching assignments in mathematics programs at two-year colleges in fall 2005, 2010, and 2015.

TABLE TYF.3 Number of full-time permanent faculty in 2014-2015 who were no longer part of the faculty in 2015-2016.

Number no longer part of 2015-2016 faculty	612
Total full-time permanent faculty, fall 2015	8314

TABLE TYF.4 Percentage of full-time permanent faculty in mathematics programs at two-year colleges by highest degree in fall 1995, 2000, 2005, 2010, and 2015.

Highest degree	Percentage of full-time permanent faculty				
	1995	2000	2005	2010	2015
Doctorate	17	16	16	14	15
Master's	82	81	82	83	80
Bachelor's	1	3	2	3	5
	100%	100%	100%	100%	100%
Number of full-time permanent faculty	7578	6960	8793	9790	8314

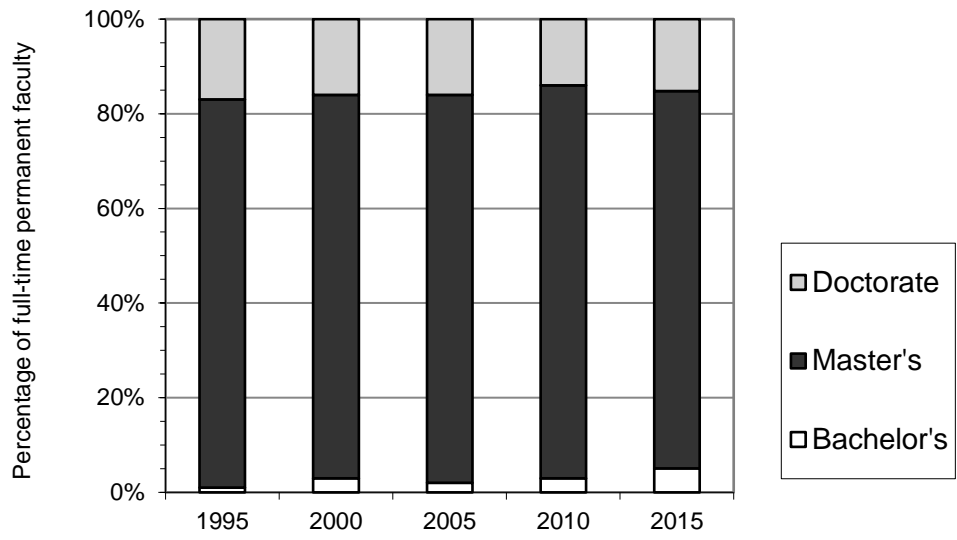


FIGURE TYE.4.1 Percentage of full-time permanent faculty in mathematics programs at two-year colleges by highest degree in fall 1995, 2000, 2005, 2010, and 2015.

TABLE TYF.5 Percentage of full-time permanent faculty in mathematics programs at public two-year colleges by field and highest degree in fall 2015.

Field of degree	Percentage having as highest degree			Total Percent in Field
	Doctorate	Master's	Bachelors	
Mathematics	9	60	4	73
Statistics	2	3	0	5
Mathematics Education	2	11	0	13
Other fields	2	6	0	9
Total Percentage by highest degree	15	80	5	100

Note: 0 means less than half of 1% and round-off may make column sums seem inaccurate.

TABLE TYF.6 Percentage of part-time faculty in mathematics programs at two-year colleges (including those paid by a third party, as in dual-enrollment courses) by highest degree in fall 1995, 2000, 2005, 2010, and 2015.

Highest degree	Percentage of part-time faculty				
	1995	2000	2005	2010	2015
Doctorate	7	6	6	5	7
Master's	76	70	72	73	76
Bachelor's	18	24	22	22	17
Total	100%	100%	100%	100%	100%
Number of part-time faculty	14266	14887	20142	25775	20247

