Institute of Educational Statistics
National Center for Education Statistics

NATIONAL INSTITUTE OF STATISTICAL SCIENCES
TECHNICAL EXPERT PANEL REPORT

SCHOOL SURVEY
PARTICIPATION AND BURDEN

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NATIONAL INSTITUTE OF STATISTICAL SCIENCES

SCHOOL SURVEY PARTICIPATION AND BURDEN

EXECUTIVE SUMMARY

The National Center for Education Statistics (NCES) and other centers within the Institute of Education Sciences (IES) collect data on a national scale from districts, schools, and individual administrators, teachers, students and parents. The surveys, assessments and other studies vary widely in purpose and scope, but all contribute to the information available about individual schools, districts and states. In addition to creating databases for individual data collections, this compiled information is used in turn for designing future studies and drawing future samples. In 2020, NCES commissioned the National Institute of Statistical Sciences (NISS) to assemble the pair of what became a series of panels of technical experts, *Post-COVID Surveys* and *Setting Priorities for Federal Data Access to Expand the Context for Education Data* to consider opportunities for changing the sampling paradigm and process. From the NCES point of view the dual goals were - to address the rising non-response and lack of participation and to enrich the information base by linking data collections. From the points of view of school districts, schools and participants, the need was to understand and alleviate the burden of participation. The next pair of panels, *Connecting the Dots, I & II* examined the technical design and the implementation issues of coordinating the sampling across multiple data collections.

The broad recommendations of the first two panels were to develop a combined approach for data collections during each academic year and to expand the information base while gaining efficiency by linking data and eliminating redundant requests. The second pair of panels focused on identifying specific steps required to achieve the original goals for NCES and for the education community. The current panel was charged with addressing the specific recommendations for creating the necessary consolidated data resource for addressing key issues about decision-making regarding study/survey participation at each level, about burden of participation and for increasing detailed information to enable new, more effective sampling designs.

The goal set for the current panel was to address the particular recommendation of the previous panels to:

Create a supplement to the Common Core of Data (CCD) that can be used for both

(i) Understanding and modeling non-participation, both occurrence and rationale/motivation, and

(ii) Providing a basis for coordinating or combining NCES sampling designs and collected data across studies.

In particular, the Connecting the Dots I & II specified that such a list would involve

- Creating a History of Participation database for districts and schools; including recruitment attempts, results, reasons for refusals or other non-response, and metrics for burden.

- Moving forward, develop a research base for studying patterns of refusal and for estimating the impact of non-response, using external sources to validate.

As noted explicitly by previous panels, success with the expansion would also depend on other aspects of data collection. Most notably, these include the building of relationships with districts and schools by using a single cross-study coordinator/recruiter and the defining of burden in terms of the district/school/ respondent levels. Therefore, this panel included experts drawn from data sampling designers, data collectors, data contributors, data users and researchers. This allowed extensive cross-fertilization to ensure that each important aspect of the process and of the impact was raised. Over the course of five meetings the panel reviewed and reiterated key findings of previous panels, arrived at a number of specific recommendations, and constructed a list of variables as items for the appendix to expand the CCD (see Appendix C of the full text report).

Principal Findings:

- Burden – the primary measurable burden is time – time away from class, time away from other duties, and time that is already limited for participating in the large number of studies in which districts and schools are asked to participate.

- The ability to cope with the perceived burden, and the benefits of participating are major factors in non-response.

- The establishment of a set of NCES coordinators to develop close relationships with the districts and schools could reduce non-participation, make it easier to gather some forms of information, and increase the detail obtained in some responses.

Specific Recommendations:

The information in the appendix file to supplement the Common Core of Data (CCD) files has two primary goals – to understand non-participation with a view to reducing it, and to develop nonresponse weighting adjustments. Variables used for nonresponse weighting should be available for (nearly) all schools and be related to both non-response and to the outcome variables of the study. The requirements are not as stringent for the goals of studying non-participation.

The variables we recommend to supplement the CCD can be divided as follows:

- A History of Participation Database that contains Information from previous studies the schools were invited to:

  - This includes information in the Office of Management and Budget (OMB) submissions on burden and incentives for different classes of respondents, timing, and the final disposition (AAPOR codes).

  - Variables allowing the creation of categories for reason of non-participation, expanding information contained in the OMB submissions and final disposition. This information is for use by the contractors, not for use or presentation to the districts or schools themselves.

- School level variables including detailed school type information, school and district research policy information, school level SES variables.

- Other external variables that relate to both study outcome variables and non-response, such as percent proficiency in reading and mathematics.

- Additional student information, such as percent of students with disabilities (IDEA), English language learners, and homeless.

- Indicators of school stress, such as principal and teacher stability, crime and disciplinary information, chronic absences for students and teachers, and enrollment changes.

- Information on times of the year that the school is unavailable to participate.

Beyond the creation of the list of CCD appendix variables that was its charge, the panel also notes:

- The creation of a cohort of NCES coordinators to work closely with districts and schools in sustained relationships seem likely to:

  - Increase trust in, and underscore the relevance of, NCES surveys and results.

  - Improve likelihood of participation.

  - Improve the quality of some answers (such as reason for non-participation).

  - Provide a conduit for direct answers to some questions directly (times of year blocked off, schools that are unavailable for a year).

  - Give a pathway for other feedback when needed.

- Data on the accuracy of the time estimates in the OMB packages needs to be collected from participants for every study. This is needed both to accurately inform the prospective participants and for use in the modeling non- participation.

