SECTION FIVE

MATHEMATICS PROGRAM QUESTIONNAIRE

Mathematics Program Questionnaire

Mathematics Program Questionnaire Tables

2012 NATIONAL SURVEY OF SCIENCE AND MATHEMATICS EDUCATION MATHEMATICS PROGRAM QUESTIONNAIRE

This questionnaire asks a number of questions about "mathematics teachers." In responding, unless otherwise specified, consider ALL teachers of mathematics in your school, including self-contained teachers who teach mathematics and other subjects to the same group of students.

1. Which of the following describe your position? [Select all that apply.]

Mathematics department chair
Mathematics lead teacher or coach
Regular classroom teacher
Principal
Assistant principal
Other (please specify:)

School Programs and Practices

2. [Presented only to schools that include self-contained teachers]

Indicate whether each of the following programs and/or practices is currently being implemented in your school. [Select one on each row.]

		Yes	No
a.	Students in self-contained classes receive mathematics instruction	0	0
	from a mathematics specialist <i>instead of</i> their regular teacher.	0	Ũ
b.	Students in self-contained classes receive mathematics instruction	0	0
	from a mathematics specialist in addition to their regular teacher.	0	0
c.	Students in self-contained classes pulled out for remedial instruction	0	0
	in mathematics.	0	0
d.	Students in self-contained classes pulled out for enrichment in	0	0
	mathematics.	0	0
e.	Students in self-contained classes pulled out from mathematics	0	
	instruction for additional instruction in other content areas.	0	0

3. [Presented only to schools that include any grades 9–12]

Indicate whether each of the following programs and/or practices is currently being implemented in your school. [Select one on each row.]

		Yes	No
a.	Algebra 1 course offered over two years or as two separate block	0	0
	courses (for example: Algebra A and Algebra B)	0	0
b.	Calculus courses (beyond pre-Calculus) offered this school year or in	0	0
	alternating years, on or off site	0	0
с.	Students go to a Career and Technical Education (CTE) Center for	0	0
	mathematics instruction	0	0
d.	Mathematics courses offered by telecommunications	0	0
e.	Students go to another K-12 school for mathematics courses	0	0
f.	Students go to a college or university for mathematics courses	0	0

4. Which of the following are provided to teachers considered in need of special assistance in mathematics teaching (for example: new teachers)? [Select all that apply.]

Seminars, classes, and/or study groups
Guidance from a formally designated mentor or coach
A higher level of supervision than for other teachers

5. Indicate whether your school does each of the following to enhance students' interest and/or achievement in mathematics. [Select one on each row.]

		Yes	No
a.	Holds family math nights	0	0
b.	Offers after-school help in mathematics (for example: tutoring)	0	0
с.	Offers formal after-school programs for enrichment in mathematics	0	0
d.	Offers one or more mathematics clubs	0	0
e.	Participates in a local or regional mathematics fair	0	0
f.	Has one or more teams participating in mathematics competitions (for example: Math Counts)	0	0
g.	Encourages students to participate in mathematics summer programs or camps offered by community colleges, universities, museums or mathematics centers	0	0
h.	Sponsors visits to business, industry, and/or research sites related to mathematics	0	0
i.	Sponsors meetings with adult mentors who work in mathematics fields	0	0

Your State Standards

6. Please provide your opinion about each of the following statements in regard to your current state standards for mathematics. [Select one on each row.]

		Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
a.	State mathematics standards have been thoroughly discussed by mathematics teachers in this school	D	2	3	4	9
b.	There is a school-wide effort to align mathematics instruction with the state mathematics standards	Û	2	3	4	9
c.	Most mathematics teachers in this school teach to the state standards	١	2	3	4	5
d.	Your district/diocese organizes mathematics professional development based on state standards <i>[Not presented to non-Catholic private</i> <i>schools]</i>	D	0	3	4	\$

Student Enrollment in Mathematics Courses

7. [Presented only to schools that include grade 8]

Approximately how many of this year's 8th grade students will have completed Algebra 1 prior to 9th grade? [Enter your response as a whole number (for example: 15).]

8. [Presented only to schools that include grade 8]

Approximately how many of this year's 8th grade students will have completed Geometry prior to 9th grade? [Enter your response as a whole number (for example: 15).]

9. [Presented only to schools that include any grades 9–12]

Approximately how many grades 9–12 students in this school will **not** take a mathematics course this year? [Enter your response as a whole number (for example: 1500); do not use a comma.]

Mathematics Courses Offered in Your School

[Questions 10–16 presented only to schools that include any grades 9–12; schools that do not include any of these grades skip to Q19]

10. What types of mathematics courses are offered in your school this year? [Select all that apply.]

□ Single-subject mathematics courses (for example: Algebra, Geometry)

□ Integrated mathematics courses

11. How many sections of courses in each of the following categories will be offered to grades 9–12 students in this school this year? [Enter each response as a whole number (for example: 15).]

		Number of sections
a.	Non-college prep mathematics courses Example courses: Developmental Math; High School Arithmetic; Remedial Math; General Math; Vocational	
	Math; Consumer Math; Basic Math; Business Math; Career Math; Practical Math; Essential Math; Pre-Algebra; Introductory Algebra; Algebra 1 Part 1; Algebra 1A; Math A; Basic Geometry; Informal Geometry; Practical Geometry	
b.	Formal/College-prep Mathematics Level 1 courses	
	Example courses: Algebra 1; Integrated Math 1; Unified Math I; Algebra 1 Part 2; Algebra 1B; Math B	
с.	Formal/College-prep Mathematics Level 2 courses	
	Example courses: Geometry; Plane Geometry; Solid Geometry; Integrated Math 2; Unified Math II; Math C	
d.	Formal/College-prep Mathematics Level 3 courses	
	<i>Example courses:</i> Algebra 2; Intermediate Algebra; Algebra and Trigonometry; Advanced Algebra; Integrated Math 3; Unified Math III	
e.	Formal/College-prep Mathematics Level 4 courses <i>Example courses:</i> Algebra 3; Trigonometry; Pre-Calculus; Analytic/Advanced Geometry; Elementary Functions; Integrated Math 4, Unified Math IV; Calculus (not including college level/AP); any other College Prep Senior Math with Algebra 2 as a prerequisite	
f.	Mathematics courses that might qualify for college credit <i>Example courses:</i> Advanced Placement Calculus (AB, BC); Advanced Placement Statistics; IB Mathematics standard level; IB Mathematics higher level; concurrent college and high school credit/dual enrollment	

12. Does this school offer one or more courses focused specifically on probability and/or statistics? (Include both courses that are offered every year and those offered in alternating years.)

Yes
 No [Skip to 014]

13. What probability and/or statistics courses does this school offer? [Select all that apply.]

Probability and Statistics combined
Probability
Statistics

14. Does your school offer each of the following types of mathematics courses that might qualify for college credit? (Include both courses that are offered every year and those offered in alternating years.) [Select one on each row.]

		Yes	No
a.	Advanced Placement (AP) mathematics courses	0	0
b.	International Baccalaureate (IB) mathematics courses	0	0
c.	Concurrent college and high school credit/dual enrollment mathematics courses	0	0

15. [Presented only to schools that answered "Yes" to Q14c]

When are concurrent college and high school credit/dual enrollment mathematics courses offered in this school?

• Not offered this school year, but offered in alternating years

• Offered this school year

16. [Q16a-c presented only to schools that answered "Yes" to Q14a; Q16d-g presented only to schools that answered "Yes" to Q14b]

Is each of the following mathematics courses offered in this school? [Select one on each row.]

	Not offered at all	Not offered this school year, but offered in alternating years	Offered this school year
a. AP Calculus AB	0	0	0
b. AP Calculus BC	0	0	0
c. AP Statistics	0	0	0
d. IB Mathematical studies standard level	0	0	0
e. IB Mathematics standard level	0	0	0
f. IB Mathematics higher level	0	0	0
g. IB Further mathematics standard level	0	0	0

Mathematics Requirements

17. [Presented only to schools that include grade 12]

In order to graduate from this high school, how many years of grades 9–12 mathematics are students required to take?

