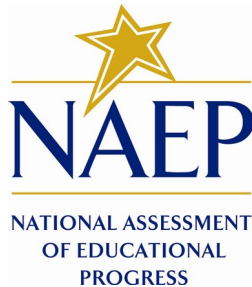


***THE NATIONAL ASSESSMENT OF
EDUCATIONAL PROGRESS***

**Wave 2 Submittal for 2008
VOLUME II**

**Part 5b of 8
BACKGROUND QUESTIONS
FOR 2008 ASSESSMENT**

**Teacher Mathematics Grade 8 (Background, Education, Training;
Mathematics)**



Volume II contains:

- Part 1 of 8 - Student Grade 4: Pilot Science; Reading Braided Study
- Part 2 of 8 - Student Grade 8: Pilot Science; Reading Braided Study
- Part 3 of 8 - Student Grade 12: Pilot Science

Part 4 of 8 - Teacher Grade 4 (Background, Education, Training; Reading, Mathematics, Science)

- Part 5a of 8 - Teacher Reading Grade 8 (Background, Education, Training; Reading)
- **Part 5b of 8 - Teacher Mathematics Grade 8 (Background, Education, Training; Mathematics)**
- Part 5c of 8 - Teacher Science Grade 8 (Background, Education, Training; Science)

Part 6 of 8 - School Grade 4 (School Characteristics & Policies; Reading, Mathematics, Science, Charter School)

Part 7 of 8 - School Grade 8 (School Characteristics & Policies; Reading, Mathematics, Science, Charter School)

Part 8 of 8 - School Grade 12 (School Characteristics & Policies; Reading, Mathematics, Science, Charter School)

June 29, 2007

TEACHER QUESTIONNAIRES

OMB Information on Teacher Questionnaire Cover Page

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless such collection displays a valid OMB control number. The valid OMB control numbers for this information collection are 1850-0790. The time required to complete this information collection is estimated to average 20 minutes per response, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate(s) or suggestions for improving this form, please write to: U.S. Department of Education, Washington, D.C. 20202-4651. If you have comments or concerns regarding the status of your individual submission of this form, write directly to: NAEP/NCES, U.S. Department of Education, 1990 K Street N.W., Washington, D.C. 20006-5651.

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This report is authorized by law (P.L.107-110, 20 U.S.C. §9010). While your participation is voluntary, your cooperation is needed to make the results of the survey comprehensive, accurate, and timely. 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. OMB No. 1850-0790 Approval Expires 05/31/2010
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Teacher Questionnaire
Mathematics – Grade 8

Part I: Background, Education, & 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

1. Are you Hispanic or Latino? Fill in **one or more ovals**. (VB331330) [4/8]
 - 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.

2. Which of the following best describes you? Fill in **one or more ovals**. (VB331331) [4/8]
 - 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.

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.” (VB337243) [8]

Years

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.” (VB482728) [8]

Years

5. Did you enter teaching through an alternative certification program?

(An alternative program is a program that was designed to expedite the transition of non-teachers to a teaching career, for example, a state, district, or university alternative certification program.) (NEW) [4/8]

- A Yes
- B No

6. What type of teaching certificate do you hold in the state where you currently teach? (NEW) [4/8]

- A Regular or standard state certificate or advanced professional certificate → *Skip to Question 8*
- B Certificate issued after satisfying all requirements except the completion of a probationary period → *Go to Question 7*
- C Certificate that requires some additional coursework, student teaching or passage of a test before regular certification can be obtained → *Go to Question 7*
- D Certificate issued to persons who must complete a certification program in order to continue teaching → *Go to Question 7*
- E I do not hold any of the above certificates in the state where I currently teach. → *Go to Question 7*

7. Do you hold a currently valid regular or standard certification from a state other than the one in which you are currently teaching? (VB595188) [4/8]

- A Yes
- B No

8. This school year, are you a Highly Qualified Teacher (HQT) according to your state's requirements?

(Generally, to be Highly Qualified, teachers must meet requirements related to 1) a bachelor's degree, 2) full state certification, and 3) demonstrate competency in the subject area(s) taught. The HQT requirement is a provision under the No Child Left Behind (NCLB) Act.) (NEW) [4/8]

- A Yes
- B I meet my state's requirements for a Highly Qualified Teacher in at least one subject that I teach.
- C No

9. Are you certified by the National Board for Professional Teaching Standards in at least one content area?

(The National Board for Professional Teaching Standards is a nongovernmental organization that administers National Board certification, a voluntary national assessment program that certifies teachers who meet high professional standards. In order to gain certification, the candidate must at least complete a portfolio of classroom practice and pass one or more tests of content knowledge.) (NEW) [4/8]

- A Yes, I am fully certified by the National Board for Professional Teaching Standards.
- B I am working towards my National Board certification.
- C No

10. What is the highest academic degree you hold? (HE001012) [4/8]

- 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.)

