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Working Paper Series

The Working Paper Series was created in order to preserve the information contained in these documents and to promote the sharing of valuable work experience and knowledge. However, these documents were prepared under different formats and did not undergo vigorous NCES publication review and editing prior to their inclusion in the series.

NATIONAL CENTER FOR EDUCATION STATISTICS

Working Paper Series

Further Cognitive Research on the Schools and Staffing Survey (SASS) Teacher Listing Form

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Office of Educational Research and Improvement

U.S. Department of Education
Richard W. Riley
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July 1997

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Samuel S. Peng
Acting Director
Statistical Standards and Services Group

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Further Cognitive Research on the Schools and Staffing Survey (SASS) Teacher Listing Form

Prepared by:

Andrew Zukerberg
Meredith Lee

Center for Survey Methods Research
U.S. Bureau of the Census

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I. EXECUTIVE SUMMARY

This report details the results of cognitive research conducted on the Teacher Listing Form (TLF) of the Schools and Staffing Survey (SASS). Twenty cognitive interviews were conducted in three waves. After the first and second waves revisions were made and the form was retested.

The TLF tested in wave one was designed following the recommendations of Jenkins and Von Thurn (1996) based on cognitive interviews they conducted. The form was reorganized to have a vertical flow. Color was introduced as a navigational aid and to make the survey look more visually appealing. Definitions and examples were provided to clarify the instructions.

Despite these efforts, wave one respondents continued to have difficulty with the matrix, indicated by incorrectly including certain staff members, and by failing to read the instructions before completing the matrix.

We revised the questionnaire in wave two, trimming as much as possible from the instructions and improving the navigational characteristics of the form. This included repeating the instructions on later pages of the matrix and reducing the number of examples provided. A second wave of seven interviews was conducted. Again, problems were uncovered in this round of interviews. Definitions were sharpened and the formatting was fine tuned.

A final round of interviews was conducted.

Remaining wording issues include: defining the burden statement, adjusting the three years or less definition, and expanding the race/ethnicity options. Additionally, we recommend more changes to the form, including expansion to a larger size page with more instructions on the table. This would reduce the overwhelming appearance of the instructions, and respondents would be able to locate the information they need.

II. BACKGROUND

The Census Bureau conducts the Schools and Staffing Survey (SASS) for the National Center for Education Statistics. SASS consists of ten self-administered questionnaires designed to obtain nationwide information on all aspects of the school system. The Teacher Listing Form (TLF) is the first in the SASS sequence. This list is used to select teachers from schools to participate in the Teacher Questionnaire. In order for the TLF to obtain accurate data, it is important that respondents attend to the lengthy instructions detailing which teachers should be included and excluded from the form.

In a previous round of cognitive interviews, Jenkins and Von Thurn (1996) reported that there were several problems with the form that resulted in misreporting; e.g., information was arranged

in a distracting manner that proved to be confusing for respondents, and the instructions were not well defined which resulted in confusion for many respondents.

Taking the recommendations of Jenkins and Von Thurn (1996) into consideration, we redesigned the TLF hoping to combat several of these problems and to make the form respondent friendly.

First, this report will describe the methodology used. A description of revisions we made during the three waves and the results of those revisions will follow. The report concludes with recommendations for changes to the Teacher Listing Form.

III.   METHODS

Twenty cognitive interviews were conducted in three waves. Interviewing took place between January and March 1997. Table 1 shows the number of interviews conducted in each wave. The first wave used a form based on the recommendations made by Jenkins and Von Thurn (1996). The form was revised after wave one and two.

Table 1: Interviews Conducted in Each Wave

Wave	Interviews
1	6
2	8
3	6
Total	**20**

Interviews were conducted by two experienced researchers from the Center for Survey Methods Research. Interviews were conducted using concurrent think aloud, retrospective recall, and debriefing techniques. Respondents were asked to read the questionnaire aloud. Respondents were also asked to think aloud and interviewers probed as respondents completed the form. Interviews were tape recorded with respondents' permission.

Seven private and thirteen public schools were interviewed. The schools were located in one of six counties (Anne Arundel County, MD; Charles County, MD; St. Mary's County, MD; Alexandria County, VA; Arlington County, VA; and Fairfax County, VA). Nineteen schools were selected from the Common Core Data (CCD). One new school, which was not on the CCD was selected from a map of the county. School size varied widely, ranging from 10 teachers to 142 teachers. The median number of teachers was 40.5.

The results reported here are based on a small non-probability sample, using qualitative techniques. Additionally, a cognitive interview alters the essential survey conditions. In this case, an interviewer was present for a survey which is intended to be self-administered. Furthermore, the interviewer asked questions as the survey progressed which could influence the way respondents answer future questions. Therefore, caution should be used in interpreting the results.

When scheduling interviews, recruiters attempted to determine who would normally fill out the questionnaire and arranged the appointment with them. In all twenty cases this was the headmaster, principal, vice principal, or their administrative staff. As is often the case in establishment surveys, once the person with whom the interview was scheduled saw the form and realized the nature of the reporting task, they realized they would not be the one who normally fills out the questionnaire, or they would not complete it alone. Therefore, some interviews were conducted with multiple respondents.

Table 2 shows the grade ranges interviewed. A larger number (seven) of middle schools were interviewed, relative to other schools, because previous research (Jenkins and Von Thurn, 1996) showed that respondents from middle schools were more likely to have a problem with the overlapping grade ranges.

Table 2: Grade Range

Grade Range	Number
PK - 06	1
PK - 08	1
KG - 05	2
KG - 06	2
KG - 12	1
05 - 12	1
06 - 08	7
06 - 12	1
07 - 12	2
09 - 12	1
Ungraded	1
Total	**20**

IV.   FORMATTING

Substantial changes were made between the formatting of the original TLF and the revised form. The formatting changes were evaluated and revised throughout the three waves of testing. The changes were aimed at improving the readability of the form and ease of completing the form. The goal was to create a questionnaire that respondents could navigate through efficiently and accurately, as well as creating one which was more attractive to fill out, thus reducing measurement error and increasing response rates.

Color
Instead of using black, white, and grey as had been used on the previous TLF, we added color to improve navigation and the overall appearance of the form. A cool blue was used as background color on the form. A darker shade of the cool blue was used to highlight important information. The background blue allowed us to create a contrast with the white paper. Respondents reacted positively to the use of color. When asked to compare the new form with the original, many respondents expressed a preference for the colorful form. A couple of respondents commented that the revised form looked "less official" than its predecessor. Although these respondents were quick to add that this was an improvement, it is possible that the less official look could adversely affect response rates. The upcoming field test will be an important indicator of this potential problem.

Numbering
Following a recommendation by Jenkins and Von Thurn (1996) all questions and instructions were numbered. This proved to be an effective way to draw respondents' attention to important information. The numbering also served as a navigational tool.

Navigation
We redesigned the form so that respondents could navigate through it in a vertical manner. Information flowed from the top of the page to the bottom in a single, organized list. Graphical skip patterns replaced the written skip instructions used on the original TLF. These changes will be described in greater detail later in the report.

V.   FINDINGS

COVER PAGE

The cover page of the Teacher Listing Form contains vital information, such as the name and the grade range of the school that the respondent is supposed to report on. From the previous round of cognitive interviews, it was evident that the cover page needed to be reorganized, since many respondents either skimmed over it, or ignored it entirely (Jenkins and Von Thurn, 1996). Appendix 1 shows the original TLF cover page. Many respondents did not read the notice that

appeared toward the bottom of the page instructing respondents to call the Census Bureau if the grade range printed on the cover page was not correct.

A concerted effort was made to prominently display important information on the cover page (see Appendix 2). However, use of an existing mailing envelope restricted the design of the cover page by requiring a large amount of space be devoted to the address label. Additionally, a desire to print the return address of the nearest regional office was expressed. The current design will allow for this.

Appendix 2 shows that the title of the survey and the name of the sponsor were placed horizontally across the top of the cover page. We also placed the apple icon in the top right hand corner. Furthermore, we removed the statement from the cover page that instructs respondents to call the Census Bureau if the grade range on the cover page is not correct. We placed this instruction and any other questions that refer to information on the cover page in the body of the actual survey.

Two arrows are in reverse print in the middle of a white band on the cover page. One arrow is labeled 'School' and the other is labeled 'Grade.' The arrows are meant to draw respondents to this information when they are answering the screening questions. However, representatives from Census' Jeffersonville facility, where the forms will be labeled and mailed out, have indicated that they may not be able to line up the labels with these arrows.

The notice 'Please return this form within 2 weeks in the enclosed envelope' was moved from an inconspicuous location on page 3 of the original form, to a more prominent place toward the bottom of the cover page. We also moved the confidentiality statement from the top right hand corner to the bottom of the cover page. We bolded these statements and offset them with a colored arrow that reads 'NOTICE.' In the last wave of interviews, we encircled both of these messages with a white background. The contrast draws greater attention than the bolded text alone.

When these changes were implemented, respondents read or skimmed most, if not all of the information on the cover page. More importantly, even if respondents did not initially read the cover page, they referred back to it when answering the screener questions. No respondents reported difficulty identifying or understanding information on the cover page.

BURDEN STATEMENT

The burden statement did not appear on the original TLF. However, it is now required by law that this statement be placed on government surveys. Appendix 3 shows the burden statement. We placed the statement on the back of the cover page, a fairly inconspicuous location. Some respondents did read this statement entirely, while others ignored it altogether. Many respondents only skimmed the paragraph until they saw how long it would take to complete the survey. For

the purpose of the cognitive interview, we informed respondents that the survey would take 1 hour to complete.

SCREENING PAGE

Screening Questions

This series of questions is intended to prevent out-of-scope units from reporting. The original series consisted of three questions sandwiched above the instructions for completing the table. The questions are shown in Appendix 4.

Jenkins and Von Thurn (1996) found that these questions were extremely problematic for respondents. In fact, they report that question one was the most frequently misunderstood question on the form. Additionally, many respondents skimmed or did not answer these questions.

The questions were revised and their placement changed. Appendix 5 shows that question one was split into two questions and clarified. Question two was deleted and replaced with a new question which verifies that the correct grade range is in our records. This series of questions was moved from the upper left hand corner of the original form to a larger and more prominent position on the page. To help alleviate respondents' confusion about the purpose of these questions, a numbered instruction explaining the questions was added.

Each question was followed by a skip instruction directing respondents who answered "no" to call the Census Bureau toll free. In the first wave of interviews, the skip pattern arrows were thin and the skip instruction [to call the Census Bureau] was aligned with the question. Although this was successful in most cases, one respondent did have difficulty following the skip instructions. The skip patterns were adjusted for the second wave. The adjusted skip pattern is shown in Appendix 5. The directional arrows were enlarged. The instruction box was indented. These changes seemed to work, as no respondents in wave two or three showed any difficulty following the patterns.

As discussed previously, Jenkins and Von Thurn (1996) reported that some respondents missed the screener questions altogether in the original TLF. The revisions appeared to reduce this problem. One respondent opened the form and started at page four (the page after these questions). This respondent eventually saw the screening page, but did not answer the questions. However, this respondent was the exception rather than the rule.

Month and Day School Closes

This question was problematic on the original questionnaire for two reasons. First, it was not well located, appearing at the top of the matrix (see Appendix 6). Secondly, respondents did not understand the question. Jenkins and Von Thurn (1996) reported that school closes for teachers and students on different days. They also found that one respondent put in the day of the week

when answering this question. To address these concerns we changed both the substance and appearance of the question.

Wave one respondents showed a tendency to write the year in as well as the date. To reduce this burden and further clarify the task we wanted respondents to complete, we added a third answer box with the year 1997 already completed. Appendix 5 shows the revised response categories.

Many respondents indicated that they did not know the exact day school would end because of snow days. However, they were able to provide an estimate.

Respondent Information
Item four in the original survey asked respondents to report their name, title, telephone number and current date. The questions asking for this information were double banked next to questions one through three. In order to establish a vertical flow, we moved these questions under question five and dropped the request for current date. The series started with an explanation of why the information was being requested. No problem occurred with this question. Appendix 5 shows the revision.

INSTRUCTION PAGE

The Teacher Listing Form contains a set of lengthy instructions describing which teachers should be included and which ones should be excluded from the form. Furthermore, there are several instructions that explain how to complete the table which requests information about each teacher.

In the original form, the instructions on completing the table preceded the Include/Omit list (see Appendix 4). We reversed this order and placed the Include/Omit instructions prior to the instructions on completing the table. This was done in an effort to lead respondents sequentially through the form. Operationally, respondents need to determine who to list first and then they need to figure out how to report each one on the table. We did not want to risk having respondents read the instructions on completing the table and then proceed directly to the table.