- Past participation based on the large number of variables available should be modeled to gauge the likely benefit to the NCES of using those variables for prediction and non-response weighting, and to assess potential biases.

NATIONAL INSTITUTE OF STATISTICAL SCIENCES TECHNICAL EXPERT PANEL REPORT

PREFACE

The National Center for Education Statistics (NCES) and Institute of Education Sciences (IES) are responsible for a large number of studies involving school districts, schools, and individual administrators, teachers, parents, and students. These studies have had increasing difficulty with non-response and lack of participation. Aspects of these difficulties have been discussed in several NCES/NISS panels, notably the 2020 *Post Covid Surveys* panel. The findings in those panels were specifically expanded on in the pair of 2021 *Connecting the Dots* panels that were designed to determine if the various recommendations were realistically implementable, and to provide guidance for moving forward.

In reaction to Connecting the Dots, I & II, NCES charged NISS with forming a Technical Forum on *Coordinated Designs for Multiple Surveys* and this Technical Expert Panel on *School Survey Participation and Burden*.

This panel's goal is to concretely advance a subset of the recommendations from *Connecting the Dots* that can be summarized as:

Create a supplement for the Common Core of Data (CCD) that can be used for both

   i.   Understanding and modeling non-participation, both occurrence and rationale/motivation, and

   ii. Providing a basis for coordinating or combining NCES sampling designs and collected data across studies.

The assembled panel included school district research directors, experts in undertaking studies from NCES contractors and the US Census Bureau, a NAEP state coordinator, and experts in sampling. The panel was held over five virtual meetings between 29 April and 9 June 2022. The first meeting overviewed the prospective goals to the NCES staff and panel and incorporated the combined feedback. Following deliberations in closed sessions and asynchronous on-line work, the panel presented preliminary findings to NCES staff at the fifth meeting. Further collaborations were done in the preparation of this report.

NATIONAL INSTITUTE OF STATISTICAL SCIENCES
TECHNICAL EXPERT PANEL REPORT

SCHOOL SURVEY PARTICIPATION AND BURDEN

I.   INTRODUCTION

The large studies conducted by the National Center for Education Statistics (NCES) and Institute of Education Sciences (IES) collect data from districts, schools, school administrators, teachers, parents, and students. These studies have had increasing levels of non-response and refusal to participate. To address this, NCES charged NISS with forming expert panels and forums, culminating in the pair of 2021 *Connecting the Dots* panels. These panels examined the feasibility of restructuring and coordinating the multiple, separate studies into a coordinated process. The pair of panels found that this coordination between studies was "unequivocally desirable and feasible". It also noted that "accomplishing this will require extensive changes in several aspects and significant investment of effort and technical expertise to achieve integration across surveys moving toward standardization of critical survey components."

The goal for this panel is to advance one of the requirements identified by the Connecting the Dots, I&II panels. These requirements were determined based on the needs for designing samples in a multi-survey context and for quantifying and then reducing perceived burden on education administrators at all levels from state to school as well as that on teachers, students and parents. An extensive NCES (obligatory) data collection, the Common Core of Data (CCD) contains basic information on all individual US public schools (K-12) (except a few statutory exclusions). The CCD is widely used as a reference source, as a research database, and as the sampling frame from which NCES and IES data collections draw their samples. The CCD includes education economic, student population, teacher demographic, education administration, and structure and facilities information, and more. However, it does *not* contain whether or when a school participated in any federally supported study or whether it was invited to do so. Hence, a key recommendation from previous panels was to facilitate progress in expanding the CCD to meet the needs of the multiple uses, i.e., to:

 Create a supplement for the Common Core of Data (CCD) that can be used for both

   i. Understanding and modeling non-participation, both occurrence and rationale/motivation, and
   ii. Providing a basis for coordinating or combining NCES sampling designs and collected data across studies.

Developing such a list of variables to expand the CCD to meet these objectives first requires understanding:

- How to define relevant measures of burden for varying circumstances.
- What is needed to assess propensity for non-participation.
- How to define useful predictors of availability.

Such a list of variables must also yield the necessary background information for study of non-participation by:

- Creating a History of Participation database for districts and schools; including recruitment attempts, results, reasons for refusals or other non-response, and metrics for burden.
- Developing a research base for studying patterns of refusal and for estimating the impact of non-response, using external sources for validation.

The Connecting the Dots panels made recommendations in several other areas related to the creation of such an expansion, including the building of relationships with districts and schools by using a single cross-study coordinator/recruiter, and developing more refined measures of burden at district, school, and respondent levels.

The issues addressed by the panel have ramifications for all aspects of the sampling, recruitment, and participation process. Accordingly, the panel was composed of:

- Those on the front line of receiving survey participation / data collection requests – A director of shared accountability, former executive director of research and evaluation, and director of strategic data and evaluation for large school districts.
- Those who develop surveys and recruit respondents – An associate director, survey director, and survey scientist at NCES contractors with experience with programs such as the Early Childhood Longitudinal Studies (ECLS) program, and the international Trends in International Mathematics and Science Study (TIMSS) and Progress in International Reading Literacy Study (PIRLS) programs.
- Professors of statistics and biostatistics who specialize in survey methods.
- Others who straddle multiple areas – a NAEP state coordinator and a survey statistician on the education surveys team at the US Census Bureau.

The body of this report has four key sections:

- Section II reports the panel's understandings of measuring burden, assessing propensity for non-participation, and predicting availability.
- Section III presents the panel's proposed draft list of variables for the CCD appendix.
- Section IV presents related findings that the panel viewed as vital for moving forward.
- Section V presents a sub-list of recommendations the panel believes could be prioritized.