11. 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. (VB333658) [4/8]

| | Yes, a major | Yes, a minor or special emphasis | No | [Same at:] | |
|---|--------------|----------------------------------|----|------------|------------|
| a. Mathematics education | A | B | C | [4/8] | (VB482657) |
| b. Mathematics | A | B | C | [4/8] | (VB482658) |
| c. Other mathematics-related subject such as statistics | A | B | C | [4/8] | (VB608497) |
| d. Education (including secondary education) | A | B | C | [8] | (VB482938) |

12. 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. (VB345619) [4/8]

| | Yes, a major | Yes, a minor or special emphasis | No | [Same at:] | |
|---|--------------|----------------------------------|----|------------|------------|
| a. Mathematics education | A | B | C | [4/8] | (VB473837) |
| b. Mathematics | A | B | C | [4/8] | (VB473838) |
| c. Other mathematics-related subject such as statistics | A | B | C | [4/8] | (VB473839) |
| d. Education (including secondary education) | A | B | C | [8] | (VB482939) |

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. (VB543441) [4/8]

| | Not at all | Small extent | Moderate extent | Large extent | [Same at:] | |
|---|------------|--------------|-----------------|--------------|------------|------------|
| a. How students learn mathematics | A | B | C | D | [4/8] | (VB543502) |
| b. Mathematics theory or applications | A | B | C | D | [4/8] | (VB543503) |
| c. Content standards in mathematics | A | B | C | D | [4/8] | (VB543504) |
| d. Curricular materials available in mathematics (units, texts) | A | B | C | D | [4/8] | (VB543505) |
| e. Instructional methods for teaching mathematics | A | B | C | D | [4/8] | (VB543506) |
| f. Effective use of manipulatives in mathematics instruction | A | B | C | D | [4/8] | (VB519181) |
| g. Effective use of calculators in mathematics instruction | A | B | C | D | [4/8] | (VB543507) |
| h. Use of computers or other technology in mathematics instruction | A | B | C | D | [4/8] | (VB543508) |
| i. Methods for assessing students in mathematics | A | B | C | D | [4/8] | (VB543509) |
| j. Preparation of students for district and state assessments | A | B | C | D | [4/8] | (VB543510) |
| k. Issues related to ability grouping in mathematics | A | B | C | D | [4/8] | (VB543511) |
| l. Strategies for teaching mathematics to students from diverse backgrounds (including English language learners) | A | B | C | D | [4/8] | (VB543512) |

14. 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. (VB482582) [8]

| | Yes | No | [Same at:] | |
|---|-----|----|------------|------------|
| a. College course taken after your first certification | A | B | [8] | (VB482583) |
| b. Workshop or training session | A | B | [8] | (VB482584) |
| c. Conference or professional association meeting | A | B | [8] | (VB482585) |
| d. Observational visit to another school | A | B | [8] | (VB482586) |
| e. Mentoring and/or peer observation and coaching as part of a formal arrangement | A | B | [8] | (VB482587) |
| f. Committee or task force focusing on curriculum, instruction, or student assessment | A | B | [8] | (VB482588) |
| g. Regularly scheduled discussion or study group | A | B | [8] | (VB482589) |
| h. Teacher collaborative or network (such as one organized by an outside agency or over the Internet) | A | B | [8] | (VB482590) |
| i. Individual or collaborative research | A | B | [8] | (VB482591) |
| j. Independent reading on a regular basis (for example, educational journals, books, or the Internet) | A | B | [8] | (VB482592) |
| k. Co-teaching/team teaching | A | B | [8] | (VB482593) |
| l. Consultation with a subject specialist | A | B | [8] | (VB482594) |

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)? (VB473855) [8]

A Yes

B No

16. During the last **two years** have you participated in activities associated with school improvement efforts directed at issues such as adequate yearly progress and state accountability standards? (NEW) [4/8]

A Yes

B No

17. Are you teaching the following mathematics courses to eighth-grade students **this year**? Include honors sections. Fill in **one** oval on each line. (VB543642) [8]

| | Yes | No | [Same at:] | |
|---|-----|----|------------|------------|
| a. Remedial mathematics | A | B | [8] | (VB543643) |
| b. General mathematics | A | B | [8] | (VB543644) |
| c. Introduction to Algebra/Pre-algebra | A | B | [8] | (VB543645) |
| d. Algebra | A | B | [8] | (VB543646) |
| e. Integrated or sequential mathematics | A | B | [8] | (VB543647) |
| f. Geometry | A | B | [8] | (VB543648) |