1 year	2 years	3 years	4 years
0	0	0	0

18. [Presented only to schools that include grade 12]

How many years of mathematics are required for entry into a four-year college or university in your state university system? If your state university system has multiple tiers, answer for the lowest tier that awards four-year degrees, not including community colleges that might include four-year programs.

1 year	2 years	3 years	4 years
0	0	0	0

Budget for Mathematics Instruction

- 19. For this school, how much money was spent on each of the following during the most recently completed budget year? (If you don't know the exact amount, please provide your best estimates.) [Enter each response as a whole dollar amount (for example: 1500); do not include commas or dollar signs.]
 - a. Consumable supplies for mathematics instruction (for example: graph paper) _
 - b. Non-consumable items for mathematics instruction such as calculators, protractors, manipulatives, etc. (Do not include computers)
 - c. Software specific to mathematics instruction (for example: dynamic geometry software)

Influences on Mathematics Instruction

20. Please rate the effect of each of the following on the quality of mathematics instruction in your school. [Select one on each row.]

		Inhibits effective instruction		Neutral or mixed		Promotes effective instruction	N/A or Don't Know
a.	District/Diocese mathematics professional development policies and practices [Not presented to non-Catholic private schools]	Û	0	3	4	Ø	0
b.	Time provided for teacher professional development in mathematics	Ū	2	3	4	0	0
c.	Importance that the school places on mathematics	D	2	3	4	5	0
d.	Public attitudes toward mathematics instruction	1	2	3	4	Q	0
e.	Conflict between efforts to improve mathematics instruction and other school and/or district/diocese initiatives	Ū	2	3	Ð	0	0
f.	Equipment and supplies and/or manipulatives for teaching mathematics (for example: materials for students to draw, cut and build in order to make sense of problems)	Ū	0	3	٩	\$	0

21. In your opinion, how great a problem is each of the following for mathematics instruction **in your** school as a whole? [Select one on each row.]

		Not a significant problem	Somewhat of a problem	Serious problem
a.	Inadequate funds for purchasing mathematics equipment and supplies	0	0	0
b.	Inadequate supply of mathematics textbooks/programs	0	0	0
c.	Inadequate materials for individualizing mathematics instruction	0	0	0
d.	Low student interest in mathematics	0	0	0
e.	Low student reading abilities	0	0	0
f.	Lack of teacher interest in mathematics	0	0	0
g.	Inadequate teacher preparation to teach mathematics	0	0	0
h.	Insufficient time to teach mathematics	0	0	0
i.	Lack of opportunities for mathematics teachers to share ideas	0	0	0
j.	Inadequate mathematics-related professional development opportunities	0	0	0
k.	Interruptions for announcements, assemblies, and other school activities	0	0	0
1.	Large class sizes	0	0	0
m.	High student absenteeism	0	0	0
n.	Inappropriate student behavior	0	0	0
0.	Lack of parental support for mathematics education	0	0	0

Mathematics Teacher Turnover

22. [Presented only to schools that include any grades 6–12]

How many middle and/or high school mathematics teachers who taught in your school last year (2010–11) did not return to teach mathematics in your school this year (2011–12)? [Enter your response as a whole number (for example: 15). Please enter "0" if all teachers who taught mathematics returned this school year.] _____ [If "0" Skip to Q24]

23. [Presented only to schools that include any grades 6–12]

How many of those teachers did not return for each of the following reasons? [Enter each response as a whole number (for example: 15). Please enter "0" for categories in which there were not any mathematics teachers who did not return for that reason.]

- a. Left voluntarily, including mathematics teachers who moved to another department or school, left the profession, or retired ______
- b. Were reassigned to another position, department, or school in the district/diocese _____
- c. Were dismissed or not rehired for poor performance
- d. Were dismissed or not rehired because of budget constraints

24. [Presented only to schools that include any grades 6–12]

For the 2011–12 school year, how difficult was it to fill middle and/or high school mathematics teacher vacancies in your school with fully qualified teachers?

louoi	teacher vacanteres in your school with rang quanter teachers.				
0	There were no vacancies for mathematics teachers				
0	Easy				
0	Somewhat difficult				
0	Very difficult				
0	Could not fill the vacancies				

Mathematics Professional Development Opportunities

25. This question is about in-service (professional development) programs offered by your school and/or district/diocese, possibly in conjunction with other organizations (for example: other school districts/dioceses, colleges or universities, museums, professional associations, commercial vendors).

In the last three years, has your school and/or district/diocese offered in-service workshops specifically focused on mathematics or mathematics teaching?

0	Yes
0	No [Skip to Q27]

26. Please indicate the extent to which in-service **workshops** offered by your school and/or district/diocese **in the last three years** addressed deepening teacher understanding of each of the following: [Select one on each row.]

		Not				To a great
		at all		Somewhat		extent
a.	Mathematics content	1	2	3	4	5
b.	State mathematics standards	1	2	3	4	5
c.	How to use particular mathematics instructional materials (for example: textbooks or programs)	1	2	3	4	3
d.	How students think about various mathematical ideas	1	2	3	4	0
e.	How to monitor student understanding during mathematics instruction	1	2	3	4	5
f.	How to adapt mathematics instruction to address student misconceptions	1	2	3	4	3
g.	How to use technology in mathematics instruction	1	2	3	4	5
h.	How to use investigation-oriented tasks in mathematics instruction	1	2	3	4	5
i.	How to teach mathematics to students who are English language learners	1	2	3	4	5
j.	How to provide alternative mathematics learning experiences for students with special needs	1	2	3	4	5

27. In the last three years, has your school offered **teacher study groups** where teachers meet on a regular basis to discuss teaching and learning of mathematics, and possibly other content areas as well (sometimes referred to as Professional Learning Communities, PLCs, or lesson study)?

Yes
 No [Skip to Q39]

28. [Presented only to schools that include any grades K–5]

Are teachers of grades K–5 mathematics classes required to participate in these mathematics-focused **teacher study groups**?

0	Yes
0	No

29. [Presented only to schools that include any grades 6–8]

Are teachers of grades 6–8 mathematics classes required to participate in these mathematics-focused **teacher study groups**?

0	Yes
0	No

30. [Presented only to schools that include any grades 9–12]

Are teachers of grades 9–12 mathematics classes required to participate in these mathematics -focused **teacher study groups**?

0	Yes
0	No

31. Has your school specified a schedule for when these mathematics-focused **teacher study groups** are expected to meet?

0	Yes
0	No [Skip to Q34]

- **32.** Over what period of time were these mathematics-focused **teacher study groups** typically expected to meet?
 - The entire school year
 - One semester
 - Less than one semester
- 33. How often have these mathematics-focused teacher study groups typically been expected to meet?
 - Less than once a month
 - Once a month
 - Twice a month
 - More than twice a month

34. Which of the following describe the typical mathematics-focused **teacher study groups** in this school? [Select all that apply.]

Organized by grade level
Include teachers from multiple grade levels
Limited to teachers from this school
Include teachers from other schools in the district/diocese [Not presented to non-Catholic
private schools]
Include teachers from other schools outside of your district/diocese
Include school and/or district/diocese administrators
Include parents/guardians or other community members
Include higher education faculty or other "consultants"

35. Which of the following describe the typical mathematics-focused **teacher study groups** in this school? [Select all that apply.]

Teachers engage in mathematics investigations.
Teachers plan mathematics lessons together.
Teachers analyze student mathematics assessment results.
Teachers analyze classroom artifacts (for example: student work samples).
Teachers analyze mathematics instructional materials (for example: textbooks or programs).

36. To what extent have these mathematics-focused **teacher study groups** addressed deepening teacher understanding of each of the following? [Select one on each row.]