II. FOUNDATIONAL FINDINGS

As noted in *Connecting the Dots, I & II* panel report, except for the National Assessment of Educational Progress (NAEP), Common Core of Data (CCD), and the Integrated Postsecondary Education Data System (IPEDS), participation in NCES surveys is voluntary for all the potential respondents, from districts to schools to students (pg. 7). And these voluntary surveys have increasing rates of refusals and non-responses (pg. 5).

Hence, the fourfold goals of *Connecting the Dots, I & II* were "simultaneously to streamline the recruitment process at state/district/local levels, to reduce burden especially at district/local levels, to diminish non-response, and to leverage data from multiple data sources both at NCES and in other federal

data collection" (pg. 3). As part of this, "knowing the likelihood of non-response could eliminate plans for multiple attempts and could also enable prediction of the contribution to bias" (pg. 30).

Understanding burden, reasons for non-participation, and estimating the probability of non-response were the key issues that this panel considered when selecting variables for the proposed CCD appendix.

On Measuring Burden

As noted by the *Connecting the Dots, II* panel*,* burden for districts is "both immediate and cumulative burden over multiple years", and as is "in the context of other challenges confronting the students in a school or district, and encompassing administrative load, curriculum/schedule disruption as well as classroom time." (pg. 10).

The current Panel noted that burden has many facets – number of respondents, length of time required, perception of burden, etc., - and that how burden is perceived depends on the challenges, or stressors, the schools and districts are experiencing. The key measurable quantities involved time - time required by the respondents to engage with the study, time to find and/or generate the responses, and time to record them. Their quantification is easily understood and estimates are already available in the OMB filings for each study. It was noted however that there was no current feedback loop to verify the time estimates in those filings.

How each district, school, or individual interprets the time requirements depends crucially on how much stress they are under. The panel took this idea of stressors (primarily of schools and districts) as a key idea for using the measure of burden to assess propensity for non-response and modeling the probability of participation and response.

FINDINGS: On Defining Measures of Burden

- The primary measurable burden is time – time away from class, time away from other duties, and taking from time available for participating in other studies and research.
- The OMB submissions contain the estimated time per person/task combination.
- There is currently no formal feedback procedure for assessing accuracy of OMB burden estimates.
- The estimates need to include completing task, gathering information, submission, etc.

On Assessing Propensity of Non-Participation

The *Connecting the Dots, II* panel, noted that "The greatest disparity among schools and also among districts seems to lie in what truly constitutes burden, what constitutes a benefit and how to strike a balance" (pg. 28). The current panel agreed that the balance of burden vs. benefit was a central theme.

The panelists from the district research offices in particular focused on the number of ways that schools could be affected by various stressors as being key to understanding how the time requirements of participation manifested themselves in participation or non-participation. These stressors ranged from issues arising from socio-economic disadvantage, to principal turnover, to being under a state or district mandated improvement plan (see some of the variables in groups 4 to 7 of the proposed CCD appendix below).

In terms of the (perceived) benefits of participation, the panel echoed many of the points raised by previous panels, such as seeking quicker feedback, possible district involvement in choosing questions, etc. (see *Post-Covid Surveys*, pgs. 14 and 19). The panel also echoed the previous panel suggestions of a

single point of contact NCES cross-study coordinator who could work with schools and districts. In this case, the relationship between the coordinator and participant could make it easier to clarify the studies benefits and to collect information on what would help them be even more beneficial.

Finally, it was strongly noted that many districts and schools have certain parts of their calendar blocked off (perhaps for state-mandated testing or similar activities) where they will fail to participate solely for that reason. (See variable group 8 of the proposed CCD appendix below).

FINDINGS: On Assessing Propensity for Non-Participation

- The ability to cope with the perceived burden, and the benefits of participating are major factors in non-response.
- The weighing of these two against each other occurs at both the district and school levels.
- The ability to cope is impacted by various stressors affecting the individual schools.
- Previous panels have suggested ways to make the studies' benefits clear, and for the studies to be more immediately beneficial.
  - An NCES study coordinator could help greatly with the former and help get feedback about the latter
- How the study timeline fits into the school calendar (for academics, state testing schedule, etc.) can lead to automatically declining to participate regardless of the other issues.

On Predicting Availability

As noted above, the Connecting the Dots, I & II panels found that knowing the likelihood of non-response can help with efforts to ameliorate non-response and help to estimate bias in the statistics resulting from the studies it occurs in. It was noted by several of the current panelists that whether or not non-response is able to be predicted in a useful way is an empirical question that can be examined using past data and fairly standard statistical methods. It was also felt that such an examination could provide useful information about whether the endeavor appeared to fruitful, and if so, which variables are most helpful.

The concurrently running NCES/NISS forum on *Coordinating Designs for Multiple Surveys* also noted that predictors of participation could be used to help construct nonresponse weights for coordinated studies. The sampling experts on the panel made clear that the predictors in this case must be available for all (or at least most) participants, and that they must be related to the outcome variables of the study. (In the case of studies seeking to measure various demographic variables see groups 4 and 6 in the proposed CCD appendix; for studies of academic performance, consider variables like those in group 5 in the proposed appendix.)

FINDINGS: On Predicting Availability

- Whether non-participation (lack of availability) can be predicted in advance is an empirical question. Past participation should be modeled as a function of the large number of available variables to examine this.
- Predictor variables used for nonresponse weights should:
  - Be available for all schools (or have a method to deal with the missingness)
  - Be related to the outcome (as well as to non-participation)
- Predictor variables used for modeling non-response in order to identify ways to reduce it do not need to be related to the outcomes.

