



# Mathematics Teacher Background Questionnaire

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**2007**  
**Grade 8**

# TEACHER QUESTIONNAIRE

## GRADE 8 – MATHEMATICS

During the 2006–2007 school year, a sample of students across the country, including some of your eighth-grade students, will participate in the National Assessment of Educational Progress (NAEP). The current assessment focuses on achievement in reading, writing, and mathematics. To investigate the relationship between students' achievement and various school, teacher, and home factors, NAEP is also collecting information from schools and teachers.

This questionnaire collects information about teachers' backgrounds and instructional practices as they relate to students selected for the assessment. Since you teach mathematics to one or more students selected for the assessment, you are being asked to answer questions about these students' classes.

Obviously, only you can provide this important information. So, although we realize that you are very busy, we urge you to complete this questionnaire as accurately as possible. All responses that relate to or describe identifiable characteristics of teachers or schools may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose, unless otherwise compelled by law.

NAEP is authorized under Public Law 107–110. While your participation is voluntary, your responses to these questions are needed to make this survey accurate and complete.

### Instructions

This questionnaire contains two parts.

Part I – Background, Education, and Training

Part II – Classroom Organization and Instruction–Mathematics

**You should complete all parts. Please record your answers online, following the instructions on the front cover. If you do not have Internet access, please answer questions directly on this questionnaire by filling in the appropriate ovals.**

If you do answer questions directly on this questionnaire, please return the questionnaire to your school's NAEP coordinator when you are finished.

**THANK YOU VERY MUCH.**

# Mathematics Teacher Questionnaire – Grade 8

## Part I: Background, Education, and Training

For several questions on this survey, you are asked to fill in numbers. For these questions, please print the appropriate number in each of the boxes provided. Please print legibly with a No. 2 pencil. Keep all printing within the boxes, and erase any stray marks.

Using one number per box, fill in every box. For example, 95 students would be written as:

|   |   |   |
|---|---|---|
| 0 | 9 | 5 |
|---|---|---|

VB331330

1. Are you Hispanic or Latino? Fill in **one or more ovals**.

- A No, I am not Hispanic or Latino.
- B Yes, I am Mexican, Mexican American, or Chicano.
- C Yes, I am Puerto Rican or Puerto Rican American.
- D Yes, I am Cuban or Cuban American.
- E Yes, I am from some other Hispanic or Latino background.

VB331331

2. Which of the following best describes you? Fill in **one or more ovals**.

- A White
- B Black or African American
- C Asian
- D American Indian or Alaska Native
- E Native Hawaiian or other Pacific Islander

**Questions 3–4.** For the next two questions, include any full-time teaching assignments, part-time teaching assignments, and long-term substitute assignments, but not student teaching.

VB337243

3. Counting this year, how many years have you worked as an elementary or secondary teacher? If less than 4 months total experience, enter “00.”

Years

VB482728

4. Counting this year, how many years have you taught mathematics in grades 6 through 12? Include any full-time teaching assignments, part-time teaching assignments, and long-term substitute assignments, but not student teaching. If less than 4 months total experience, enter “00.”

Years

VB333654

5. What type of teaching certificate do you hold in the state where you currently teach?

- Ⓐ Regular or standard state certificate or advanced professional certificate → *Skip to Question 7*
- Ⓑ Probationary certificate (the initial certificate issued after satisfying all requirements except the completion of a probationary period) → *Go to Question 6*
- Ⓒ Provisional or other type of certificate given to persons who are still participating in what the state calls an “alternative certification program” → *Go to Question 6*
- Ⓓ Temporary certificate (requires some additional college coursework and/or student teaching before regular certification can be obtained) → *Go to Question 6*
- Ⓔ Emergency certificate or waiver (issued to persons with insufficient teacher preparation who must complete a regular certification program in order to continue teaching) → *Go to Question 6*
- Ⓕ No certificate → *Go to Question 6*

6. Do you hold a currently valid regular or standard certification from a state other than the one in which you are currently teaching?
- (A) Yes
  - (B) No

7. What is the highest academic degree you hold?
- (A) High-school diploma
  - (B) Associate's degree/vocational certification
  - (C) Bachelor's degree
  - (D) Master's degree
  - (E) Education specialist's or professional diploma based on at least one year's work past master's degree
  - (F) Doctorate
  - (G) Professional degree (e.g., M.D., LL.B., J.D., D.D.S.)