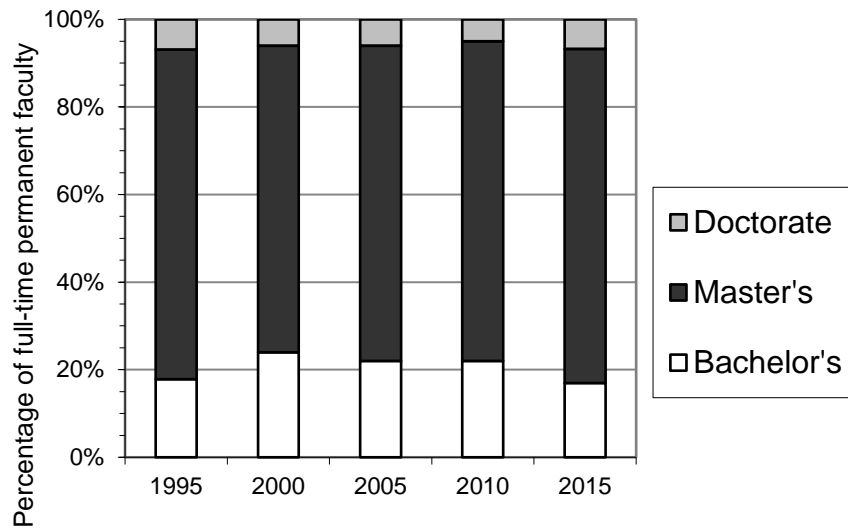


FIGURE TYF.6.1 Percentage of part-time faculty in mathematics programs at two-year colleges (including those paid by a third party, as in dual-enrollment courses) by highest degree in fall 1995, 2000, 2005, 2010, and 2015.

TABLE TYF.7 Percentage of part-time faculty in mathematics programs at two-year colleges (including those paid by a third party, as in dual enrollments) by field and highest degree in fall 2015, with 2010 data in parentheses.

Field of degree	Percentage having as highest degree			Total Percent in Field
	Doctorate	Master's	Bachelors	
Mathematics	4	45	8	58
Mathematics Education	1	16	3	19
Statistics	0	3	0	3
Other fields	2	12	6	19
Total Percentage by highest degree	7	76	17	100%
	(5)	(73)	(22)	

Note: 0 means less than half of 1% and round-off may make column sums seem inaccurate.

TABLE TYF.8 Number and percentage of total full-time permanent faculty in mathematics programs at two-year colleges by gender in fall 2000, 2005, 2010, and 2015.

	2000	2005	2010	2015
Men	3537	4420	4866	3969
	51%	50%	50%	48%
Women	3423	4373	4924	4345
	49%	50%	50%	52%
Total	6960	8793	9790	8314
	100%	100%	100%	100%

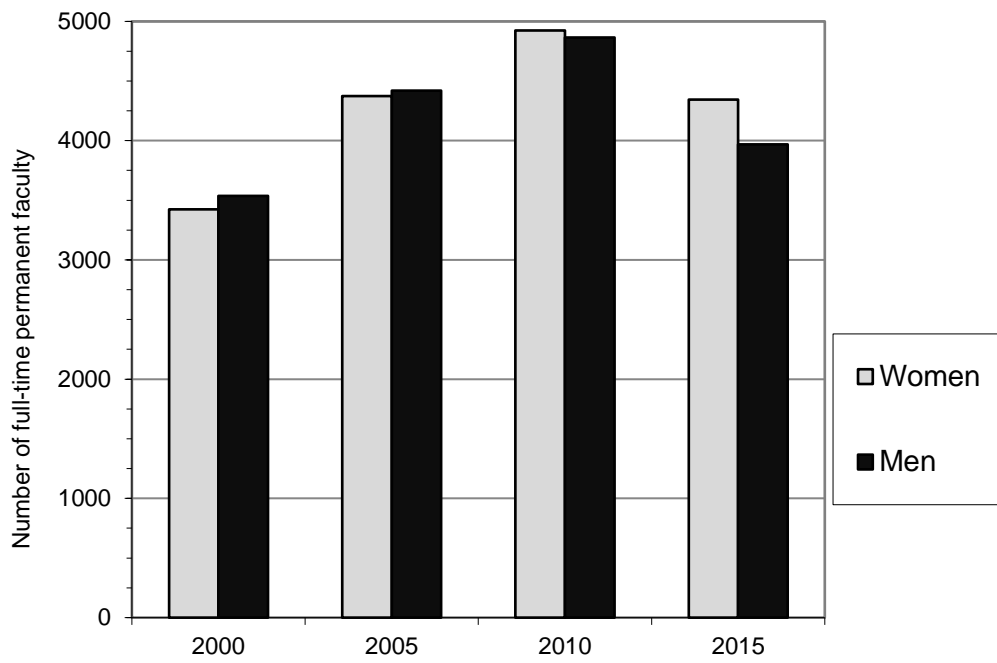


FIGURE TYF.8.1 Number of full-time permanent faculty in mathematics programs at two-year colleges by gender in fall 2000, 2005, 2010, and 2015.

