

Appendix C

Pre-Survey Mailouts

Principal Letter

Fact Sheet

Information Needed Before the Survey

2000 National Survey of Science and Mathematics Education

Horizon Research, Inc.

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WESTAT

1650 Research Boulevard
Rockville, MD 20850-3129
PHN: (800) 937-8288 FAX: (301) 294-2040

September 1, 1999

Dear Principal,

The purpose of this letter is to let you know that your school has been selected for the 2000 National Survey of Science and Mathematics Education and to request your cooperation in this effort. A total of 1,800 public and private schools and 9,000 K-12 teachers throughout the United States will be involved in the 2000 Survey. The survey, initiated by the National Science Foundation, is the fourth in a series of national surveys of science and mathematics education (the others were in 1977, 1985, and 1993). The enclosed *Fact Sheet* provides more information about the study.

The 2000 Survey will help determine how well prepared schools and teachers are for effective science and mathematics education, what would help them do a better job, and how federal resources can best be used to improve science and mathematics education. The survey is being conducted by Horizon Research, Inc., under the direction of Dr. Iris R. Weiss. Data collection is the responsibility of Westat, in Rockville, Maryland.

To help compensate participants for their time, the study has arranged to give each school a voucher to be used in purchasing science and mathematics education materials, including NCTM's *Curriculum and Evaluation Standards*, Project 2061's *Science for All Americans*, and NRC's *National Science Education Standards*, as well as calculators and other materials for classroom use. The amount of the voucher will depend on response rates, with each participating school receiving \$50, plus \$15 for each responding teacher. In addition, each school will receive a copy of the results of the survey.

The survey has two stages.

1. At this time, we ask that you complete the enclosed booklet and return it to us in the enclosed postage-paid envelope. The booklet requests that you:

Part 1: Designate individuals, such as department heads, to receive the science and mathematics program questionnaires. We also request that you designate someone to serve as our contact point for the survey.

Part 2: List all teachers responsible for science and/or mathematics instruction at your school, including teachers in self-contained classrooms. Instructions for creating the list have been included in the booklet.

Part 3: Provide some basic background information about your school.

When all booklets have been received, Westat will draw a sample of teachers at each school. On average, we will sample five teachers for each school.

2. In January 2000, we will mail teacher questionnaires and the two program questionnaires to the attention of the individual you designated as our contact point. Teacher questionnaires will take an average of 20-30 minutes to complete. The science and mathematics program questionnaires will take about 10 minutes. Respondents will be asked to return questionnaires directly to us, using the postage-paid envelopes provided.

Your cooperation is greatly appreciated. Please return the completed booklet for your school within the next 10 days so that we can begin the teacher selection process. If you have any questions about any of the items in the booklet or the study in general, please call us toll-free at 1-800-937-8288. Ask for the Science and Mathematics Survey specialist.

Thank you for your cooperation.

Sincerely,

Diane Ward
Data Collection Coordinator

DW/pss
Enclosures

2000 NATIONAL SURVEY OF SCIENCE AND MATHEMATICS EDUCATION

FACT SHEET

Overview

Approximately 1,800 schools in more than 1,200 school districts throughout the United States have been selected to participate in the 2000 National Survey of Science and Mathematics Education. The survey has been designed to collect information about science and mathematics education in grades K-12. It is being conducted by Horizon Research, Inc., under the direction of Dr. Iris R. Weiss. Data collection is the responsibility of Westat, in Rockville, Md. This is the fourth in a series of studies, initiated by the National Science Foundation in 1977.

Background and Purpose

The purpose of the survey is to provide the education community with accurate and current information about science and mathematics education and trends in the following areas.

- Science and mathematics course offerings and enrollments;
- Availability of facilities and equipment;
- Instructional techniques;
- Textbook usage;
- Teacher background; and
- Needs for in-service education.

How Schools Were Selected

A total of 1,800 schools were randomly selected, using the Quality Education Data (QED) database as a sampling frame. To ensure adequate representation for national and regional estimates, all schools in the country were stratified as follows before the sample was drawn:

- Grade span
- Region of the country
- Metropolitan status
- Public versus private
- Orshansky percentile

District superintendents were notified of the schools in their district selected for the survey. Approximately 9,000 teachers will be selected for the survey from lists of mathematics and science teachers provided by school principals. On average, five teachers will be selected from each school.

Survey Schedule

The survey is being conducted according to the following schedule:

Commissioners of Education notified

June 1999

District offices with sampled schools notified	June 1999
Mail to schools for list of teachers	Sept. 1999
Mail questionnaires to sampled teachers	Jan. 2000
Study results available	Spring 2001

Survey Questionnaires

In January 2000, we will mail questionnaires for all sampled teachers and department heads to the individual the principal has designated as the survey coordinator for the school. The coordinator will be asked to distribute the questionnaires within the school.

