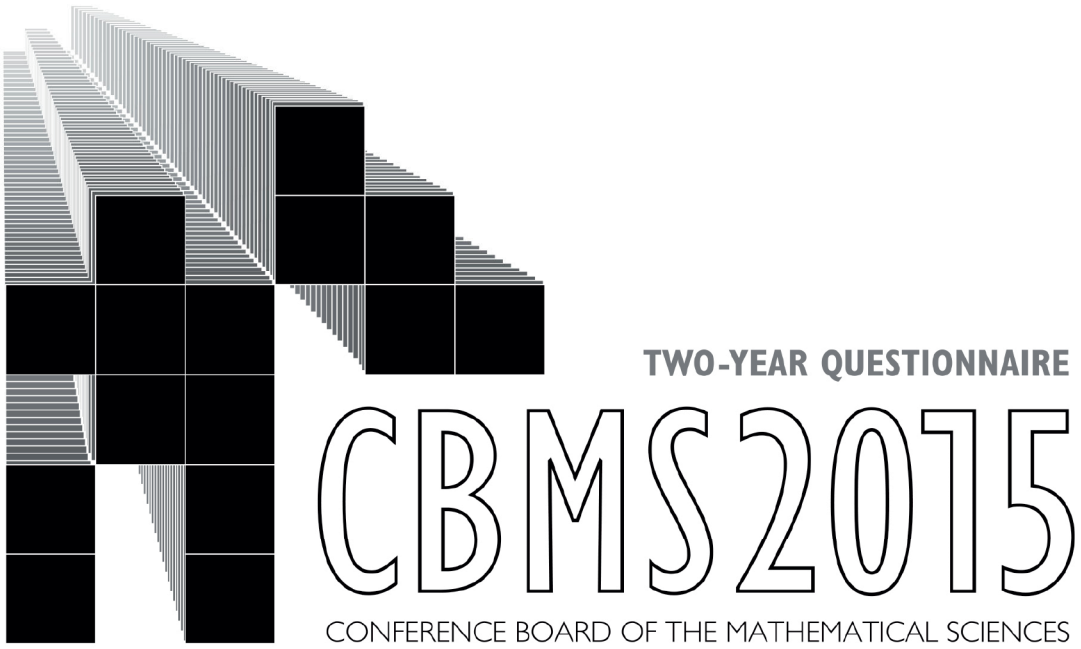
Appendix VI

Two-Year Mathematics Questionnaire



SURVEY OF UNDERGRADUATE PROGRAMS IN THE MATHEMATICAL SCIENCES

General Information

Two-Year College Mathematics Questionnaire

As part of a random sample, your department has been selected to participate in the CBMS 2015 National Survey, the importance of which has been endorsed by all of our major professional societies. Please read the instructions in each section carefully and complete all of the pertinent item s as indicated.

If your college does not have a departmental or divisional structure, consider the group of all mathematics instructors to be the "mathematics department" for the purpose of this survey.

Because your campus is part of a multi-campus two-year system, special instructions apply. Our understanding is that your campus is administered separately from some of the other campuses in the system. Please include only the data for the mathematics courses and programs that are considered to be administered or managed by your mathematics department. If you disagree with this characterization of your multi-campus, please call Westat at 855-680-1849.

This questionnaire should be completed by the person who is directly in charge of the mathematics program or department on your campus.

Report on all of your courses and instructors that fall under the general heading of the mathematics program or department. Include all mathematics and statistics courses taught within your mathematics program or department. You will also be asked separately about enrollments in mathematics courses outside of the mathematics department: for example, mathematics courses administered in a developmental education division.

We have classified your department as belonging to a two-year college, to a college or campus within a two-year system, or to a two-year branch of a university system. If this is not correct, please contact Richelle (Rikki) Blair at the email address or telephone number given below.

We recommend completing this questionnaire online because the online system will automatically skip those questions that are not applicable to you (based on the responses you give). However, this survey may be completed using a hard-copy questionnaire.

If you have any questions, please contact Richelle (Rikki) Blair, Associate Director for Two-Year Colleges, by email at richelle.blair@sbcglobal.net or by phone at 440-212-5965. For help with the online questionnaire, call Westat at 855-680-1849 or send an email to cbms2015@westat.com.

Please return your completed questionnaire by October 31, 2015, either online or by mailing a hard copy to:

CBMS Survey
Westat
1600 Research Boulevard, RB 3103
Rockville, MD 20850-3129

Please retain a copy of your responses to this questionnaire in case questions arise.

A. General Information

Two-Year College Mathematics Questionnaire

PLEASE PRINT CLEARLY

A1. Name of your campus: _____

A2. Name of your department: _____

A3. Mailing address of the multi-campus organization to which your campus belongs (if any). (Write NA if your campus does not belong to a multi-campus organization.)

_____

_____

A4. We have classified your department as belonging to a two-year college or to a college campus within a two-year college system, or to a two-year branch of a university system. Do you agree?

Yes..... ☐ ⟶ go to the next question.

No ..... ☐ ⟶ please contact Richelle (Rikki) Blair, Survey Associate Director, by email (richelle.blair@sbcglobal.net) or by phone (440-212-5965) before proceeding any further.

A5. What is the unit (= academic discipline group) that most directly administers the mathematics program on your campus? (Check one box.)