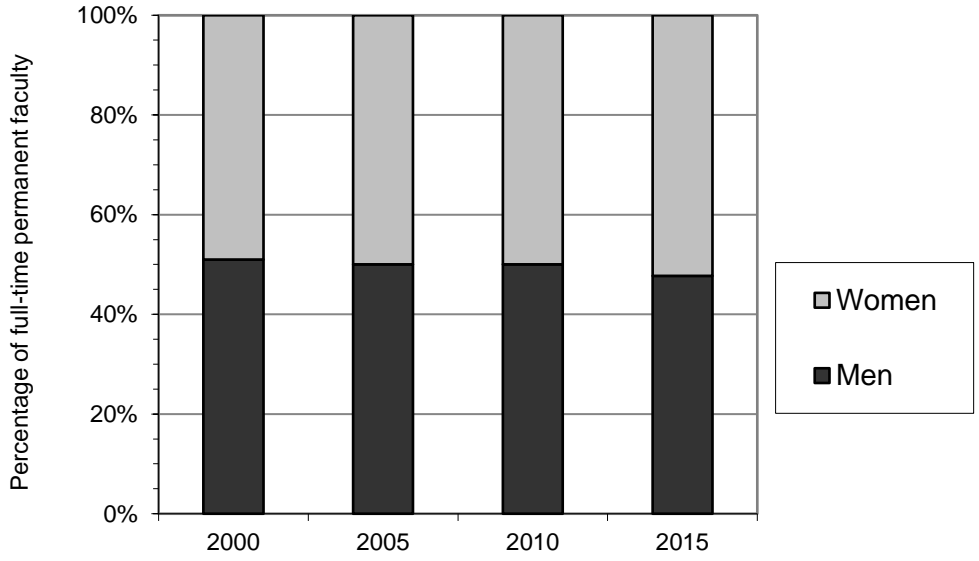


FIGURE TYF.8.2 Percentage of full-time permanent faculty in mathematics programs at two-year colleges by gender in fall 2000, 2005, 2010, and 2015.

TABLE TYF.9 Percentage of full-time permanent faculty and part-time faculty in mathematics programs at public two-year colleges by gender in fall 2015. Also Master's degrees in mathematics and statistics granted in the U.S. to citizens and resident aliens, by gender, in 2014-15. Part-time faculty paid by a third party are not included.

	Percentage of		
	Full-time permanent faculty	Part-time faculty	Master's degrees in mathematics & statistics granted in the U.S. in 2014-15 to citizens and resident aliens ¹
Men	48	47%	64%
Women	52	53%	36%
Total	100%	100%	100%
Total Number	8314	17888	3909

¹ Report Tables 323.40 and 323.50 from Digest of Education Statistics 2016, National Center for Education Statistics, https://nces.ed.gov/programs/digest/current_tables.asp.

TABLE TYF.10 Percentage and number of ethnic minority full-time permanent faculty in mathematics programs at two-year colleges in fall 2000, 2005, 2010, and 2015.

	2000	2005	2010	2015
Percentage of ethnic minorities among full-time permanent faculty	13%	14%	16%	23%
Number of full-time permanent ethnic minority faculty	909	1198	1566	1876
Number of full-time permanent faculty	6960	8793	9790	8314

