

Evaluation of the Census in Schools Program: Materials and Distribution

FINAL REPORT

This evaluation reports the results of research and analysis undertaken by the U.S. Census Bureau. It is part of a broad program, the Census 2000 Testing, Experimentation, and Evaluation (TXE) Program, designed to assess Census 2000 and to inform 2010 Census planning. Findings from the Census 2000 TXE Program reports are integrated into topic reports that provide context and background for broader interpretation of results.

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EXECUTIVE SUMMARY

This evaluation is intended to measure the effectiveness of the approach for disseminating Census in Schools Program materials, and use of and satisfaction with the materials among teachers. It is not intended to measure the impact of the Census in Schools Program materials on children, their parents, or on ensuring a high rate of participation in the Census 2000.

The Census in Schools Program had the aim of raising awareness of Census 2000. The thought was that students' awareness of the importance of Census 2000 would be communicated to parents, who would then be more likely to participate. The program offers teaching materials that provide information on the purposes and methods of the census and that seek to engender an interest in the census. The program was particularly targeted at schools in hard-to-enumerate areas, with the expectation that the Census in Schools Program would contribute to raising participation in those areas in Census 2000.

Around \$17.2 million was spent on the Census in Schools Program which was implemented as a part of a phased marketing campaign. All elementary school teachers and all secondary math or social studies teachers in hard-to-enumerate areas were sent an invitational packet. This invitational packet consisted of an informational letter and an order form. This packet provided teachers with the opportunity to order Census in Schools Program materials, which included a Teaching Guide, lesson plans, and a Giant U.S. map. Principals, other than those in hard-to-enumerate areas, administrators, and curriculum coordinators also received an invitational packet. Additionally, all elementary school teachers and middle school social studies teachers were sent Take-Home materials for students to learn about the census and share with their parents at home -- thereby, having the potential to reach each kindergarten to eighth grade student in the country.

ORC/Macro International conducted the evaluation of the Census in Schools Program based on a survey they fielded in the Spring of 2000. They mailed to a stratified random sample of 4,000 teachers selected from all primary and secondary teachers in the 50 states, the District of Columbia and Puerto Rico and from teachers ordering the Census in Schools materials. Of the teachers selected for the survey, 1,101 responded. This evaluation answers research questions of interest to the U.S. Census Bureau.

How did teachers hear about the Census in Schools Program?

- Approximately 56 percent of all teachers heard of the Census in Schools Program.
- The single most important conduit for information about the program was the invitational packet. Fifty-four percent of teachers who heard about the program did so through invitational packets. Approximately 23 percent heard about it from their principal.

Did teachers receive the Census in Schools Program materials?

- Overall, 63 percent of all teachers who heard about the Census in Schools Program received at least one component of the Census in Schools Program materials.

- Thirty-nine percent of teachers who did receive the materials acquired them from their principals.
- About 23 percent of the teachers who received the materials ordered them in response to the invitational packet.
- Teachers who heard about the Census in Schools Program from their principal rather than hearing of it through other sources were more likely to actually receive the materials.

Did teachers use Census in Schools Program materials?

- The Giant U.S. Map was popular. Of the 85 percent of teachers who received the map, 92 percent used it in classroom activities.
- Of the 33 percent of teachers who received the Take-Home materials, about 79 percent sent them home with their students.

Did the Census in Schools Program materials reach teachers in hard-to-enumerate areas? Did those teachers order the materials?

- About 39 percent of all teachers in the 50 states, the District of Columbia, and Puerto Rico taught in hard-to-enumerate areas. Of those in hard-to-enumerate areas who heard of the Census in Schools Program, almost 61 percent received at least one component of the Census in Schools Program materials.
- Sixty-four percent of teachers in hard-to-enumerate areas who heard about the Census in Schools Program through the invitational packet received at least one component of the Census in Schools materials.
- Teachers in hard-to-enumerate areas were more likely to have ordered the materials themselves (34 percent) than teachers in other areas (16 percent).

Were the teachers satisfied with Census in Schools Program materials?

- Agreement with the statement that the Teaching Guide was in an easy-to-use format was high (88 percent). Seventy-five percent of teachers agreed that the Teaching Guide was subject matter appropriate.
- Agreement with the statement that the Take-Home materials were in an easy-to-use format was high (87 percent). Seventy-two percent of teachers agreed that the Take-Home materials were subject matter appropriate.
- Approximately 63 percent of teachers agreed or strongly agreed that the Take-Home kit was an effective communication tool.
- Sixty-five percent of all teachers would use other Census teaching materials if they were made available.

Were there any overlooked or unanticipated problems related to the Census in Schools Program materials that might need to be addressed in the future?

Fifty-three teachers provided answers to an open-ended question about why they did not send Take-Home materials home. Responses included that teachers:

- | need more lead time to examine the Census in Schools Program materials and incorporate them into their curricula,
- | found the Census in Schools Program materials too difficult for their students and others thought they were too elementary,
- | also indicated that they received the Census in Schools Program materials in the wrong language, or targeting an inapplicable age group.

In examining the results of this evaluation, some themes appeared:

- | Principals were an important conduit for transferring information about Census in Schools Program materials as well as for ordering the materials.
- | Although many individuals heard of the Census in Schools Program materials through the invitational packets, we expected the proportion to be higher given the many invitational packets that were sent to introduce the program to teachers.
- | It seems that the invitational packet did not draw the attention of many teachers to whom it was sent. Teachers receive many items in their mailboxes. The invitational packets did not appear to stand out from other materials sent to teachers.
- | For those using the Census in Schools Program materials, satisfaction was high.

In view of these findings, we suggest consideration of the following recommendations by those planning future Census in Schools Programs.

- | Test alternative designs for the:
 - mailing envelopes. Conduct research/testing (e.g. focus groups) to assist in understanding how and when teachers react to various types of mailings.
 - materials. Design the materials to better meet the needs of the teachers. Tailor the Census in Schools Program material to a greater extent than were the Census 2000 materials.
- | Use principals to transmit the Census in Schools Program materials to teachers.
- | Conduct special focus groups with teachers from the hard-to-enumerate areas and the other areas to better understand how teachers can be reached.

1. BACKGROUND

To more effectively conduct and increase participation in Census 2000, the U.S. Census Bureau developed relationships with a variety of organizations and agencies. One initiative was to enhance awareness of Census 2000 by teachers and their students through teaching materials prepared by the Census Bureau. This initiative, the Census in Schools (CIS) Program, was particularly aimed at students in those areas that have been historically hard-to-enumerate (HTE). The thought was that students' awareness of the importance of Census 2000 would be communicated to parents, who would then be more likely to participate than those parents who were unaware.