Mathematics Department (department does not offer Computer Science) ..... ☐

Mathematics and Computer Science Department or Division (department also offers Computer Science, whether or not it is part of the title) ..... ☐

Mathematics and Science Department or Division ..... ☐

Other Departments or Division ..... ☐

A. General Information

Two-Year College Mathematics Questionnaire

A6. To help us project enrollment for the current academic year (2015–2016), please give the following enrollment figures for the previous academic year (2014–2015) not counting summer enrollment.

a. Fall 2014 total student enrollment in your mathematics program .....
b. Entire academic year 2014–2015 enrollment in your mathematics program .....
c. Calculus II total enrollment in winter/spring 2015 .....
d. Calculus II total number of sections in winter/spring 2015 .....

A7. Does your college organize its **developmental education**, including mathematics, in a separately administered department or division?

Yes ..... ☐

No ..... ☐

A8. Your name or contact person in your department:

A9. Your email address or contact person's e-mail address:

A10. Your phone number or contact person's phone number including area code: ( )

A11. Campus mailing address:

B. Mathematics Faculty in Mathematics Department/Program (Fall 2015)

- Please include only the data for the mathematics courses and programs that are considered to be administered or managed by your mathematics department.
- Underlined faculty categories defined in this section will be used in later sections.

B1. For fall 2015, what is the **total number of full-time mathematics faculty in your department/program**, both permanent and temporary, including those on leave or sabbatical?

Number of full-time mathematics faculty ..... ☐

B2. Of the number in B1, how many are tenured, tenure-eligible, or on your permanent faculty (including faculty who are on leave or sabbatical)? We will refer to these as "**permanent full-time faculty.**"

Number of permanent full-time faculty ..... ☐

B3. Of the number in B1, how many are non-tenured, continuing full-time faculty? We will refer to these as "**non-tenure track full-time faculty.**"

Number of non-tenure track full-time faculty ..... ☐

B4. Give the number of **"other full-time faculty"** by computing B1 minus (B2 and B3) ☐

B5. For the **permanent full-time faculty** reported in B2,

a. give the required teaching assignment in weekly contact hours ..... ☐

b. give the maximum number of hours of the teaching assignment in B5a that can be met by teaching distance learning classes (= classes where at least half the students receive the majority of instruction by technological or other methods where the instructor is not physically present) (write -1 if your institution does not have distance learning or does not have such a policy) ..... ☐

c. give the number of office hours required weekly in association with the teaching assignment in B5a (count all office hours, including those offered online)..... ☐

B6. Of the **permanent full-time faculty** reported in B2, how many teach extra hours for extra pay at your campus or within your organization?

Number who teach extra hours for extra pay at your campus or within your organization ..... ☐

B. Mathematics Faculty in Mathematics Department/Program (Fall 2015) (cont.)

B7. Of the **permanent full-time faculty** reported in B2, how many permanent faculty teach extra hours per week in the following categories?

a. Number who teach 1–3 hours extra weekly ..... ☐

b. Number who teach 4–6 hours extra weekly ..... ☐

c. Number who teach 7 or more hours extra weekly ..... ☐

B8. For fall 2015, how many **part-time mathematics faculty** are teaching in your department ? (Note: none of these were reported above.)

a. Number of part-time mathematics faculty **paid by your college** ..... ☐

b. Number of part-time faculty paid only by a third party, such as a school district paying faculty who teach dual-enrollment courses (= courses taught in high school by high school teachers for which students may obtain high school credit and simultaneous college credit through your institution) .... ☐

c. **Total number of part-time faculty** (add B8a and B8b) ..... ☐

B9. How many **part-time faculty paid by your college** (reported in B8a) teach 6 or more hours per week?

Number in B8a teaching 6 or more hours/week ..... ☐

B10. Are office hours required by college policy for the **part-time faculty paid by your college** (reported in B8a)?

Yes ..... ☐

No ..... ☐

C. Distance Learning

Definition: Distance learning courses are courses offered by your institution for credit, in which the majority of instruction occurs with the instructor and the students separated by time and/or place (e.g., courses in which the majority of the course is taught online or by computer software or other technologies, including MOOCs (a MOOC is a "massive open online course")).

C1. Does your institution give (transfer) credit for any distance learning course in the mathematical sciences that is not taught by faculty in your institution?

Yes ..... ☐

No ..... ☐

C2. Does your institution have a limit on the number of credits earned in distance learning courses that can be counted toward graduation?

Yes ..... ☐

No ..... ☐

C2a. What is the limit on the number of credits earned in distance learning courses that can be counted toward graduation?

Number of courses: ☐

C3. Has your department taught any distance learning courses in 2013-2015?

Yes..... ☐ ⟶ go to C4.

No ..... ☐ ⟶ skip to D1.

C4. Which best characterizes the format/structure of the majority of your distance learning courses? (Check one box.)

Completely online: Instruction takes place entirely online ..... ☐

Hybrid: Instruction takes place in a combination of face-to-face and online formats..... ☐

Other specify: _____ ☐

C5. How are the instructional materials used in distance learning courses generally determined? (Check one box.)

Course instructors create materials ..... ☐

Course instructors choose commercially produced materials..... ☐

Course instructors choose a combination of both ..... ☐

C. Distance Learning (cont.)

Two-Year College Mathematics Questionnaire

C6. In most of your distance learning courses, how and where do students take the majority of their tests? (Check one box.)

- Not monitored ☐
- Online, but using some kind of monitoring technology ☐
- At a monitored testing site ☐
- Combination of the above ☐

C7. If a faculty member teaches his/her entire teaching load using distance education, how often is the faculty member required to be on campus to meet with students? (Check one box.)