Each sampled teacher will receive one of the following types of questionnaires:

- Science Teacher Questionnaire
- Mathematics Teacher Questionnaire

Questionnaires will take about 25 minutes to complete. If the teacher has been categorized as both a mathematics and science teacher, the assignment of questionnaire type will be randomized.

Also included in the packet will be a short questionnaire (10 minutes) for each department head: the School Science Program Questionnaire and the School Mathematics Program Questionnaire.

Respondents who have any questions about items in the questionnaire can call us toll-free at 1-800-937-8288. A postage-paid return envelope will be included with each questionnaire. Once the questionnaire is completed, the teacher may simply seal it and drop it in the mail.

Confidentiality

All survey data received by Westat will be kept strictly confidential and will be reported only in aggregate form, such as by grade level or region of the country. No information identifying individual districts, schools, or teachers will be released. No identifying information whatsoever will be included in the dataset.

In Appreciation for Participation

While every school and teacher's cooperation is important to obtain accurate results, participation is voluntary. To compensate participants for their time, the study has arranged to give each school a voucher to be used in purchasing science and mathematics education materials. The amount of the voucher will depend on the degree each school participates. Each school completing the teacher listing phase and program head questions will receive a \$50 voucher. Additionally, \$15 will be given for each responding teacher. At the conclusion of the study, each school will receive a copy of the results of the survey.

2000 NATIONAL SURVEY OF SCIENCE AND MATHEMATICS EDUCATION

INFORMATION NEEDED BEFORE THE SURVEY

LABEL

Please complete the following items and return them to Westat in the enclosed postage-paid envelope. There are three parts:

Part 1: Designation of department heads and school survey coordinator.

Part 2: School background information.

Part 3: Names of science and mathematics teachers for sampling purposes.

If you have any questions, please call the Westat 2000 Survey information line at 1-800-937-8288 or e-mail us at 2000survey@westat.com.

Part 1. Designations

1. To whom should we address the School Science Program Questionnaire? This should be completed by the science department head or other staff member who is most knowledgeable about the science curriculum for all grades at your school. (The questionnaire takes about 10 minutes.)

Name

Title

2. To whom should we address the School Mathematics Program Questionnaire. This should be completed by the mathematics department head or other staff member who is most knowledgeable about the mathematics curriculum for all grades at your school. (The questionnaire takes about 10 minutes.)

Name

Title

3. We would like you to designate someone to serve as our contact point at the school. (We will send all questionnaires to this person for distribution to teachers/department heads.)

Name of contact

Title

()

Telephone number

()

Fax number

Part 2. Background Information About This School

1. How many K-12 students are there in this school at the present time? _____

2. Which grades are included in this school? (*Circle all that apply.*)

K 1 2 3 4 5 6 7 8 9 10 11 12

3. Which one of the following best describes the community in which this school is located?

- A rural or farming community 01
- A small city or town of fewer than 50,000 that is not a suburb of a large city 02
- A medium-sized city (50,000 to 100,000 people) 03
- A suburb of a medium-sized city 04
- A large city (100,000 to 500,000 people) 05
- A suburb of a large city 06
- A very large city (over 500,000 people) 07
- A suburb of a very large city 08
- A military base or station 09
- An Indian reservation 10

4. Does this school provide Chapter 1 services under the Elementary and Secondary Education Act as amended (i.e., Federal funds for the special educational needs of disadvantaged children)?

Yes 1 → **IF YES:** How many K-12 students are served? _____
No 2

5. Are any of the students in this school eligible for free or reduced-price lunches that are paid for with public funds (e.g., Federal government or other government)?

Yes 1 → **IF YES:** How many K-12 students received
free or reduced-price lunches? _____
No 2

Part 2. Background Information About This School (CONTINUED)

6. Approximately what percentage of the students attending this school are: *(Round to the nearest one-tenth percent.)*

- a. American Indian/Alaskan Native %
 - b. Asian..... %
 - c. Black/African American..... %
 - d. Hispanic/Latino..... %
 - e. Native Hawaiian/Other Pacific Islander..... %
 - f. White..... %
- TOTAL 100%

7. If we have questions about the information that has been provided, who should we contact?

- a. Name: _____
- b. Title: _____
- c. Phone (_____) _____
- d. E-mail: _____

**PLEASE RETURN THESE MATERIALS TO WESTAT IN THE ENVELOPE PROVIDED
BY OCTOBER 1, 1999 OR MAIL TO:**

**2000 SURVEY [TA150F]
C/O WESTAT
1650 RESEARCH BOULEVARD
ROCKVILLE, MD 20850**

QUESTIONNAIRES WILL BE MAILED TO YOUR SCHOOL IN JANUARY, 2000.