Starting in early 1999 the Census Bureau, through Scholastic¹, sent out invitational packets to teachers. The invitational packet consisted of a letter describing the program and an order form. These invitations were sent to all elementary school teachers and to secondary school teachers who taught math or social studies in HTE areas. The focus on math and social studies teachers reflected the disciplines that most closely relate to the issues and topics addressed by the Census Bureau.

Invitations to participate in the CIS Program were sent directly to teachers and notification packages were sent to principals and administrators in public and private schools through several promotional mailings. In the first two promotional mailings, teachers in schools identified in areas likely to be classified as HTE were sent invitations to participate in the CIS Program². The first mailing targeted teachers in schools in the highest 20 percent of the HTE areas as ranked by the social needs indicator. The second mailing was directed toward teachers whose schools were within the next highest 20 percent of the HTE areas. A third mailing, consisting of an example of the Teaching Kit along with order forms, was aimed at principals and educational leaders in other schools. This mailing sought to establish an interest among these individuals, who would then order materials for their schools or school systems, or at least urge teachers to order the materials.

The dissemination campaign was designed to have the effect of reaching teachers through more than one channel—thus possibly increasing teachers' awareness of and their willingness to participate in the program. A teacher could receive invitations directly addressed to them, or could receive invitations or materials from their principals, through colleagues, at professional meetings, or over the Internet. A teacher (or the school or district administrator) could also order teaching materials to be used in the classroom. These materials were distributed in the Teaching Kit, which included a Teaching Guide with lesson plans and the "Giant U.S. Map."

Take-Home Packets (Teaching Guide and 30 activity sheets) were sent to all elementary and middle school social studies teachers, thereby having the potential to reach each kindergarten to eighth grade student in the country. Elementary school teachers received one packet, and middle school social studies teachers received five packets, one for each class of students they taught. Students were not required to return the completed Take-Home materials to their teacher.

The administrative database used to track the invitations mailed and the orders received provided little information on whether teachers actually received and used materials. Feedback on the

quality and usefulness of the CIS Program materials, and on the distribution and use of materials is needed to judge the effectiveness of the program. With this in mind, the Census Bureau contracted with ORC/Macro International to conduct an evaluation of the Census in Schools Program.

In the following sections, we first discuss our approach to conducting the survey including some critical limits, the results of the survey, and conclusions and recommendations.

2. METHODOLOGY

The CIS Program evaluation is based on data collected from school teachers through a mail-out survey disseminated toward the end of the 1999-2000 school year. Appendix A³ contains methodological details relating to the conduct of the study. However, we summarize some important details here.

The study uses two different data sources for establishing a sample:

- 1 data from Market Data Retrieval (MDR). These data provided a frame of the approximately three million primary and secondary teachers in the 50 States and the District of Columbia⁴. Because MDR does not maintain lists of teachers in Puerto Rico, they provided the population of primary and secondary facilities in that Commonwealth⁵.
- 1 data from a frame of teachers who ordered the CIS Program materials. The information on this group will be somewhat duplicative of information supplied by the MDR sample, but its presence allows us to obtain better estimates on the program from those individuals who have actually participated in the CIS Program. If we found duplication, we eliminated the case from the orders database, thus keeping the case from the MDR database.

We selected a final sample of 4,000 teachers.

In May 2000, we mailed each sampled teacher a questionnaire with an introductory letter about the survey. During the next two months, we sent reminder notifications to nonrespondents and followed up with replacement questionnaires. During data collection a 1-800 number was available for individuals wanting information on the study or wanting a telephone interview (instead of mailing in their form). We also used telephone follow-up calls until late June.

The final number of questionnaires returned was 1,101, or about 28 percent of the sample. One thousand forty-six, or about 26 percent of the sample, were ultimately accepted for analysis. Fifty-five respondents were eliminated because they identified themselves as administrators.

In addition to methodological details, Appendix A also includes attachments depicting the materials, in English and Spanish, used to facilitate the evaluation of the CIS Program. Appendix B provides references for the tables and figures provided in this document. It includes weighted frequencies, percentages, and the number of unweighted responses upon which the weighted

frequencies and percentages are based. Appendix C presents more extensive weighted and unweighted cross tabulations.

We applied quality assurance procedures throughout the creation of this report. They encompassed how we determined evaluation methods, created specifications for project procedures and software, designed and reviewed computer systems, developed clerical and computer procedures, analyzed data, and prepared this report.

3. LIMITS

The results presented in the report must be considered in light of the following limits.

- This evaluation is intended to measure the effectiveness of the approach for disseminating CIS Program materials, and use of and satisfaction with the materials among teachers. It is not intended to measure the impact of the CIS Program materials on children, their parents, or on ensuring a high rate of participation in the Census 2000.
- Approximately 28 percent of the teachers sampled and contacted for this study responded. The level of response raises questions on the overall generalization of the findings pertaining to the degree to which the CIS Program was known to teachers. Our expectation is that teachers who did not hear of the program or did not use the CIS Program materials were less willing to respond to the survey. We do recognize that some respondents may have never received our survey. On the other hand, we suspect that those responding were teachers who actually ordered, received and used the CIS Program materials.
- The final data set contains adequate sample size to make statistical comparisons for the population as a whole and for major population groups. However, some subsets had too few observations to provide meaningful comparisons. These include: (1) teachers in Puerto Rico and (2) teachers in secondary schools providing instructions in topics other than social studies or math.
- This was a mail survey and thus respondents could easily err in following survey instructions. Examples of incorrectly following instructions that apply to this and nearly every survey include:
 - ▶ Providing multiple responses to a single response item.
 - ▶ Providing single responses when multiple responses were allowed.
 - ▶ Skipping items when skipping was inappropriate.
 - ▶ Not skipping items when directed to skip them.

These sorts of errors have consequences on maintaining a consistent set of responses while maintaining some level of integrity to the intent of the individual. In processing the data, all

skip patterns were enforced. Additionally, if the respondent indicated that they had received CIS Program materials, but also responded that they had not heard of CIS, then their receipt of the CIS Program materials was used to impute that they had, in fact, heard of the CIS Program.