- Never ☐
- Only for a particular scheduled meeting or student appointment ☐
- A specified number of office hours per week ☐
- Not applicable ☐

C8. Do the instructors in your distance learning courses generally participate in evaluation of instruction using the same criteria and types of evaluation tools as faculty who teach comparable non-distance learning courses?

- Yes ☐
- No ☐

C9. Which, if any of the following practices, applies to the majority of distance learning courses in your department? (Please check one box on each line.)

	Yes	No
a. Same examinations as in the face-to-face course	☐	☐
b. Same common course outlines as in the face-to-face course	☐	☐
c. Same course projects	☐	☐
d. More course projects than in the non-distance learning course	☐	☐

C. Distance Learning (cont.)

C10. Rate the following challenges that your department faces when creating and/or offering distance learning mathematics courses. (Rate on a scale of 1 = not a challenge, 3 = somewhat of a challenge, 5 = very significant challenge.) (Please check one box in each line.)

Challenge	1	3	5
a. Maintaining a standard and reliable network/user platform.			
b. Maintaining a level of rigor in distance learning mathematics courses equivalent to courses offered face-to-face.			
c. Faculty knowledge about technology.			
d. Student success rates in online distance mathematics courses are lower than face-to-face courses with similar content.			
e. Student success rates in online distance mathematics courses are higher than face-to-face courses with similar content.			

C11. In the three years 2013-2015, has your department taught any mathematics course for credit that could be characterized as a MOOC?

Yes ..... ☐ ⟶ go to C12.

No ..... ☐ ⟶ go to D1.

C12. In which of the following content areas has your department offered a MOOC during 2013-2015 (Check all that apply).

a. Developmental Mathematics ..... ☐
b. College-Level Mathematics below Calculus ..... ☐
c. Calculus ..... ☐
d. College-Level Mathematics above Calculus ..... ☐
e. Teacher Preparation ..... ☐
f. Statistics ..... ☐
g. Other (specify) _____ ☐

C13. What is the total number of students enrolled in MOOCs offered by your department (for credit) in Fall 2015?

Number of students: ☐

D. Redesign of Developmental Mathematics

Two-Year College Mathematics Questionnaire

D1. Has your mathematics department or developmental education department implemented a "Pathways" course sequence? (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).

Yes..... ☐ → Go to D2

No ..... ☐ → Go to D3

D2. Which of the following "Pathways" courses have you implemented? Please list the enrollment in Fall 2015.

	Implemented?		Fall 2015 Enrollment
	Yes	No	
a. Foundations			
b. Quantitative Reasoning/Literacy			
c. Statistics			
d. Other			

D3. In what ways have <u>any</u> of these groups of mathematics courses <u>changed</u> significantly in the last five years? (Check all that apply.)

		Pre-College: Arithmetic, Pre-Algebra, Beginning Algebra, Intermediate Algebra	**Statistics**	**College-Level Non-STEM: College Algebra, Math for Liberal Arts, Finite Math, Quantitative Reasoning**	**College-Level STEM: College Algebra/ Trigonometry, Precalculus, Calculus and above**
Content					
i)	Students collect, organize, and analyze real data				
ii)	Student solves contextually-based problems/applications				
iii)	Course includes modeling				
iv)	Course focuses on quantitative reasoning				
v)	Course has less symbol manipulation and more emphasis on conceptual understanding				

D. Redesign of Developmental Mathematics (cont.)

		Pre-College: Arithmetic, Pre-Algebra, Beginning Algebra, Intermediate Algebra	**Statistics**	**College-Level Non-STEM: College Algebra, Math for Liberal Arts, Finite Math, Quantitative Reasoning**	**College-Level STEM: College Algebra/ Trigonometry, Precalculus, Calculus and above**
Delivery Methods					
i)	Emporium model				
ii)	Students complete prescribed modules				
iii)	Flipped Classroom				
iv)	Accelerated pace				
v)	Slower pace				
Instructional Strategies routinely include:					
i)	Group work				
ii)	Use of handheld devices				
iii)	Use of computer programs or internet				
iv)	Use of Excel spreadsheets				
v)	Guided questioning and less lecturing				
vi)	Active learning strategies				

E. Dual Enrollment Courses

Two-Year College Mathematics Questionnaire

- Please include only the data for the mathematics courses and programs that are considered to be administered or managed by your mathematics department.

- **Definition**: We use the term "dual-enrollment courses" to refer to courses conducted on a high school campus and taught **by high school teachers,** for which students may obtain high school credit and, simultaneously, college credit through your institution.

E1. Does your department participate in any dual-enrollment program of the type defined above?

Yes ..... ☐ ⟶ go to E2.

No ..... ☐ ⟶ go to E5.

E2. Please provide the head-count enrollment for your dual-enrollment program (as defined above) for the spring term of 2015 and for the current fall term of 2015.

Course	Total Dual Enrollments Last Term = Spring 2015	Total Dual Enrollments This Term = Fall 2015
a. College Algebra		
b. Precalculus		
c. Calculus I		
d. Statistics		
e. Other		

E3. Are the high school instructors in the dual-enrollment courses reported in E2 required to participate in a teaching evaluation program conducted by your institution?

Yes ..... ☐

No ..... ☐

E4. Does your department assign any of its own full-time or part-time faculty to teach courses on a high school campus for which high school students may receive both high school and college credit through your institution?

Yes ..... ☐ ⟶ go to E5.