		Not				To a great
		at all		Somewhat		extent
a.	Mathematics content	1	2	3	4	5
b.	State mathematics standards	1	2	3	4	5
c.	How to use particular mathematics instructional materials (for example: textbooks or programs)	1	2	3	4	5
d.	How students think about various mathematical ideas	1	2	3	4	5
e.	How to monitor student understanding during mathematics instruction	1	2	3	4	5
f.	How to adapt mathematics instruction to address student misconceptions	1	2	3	4	5
g.	How to use technology in mathematics instruction	1	2	3	4	5
h.	How to use investigation-oriented tasks in mathematics instruction	1	2	3	4	5
i.	How to teach mathematics to students who are English language learners	1	2	3	4	5
j.	How to provide alternative mathematics learning experiences for students with special needs	1	2	3	4	5

37. Have there been designated leaders for these mathematics-focused teacher study groups?

0	Yes
0	No [Skip to Q39]

38. The designated leaders of these mathematics-focused **teacher study groups** were from: [Select all that apply.]

This school
Elsewhere in this district/diocese [Not presented to non-Catholic private schools]
College or University
External consultants
Other (please specify:)

39. Thinking about last school year, which of the following were used to provide teachers in this school with time for in-service (professional development) workshops/teacher study groups *that included a focus on mathematics content and/or mathematics instruction*, regardless of whether they were offered by your school and/or district/diocese? [Select all that apply.]

Sent 1: weiter all and the stand Constant stands
Early dismissal and/or late start for students
Professional days/teacher work days during the students' school year
Professional days/teacher work days before and/or after the students' school year
Common planning time for teachers
Substitute teachers to cover teachers' classes while they attend professional development
None of the above

40. Do any teachers in your school have access to one-on-one "coaching" focused on improving their mathematics instruction?

0	Yes
0	No [Skip to End]

41. [*Presented only to schools that include any grades K–5*]

Are teachers of grades K–5 mathematics classes required to receive one-on-one mathematics-focused coaching?

0	Yes
0	No

42. [Presented only to schools that include any grades 6-8]

Are teachers of grades 6–8 mathematics classes required to receive one-on-one mathematics-focused coaching?

0	Yes
0	No

43. [Presented only to schools that include any grades 9–12]

Are teachers of grades 9–12 mathematics classes required to receive one-on-one mathematics-focused coaching?

0	Yes				
0	No				

44. To what extent is one-on-one mathematics-focused coaching in your school provided by each of the following? [Select one on each row.]

		Not				To a great
		at all		Somewhat		extent
a.	The principal of your school	1	2	3	4	5
b.	An assistant principal at your school	1	2	3	4	5
с.	District/Diocese administrators including mathematics supervisors/coordinators [Not presented to non-Catholic private schools]	Û	0	3	(4)	\$
d.	Teachers/coaches who do not have classroom teaching responsibilities	1	0	3	4	5
e.	Teachers/coaches who have part-time classroom teaching responsibilities	1	0	3	4	5
f.	Teachers/coaches who have full-time classroom teaching responsibilities	1	2	3	4	5

Thank you!

MATHEMATICS PROGRAM QUESTIONNAIRE TABLES

Thes of Mathematics Program Questionnaire Representatives				
	Percent of Representatives			
	Elementary	Middle	High	
Mathematics department chair	8 (1.3)	24 (2.2)	52 (3.7)	
Mathematics lead teacher	24 (2.6)	25 (3.0)	27 (4.1)	
Regular classroom teacher	72 (2.8)	73 (3.4)	71 (3.7)	
Principal	8 (2.3)	10 (3.0)	7 (3.4)	
Assistant principal	1 (0.6)	2 (0.7)	1 (0.4)	
Other	12 (1.7)	8 (1.9)	5 (1.2)	

Table MPQ 1 Titles of Mathematics Program Questionnaire Representatives

Table MPQ 2 Use of Various Instructional Arrangements in Elementary Schools

	Percent of Schools [†]
Students in self-contained classes receive mathematics instruction from a mathematics specialist instead of their regular teacher	10 (1.9)
Students in self-contained classes receive mathematics instruction from a mathematics specialist <i>in</i>	
addition to their regular teacher	26 (2.6)
Students in self-contained classes pulled out for remedial instruction in mathematics	58 (3.0)
Students in self-contained classes pulled out for enrichment in mathematics	31 (2.8)
Students in self-contained classes pulled out from mathematics instruction for additional instruction	
in other content areas	19 (2.6)

Only elementary schools that contain self-contained teachers are included in this analysis.

Table MPQ 3

Mathematics Programs and Practices Currently Being Implemented in High Schools

	Percent of Schools
Algebra 1 course offered over two years or as two separate block courses (e.g., Algebra A and	
Algebra B)	37 (3.7)
Calculus courses (beyond pre-Calculus) offered this school year or in alternating years, on or off	
site	76 (3.5)
Students go to a Career and Technical Education (CTE) Center for mathematics instruction	11 (1.6)
Mathematics courses offered by telecommunications	24 (3.3)
Students go to another K-12 school for mathematics courses	5 (2.3)
Students go to a college or university for mathematics courses	31 (3.0)

Table MPQ 4.1Services Provided to Elementary SchoolTeachers in Need of Special Assistance in Teaching Mathematics

	Percent of Schools
Seminars, classes, and/or study groups	53 (3.2)
Guidance from a formally designated mentor or coach	56 (3.5)
A higher level of supervision than for other teachers	25 (2.5)

Table MPQ 4.2Services Provided to Middle SchoolMathematics Teachers in Need of Special Assistance in Teaching

	Percent of Schools
Seminars, classes, and/or study groups	49 (3.4)
Guidance from a formally designated mentor or coach	59 (3.4)
A higher level of supervision than for other teachers	30 (2.7)

Table MPQ 4.3Services Provided to High SchoolMathematics Teachers in Need of Special Assistance in Teaching

	Percent of Schools
Seminars, classes, and/or study groups	43 (3.6)
Guidance from a formally designated mentor or coach	66 (3.6)
A higher level of supervision than for other teachers	36 (3.7)

Table MPQ 5.1 Elementary School Programs/Practices to Enhance Students' Interest and/or Achievement in Mathematics

	Percent o	of Schools
Holds family math nights	31	(2.6)
Offers after-school help in mathematics (e.g., tutoring)	67	(2.4)
Offers formal after-school programs for enrichment in mathematics	18	(2.0)
Offers one or more mathematics clubs	15	(2.0)
Participates in a local or regional mathematics fair	13	(2.2)
Has one or more teams participating in mathematics competitions (e.g., Math Counts)	24	(2.4)
Encourages students to participate in mathematics summer programs or camps offered by		
community colleges, universities, museums or mathematics centers	44	(2.7)
Sponsors visits to business, industry, and/or research sites related to mathematics	15	(2.3)
Sponsors meetings with adult mentors who work in mathematics fields	10	(1.7)

Table MPQ 5.2Middle School Programs/Practices toEnhance Students' Interest and/or Achievement in Mathematics

	Percent of School
Holds family math nights	19 (2.3)
Offers after-school help in mathematics (e.g., tutoring)	80 (2.8)
Offers formal after-school programs for enrichment in mathematics	24 (2.5)
Offers one or more mathematics clubs	23 (2.0)
Participates in a local or regional mathematics fair	17 (2.6)
Has one or more teams participating in mathematics competitions (e.g., Math Counts)	35 (2.7)
Encourages students to participate in mathematics summer programs or camps offered by community	
colleges, universities, museums or mathematics centers	51 (2.8)
Sponsors visits to business, industry, and/or research sites related to mathematics	15 (2.2)
Sponsors meetings with adult mentors who work in mathematics fields	9 (1.6)

Table MPQ 5.3High School Programs/Practices toEnhance Students' Interest and/or Achievement in Mathematics

	Percent	of Schools
Holds family math nights	10	(2.8)
Offers after-school help in mathematics (e.g., tutoring)	92	(2.7)
Offers formal after-school programs for enrichment in mathematics	21	(2.9)
Offers one or more mathematics clubs	32	(2.7)
Participates in a local or regional mathematics fair	21	(3.4)
Has one or more teams participating in mathematics competitions (e.g., Math Counts)	43	(3.6)
Encourages students to participate in mathematics summer programs or camps offered by community		
colleges, universities, museums or mathematics centers	55	(3.6)
Sponsors visits to business, industry, and/or research sites related to mathematics	17	(2.8)
Sponsors meetings with adult mentors who work in mathematics fields	10	(1.5)

Table MPQ 6.1Opinions about Various StatementsRegarding State Mathematics Standards in Elementary Schools

	Percent of Schools									
		ongly sagree	Disa	agree	-	No inion	A	gree		ongly gree
State mathematics standards have been thoroughly discussed by mathematics teachers in this school	3	(0.9)	7	(1.7)	5	(1.5)	43	(2.7)	43	(2.5)
There is a school-wide effort to align mathematics instruction with the state				~ /		` ,		、 ,		~ /
mathematics standards Most mathematics teachers in this school teach	3	(1.2)	4	(1.4)	2	(0.7)	37	(2.4)	54	(2.5)
to the state standards Your district/diocese organizes mathematics professional development based on state	2	(0.6)	4	(1.1)	4	(1.3)	38	(2.9)	53	(3.2)
standards [†]	6	(1.9)	13	(2.2)	10	(1.8)	33	(3.1)	38	(2.9)

Item presented only to public and Catholic schools.