Jenkins and Von Thurn (1996) recommended an expansion of the instructions to address many concerns that were uncovered in their cognitive interviews. To accommodate the increase in length of instructions, it was necessary to change their presentation. For the first two waves of cognitive interviews, four distinct headings were created: 1) Include On The List 2) Also, Remember To Include And Categorize 3) Omit From The List 4) Completing The Form. Each heading was bolded in black ink and pointed to by a numbered blue arrow. Information under the heading was highlighted using blue apple shaped bullets. The instructions used in wave one can be found in Appendix 7.

It became apparent in the first wave of interviews that respondents found the instructions overwhelming. They made statements such as "holey moley," "oh god this is a lot," and "wow"

when they saw the instruction page. A couple of respondents read the instructions thoroughly. Many respondents merely skimmed the instructions and a couple ignored them completely. This is a significant problem since reading the instructions is clearly linked to accurate reporting. Interestingly, almost every respondent referred back to the instructions when completing the table.

Some instructions on the original TLF were too vague for respondents to accurately perform the response task. But our revisions to expand and clarify them produced instructions that were overwhelming. We took a three pronged approach to addressing this issue. First, we attempted to trim as many words as possible without changing the meaning of the instructions. Additionally, we collapsed examples. In wave three, the first two headings were combined into one list that included all the teachers that should be included. The list was indented to give the illusion of being shorter. The headings were changed from black to blue, to make it easier for respondents to find them when referring back to the instructions. Appendix 8 shows the revised wording and instructions. The instructions continue to be quite long.

INCLUDE ON THE LIST

Jenkins and Von Thurn (1996) uncovered several ambiguities with the list that needed to be clarified. Definitions and examples were added to guide respondents through the include and omit lists. Although we added these definitions, some respondents made errors when they were determining who to include. We made revisions throughout the three waves to improve these definitions. Respondent errors are discussed with the item at which they occurred.

• **Special Education**
In the previous round of interviews, Jenkins and Von Thurn (1996) reported that some respondents were unsure if certain teachers qualified as Special Education teachers. Jenkins and Von Thurn (1996) partly attribute this to the fact that there was not a definition of a Special Education teacher on the form. So, for our first wave of cognitive interviews, we added a definition for Special Education Teachers [see Appendix 7]

However, in the first round of interviews it was apparent that respondents were not cuing in on the fact that we were interested in teachers who teach classes specifically designed to meet the needs of special education students. For the second round of cognitive interviews we reduced this definition to read,

Meaning those who teach special education classes to students with disabilities.

This shortened definition drew respondents focus to the concept of 'special education classes.'

During the debriefing session, we asked respondents to tell us in their own words what Special Education teachers meant to them. Based on the responses, it was apparent that most respondents knew what was meant by a Special Education teacher.

A couple of respondents had difficulty categorizing the subject matter taught by special education teachers. They marked that some teachers teach special education and then marked another subject matter. These respondents did not consider special education to be a subject matter. Interestingly, both of these cases occurred in special education schools. What these respondents were actually doing was indicating what subject matter these teachers teach to special education children. One respondent consistently reiterated his confusion during the interview as to the intent of the subject matter column since Special Education teachers also teach other subjects. The respondent commented,

> She teaches all of these subject areas, so I guess, I would just (respondent checked all subjects except vo-tech and other) math, science, language arts, social studies, she doesn't do vocational technical, now I would go back (respondent turns to instructions) I just wanted to verify that on 'c' Mark the box most taught by the teacher, if the teacher teaches two or more. Since 'c,' I guess I would be confused, special education, you know they are doing K - 6, but she is also teaching the subjects. I would probably mark them all, but I think what you are looking for is, is it a science teacher in the secondary program, is it a math teacher in the secondary program, so I don't see a thing here that would indicate to me that as a special education teacher, this teacher is also teaching all this because they could be a resource teacher and just teach basic skills, which she is. So I am going to check it all.

Later in the interview the respondent was still experiencing distress over this issue.

> Well that's something that is interesting, I can put down that she is special ed. She is not general elementary. Now I am getting confused. I am thinking you don't want this. Maybe, you just want special ed. And you are not asking if she teaches general elementary subjects. Although, that's what she is doing and the others are teaching resource... You know since this program is a special ed center we do focus very heavy on instruction, I would expect that my staff would be teaching general elementary subjects. When in fact her primary designation is a special ed. So probably what I would do is cross these off from... because I think you are categorizing her as a science math and so forth, but she is a special ed. I would keep it consistent with the way it looks although I don't find that comfortable, because I'd like to indicate the difference between a resource and a classroom teacher teaching a full range of subject areas.

Although this respondent did eventually come to the correct conclusion, he was clearly confused by the question.

Another respondent erroneously marked the 'other' subject category instead of the Special education category for a teacher who teaches hearing impaired students. This may indicate a second problem when respondents aren't provided a full definition. However, the cost of providing a full definition seems to outweigh the gains.

- **General Elementary**

This term was referred to as 'general education' on the original TLF. The definition changed through the waves of the revised TLF. Originally defined as:

Meaning those who teach self-contained classes in grades K-6, i.e. teach the same class of students all or most of the day, unless they teach special education students, in which case see the category above (special education).

Include kindergarten teachers.

This definition evolved to:

Teach self-contained classes in grades K - 8, i.e. teach the same class of students all or most of the day, unless they teach special education students, in which case see the category above.

Include Kindergarten teachers.

During the debriefing we asked respondents how they define general elementary teachers. Most respondents hit the key aspects of the definition, that is, teaching self-contained classes to grades K - 8. However, a few respondents defined this term as relating to the 'regular' student population.

> My feeling is general education teacher would be a teacher who is not special education...Although I don't know that I've heard that term used. I see general elementary teachers up here but I, I don't see anything that says general secondary teachers. I just see something that says general elementary.

Another respondent said, "They teach the regular kids." These respondents saw the category as a counter to special education. Although respondents reported this in the debriefing, there is no evidence that errors were made listing general elementary teachers.

One respondent wondered why the subject was general elementary and not general secondary. This did not cause any problems for this respondent since she was reporting about a middle school. In the 1993-94 TLF [see Appendix 6] and the first two waves of the study [see Appendix 9], the grade range column for K - 6 was marked 'Elementary'. This is a possible contributor to respondents' confusion over the meaning of the term in the questionnaire. Elementary was dropped from the grade range column. Appendix 10 shows the revised column.

- **Math Teachers**

No problems reported.

- **Science Teachers**

No problems reported.

- **English / Language Arts**

A couple of respondents did not know whether to include certain teachers in the 'English/Language Arts' category. One respondent questioned if she should mark the 'English/Language Arts' category for a reading teacher. The respondent said that she was going to mark this category, but she quickly changed her mind and marked the 'other' box. She explained that her school lumps the two subjects together [Language Arts and reading], but she was not sure if that's what the form had intended. A few other respondents debated this issue and some decided to mark the 'English/Language Arts' category, while other respondents chose to mark the 'other' category. Currently, the instructions do not provide guidance on this matter.

- **Social Studies Teachers**

No problems reported.

- **Vocational/Technical Education Teacher**

For the first two waves of cognitive interviews respondents were not provided with a definition of vocational/technical teacher. This created confusion for some respondents. Two respondents in particular described vocational/technical teachers, but marked them in the 'other' category for subject matter taught. The first respondent listed a business teacher.

> It doesn't say where to include business. I don't consider that vocational, but if you get into things like computer keyboarding and things like that, it seems more vocational. So I'm just going to check 'other'.

Later in the debriefing session this respondent went on further to explain,

> When you get to vocational/technical education, I think you need to define that a little more broadly. I see a vocational/technical teacher as someone who teaches shop... Driver's Ed I would consider vocational. I don't consider them academic. When you get into areas like some of the business courses, computer keyboarding maybe, computer programming, I see as more vocational than like they are academic... I guess any of the electives that are not academic like foreign language or ahh, what other one, PE, maybe health, and... PE I don't consider vocational, but any of the others could be. Art could be vocational.

Another respondent said that one of his teachers is a Tech Ed teacher. However, the respondent also marked the 'other' subject matter category for this teacher.

> Technology education. We don't call it shop anymore. They learn the use of machinery, saws, sanders, metal work. But in addition to that, they have advanced technology on computer assisted design... It would fall under the category of 'vocational ed'.

Although the respondent verbalized his response using the terms 'vocational' and 'technical', he still marked the 'other' subject category.

After these interviews, it was apparent that it would be useful to provide respondents with a definition of a vocational/technical teacher. In our third wave of interviews, we placed this definition after the heading vocational/technical:

Teach typing, business, agriculture, home economics as well as any other vocational or technical classes.

This definition appeared to satisfy respondents' needs.

- **Other Subject Matter Teachers**
Teach art, foreign languages, music, physical education, English as a Second Language, and any other remaining subjects.

Include those who teach gifted and talented or remedial reading classes.

The category was a catch-all for teachers not covered by any of the previous categories. Most respondents did not have any difficulty determining if a teacher should be listed under 'other'. There were a few incidents where respondents were hesitant to mark certain subjects in the 'other' box. For example, respondents seemed to think foreign language should have been a separate category. Several respondents referred back to the instructions and reread for specific instructions on foreign language teachers. In addition, some respondents marked the 'other' category for teachers who teach vocational/technical classes. However, after we added a definition that explicitly explained what was meant by a vocational/technical teacher, respondents did not express further difficulty.

- **Teaching Principals, Teaching Guidance Counselors, Teaching Librarians, Teaching Speech Therapists, Teaching Psychologists, and Teaching School Nurses.**
In the previous round of interviews, Jenkins and Von Thurn (1996) reported that some respondents had trouble deciding whether to report principals, guidance counselors, librarians, etc., who teach for a small percentage of their time. To clarify this ambiguity, we specified that only Teaching Principals, Teaching Guidance Counselors, Teaching Librarians, etc., were to be included on the form. We repeated teaching in front of all these position since teaching is usually a minor responsibility for these teachers.

Furthermore, we provided respondents with a definition of what we considered a teacher.

*Include any staff members who teach **at least one class per week** regardless of whether or not it is the same set of students.*

We also provided respondents with some examples. Over the course of the three interview rounds, we changed the examples.

In the first wave of interviews our examples were:

If a Guidance Counselor teaches a time management class every Tuesday at 8am to a *different set of students each week, include her in the 'other' category when filling out the form.*

If a librarian teaches a class in English once a week, include him in the 'English' category, but if he teaches only library skills, do not include him on the form.

If a speech therapist teaches a class in remedial reading once a week, include her in the 'other' category, but if she teaches an individual child or children who need extra help learning to read do NOT include her on the form.

In the second wave of interviews, we decided to keep only the example about the speech therapist. However, this seemed to work against us, because some respondents were having trouble determining whether or not their librarians should have been included on the table. So, for the third wave of interviews, we modified the example again. We removed the speech therapist example, and replaced it with,

If a librarian teaches a class in math once a week, include her in the "math" category, but if she only teaches groups of students library skills or how to use the library do NOT include her on the form.

This example simplified matters. Generally, these definitions and examples worked well, but there were some respondents who erroneously reported librarians. These errors will be discussed in more detail later in the report.

- **Itinerant, Co-op, Traveling, and Satellite Teachers**
teach at more than one school

In the original TLF, itinerant teacher was listed separately from co-op, traveling, and satellite teachers. Furthermore, the definition, 'teach at more than one school' was originally only paired with itinerant. We combined these on the revised TLF since they describe similar situations. Using the definition with the combined terms helped respondents understand the type of teacher we were interested in. Many respondents did not know one or more of the terms in the instruction. However, some were able to draw a definition from the context established by the additional terms and our definition. Not all respondents were able to make this leap. One respondent defined Co-op as:

> Cooperating teachers are two or more teachers in the classroom working together on plans, or in some particular settings if the schedules don't cooperate, the opportunity where they can coordinate together and have their classes on the same target, doing the same kind of things, maybe once or twice or whenever they can a week or more go into a larger setting and teach together not necessarily every single day... Itinerant teachers are

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usually teachers who are dealing with students that have certain disabilities like speech, hearing, that type of thing.

A couple of respondents did not include teachers who teach at their school, but are assigned elsewhere. One respondent said,

> The reason I did not put him on the list is because he is not technically assigned to my school. He works with our kids, but he is assigned somewhere else. So that needs to be made clearer. Do you want us to list all teachers who work in our building, or only teachers who are assigned to this building?