No ..... ☐ ⟶ go to Section F.

E. Dual Enrollment Courses (cont.)

E5. In fall 2015, how many students are enrolled in the courses conducted on a high school campus and taught by your full-time or part-time faculty and through which high school students may receive both high school and college credit through your institution?

Number of students..... ☐

E6. Does your institution participate in a program that allows high school students to enroll in a mathematics course on your campus and receive both high school and college credit?

Yes ..... ☐

No ..... ☐

F. Mathematics Courses (Fall 2015)

The following instructions apply throughout **Section F.** Read them carefully before you begin filling out the tables.

Please include only the data for the mathematics courses and programs that are considered to be administered or managed by your mathematics department.

- When completing this section, do **not** include courses taught in other departments, learning centers, or developmental/remedial programs separate from your mathematics program or department. Those enrollments will be listed in Section P.
- Read the row and column labels carefully. If the titles of courses listed below do not coincide exactly with yours, use your best judgment about where to list your courses. List each course only **once.** Note that the **part-time faculty** in Column f are those reported in B8(a) (part-time faculty paid by your college). Column f should **not** include any of your full-time faculty who teach an overload section.
- If a course is **not** taught at your campus during the fall term or if it is never taught at your campus, leave the cell blank.
- Do **not** include dual-enrollment sections taught in high school by high school teachers for which students receive simultaneous high school and college credit through your institution.

◆ **Cells left blank will be interpreted as zeros**

Name of Course (or equivalent)	Total number of **students** enrolled fall 2015 via distance learning[a] (a)	Total number of **sections** taught fall 2015 via distance learning[a] (b)	Total number of on-campus **students** enrolled fall 2015[b] (c)	Total number of on-campus **sections** fall 2015[b] (d)	**LIST THE NUMBER OF SECTIONS FROM COLUMN (d) THAT:** have enrollment above 30 (e)	are taught by part-time faculty[c] (f)	have common Department exams (g)	use a Homework Management system (h)
F1. Arithmetic/Basic Mathematics								
F2. Pre-Algebra								
F3. Elementary Algebra (high school level)								
F4. Intermediate Algebra (high school level)								
F5. Geometry (high school level)								

[a] Distance learning courses are courses offered by your institution for credit, in which the majority of instruction occurs with the instructor and the students separated by time and/or place (e.g., courses in which the majority of the course is taught online or by computer software or other technologies, including MOOCs (a MOOC is a "massive open online course")).

[b] These students are **not** included in column a.

[c] Do **not** include full-time mathematics faculty teaching an overload section in this column. Include only part-time faculty reported in B8a, i.e., those paid by your college.

[d] Only count sections where these tools are an integral part of the course

F. Mathematics Courses (Fall 2015) (cont.)

◆ **Cells left blank will be interpreted as zeros**

Name of Course (or equivalent)	Total number of **students** enrolled fall 2015 via distance learning[a] (a)	Total number of **sections** taught fall 2015 via distance learning[a] (b)	Total number of on-campus **students** enrolled fall 2015[b] (c)	Total number of on-campus **sections** fall 2015[b] (d)	**LIST THE NUMBER OF SECTIONS FROM COLUMN (d) THAT:** have enrollment above 30 (e)	are taught by part-time faculty[c] (f)	have common Department exams (g)	use a Homework Management system (h)
F6. College Algebra (level beyond intermediate Algebra)								
F7. Trigonometry								
F8. College Algebra and Trigonometry, combined								
F9. Introduction to Mathematical Modeling								
F10. Precalculus/Elementary Functions/Analytic Geometry								

[a]Distance learning courses are courses offered by your institution for credit, in which the majority of instruction occurs with the instructor and the students separated by time and/or place (e.g., courses in which the majority of the course is taught online or by computer software or other technologies, including MOOCs (a MOOC is a "massive open online course"))

[b]These students are **not** included in column a.

[c]Do **not** include full-time mathematics faculty teaching an overload section in this column. Include only part-time faculty, reported in B8a, i.e., those paid by your college.

F. Mathematics Courses (Fall 2015) (cont.)

◆ **Cells left blank will be interpreted as zeros**

Name of Course (or equivalent)	Total number of **students** enrolled fall 2015 via distance learning[a] (a)	Total number of **sections** taught fall 2015 via distance learning[a] (b)	Total number of on-campus **students** enrolled fall 2015[b] (c)	Total number of on-campus **sections** fall 2015[b] (d)	**LIST THE NUMBER OF SECTIONS FROM COLUMN (d) THAT:** have enrollment above 30 (e)	are taught by part-time faculty[c] (f)	have common Department exams (g)	use a Homework Management system (h)
F11. Mainstream Calculus I[d]								
F12. Mainstream Calculus II[d]								
F13. Mainstream Calculus III[d]								
F14. Non-Mainstream Calculus I[e]								
F15. Non-Mainstream Calculus II[e]								
F16. Differential Equations								
F17. Linear Algebra								
F18. Discrete Mathematics								

[a]Distance learning courses are courses offered by your institution for credit, in which the majority of instruction occurs with the instructor and the students separated by time and/or place (e.g., courses in which the majority of the course is taught online or by computer software or other technologies, including MOOCs (a MOOC is a "massive open online course")).

[b]These students are **not** included in column a.

[c]Do **not** include full-time mathematics faculty teaching an overload section in this column. Include only part-time faculty, reported in B8a, i.e., those paid by your college.