III. CCD APPENDIX FILE

The goal for the current panel was to address the particular recommendation of previous panels to:

Create a supplement to the Common Core of Data (CCD) that can be used for both

  (i) Understanding and modeling non-participation, both occurrence and rationale/motivation, and
  (ii) Providing a basis for coordinating or combining NCES sampling designs and collected data across studies.

In doing so, the panel followed, the *Connecting the Dots* calls for:

- Creating a History of Participation database for districts and schools; including recruitment attempts, results, reasons for refusals or other non-response, and metrics for burden.
- Develop a research base for studying patterns of refusal and for estimating the impact of non-response, using external sources to validate.

The recommended variables for the CCD appendix file were selected to address the overlapping purposes of modeling propensity for non-participation to increase participation and for potential use in constructing nonresponse weights. As noted in the previous section, the goal of understanding and modeling non-participation requires knowing not only the time-measured burden of each study and the past participation of the schools and districts, but also the stressors those schools and districts are experiencing. Also as noted above, for the goal of creating nonresponse weights that account for probability of non-response, the variables must both be related to non-response and to the outcome variables of the particular study.

The proposed variables are divided into 9 groups below, where the groupings are based on type of variable and reason for collecting them. (See Appendix C for a concise list). In particular, the first group of variables addresses the call to collect information on current and past burden experienced by the schools in a History of Participation Database. This first group differs from the other groups of variables in that participation data is not publicly released by NCES, and the data is very sparse since most schools are not regularly asked to participate in most studies.

As noted in the previous section, groups 4 to 7 contain either stressors experienced by schools or correlates of them. Groups 4 and 5 may be common correlates of both non-response and study outcome variables. Those in group 2 were viewed as being necessary to the interpretation of the other variables. Those in group 3 were viewed as potential correlates of research support available at the district level and also as information needed by the study recruiters. Group 9 was viewed as perhaps more difficult to obtain at present, but it may be useful for setting bounds on response rates to NCES studies within each school.

Most of the suggested variables are already in EDFacts or other available data sets. Other required information is new, but the panel believed it could be gained with reasonable effort. Some are possibly aspirational. In many cases the variables will also provide additional operationally useful information beyond the goals this panel was designed to meet.

1. **History of Participation Database**:

The seven variables in this group would be collected for each school selected for participation in each NCES study. They include information in the OMB submissions on burden and incentives for different classes of respondents and the final disposition (AAPOR codes). Due to the structure of this data, it may be easiest to have it be maintained separately from the remaining CCD appendix items.

How to usefully code the particular reason for non-participation was a significant source of discussion. It requires the creation of categories for reason of non-participation for use by the contractors.

The suggested variables for each school invited to each study to include in the History of Participation Database, are:

   a) Final disposition (AAPOR) code. See appendix D for a sample set of codes.
   b) Non-participation response category if needed.

Each contractor currently has categories that they assign to the reasons provided by the schools. A common set of codes is needed across contractors, and Appendix E contains the panel's suggested list.

This is not a checklist provided to the schools to select from (although some districts have their own lists). This list should not be presented to the schools and districts as the mere availability of the choices may influence or bias their responses.

   a) The estimated response times per individual at each respondent level (District, School Principal, School Staff, Teacher, Counselor, Student, Parent) need to be given.
   b) The number of individuals at each respondent level.
   c) The time period in which the data collection for the study occurred.
   d) The OMB listed standard incentives offered at each respondent level.
   e) Any incentives offered beyond the OMB standard.

2. **School Type Information**

Details of school type may significantly impact the interpretation of the various other variables being examined, as well as indicate potential stress the school may be under.

   a) Detailed school type – CCD currently indicates magnet status. Schools can be strictly magnet; combined neighborhood attendance and out of attendance magnet attendees in same classes; not classified as magnet by the district but having open enrollment and a focus; or have essentially separate neighborhood and magnet programs in same school with same principal. (Possibly similar issues for special education, vocational, and alternative programs).
   b) For neighborhood schools, estimated percentage of students in neighborhood attending.

3. **Information on Research Request Requirements**

These three variables provide information about the degree of support/organization at the district level. They also contain needed information for actually conducting studies with these schools

   a) Is a research application required?
   b) Is a data utilization agreement required?
   c) Is a sponsor required?

4. **School Level SES Variables**

SES is a correlate of various school/district stressors as well as various study outcome variables.

CCD currently indicates coarse and less precise school poverty information - school Title I status and Free and Reduced Price Lunch information. (See, for example, the 2019 NISS/NCES working session on Improving SES Estimators in light of the changes to the free and reduced price program changes). Two estimates of SES include:

   a) ACS estimate (projection to school, if possible, district level if not).
   b) SAIPE (census) estimates.

5. **Information from External Surveys**

Nonresponse weights can be improved by incorporating variables from external surveys that are related to the current study's outcome variables and to propensity of non-participation. These are measures of educational performance in many cases. Additional variables related to educational performance, as well as to other study outcomes, are found in the other groups of proposed variables.

EDFacts has information on the state scale only. See NAEP State mapping and Stanford Educational Data Archive for alternatives.

   a) Estimated percent proficient in reading on NAEP scale for each relevant grade level.
   b) Estimated percent proficient in mathematics on NAEP scale for each relevant grade level.