These respondents were thinking in administrative terms, rather than in terms of who teaches in their building.

- **Long-term Substitute**

On the original TLF, this term referred to teachers who *'fill the role of a regular teacher for 4 weeks or more.'* On the revised survey, the definition was clarified to read '*Currently filling the role of a regular teacher for 4 or more continuous weeks*.'

Cognitive interviewing uncovered some interesting problems with this item. One is that although the term long-term substitute is a common term among schools, the definition varies. In the cognitive interviews, some respondents reported that they were thinking in terms of their school, or school districts' interpretation of the term.

> Long-term sub is actually an employment term for us, because what that does is designate what their status is in reference to pay and also in reference to seniority... It is usually a one-week arrangement, they can let us know one week and be gone and we can give them one week notice and have the same... So that term is more of an employment status term than a designation of what they are doing.

A respondent reported that long-term substitutes work for "6 or more weeks, sometimes 8 or more." Another respondent's district defined long-term substitutes by a period shorter than that provided in the TLF. "In this county they must be substituting for three weeks or more to be a long-term substitute."

One respondent included the teachers who were absent as well as the teachers who were substituting for them. It is unclear from the current survey if this is the appropriate way for respondents to handle this situation.

OMIT FROM THE LIST

We added a definition for a few of the entries that appeared in the 'OMIT FROM THE LIST.'

- **Postsecondary and Adult Education Teachers**

Consistent with the findings of Jenkins and Von Thurn (1996), we found that many respondents were unfamiliar with the term 'postsecondary'. In the original TLF, the omit instruction for these teachers read "Postsecondary and adult education teachers who teach **only** postsecondary or adult education students."

Respondents indicated familiarity with the term 'adult education.' We took advantage of this in our wave two revision of the instructions and reversed the order. The revised item read:

Adult Education and Postsecondary Teachers
if they teach ONLY adult education and postsecondary students.

Rather than presenting respondents with an unfamiliar term first, they could use context to help them understand the term 'postsecondary' by building on their understanding of 'adult education'. It is important to note that although respondents did not understand the term 'postsecondary', there is no evidence that any teachers were incorrectly included in the form as a result. It seems that respondents who have this type of teacher in their school recognize the term and exclude them, while others are not affected.

- **Short-term Substitute Teacher**

We provided respondents with a definition of a short-term substitute teacher. "*Fill the role of a regular teacher for less than 4 continuous weeks.*" Respondents did not have any difficulty understanding this term and no short-term substitutes were included on the forms.

- **Student Teachers**

No problems reported.

- **Day Care Aids**

No problems reported.

- **Teacher Aids**

No problems reported. However, one respondent reported that his school uses the term 'assistants' rather than 'aids.'

- **Library Teachers who Teach Only Library Science**

Previous research identified the erroneous inclusion of librarians (Jenkins and Von Thurn, 1996). This was one of the most problematic items in this set of cognitive interviews. There are a few contributing explanations. First, many of the administrators we spoke to consider librarians to be teachers. Second, we want certain librarians included, but others excluded. Finally, respondents

did not interpret the term 'library science' as we had intended. These three problems are described in greater detail below.

Since respondents thought of librarians as teaching staff, many were inclined to list them. Respondents who did read the instructions, but perhaps not carefully, may have been confused. Respondents are first told to include 'teaching librarians.' In the next instruction, respondents are told to exclude librarians who do not teach anything but library science. Careful reading is required to determine when to include or exclude a librarian.

In the first two waves of cognitive interviews, we noticed that respondents who read the instructions carefully had a tendency to include their librarian. The problem appeared to be related to our instruction 'do not include teachers if they teach library science.' Some respondents were interpreting library science as a college level class, rather than interpreting it as any type of library skills or use class. We changed this instruction to read:

Library teachers who teach only library skills or how to use the library.

We revised the example given under the bullet 'Teaching Principals, Teaching Guidance Counselors, Teaching Librarians, Teaching Speech Therapists, Teaching Psychologist, and Teaching School Nurses.' The revision was made to emphasize the library skills concept.

The example was changed to:

If a librarian teaches a class in math once a week, include her in the 'math' category, but if she only teaches groups of students library skills or how to use the library do NOT include her on the form.

Respondents in the third wave of cognitive interviews did not have difficulty determining when to include or exclude a librarian. This may indicate that the instructions have been improved.

- **Other Staff Who do Not Teach Any Kind of Class**
Lastly, we added an additional category to the Omit list. For wave one we added

Principals or other staff who do not teach any kind of class.

For the second wave of interviews we changed this statement to

Other staff who do not teach any kind of class.

We added this category to emphasize to respondents that they should only list staff who teach. These steps were taken to help reduce the number of respondents who questioned whether or not to list a particular teacher. By making the Include and Omit lists as thorough as possible, we hoped to reduce respondents' confusion.

COMPLETING THE FORM

On the original Teacher Listing Form, the instructions on how to complete the table were introduced with the title 'HOW ARE COLUMNS (f)-(o) COMPLETED?'[see Appendix 4]. In the previous round of interviews, many respondents expressed confusion over this title since it was not clear what columns (f)-(o) were referring to. Furthermore, respondents had difficulty understanding several of the instructions under this heading. In the redesign we tried to clear up several of these ambiguities.

As stated earlier, we rearranged the format of the original form and placed the instructions on how to complete the table after the Include/Omit lists. We renamed this section 'COMPLETING THE FORM ON PAGE X.' This gave respondents a reference point as to where they could find the columns that were listed in the instructions under the title. Some respondents did flip ahead to see the table. This provided them with a mental picture, so as they read the instructions, the task made more sense. One respondent suggested putting a reduced image of the table on this page.

Appendix 8 shows that we used more bolding to emphasis key words when we redesigned the instructions. We divided the instructions up with the word 'column' and then a letter. For example, **Column (a)- Name.** The letter signifies which column in the table the instruction refers to. This 'numbering' scheme seemed beneficial for respondents. Some used the letter at the top of the columns as a reference if they had a question about the table and needed to refer back to the instructions while completing the table. For example, one respondent reached a teacher that teaches more than one subject. The respondent was not sure which box(es) to mark. This respondent flipped back to the instructions. At first he could not find the instruction he was looking for. "Let's see. What column was that? That was column (c)." The respondent was then able to quickly find the instructions he needed.

Column (a)-Name
We indicated that respondents should list each teacher only once. This instruction proved to be extremely valuable for some respondents who did not know what to do when they came across a teacher who taught more than one subject. One respondent in particular reached a teacher who teaches two subject matters. The respondent was not sure how to indicate this. The respondent contemplated writing the teacher's name twice on the table. The respondent however, commented that she noticed the form said to list each teacher only once. This prompted the respondent to refer back to the instructions. In the end, the respondent correctly listed the teacher's name once and marked the subject matter column appropriately.

Column (b)-Grade Range
Unlike the previous TLF, the revised TLF gave respondents the opportunity to mark more than one grade range box. This was one of the best changes from the original TLF. The burden placed on respondents was reduced and complaints about this task decreased considerably. Burden was reduced because respondents no longer had to make as many judgments about what grade to report.

Most respondents did not have trouble with the grade range category (Column b). When we began our first wave of cognitive interviews we had the grade ranges designated as Elementary K-6, and Secondary 7-12, as it had been on the 93 - 94 TLF.

Two respondents misunderstood the intent of this question, and as a result expressed some concern. Both respondents thought they had to indicate which grade range their teachers are certified to teach. As one respondent commented,

> The middle school has 6th grade, and that's considered elementary, so that took a little while to make sure I wasn't making a mistake as to which ones were checked elementary and which ones were checked secondary. But that does not reflect their certification. I have some elementary certified people that I've checked in the secondary column because they're teaching mostly secondary classes according to this survey, and I have some secondary people who I have checked off in the elementary column because they are teaching more than 6th grade than anything else.

The other respondent refused to mark any grade ranges for his teachers.

> ... middle level education is basically 6th through 8th, and all my teachers are certified to teach in this grade range. They may have a secondary where they have a 5 through K certificate, and they could have a uh an elementary certificate that goes 1 through 8th... If I put a teacher's name on it [the form], I don't know whether I'm going to put elementary or secondary. And I'm not going to spend time going through all the files to see which way they are.

As we progressed through the interviews, it became apparent that the labels 'Elementary' and 'Secondary' were misleading. We removed the labels, and kept just the grade ranges. This still caused some problems for a couple of respondents. A middle school respondent expressed some concerns over the fact that there was not a category exclusively for middle schools (6-8). The Vice-Principal consistently wrote '06' (the grade level) above her 'X's' in the K - 06 category to indicate that the teachers were 6th grade teachers. The respondent said it would be deceiving if she only marked 'X' in the box.

Another respondent commented:

> This breakdown is not good, because it makes me put them into two categories because we are a middle school and we teach 6, 7, and so that means I have to decide from my vast knowledge whether they are sixth grade... No see we have trimesters here, so they teach 6th, 7th, and 8th it doesn't, I don't know whether they teach them equally or not, but they teach 6th, 7th, and 8th. Let's see a total of 18 classes, so I would assume he teaches 6th and 7th equally.

This respondent went through numerous calculations to figure out the grade range taught. Her task could have been simplified by a middle school category.

Lastly, in this section we provided respondents with an instruction on how to mark the appropriate grade range for ungraded students. *'If a teacher teaches **UNGRADED** students, mark the boxes which correspond to the graded equivalent for children of that age.'* We only included one ungraded Montessori school in our sample. This respondent did not encounter any problems when marking the grade range for the students at her school.

Column (c)-Subject Matter Taught
In the previous round of interviews many respondents had difficulty understanding the instructions on how to indicate the subject matter(s) that teachers teach. According to Jenkins and Von Thurn (1996) respondents either marked all of the subject matters that teachers were qualified to teach, or they had a difficult time deciding on one subject matter to mark. In an effort to combat this misunderstanding, we simplified the instructions by eliminating vague words and combining the instructions into two sentences that read,

*Mark the box which corresponds to the subject taught **MOST** by the teacher. If the teacher teaches 2 or more subjects **EQUALLY**, mark all of the boxes that apply*.

This definition was modified to allow respondents to choose more than one subject. When a teacher taught two or more subjects equally, the previous TLF required the respondent to mark the subject the teacher was most qualified to teach. The concept of 'most qualified' was a difficult one for respondents to grasp, thus placing a large cognitive burden on respondents. By allowing respondents to mark more than one box, the revised TLF reduces respondent burden without compromising the quality of data obtained.

Although we simplified the instructions, some respondents still experienced problems following them. Several respondents marked more than one subject matter for some of their teachers. Upon further probing, it was evident that respondents had not followed the instructions. Usually, the teacher taught primarily one subject matter, but the respondent marked everything the teacher taught. For some respondents the decision was a more deliberate one. These respondents felt that they were doing an injustice to a teacher if they did not indicate every subject matter that he/she teaches.

One respondent marked 'general elementary' for the grade range taught. The next seven teachers that the respondent listed also teach general elementary. Unlike other respondents who drew a vertical line to indicate repetition of a characteristic or marked each one, this respondent left the grade range boxes blank. This might appear as item nonresponse in a production setting. However, this practice was not the norm in the cognitive interviews.

English

In the table we initially had "English" as the subject matter. However, we added 'Language Arts' to the column heading after wave one of the interviews. This was done because some respondents were not sure if they should mark a teacher who taught language arts in the 'English' category, or in the 'other' category. Furthermore, the Include list instructs respondents to include English/Language Arts Teachers. To make the table consistent with the instructions, we made the table heading resemble the Include list.

Other

Several respondents questioned if they needed to specify what the 'other' subject was referring to. Some respondents questioned if they needed to write in the specific subject in the box where they marked 'X.' No respondents performed this additional task.

Column (d)-Teacher's Race/Ethnicity

We reordered the race/ethnicity categories to have the most prevalent category, 'White (non-Hispanic)' first. A respondent in the previous round of research indicated that she expected this category to be first, as it is on most forms (Jenkins and Von Thurn, 1996). The other categories were ordered as follows: 2) Black (non-Hispanic) 3) Hispanic (can be any race) 4 Asian or Pacific Islander 5) American Indian or Alaska Native.

Most respondents did fill in the race/ethnicity information for their teachers. A few however, encountered difficulty determining what race/ethnicity to mark for certain teachers. For example, one respondent had trouble determining what race/ethnicity to mark for a teacher from India. Eventually, this respondent marked 'Hispanic.' Another respondent questioned what exactly Hispanic meant. She commented, "American Hispanic, or what?"