[d]Typically for mathematics, physical sciences, and engineering majors.

[e]Typically for business, life sciences, and social science majors.

F. Mathematics Courses (Fall 2015) (cont.)

◆ **Cells left blank will be interpreted as zeros**

Name of Course (or equivalent)	Total number of **students** enrolled fall 2015 via distance learning[a] (a)	Total number of **sections** taught fall 2015 via distance learning[a] (b)	Total number of on-campus **student**s enrolled fall 2015[b] (c)	Total number of on-campus **sections** fall 2015[b] (d)	**LIST THE NUMBER OF SECTIONS FROM COLUMN (d) THAT:** have enrollment above 30 (e)	Are taught by part-time faculty[c] (f)	have common Department exams (g)	use a Homework Management system (h)
F19. Elementary Statistics (with or without probability)[d]								
F20. Probability (with or without statistics)[d] (do not count the same course in both lines F19 and F20)								
F21.Finite Mathematics								
F22. Mathematics for Liberal Arts/ Math Appreciation/ Quantitative Literacy								
F23. Mathematics for Elementary School Teachers I								
F24. Mathematics for Elementary School Teachers II								
F25. Other Mathematics Courses for Teacher Preparation								

[a] Distance learning courses are courses offered by your institution for credit, in which the majority of instruction occurs with the instructor and the students separated by time and/or place (e.g., courses in which the majority of the course is taught online or by computer software or other technologies, including MOOCs (a MOOC is a "massive open online course")).

[b] These students are **not** included in column a.

[c] Do **not** include full-time mathematics faculty teaching an overload section in this column. Include only part-time faculty, reported in B8a, i.e., those paid by your college.

[d] Do **not** count the same course in both lines F19 and F20.

F. Mathematics Courses (Fall 2015) (cont.)

◆ **Cells left blank will be interpreted as zeros**

Name of Course (or equivalent)	Total number of **students** enrolled fall 2015 via distance learning[a] (a)	Total number of **sections** taught fall 2015 via distance learning[a] (b)	Total number of on-campus **students** enrolled fall 2015[b] (c)	Total number of on-campus **sections** fall 2015[b] (d)	**LIST THE NUMBER OF SECTIONS FROM COLUMN (d) THAT:** have enrollment above 30 (e)	are taught by part-time faculty[c] (f)	have common Department exams (g)	use a Homework Management system (h)
F26. Business Mathematics[d]								
F27. Business Mathematics (transfer course)								
F28. Non-Calculus-Based Technical Mathematicsd								
F29. Calculus-Based Technical Mathematics (transfer course)								
F30. Other Mathematics Courses (non-transfer)								
F31. Other Mathematics Courses (transfer)								

[a] Distance learning courses are courses offered by your institution for credit, in which the majority of instruction occurs with the instructor and the students separated by time and/or place (e.g., courses in which the majority of the course is taught online or by computer software or other technologies, including MOOCs (a MOOC is a "massive open online course")).

[b] These students are **not** included in column a.

[c] Do **not** include full-time mathematics faculty teaching an overload section in this column. Include only part-time faculty, reported in B8a, i.e., those paid by your college.

[d] Mathematics courses for AAS programs, not a transfer course to four-year college.

G. Faculty Educational Level, by Subject Field

G1. For the **permanent full-time faculty** (including those on leave or sabbatical) reported in B2, complete the following table showing the area of each faculty member's highest earned degree. The total of all faculty listed in this table should equal the number reported in B2 (on page 3).

- Please include only the data for the mathematics courses and programs that are considered to be administered or managed by your mathematics program

	Number of Full-Time Faculty by Major Field of Highest Degree			
Highest Degree	Mathematics	Statistics	Mathematics Education	Other
a. Doctorate				
b. Master's				
c. Bachelor's				

G. Faculty Educational Level, by Subject Field (cont.)

G2. For the **part-time faculty** reported in B8c (including those paid by your college and those paid by a third party), complete the following table showing the area of each faculty member's highest earned degree. The total of all faculty listed in this table should equal the number reported in B8c (on page 4).

- Please include only the data for the mathematics courses and programs that are considered to be administered or managed by your mathematics department.

	Number of Part-Time Faculty by Major Field of Highest Degree			
Highest Degree	Mathematics	Statistics	Mathematics Education	Other
a. Doctorate				
b. Master's				
c. Bachelor's				

H. Faculty by Gender and Ethnicity/Race

Instructions:

H1. In the table below, please provide the number of permanent full-time faculty and part-time faculty having the characteristics listed.

- **Please include only the data for the mathematics courses and programs that are considered to be administered or managed by your mathematics department.**
- For the **permanent full-time faculty** (including those on leave) reported in B2 and for the **part-time faculty** reported in B8a (those paid by your college), complete the following table giving data about gender and ethnicity/race.
- The total of full-time faculty should equal the figure given in B2. The total of part-time faculty should equal the figure reported in B8a (on page 4).

Ethnic/Racial Status and Gender		Number of Faculty		
		Permanent Full-Time Faculty From B2		Part-Time Faculty From B8a
		Age < 40	Age > 40	
1. American Indian, Alaskan Native	Male			
	Female			
2. Asian	Male			
	Female			
3. Black or African American (non-Hispanic)	Male			
	Female			
4. Mexican-American, Puerto Rican, or other Hispanic	Male			
	Female			
5. White (non-Hispanic)	Male			
	Female			
6. Native Hawaiian, Pacific Islander	Male			
	Female			
7. Status not known or other	Male			
	Female			

I. Faculty Age Profile

I1. Complete the following table showing the number of faculty who belong in each of the age categories below.