8. Did you have a major, minor, or special emphasis in any of the following subjects as part of your **undergraduate** coursework? Fill in **one** oval on each line.

|                                                            | Yes, a major              | Yes, a minor or<br>special emphasis | No                        |          |
|------------------------------------------------------------|---------------------------|-------------------------------------|---------------------------|----------|
| a. Mathematics education                                   | <input type="radio"/> (A) | <input type="radio"/> (B)           | <input type="radio"/> (C) | VB482657 |
| b. Mathematics                                             | <input type="radio"/> (A) | <input type="radio"/> (B)           | <input type="radio"/> (C) | VB482658 |
| c. Other mathematics-related subject<br>such as statistics | <input type="radio"/> (A) | <input type="radio"/> (B)           | <input type="radio"/> (C) | VB608497 |
| d. Education (including secondary education)               | <input type="radio"/> (A) | <input type="radio"/> (B)           | <input type="radio"/> (C) | VB482938 |

VB345619

9. Did you have a major, minor, or special emphasis in any of the following subjects as part of your **graduate** coursework? Fill in **one** oval on each line.

|                                                         | Yes, a major            | Yes, a minor or special emphasis | No                      |          |
|---------------------------------------------------------|-------------------------|----------------------------------|-------------------------|----------|
| a. Mathematics education                                | <input type="radio"/> A | <input type="radio"/> B          | <input type="radio"/> C | VB473837 |
| b. Mathematics                                          | <input type="radio"/> A | <input type="radio"/> B          | <input type="radio"/> C | VB473838 |
| c. Other mathematics-related subject such as statistics | <input type="radio"/> A | <input type="radio"/> B          | <input type="radio"/> C | VB473839 |
| d. Education (including secondary education)            | <input type="radio"/> A | <input type="radio"/> B          | <input type="radio"/> C | VB482939 |

VB543426

10. As part of either your undergraduate or graduate coursework, how many **advanced mathematics** courses (such as trigonometry, calculus, or statistics) did you take?

- A None
- B 1 or 2 courses
- C 3 or 4 courses
- D 5 or more courses

VB543427

11. As part of either your undergraduate or graduate coursework, how many **mathematics education** courses did you take?

- A None
- B 1 or 2 courses
- C 3 or 4 courses
- D 5 or more courses

12. During the last **two years**, did you participate in or lead any of the following professional development activities **related to the teaching of mathematics**? Fill in **one** oval on each line.

|                                                                                                       | Yes | No |          |
|-------------------------------------------------------------------------------------------------------|-----|----|----------|
| a. College course taken after your first certification                                                | Ⓐ   | Ⓑ  | VB482583 |
| b. Workshop or training session                                                                       | Ⓐ   | Ⓑ  | VB482584 |
| c. Conference or professional association meeting                                                     | Ⓐ   | Ⓑ  | VB482585 |
| d. Observational visit to another school                                                              | Ⓐ   | Ⓑ  | VB482586 |
| e. Mentoring and/or peer observation and coaching as part of a formal arrangement                     | Ⓐ   | Ⓑ  | VB482587 |
| f. Committee or task force focusing on curriculum, instruction, or student assessment                 | Ⓐ   | Ⓑ  | VB482588 |
| g. Regularly scheduled discussion or study group                                                      | Ⓐ   | Ⓑ  | VB482589 |
| h. Teacher collaborative or network (such as one organized by an outside agency or over the Internet) | Ⓐ   | Ⓑ  | VB482590 |
| i. Individual or collaborative research                                                               | Ⓐ   | Ⓑ  | VB482591 |
| j. Independent reading on a regular basis (for example, educational journals, books, or the Internet) | Ⓐ   | Ⓑ  | VB482592 |
| k. Co-teaching/team teaching                                                                          | Ⓐ   | Ⓑ  | VB482593 |
| l. Consultation with a mathematics specialist                                                         | Ⓐ   | Ⓑ  | VB482594 |