Teacher Questionnaire Mathematics – Grade 8

Part II: Classroom Organization and Mathematics Instruction

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

1. Which best describes your role in teaching **mathematics** to this class? (NEW) [4/8]
 - A I do not teach mathematics to this class. → ***You have finished the survey. Thank you for your time.***
 - B I teach all or most subjects, including mathematics.
 - C The only subject I teach is mathematics.
 - D We team teach, and I have primary responsibility for teaching mathematics.

2. How many students are in this class? (VB473856) [4/8]
 - A 15 or fewer
 - B 16–18
 - C 19–20
 - D 21–25
 - E 26 or more

3. How many hours of mathematics instruction do your students in this class receive in a typical week? (NEW) [4/8]
 - A Less than 3 hours
 - B At least 3 hours, but less than 5 hours
 - C At least 5 hours, but less than 7 hours
 - D 7 or more hours

4. To what extent have you covered the following concepts in mathematics class so far this year? Fill in **one** oval on each line. (NEW) [4/8]

| | Not at all | Small extent | Moderate extent | Large extent | [Same at:] | |
|---|---------------|-----------------|--------------------|-----------------|------------|-------|
| a. Numbers and operations | A | B | C | D | [4/8] | (NEW) |
| b. Measurement | A | B | C | D | [4/8] | (NEW) |
| c. Geometry | A | B | C | D | [4/8] | (NEW) |
| d. Data analysis, statistics, and probability (informal introduction of concepts) | A | B | C | D | [4/8] | (NEW) |
| e. Algebra and functions (informal introduction of concepts) | A | B | C | D | [4/8] | (NEW) |

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. (VC205666) [8]

| | Yes | No | [Same at:] | |
|--|-----|----|------------|------------|
| a. I set different achievement standards for these students. | A | B | [8] | (VC205675) |
| b. I supplement the regular course curriculum with additional material for these students. | A | B | [8] | (VC205677) |
| c. I have these students engage in different classroom activities. | A | B | [8] | (VC205678) |
| d. I use a different set of methods in teaching these students. | A | B | [8] | (VC205679) |
| e. I pace my teaching differently for these students. | A | B | [8] | (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. (VC205682) [8]

| | Yes | No | [Same at:] | |
|--|-----|----|------------|------------|
| a. I set different achievement standards for these students. | A | B | [8] | (VC205685) |
| b. I reduce the regular course curriculum and provide additional practice in the topics covered with these students. | A | B | [8] | (VC205686) |
| c. I have these students engage in different classroom activities. | A | B | [8] | (VC205687) |
| d. I use a different set of methods in teaching these students. | A | B | [8] | (VC205688) |
| e. I pace my teaching differently for these students. | A | B | [8] | (VC205689) |

7. Do you meet with students one-on-one to review their work and evaluate their progress in mathematics? (NEW) [4/8]

A Yes → Go to Question 8

B No → Skip to Question 9

8. When you meet with students one-on-one to review their work and evaluate their progress in mathematics, which of the following activities do you do? Fill in **one** oval on each line. (NEW) [8]

| | Yes | No | [Same at:] | |
|--|-----|----|------------|-------|
| a. Evaluate the student's current level of performance | A | B | [8] | (NEW) |
| b. Set goals for specific progress student would like to make | A | B | [8] | (NEW) |
| c. Determine progress student has made toward reaching goals previously set | A | B | [8] | (NEW) |
| d. Determine how to adjust your teaching strategies to meet student's current learning needs and to reflect student's future goals | A | B | [8] | (NEW) |

9. 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. (VB518853) [8]

| | Unrestricted use | Restricted use | Calculators are not permitted | I teach only one class | [Same at:] | |
|-------------------------|---------------------|-------------------|-------------------------------------|------------------------------|------------|------------|
| a. Most advanced class | A | B | C | D | [8] | (VB518854) |
| b. Least advanced class | A | B | C | D | [8] | (VB518855) |

10. 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. (VB543398) [8]

| | Never | Sometimes | Always | I teach only one class | [Same at:] | |
|-------------------------|-------|-----------|--------|------------------------------|------------|------------|
| a. Most advanced class | A | B | C | D | [8] | (VB543399) |
| b. Least advanced class | A | B | C | D | [8] | (VB543400) |