- Because we explored a wide variety of relationships presented by the data, a conservative approach was taken in assessing statistical significance. We used Bonferroni's adjustment which reduced the potential for the acceptance of spurious findings, Type I error. Our tests are very conservative and therefore err on the side of concluding no difference in the findings when in fact there are differences, Type II error.

4. RESULTS

This section and the subsections within address the following research questions:

1. How did teachers hear about the Census in Schools Program?
2. Did teachers receive the Census in Schools Program materials?
3. Did teachers use the Census in Schools Program materials?
4. Did the Census in Schools Program materials reach teachers in hard-to-enumerate areas? Did those teachers order the materials?
5. Were the teachers satisfied with the Census in Schools Program materials?
6. Were there any overlooked or unanticipated problems related to the Census in Schools Program materials that might need to be addressed?

The first three questions focus on the kind of contact that the teacher may have had with the CIS Program/materials. The fourth question focuses on teachers in HTE areas. The last two questions focus on overall satisfaction with the CIS Program materials.

4.1 How did teachers hear about the Census in Schools Program?

Approximately 56 percent of the teachers nationally indicated that they heard of the CIS Program⁶.

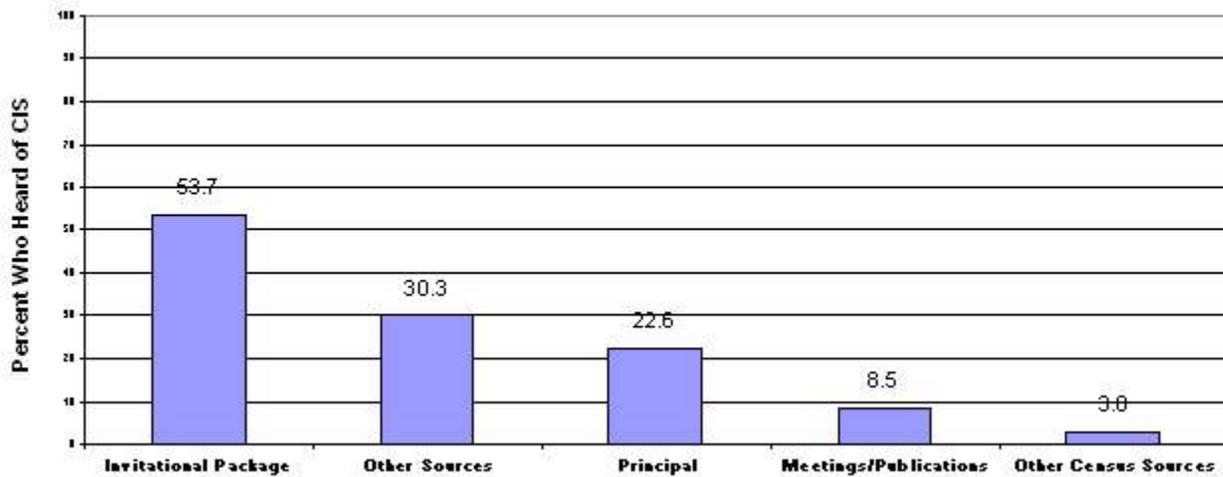
Teachers could hear of the CIS Program through a variety of sources. Among teachers who heard of the CIS Program:

- 54 percent heard about it through the invitational packet (Figure 1).
- 23 percent heard about it through their principal.

- 30 percent cited “other sources.” Since respondents could provide multiple responses, percentages are not additive. The most frequent response given for the “other source” of information was that “someone left *it* in my box.” This response does not specify whether *it* was the invitational packet, the actual CIS Program materials or some other information source. The actual CIS Program materials include the following components: Teaching Guide and lesson plans, a Giant U.S. Map, and Take-Home materials.

Figure 1. Percent of Teachers Hearing of Census in Schools Program by Information Source*

4.2 Did teachers receive the Census in Schools Program materials?



* Based on 785 unweighted and 1,605,088 weighted responses. Multiple responses were possible; therefore, percentages are not additive.

Overall, sixty-three percent of all teachers who heard about the CIS Program received at least one component of the CIS Program materials: (1) Teaching Guide and lesson plans, (2) a Giant U.S. Map, and/or (3) Take-Home materials⁷.

- Eight-four percent of teachers who heard of the program received the Teaching Guide and lesson plans.
- The same percent (84 percent) received the Giant U.S. Map.
- Thirty-three percent of teachers who heard about the CIS Program received the Take-Home materials. This percentage is not surprising, as grade appropriate Take-Home materials were only available for grades kindergarten through eighth.

Individuals receiving materials cited multiple sources for obtaining these materials.

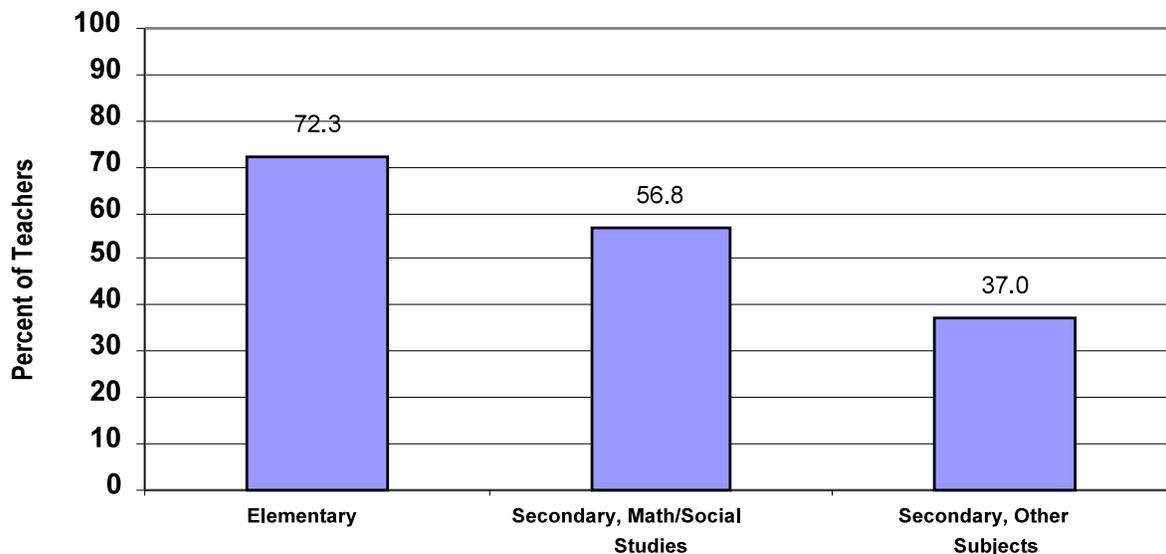
- Principals were the major means for acquiring materials. Thirty-nine percent received materials through their principal (Table 3).
- Twenty-three percent of all teachers ordered the materials (Table 3). Among those teachers who ordered CIS Program materials, the two most frequent reasons for doing so were to enrich their teaching curriculum (23 percent) and to increase their students' understanding of the importance of Census 2000 (21 percent). Elementary school teachers were attracted by the Giant U.S. Map (77 percent of those cited the map as a reason for ordering) to a greater extent than were secondary school math or social studies teachers (8 percent)⁸.