13. Consider all of the professional development activities you participated in during the last **two years**. To what extent did you learn about each of the following topics? Fill in **one** oval on each line.

|                                                                                                                   | Not<br>at all | Small<br>extent | Moderate<br>extent | Large<br>extent |          |
|-------------------------------------------------------------------------------------------------------------------|---------------|-----------------|--------------------|-----------------|----------|
| a. How students learn mathematics                                                                                 | Ⓐ             | Ⓑ               | Ⓒ                  | Ⓓ               | VB543502 |
| b. Mathematics theory or applications                                                                             | Ⓐ             | Ⓑ               | Ⓒ                  | Ⓓ               | VB543503 |
| c. Content standards in mathematics                                                                               | Ⓐ             | Ⓑ               | Ⓒ                  | Ⓓ               | VB543504 |
| d. Curricular materials available in mathematics (units, texts)                                                   | Ⓐ             | Ⓑ               | Ⓒ                  | Ⓓ               | VB543505 |
| e. Instructional methods for teaching mathematics                                                                 | Ⓐ             | Ⓑ               | Ⓒ                  | Ⓓ               | VB543506 |
| f. Effective use of manipulatives in mathematics instruction                                                      | Ⓐ             | Ⓑ               | Ⓒ                  | Ⓓ               | VB519181 |
| g. Effective use of calculators in mathematics instruction                                                        | Ⓐ             | Ⓑ               | Ⓒ                  | Ⓓ               | VB543507 |
| h. Use of computers or other technology in mathematics instruction                                                | Ⓐ             | Ⓑ               | Ⓒ                  | Ⓓ               | VB543508 |
| i. Methods for assessing students in mathematics                                                                  | Ⓐ             | Ⓑ               | Ⓒ                  | Ⓓ               | VB543509 |
| j. Preparation of students for district and state assessments                                                     | Ⓐ             | Ⓑ               | Ⓒ                  | Ⓓ               | VB543510 |
| k. Issues related to ability grouping in mathematics                                                              | Ⓐ             | Ⓑ               | Ⓒ                  | Ⓓ               | VB543511 |
| l. Strategies for teaching mathematics to students from diverse backgrounds (including English language learners) | Ⓐ             | Ⓑ               | Ⓒ                  | Ⓓ               | VB543512 |



VB543642

14. Are you teaching the following mathematics courses to eighth-grade students **this year**? Include honors sections. Fill in **one** oval on each line.

|                                         | Yes                     | No                      |          |
|-----------------------------------------|-------------------------|-------------------------|----------|
| a. Remedial mathematics                 | <input type="radio"/> A | <input type="radio"/> B | VB543643 |
| b. General mathematics                  | <input type="radio"/> A | <input type="radio"/> B | VB543644 |
| c. Introduction to Algebra/Pre-algebra  | <input type="radio"/> A | <input type="radio"/> B | VB543645 |
| d. Algebra                              | <input type="radio"/> A | <input type="radio"/> B | VB543646 |
| e. Integrated or sequential mathematics | <input type="radio"/> A | <input type="radio"/> B | VB543647 |
| f. Geometry                             | <input type="radio"/> A | <input type="radio"/> B | VB543648 |

VB473855

15. Do you have special leadership responsibilities for mathematics education at your school (for example, responsibilities as a mentor teacher, lead teacher, resource specialist, departmental chair, or master teacher)?

- A Yes
- B No

VC110270

16. Some states and districts have recently initiated school improvement efforts directed at issues such as adequate yearly progress and state accountability standards. During the last two years have you participated in such activities?

|                                          | Yes                     | No                      |          |
|------------------------------------------|-------------------------|-------------------------|----------|
| a. Within your school                    | <input type="radio"/> A | <input type="radio"/> B | VC110296 |
| b. As part of a team outside your school | <input type="radio"/> A | <input type="radio"/> B | VC110314 |

## Part II: Classroom Organization and Instruction: Mathematics – Grade 8

The following questions ask about the organization of your classroom. If you teach more than one eighth-grade class, please pick a single one of these classes to use as the basis for answering the questions about classroom organization.