- Consider only the **permanent full-time faculty** (including those on leave) reported in B2 (on page 3).
- **Please include only the data for the mathematics courses and programs that are considered to be administered or managed by your mathematics department.**
- The total faculty listed should equal the number reported in B2.

Age	Number of Faculty	
	Men	Women
a. Under 30		
b. 30-34		
c. 35-39		
d. 40-44		
e. 45-49		
f. 50-54		
g. 55-59		
h. 60-64		
i. 65-69		
j. 70 and over		

J. Faculty Employment and Mobility

Two-Year College Mathematics Questionnaire

- Please include only the data for the mathematics courses and programs that are considered to be administered or managed by your mathematics department.

J1. How many of the **permanent full-time faculty** members you reported in B2 (on page 3) were newly appointed to a permanent full-time position this year (2015–2016)?

Number of faculty newly appointed on a permanent full-time position this year (2015-2016)? ☐

if 0 ⟶ go to J3.

if 1 or more ⟶ go to J2.

J2. Of the faculty members counted in J1, how many had the following as their main activity in the academic year preceding their appointment? Report only **one** main activity per person. The total in J2 should equal the number reported in J1 above.

a. Attending graduate school ..... ☐

b. Teaching in a four-year college or university ..... ☐

c. Teaching in another two-year college ..... ☐

d. Teaching in a secondary school ..... ☐

e. Part-time or full-time temporary employment by your college ..... ☐

f. Nonacademic employment ..... ☐

g. Unemployed ..... ☐

h. Status unknown ..... ☐

J3. How many of your faculty who were **permanent full-time faculty** in the previous year (2014–2015) are no longer part of your **permanent full-time faculty**? ..... ☐

J. Faculty Employment and Mobility (cont.)

Two-Year College Mathematics Questionnaire

J4. For each newly appointed **permanent full-time faculty** member reported in J1, give the following data. Copy this page to add more faculty if necessary. For each new hire, check one box in each column.

	Gender	Ethnicity/Race	Highest Degree Earned
New Hire #1	Male ..... ☐ Female..... ☐	Am Indian .....☐ Asian Black.....☐ Hispanic .....☐ White .....☐ Other .....☐	Bachelor's ..... ☐ Master's ..... ☐ Doctorate ..... ☐
New Hire #2	Male ..... ☐ Female..... ☐	Am Indian .....☐ Asian Black.....☐ Hispanic .....☐ White .....☐ Other .....☐	Bachelor's ..... ☐ Master's ..... ☐ Doctorate ..... ☐
New Hire #3	Male ..... ☐ Female..... ☐	Am Indian .....☐ Asian Black.....☐ Hispanic .....☐ White .....☐ Other .....☐	Bachelor's ..... ☐ Master's ..... ☐ Doctorate ..... ☐
New Hire #4	Male ..... ☐ Female..... ☐	Am Indian .....☐ Asian Black.....☐ Hispanic .....☐ White .....☐ Other .....☐	Bachelor's ..... ☐ Master's ..... ☐ Doctorate ..... ☐
New Hire #5	Male ..... ☐ Female..... ☐	Am Indian .....☐ Asian Black.....☐ Hispanic .....☐ White .....☐ Other .....☐	Bachelor's ..... ☐ Master's ..... ☐ Doctorate ..... ☐
New Hire #6	Male ..... ☐ Female..... ☐	Am Indian .....☐ Asian Black.....☐ Hispanic .....☐ White .....☐ Other .....☐	Bachelor's ..... ☐ Master's ..... ☐ Doctorate ..... ☐

K Professional Activities and Evaluation of Faculty

K1. Is professional development required of your faculty?

	Yes	No
a. Permanent full-time	☐	☐
b. Part-time	☐	☐

K2. If you answered yes to the applicable row in K1, please estimate the number of faculty reported in B2 and B8 who fulfill the above continuing education or professional development requirement in one or more of the following ways.

	Permanent full-time	Part-time
a. Activities provided by your college or organization at one of its locations		
b. Activities provided by your college or organization at one of its locations		
c. Publishing expository or research articles or textbooks		
d. Continuing graduate education		
e. Unknown		

K3. In general, how frequently are mathematics faculty evaluated? (Check one in each row.)

	At least once a year	At least once every other year	Occasionally	Never	Not applicable
a. Full-time (tenured)	☐	☐	☐	☐	☐
b. Part-time	☐	☐	☐	☐	☐
c. Full-time (non-tenured)	☐	☐	☐	☐	☐

K. Professional Activities and Evaluation of Faculty (cont.)

K4. Check all evaluation methods that are used for **part-time faculty** paid by your college (reported in B8(a)) or for **permanent full-time faculty** (reported in B2). *(*Check yes or no for both part-time and full-time faculty on each line.)

Evaluation Mode	Full-Time Faculty in B2		Part-Time Faculty in B8a	
	Yes	No	Yes	No
a. Observation of classes by other faculty members or department chair	☐	☐	☐	☐
b. Observation of classes by division head (if different from chair) or other administrator				
c. Evaluation forms completed by students	☐	☐	☐	☐
d. Evaluation of written course material such as lesson plans, syllabi, or exams	☐	☐	☐	☐
e. Self-evaluation such as teaching portfolios	☐	☐	☐	☐
f. Written peer evaluations	☐	☐	☐	☐
g. Other (specify)	☐	☐	☐	☐

L. Academic Support and Enrichment Opportunities for Students

- Please include only the data for the mathematics courses and programs that are considered to be administered or managed by your mathematics department.