Proxy reporting seemed to make some respondents feel uneasy when answering this question for the teachers they had listed. Respondents indicated that they might not put the answer that a particular teacher would provide if he/she were actually filling out the form. During one interview both the Administrative Assistant and the Principal filled out the form. Neither one of them felt comfortable answering the race questions. The Administrative Assistant commented,

> I am sorry. I don't go on race and ethnic. I don't have anything to do with that... I do not know their ethnic groups. A lot of them I can make a guess, number one [white].

She went on further to explain,

> ...you might think of them as black. They may not, depending, I mean some Islanders don't. So, I may or may not have that actual knowledge. And they [teachers themselves] determine the race, not me.

These respondents explained later that this information could be referenced in personnel records. Despite expressing reservations, respondents did provide the race/ethnicity information for the teachers at their school.

Column (e) Teachers of students with limited English Proficiency
On the '93 - '94 TLF this question was worded:

Bilingual teachers use native language to varying degrees to instruct students with limited English proficiency. English as a Second Language (ESL) and English for Speakers of Other Languages (ESOL) teachers provide intensive instruction in English to students who have limited English proficiency.

Note: Do not include regular foreign language teachers as Bilingual, ESL, or ESOL teachers.

In wave one, we used the instruction provided on the original TLF. We immediately discovered that it was problematic for respondents. The question seemed to be asking for two concepts 1) students with limited English proficiency 2) teachers with bilingual ability. Respondents were not picking up the intended concept of the question, teachers teaching classes *specifically* designed for students with limited English proficiency. This problem manifested itself in a number of ways. Some respondents went through class lists looking for classes that had students with limited English proficiency. Other respondents focused on the language background of their teaching staff.

We clarified the instruction to read:

Teaches classes designed for students with limited English proficiency, using approaches such as English as a Second Language (ESL), Content ESL, bilingual education, or English for Speakers of Other Languages (ESOL).

NOTE: Foreign language teachers should not be marked unless they teach bilingual, ESL, or ESOL classes (as defined above).

No problems were indicated in the second or third wave of interviewing.

Column (f) 3 years or less
In the '93 - '94 TLF and in the TLF we used in the first wave of cognitive interviews, this instruction was titled NEW and read:

Enter an "N" if the teacher's total years in the teaching profession at all schools and school districts (not just their current school/district) is less than 3 years, not counting this school year.

In wave one, this question was problematic for both respondents who read the instruction carefully and those who did not read it at all. Respondents often became confused by the different

concepts they had to keep track of; total years teaching, all schools and school districts, less than 3 years, and not counting this school year. The question was unnecessarily complex. Many respondents did not bother reading the question. Instead they focused on the column label 'NEW.' This lead them to misclassify teachers who were new to their school, but had been teaching elsewhere for many years.

In wave two, we revised the instruction to read:

*Teaching for less **than three years** prior to the start of this school year at **all schools and school districts***

This question remained problematic throughout the second wave. Respondents had difficulty deciding how to mark teachers in their third year. The final wording was introduced in wave three. '*Teacher in his/her **1st, 2nd, or 3rd year** of teaching at **this or any other school***.' Although it improved understanding, a couple of respondents continued to have problems with the wording.

An interesting situation arose in the last round of cognitive interviewing. A respondent wondered how she should mark a teacher who taught prekindergarten for a few years prior to teaching kindergarten. The survey does not provide guidance on this question. Ultimately, the respondent marked the teacher as 3 years or less.

Column (g) Teaching Status
Although this question previously appeared on other SAS surveys, it is new to the TLF. When filling out this question, respondents were clearly looking for a definition of full and part-time. We speculate that two factors could be causing the confusion. The first, is related to the unique structure of the cognitive interview administration of the survey. During the interview, respondents are asked to think aloud. If they arrived at an answer quickly, they are usually probed about how they got there. This can lead respondents to think about items in the survey more than they normally would. It is possible that some of the respondents who got hung up on a definition of full and part -time did so because they were thinking about the task more than they would if the interviewer were not present. The second possible cause could be related to the survey itself. Throughout the TLF, we were careful to craft definitions for every term that respondents might be unsure of. In this case, we provided respondents with a couple of examples of special cases, but no definition of full or part-time teachers. Respondents may have been expecting a full definition based on previous instructions.

> *I am trying to find a definition here for full-time. This doesn't really give me a clear definition of what's considered part-time and what's considered full-time.*

Despite the note to mark itinerant teachers as part-time, a few respondents marked itinerant teacher's as full-time. Often these respondents did not read the directions fully or carefully. These respondents indicated that they were thinking in terms of the teachers contract rather than

the time the teacher spends at their school. Since respondents did not read the instructions carefully, it is doubtful that adding more instructions on how to mark these teachers will do more to reduce the problem.

Interestingly, a couple of respondents had difficulty knowing how to mark long-term substitutes in this question. These respondents were reluctant to mark a long-term substitute teacher as a full-time teacher, even when they were teaching for the full day. Often these respondents were thinking in terms of contracts. For example, when probed for a definition of a full-time teacher, a respondent replied, "contracted for 10 months." The respondent was thinking in terms of a 'permanent' or a 'temporary' contract rather than the persons status as a long-term substitute. Another respondent thought of full-time/part-time in terms of pay. She described a part-time teacher at her school in this way:

> Part-time teachers, I tend to think of those, I call 'cultural' teachers who come in part of the week, even though like the music teacher is here everyday, all day, we kind of think of her as a part-time teacher because she is not on a salary.

After giving the question some more thought, the respondent appeared to head toward an hour-based definition, but she stopped short of this.

Another principal using contract-based reasoning to answer this question said:

> We have full-time contracts and part-time contracts. All of our teachers are on full-time contracts. Now I did say that we have some teachers who work at this particular location part-time, but they have full-time contracts, so I marked them full-time contracts so I marked them full-time teacher.

Respondents who were reporting about a teacher who teaches both prekindergarten and kindergarten did not know how to mark the teacher's status. This was problematic for two respondents. One of these respondents decided to indicate that the teacher is part-time, while the other respondent decided to mark the teacher as full-time. Both respondents, however, commented that these teachers are full-time, but since the form was not interested in prekindergarten teachers, they were confused. One of these respondents commented,

> Trying to determine if a person teaches, like I said prekindergarten and kindergarten, even though prekindergarten is not supposed to be here [on the form]. You know would you consider a part-time teacher of kindergarten even though she is here a full day?

It is not clear from the form what the respondent is supposed to do in situations like these. This needs to be explained to respondents.

Column (h) Title 1
Mark the column if the teacher is a title 1 teacher (paid in full or part by federal funds under the Elementary and Secondary Education Act)

The majority of respondents were not familiar with the Title 1 program. Some respondents confused it with other government programs, such as school lunches. Other respondents thought that students were Title 1 participants, not specific teachers. Respondent misconceptions about the program did not appear to lead to incorrect reporting. Respondents who had the program at their school knew what it was and marked teachers correctly. Respondents who were unclear about Title 1 recognized that they did not have it at their school, and left the column blank.

MATRIX REVISIONS

We made both substantive and cosmetic changes to the formatting of the matrix with the goal of easing navigation through the matrix, and reducing response error. The first was to break subject matter and grade range into separate columns. Jenkins and Von Thurn (1996) reported that respondents could not accurately report teachers' grade ranges and subject matters in the '93-'94 TLF. That form only allowed elementary (K-6) teachers to be marked as special education, general elementary or other teachers. Secondary (7 - 12) teachers were not able to mark general education teachers. The '93-'94 form was especially difficult for respondents in middle school when listing teachers who crossed grade lines. The revised form made it easier for respondents to indicate the subject matter taught and appropriate grade range (see Appendix 9).

An alternating light blue strip was used to guide respondents down columns. While this was beneficial, respondents in earlier waves still had difficulty distinguishing between columns. This was especially problematic for the subject matter column, which consists of eight tightly packed subcolumns. To reduce respondent difficulty, we replaced the first row on each second page of the matrix with an abbreviated set of instructions. Respondents often ran their finger from the column heading to the row they were filling out. By reducing this distance, we hoped to reduce reporting error. Appendix 11 displays the abbreviated instructions. The abbreviated instructions appeared successful in reducing this problem. This strategy required us to delete seven teacher rows. We believe, however, that the improvements it will lead to justify the loss of seven lines. Larger schools are more likely to be affected by the second page problem because they will encounter more second pages. So, while they will be most affected by the missing seven lines, they will also benefit from having the repeated instructions.

Respondents did not always read the instructions. We took three approaches to increase respondent reading of instructions. The first discussed previously, was to increase the readability of the instructions themselves. Secondly, instructions were placed directly on the matrix itself. We used as much of the instructions from the instruction page as possible for column headings on the table. Additionally, we found that some respondents were relying on column titles to answer the column. We changed the labels which were slightly cryptic on the original TLF to be more descriptive. The '93-'94 TLF columns were labeled: Name of teacher, Race/ethnicity, New,

Bilingual/ESL/ESOL, Elementary and Secondary. The revised TLF column headings were labeled: Teacher's name, Grade range, Subject matter taught, Teacher's race/ethnicity, Teachers of students with limited English proficiency, 3 years or less, Teaching status, and Title 1. The final strategy was to put a reminder on the matrix itself. We removed the first teacher listing row and replaced it with a bolded large font message reminding respondents to read the instruction before continuing with the form (see appendix 10).

Column Order
Before handing respondents the survey, interviewers presented respondents with seven cards, each listing one of the characteristics covered on the TLF (grade range taught, subject matter taught, race/ethnicity, teaches students with limited English proficiency, years teaching, full-time or part-time teacher, title 1 teacher). Respondents were asked to sort these cards in the order these characteristics occur when thinking about a teacher. Our goal was to design the columns around the same structure respondents used for this information in their memory.

The results of the sorting task were strikingly similar to the layout we proposed in the revised TLF. Respondents overwhelmingly choose subject matter first (11 respondent sorted this card first) and grade range second (12 respondents sorted this card second). The revised form placed grade range first, followed by subject matter (Appendix 10). Teaching status (full-time / part-time) was spread toward the lower numbers, as respondents did not have a clear preference for it in any of the early positions. Years teaching was ordered in every spot except first, with fourth being most prevalent (6 sorted fourth). ESL/ESOL was spread towards the higher numbers and most often ordered fifth (8 sorted fifth). Title one was fairly spread out with the mode at sixth (8 sorted sixth). Last was race / ethnicity (7 sorted seventh). Interviewers observed some social desirability processes occurring with this characteristic. Respondents made statements like "I don't consider race" when completing this task. In part we were vague when describing the relevance of these characteristics. Some respondents completed the task as though they were hiring a teacher rather than filing out a form. It is possible that this influenced their decision to place the race category last.

After completing the form, many respondents were asked to reevaluate where they placed the characteristics. Many echoed the principle we used when originally laying out the columns - that is to put the columns most likely to apply to everyone first.

VI.   RESULTS OF INSTRUCTION PLACEMENT TEST

In the previous round of interviews, Jenkins and Von Thurn (1996) reported that most respondents either read or skimmed the instructions prior to completing the table, and often referred back to the instructions several times while they were in the process of completing the table. However, according to Jenkins and Von Thurn (1996), many respondents perceived the instructions as burdensome. Furthermore, some respondents had difficulty comprehending and

executing the instructions. Therefore, we revised the instructions with the aim of reducing response burden, which could ultimately reduce some measurement error.

We experimented with two different instruction formats. The first version (Appendix 12) had the instructions attached as part of the form (the "attached" version). The second version (Appendix 12) of the questionnaire had a loose instruction card, printed on a thicker card stock. The list appears on the front side of the card stock, while the instructions on how to complete the table appear on the reverse side of the card. The instruction card was inserted into the questionnaire booklet, just before the table. This format is referred to as the "card" version. We hypothesized that the loose instruction card would reduce the burden by making the instructions more accessible to respondents, whereas in the attached version respondents would have to keep flipping the pages back and forth to consult the instructions. In our 20 cognitive interviews, we alternated between administering respondents the attached and the card versions of the form. Regardless of the version respondents received, during the debriefing, we asked them whether they would prefer the instructions to be attached to the booklet, or if they would prefer them to be loose. More respondents expressed a preference for the loose instruction card. Thirteen respondents preferred the instruction card, six preferred the instructions to be attached to the booklet, and one respondent did not state a preference.