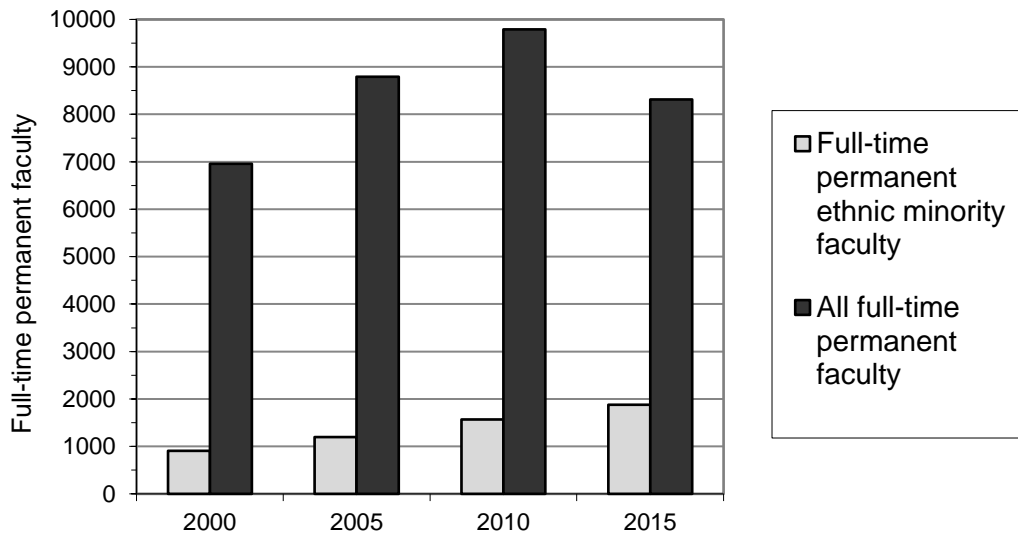


FIGURE TYF.10.1 Number of ethnic minority full-time permanent faculty and number of all full-time permanent faculty in mathematics programs at two-year colleges in fall 2000, 2005, 2010, and 2015.

TABLE TYF.11 Percentage of full-time permanent faculty in mathematics programs at two-year colleges by ethnicity, in fall 2000, 2005, 2010, and 2015.

Ethnic Group	Percentage of full-time permanent faculty			
	2000	2005	2010	2015
American Indian/Eskimo/Aleut	1	0	0	0
Asian/Pacific Islander	4	6	6	9
Black (non-Hispanic)	5	5	6	6
Mexican American/Puerto Rican/ other Hispanic	3	3	4	6
White (non-Hispanic)	85	84	79	75
Status unknown	2	2	5	3
	100%	100%	100%	100%
Number of full-time permanent faculty	6960	8793	9790	8314

Note: 0 means less than half of 1%.

TABLE TYF.12 Number and percentage of full-time permanent faculty in mathematics programs at two-year colleges by ethnic group and percentage of women within each ethnic group in fall 2015.

Ethnic Group	Number of full-time permanent faculty	Percentage of ethnic group in full-time permanent faculty	Percentage of women in ethnic group
American Indian, Alaskan Native	27	0	18
Asian/Pacific Islander	754	9	27
Black or African American (non-Hispanic)	525	6	41
Mexican American, Puerto Rican or other Hispanic	515	6	33
White (non-Hispanic)	6202	75	42
Status not known or other	291	3	35
Total	8314	100%	52

Note: 0 means less than half of 1%.

TABLE TYF.13 Percentage of full-time permanent faculty and of full-time permanent faculty under age 40 in mathematics programs at public two-year colleges by ethnic group in fall 2015. Also U.S. Master's degrees in mathematics and statistics granted in the U.S. to citizens and resident aliens by ethnic group in 2014-15.

Ethnic Group	Percentage among		
	All full-time permanent faculty	Full-time permanent faculty under age 40	Master's degrees in mathematics & statistics granted in the U.S. in 2014-15 to citizens and resident aliens ¹
Ethnic Minorities	23%	26%	29
White (non-Hispanic)	74%	72%	71
Unknown	4%	2%	
Total	100%	100%	100%
Number	8314	2045	3909

¹ Table 323.30 from Digest of Education Statistics 2016, https://nces.ed.gov/programs/digest/d16/tables/dt16_323.30.asp?current=yes. (These figures include resident aliens but do not include a total of 3680 nonresident aliens who also received Master's degrees.)

TABLE TYF.14 Percentage of ethnic minority part-time faculty in mathematics programs at public two-year colleges in fall 2005, 2010, and 2015.

	2005	2010	2015
Percentage of ethnic minorities among part-time faculty	16	17	20
Number of part-time faculty	18227	23453	17888

TABLE TYF.15 Number and percentage of part-time faculty in mathematics programs at public two-year colleges by ethnic group and percentage of women within each ethnic group in fall 2015.