Teachers hearing about the CIS Program through their principal were more likely to receive materials than those hearing about the program through other sources.

- Seventy-one percent received at least one of the CIS Program components, of the 23 percent who heard about the program through the principal.
- Sixty-four percent received at least one of the CIS Program components, of the 54 percent who heard about the program through the invitational packets.

Elementary school teachers were more likely to have received at least one component of the CIS Program materials (72 percent) than secondary school math or social studies teachers (57 percent). Thirty-seven percent of secondary school teachers focusing on other disciplines received at least one component⁹ (Figure 2).

Figure 2. Percent of Teachers Receiving Census in Schools Program Materials by Grade Level/Subject Taught*



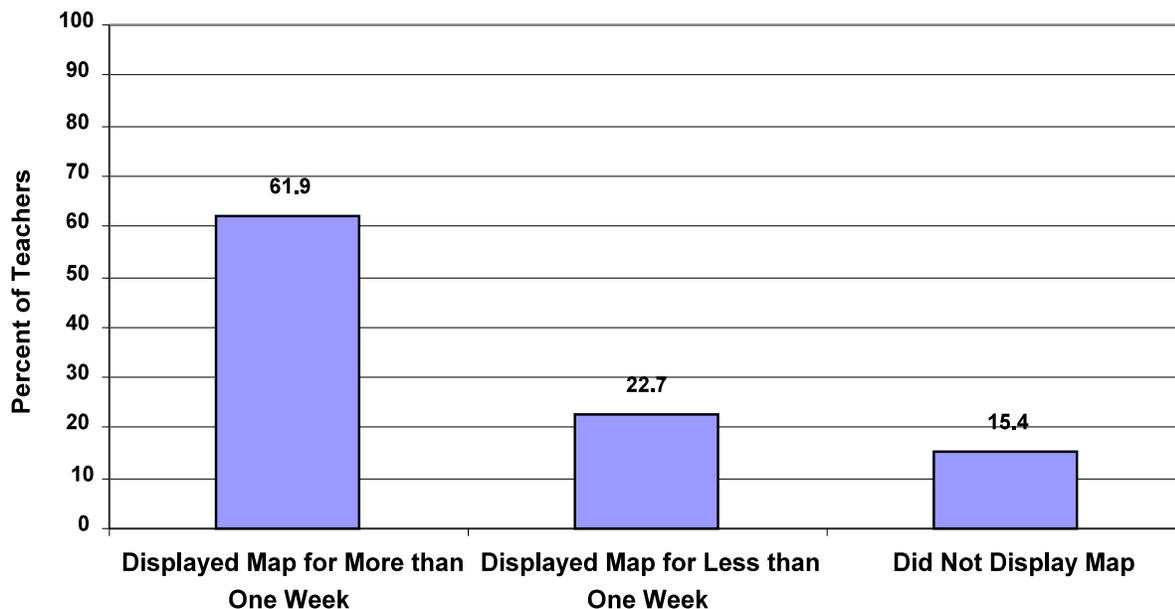
*Based on 771 unweighted responses; 593 elementary school teachers, 138 secondary school social studies or math teachers, and 40 secondary school teachers specializing in other subjects. The weighted estimates are 1,576,615 responses; 1,021,200 elementary school teachers, 277,945 secondary school social studies or math teachers, and 277,469 secondary school teachers specializing in other subjects. Due to rounding, the weighted estimates of teachers by type do not add to the weighted estimate of total responses.

4.3 Did teachers use Census in Schools Program materials?

Ninety-two percent of teachers receiving the Giant U.S. Map used it in classroom activities¹⁰. Eighty-five percent displayed it in their class. Sixty-two percent of them displayed the map for more than one week. Twenty-three percent of them displayed it for less than one week (Figure 3).

Almost 79 percent of teachers who received the Take-Home materials sent the materials home with their students.

Figure 3. Percent of Teachers Displaying the Giant U.S. Map by Time Displayed*



*Based on 577 unweighted responses; 336 teachers in HTE areas and 241 in other areas. The weighted estimates are 824,853 responses; 333,419 teachers in HTE areas and 491,434 teachers in other areas.

4.4 Did the Census in Schools Program materials reach teachers in hard-to-enumerate areas? Did those teachers order the materials?

About 39 percent of all teachers in the 50 states, the District of Columbia and Puerto Rico taught in the HTE areas.

Since elementary school teachers in HTE areas were targeted by the invitational packet, we expected a very large proportion of these teachers to have heard about it through the invitational packet.

- | Sixty-eight percent of elementary school teachers in HTE areas heard about the CIS Program. Sixty-two percent of elementary teachers in other areas heard about the CIS Program. This difference is statistically significant¹¹ at the p=.10 level (Table 1).
- | Forty-four percent of secondary school social studies/math teachers in HTE areas heard about the CIS Program. Fifty-nine percent of secondary school social studies/math teachers in other areas heard about the CIS Program. This difference is statistically significant¹² at the p=.10 level.

Table 1. Percent (and standard errors) of Teachers Hearing of the Census in Schools Program, Grade Level/Subject Taught by Type of Enumeration Area*

GRADE LEVEL/SUBJECT	Hard-to-Enumerate Area	Other Area
Elementary	68.0% (2.6)	61.9% (3.1)
Secondary Math/Social Studies	44.4% (7.2)	59.4% (5.4)

*Based on 1046 unweighted responses; 785 who heard of CIS and 261 that did not hear of it. The weighted estimates are 2,852,725 responses; 1,605,088 heard of CIS and 1,247,637 did not.

Of those in HTE areas who heard about the CIS Program, almost 61 percent received at least one component of the CIS Program materials.