Several respondents were extremely enthusiastic about the loose instruction card. Many of these respondents liked the idea of not having to flip the pages back and forth to refer to the instructions while they were completing the table. One respondent commented that she would prefer loose instructions, "Because it is easy to refer to rather than flipping back and forth. ...less time consuming." Another respondent commented, "I prefer them on the side so that as I change pages, I don't have to flip back and forth, but have it [instruction card] right next to me." Another respondent commented that the instruction card was "user friendly". She made this comment before any discussion of the instructions started.

However, one respondent who received the attached instructions commented, "It was very easy to keep my thumb here and flip back just back one page and then flip back again." Several of the respondents who expressed a preference for the attached instructions indicated that it might be easier to lose the instructions if they were on a separate sheet of paper. One respondent commented, "The form...tells me that I'd do it when I had a chance to kind of sit down and really go at it, rather then this is not something that you'd pull out of the mail and say,

> Oh, okay, I'm going to do it now. You'd budget some time to go ahead and do it. But unfortunately with loose papers, if you don't have instructions in this thing, I'd say life would get really ugly. And so yeah, I like them attached as reference more than...

Some respondents who said that they would prefer the loose instructions also expressed some concern over the possibility of misplacing the loose instructions. Actually, during one interview, the instruction card was misplaced when it was handed back and forth between two respondents.

We asked respondents if they would prefer the instructions to be perforated. Perforated instructions would allow those who wanted to tear them out an easy way to do so, while keeping the instructions attached for respondents who did not want them loose. Respondents seemed evenly divided on this issue. The respondents who said that they would like a perforated instruction sheet focused on the fact that they could tear it out of the booklet and have the instructions next to them while they were filling out the form. Respondents who disliked the idea of a perforated card again focused on the notion that the instruction card may get lost once it's torn out of the booklet. One respondent commented that she liked the loose instruction idea, but from a practical standpoint, she thought the instructions would be more secure if they were attached to the booklet. Another respondent commented that she thought the perforated instructions could be useful, but only if it had an instruction on it that informed respondents that they could tear the sheet out if they wanted to. This respondent commented, "...because I would think that if I were filling out a form like this that looked so official, I wouldn't want to tear anything out of it."

In addition to asking for respondents' preferences, we tried to gauge how often respondents referred to the instructions, to see if respondents who received the loose instruction card were more or less likely to refer to the instructions than respondents who received the attached instructions. Due to the fact that we did not video tape these cognitive interviews, we did not have concrete data to refer back to for analysis. Therefore, we do not have any conclusive evidence on this matter.

VII. VIGNETTES

During the debriefing session we presented respondents with 5 hypothetical scenarios. We then asked the respondents a question or two about each situation. Listed below are the vignettes that we presented, and the corresponding probes.

V1   Rick Jones is a librarian who teaches library skills to different students every Wednesday at 8:30 am. Should Rick Jones be included in the listing?

V2   Sue Brown taught in Florida for 2 years prior to teaching at your school this year. Would you mark Sue as a new teacher?

V3   Greg Bonde is a psychologist. Every other month he teaches a different group of students assertiveness skills. Would he be included as a teacher?

V4   Leslie Gear teaches driver's education Tuesdays and Thursdays after school. She is employed by the school. Would you include her? Is she a full or part-time teacher?

V5   John Cray teaches 8th graders math. Three disabled children were recently added to his class. Would John be considered a special education teacher?

We presented respondents with these vignettes to gain a sense of what criteria they use to determine if someone is a teacher. Moreover, asking respondents if they would or would not include the teachers mentioned in the vignettes, provided us with a sense of how well respondents attended to the Include/Omit instructions and the instruction regarding 'new' teachers.

Most respondents answered the vignettes correctly. A few respondents demonstrated that they did not have a grasp on the instructions and therefore, misreported one or more teachers when presented with the vignettes. Vignette 1 seemed to cause respondents the most difficulty. Many respondents said that they would list the librarian in the vignette on the form. When some respondents were actually filling out the form, they did not include their librarians. However, when these respondents were presented with the vignette, they stated that they would include the librarian in the scenario. Most respondents explained that librarians are a vital part of their school and children's learning experiences, so they would include them on the form. This exemplifies the fact that respondents feel they are doing an injustice to a staff member if they omit him/her from the list. Additionally, respondents may view the task differently from what we intend. For us the task is to get a list of teachers to draw sample from. Respondents seem to view the task as listing all of the teachers at their school.

This vignette highlights the fact that even if respondents read the instructions, they still have their own thoughts about who should be included on the form. These thoughts drive respondents' judgments. Although questionnaire designers cannot completely control respondents' thinking, it cannot be emphasized enough that in order to help reduce potential error, the TLF instructions must be easily understood by respondents and presented in a way that is not bewildering or intimidating to them. That way more respondents will be likely to read the instructions.

VIII. AUXILIARY QUESTIONS

When time permitted respondents were asked a few questions unrelated to the Teacher Listing Form. These questions included how to get in contact with teachers at their school, the best time of the year for the school to receive the Teacher Listing Form, and the possibility of computer administration for this survey.

Most respondents seemed to agree that the most efficient way to get in contact with teachers at their school would be to either call the school directly, or to write a letter to the school.

In order to maximize our response rate, we asked respondents what month during the school year would be the most convenient for them to receive this form in the mail so that they would have enough time to fill it out. The general consensus was that October, January, February and March would be the best months. According to respondents, schools are too preoccupied with administrative issues during the beginning and end of the school year. Schools are also busy during holidays, grading periods, and mandated testing times. Some respondents said that any

time of the school year would be fine, because they would probably take the form home with them one evening to complete.

Finally, during several interviews, respondents stated that filling out the form would have been easier for them if they could have completed the survey on the computer. We informed our last six respondents that it has been proposed that the Teacher Listing Form be conducted by computer disk or over the Internet. We then asked these respondents if they would be willing and able to complete the form this way. Respondents seemed to have mixed reactions to this proposal. Some respondents said that they would prefer computer administration, while other respondents said that having the survey on paper would be better, especially since they could take it home with them to complete.

IX.   RECOMMENDATIONS

GENERAL RECOMMENDATIONS

Sometimes a survey task appears to be straightforward when it is actually very complex. This is especially true in the case of the Teacher Listing Form. The survey asks respondents to develop our sample universe for us, but rather than explain why we need certain types of teachers and not others, we just ask them to read a long and complex set of instructions. In some cases, such as for librarians, the instructions run counter to many respondents' instincts. When this occurs, a couple of solutions are possible. One way to handle the situation is to allow respondents to answer following their own rules. For example, putting in a librarian column and excluding them later. This eliminates the need for an instruction. However, it asks respondents to list information we will never use, contributing to the overall burden. Another way to handle this situation is to emphasize what we want respondents to do differently than their instinct might have them do. This is the approach we have taken throughout the TLF. This approach relies on respondents to read and comprehend the instructions.

We may never get respondents to read the entire set of directions on who to include and exclude. However, our analysis of the cognitive interviews showed that in the best cases, respondents read all or most of the instructions and knew to refer back to them when they had a question. This lead us to think about treating the Include/Omit instructions more as a reference than as a set of instructions to be read thoroughly before completing the form. However, it is still important that respondents see the Include/Omit lists before filling out the table to get a sense of who we want reported and who we do not. If respondents see the task as merely listing the teachers at their school, they may think that the instructions are unnecessary and ignore them altogether. So, we propose a couple of ways to focus respondents on the Include / Omit lists.

The first is to further reduce the length of the instruction page. All respondents read the column labels and many skimmed the contents of the column headings in the table. We realized this early on and adjusted the column labels to be as self-explanatory as possible. However, we originally

kept instructions about the column headings on the instruction page so that respondents would have a central area with all of the instructions. Some of the instructions were repeated on the column heading to assist respondents. We now recommend moving the bulk of the instructions about filling out the column to the table. By moving all of the instructions for completing the table onto the actual table we accomplish two goals: 1) we bring the instructions closer to the task and 2) we reduce the amount of instructions on the instruction page. Accomplishing these goals could make respondents more likely to read the Include and Omit instructions. However, this is also a risky move because it will increase the amount of instructions on the table itself. Additionally, to incorporate this added information we will most likely need to increase the size of the survey from an 8 ½ x 11 booklet to an 8 ½ x 14 booklet. The added size of the form may further reduce respondents' desire to cooperate or it may reduce respondent reading of the column headings.

An additional way to increase respondent use of the Include / Omit lists is to treat it as a reference card. Currently, the list contains teachers who respondents have not had problems knowing to include, such as math teachers. Removing them from the list will make the list shorter and more of a reference for 'special cases.' A note could be placed in the 'teacher name' column. The note would refer respondents to the reference card. For example,
Please see the reference card for important information about librarians, special education, part-time and other teachers who may teach at your school.
This would be an opportunity to inform respondents about the more problematic teachers in a place where they are more likely to read the information.

Finally, the numbering should be made consistent with the table. The numbered arrows proved a successful method of focusing respondent attention. Making the numbers consistent with the columns should further improve respondent navigation through the form.

SPECIFIC ITEM RECOMMENDATIONS

- **Cover Page**

Switching from the envelope BC-1741 to an envelope with a smaller window would reduce the amount of space that must be allocated to address information on the cover page.

The arrows (school and grade) can be removed and the labels printed with the school name and grade range. If the envelope is changed and more space is available, these arrows can be expanded, thus yielding a greater likelihood of printing on the line.

- **Burden Statement**

The time estimate needs to be determined by the National Center for Education Statistics (NCES).

- **Include / Omit**
  English / Language Arts

May need to provide a definition of English/language arts which explicitly states 'include reading teachers'.

    Itinerant, Co-op, or Satellite Teachers

This problem could be addressed by rewording the general instruction for the TLF to read: *Please read the information below, then list the full-time and part-time teachers* **who teach at this school** *in the table on page 6.*

This will reinforce to respondents that we are interested in everyone who teaches at their school.

    Long-term substitute

A remedy for this problem may be to bold '4 or more continuous weeks' in the definition so that the time frame jumps out at respondents, "Currently, filling the role of a regular teacher for **4 or more continuous weeks**."

A statement regarding whether or not to include the teacher on leave may also be necessary.

- **3 Years or Less**

This item remains a concern. Expanding the definition to read, "*Teacher in his/her 1ˢᵗ, 2ⁿᵈ, or 3ʳᵈ year of teaching at this or any other school or school district*," may draw respondents' attention to the *any school* concept.

- **Teaching Status**

An explanation of how to mark teachers who teach out of scope grades (prekindergarten) should be given. Also, it may be necessary to add a definition of part-time and full-time.

To resolve the problem of itinerant teachers marked as full-time, it may be necessary to bold the itinerant note.

- **Column Order**

We recommend ordering the columns in the TLF this way:

1) Grade Range
2) Subject matter
3) Teaching Status (full or part-time)
4) Race/ethnicity
5) 3 years or less
6)Teachers of students with limited English proficiency
7) Title 1

This order puts the columns most likely to apply to all respondents first.

- **Instructions**

Respondents handling of the Include / Omit list speaks strongly for the need to make the list as accessible as possible. Although a perforated instruction card was not tested in this study, it seems to offer both the convenience of having the instructions close at hand, with some security against misplacing the instructions. Another option is to print the instructions on the form, but enclose a loose instruction card for respondents to keep with them, thus preserving the strong features of both versions.

X.   REFERENCES

Jenkins, C.R. and D. Von Thurn (1996). *Cognitive Research on the Teacher Listing Form for the Schools and Staffing Survey*. NCES Working Paper 96-05. (Originally a 1995 U.S. Bureau of the Census report.) Department of Education, Office of Educational Research and Improvement. Washington, D.C.: National Center for Education Statistics.

Royce, D. (1995). *The Results of the 1993 Teacher List Validation Study (TLVS)*. NCES Working Paper 95-09. (Originally a 1994 U.S. Bureau of the Census report.) Department of Education, Office of Educational Research and Improvement. Washington, D.C.: National Center for Education Statistics.

APPENDICES

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FORM **SASS-16**
(7-21-93)

NOTICE – This report is authorized by law (20 U.S. Code 1221e). Your answers will be kept confidential and will be used only for statistical purposes.

U.S. Department of Education
National Center for Education Statistics

TEACHER LISTING FORM
FOR
PUBLIC AND PRIVATE SCHOOLS

SCHOOLS AND STAFFING SURVEY
1993–94

Conducted by:

U.S. Department of Commerce
Bureau of the Census

(Please correct any errors in name, address, and ZIP Code.)

SASS

Note: If this school's grade range differs from the grade range printed above, please call the Census Bureau toll free at 1-800-851-2014.