Regulating State Mathematics Standards in Middle Schools										
	Percent of Schools									
	Str	ongly				No			Str	ongly
	Dis	agree	•••		Opinion		Agree		Agree	
State mathematics standards have been										
thoroughly discussed by mathematics										
teachers in this school	3	(1.1)	7	(1.8)	4	(1.7)	40	(3.2)	46	(3.1)
There is a school-wide effort to align										
mathematics instruction with the state										
mathematics standards	4	(1.5)	3	(1.4)	2	(0.9)	35	(3.1)	55	(3.2)
Most mathematics teachers in this school teach										
to the state standards	2	(0.8)	2	(0.7)	5	(1.8)	37	(3.5)	53	(3.5)
Your district/diocese organizes mathematics										
professional development based on state										
standards [†]	8	(2.4)	15	(2.7)	11	(1.8)	31	(3.0)	35	(3.2)

Table MPQ 6.2Opinions about Various StatementsRegarding State Mathematics Standards in Middle Schools

[†] Item presented only to public and Catholic schools.

Table MPQ 6.3Opinions about Various StatementsRegarding State Mathematics Standards in High Schools

	Percent of Schools									
	Strongly Disagree		Disagree		No Opinion		Agree			ongly gree
State mathematics standards have been thoroughly discussed by mathematics teachers in this school	3	(0.9)	7	(1.5)	6	(2.2)	40	(3.4)	44	(3.7)
There is a school-wide effort to align mathematics instruction with the state							-			
mathematics standards	3	(1.0)	6	(2.3)	5	(2.1)	36	(3.8)	50	(3.7)
Most mathematics teachers in this school teach										
to the state standards	3	(1.0)	4	(0.9)	9	(3.1)	37	(3.7)	46	(3.7)
Your district/diocese organizes mathematics professional development based on state										
standards [†]	7	(1.5)	16	(1.7)	12	(1.8)	35	(2.6)	31	(3.1)

[†] Item presented only to public and Catholic schools.

Table MPQ 7 and 8Mathematics Courses Completed at the 8th Grade Level

	Average Percent of Students
Percent of 8 th grade students that will have completed Algebra 1 prior to 9 th grade	36 (2.3)
Percent of 8 th grade students that will have completed Geometry prior to 9 th grade	5 (0.9)

There is no table for MPQ 9.

Table MPQ 10Type of High School Mathematics Courses Offered

	Percent of Schools
Single-subject mathematics courses (e.g., Algebra, Geometry)	98 (0.5)
Integrated mathematics courses	23 (3.4)

Table MPQ 11High Schools Offering Various Mathematics Courses

	Percent of	Schools
Non-college prep mathematics courses	78 ((3.2)
Formal/College-prep Mathematics Level 1 courses	99 ((0.7)
Formal/College-prep Mathematics Level 2 courses	90 ((3.7)
Formal/College-prep Mathematics Level 3 courses	94 ((3.5)
Formal/College-prep Mathematics Level 4 courses	85 ((3.8)
Mathematics courses that might qualify for college credit	76 ((4.0)

Table MPQ 12 and 13High Schools Offering Various Probability and Statistics Courses

	Percent of Schools [†]
Any Probability and/or Statistics	41 (3.0)
Probability and Statistics combined	26 (2.1)
Probability	1 (0.5)
Statistics	20 (1.9)

Schools indicating in Q12 that they do not offer probability and/or statistics classes are treated as not offering each of the specific courses.

Table MPQ 14 High Schools Offering Mathematics Courses that Might Qualify for College Credit

	Percent of Schools
Advanced Placement (AP) mathematics courses	53 (3.5)
International Baccalaureate (IB) mathematics courses	4 (0.6)
Concurrent college and high school credit/dual enrollment mathematics courses	40 (3.4)

Table MPQ 15When High Schools Offer Concurrent College andHigh School Credit/Dual Enrollment Mathematics Courses

	Percent of Schools
Not offered at all ^{\dagger}	60 (3.4)
Not offered this school year, but offered in alternating years	4 (1.0)
Offered this school year	36 (3.3)

Schools indicating in Q14 that they do not offer concurrent college and high school credit/dual enrollment courses are included in the "Not offered at all" category.

	Percent of Schools								
	Not offered at all [†]	Not offered this school year, but offered in alternating years	Offered this school year						
AP Calculus AB	48 (3.5)	4 (2.3)	48 (3.2)						
AP Calculus BC	77 (2.5)	2 (0.4)	21 (2.4)						
AP Statistics	73 (2.1)	2 (0.4)	25 (2.1)						
IB Mathematical studies standard level	97 (0.5)	0 (0.2)	3 (0.5)						
IB Mathematics standard level	97 (0.6)	0 (0.1)	3 (0.6)						
IB Mathematics higher level	98 (0.4)	0 (0.1)	1 (0.4)						
IB Further mathematics standard level	100 (0.2)	0 (0.1)	0 (0.1)						

Table MPQ 16When High Schools Offer Various AdvancedPlacement and International Baccalaureate Mathematics Courses

[†] Schools indicating in Q14 that they do not offer Advanced Placement (AP) mathematics courses and/or International Baccalaureate mathematics courses are included in the "Not offered at all" category for each course of that type.

Table MPQ 17High School Mathematics Graduation Requirements

	Percent of Schools [†]
1 year	0‡
2 years	5 (1.0)
3 years	50 (3.0)
4 years	45 (3.0)

[†] Only schools that contain grade 12 are included in this analysis.

[‡] No schools in the sample were in this category. Thus, it is not possible to calculate the standard error of this estimate.

Table MPQ 18

Years of Mathematics Required for Entry into the State University System

	Percent of Schools [†]
1 year	0 [‡]
2 years	0‡
3 years	72 (2.3)
4 years	28 (2.3)

[†] Only schools that contain grade 12 are included in this analysis.

^{*} No schools in the sample were in this category. Thus, it is not possible to calculate the standard error of this estimate.

Table MPQ 19 Median Amount Schools Spent per Pupil on Consumable Supplies, Non-Consumable Items, and Software for Mathematics

	Ι	Median Amoun	t
	Elementary	Middle	High
Consumable supplies for mathematics instruction (e.g., graph paper)	\$1.08	\$0.64	\$0.61
Non-consumable items for mathematics instruction such as			
calculators, protractors, manipulatives, etc.	\$0.95	\$0.73	\$1.05
Software specific to mathematics instruction (e.g. dynamic geometry			
software)	\$0.00	\$0.00	\$0.00

					Р	ercent o	of Scł	nools		ř		
	Effe	Inhibits Effective Instruction		Neutral or Mixed				Promotes Effective Instruction		D	V/A or on't	
	1			2		3		4	5		K	now
District/Diocese mathematics professional development policies and practices [†] Time provided for teacher professional development	3	(1.0)	3	(1.0)	25	(2.6)	21	(2.2)	40	(2.6)	7	(1.8)
in mathematics Importance that the school	6	(1.4)	15	(2.1)	22	(2.6)	20	(2.6)	32	(2.9)	6	(1.6)
places on mathematics	1	(0.6)	7	(1.6)	9	(2.0)	20	(2.6)	59	(3.1)	3	(1.3)
Public attitudes toward mathematics instruction Conflict between efforts to improve mathematics instruction and other	3	(0.9)	8	(1.5)	26	(2.8)	28	(2.8)	29	(3.0)	7	(1.4)
school and/or district/	_											
diocese initiatives	5	(1.3)	13	(1.9)	33	(2.7)	17	(2.5)	16	(2.2)	16	(2.2)
Equipment and supplies	5	(1.2)	8	(1.8)	15	(2.2)	22	(2.5)	46	(3.1)	4	(1.3)

Table MPQ 20.1Effect of Various Factors on Mathematics Instruction in Elementary Schools

[†] Item presented only to public and Catholic schools.