6. **Additional Student Information**

These may be correlated both with school stress and/or with outcome variables from the studies at the school level. Some are likely correlated with non-response at the individual level as well.

   a) Percent of students with disabilities (IDEA).
   b) Percent of students who are English language learners.
   c) Percent of students by Migratory Status.
   d) Percent of students who are Foster Youth.
   e) Percent of students who are Homeless.
   f) Percent of students who are Unaccompanied Homeless Youth.

7. **Indicators of School Stress**

The impact of various stressors is central to how schools and districts weigh the time-burden vs. benefits. Indicators of stress include:

   a) Tenure of current principal in school.
   b) Number of principals in previous ten (?) years (measure of principal stability).
   c) Percent of teachers in 1st year of teaching.
   d) Percent of teachers in 2nd year of teaching.
   e) Teachers absent > 10 days of the school year FTE (Divided by total teacher FTE?).
   f) Total counselors (FTE).
   g) Number of students referred to law enforcement.
   h) Number of students with school-related arrests.

i) Number of students expelled under zero-tolerance policies.

j) School days missed due to out of school suspensions.

k) Percent of students with one or more in-school suspension.

l) Percent of students with one out-of-school suspension.

m) Percent of students with more than one out-of-school suspension.

n) Percent of students who are chronically absent.

o) Measure of enrollment change.

p) Teacher Vacancies.

q) If school is currently undergoing a state/district improvement plan.

r) If the school is blocked from selection for a time span.

Notes: Student teacher ratio is already in CCD.

(c) – (n) are reported, for example, in US Department of Education Office for Civil Rights (OCR) data.

(p) – (r) may be easily gettable if districts have a relationship with an NCES school liaison.

8. **Time Periods Districts are Unable to Participate, and Time Periods Districts Indicate are More Difficult.**

There are certain time periods in which districts are either unable or unlikely to participate in studies. Knowing those time periods is crucial operationally and also vital when attempting to predict non-participation.

9. **Teacher, Student, and Parent response rates to District's School Experience Survey (if one is given).**

This might not be easily obtainable in general (it may be reported on district or state websites) but would provide information on response rates (perhaps and upper bound) within the school.

IV. OTHER RECOMMENDATIONS

The panel **strongly** reiterates many of the suggestions from the previous panels, such as:

- Minimizing requests for repetitive/unnecessary information.
- Asking the appropriate holders of the information (e.g., district rather than school).
- Giving schools timely information from the surveys.
- Make it clear to those giving the data (research office, principals) how the work is relevant to them or is especially worthwhile on its own.

The panel particularly calls out the importance of NCES coordinators working closely with districts and schools in sustained relationships.

- Improve likelihood of participation.
- Improve quality of some answers (such as reason for non-participation).
- Gives a pathway for feedback on other issues.
- Gives ability to receive answers to some questions directly (times of year blocked off, schools that are unavailable for a year.

Following the example of the NAEP state coordinators, the NCES coordinators could be embedded in the state, have the branding of the Department of Education, and have the ability to partner and share information with the NAEP coordinators. It may be necessary to have some coordinators cover multiple smaller states, and some larger states have multiple coordinators.

The panel notes that data on the accuracy of the time estimates in the OMB packages need to be collected from participants for every study. Both to accurately inform the prospective participants, but also as it may be an important variable for modeling likelihood of participation.

The panel suggests modeling past participation based on the large number of variables available should be done to assess the value of the different variables as predictors and potentially identify variables that were not called out already for the CCD appendix.

V.   PRIORITIZATION

Setting priorities for implementation balances importance, cost/difficulty, and NCES priorities. The following three areas would be relatively straightforward and be useful while the other recommendations were still in the process of being implemented.

- Several of the variable groups seem particularly important both for modeling non-participation, and also for measuring and controlling the burden of individual schools and/or aiding in the management of the studies. These include:

    1 – The History of Participation Database.

    3 – Information on Research Request Requirements.

    8 – Time periods districts are unable to participate, and time periods districts indicate are more difficult.

    Gathering this data includes developing a unified non-participation category list with the various contractors and having them begin coding the non-response information in the standard format.

- The value of the other variables on the list and the ability to predict non-response can be examined by statistically modeling past non-response based on the existing variables. This should be doable with standard statistical methods and be fairly straightforward. While not using the exact variables we recommend in many cases, it should give a hint at the possible value of the endeavor. It is also important to explore associations between estimated response propensity and key survey outcomes to assess potential for bias.

- Explore the value of having unified coordinator/recruiters. While creating a large number of new positions is difficult in the short term, following the lead of coordinating centers for clinical trials and targeting a few groups of schools with a high non-participation rate may provide a good beginning.

VI.   APPENDICES

Appendix A: Agenda

Appendix B: Charge to Panel

Appendix C: Expert Panel Biosketches

Appendix D: CCD Appendix Variable List

Appendix E: Sample AAPOR Codes

Appendix F: Suggested Non-Participation Categories

APPENDIX A: AGENDA

National Institute of Statistical Sciences
Technical Expert Panel on
SCHOOL SURVEY PARTICIPATION and BURDEN

AGENDA

Friday, April 29, 2022

12:00 pm -12:05 pm	Welcome and Introduction of Panel and NCES staff
12:05 pm – 12:20 pm	Panel Goals
12:20 pm – 1:00 pm	Characterizing Schools
1:00 pm – 1:30 pm	Other Findings
1:30 pm – 1:50 pm	Next Steps
1:50 pm – 2:00 pm	NCES/Panelists Questions and Goal Discussion

Friday, May 13, 2022 – Panel Working Session (Panel Only)