Appendix 1:   Original Cover Page

U.S. DEPARTMENT OF EDUCATION
NATIONAL CENTER FOR EDUCATION STATISTICS

Conducted by:

U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

TEACHER LISTING FORM FOR PUBLIC AND PRIVATE SCHOOLS
SCHOOLS AND STAFFING SURVEY 1996–97
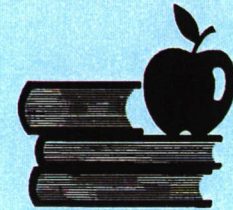
(Please correct any errors in name, address, and ZIP Code.)

SCHOOL ▶

GRADE ▶

NOTICE ▶

Please return this form within 2 weeks in the enclosed envelope.

This report is authorized by law (20 U.S. Code 1221e). Your answers will be kept confidential and will be used only for statistical purposes.

FORM **SASS-16(X)**
(3-3-97)

OMB No. 0607-0725:
Approval Expires 09/30/98

Appendix 3:   Burden

1. **Is the institution named on the cover page a school that has ONLY prekindergarten, kindergarten, and/or postsecondary students?**

☐ Yes   ☐ No

2. **Is the institution named on the cover page a school district?**

☐ Yes   ☐ No

3. **Is the institution named on the cover page an administrative (and not a school) unit within a school district?**

☐ Yes   ☐ No

▶ *If you answered "Yes" to any of the above questions, call 1–800–851–2014.*

4. Your name

_____

Title

_____

Telephone number

_____

Please record the current date

Read ALL *instructions before listing teachers.*

If you need assistance, please call the Census Bureau toll free at 1-800-851-2014.
Please return this form within 2 weeks in the enclosed envelope.

1.   HOW ARE COLUMNS (f)–(o) COMPLETED?

Mark (X) in only ONE of columns (f)–(o) to indicate the school level and subject taught by the teacher.

If a teacher teaches only students in grade 7 or above, mark the appropriate subject column under "Secondary."

If a teacher teaches only students in grade 6 or below, mark the appropriate subject column under "Elementary."

If a teacher teaches both elementary and secondary students at this school, mark (X) in the appropriate column under the level (Elementary or Secondary) at which the teacher teaches the greater number of classes.

If an elementary teacher teaches a departmental class, e.g., music, art, reading, math or science, mark (X) in column (h) ("Other") under "Elementary." Mark "General elementary" only for elementary teachers who teach in self-contained classes (i.e., teach the same class of students all day or most of the day).

If a secondary teacher teaches a self-contained class, mark (X) in column (o) ("Other") under "Secondary."

If a secondary teacher teaches two or more subjects equally, mark the column for the subject the teacher is most qualified to teach.

FORM SASS-16 (7-21-93)

2. Starting on page 5, list the teachers at this school who teach students **in the grade range** shown on the cover page.

INCLUDE ON THE LIST

- Full-time teachers

- Part-time teachers (including those who may teach only one class each week)

- Persons **who teach** a regularly scheduled class but whose main assignment is:

    Principal or vice principal

    Guidance counselor

    Speech therapist

    Librarian

    Psychologist

    School nurse

- Special education teachers

- Art teachers

- Physical education teachers

- Music teachers

- Vocational/technical education teachers

- Itinerant teachers (who teach at more than one school)

- Co-op, traveling and satellite teachers

- Long-term substitute teachers (fill the role of a regular teacher for 4 weeks or more)

OMIT FROM THE LIST

- Persons **who do not teach** any regularly scheduled classes and whose main assignment is:

    Principal or vice principal

    Guidance counselor

    Speech therapist

    Librarian

    Psychologist

    School nurse

- Teacher aides

- Prekindergarten teachers who teach **only** prekindergarten students

- Postsecondary and adult education teachers who teach **only** postsecondary and adult education students

- Short-term substitute teachers

- Student teachers

- Day care aides

1 ▶ To assure that we have sent this form to a school, rather than to a school district or an administrative unit within a school district, please read and answer the questions below.

2 ▶ Is the institution named on the cover page a school?

☐ Yes
☐ No

If you answered "No," it is very important that you call the Census Bureau toll free at 1–800–851–2014.

3 ▶ Does the school on the cover page include any grades from kindergarten through grade 12 (or comparable ungraded classes)?

☐ Yes
☐ No

If you answered "No," it is very important that you call the Census Bureau toll free at 1–800–851–2014.

4 ▶ Is the grade range listed on the cover page correct?

☐ Yes
☐ No

If you answered "No," it is very important that you call the Census Bureau toll free at 1–800–851–2014.

5 ▶ What month and date will this school close for students at the end of the 1996–1997 school year? ⟶

		1997
Month	Date	Year

6 ▶ In case we have questions about any of your responses, please print your name, title, and work telephone number on the lines below.

YOUR NAME:

TITLE:

WORK TELEPHONE NUMBER

☐☐☐ – ☐☐☐ – ☐☐☐☐

Please go to the instruction card.

Call ☎ **1–800–851–2014** if you need assistance filling out the rest of this form.

| Enter the month (April, May, or June) and day this school will close at the end of the 1993–1994 school year. ➔ | Month | Day | 1 | | | | 2 | | | | | | |

(a) Line number	(b) Name of teacher – *Last, first name*	(c) Race/Ethnicity 1–American Indian or Alaska Native 2–Asian or Pacific Islander 3–Hispanic (can be any race) 4–Black (non-Hispanic) 5–White (non-Hispanic) *Enter a code for each teacher.*	(d) New *Enter an "N" if the teacher's total years in the teaching profession at all schools and school districts (not just their current school/district) is less than 3 years, not counting this school year.*	(e) Bilingual/ESL/ESOL *Mark (X) if applicable.* Bilingual teachers use native language to varying degrees to instruct students with limited English proficiency. English as a Second Language (ESL) and English for Speakers of Other Languages (ESOL) teachers provide intensive instruction in English to students who have limited English proficiency. **Note:** *Do not include regular foreign language teachers as Bilingual, ESL, or ESOL teachers.*	*Mark (X) in ONLY ONE of columns (f) through (o).*									
					ELEMENTARY K-6			SECONDARY 7-12						
					(f) General elementary	(g) Special education	(h) Other	(i) Math	(j) Science	(k) English	(l) Social studies	(m) Vocational education	(n) Special education	(o) Other
1														
2														
3														
4														
5														
6														
7														
8														
9														
10														

Appendix 6:   Original Matrix

INSTRUCTIONS

7▶ **Please read the information below, then list and categorize the full-time and part-time teachers at this school in the table on page 5.**

8▶ **INCLUDE ON THE LIST**

🍎 **Special Education Teachers**

- Meaning those who teach special education classes to the emotionally disturbed, mentally retarded, speech/language impaired, hearing impaired, visually handicapped, orthopedically impaired, mildly and severely handicapped, and learning disabled.

🍎 **General Elementary Teachers**

- Meaning those who teach self-contained classes in grades K-6, i.e., teach the same class of students all or most of the day, unless they teach special education students, in which case see the category above.

- Include kindergarten teachers.

🍎 **Math Teachers**

🍎 **Science Teachers**

🍎 **English / Language Arts Teachers**

🍎 **Social Studies Teachers**

🍎 **Vocational - Technical Education Teachers**

🍎 **Other Subject - Matter Teachers**

- Meaning those who teach art, foreign languages, music, physical education, English as a second language, and any other remaining subjects.

- Include those who teach a remedial reading class or the gifted and talented.

9▶ **ALSO, REMEMBER TO INCLUDE AND CATEGORIZE:**

🍎 **Teaching Principals, Teaching Guidance Counselors, Teaching Librarians, Teaching Speech Therapists, Teaching Psychologists, and Teaching School Nurses.**

This includes any staff member who teaches **at least one class per week** regardless of whether or not it is the same set of students.

For example:

- If a speech therapist teaches a class in remedial reading once a week, include her in the "other" category, but if she teaches an individual child or children who need extra help learning to read, do NOT include her on the form.

🍎 **Teachers of Ungraded Students**

🍎 **Itinerant, Co-op, Traveling, and Satellite Teachers**

- Meaning those who teach at more than one school.

🍎 **Current Long-Term Substitute Teachers**

- Meaning those who are currently filling the role of a regular teacher for 4 or more continuous weeks.

10▶ **OMIT FROM THE LIST**

🍎 **Prekindergarten Teachers**

- If they teach ONLY prekindergarten students.

🍎 **Postsecondary and Adult Education Teachers**

- If they teach ONLY postsecondary and adult education students.

- **Short-term Substitute Teachers**
  - Meaning those who fill the role of a regular teacher for less than 4 continuous weeks.
- **Student Teachers**
- **Day Care Aides**
- **Teacher Aides**
- **Library teachers who teach only Library Science**
- **Non-teaching principals**
- **Other staff who do not teach any kind of class**

11 ▶ COMPLETING THE FORM ON Page 6

- **Column (a) – Name**
  - List the names (last name first) of the teachers at your school who meet the criteria specified on the previous page. List each teacher **ONLY** once.
- **Column (b) – Grade Range**
  - Mark (X) to indicate whether the teacher teaches elementary (K-6 grade) or secondary (7-12 grade) students.
  - If a teacher teaches both elementary and secondary students at this school, mark (X) the box for the level the teacher teaches the **MOST**.
  - If a teacher teaches two or **MORE** levels **EQUALLY**, mark (X) both boxes.
  - If a teacher teaches **UNGRADED** students, mark (X) the box which corresponds to the graded equivalent for children of that age.
- **Column (c) – Subject Matter Taught**
  - Mark (X) the box which corresponds to the subject taught **MOST** by the teacher.
  - If the teacher teaches 2 or more subjects **EQUALLY**, mark (X) all of the boxes that apply.
- **Column (d) – Teacher's Race/Ethnicity**
  - Enter the number from the list which corresponds to each teacher's race/ethnicity.
- **Column (e) – Teachers of Students With Limited English Proficiency**
  - Mark (X) if applicable.
  - Bilingual teachers use native language to varying degrees to instruct **students** with **limited English proficiency**.
  - English as a second language "ESL" and English for speakers of other languages (ESOL) teachers provide intensive instruction in English to **students** with **limited English proficiency**.
  - NOTE: Foreign language teachers should not be marked unless they teach Bilingual, ESL, or ESOL classes (as defined above).
- **Column (f) – New Teachers**
  - Mark (X) if the teacher's total years in the teaching profession at all schools and school districts (not just his or her current school/district) is **less** than three years prior to the start of this school year.
- **Column (g) – Teaching Status**
  - If person is a full-time teacher, enter "1" in the box.
  - If person is a part-time teacher, enter "2" in the box.
  - **Include** as part-time:
  - Itinerant teachers who teach full-time within or outside the school district but part-time in your school.
  - Teachers who perform other functions in this school in addition to part-time teaching. For example, a teaching guidance counselor should be counted as a part-time teacher.
- **Column (h) – Title 1**
  - If the teacher is a Title 1 (paid in full or part by federal funds under the Elementary and Secondary Education Act) teacher, mark (X) in the column.

INSTRUCTIONS

▶ **7** **Please read the information below, then list and categorize the full-time and part-time teachers at this school in the table on page 6.**

▶ **8** ## INCLUDE ON THE LIST

🍎 **Special Education Teachers**
  • Meaning those who teach special education classes to students with disabilities.

🍎 **General Elementary Teachers**
  • Teach self-contained classes in grades K–8, i.e., teach the same class of students all or most of the day, unless they teach special education students, in which case see the category above.
  • Include kindergarten teachers.

🍎 **Math Teachers**

🍎 **Science Teachers**

🍎 **English/Language Arts Teachers**

🍎 **Social Studies Teachers**

🍎 **Vocational/Technical Education Teachers**
  • Teach typing, business, agriculture, home economics as well as any other vocational or technical classes.

🍎 **Other Subject - Matter Teachers**
  • Teach art, foreign languages, music, physical education, English as a Second Language, and any other remaining subjects.
  • Include those who teach gifted and talented or remedial reading classes.

🍎 **Teaching Principals, Teaching Guidance Counselors, Teaching Librarians, Teaching Speech Therapists, Teaching Psychologists, and Teaching School Nurses.**
  • Include any staff members who teach **at least one class per week** regardless of whether or not it is the same set of students.

  For example:
  • If a librarian teaches a class in math once a week, include her in the "math" category, but if she only teaches groups of students library skills or how to use the library do NOT include her on the form.

🍎 **Teachers of Ungraded Students**

🍎 **Itinerant, Co-op, Traveling, and Satellite Teachers**
  • Teach at more than one school.

