

NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS SECONDARY ANALYSIS GRANTS

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INSTITUTE OF EDUCATION SCIENCES

<http://ies.ed.gov>

LETTER OF INTENT RECEIPT DATE: June 1, 2006

APPLICATION TRANSMITTAL DEADLINE: July 27, 2006

THIS REQUEST FOR APPLICATIONS CONTAINS THE FOLLOWING INFORMATION:

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PART I GUIDE TO THE RFA

IES is presenting grant opportunities in a new format this year. To make it as easy as possible and less time consuming for the reader/applicant, this section identifies the major differences from last year's format and describes the consequent organization of information in this year's three (3) Requests For Applications (RFA's).

In FY2006, the Institute of Education Sciences (IES) held a larger number of formal grant competitions, each one addressing a distinct topic area and each with its own RFA. Not only did the National Center for Education Statistics (NCES) offer a National Assessment of Educational Progress (NAEP) secondary analysis grant competition, there were also separate RFA's for Reading and Writing, Mathematics and Science Education, etc. Both the National Center for Education Research (NCER) and the National Center for Special Education Research (NCSER) offered multiple, single-topic competitions.

In FY2007, IES is holding fewer formal grant competitions but addressing more topics. There are three competitions: this one, addressing NAEP secondary analyses (through NCES), one addressing education research (through NCER); and one addressing special education research (through NCSER). The education and special education competitions each encompass multiple, specific topic areas.

Last year each topic-specific RFA was self-contained. This year the NAEP RFA remains self-contained. The NCER and NCSER RFA's are organized into sections that contain information that is common to all topics and sections that contain topic-specific information.

This RFA (IES-NCES-2007-01) describes the NAEP secondary analysis research competition. Applications for this competition have an application transmittal deadline of July 27, 2006, and will be reviewed in the fall of 2006.

Also new this year are the forms for submitting applications electronically. [Highlights](#) of the forms will be available on the web no later than April 11, 2006.

Information on additional education research topics may be found in the IES-NCER-2007-01 RFA, and information special education research topics may be found in the IES-NCSER-2007-01 RFA. Topic-specific application transmittal deadlines are specified within these RFA's.

Suggested options for reading this RFA:

You may download the entire RFA as a .PDF file or you can navigate to particular sections of the RFA on line.

Of course, this RFA may be read start to finish, or you may want to start with Part III.

PART II GENERAL OVERVIEW

1. REQUEST FOR APPLICATIONS

In this announcement, the Institute of Education Sciences (Institute) describes the research program that is funded through its National Center for Education Statistics. Separate announcements are available on the Institute's website that pertain to discretionary grant competitions funded through the Institute's National Center for Education Research (<http://ies.ed.gov/ncer>) and National Center for Special Education Research (<http://ies.ed.gov/ncser>).

The Institute invites applications to conduct secondary analyses of the nationally representative achievement data collected by the National Assessment of Educational Progress (NAEP) and the NAEP High School Transcript Studies (HSTS). For this competition, the Institute will consider only applications that meet the requirements outlined below under the section on [General Requirements of the Proposed Research](#).

2. OVERVIEW OF THE INSTITUTE'S RESEARCH PROGRAMS

The Institute's over-arching priority is research that contributes to improved academic achievement for all students, and particularly for those whose education prospects are hindered by inadequate education services and conditions associated with poverty, race/ethnicity, limited English proficiency, disability, and family circumstance.

With academic achievement as the major priority, the Institute focuses on outcomes that differ by periods of education. In the infancy and preschool period, the outcomes of interest are those that enhance readiness for schooling, for example, language skills, and for infants and toddlers with disabilities, developmental outcomes. In kindergarten through 12th grade, the core academic outcomes of reading and writing (including reading and writing in the disciplines), mathematics, and science are emphasized, as well as the behaviors and social skills that support learning in school and successful transitions to employment, independent living, and post-secondary education. At the post-secondary level, the focus is on enrollment in and completion of programs that prepare students for successful careers and lives. The same outcomes are emphasized for students with disabilities across each of these periods, and include the functional outcomes that improve educational and transitional results. The acquisition of basic skills by adults with low levels of education is also a priority.