Ethnic Group	Number of part-time faculty	Percentage of	
		Ethnic group among all part-time faculty	Women within ethnic group
American Indian, Alaskan Native	46	0	80
Asian/Pacific Islander	1341	7	49
Black or African American (non-Hispanic)	1009	6	41
Mexican American, Puerto Rican or other Hispanic	1073	6	42
White (non-Hispanic)	12531	70	55
Status not known or other	1888	11	59
Total	17888	100%	53

TABLE TYF.16 Percentage and number of full-time permanent faculty in mathematics programs at two-year colleges by age in fall 2000, 2005, 2010, and 2015.

Age	Percentage of full-time permanent faculty				Number of full-time permanent faculty			
	2000	2005	2010	2015	2000	2005	2010	2015
<30	4	5	8	4	290	478	832	363
30-34	9	8	9	6	615	716	893	529
35-39	13	12	12	14	890	1037	1189	1153
40-44	11	13	14	14	763	1163	1416	1159
45-49	15	15	15	18	1075	1298	1475	1479
50-54	20	18	11	16	1418	1574	1085	1357
55-59	16	17	13	13	1146	1528	1268	1055
>59	11	11	17	15	763	999	1631	1219
Total	100%	100%	100%	100%	6960	8793	9790	8314

NOTE: Rounding may make column totals seem inaccurate.

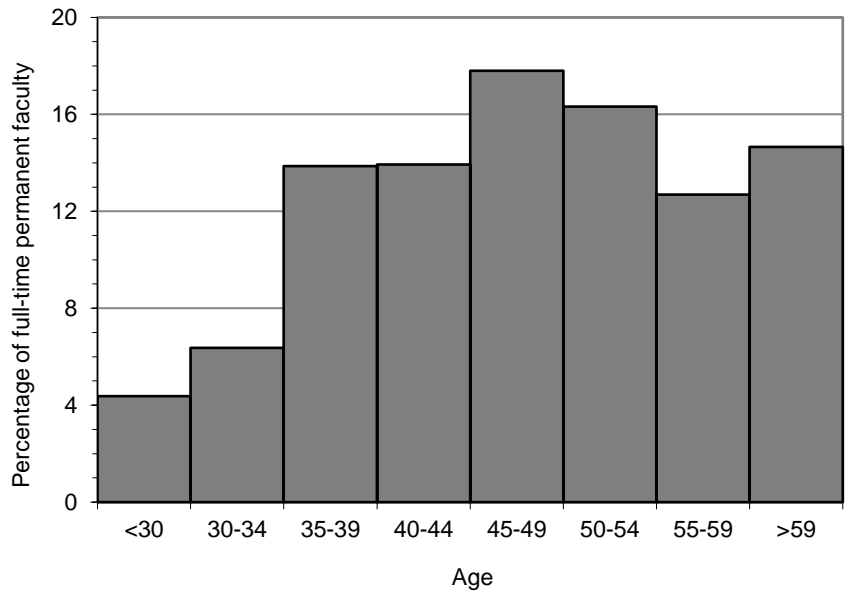


FIGURE TYF.16.1 Percentage distribution of full-time permanent faculty in mathematics programs at public two-year colleges by age in fall 2015.

TABLE TYF.17 Percentage of full-time permanent faculty in mathematics programs at public two-year colleges by age and by gender and percentage of women by age in fall 2015.

Age	Percentage of full-time permanent faculty		Percentage of women in age group
	Women	Men	
<35	6	5	56
35-44	14	14	50
45-54	19	14	58
>54	13	15	46
Total	52	48	