					I	Percent	of Sch	nools				
	Inhibits Effective Instruction12			eutral or lixed		A	Effe Instru	notes ctive uction	D	V/A or on't		
	-	L		4		3	· · · ·	4		5	K	now
District/Diocese mathematics professional development policies and practices [†] Time provided for teacher professional development	3	(1.4)	3	(0.9)	25	(2.8)	24	(2.9)	35	(2.8)	10	(2.2)
in mathematics Importance that the school	6	(1.7)	14	(2.4)	24	(2.5)	19	(2.5)	32	(3.1)	6	(2.0)
places on mathematics	1	(0.7)	4	(1.3)	12	(2.3)	22	(2.9)	57	(3.5)	4	(1.6)
Public attitudes toward mathematics instruction Conflict between efforts to improve mathematics instruction and other school and/or district/	2	(0.6)	9	(1.8)	29	(3.0)	30	(3.3)	24	(2.8)	5	(1.1)
diocese initiatives Equipment and supplies	6 6	(1.6) (1.7)	10 8	(1.7) (2.0)	34 21	(3.2) (2.5)	22 25	(3.0) (2.6)	14 36	(2.5) (3.0)	13 4	(2.2) (1.4)

 Table MPQ 20.2

 Effect of Various Factors on Mathematics Instruction in Middle Schools

Item presented only to public and Catholic schools.

					Р	ercent (of Sch	ools	~			
	Inhibits Effective Instruction			utral or ixed			Effe	motes ective ruction		N/A or on't		
	1115010			2		3		4		5		now
District/Diocese mathematics												
professional												
development policies												
and practices [†]	3	(0.8)	6	(1.2)	27	(2.7)	21	(2.6)	33	(3.6)	11	(1.8)
Time provided for teacher												
professional												
development in												
mathematics	4	(1.1)	11	(1.8)	25	(3.1)	22	(2.5)	33	(4.1)	5	(1.3)
Importance that the school												
places on mathematics	3	(1.2)	3	(0.9)	11	(1.7)	23	(2.4)	57	(3.6)	3	(2.2)
Public attitudes toward			10	(2.1)	•		20			(2 , 1)		(1.0)
mathematics instruction	4	(0.8)	10	(2.1)	29	(3.3)	28	(3.5)	25	(3.4)	4	(1.3)
Conflict between efforts to												
improve mathematics												
instruction and other												
school and/or district/	5	(1.1)	10	(2, 4)	40	(2, 0)	1.5	(2,1)	10	(2,0)	10	(1.7)
diocese initiatives	5	(1.1)	16	(2.4)	40	(3.6)	15	(2.1)	12	(2.9)	12	(1.7)
Equipment and supplies	3	(0.9)	11	(3.0)	22	(2.4)	33	(3.2)	27	(3.3)	4	(1.4)

Table MPQ 20.3Effect of Various Factors on Mathematics Instruction in High Schools

[†] Item presented only to public and Catholic schools.

Table MPQ 21.1

Mathematics Program Representatives' Opinions about the Extent to which Various Factors Are Problematic for Mathematics Instruction in Elementary Schools

	Percent of Schools								
		ignificant		vhat of		rious			
	Pro	blem	a Pro	blem	Pro	blem			
Inadequate funds for purchasing mathematics equipment and									
supplies	45	(2.9)	43	(2.8)	12	(2.1)			
Inadequate supply of mathematics textbooks/programs	66	(3.4)	24	(2.7)	9	(1.9)			
Inadequate materials for individualizing mathematics									
instruction	51	(3.1)	37	(2.7)	12	(1.8)			
Low student interest in mathematics	43	(2.5)	42	(2.8)	14	(2.0)			
Low student reading abilities	28	(3.0)	50	(3.1)	22	(1.8)			
	70		10	(2, 1)	2	(0.7)			
Lack of teacher interest in mathematics	79	(2.4)	19	(2.4)	2	(0.7)			
Inadequate teacher preparation to teach mathematics	68	(2.6)	28	(2.6)	4	(0.9)			
Insufficient time to teach mathematics	56	(3.1)	31	(2.8)	13	(2.1)			
Lack of opportunities for mathematics teachers to share ideas	40	(3.4)	45	(3.2)	15	(2.1)			
Inadequate mathematics-related professional development									
opportunities	39	(3.3)	43	(3.5)	18	(2.1)			
Interruptions for announcements, assemblies, and other									
school activities	63	(2.8)	30	(2.6)	7	(1.3)			
Large class sizes	55	(2.8)	30	(2.2)	15	(1.6)			
High student absenteeism	62	(2.8)	30	(2.6)	8	(1.6)			
Inappropriate student behavior	58	(2.6)	32	(2.4)	10	(1.7)			
Lack of parental support for mathematics education	47	(2.8)	38	(2.9)	15	(1.9)			

Table MPQ 21.2

Mathematics Program Representatives' Opinions about the Extent to which Various Factors Are Problematic for Mathematics Instruction in Middle Schools

	Percent of Schools								
	Not a Si	gnificant	Somev	vhat of	Se	rious			
	Pro	blem	a Pro	oblem	Pro	oblem			
Inadequate funds for purchasing mathematics equipment and									
supplies	40	(3.4)	42	(3.5)	18	(2.7)			
Inadequate supply of mathematics textbooks/programs	57	(3.6)	30	(3.2)	13	(2.5)			
Inadequate materials for individualizing mathematics									
instruction	45	(3.3)	39	(2.9)	16	(2.5)			
Low student interest in mathematics	32	(2.9)	44	(3.0)	25	(2.1)			
Low student reading abilities	28	(3.2)	49	(3.4)	24	(2.1)			
Lack of teacher interest in mathematics	82	(2.6)	17	(2.7)	1	(0.4)			
Inadequate teacher preparation to teach mathematics	74	(2.9)	23	(2.8)	3	(0.9)			
Insufficient time to teach mathematics	55	(3.6)	33	(3.1)	12	(2.4)			
Lack of opportunities for mathematics teachers to share ideas Inadequate mathematics-related professional development	44	(3.4)	42	(3.1)	14	(2.3)			
opportunities	38	(3.9)	46	(4.3)	16	(2.8)			
Interruptions for announcements, assemblies, and other									
school activities	58	(3.4)	33	(3.1)	8	(1.4)			
Large class sizes	57	(2.9)	28	(2.6)	15	(1.7)			
High student absenteeism	52	(3.3)	35	(3.4)	13	(2.1)			
Inappropriate student behavior	52	(2.9)	33	(2.9)	16	(1.9)			
Lack of parental support for mathematics education	40	(3.1)	43	(3.1)	17	(2.0)			

Table MPQ 21.3

Mathematics Program Representatives' Opinions about the Extent to which Various Factors Are Problematic for Mathematics Instruction in High Schools

	Percent of Schools								
		ignificant blem		vhat of blem		rious blem			
Inadequate funds for purchasing mathematics equipment and									
supplies	42	(3.5)	42	(3.9)	16	(3.3)			
Inadequate supply of mathematics textbooks/programs	58	(4.2)	31	(3.9)	11	(2.6)			
Inadequate materials for individualizing mathematics									
instruction	49	(3.5)	36	(2.8)	15	(3.2)			
Low student interest in mathematics	22	(3.6)	48	(3.4)	30	(2.7)			
Low student reading abilities	29	(4.1)	51	(3.7)	20	(2.3)			
Lack of teacher interest in mathematics	90	(1.5)	9	(1.4)	2	(0.7)			
Inadequate teacher preparation to teach mathematics	81	(2.0)	16	(1.7)	3	(1.0)			
Insufficient time to teach mathematics	54	(3.7)	37	(3.5)	10	(2.0)			
Lack of opportunities for mathematics teachers to share ideas Inadequate mathematics-related professional development	44	(3.7)	46	(3.5)	9	(2.5)			
opportunities	43	(3.9)	42	(3.5)	15	(2.9)			
Interruptions for announcements, assemblies, and other									
school activities	51	(3.7)	40	(3.5)	9	(1.5)			
Large class sizes	60	(3.7)	28	(2.9)	13	(1.7)			
High student absenteeism	44	(3.0)	40	(3.1)	16	(1.8)			
Inappropriate student behavior	55	(3.2)	35	(2.7)	10	(1.3)			
Lack of parental support for mathematics education	36	(3.4)	49	(3.4)	15	(1.6)			

There is no table for MPQ 22.