In conducting research on academic outcomes, the Institute concentrates on conditions within the control of the education system, with the aim of identifying, developing, and validating effective education programs, practices, policies, and approaches as well as understanding the factors that influence variation in their effectiveness such as implementation. Conditions that are of highest priority to the Institute are in the areas of curriculum, instruction, assessment (including the identification of students with disabilities), the quality of the education workforce, and the systems and policies that affect these conditions and their interrelationships (for example, accountability systems, delivery mechanisms including technology, and policies that support the ability of parents to improve educational results for their children through such means as choice of education services and provision of school-related learning opportunities in the home).

In this section, the Institute describes the overall framework for its research grant programs. Specific information on the research topic described in this announcement may be found in the section pertaining to [Requirements for Proposed Research](#).

The Institute addresses the educational needs of typically developing students through its Education Research programs and the needs of students with disabilities through its Special Education Research programs. Both the Education Research and the Special Education Research programs are organized by outcomes (e.g., reading, mathematics), type of education condition (e.g., curriculum and instruction; teacher quality; administration, systems, and policy), grade level, and research goals.

A. Outcomes

The Institute's research programs focus on improvement of the following education outcomes: (a) readiness for schooling (pre-reading, pre-writing, early mathematics and science knowledge and skills, and social development); (b) academic outcomes in reading, writing, mathematics, and science; (c) student behavior and social interactions within schools that affect the learning of academic content; (d) skills that support independent living for students with significant disabilities; and (e) educational attainment (high school graduation, enrollment in and completion of post-secondary education).

B. Conditions

In general, each of the Institute's research programs focuses on a particular type of condition (e.g., curriculum and instruction) that may affect one or more of the outcomes listed previously (e.g., reading). The Institute's research programs are listed below according to the primary condition that is the focus of the program.

a. Curriculum and instruction. Several of the Institute's programs focus on the development and evaluation of curricula and instructional approaches. These programs include: (a) Research on Reading and Writing; (b) Research on Mathematics and Science Education; (c) Research on Preschool Curriculum Evaluation; (d) Research on Social and Character Development; (e) Early Intervention, Early Childhood Special Education, and Assessment for Young Children with Disabilities; (f) Mathematics and Science Special Education Research; (g) Reading, Writing, and Language Development Special Education Research; (h) Secondary and Transition Services Special Education Research; (i) Serious Behavior Disorders Special Education Research; (j) Autism Spectrum Disorders; and (k) Response to Intervention.

b. Quality of the Education Workforce. A second condition that affects student learning and achievement is the quality of teachers and education leaders (e.g., principals, superintendents). The Institute funds research on how to improve teacher quality through its programs on (a) Research on Teacher Quality (b) Research on Education Leadership; and (c) Research Grants Program on the Quality of Teachers and Other Service Providers for Students with Disabilities.

c. Administration, systems, and policy. A third approach to improving student outcomes is to identify systemic changes in the ways in which schools and districts are led, organized, managed, and operated that may be directly or indirectly linked to student outcomes. The Institute takes this approach in its programs on (a) Research on Education Policy, Finance, and Systems; (b) Education Research on High School Reform; (c) Special Education Research on Individualized Education Programs and

Individualized Family Service Plans; and (d) National Assessment of Educational Progress (NAEP) Secondary Analysis Research Program.

Applicants should be aware that some of the Institute's programs cover multiple conditions. For example, the following programs cover multiple conditions: (a) Research on Cognition and Student Learning; (b) Research on High School Reform; and (c) Special Education Research on Individualized Education Programs and Individualized Family Service Plans. In addition, the NAEP Secondary Analysis program funds projects that cut across conditions (programs, practices, and policies) and types of students (regular education and special education students).

C. Grade Levels

The Institute's research programs also specify the ages or grade levels covered in the research program. The specific grades vary across research programs and within each research program, and grades may vary across the research goals. In general, the Institute supports research for (a) pre-kindergarten and kindergarten, (b) elementary school, (c) middle school, (d) high school, (e) post-secondary education, (f) vocational education, and (g) adult education. In addition, the Institute supports research on infants with disabilities.