L1. Does your department or college offer a mathematics placement program for entering students?

Yes..... ☐ ⟶ go to L2.

No ..... ☐ ⟶ go to L6.

L2. Is some form of placement examination in mathematics required for first-time enrollees?

Yes..... ☐ ⟶ go to L3

No ..... ☐ ⟶ go to L6.

L3. Does your college/department periodically assess the effectiveness of the mathematics placement program?

Yes..... ☐ ⟶ go to L4.

No ..... ☐ ⟶ go to M1.

L. Academic Support and Enrichment Opportunities for Students (cont.)

L4. Check all opportunities available to your mathematics students. (Please check one box in each line.)

	Yes	No
a. Honors sections of mathematics course	☐	☐
b. Mathematics club	☐	☐
c. Special mathematics programs to encourage women	☐	☐
d. Special mathematics programs to encourage minorities	☐	☐
e. Opportunities to compete in mathematics contests	☐	☐
f. Special mathematics lectures/colloquia not part of a mathematics club	☐	☐
g. Mathematics outreach opportunities in local K–12 schools	☐	☐
h. Opportunities to participate in undergraduate research in mathematics	☐	☐
i. Independent study opportunities in mathematics	☐	☐
j. Assigned faculty advisors in mathematics	☐	☐
k. Other (specify)	☐	☐

M. Mathematics Preparation of K–12 Teachers

- Please include only the data for the mathematics courses and programs that are considered to be administered or managed by your mathematics department.

M1. Does your department have any mathematics courses or programs specifically designed to prepare current or future teachers to teach: Mathematics in grades PK-5 or 6-8?

Mathematics in grades PK- 5 or 6-8?	Yes	☐	If yes, go to M2
	No	☐	If no, go to M3.

M2. Does your department have a faculty member assigned to coordinate mathematics program courses for pre-service elementary school teachers?

Yes ..... ☐

No ..... ☐

M3. Does your department have any mathematics courses or programs specifically designed to prepare current or future teachers to teach: Mathematics in grades 9-12?

Mathematics in grades 9-12?	Yes	☐	If yes, go to M4
	No	☐	If no, go to M5.

M4. Does your department have a faculty member assigned to coordinate mathematics program courses for pre-service secondary school teachers?

Yes ..... ☐

No ..... ☐

M5. Other than the courses “Mathematics for Elementary School Teachers I, II, and other Mathematics courses for Teacher Preparation” reported on lines F23, F24, and F25, do you designate any sections of your other mathematics program courses as “especially designed for pre-service elementary school teachers”?

Yes ..... ☐

No ..... ☐

M. Mathematics Preparation of K–12 Teachers (cont.)

M6. Which of the following groups can meet their entire mathematics course or licensure requirement for teaching via an organized program in your department? Consider "pre- service" and "career switchers" as distinct categories. "Career switchers" usually are post- baccalaureate older adults returning for teaching licensure after a non-teaching career and often under state-approved special licensure rules. *(*Check one on each row.)

	Yes	No
a. Pre-service elementary school teachers	☐	☐
b. Pre-service middle school teachers	☐	☐
c. Pre-service secondary school teachers	☐	☐
d. In-service elementary school teachers	☐	☐
e. In-service middle school teachers	☐	☐
f. In-service secondary school teachers	☐	☐
g. Career switchers moving to elementary school teaching	☐	☐
h. Career switchers moving to middle school teaching.....	☐	☐
i. Career switchers moving to secondary school teaching.....	☐	☐

M7. Does your institution offer pedagogical courses in mathematics for teacher licensure for any of the three grade levels listed below? (Check all that apply.)

Grades PK-5 ..... ☐

Grades 6-8 ..... ☐

Grades 9-12 ..... ☐

If any or all are checked, go to M8.

No ..... ☐ Go to N1

M8. Where are the pedagogical courses in mathematics for teacher licensure taught?

In the mathematics department ..... ☐

Elsewhere in the institution ..... ☐

N. Issues of Professional Concern

Two-Year College Mathematics Questionnaire

N1. Below are problems often cited by two-year college mathematics departments. Please read each item carefully and check the box in each row that best reflects your view.

		Minor or No problem for us	Somewhat of a problem for us	Major problem for us	Not applicable
a.	Maintaining vitality of faculty	☐	☐	☐	☐
b.	Dual-enrollment (high school and college credit) courses[a]	☐	☐	☐	☐
c.	Staffing statistics courses	☐	☐	☐	☐
d.	Unrealistic student understanding of the demands of college work.....	☐	☐	☐	☐
e.	Part-time faculty teach too many courses	☐	☐	☐	☐
f.	Faculty salaries too low	☐	☐	☐	☐
g.	Class sizes too large	☐	☐	☐	☐
h.	Low student motivation	☐	☐	☐	☐
i.	Too many students needing remediation	☐	☐	☐	☐
j.	Successful progress of students through developmental courses to more advanced mathematics courses is too low	☐	☐	☐	☐
k.	Student success rate in transfer-level math courses is too low	☐	☐	☐	☐
l.	Too few students who intend to transfer actually do transfer	☐	☐	☐	☐
m.	Inadequate travel funds for faculty **Professional development**				
n.	Inadequate classroom facilities for teaching with technology	☐	☐	☐	☐
o.	Inadequate computer facilities for part-time faculty use	☐	☐	☐	☐
p.	Inadequate computer facilities for student use	☐	☐	☐	☐

[a] Courses taught in high school by high school teachers for which students may obtain high school credit and simultaneous college credit through your institution.