There is no table for MPQ 23.

Table MPQ 24Difficulty Filling Mathematics Teacher Vacancies

	Percent o	f Schools
	Middle	High
There were no vacancies for mathematics teachers	67 (2.5)	54 (3.2)
Easy	16 (1.9)	18 (2.0)
Somewhat difficult	13 (1.9)	16 (1.7)
Very difficult	5 (1.1)	10 (1.8)
Could not fill the vacancies	0 (0.1)	1 (0.5)

Table MPQ 25Mathematics Professional DevelopmentWorkshops Offered Locally in the Last Three Years

	Percent of Schools
Elementary	65 (2.8)
Middle	60 (3.3)
High	51 (4.3)

Table MPQ 26.1

workshops in the Last Three	e rears with a focus in Each of a Number of Areas									
	Percent of Schools [†]									
	N	lot							To a C	Great
	at	All			Som	ewhat			Ext	ent
		1		2		3		4	5	5
Mathematics content	4	(1.7)	4	(1.5)	29	(3.6)	42	(3.9)	21	(2.4)
State mathematics standards	5	(2.0)	4	(1.5)	15	(2.6)	37	(3.8)	39	(3.7)
How to use particular mathematics										
instructional materials (e.g., textbooks or										
modules)	9	(2.3)	9	(2.4)	21	(2.8)	37	(4.0)	24	(2.8)
How students think about various										
mathematics ideas	10	(2.2)	12	(2.0)	36	(3.7)	28	(3.0)	13	(2.4)
How to monitor student understanding during										
mathematics instruction	11	(2.9)	14	(2.6)	28	(3.5)	31	(3.4)	16	(2.7)
How to adapt mathematics instruction to										
address student misconceptions	14	(2.8)	14	(2.0)	32	(3.8)	29	(3.4)	10	(2.1)
How to use technology in mathematics		()		()		(0.0)	_>	(011)	10	()
instruction	11	(2.1)	17	(2.9)	25	(3.4)	32	(3.6)	15	(2.9)
How to use investigation-oriented					_			()	_	
mathematics teaching strategies	16	(3.1)	20	(3.2)	27	(3.0)	23	(3.6)	14	(2.5)
How to teach mathematics to students who are						. ,				
English language learners	42	(3.8)	16	(2.6)	18	(2.8)	18	(2.9)	5	(1.4)
How to provide alternative mathematics						. ,				
learning experiences for students with										
special needs	26	(3.8)	23	(2.8)	26	(2.9)	17	(3.1)	9	(2.6)

Elementary Schools with Locally Offered Mathematics Professional Development Workshops in the Last Three Years with a Focus in Each of a Number of Areas

Only elementary schools indicating in Q25 that they and/or their district/diocese offered in-service workshops in the last three years are included in this analysis.

Table MPQ 26.2

workshops in the Last Three	I ear	S with	аго	cus m	Laci	1 01 a l	Nuill	Jer of	Altas)
	Percent of Schools [†]									
	N	lot							To a G	Great
	at	All			Som	ewhat			Ext	ent
		1		2		3		4	5	5
Mathematics content	7	(2.6)	5	(1.9)	32	(3.9)	39	(4.3)	17	(2.2)
State mathematics standards	4	(2.4)	4	(1.8)	16	(2.2)	39	(4.5)	36	(4.4)
How to use particular mathematics										
instructional materials (e.g., textbooks or										
modules)	15	(3.2)	11	(3.4)	23	(2.9)	34	(4.5)	18	(3.2)
How students think about various										
mathematics ideas	10	(2.2)	13	(2.2)	38	(4.1)	28	(4.1)	11	(2.8)
How to monitor student understanding during										
mathematics instruction	11	(2.9)	17	(3.0)	30	(3.9)	33	(4.3)	10	(2.7)
How to adapt mathematics instruction to										
address student misconceptions	14	(3.3)	16	(2.3)	30	(4.1)	32	(4.1)	7	(1.6)
How to use technology in mathematics		~ /		. ,		. ,				. ,
instruction	10	(2.0)	16	(3.4)	28	(4.2)	30	(4.4)	16	(3.4)
How to use investigation-oriented						. ,				. ,
mathematics teaching strategies	19	(3.4)	22	(4.1)	25	(3.2)	24	(4.0)	11	(2.4)
How to teach mathematics to students who are										. /
English language learners	48	(4.4)	16	(2.4)	19	(3.4)	15	(3.6)	2	(0.8)
How to provide alternative mathematics										. /
learning experiences for students with										
special needs	29	(4.6)	19	(2.3)	30	(2.9)	15	(3.5)	8	(3.2)

Middle Schools with Locally Offered Mathematics Professional Development Workshops in the Last Three Years with a Focus in Each of a Number of Areas

Only middle schools indicating in Q25 that they and/or their district/diocese offered in-service workshops in the last three years are included in this analysis.

Table MPQ 26.3

workshops in the Last Three Years with a Focus in Each of a Number of Areas										
	Percent of Schools [†]									
	N	lot							To a (Great
	at	All			Som	ewhat			Ext	ent
		1		2		3		4	5	i
Mathematics content	9	(2.0)	7	(1.4)	37	(6.0)	34	(5.1)	14	(2.2)
State mathematics standards	2	(0.8)	3	(1.1)	18	(2.8)	41	(5.2)	36	(4.5)
How to use particular mathematics										
instructional materials (e.g., textbooks or										
modules)	13	(2.4)	16	(4.5)	28	(3.9)	29	(5.3)	14	(4.6)
How students think about various										
mathematics ideas	12	(2.3)	19	(2.9)	31	(5.2)	27	(6.0)	10	(4.6)
How to monitor student understanding during										
mathematics instruction	15	(2.7)	14	(2.3)	32	(4.9)	28	(5.9)	11	(4.9)
How to adapt mathematics instruction to										
address student misconceptions	17	(2.7)	14	(2.2)	31	(4.9)	32	(6.7)	5	(1.0)
How to use technology in mathematics		. ,		. ,		. ,		. ,		, ,
instruction	8	(2.0)	12	(2.3)	26	(4.9)	34	(5.5)	20	(6.6)
How to use investigation-oriented				. ,						Ì,
mathematics teaching strategies	15	(2.5)	23	(5.1)	24	(3.3)	25	(5.5)	13	(5.0)
How to teach mathematics to students who are		. ,								
English language learners	45	(5.6)	17	(2.3)	19	(4.7)	18	(6.6)	2	(0.7)
How to provide alternative mathematics										
learning experiences for students with										
special needs	28	(3.6)	24	(3.4)	18	(2.8)	18	(5.5)	12	(6.5)

High Schools with Locally Offered Mathematics Professional Development Workshops in the Last Three Years with a Focus in Each of a Number of Areas

Only high schools indicating in Q25 that they and/or their district/diocese offered in-service workshops in the last three years are included in this analysis.

Table MPQ 27

Mathematics-Focused Teacher

Study Groups Offered at Schools in the Last Three Years

	Percent of Schools
Elementary	46 (3.0)
Middle	51 (3.7)
High	48 (4.4)

Table MPQ 28, 29, 30 Required Participation in Mathematics-Focused Teacher Study Groups

	Percent of Schools [†]
Elementary	70 (3.5)
Middle	79 (3.5)
High	77 (5.1)

Only schools indicating in Q27 that they offered teacher study groups in the last three years are included in this analysis.