11. Think about the **most advanced** mathematics class you teach for eighth-grade students. How often do your students use calculators for each of the following purposes? 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, answer this question, then skip to Question 14.
(VB550413) [8]

| | Never or almost never | Once or twice a month | Once or twice a week | Every day or almost every day | [Same at:] | |
|--|-----------------------------|--------------------------------|-------------------------------|---|------------|------------|
| a. To work along with whole-class lessons led by you | A | B | C | D | [8] | (VB550414) |
| b. To “check their work” on problems they do on their own | A | B | C | D | [8] | (VB550415) |
| c. To calculate the answers to problems they do on their own | A | B | C | D | [8] | (VB550416) |
| d. To graph mathematical functions | A | B | C | D | [8] | (VB550417) |

12. Think about the **least advanced** mathematics class you teach for eighth-grade students. How often do your students use calculators for each of the following purposes? Fill in **one** oval on each line. (VB543725) [8]

| | Never or almost never | Once or twice a month | Once or twice a week | Every day or almost every day | [Same at:] | |
|--|-----------------------------|--------------------------------|-------------------------------|---|------------|------------|
| a. To work along with whole-class lessons led by you | A | B | C | D | [8] | (VB543726) |
| b. To “check their work” on problems they do on their own | A | B | C | D | [8] | (VB543727) |
| c. To calculate the answers to problems they do on their own | A | B | C | D | [8] | (VB543728) |
| d. To graph mathematical functions | A | B | C | D | [8] | (VB543729) |

13. In your eighth-grade mathematics class, are computers available for use by you or your students? (VB543516) [8]

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

14. Think about the **most advanced** class you teach for eighth-grade students. How often do you have students in this class do each of the following activities? 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, answer this question, then you have finished the survey. Thank you for your time. (VB543650) [8]

| | Never or almost never | Once or twice a month | Once or twice a week | Every day or almost every day | [Same at:] | |
|---|-----------------------------|--------------------------------|-------------------------------|---|------------|------------|
| a. Practice or review mathematics topics on the computer | A | B | C | D | [8] | (VB543652) |
| b. Extend mathematics learning with enrichment activities on the computer | A | B | C | D | [8] | (VB543651) |
| c. Research a mathematics topic on the Internet or CD-ROM | A | B | C | D | [8] | (VB543653) |
| d. Work with a spreadsheet program | A | B | C | D | [8] | (VB543657) |
| e. Work with a word processing program for a mathematics assignment | A | B | C | D | [8] | (VB543658) |
| f. Use a drawing program—on either a computer or a graphing calculator—for drawing geometric shapes | A | B | C | D | [8] | (VB543702) |
| g. Use a graphing program | A | B | C | D | [8] | (VB543659) |
| h. Use a basic four-function calculator (addition, subtraction, multiplication, division) | A | B | C | D | [8] | (VB556074) |
| i. Use a scientific (not graphing) calculator | A | B | C | D | [8] | (VB556075) |
| j. Use a graphing calculator | A | B | C | D | [8] | (VB556076) |
| k. Use another kind of calculator | A | B | C | D | [8] | (VB556077) |

15. Think about the **least advanced** class you teach for eighth-grade students. How often do you have students in this class do each of the following activities? Fill in **one** oval on each line.
(VB543703) [8]

| | Never or almost never | Once or twice a month | Once or twice a week | Every day or almost every day | [Same at:] | |
|---|-----------------------------|--------------------------------|-------------------------------|---|------------|------------|
| a. Practice or review mathematics topics on the computer | A | B | C | D | [8] | (VB543704) |
| b. Extend mathematics learning with enrichment activities on the computer | A | B | C | D | [8] | (VB543705) |
| c. Research a mathematics topic on the Internet or CD-ROM | A | B | C | D | [8] | (VB543706) |
| d. Work with a spreadsheet program | A | B | C | D | [8] | (VB543710) |
| e. Work with a word processing program for a mathematics assignment | A | B | C | D | [8] | (VB543711) |
| f. Use a drawing program—on either a computer or a graphing calculator—for drawing geometric shapes | A | B | C | D | [8] | (VB543714) |
| g. Use a graphing program | A | B | C | D | [8] | (VB543712) |
| h. Use a basic four-function calculator (addition, subtraction, multiplication, division) | A | B | C | D | [8] | (VB556078) |
| i. Use a scientific (not graphing) calculator | A | B | C | D | [8] | (VB556079) |
| j. Use a graphing calculator | A | B | C | D | [8] | (VB556080) |
| k. Use another kind of calculator | A | B | C | D | [8] | (VB556081) |