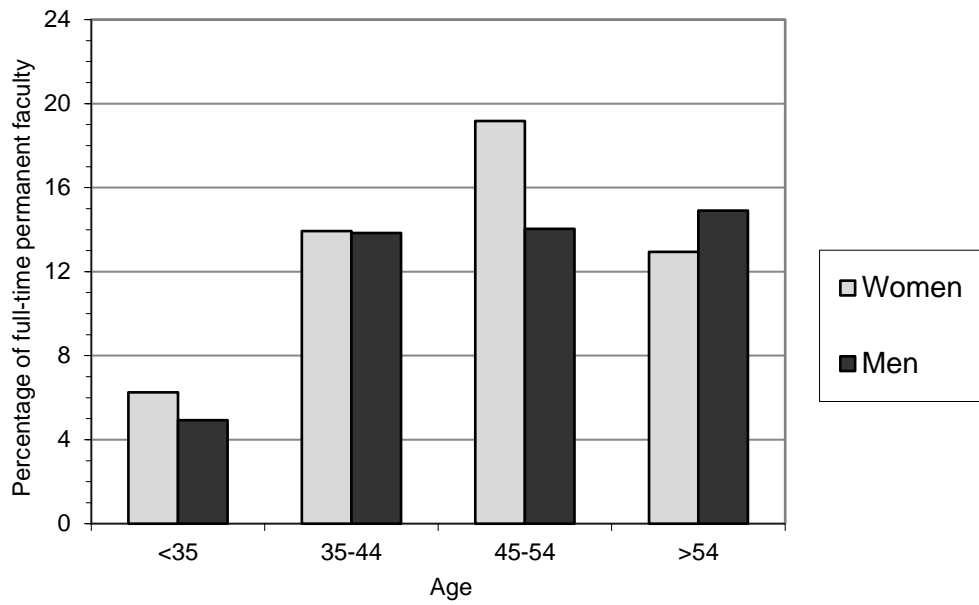


FIGURE TYF.17.1 Percentage of full-time permanent faculty in mathematics programs at public two-year colleges by age and by gender in fall 2015.

TABLE TYF.18 Percentage of newly appointed full-time permanent faculty in mathematics programs at two-year colleges coming from various sources in fall 2010 and 2015.

Percentage of new faculty from:	2010	2015
A. Graduate School	23	37
B. Teaching in a four-year college or university	3	4
C. Teaching in another two-year college	18	19
D. Teaching in a secondary school	25	1
E. Part-time or full-time temporary employment at the same college	23	26
F. Nonacademic employment	1	1
G. Unemployed	0	4
F. Unknown	6	9
Total	100%	100%
Total Number Hired	777	451

TABLE TYF.19 Percentage of full-time permanent faculty newly hired for mathematics programs at two-year colleges by highest degree in fall 2010 and 2015.

Highest Degree	Percentage of New Hires	
	2010-2011	2015-2016
Doctorate	11	9
Master's	82	87
Bachelor's	2	0
Unknown	4	4
Total	100%	100%

Note: 0 means less than one-half of one percent and round-off may make column totals seem inaccurate.

TABLE TYF.20 Percentage of full-time permanent faculty newly hired for mathematics programs at two-year colleges by ethnic group in fall 2010 and 2015. Also percentage of women within each ethnic group in fall 2015.

Ethnic Group	Percentage of new hires		Percentage of women in ethnic group for 2015-2016 new hires
	2010-2011	2015-2016	
American Indian	0	0	na
Asian/Pacific Islander	9	4	11
Black or Arican American (non-Hispanic)	5	2	54
Mexican American, Puerto Rican, or other Hispanic	4	3	33
White (non-Hispanic)	78	82	63
Other	1	3	33
Unknown	3	5	0
Percentage of women among all new hires	47	55	

Note: 0 means less than one-half of one percent and round-off may make column totals seem inaccurate.

na = Not applicable

TABLE TYF.21 Percentage of two-year colleges that require periodic teaching evaluations for all full-time or all part-time faculty in fall 2010 and 2015.

	Percentage of two-year colleges in fall 2010	Percentage of two-year colleges in fall 2015
Colleges that require teaching evaluations for all full-time faculty	96	100
Colleges that require teaching evaluations for all part-time faculty	88	98

TABLE TYF.22 Percentage of mathematics programs at public two-year colleges using various methods of evaluating teaching of part-time and full-time faculty in fall 2015.

Method of evaluating teaching	Percentage of programs using evaluation method for	
	Part-time faculty	Full-time faculty
A. Observation of classes by other faculty	64	75
B. Observation of classes by division head (if different from chair) or other administrator	62	45
C. Evaluation forms completed by students	94	95
D. Evaluation of written course material such as lesson plans, syllabus, or exams	57	53
E. Self-evaluation such as teaching portfolios	62	23
F. Written Peer Evaluations	34	21
G. Other methods	18	9

TABLE TYF.23 Percentage of two-year colleges that require some form of continuing education or professional development for full-time permanent faculty, and percentage of faculty using various methods to fulfill those requirements, in mathematics programs at two-year colleges in fall 2010 and 2015.