Table MPQ 31Schedule for Mathematics-FocusedTeacher Study Groups Specified by School

	Percent of Schools [†]
Elementary	58 (3.8)
Middle	60 (4.1)
High	66 (4.6)

Only schools indicating in Q27 that they offered teacher study groups in the last three years are included in this analysis.

Table MPQ 32Duration of Mathematics-Focused Teacher Study Groups

	Pe	ercent of School	\mathbf{s}^{\dagger}
	Elementary	Middle	High
The entire school year	89 (3.2)	89 (3.1)	92 (2.5)
One semester	6 (2.5)	5 (2.7)	3 (1.1)
Less than one semester	5 (2.1)	6 (1.8)	6 (2.3)

[†] Only schools indicating in Q27 that they offered teacher study groups in the last three years and indicating in Q31 that they have a specified schedule for these teacher study groups are included in this analysis.

Table MPQ 33 Frequency of Mathematics-Focused Teacher Study Groups

	Percent of Schools [†]					
	Elementary	Middle	High			
Less than once a month	24 (4.7)	17 (3.3)	14 (2.7)			
Once a month	38 (4.2)	28 (4.1)	27 (4.5)			
Twice a month	13 (3.7)	15 (2.4)	15 (2.4)			
More than twice a month	25 (5.1)	41 (5.0)	44 (5.6)			

Only elementary schools indicating in Q27 that they offered teacher study groups in the last three years and indicating in Q31 that they have a specified schedule for these teacher study groups are included in this analysis.

Table MPQ 34
Composition of Mathematics-Focused Teacher Study Groups

	Percent of Schools [†]					
	Elementary	Middle	High			
Organized by grade level	57 (4.5)	39 (3.8)	27 (3.7)			
Include teachers from multiple grade levels	57 (3.6)	76 (2.7)	70 (3.5)			
Limited to teachers from this school	74 (4.3)	73 (4.5)	72 (6.7)			
Include teachers from other schools in the district/diocese [‡]	26 (4.1)	27 (3.9)	24 (5.8)			
Include teachers from other schools outside of your district/diocese	4 (2.6)	5 (3.1)	10 (5.6)			
Include school and/or district/diocese administrators	55 (4.0)	58 (3.3)	47 (5.7)			
Include parents/guardians or other community members	4 (1.7)	2 (1.3)	1 (0.7)			
Include higher education faculty or other "consultants"	18 (3.0)	15 (2.3)	10 (1.7)			

[†] Only schools indicating in Q27 that they offered teacher study groups in the last three years are included in this analysis.

[‡] Item presented only to public and Catholic schools.

Table MPQ 35
Description of Activities in Typical Mathematics-Focused Teacher Study Groups

	Percent of Schools [†]				
	Elementary	Middle	High		
Teachers engage in mathematics investigations	29 (3.6)	29 (4.1)	26 (5.6)		
Teachers plan mathematics lessons together	60 (4.9)	54 (4.5)	62 (5.5)		
Teachers analyze student mathematics assessment results	81 (3.7)	85 (4.2)	81 (4.7)		
Teachers analyze classroom artifacts (e.g., student work samples)	36 (4.3)	34 (3.9)	26 (4.8)		
Teachers analyze mathematics instructional materials (e.g., textbooks					
or modules)	63 (3.8)	66 (4.0)	66 (5.3)		

[†] Only schools indicating in Q27 that they offered teacher study groups in the last three years are included in this analysis.

	Percent of Schools [†]											
		Not At All					Som	ewhat				Great tent
		1		2		3	4			5		
Mathematics content	6	(2.1)	4	(1.8)	30	(3.7)	40	(4.7)	20	(4.0)		
State mathematics standards	3	(1.1)	3	(1.1)	14	(2.7)	38	(4.5)	43	(4.5)		
How to use particular mathematics												
instructional materials (e.g., textbooks or												
modules)	9	(3.5)	8	(2.1)	28	(4.2)	40	(4.9)	15	(2.4)		
How students think about various						(= 0)	•	(1.0)				
mathematics ideas	13	(3.6)	13	(2.4)	32	(5.0)	30	(4.9)	12	(2.6)		
How to monitor student understanding during	0	(2,2)	10	(2 , 0)	21	(1,0)	24	(4.7)	10	(2,7)		
mathematics instruction	8	(2.3)	10	(2.8)	31	(4.2)	34	(4.7)	18	(3.7)		
How to adapt mathematics instruction to												
address student misconceptions	11	(3.3)	12	(2.3)	33	(4.3)	27	(3.5)	16	(3.2)		
How to use technology in mathematics	11	(3.5)	12	(2.3)	55	(4.5)	27	(3.5)	10	(3.2)		
instruction	15	(3.4)	11	(2.5)	34	(4.5)	26	(4.3)	13	(3.5)		
How to use investigation-oriented		(0.1)		()		()		()		(212)		
mathematics teaching strategies	15	(3.3)	12	(2.5)	33	(4.0)	30	(4.4)	10	(2.6)		
How to teach mathematics to students who are		. ,		. ,		· /		. /				
English language learners	41	(4.7)	15	(2.5)	19	(3.2)	17	(3.9)	7	(2.1)		
How to provide alternative mathematics												
learning experiences for students with												
special needs	22	(4.3)	18	(3.1)	32	(3.8)	20	(4.4)	7	(2.4)		

Table MPQ 36.1 Elementary School Mathematics-Focused Teacher Study Groups in the Last Three Years with a Focus in Each of a Number of Areas

Only elementary schools indicating in Q27 that they offered teacher study groups in the last three years are included in this analysis.

In the Last Three Tears	e rears with a rocus in Each of a Number of Areas												
				Pe	rcent (of Scho	ols†						
	N	lot							To a	Great			
	at	All			Som	ewhat			Ex	tent			
		1		2		3		4		5			
Mathematics content	10	(2.7)	6	(2.1)	29	(3.8)	33	(4.4)	22	(4.2)			
State mathematics standards	3	(1.1)	4	(1.5)	13	(2.1)	37	(4.5)	43	(4.4)			
How to use particular mathematics													
instructional materials (e.g., textbooks or													
modules)	11	(3.8)	11	(2.3)	30	(4.7)	36	(5.2)	11	(2.1)			
How students think about various													
mathematics ideas	12	(3.3)	15	(2.4)	34	(4.6)	31	(4.6)	8	(1.9)			
How to monitor student understanding during													
mathematics instruction	10	(2.6)	15	(3.9)	29	(4.0)	32	(4.4)	14	(3.3)			
How to adapt mathematics instruction to					•			(1.0)		(2.2)			
address student misconceptions	11	(2.9)	16	(3.1)	30	(4.6)	30	(4.0)	13	(3.2)			
How to use technology in mathematics		(1.0)					~ ~						
instruction	15	(4.0)	11	(2.0)	37	(4.3)	25	(4.2)	13	(3.7)			
How to use investigation-oriented	10	(1.0)	17			(2.0)	•	(1.2)	-	(1.0)			
mathematics teaching strategies	19	(4.0)	17	(2.7)	32	(3.8)	28	(4.2)	5	(1.9)			
How to teach mathematics to students who are			10			-			_				
English language learners	46	(4.7)	18	(2.3)	17	(2.7)	14	(4.3)	5	(1.7)			
How to provide alternative mathematics													
learning experiences for students with									_				
special needs	19	(4.3)	24	(3.3)	32	(3.9)	19	(4.3)	6	(2.2)			

Table MPQ 36.2Middle School Mathematics-Focused Teacher Study Groupsin the Last Three Years with a Focus in Each of a Number of Areas

Only middle schools indicating in Q27 that they offered teacher study groups in the last three years are included in this analysis.