- Sixty-four percent of teachers in HTE areas who heard about the program through the invitational packets or through principals received at least one component of the CIS Program materials (Table 2).
- Sixty-two percent of the teachers in HTE areas who heard about the program through other sources actually received at least one component of the CIS Program materials (Table 2).

Table 2. Percent (and standard error) of Teachers Teaching in Hard-to-Enumerate Areas Receiving Census In Schools Program Materials by Source of Information*

Source of Information	Percent Receiving CIS Materials
Heard about the program through...	
Principal	63.9% (8.6)
Invitational Packet	63.9 (5.9)
Other Census Sources	83.5 (17.0)
Professional Meetings/Publication	53.6 (22.5)
Other Sources of Information	62.4 (7.9)

*“Other Census Sources” is based on 22 unweighted responses. Its presence in the table is for completeness only. Based on 442 unweighted responses; 384 received the materials. The weighted estimates are 665,841 responses; 404,427 received materials.

“Other Source of Information” does not include downloads from the Census Bureau web site (6 unweighted responses), or colleagues (62 unweighted responses with 30 teachers in HTE areas using this source).

A greater percentage of teachers in HTE areas indicated that they received the CIS Program materials by ordering them (34 percent) than teachers in other areas (16 percent). A smaller percentage of teachers in HTE areas received the CIS Program materials through other unspecified sources (18 percent) than teachers in other areas (33 percent)^{13,14} (Table 3).

Table 3. Percent (and standard errors) of Teachers, Method of Receipt of Census in Schools Program Materials by Type of Enumeration Area*

Method of Receipt	Teach in a Hard-to-Enumerate Area	Teach in other area	Total
Ordered Materials	33.8% (3.2)	15.8% (3.0)	23.1% (2.6)
Through Principal	37.0 (3.5)	39.7 (5.4)	38.6 (3.1)
Other Source	18.2 (3.1)	32.5 (5.1)	26.7 (3.3)

*Cell percentages are calculated over column totals for all possible methods of receipt. Multiple responses were possible; therefore, cells are not mutually exclusive. Based on 633 unweighted responses; 372 in HTE areas and 261 in other areas. The weighted estimates are 924,470 responses; 374,438 in HTE areas and 550,032 in other areas. "Other Source" does not include downloads from the Census Bureau web site (6 unweighted responses), or colleagues (62 unweighted responses with 30 teachers in HTE areas using this source).

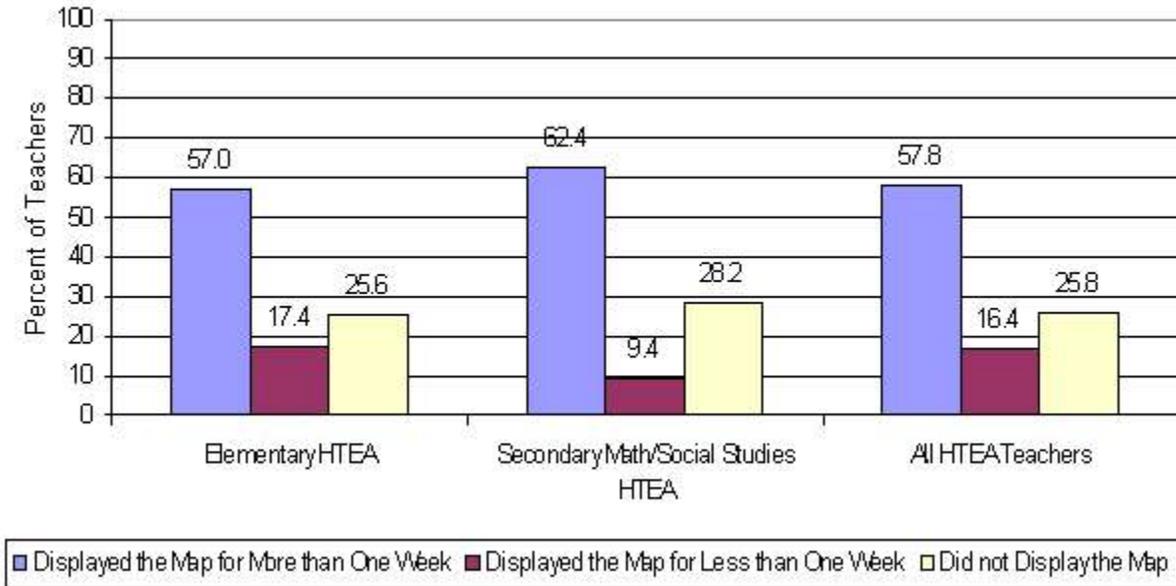
Teachers' tendencies for displaying and using the map varied little by their grade level and subject specialty, nor did these tendencies vary by whether or not the teacher worked in a HTE area.

Seventy-four percent of all teachers in HTE areas displayed the Giant U.S. Map. Fifty-eight percent displayed it for more than one week (Figure 4).

Overwhelmingly, teachers in HTE areas not only displayed the map (74 percent), but also used it in class activities as shown in Figure 5 (94 percent). Elementary school teachers, however, were more inclined to use the map than were secondary school teachers (97 percent to 77 percent) suggesting that the map may have been less appropriate for older students¹⁵.

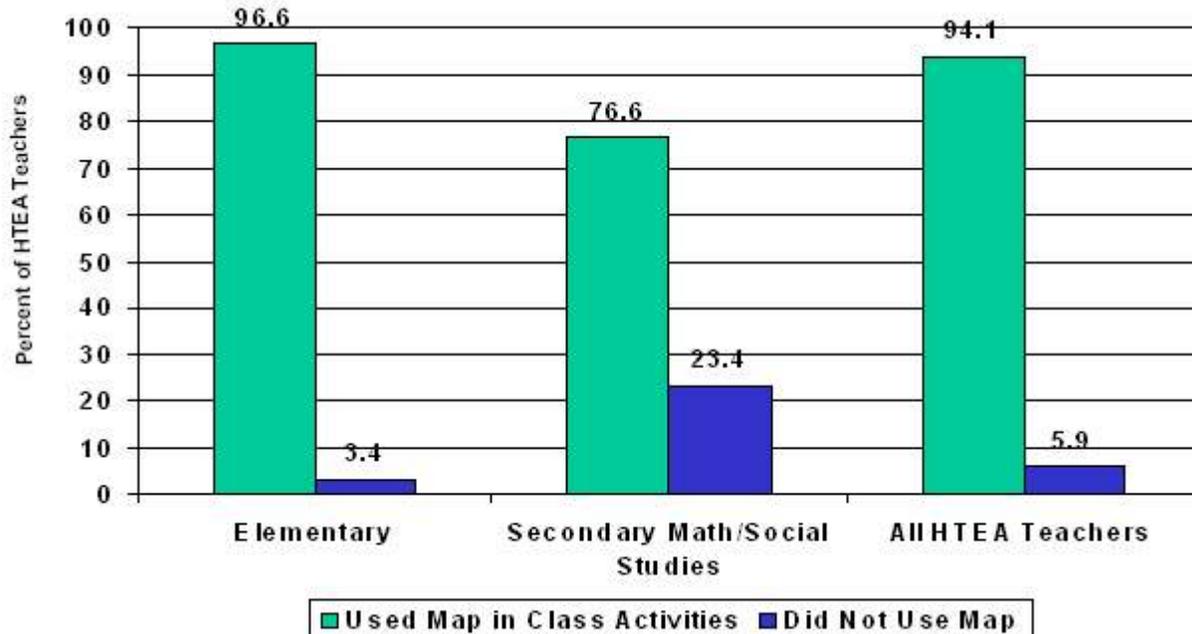
The percentages of teachers sending home the Take-Home materials in HTE areas and in other areas are about the same as the percentage of all of the teachers sending the materials home.