N. Issues of Professional Concern (cont.)

Two-Year College Mathematics Questionnaire

N1. Continued

	Minor or No problem for us	Somewhat of a problem for us	Major problem for us	Not applicable
q. Classroom and other duties make it difficult for faculty to engage in professional development	☐	☐	☐	☐
r. Curriculum alignment between high schools and college	☐	☐	☐	☐
s. Lack of curricular flexibility because of transfer requirements	☐	☐	☐	☐
t. Other barriers that inhibit curricular changes	☐	☐	☐	☐
u. Maintaining high and consistent expectations of students across different sections of the same course	☐	☐	☐	☐
v. High cost of textbooks	☐	☐	☐	☐
w. Lack of flexibility in curricular redesign	☐	☐	☐	☐
x. Maintaining common standards between distance learning courses and related courses	☐	☐	☐	☐
y. Use of distance education[b]	☐	☐	☐	☐

[b] The majority of instruction occurs with the instructor and the students separated by time and/or place (e.g., courses in which the majority of the course is taught online or by computer software or other technologies, including MOOCs (a MOOC is a “massive open online course”)).

N. Issues of Professional Concern (cont.)

N2. Many departments today use a spectrum of program assessment methods. Please check all that apply to your department's program assessment efforts during the last six years.

	Yes	No
a. We conducted a review of our mathematics program that included one or more reviewers from outside our institution	☐	☐
b. We asked students in our mathematics program to comment on and suggest changes in our program.....	☐	☐
c. Other departments at our institution were invited to comment on the preparation that their students received in our courses.....	☐	☐
d. Data on students' progress in subsequent mathematics courses were gathered and analyzed.....	☐	☐
e. We have a placement system for first-year students, and we gathered and analyzed data on its effectiveness	☐	☐
f. Our department's program assessment activities led to changes in our mathematics program	☐	☐

N. Issues of Professional Concern (cont.)

Two-Year College Mathematics Questionnaire

The next four questions deal with general education requirements at your institution.

N3. Does your institution require all associate's degree graduates to have a quantitative course (which may or may not be within the mathematics department) as part of their general education requirements? (Check one box.)

a. Yes, all associate degree's graduates ☐ → go to N4.

b. Not (a), but all Associate of Arts or Associate of Science graduates must have credit ☐ → go to N4.

c. Neither (a) or (b) ☐ → go to Section O.

N4. If you chose (a) or (b) in O3, must all students (to whom the quantitative requirement applies) fulfill it by taking a course in your mathematics department?

Yes ..... ☐

No ..... ☐

N5. What is the lowest level course in your department that can be used to fulfill the general education quantitative requirement in N3? (Check one box.)

a. A course below the level of Intermediate Algebra ..... ☐ Go to N1.

b. Intermediate Algebra or its equivalent, or any course that is more advanced than Intermediate Algebra ..... ☐ Go to O1

c. Not Intermediate Algebra, but any course that is more advanced than Intermediate Algebra ..... ☐ Go to O1

d. Only certain courses that are more advanced than Intermediate Algebra..... ☐ Go to N6, otherwise go to O1

N6. Which of the following departmental courses can be used to fulfill the general education quantitative requirement?

Course	Yes	No
a. College Algebra and/or Precalculus	☐	☐
b. Calculus (any course)	☐	☐
c. Introduction to Mathematical Modeling.....	☐	☐
d. A basic Probability and/or Statistics course	☐	☐
e. Quantitative Literacy or Liberal Arts Mathematics or Quantitative Reasoning	☐	☐
f. Some other course(s) in our department not listed above	☐	☐

O. Mathematics Enrollments Outside Your Mathematics Department/Program (Fall 2015)

Data to answer the following questions often are beyond the information normally available to a mathematics department chair. Thank you for investing invest the extra effort needed to give an accurate account of all enrollments in the following courses that are **not** taught in the mathematics department/program. *(Give enrollments, not the number of sections taught.)*

Instructions:

- Please include only the data for the mathematics courses and programs that are considered to be administered or managed by your mathematics department.
- Report all enrollments at your campus or in your multi-campus system that are **not** taught in the mathematics department/program (and so are not listed in Section F).
- Please consult appropriate sources outside the mathematics program such as schedules, registrar's data, or the heads of these programs to get accurate data on enrollments.

COURSE	Mathematics Enrollments Outside the Mathematics Department			
	Develop-mental Education Department/ Division (a)	Occupational Programs (b)	Business (c)	Other Dept/Division (d)
O1. Arithmetic/Pre-Algebra				
O2. Elementary Algebra (high school level)				
O3. Intermediate Algebra (high school level)				
O4. Business Mathematics				
O5. Statistics/Probability				
O6. Technical Mathematics				

P. Comments and Suggestions

P1. If you have found some question(s) difficult to interpret or answer, please let us know. We welcome comments or suggestions to improve future surveys (e.g., CBMS2020).

Comments: _____

_____

_____

_____

_____

_____

Thank you for completing this questionnaire. We know it was a time-consuming process and we hope that the resulting survey report, which we hope to publish in spring 2017, will be of use to you and your department.

Please keep a copy of your responses to this questionnaire in case questions arise.