	in the Last Three Tears with a Focus in Each of a Number of Areas												
	Percent of Schools [†]												
	N	lot							To a	Great			
	at	All			Som	ewhat			Ex	tent			
		1		2		3		4		5			
Mathematics content	10	(2.3)	7	(1.5)	36	(5.1)	27	(5.2)	19	(4.7)			
State mathematics standards	8	(2.2)	4	(1.2)	21	(3.2)	32	(5.8)	35	(5.7)			
How to use particular mathematics													
instructional materials (e.g., textbooks or													
modules)	10	(2.2)	11	(2.5)	36	(6.0)	33	(5.7)	10	(1.7)			
How students think about various													
mathematics ideas	14	(4.8)	13	(2.6)	32	(4.0)	34	(6.0)	7	(1.2)			
How to monitor student understanding during													
mathematics instruction	11	(2.2)	11	(2.5)	36	(5.3)	29	(5.2)	12	(4.8)			
How to adapt mathematics instruction to	0	(2.1)	10		2.5	(5.5)	20	()	10				
address student misconceptions	9	(2.1)	13	(2.9)	36	(5.5)	29	(5.6)	13	(4.7)			
How to use technology in mathematics	0	(1.0)	10		20	(1.0)		(5.5)	10				
instruction	9	(1.9)	13	(2.6)	30	(4.9)	31	(5.5)	18	(4.7)			
How to use investigation-oriented	1.5		17		20	(2.4)	22	(6.0)	-	(1.1)			
mathematics teaching strategies	16	(2.9)	17	(2.8)	30	(3.4)	33	(6.3)	5	(1.1)			
How to teach mathematics to students who are									_				
English language learners	47	(5.6)	21	(2.9)	13	(2.0)	16	(6.6)	3	(1.5)			
How to provide alternative mathematics													
learning experiences for students with													
special needs	24	(3.6)	24	(3.5)	27	(4.6)	20	(6.7)	4	(1.4)			

Table MPQ 36.3High School Mathematics-Focused Teacher Study Groupsin the Last Three Years with a Focus in Each of a Number of Areas

Only high schools indicating in Q27 that they offered teacher study groups in the last three years are included in this analysis.

Table MPQ 37 Use of Designated Leaders for Mathematics-Focused Teacher Study Groups

	Percent of Schools [†]
Elementary	63 (4.4)
Middle	67 (3.8)
High	70 (3.5)

Only schools indicating in Q27 that they offered teacher study groups in the last three years are included in this analysis.

Table MPQ 38 Origin of Designated Leaders of Mathematics-Focused Teacher Study Groups

	Percent of Schools [†]						
	Elementary	Middle	High				
This school	83 (4.9)	84 (4.8)	87 (6.9)				
Elsewhere in this district/diocese [‡]	35 (5.0)	33 (5.2)	24 (8.0)				
College or University	1 (0.9)	1 (0.5)	0 (0.4)				
External consultants	11 (4.0)	13 (4.5)	15 (7.0)				
Other	3 (1.5)	3 (1.1)	1 (0.9)				

[†] Only schools indicating in Q27 that they offered teacher study groups in the last three years and indicating in Q37 that they have designated leaders for these teacher study groups are included in this analysis.

[‡] Item presented only to public and Catholic schools.

	Pe	ercent of School	s
	Elementary	Middle	High
Early dismissal and/or late start for students	28 (2.7)	32 (2.7)	34 (3.3)
Professional days/teacher work days during the school year	54 (3.0)	59 (3.4)	53 (4.2)
Professional days/teacher work days before and/or after the school year	43 (2.7)	45 (2.7)	40 (3.4)
Common planning time for teachers	47 (2.8)	39 (2.9)	30 (2.8)
Substitute teachers to cover teachers' classes while they attend			
professional development	36 (3.0)	38 (2.9)	46 (3.4)
None of the above	18 (2.2)	13 (2.3)	14 (3.1)

Table MPQ 39 How Schools Provide Time for Mathematics Professional Development

Table MPQ 40 **Schools Providing One-on-One Mathematics-Focused Coaching**

	Percent of Schools
Elementary	27 (2.3)
Middle	26 (2.6)
High	26 (2.4)

Table MPQ 41, 42, 43 **Schools Requiring Participation in One-on-One Mathematics-Focused Coaching**

	Percent of Schools [†]
Elementary	11 (2.8)
Middle	20 (3.6)
High	13 (3.2)
\uparrow Only schools indicating in O40 that teachers have	access to one on one

Only schools indicating in Q40 that teachers have access to one-on-one mathematics-focused coaching are included in this analysis.

Troviders of one on one matternances rocused coursely minimum y benoons												
				Pe	rcent	of Scho	ols†					
	Ν	Not							To a	Great		
	at	All			Som	ewhat			Ex	tent		
		1	2			3		4		5		
The principal of your school	48	(6.7)	11	(3.0)	25	(5.4)	12	(4.1)	4	(2.2)		
An assistant principal at your school	66	(5.1)	10	(2.8)	17	(4.1)	5	(2.0)	2	(1.1)		
District/Diocese administrators including mathematics supervisors/coordinators [‡]	31	(5.4)	14	(3.5)	26	(4.7)	12	(3.2)	17	(3.8)		
Teachers/coaches who do not have classroom teaching responsibilities	40	(6.3)	7	(2.1)	11	(4.0)	16	(3.8)	27	(4.6)		
Teachers/coaches who have part-time classroom teaching responsibilities	74	(4.8)	7	(2.7)	6	(3.6)	9	(3.0)	4	(1.6)		
Teachers/coaches who have full-time classroom teaching responsibilities	44	(5.3)	9	(2.9)	21	(4.5)	16	(4.2)	10	(2.6)		

Table MPQ 44.1 **Providers of One-on-One Mathematics-Focused Coaching in Elementary Schools**

[†] Only elementary schools indicating in Q40 that teachers have access to one-on-one mathematics-focused coaching are included in this analysis.

[‡] Item presented only to public and Catholic schools.

	Percent of Schools [†]										
	-	Not All			Som	ewhat				Great tent	
	1		2			3		4		5	
The principal of your school	44	(5.5)	11	(2.6)	27	(5.9)	13	(5.0)	6	(2.8)	
An assistant principal at your school	65	(5.1)	13	(2.5)	16	(3.8)	4	(1.6)	2	(0.9)	
District/Diocese administrators including											
mathematics supervisors/coordinators [‡]	33	(4.9)	11	(3.7)	24	(3.7)	14	(3.5)	18	(4.3)	
Teachers/coaches who do not have classroom											
teaching responsibilities	40	(5.0)	5	(2.8)	16	(5.0)	19	(3.7)	20	(3.9)	
Teachers/coaches who have part-time											
classroom teaching responsibilities	72	(5.4)	2	(1.3)	11	(4.7)	9	(2.9)	6	(1.8)	
Teachers/coaches who have full-time											
classroom teaching responsibilities	37	(5.2)	7	(2.7)	20	(4.9)	20	(5.3)	16	(3.5)	

 Table MPQ 44.2

 Providers of One-on-One Mathematics-Focused Coaching in Middle Schools

[†] Only middle schools indicating in Q40 that teachers have access to one-on-one mathematics-focused coaching are included in this analysis.

^{*} Item presented only to public and Catholic schools.

Troviders of One-on-One Mathematics-rocused Coaching in Figh Schools										
	Percent of Schools [†]									
	Not at All 1				Somewhat				To a Great Extent	
			2		3		4		5	
The principal of your school	45	(5.9)	8	(2.5)	32	(8.1)	10	(4.3)	5	(2.1)
An assistant principal at your school	59	(4.9)	12	(2.7)	16	(3.6)	11	(4.2)	3	(1.2)
District/Diocese administrators including mathematics supervisors/coordinators [‡]	41	(4.2)	10	(2.8)	24	(2.9)	16	(3.6)	10	(2.7)
Teachers/coaches who do not have classroom teaching responsibilities	59	(5.6)	9	(3.8)	12	(4.4)	9	(2.8)	11	(3.0)
Teachers/coaches who have part-time classroom teaching responsibilities	66	(5.8)	8	(3.8)	7	(1.9)	11	(3.0)	7	(2.1)
Teachers/coaches who have full-time classroom teaching responsibilities	27	(4.9)	5	(1.9)	26	(4.0)	23	(7.4)	19	(3.9)

 Table MPQ 44.3

 Providers of One-on-One Mathematics-Focused Coaching in High Schools

[†] Only high schools indicating in Q40 that teachers have access to one-on-one mathematics-focused coaching are included in this analysis.

^{*} Item presented only to public and Catholic schools.