12:00 pm – 12:30 pm	Summary of Last Meeting, Forum, and Panel Goals
12:30 pm – 2:00 pm	Measuring Burden

Friday, May 20, 2022 – Panel Working Session (Panel Only)

11:00 am – 11:30 am	Continuing Measuring of Burden
11:30 pm – 12:45 pm	Assessing Propensity for Non-Response and Predicting Availability
12:45 pm – 1:00 pm	Discussion of working collaboratively on the CCD Appendix list of variables

May 23 - June 1, 2022 – Collaborative Asynchronous On-Line Work

Friday, June 3, 2022 – Panel Working Session (Panel only)

11:00am – 1:00pm	Refining the CCD Appendix list of variables

Thursday, June 9, 2022

12:00 pm – 12:05 pm	Welcome and Introduction of Panel and NCES staff
12:05 pm – 12:20 am	Presentation of Panel Findings
12:20 pm – 1:00 pm	Panel Goals
1:00 pm – 1:30 pm	Burden
1:30 pm – 1:50 pm	Assessing Propensity for Non-Participation
1:50 pm – 3:30 pm	Predicting Availability
	- Proposed CCD Appendix File
	- Related Comments
1:50 pm – 3:30 pm	NCES/Panel Discussion of Findings and Future Steps

APPENDIX B: CHARGE TO PANEL

This panel's goal is to concretely help implement the 2021 NISS/NCES "Connecting the Dots" panel recommendation to make an appendix file to the CCD:

Expand the sampling frame, both open access CCD and a restricted access expansion to CCD.

- Create a restricted access CCD appendix file of comprehensive history of participation for districts and schools; include for all surveys/assessments (by level – state/district/school) the recruitment attempts, results, reasons for refusals or other non-response, and metrics for burden.

- Expand, as feasible, the open access CCD to incorporate or link to information from other federal agencies and to small area estimates of correlates.

- Moving forward, use the restricted CCD appendix for development of metrics for burden and validation of patterns and reasons of refusal and for estimating the impact of non-response, using NAEP data and external sources to validate.

In particular this panel's charge is:

To develop a spreadsheet of variables that would form a CCD appendix file for facilitating measurement of burden,

- o   assessing propensity for non-participation,
- o   and allowing prediction of availability for upcoming surveys.

APPENDIX C: CCD APPENDIX VARIABLE LIST

1. **History of Participation Database**

   a) Final disposition (AAPOR) code.
   b) Non-participation response category (if refusal). These are to be coded by the contractors from the school/district response. The list is NOT to be given to districts/schools.
   c) The estimated response times per individual at each respondent level (District, School Principal, School Staff, Teacher, Counselor, Student, Parent) need to be given.
   d) The number of individuals at each respondent level.
   e) The time period in which the data collection was scheduled to occur.
   f) The OMB listed standard incentives offered at each level.
   g) Any incentives offered beyond the OMB standard.

2. **School Type**

   a) Detailed school type.
   b) For neighborhood schools, estimated percentage of students in neighborhood attending.

3. **Information on Research Request Requirements**

   a) Is a research application required?
   b) Is a data utilization agreement required?
   c) Is a sponsor required?

4. **School Level SES Variables**

   a) ACS estimate (projection to individual schools, if possible, district level if not).
   b) SAIPE (US Census Bureau) estimates.

5. **Information from External Surveys**

   a) Estimated percent proficient in reading on NAEP scale for each relevant grade level.
   b) Estimated percent proficient in mathematics on NAEP scale for each relevant grade level.

6. **Additional Student Information**

   a) Percent of students with disabilities (IDEA).
   b) Percent of students who are English language learners.
   c) Percent of students by Migratory Status.
   d) Percent of students who are Foster Youth.
   e) Percent of students who are Homeless.
   f) Percent of students who are Unaccompanied Homeless Youth.

7. **Indicators of School Stress**

   a) Tenure of current principal in school.
   b) Number of principals in previous ten (?) years (measure of principal stability).
   c) Percent of teachers in 1st year of teaching.
   d) Percent of teachers in 2nd year of teaching.
   e) Teachers absent > 10 days of the school year FTE (Divided by total teacher FTE?).
   f) Total counselors (FTE).
   g) Number of students referred to law enforcement.
   h) Number of students with school-related arrests.
   i) Number of students expelled under zero-tolerance policies.
   j) School days missed due to out of school suspensions.
   k) Percent of students with one or more in-school suspension.
   l) Percent of students with one out-of-school suspension.
   m) Percent of students with more than one out-of-school suspension.
   n) Percent of students who are chronically absent.
   o) Measure of enrollment change.
   p) Teacher Vacancies.
   q) If school is currently undergoing a state/district improvement plan.
   r) If the school is blocked from selection for a time span.

8. **Time periods districts are unable to participate, and time periods districts indicate are more difficult.**

9. **Teacher, Student, and Parent response rates to District's School Experience Survey (if one is given).**

APPENDIX D: SAMPLE AAPOR CODES

There is some variation in disposition codes across studies and types of study. See, for example, the AAPOR guide at https://www.aapor.org/aapor_main/media/publications/standard-definitions20169theditionfinal.pdf.

The sample, non-exhaustive list below is a recommendation for a core set of codes.

The possible codes differ by study, this is one example.