THANK YOU FOR YOUR ASSISTANCE.

Part 3. Listing of Science and Mathematics Teachers

Instructions

On the following sheets*, please list every teacher in this school who is responsible for science and/or mathematics instruction. We will use this list to randomly select a sample of approximately five (5) teachers to receive questionnaires.

1. List all teachers who will be teaching science/mathematics at this school in the 1999-2000 school year. (If a teacher has been designated to receive the science or mathematics program questionnaire, the teacher should still be listed.)
2. Do not include teacher aides or teachers responsible only for special education or “pull-out” classes for remediation or enrichment of students who also receive science/mathematics instruction from the regular classroom teacher.
3. For each teacher you list, please indicate the type of class:
 - If the teacher has a self-contained class, such as in the elementary grades, circle 1.
 - If the teacher has classes that are not self-contained, circle all of the categories that apply for that teacher. For example, if a teacher teaches Physics I and Physical Science you would circle 1 and 2.

*If you have a listing of teachers for this school, you may send that back instead. Please make sure the list includes all teachers of science and mathematics and provides the other information we will need (i.e., self-contained classes or subject categories for block and departmentalized teachers.)

How to Categorize Science and Mathematics Classes

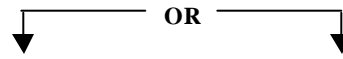
Here are some examples of science and mathematics courses in middle and high school grades, classified according to the four categories on the listing form:

- **High School Physics or Chemistry:** *Chemistry (1st year), Advanced Chemistry, Advanced Placement Chemistry, Physics I, Advanced Physics.*
- **Other Science:** *Biology, Earth Science, Physical Science, Integrated Science, General Science.*
- **High School Calculus or Advanced Math:** *Calculus, Pre-calculus, Algebra 3, Analytic Geometry, Trigonometry, Math IV, College Prep/Senior Math.*
- **Other Math:** *General Math, Basic math, Algebra 1, Algebra 2, Geometry, Integrated Math I-III Unified Math I-III.*

For the purposes of this survey, the following are not considered science or mathematics courses: Computer Science, Health, Hygiene, Technology Education, Business.

LABEL

SCIENCE AND MATHEMATICS TEACHERS AT THIS SCHOOL
(See instructions on previous page)

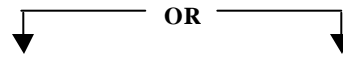


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		SELF-CONTAINED	NOT SELF-CONTAINED			
		Any grade	<i>(Circle all subject taught)</i>			
			Science		Math	
			High School Physics or Chemistry	Other Science	High School Calculus or Advanced Math	Other Math
#	TEACHER NAME First Last					
01		1	1	2	3	4
02		1	1	2	3	4
03		1	1	2	3	4
04		1	1	2	3	4
05		1	1	2	3	4
06		1	1	2	3	4
07		1	1	2	3	4
08		1	1	2	3	4
09		1	1	2	3	4
10		1	1	2	3	4
11		1	1	2	3	4
12		1	1	2	3	4
13		1	1	2	3	4
14		1	1	2	3	4
15		1	1	2	3	4
16		1	1	2	3	4
17		1	1	2	3	4
18		1	1	2	3	4
19		1	1	2	3	4
20		1	1	2	3	4
21		1	1	2	3	4
22		1	1	2	3	4
23		1	1	2	3	4
24		1	1	2	3	4
25		1	1	2	3	4

LABEL

SCIENCE AND MATHEMATICS TEACHERS AT THIS SCHOOL
(See instructions on previous page)



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		SELF-CONTAINED	NOT SELF-CONTAINED			
		Any grade	<i>(Circle all subject taught)</i>			
			Science		Math	
			High School Physics or Chemistry	Other Science	High School Calculus or Advanced Math	Other Math
#	TEACHER NAME First Last					
26		1	1	2	3	4
27		1	1	2	3	4
28		1	1	2	3	4
29		1	1	2	3	4
30		1	1	2	3	4
31		1	1	2	3	4
32		1	1	2	3	4
33		1	1	2	3	4
34		1	1	2	3	4
35		1	1	2	3	4
36		1	1	2	3	4
37		1	1	2	3	4
38		1	1	2	3	4
39		1	1	2	3	4
40		1	1	2	3	4
41		1	1	2	3	4
42		1	1	2	3	4
43		1	1	2	3	4
44		1	1	2	3	4
45		1	1	2	3	4
46		1	1	2	3	4
47		1	1	2	3	4
48		1	1	2	3	4
49		1	1	2	3	4
50		1	1	2	3	4