Figure 4. Percent of Teachers in Hard-to-Enumerate Areas (HTEA), Displaying the Giant Map by Grade Level/Subject Taught*



*Based on 365 unweighted responses; 310 elementary school teachers, 49 secondary school social studies or math teachers, and 6 secondary school teachers specializing in other subjects. The weighted estimates are 365,640 responses; 318,687 elementary school teachers; 45,004 secondary school social studies or math teachers, and 1,949 secondary school teachers specializing in other subjects

Figure 5. Percent of Teachers in Hard-to-Enumerate Areas (HTEA), Using the Giant Map in Class Activities*



*Based on 293 unweighted responses; 247 elementary school teachers, 40 secondary school math or social studies teachers, and 6 secondary school teachers specializing in other subjects. The weighted estimates are 270,487 responses; 236,245 elementary school teachers, 32,293 secondary school math and social studies teachers, and 1,949 secondary school teachers specializing in other subjects.

4.5. Were the teachers satisfied with Census in Schools Program materials?

Teacher’s responses to seven statements relating to the Teaching Guide were coded on a five point scale from strongly disagree (1) to strongly agree (5). The percentages of teachers who responded agree or strongly agree were combined to create an agreement percentage for each statement. Percentage agreement ranged from 73 percent to 89 percent (Table 4).

- Eighty-nine percent of the teachers agreed that the materials were clear.
- Eighty-eight percent of the teachers agreed that the materials were in an easy-to-use format.
- Eighty-two percent of the teachers agreed that the materials were received in a timely manner.
- Seventy-seven percent of the teachers agreed that the materials promoted student interest in Census 2000.
- Seventy-five percent of the teachers agreed that the materials were subject-matter appropriate.

Table 4. Percent (and standard errors) of Teachers Agreeing with Statements about the Census in Schools Teaching Guides*

Satisfaction	Percent Agreeing or Agreeing Strongly With Statement
Were the materials received in time?	81.7% (1.9)
Were the materials in an easy to use format?	88.0 (2.3)
Were the materials clear?	89.2 (2.6)
Were the materials subject matter appropriate?	74.7 (3.8)
Were the materials appropriate for the curriculum?	77.1 (3.8)
Were the materials appropriate for grade level?	73.2 (3.4)
Did the materials promote student interest in Census 2000?	76.7 (3.4)

*These results do not include respondents who replied “NA.” Percentages in the Appendix C tables do include these responses. The number of responses for computing statistics varies with item.

Teacher’s responses to eight statements relating to the Take-Home materials were coded on a five point scale from strongly disagree (1) to strongly agree (5). The percentages of teachers who responded agree or strongly agree were combined to create an agreement percentage for each statement. Percentage agreement ranged from 63 percent to 87 percent (Table 5).

- Eighty-seven percent agreed that the Take-Home materials were in an easy-to-use format.
- Eighty-two percent agreed that the Take-Home materials were clear.
- Seventy-eight percent agreed that the Take-Home materials were received in a timely manner.
- Seventy-three percent agreed that the Take-Home materials promoted student interest in Census 2000.
- Seventy-two percent agreed that the Take-Home materials were subject-matter appropriate.
- Sixty-three percent agreed that the Take-Home kit was an effective communication tool.

Table 5. Percent (and standard errors) of Teachers Agreeing with Statements about the Census in Schools Take-Home Materials*

Satisfaction	Percent Agreeing or Agreeing Strongly With Statement
Were the materials received in time?	78.0% (2.8)
Were the materials in an easy to use format?	86.9 (3.5)
Were the materials clear?	81.7 (3.5)
Were the materials subject matter appropriate?	72.2 (3.9)
Were the materials appropriate for the curriculum?	71.7 (3.9)
Were the materials appropriate for grade level?	70.2 (4.0)
Did the materials promote student interest in Census 2000?	72.7 (3.8)
Was the Take- Home Kit an effective communication tool?	62.9 (3.7)

*These results do not include respondents who replied “NA.” Percentages in the Appendix C Tables do include these responses. The number of responses for computing statistics varies with item.

Teachers in HTE areas, however, tended to believe the Take-Home materials were an effective communication tool to a greater extent than those in other areas. Sixty-seven percent of teachers in HTE areas rated them effective, as opposed to 53 percent in other areas.¹⁶

Teachers agreed that the Teaching Guide materials and the Take-Home materials promoted student interest; 77 percent (Table 4) and 73 percent (Table 5), respectively¹⁷.

Sixty-five percent of all teachers are likely or very likely to use Census teaching materials if made available to them (Table 6).

- Teachers in HTE areas (74 percent) are significantly more likely to use Census teaching materials than are teachers in other areas (60 percent) (Table 6).
- Additionally, 73 percent of math or social studies teachers in secondary schools indicated they would use other Census teaching materials whereas only 65 percent of elementary school teachers were likely to do so¹⁸ (Table 7).