- Pending
- Cooperating
- In Progress
- Initial Refusal – State Level
- Initial Refusal – District Level
- Initial Refusal – School Level
- Initial Out of Scope
- Waiting for District Approval
- Final Refusal – School Level
- Final Refusal – District Level
- Final Refusal – State Level
- Non-Participation – Other
- Ineligible – [Reason]
- Closed

APPENDIX E: SUGGESTED NON-PARTICIPATION CATEGORIES

General Concerns:

- Voluntary/Don't have to participate
- No benefit to the school or students
- Refusal to provide enrollment list
- Duplication - already have other surveys on subject
- Concerns about survey questions
- Timing - Conflict with scheduling of district/school initiatives, schedule, and testing, too busy in this time period
- Doesn't want to survey certain grades
- Other/specify

Staff Burden:

- Too busy/not enough staff to handle study demands
- Too many other studies/initiatives at school
- Time needed for substantial student support and intensive instruction
- Survey would take too much of teachers' time
- Survey would take too much of coordinators' time

Student Burden:

- Over-tested
- Disrupts instructional time/survey takes too much students' time
- Large number of students in need of substantial academic and social support
- School not meeting adequate yearly progress standards

District Decision:

- Decision-makers determined that schools were too busy
- Decision-makers determined that this was too difficult for schools to take part this year

Unspecified:

- No reason given

APPENDIX F: EXPERT PANEL BIOSKETCHES

Kecia Addison, PhD

Title: Senior Researcher/Administrator, Montgomery County Public Schools in Maryland

As a senior researcher and administrator, Dr. Kecia L. Addison has more than twenty years of progressive experience in research and evaluation complemented by a demonstrated commitment to professional and organizational excellence. Kecia received a Ph.D. in Academic Psychology from Walden University and a Master's degree in Educational Psychology from Howard University. As an advocate of the view that all students can learn, she is fascinated by complex issues facing youth today, both as a behavioral question and an educational issue. Dr. Addison currently serves as director of the Office of Shared Accountability for Montgomery County Public Schools in Maryland where she is devoted not only to the fair and equitable assessment of youth, but also to applied research and to the examination of educational equity to lead to closing of achievement and opportunity gaps among student groups.

As a leader in her local district, Dr. Addison build relationships, influences others and offers strategic perspective to achieve professional and organizational excellence. She manages the effective development, planning, and implementation of comprehensive, on-going systematic research. She has a proven record of accomplishments that include leading the development of a local accountability system focused on educational equity.

James Appleton, PhD

Title: Senior Manager, Educational Data and Insights, Lexia Learning

James Appleton, PhD, recently transitioned into a leadership role in educational technology focused on K12 practitioner use of structured literacy assessment data. For the past 15 years, his leadership role was in the Office of Research and Evaluation at Gwinnett County Public Schools, a district of over 180,000 students, in Georgia, most recently serving as executive director. He is co-developer of the Student Engagement Instrument (https://checkandconnect.umn.edu/sei/default.html) with most of his peer-reviewed contributions focused on student engagement with school. As a district researcher, he led the implementation of board policy on educational research and provided senior support on the conceptualizations around, and system of, outcome measures in support of policies on academic and operational accountability. His team consisted of staff with a range of disciplinary trainings (mostly PhDs, a MPH, and MD).

Gauri Sankar Datta, PhD

Title: Professor, Department of Statistics, University of Georgia

Gauri Sankar Datta is a professor of the Department of Statistics at the University of Georgia and is a mathematical statistician (part-time) at the US Census Bureau. He earned his Ph.D. in 1990 from the University of Florida. His research interest is in Bayesian statistics, model-based inference in survey sampling, small area estimation and large sample theory. He has coauthored more than 100 research articles, many of those are published in leading journals of statistics. He taught short courses on Bayesian methods and small area estimation numerous times to academic, government and professional statisticians, organized by National Statistics offices, Statistics societies and universities. He was awarded a senior research fellowship by the US Census Bureau and the Bureau of the Labor Statistics to conduct research on small area estimation. He serves on the editorial boards of many statistics journals including the Journal of the Royal Statistical Society, Series A. He is an elected fellow of the American Statistical Association, and the Institute of Mathematical Statistics.

Kristin Flanagan, PhD

Title: Associate Director, Westat

Dr. Kristin Flanagan is a Westat Associate Director with more than 25 years of experience in study design; quantitative methods; qualitative methods; survey development; assessment development; and data collection design, protocols, and implementation. Areas of focus include school-based studies of children's development and education. Dr. Flanagan works primarily on large-scale studies of children's educational experiences, knowledge, and skills, including the Early Childhood Longitudinal Studies program and the International Activities program within the U.S. Department of Education, National Center for Education Statistics. This work includes both longitudinal studies of children that track children's experiences across the early childhood and elementary school years, and cross-sectional studies of children of elementary and high-school age to further understanding of the United States in international comparisons of education.

Kathy Hayes, PhD

Title: Director, Strategic Data and Evaluation Branch *Los Angeles Unified School District*

Dr. Hayes has engaged in District research activities for over 20 years. Trained as an educational anthropologist, her work has focused on bilingual education in early childhood and elementary school, parent involvement of Spanish-speaking families, and the LAUSD School Experience Survey. She has conducted or directed several AERA-award winning evaluations of English learner programs. Currently, she directs the work of research and evaluation staff in the following activities: the selection and continuation of educational products and programs designed to serve low-income students and students of color by conducting mixed-method evaluations; implementing landscape, equity, and root cause analyses and reviewing approximately 150 external research and evaluation projects annually.