Faculty Development	Fall 2010	Fall 2015
Percentage of institutions requiring continuing education or professional development for full-time permanent faculty	67	82
How Faculty Meet Professional Development Requirements	Percentage of permanent faculty in fall 2010	Percentage of permanent faculty in fall 2015
A. Activities provided by employer	53	62
B. Activities provided by professional associations	34	33
C. Publishing books or research or expository papers	3	3
D. Continuing graduate education	4	3

TABLE TYF.24 Percentage of program heads classifying various problems as "major" in mathematics programs at two-year colleges in fall 2000, 2005, 2010, and 2015.

Problem	Percentage of program heads classifying problem as major			
	2000	2005	2010	2015
A. Maintaining vitality of faculty	9	2	4	7
B. Dual-enrollment courses	8	5	11	7
C. Staffing statistics courses	2	3	2	5
D. Students don't understand demands of college work	na	55	64	62
E. Need to use part-time faculty for too many courses	39	30	35	15
F. Faculty salaries too low	36	22	21	39
G. Class sizes too large	10	5	3	5
H. Low student motivation	47	50	50	57
I. Too many students needing remediation	62	63	67	64
J. Lack of student progress from developmental to advanced courses	na	34	37	36
K. Low success rate in transfer-level courses	8	7	13	14
L. Too few students who intend to transfer actually do	2	4	11	8
M. Inadequate travel funds for faculty	15	22	23	25
N. Inadequate classroom facilities for use of technology	na	12	10	4
O. Inadequate computer facilities for part-time faculty use	na	9	6	7
P. Inadequate computer facilities for student services	3	1	5	6
Q. Heavy classroom duties prevent personal & teaching enrichment by faculty	na	14	11	13
R. Coordinating mathematics courses with high schools	6	7	14	21
S. Lack of curricular flexibility because of transfer rules	1	7	5	2
T. Other barriers than inhibit curricular changes ¹	na	na	na	7
U. Maintaining high and consistent expectations across sections ¹	na	na	na	8
V. High cost of textbooks ¹	na	na	na	54
W. Lack of flexibility in curricular redesign ¹	na	na	na	4
X. Maintaining common standards between distance learning and related courses ¹	na	na	na	2
Y. Use of distance education ¹	10	6	6	4

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

¹Data not collected before 2015.

TABLE TYF.25 Percentage of program heads of mathematics programs at public two-year colleges classifying various problems by severity in fall 2015.

Problem	Percentage of program heads classifying problems as		
	minor or no problem	somewhat of a problem	major problem
A. Maintaining vitality of faculty	60	33	7
B. Dual-enrollment courses	57	36	7
C. Staffing statistics courses	63	31	5
D. Students don't understand demands of college work	7	31	62
E. Need to use part-time faculty for too many courses	47	38	15
F. Faculty salaries too low	22	39	39
G. Class sizes too large	70	24	5
H. Low student motivation	9	34	57
I. Too many students needing remediation	2	33	64
J. Lack of student progress from developmental to advanced courses	15	48	36
K. Low success rate in transfer-level courses	32	54	14
L. Too few students who intend to transfer actually do	47	45	8
M. Inadequate travel funds for faculty	44	31	25
N. Inadequate classroom facilities for use of technology	70	26	4
O. Inadequate computer facilities for part-time faculty use	63	31	7
P. Inadequate computer facilities for student services	70	24	6
Q. Heavy classroom duties prevent personal & teaching enrichment by faculty	43	43	13
R. Coordinating mathematics courses with high schools	28	52	21
S. Lack of curricular flexibility because of transfer rules	52	46	2
T. Other barriers than inhibit curricular changes	61	32	7
U. Maintaining high and consistent expectations across sections	48	44	8
V. High cost of textbooks	11	35	54
W. Lack of flexibility in curricular redesign	55	41	4
X. Maintaining common standards between distance learning and related courses	57	41	2
Y. Use of distance education	53	43	4

Note: 0 means less than one-half of 1%.

TABLE TYF.26 Percentage of mathematics programs at public two-year colleges by type of administrative structure on their own campus in fall 2010 and 2015.

Administrative structure	Percentage of Mathematics Programs	
	2010	2015
Mathematics Department	46	52
Mathematics and computer science ¹	na	10
Mathematics and science	14	28
Other department or division structure	31	6
None of the above or unknown	9	4

¹Data not collected before 2015.