Table 6. Percent (and standard errors) of Teachers Who Would Use Census Teaching Materials by Type of Enumeration Area*

Likelihood of Using Materials	Hard-to-Enumerate Area	Other Area	Total
Very likely	28.2% (3.3)	21.6% (2.7)	24.2% (2.1)
Likely	45.5 (2.7)	38.1 (3.0)	41.0 (2.0)
Neither likely or unlikely	12.8 (2.2)	18.8 (2.0)	16.4 (1.4)
Unlikely	7.1 (2.2)	10.8 (1.6)	9.3 (1.6)
Very unlikely	6.4 (1.8)	10.9 (1.9)	9.1 (1.4)
Total	100%	100%	100%

*Cell relative frequencies are calculated as a weighted percentage of column totals. Based on 1010 unweighted responses; 548 in hard-enumerate areas and 462 in other areas. The weighted estimates are 2,715,429, in HTE areas 1,082,962 and, in other areas 1,632,467.

Table 7. Percent (and standard errors) of Teachers Who Would Use Census Teaching Materials by Grade Level/Subject Taught*

Likelihood of Using Materials	Elementary School Teacher	Secondary School Math/Social Studies Teacher	Total (Includes secondary school teachers specializing in other areas)
Very likely	23.3% (1.8)	29.7% (5.1)	24.2% (2.1)
Likely	41.4 (2.4)	43.3 (4.6)	41.0 (2.0)
Neither likely or unlikely	16.1 (2.0)	13.5 (2.7)	16.4 (1.4)
Unlikely	10.5 (1.5)	7.5 (2.3)	9.3 (1.6)
Very unlikely	8.8 (1.4)	6.0 (2.8)	9.1 (1.4)
Total	100%	100%	100%

*Cell relative frequencies are calculated as a weighted percentage of column totals. Based on 1010 unweighted responses; 733 elementary school teachers and 202 secondary school math or social studies teachers. Total includes secondary school teachers specializing in subjects other than math and social studies. The weighted estimates are 2,715,429 responses; 1,526,543 elementary school teachers and 511,825 secondary school math or social studies teachers.

4.6. Were there any overlooked or unanticipated problems related to the Census in Schools Program materials that might need to be addressed?

Fifty-three teachers answered an open-ended question about why they chose not to send the Take-Home materials home.

- For the most part, teachers cited a “lack of time....” In particular, they stated that, by the time they received the materials, their class schedules were already crowded with other curricula. One teacher wrote in an especially revealing comment that they were “too busy teaching state mandated material for state mandated tests.” In all, four of the 26 teachers who related that they did not have time to incorporate CIS Program Take-Home materials cited conflicts with standardized testing (Table 8).
- “Too elementary,” wrote one teacher, yet five others believed the materials were too difficult for their students.
- Others stated that “no [language appropriate] copies were available” and that, in English, “ESL (English as a Second Language) [students] couldn’t do [it] independently.” A total of four teachers cited language barriers as a reason for not using the Take-Home materials.

Table 8. Frequencies and Unweighted Percents of Teacher Responses to an Open-Ended Inquiry as to Why They Did Not Send the Take-Home Materials Home with Their Students*

Reason	Frequency	Unweighted Percentage
Lack of time	26	49.1%
*Materials are too easy, Materials are too difficult, Inappropriate form including language barriers, Lack of school resources for reproducing, etc.	16	30.2
Other reasons	11	20.8
Total	53	100%

*For these categories, the counts are combined because the categories have less than 10 responses.

5. CONCLUSIONS AND RECOMMENDATIONS

The data indicate that the respondents seem largely satisfied with the CIS Program materials they received. They are generally satisfied with the CIS Program materials' easy-to-use format, clarity, and with student's interest in the Census 2000 CIS materials. Several themes appeared in the data and are presented below.

Not as many teachers heard about the CIS program from the invitational packets as we originally expected.

The invitational packets were intended to be an introduction to the program and hopefully to initiate interest in ordering CIS Program materials. About 54 percent of the teachers responding to the survey mentioned the invitational packet as one of the sources of information. We also found that:

- Overall, 63 percent of teachers who heard of the CIS Program received at least one of the CIS Program components.
- Other named sources for introducing teachers to the CIS Program were important. In particular, while principals were cited as a source of information by 23 percent of all respondents, 71 percent of those who did hear about it from their principal received at least one of the CIS Program components. Sixty-four percent of all teachers who mentioned the invitational packets as a source of information actually received at least one of the CIS Program components.
- Many teachers indicated that information about CIS appeared in the teacher's mailbox. Such information may be in the form of the invitation packet, the CIS Program materials, or a note passed on by the principal or another teacher. In any case, this ambiguity leads us to hypothesize that the invitational packets were not designed or transmitted to teachers in a way to be recognized as an invitational packet.
- The percentage of teachers hearing of CIS Program through the invitational packet was similar in both HTE areas (which were targeted through the invitational packet) and in other areas. We would have expected the invitational packet to be more successful in HTE areas.

The invitational packets did not seem to make an impression on almost half the teachers. The strategy for mailing the invitational packets was to use Scholastic packaging. Scholastic materials usually catch the attention of teachers because they may contain free teaching materials. Because Scholastic is a well-known distributor of educational curriculum materials to school teachers and curricula developers, their packaging was expected to draw the attention of these groups. A later mailing was performed using Census Bureau packaging. Although design or packaging of the materials may explain the lack of recognition by school teachers, it may be the case that the receipt of the packets may have come during a timeframe where school teachers would have paid less attention to their mail. It may also be the case that some teachers defer some matters (such as dealing with Scholastic mailings) to principals and other administrators, and therefore would

have sent such mailings directly to the principal or otherwise gotten rid of the invitational packet without examining it.

Recommendation: Test alternative designs for the mailing envelopes. Conduct research/testing (e.g. focus groups) to assist in understanding how and when teachers react to various types of mailings.

Materials were generally highly rated.

Teachers were largely satisfied with the Teaching Kits and Take-Home materials. Satisfaction was highest for the content of and the easy-to-use format of the materials. Satisfaction was lower on the grade appropriateness of the materials and their fit to the curriculum, although at least 70 percent of the respondents were satisfied. This suggests that additional teachers could be reached if materials were tailored to fit the grade and curriculum-specific needs of teachers. Approximately 63 percent of the teachers agreed that Take-Home materials were an effective communications tool. The Take-Home materials were rated satisfactory by proportionately fewer teachers than were the Teaching Kits. If the ultimate purpose of the CIS Program was to convince adult heads of households in HTE areas to participate in Census 2000, then arguably what should have been one of its most effective tools was the student Take-Home materials.