🍎 **Current Long-Term Substitute Teachers**
  • Currently filling the role of a regular teacher for 4 or more continuous weeks.

▶ **9** ## OMIT FROM THE LIST

🍎 **Prekindergarten teachers who teach ONLY prekindergarten students.**

🍎 **Adult Education and Postsecondary Teachers**
  • If they teach ONLY adult education or students beyond grade 12.

🍎 **Short-term Substitute Teachers**
  • Fill the role of a regular teacher for less than 4 continuous weeks.

- 🍎 **Student Teachers**
- 🍎 **Day Care Aides**
- 🍎 **Teacher Aides**
- 🍎 **Library teachers who teach only library skills or how to use the library**
- 🍎 **Other staff who do not teach any kind of class**

▶ 10 COMPLETING THE FORM ON PAGE 6

- 🍎 **Column (a) – Name**
  - List each teacher **ONLY** once.

- 🍎 **Column (b) – Grade Range**
  - Mark to indicate whether the teacher teaches K–6 grade or 7–12 grade students.
    - If a teacher teaches **both** K–6 and 7–12 students, mark the box for the grade the teacher teaches the **MOST**.
    - If a teacher teaches two or **MORE** grades **EQUALLY**, mark both boxes.
  - If a teacher teaches **UNGRADED** students, mark the boxes which correspond to the graded equivalent for children of that age.

- 🍎 **Column (c) – Subject Matter Taught**
  - Mark the box which corresponds to the subject taught **MOST** by the teacher.
    - If the teacher teaches 2 or more subjects **EQUALLY**, mark all of the boxes that apply.

- 🍎 **Column (d) – Teacher's Race/Ethnicity**
  - Enter the number from the list on page 6 which corresponds to each teacher's race/ethnicity.

- 🍎 **Column (e) – Teachers of Students With Limited English Proficiency**
  - Teaches classes designed for students with limited English proficiency, using approaches such as English as a Second Language (ESL), content ESL, bilingual education, or English for Speakers of Other Languages (ESOL).

  NOTE: Foreign language teachers should not be marked unless they teach bilingual, ESL, or ESOL classes (as defined above).

- 🍎 **Column (f) – 3 Years or less**
  - Teacher in his/her **1st, 2nd, or 3rd year** of teaching at **this or any other school**.

- 🍎 **Column (g) – Teaching Status**
  - Enter the number from the list to indicate whether the teacher is a full-time or part-time teacher.

  Include as part-time:
  - Itinerant teachers who teach full-time in this or other school districts but part-time in your school.
  - Teachers who perform other functions in this school in addition to part-time teaching. For example, a teaching guidance counselor should be counted as a part-time teacher.

- 🍎 **Column (h) – Title 1**
  - Mark the column if the teacher is a Title 1 teacher (paid in full or part by federal funds under the Elementary and Secondary Education Act).

FORM SASS-16(X) (1-14-97)

Line number	Teacher's name	Grade range		Subject matter taught									Teacher's Race/Ethnicity	Teachers of students with limited English proficiency	New teachers	Teaching status	Title 1
	List each teacher only once	Mark (X) the appropriate box (b)		Mark (X) the appropriate box (c)									Enter number which corresponds to the teacher's race/ethnicity 1–White (non-Hispanic) 2–Black (non-Hispanic) 3–Hispanic (can be any race) 4–Asian or Pacific Islander 5–American Indian or Alaska Native	Mark (X) if applicable. Bilingual teachers use native language to varying degrees to instruct students with limited English proficiency. English as a Second Language (ESL) and English for Speakers of Other Languages (ESOL) teachers provide intensive instruction in English to students who have limited English proficiency. NOTE: Foreign language teachers should not be marked unless they teach Bilingual, ESL, or ESOL classes.	Mark (X) if the teacher's total years in the teaching profession at all schools and school districts (not just their current school/ district) is less than three years prior to the start of this school year.	Enter the number which corresponds to the teacher's status 1–Full-time teacher 2–Part-time teacher	Mark (X) if applicable. If the teacher is a Title 1 (paid in full or part by federal funds under the Elementary and Secondary Education Act) teacher.
	(a)	Elementary K—6	Secondary 7—12	Special education	General elementary	Math	Science	English	Social studies	Vocational education	Other		(d)	(e)	(f)	(g)	(h)
183	Last name First name																
184	Last name First name																
185	Last name First name																
186	Last name First name																
187	Last name First name																
188	Last name First name																
189	Last name First name																
190	Last name First name																
191	Last name First name																
192	Last name First name																

Line number	Teacher's name List each teacher only once (a)	Grade range Mark (X) the appropriate box (b)		Subject matter taught Mark (X) the appropriate box (c)								Teacher's Race/Ethnicity Enter number which corresponds to the teacher's race/ethnicity 1–White (non-Hispanic) 2–Black (non-Hispanic) 3–Hispanic (can be any race) 4–Asian or Pacific Islander 5–American Indian or Alaska Native (d)	Teachers of students with limited English proficiency Mark (X) if applicable Teaches classes designed for students with limited English proficiency, using approaches such as English as a Second Language (ESL), content ESL, bilingual education, or English for Speakers of Other Languages (ESOL) NOTE: Foreign language teachers should not be marked unless they teach Bilingual, ESL, or ESOL classes. (e)	3 Years or less Mark (X) if applicable Teacher in his/her 1st, 2nd or 3rd year of teaching at this or any other school (f)	Teaching Status Enter the number from the list to indicate whether the teacher is a full-time or part-time teacher 1–Full-time teacher 2–Part-time teacher (g)	Title 1 Mark (X) if applicable If the teacher is a Title 1 teacher (paid in full or part by federal funds under the Elementary and Secondary Education Act) (h)
		K—6	7—12	Special education	General elementary	Math	Science	English/Language arts	Social studies	Vocational/Technical	Other					
	PLEASE READ THE INSTRUCTIONS ON PAGES 4 AND 5 BEFORE CONTINUING															
1	Last name　　First name															
2	Last name　　First name															
3	Last name　　First name															
4	Last name　　First name															
5	Last name　　First name															
6	Last name　　First name															
7	Last name　　First name															
8	Last name　　First name															
9	Last name　　First name															

Line no.	(a) Teacher's name		(b)		(c)								(d) Teacher's Race/Ethnicity	Teachers of students with limited English proficiency	3 Years or less	Teaching Status	Title 1
	Last name	First name	K—6	7—12	Special Ed.	Gen. Elem.	Math	Science	Eng./Lang.	Soc. Stud.	Voc./Tech.	Other					
10	Last name	First name															
11	Last name	First name															
12	Last name	First name															
13	Last name	First name															
14	Last name	First name															
15	Last name	First name															
16	Last name	First name															
17	Last name	First name															
18	Last name	First name															
19	Last name	First name															
20	Last name	First name															
21	Last name	First name															
22	Last name	First name															
23	Last name	First name															
24	Last name	First name															

INSTRUCTION CARD

8▶ INCLUDE ON THE LIST

◗ **Special Education Teachers**
- Meaning those who teach special education classes to students with disabilities.

◗ **General Elementary Teachers**
- Teach self-contained classes in grades K–8, i.e., teach the same class of students all or most of the day, unless they teach special education students, in which case see the category above.
- Include kindergarten teachers.

◗ **Math Teachers**

◗ **Science Teachers**

◗ **English/Language Arts Teachers**

◗ **Social Studies Teachers**

◗ **Vocational/Technical Education Teachers**
- Teach typing, business, agriculture, home economics as well as any other vocational or technical classes.

◗ **Other Subject - Matter Teachers**
- Teach art, foreign languages, music, physical education, English as a Second Language, and any other remaining subjects.
- Include those who teach gifted and talented or remedial reading classes.

◗ **Teaching Principals, Teaching Guidance Counselors, Teaching Librarians, Teaching Speech Therapists, Teaching Psychologists, and Teaching School Nurses.**
- Include any staff members who teach **at least one class per week** regardless of whether or not it is the same set of students.

For example:
- If a librarian teaches a class in math once a week, include her in the "math" category, but if she only teaches groups of students library skills or how to use the library do NOT include her on the form.

◗ **Teachers of Ungraded Students**

◗ **Itinerant, Co-op, Traveling, and Satellite Teachers**
- Teach at more than one school.

◗ **Current Long-Term Substitute Teachers**
- Currently filling the role of a regular teacher for 4 or more continuous weeks.

9▶ OMIT FROM THE LIST

◗ **Prekindergarten teachers who teach ONLY prekindergarten students.**

◗ **Adult Education and Postsecondary Teachers**
- If they teach ONLY adult education or students beyond grade 12.

◗ **Short-term Substitute Teachers**
- Fill the role of a regular teacher for less than 4 continuous weeks.

◗ **Student Teachers**
◗ **Day Care Aides**
◗ **Teacher Aides**
◗ **Library teachers who teach only library skills or how to use the library**
◗ **Other staff who do not teach any kind of class**

10▶ COMPLETING THE FORM ON PAGE 6

◗ **Column (a) – Name**
- List each teacher **ONLY** once.

◗ **Column (b) – Grade Range**
- Mark to indicate whether the teacher teaches K–6 grade or 7–12 grade students.
  - If a teacher teaches **both** K–6 and 7–12 students, mark the box for the grade the teacher teaches the **MOST**.
  - If a teacher teaches two or **MORE** grades **EQUALLY**, mark both boxes.
- If a teacher teaches **UNGRADED** students, mark the boxes which correspond to the graded equivalent for children of that age.

◗ **Column (c) – Subject Matter Taught**
- Mark the box which corresponds to the subject taught **MOST** by the teacher.
  - If the teacher teaches 2 or more subjects **EQUALLY**, mark all of the boxes that apply.

◗ **Column (d) – Teacher's Race/Ethnicity**
- Enter the number from the list on page 6 which corresponds to each teacher's race/ethnicity.

◗ **Column (e) – Teachers of Students With Limited English Proficiency**
- Teaches classes designed for students with limited English proficiency, using approaches such as English as a Second Language (ESL), content ESL, bilingual education, or English for Speakers of Other Languages (ESOL).
- NOTE: Foreign language teachers should not be marked unless they teach bilingual, ESL, or ESOL classes (as defined above).

◗ **Column (f) – 3 Years or less**
- Teacher in his/her **1st, 2nd, or 3rd year** of teaching at **this or any other school**.

◗ **Column (g) – Teaching Status**
- Enter the number from the list to indicate whether the teacher is a full-time or part-time teacher.
- Include as part-time:
- Itinerant teachers who teach full-time in this or other school districts but part-time in your school.
- Teachers who perform other functions in this school in addition to part-time teaching. For example, a teaching guidance counselor should be counted as a part-time teacher.

◗ **Column (h) – Title 1**
- Mark the column if the teacher is a Title 1 teacher (paid in full or part by federal funds under the Elementary and Secondary Education Act).

INSTRUCTION CARD

8▶ INCLUDE ON THE LIST

◗ **Special Education Teachers**
- Meaning those who teach special education classes to students with disabilities.

◗ **General Elementary Teachers**
- Teach self-contained classes in grades K–8, i.e., teach the same class of students all or most of the day, unless they teach special education students, in which case see the category above.
- Include kindergarten teachers.

◗ **Math Teachers**

◗ **Science Teachers**

◗ **English/Language Arts Teachers**

◗ **Social Studies Teachers**

◗ **Vocational/Technical Education Teachers**
- Teach typing, business, agriculture, home economics as well as any other vocational or technical classes.

◗ **Other Subject - Matter Teachers**
- Teach art, foreign languages, music, physical education, English as a Second Language, and any other remaining subjects.
- Include those who teach gifted and talented or remedial reading classes.

◗ **Teaching Principals, Teaching Guidance Counselors, Teaching Librarians, Teaching Speech Therapists, Teaching Psychologists, and Teaching School Nurses.**
- Include any staff members who teach **at least one class per week** regardless of whether or not it is the same set of students.

For example:
- If a librarian teaches a class in math once a week, include her in the "math" category, but if she only teaches groups of students library skills or how to use the library do NOT include her on the form.

◗ **Teachers of Ungraded Students**

◗ **Itinerant, Co-op, Traveling, and Satellite Teachers**
- Teach at more than one school.

◗ **Current Long-Term Substitute Teachers**
- Currently filling the role of a regular teacher for 4 or more continuous weeks.

9▶ OMIT FROM THE LIST

◗ **Prekindergarten teachers who teach ONLY prekindergarten students.**

◗ **Adult Education and Postsecondary Teachers**
- If they teach ONLY adult education or students beyond grade 12.