VB543515

1. How many hours of mathematics instruction do your students receive in a typical week?

- Ⓐ Less than 3 hours
- Ⓑ At least 3 hours, but less than 5 hours
- Ⓒ At least 5 hours, but less than 7 hours
- Ⓓ 7 or more hours

VB543516

2. Are computers available for use by you or your students?

- Ⓐ Yes, computers are available to my students and to me.
- Ⓑ Yes, I have access to computers, but my students do not.
- Ⓒ No, neither my students nor I have access to computers at school.

VB518853

3. To what extent are students permitted to use calculators during mathematics lessons? Please answer separately for your **most advanced** and **least advanced** eighth-grade mathematics classes. Fill in **one** oval on each line. If you teach only one mathematics class for eighth-grade students, treat the class as your most advanced class and mark “D” on the second line.

|                         | Unrestricted<br>use     | Restricted<br>use       | Calculators<br>are not<br>permitted | I teach<br>only one<br>class |          |
|-------------------------|-------------------------|-------------------------|-------------------------------------|------------------------------|----------|
| a. Most advanced class  | <input type="radio"/> Ⓐ | <input type="radio"/> Ⓑ | <input type="radio"/> Ⓒ             |                              | VB518854 |
| b. Least advanced class | <input type="radio"/> Ⓐ | <input type="radio"/> Ⓑ | <input type="radio"/> Ⓒ             | <input type="radio"/> Ⓓ      | VB518855 |

4. When you give students a mathematics test or quiz, how often do they use a calculator? Please answer separately for your **most advanced** and **least advanced** eighth-grade mathematics classes. Fill in **one** oval on each line. If you teach only one mathematics class for eighth-grade students, treat that class as your most advanced class and mark “D” on the second line.

|                         | Never                   | Sometimes               | Always                  | I teach only one class  |          |
|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|----------|
| a. Most advanced class  | <input type="radio"/> A | <input type="radio"/> B | <input type="radio"/> C |                         | VB543399 |
| b. Least advanced class | <input type="radio"/> A | <input type="radio"/> B | <input type="radio"/> C | <input type="radio"/> D | VB543400 |

5. Think about your **most advanced** mathematics students. Do these students receive mathematics instruction that differs in any of the following ways from the instruction provided to your **average** mathematics students? Fill in **one** oval on each line.

|                                                                                            | Yes                     | No                      |          |
|--------------------------------------------------------------------------------------------|-------------------------|-------------------------|----------|
| a. I set different achievement standards for these students.                               | <input type="radio"/> A | <input type="radio"/> B | VC205675 |
| b. I supplement the regular course curriculum with additional material for these students. | <input type="radio"/> A | <input type="radio"/> B | VC205677 |
| c. I have these students engage in different classroom activities.                         | <input type="radio"/> A | <input type="radio"/> B | VC205678 |
| d. I use a different set of methods in teaching these students.                            | <input type="radio"/> A | <input type="radio"/> B | VC205679 |
| e. I pace my teaching differently for these students.                                      | <input type="radio"/> A | <input type="radio"/> B | VC205681 |

6. Think about your **least advanced** mathematics students. Do these students receive mathematics instruction that differs in any of the following ways from the instruction provided to your **average** mathematics students? Fill in **one** oval on each line.

- |                                                                                                                      | Yes                     | No                      |          |
|----------------------------------------------------------------------------------------------------------------------|-------------------------|-------------------------|----------|
| a. I set different achievement standards for these students.                                                         | <input type="radio"/> A | <input type="radio"/> B | VC205685 |
| b. I reduce the regular course curriculum and provide additional practice in the topics covered with these students. | <input type="radio"/> A | <input type="radio"/> B | VC205686 |
| c. I have these students engage in different classroom activities.                                                   | <input type="radio"/> A | <input type="radio"/> B | VC205687 |
| d. I use a different set of methods in teaching these students.                                                      | <input type="radio"/> A | <input type="radio"/> B | VC205688 |
| e. I pace my teaching differently for these students.                                                                | <input type="radio"/> A | <input type="radio"/> B | VC205689 |