Recommendation: Test alternative designs for the materials. Design the materials to better meet the needs of the teachers. Tailor the materials to a greater extent than were the Census 2000 materials.

Principals seem to be important conduits for information.

A majority of the invitational packets were mailed directly to teachers. But, the data suggest that many teachers were made aware of CIS through principals. In addition, many of those who received the materials, did so through their principals.

- A more effective campaign probably could have been accomplished by intensively working through principals.
- This may be particularly true for elementary school teachers, who cited the principal as an important source of information, or as a conduit for receipt of materials, to a larger extent than did secondary school teachers.

Principals seem to be important for transmitting information to teachers, and persuading them to take action.

Recommendation: Use principals to transmit the materials to teachers.

With a few exceptions, there were no notable differences in the survey responses provided by teachers in HTE areas compared to teachers in other areas.

Even when these exceptions are examined, the differences are not large. This is unexpected given the focus of the program on HTE areas. More information is needed to assess why there were so few differences.

Recommendation: Conduct special focus groups with teachers from HTE areas and from other areas to better understand how these teachers can be reached.

ENDNOTES

1. Scholastic is a well-known organization that develops and distributes educational materials to schools nationally.
2. Whether or not a school resided in an area likely to be considered HTE was a function of its student need indicator (SNI) and household income (HHI). The SNI was based on the proportion of children who participated in the school breakfast program. More precisely, the first two promotional mailings were sent to all pre-Kindergarten through twelfth grade math and social studies teachers in public schools, and to all curriculum coordinators and department heads in all Bureau of Indian Affairs (BIA) schools, and to schools where the SNI was forty percent or greater. Average (HHI) was also used as a selection criterion. Invitations were distributed to teachers in public schools with an HHI of less than \$35,000 annually, and to all private schools, Catholic schools, and State and County schools with HHI less than \$20,000. Private, Catholic, and State and County elementary and middle schools with an average HHI between \$20,000 and \$29,999 were also encouraged to participate. All schools in cities with populations of 250,000 or more were sent invitational packages as well.
3. Available by request to the Planning, Research, and Evaluation Division (PRED).
4. We encountered an issue in the the sample selection process involving how to best replicate the original approach used by Scholastic in disseminating the CIS Program invitations directly to teachers by name, and indirectly to teachers by position. These and other issues are further discussed in the methodology report.
5. In Puerto Rico, the sampling approach used the principal at each sampled school as the channel for selecting the particular teacher to whom the questionnaire would be sent.
6. A data table is not in the report for all findings presented, detailed tables are located in a separate appendix, Appendix C. Copies of Appendix C can be requested from PRED.
7. The map and guide were bundled together and distributed as a “teaching kit”. Respondents did indicate, however, that they did occasionally receive one, or the other, but not both. The comparison, among those who have heard of the program, between those receiving and not receiving materials is significant at the $p < .0001$ level.
8. The comparison between “opportunity to enrich curriculum” and “opportunity to increase understanding of the importance of the Census” is significant at an unadjusted multiple comparison level of $p = .3072$ (two-tailed). However, the comparison between “opportunity to increase understanding of the importance of Census”, for example, and the next most frequently stated reason, “opportunity to involve students and families in civic issues,” is significant at an unadjusted level of $p = .0213$. Using Bonferroni’s adjustment for 15 multiple comparisons leaves the comparison valid at a level of $p = .3195$.

The comparison of elementary school teachers and secondary math/social studies teachers who listed the “Free Map” as an inducement to order materials (under the alternative hypothesis that elementary school teachers would be more attracted to the map) is significant at an unadjusted multiple comparison significance level of $p = .0336$. Using Bonferroni’s adjustment for three comparisons leaves the result significant at the $p = .10$ level.

9. We tested the alternative hypotheses’ that elementary school teachers are more likely to receive materials than are secondary math/social studies teachers, and that secondary math/social studies teachers are more likely to receive materials than are secondary teachers who teach other subjects were . We found that:

- The hypotheses that Elementary school teachers are more likely to receive materials than secondary math/social studies teachers has an unadjusted multiple comparison significance level of $p = .0203$.
- The hypotheses elementary school teachers are more likely to receive materials than secondary other teachers has an unadjusted multiple comparison significance level of $p = .0012$.
- The hypotheses secondary math/social studies teachers are more likely to receive materials than are other secondary school teachers has an unadjusted multiple comparison significance level of $p = .0614$.

Bonferroni’s adjustment for three multiple comparisons leaves all but the last comparison significant at the .10 level.

10. For teachers indicating that they received the map, the comparison of those who displayed it with those who did not is significant at the $p = .0001$ level. The alternative hypothesis is that teachers who received the map would display it.

The comparison of teachers who used the map for class activities, under the alternative hypothesis that those who received the map would use it, is significant at the $p < .0001$ level.

11. The comparison between elementary school teachers under the alternative hypothesis that teachers in HTE areas are more likely to have heard of CIS is significant at the $p = .0561$ level.

12. The comparison between secondary math and social studies teachers under the alternative hypothesis that teachers in HTE areas are more likely to have heard of CIS is significant at the $p = .0561$ level.

13. Under the alternative hypothesis that, because they were targeted with invitations, teachers in HTEAs were more likely to have ordered the materials than those in other areas, the comparison is significant at the $p < .0001$ level.

14. Under the alternative hypothesis that, because principals were the primary contacts in non-HTEAs, teachers in non-HTEAs were more likely to have received the materials from their principals, the comparison is significant at the $p = .0149$ level.

15. Under the alternative hypothesis that elementary school teachers were more likely to use the map in classroom activities than secondary school math/social studies teachers, the comparison between the two groups is significant at the $p = .0925$ level.

16. The comparison between teachers who work in HTE areas and agreed that the Take-Home materials were an effective communication tool for parents and students, with those who teach in other areas, is significant at the $p = .0211$ level.

17. The comparison of teachers who agreed that the Teaching Guide promoted student interest in the Census with those who did not agree is significant at the $p = .0001$ level. The comparison of teachers who agreed that the Take-Home materials promoted student interest in the Census with those who did not agree is significant at the $p = .0013$ level.

18. The comparison of teachers in HTE areas with those in other areas, based on their stated likelihood of using CIS materials in the future, is significant at the $p = .0113$ level. The comparison between elementary school teachers and those secondary teachers specializing in math and/or social studies has an unadjusted significance at $p = .0474$ level. Making Bonferroni's adjustment for three teacher types renders the comparison valid at $p = .1422$.