◗ **Short-term Substitute Teachers**
- Fill the role of a regular teacher for less than 4 continuous weeks.

◗ **Student Teachers**
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◗ **Teacher Aides**
◗ **Library teachers who teach only library skills or how to use the library**
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(Over)

Front of Card

Attached Instructions

Appendix 12: Attached and Loose

Front of Card (left)

INSTRUCTION CARD

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◗ **Teachers of Ungraded Students**

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- Teach at more than one school.

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- Currently filling the role of a regular teacher for 4 or more continuous weeks.

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◗ **Day Care Aides**
◗ **Teacher Aides**
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(Over)

Front of Card

Attached Instructions (right)

INSTRUCTIONS

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10▶ COMPLETING THE FORM ON PAGE 6

◗ **Column (a) – Name**
- List each teacher **ONLY** once.

◗ **Column (b) – Grade Range**
- Mark to indicate whether the teacher teaches K–6 grade or 7–12 grade students.
  - If a teacher teaches **both** K–6 and 7–12 students, mark the box for the grade the teacher teaches the **MOST**.
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◗ **Column (h) – Title 1**
- Mark the column if the teacher is a Title 1 teacher (paid in full or part by federal funds under the Elementary and Secondary Education Act).

Attached Instructions

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Listing of NCES Working Papers to Date

Please contact Ruth R. Harris at (202) 219-1831 (ruth_harris@ed.gov)
if you are interested in any of the following papers

Number	Title	Contact
94-01 (July)	Schools and Staffing Survey (SASS) Papers Presented at Meetings of the American Statistical Association	Dan Kasprzyk
94-02 (July)	Generalized Variance Estimate for Schools and Staffing Survey (SASS)	Dan Kasprzyk
94-03 (July)	1991 Schools and Staffing Survey (SASS) Reinterview Response Variance Report	Dan Kasprzyk
94-04 (July)	The Accuracy of Teachers' Self-reports on their Postsecondary Education: Teacher Transcript Study, Schools and Staffing Survey	Dan Kasprzyk
94-05 (July)	Cost-of-Education Differentials Across the States	William Fowler
94-06 (July)	Six Papers on Teachers from the 1990-91 Schools and Staffing Survey and Other Related Surveys	Dan Kasprzyk
94-07 (Nov.)	Data Comparability and Public Policy: New Interest in Public Library Data Papers Presented at Meetings of the American Statistical Association	Carrol Kindel
95-01 (Jan.)	Schools and Staffing Survey: 1994 Papers Presented at the 1994 Meeting of the American Statistical Association	Dan Kasprzyk
95-02 (Jan.)	QED Estimates of the 1990-91 Schools and Staffing Survey: Deriving and Comparing QED School Estimates with CCD Estimates	Dan Kasprzyk
95-03 (Jan.)	Schools and Staffing Survey: 1990-91 SASS Cross-Questionnaire Analysis	Dan Kasprzyk
95-04 (Jan.)	National Education Longitudinal Study of 1988: Second Follow-up Questionnaire Content Areas and Research Issues	Jeffrey Owings
95-05 (Jan.)	National Education Longitudinal Study of 1988: Conducting Trend Analyses of NLS-72, HS&B, and NELS:88 Seniors	Jeffrey Owings

Listing of NCES Working Papers to Date--Continued

Number	Title	Contact
95-06 (Jan.)	National Education Longitudinal Study of 1988: Conducting Cross-Cohort Comparisons Using HS&B, NAEP, and NELS:88 Academic Transcript Data	Jeffrey Owings
95-07 (Jan.)	National Education Longitudinal Study of 1988: Conducting Trend Analyses HS&B and NELS:88 Sophomore Cohort Dropouts	Jeffrey Owings
95-08 (Feb.)	CCD Adjustment to the 1990-91 SASS: A Comparison of Estimates	Dan Kasprzyk
95-09 (Feb.)	The Results of the 1993 Teacher List Validation Study (TLVS)	Dan Kasprzyk
95-10 (Feb.)	The Results of the 1991-92 Teacher Follow-up Survey (TFS) Reinterview and Extensive Reconciliation	Dan Kasprzyk
95-11 (Mar.)	Measuring Instruction, Curriculum Content, and Instructional Resources: The Status of Recent Work	Sharon Bobbitt & John Ralph
95-12 (Mar.)	Rural Education Data User's Guide	Samuel Peng
95-13 (Mar.)	Assessing Students with Disabilities and Limited English Proficiency	James Houser
95-14 (Mar.)	Empirical Evaluation of Social, Psychological, & Educational Construct Variables Used in NCES Surveys	Samuel Peng
95-15 (Apr.)	Classroom Instructional Processes: A Review of Existing Measurement Approaches and Their Applicability for the Teacher Follow-up Survey	Sharon Bobbitt
95-16 (Apr.)	Intersurvey Consistency in NCES Private School Surveys	Steven Kaufman
95-17 (May)	Estimates of Expenditures for Private K-12 Schools	Stephen Broughman
95-18 (Nov.)	An Agenda for Research on Teachers and Schools: Revisiting NCES' Schools and Staffing Survey	Dan Kasprzyk
96-01 (Jan.)	Methodological Issues in the Study of Teachers' Careers: Critical Features of a Truly Longitudinal Study	Dan Kasprzyk

Listing of NCES Working Papers to Date--Continued

Number	Title	Contact
96-02 (Feb.)	Schools and Staffing Survey (SASS): 1995 Selected papers presented at the 1995 Meeting of the American Statistical Association	Dan Kasprzyk
96-03 (Feb.)	National Education Longitudinal Study of 1988 (NELS:88) Research Framework and Issues	Jeffrey Owings
96-04 (Feb.)	Census Mapping Project/School District Data Book	Tai Phan
96-05 (Feb.)	Cognitive Research on the Teacher Listing Form for the Schools and Staffing Survey	Dan Kasprzyk
96-06 (Mar.)	The Schools and Staffing Survey (SASS) for 1998-99: Design Recommendations to Inform Broad Education Policy	Dan Kasprzyk
96-07 (Mar.)	Should SASS Measure Instructional Processes and Teacher Effectiveness?	Dan Kasprzyk
96-08 (Apr.)	How Accurate are Teacher Judgments of Students' Academic Performance?	Jerry West
96-09 (Apr.)	Making Data Relevant for Policy Discussions: Redesigning the School Administrator Questionnaire for the 1998-99 SASS	Dan Kasprzyk
96-10 (Apr.)	1998-99 Schools and Staffing Survey: Issues Related to Survey Depth	Dan Kasprzyk
96-11 (June)	Towards an Organizational Database on America's Schools: A Proposal for the Future of SASS, with comments on School Reform, Governance, and Finance	Dan Kasprzyk
96-12 (June)	Predictors of Retention, Transfer, and Attrition of Special and General Education Teachers: Data from the 1989 Teacher Followup Survey	Dan Kasprzyk
96-13 (June)	Estimation of Response Bias in the NHES:95 Adult Education Survey	Steven Kaufman
96-14 (June)	The 1995 National Household Education Survey: Reinterview Results for the Adult Education Component	Steven Kaufman

Listing of NCES Working Papers to Date--Continued

Number	Title	Contact
96-15 (June)	Nested Structures: District-Level Data in the Schools and Staffing Survey	Dan Kasprzyk
96-16 (June)	Strategies for Collecting Finance Data from Private Schools	Stephen Broughman
96-17 (July)	National Postsecondary Student Aid Study: 1996 Field Test Methodology Report	Andrew G. Malizio
96-18 (Aug.)	Assessment of Social Competence, Adaptive Behaviors, and Approaches to Learning with Young Children	Jerry West
96-19 (Oct.)	Assessment and Analysis of School-Level Expenditures	William Fowler
96-20 (Oct.)	1991 National Household Education Survey (NHES:91) Questionnaires: Screener, Early Childhood Education, and Adult Education	Kathryn Chandler
96-21 (Oct.)	1993 National Household Education Survey (NHES:93) Questionnaires: Screener, School Readiness, and School Safety and Discipline	Kathryn Chandler
96-22 (Oct.)	1995 National Household Education Survey (NHES:95) Questionnaires: Screener, Early Childhood Program Participation, and Adult Education	Kathryn Chandler
96-23 (Oct.)	Linking Student Data to SASS: Why, When, How	Dan Kasprzyk
96-24 (Oct.)	National Assessments of Teacher Quality	Dan Kasprzyk
96-25 (Oct.)	Measures of Inservice Professional Development: Suggested Items for the 1998-1999 Schools and Staffing Survey	Dan Kasprzyk
96-26 (Nov.)	Improving the Coverage of Private Elementary-Secondary Schools	Steven Kaufman
96-27 (Nov.)	Intersurvey Consistency in NCES Private School Surveys for 1993-94	Steven Kaufman

Number	Title	Contact
96-28 (Nov.)	Student Learning, Teaching Quality, and Professional Development: Theoretical Linkages, Current Measurement, and Recommendations for Future Data Collection	Mary Rollefson
96-29 (Nov.)	Undercoverage Bias in Estimates of Characteristics of Adults and 0- to 2-Year-Olds in the 1995 National Household Education Survey (NHES:95)	Kathryn Chandler
96-30 (Dec.)	Comparison of Estimates from the 1995 National Household Education Survey (NHES:95)	Kathryn Chandler
97-01 (Feb.)	Selected Papers on Education Surveys: Papers Presented at the 1996 Meeting of the American Statistical Association	Dan Kasprzyk
97-02 (Feb.)	Telephone Coverage Bias and Recorded Interviews in the 1993 National Household Education Survey (NHES:93)	Kathryn Chandler
97-03 (Feb.)	1991 and 1995 National Household Education Survey Questionnaires: NHES:91 Screener, NHES:91 Adult Education, NHES:95 Basic Screener, and NHES:95 Adult Education	Kathryn Chandler
97-04 (Feb.)	Design, Data Collection, Monitoring, Interview Administration Time, and Data Editing in the 1993 National Household Education Survey (NHES:93)	Kathryn Chandler
97-05 (Feb.)	Unit and Item Response, Weighting, and Imputation Procedures in the 1993 National Household Education Survey (NHES:93)	Kathryn Chandler
97-06 (Feb.)	Unit and Item Response, Weighting, and Imputation Procedures in the 1995 National Household Education Survey (NHES:95)	Kathryn Chandler
97-07 (Mar.)	The Determinants of Per-Pupil Expenditures in Private Elementary and Secondary Schools: An Exploratory Analysis	Stephen Broughman
97-08 (Mar.)	Design, Data Collection, Interview Timing, and Data Editing in the 1995 National Household Education Survey	Kathryn Chandler

Listing of NCES Working Papers to Date--Continued

Number	Title	Contact
97-09 (Apr.)	Status of Data on Crime and Violence in Schools: Final Report	Lee Hoffman
97-10 (Apr.)	Report of Cognitive Research on the Public and Private School Teacher Questionnaires for the Schools and Staffing Survey 1993-94 School Year	Dan Kasprzyk
97-11 (Apr.)	International Comparisons of Inservice Professional Development	Dan Kasprzyk
97-12 (Apr.)	Measuring School Reform: Recommendations for Future SASS Data Collection	Mary Rollefson
97-13 (Apr.)	Improving Data Quality in NCES: Database-to-Report Process	Susan Ahmed
97-14 (Apr.)	Optimal Choice of Periodicities for the Schools and Staffing Survey: Modeling and Analysis	Steven Kaufman
97-15 (May)	Customer Service Survey: Common Core of Data Coordinators	Lee Hoffman
97-16 (May)	International Education Expenditure Comparability Study: Final Report, Volume I	Shelley Burns
97-17 (May)	International Education Expenditure Comparability Study: Final Report, Volume II, Quantitative Analysis of Expenditure Comparability	Shelley Burns
97-18 (June)	Improving the Mail Return Rates of SASS Surveys: A Review of the Literature	Steven Kaufman
97-19 (June)	National Household Education Survey of 1995: Adult Education Course Coding Manual	Peter Stowe
97-20 (June)	National Household Education Survey of 1995: Adult Education Course Code Merge Files User's Guide	Peter Stowe
97-21 (June)	Statistics for Policymakers or Everything You Wanted to Know About Statistics But Thought You Could Never Understand	Susan Ahmed
97-22 (July)	Collection of Private School Finance Data: Development of a Questionnaire	Stephen Broughman

Number	Title	Contact
97-23 (July)	Further Cognitive Research on the Schools and Staffing Survey (SASS) Teacher Listing Form	Dan Kasprzyk