Debbie Herget, MS

Title: Survey Director, RTI International

Debbie Herget is a director in RTI's Education and Workforce Development Division. She has more than 25 years of experience leading school-based studies and data collection efforts, with more than 20 years leading NCES longitudinal and international comparison education studies and data collections. She is an expert in school-based survey design and data collection, with particular expertise in gaining cooperation from school districts and schools. In addition to recruitment and data collection, her roles include project and task management; preparation and management of complex budgets; managing large teams of staff and subcontractors; developing and implementing protocols, plans, and training packages; preparing Office of Management and Budget (OMB) and institutional review board (IRB) packages; and preparing study reports.

Martin Hooper, PhD

Title: Survey Scientist, American Institutes for Research (AIR)

Dr. Hooper is a survey scientist and large-scale assessment expert, with a focus on researching methodologies related to international large-scale assessments and the U.S. national assessment - NAEP (National Assessment of Educational Progress). At American Institutes for Research (AIR), Dr. Hooper conducts research on validity issues relevant to NAEP and supports the United States' National Center for Education Statistics (NCES) in the management of U.S. participation in international assessments such as PISA (Programme for International Student Assessment). Prior to joining AIR, Dr. Hooper was assistant research director at the TIMSS & PIRLS International Study Center (2012-2018), where he oversaw context questionnaire development and reporting across the TIMSS (Trends in International Mathematics and Science Study) and PIRLS (Progress in International Reading Literacy Study) international assessments. For TIMSS and PIRLS, Dr. Hooper led the development of the context questionnaire surveys for these studies, co-authored the international results reports, and edited the Methods and Procedures technical reports. Dr. Hooper's research focuses survey development, analysis of survey data, and trend analysis. He was awarded the IEA's 2018 Bruce H. Choppin Memorial Award for outstanding dissertation. Dr. Hooper has also worked as an adjunct professor of survey methods at Boston College.

Regina Lewis, PhD

Title: Coordinator of NAEP and International Assessments, Maine Department of Education

As a liaison between the National Center of Education Statistics and the Maine DOE, Dr. Lewis provides important information and feedback between the national, state, and local education agencies, with the primary role of supporting the National Assessment of Educational Progress (NAEP) and any surveys administered in association with NAEP. As a part of that role, she has reviewed supportive materials and surveys for the NAEP State Coordinators as well as those provided to state and local agencies. At Maine DOE, she is currently collaborating on the analysis of reading assessment measures, local benchmarks, achievement data as well as reading instructional programs and resources utilized by schools throughout the state. The investigation is focused on which measures, programs, resources, practices, and educator supports are yielding student growth. Dr. Lewis continues to work as an advocate ensure that all students matter, exemplified by her current contributions as the primary author of the Maine DOE Assessment Technical Assistance Plan, an approach to monitoring state assessments focused on improving the consistency and equity of assessment for all students through collaborative partnership. Dr. Lewis is a current and active member AERA and serves on the NCME Committee for Informing Assessment Policy. She has served in multiple roles of the field of education from interventionist and educator to that of a current member of the board local Catholic school. Dr. Lewis earned her PhD in Education, with a specialization in Curriculum, Instruction, and Assessment, at Walden University.

Roderick J. A. Little, PhD

Title: Richard D. Remington Distinguished University Professor, Biostatistics Department; Professor, Statistics Department; Research Professor, Institute for Social Research, University of Michigan

Dr. Rod Little's research interests include incomplete data, sample surveys, Bayesian statistics, applied and statistics. A primary research interest is the analysis of data sets with missing values; another interest is the analysis of data collected by complex sampling designs involving stratification and clustering of units. Dr. Little's inferential philosophy is model-based and Bayesian, which he applies to the development of model-based methods for survey analysis that are robust to misspecification, reasonably efficient, and capable of implementation in applied settings. His applied interests are broad, including mental health, demography, environmental statistics, biology, economics and the social sciences as well as biostatistics.

Allison Zotti, PhD

Title: Survey Statistician, Education Surveys Team - Survey Operations, US Census Bureau

Allison Zotti has worked as a survey methodologist for the education surveys at the US Census Bureau for over 12 years in a number of different capacities. Early in her career, Allison worked on sample design, weighting, and imputation methods, before working in the Research Directorate on adaptive survey design and methods for optimizing data collection. Allison's experience in methodology research includes the use of incentives, case prioritization, data collection costs, and tracking of barcoded mail pieces. Allison has a Master of Science in Statistics.

Panel convened by National Institute of Statistical Sciences

Brian Habing, PhD

Title: Associate Director for Education Research at NISS, and Associate Professor of Statistics at University of South Carolina

Brian Habing is Associate Director for Education Activities and Research working with the DC Office of the National Institute of Statistical Sciences (NISS) and Associate Professor of Statistics at the University of South Carolina. His research has focused on psychometrics and scale construction, with a particular emphasis on multidimensional item response theory. His research focus includes analysis of education statistics, and his interests also extend to statistical education, including work with AP Statistics and the development of new courses at the undergraduate and graduate level.

Ya Mo, PhD

Title: Research Fellow, National Institute of Statistical Sciences; Assistant Professor, Boise State University

Ya Mo is a research fellow at the National Institute of Statistical Sciences and an assistant professor of Curriculum, Instruction, and Foundational Studies at Boise State University. She received a dual major Ph.D. in Measurement and Quantitative Methods and Curriculum, Instruction, and Educational Policy Programs, and an M.S. in Statistics from Michigan State University, as well as an Ed.M. in TESOL from Boston University. She researches quantitative methods, psychometric measures, and survey statistics; she also applies quantitative research methods to study substantive topics in education, especially large-scale assessments.