D. Research Goals

The Institute has established five research goals for its research programs. Within each research program one or more of the goals may apply: (a) Goal One – identify existing programs, practices, and policies that may have an impact on student outcomes and the factors that may mediate or moderate the effects of these programs, practices, and policies; (b) Goal Two – develop programs, practices, and policies that are theoretically and empirically based and obtain preliminary (pilot) data on the relation (association) between implementation of the program, practice, or policy and the intended education outcomes; (c) Goal Three – establish the efficacy of fully developed programs, practices, or policies that either have evidence of a positive correlation between implementation of the intervention and education outcomes *or* are widely used but have not been rigorously evaluated; (d) Goal Four – provide evidence on the effectiveness of programs, practices, and policies implemented at scale; and (e) Goal Five – develop or validate data and measurement systems and tools. **Note: for the NAEP secondary analysis research program described in this RFA, only Goal One and Goal Five apply.**

For a list of the Institute's FY 2007 research grant topics – including research grant competitions through the Institute's National Center for Education Research, National Center for Special Education Research, and National Center for Education Statistics, please see Table 1 below. This list includes the Postdoctoral Research Training Fellowships in the Education Sciences, which is not a research grant program. Funding announcements for these competitions may be downloaded from the Institute's website at <http://ies.ed.gov>.

Table 1: FY 2007 Research Grant Topics:

Education Research on

- 1 Reading and Writing
- 2 Interventions for Struggling Adolescent and Adult Readers and Writers
- 3 Mathematics and Science Education

- 4 Teacher Quality – Reading and Writing
- 5 Teacher Quality – Mathematics and Science Education
- 6 Education Leadership
- 7 Education Policy, Finance, and Systems
- 8 Cognition and Student Learning
- 9 High School Reform
- 10 Postsecondary Education
- 11 Research Training Grants

Special Education Research on

- 12 Early Intervention, Early Childhood Special Education, and Assessment for Young Children with Disabilities
- 13 Individualized Education Programs and Individualized Family Service Plans
- 14 Mathematics and Science Education
- 15 Reading, Writing, and Language Development
- 16 Secondary and Transition Services
- 17 Serious Behavior Disorders
- 18 Quality of Teachers and Other Service Providers for Students with Disabilities
- 19 Autism Spectrum Disorders
- 20 Response to Intervention
- 21 Assessment for Accountability

National Assessment of Education Progress

- 22 Secondary Analysis of Data from the National Assessment of Educational Progress

PART III RESEARCH GRANT TOPIC

3. PURPOSE OF THE NAEP SECONDARY ANALYSIS PROGRAM

Through its NAEP secondary analysis program, the Institute intends to contribute to improvement of student learning and achievement by (a) identifying programs, policies, and practices that are potentially effective for improving academic outcomes, as well as mediators and moderators of the effects of these programs, policies, and practices, and (b) developing tools or procedures to assist NAEP users in the analysis, interpretation and reporting of state- and district-level NAEP results or to improve precision in the estimation and reporting of NAEP results.

4. BACKGROUND FOR THE NAEP SECONDARY ANALYSIS PROGRAM

Mandated by Congress, the National Assessment of Educational Progress (NAEP) surveys the education achievement of students in the United States, and monitors their progress over time. Widely known as the “Nation’s Report Card,” NAEP has been collecting data to provide educators and policymakers valid and meaningful information for more than 30 years.

The NAEP program includes two distinct components: “main NAEP” and “long-term trend NAEP.” These two components use distinct data collection procedures, separate samples of students defined by different criteria, and different test instruments based on different frameworks. Main NAEP includes assessment instruments based on frameworks typically developed within the past 10 years. Results from the main NAEP assessments are reported at the national and, in some subjects, at the state level. In 2002 and 2003, exploratory assessments were conducted in a small group of large, urban school districts to determine the feasibility of reporting assessment results at the district level as well. The subject areas assessed as part of the main assessments include reading, mathematics, science, writing, U.S. history, geography, civics, and the arts. State-level results, however, are reported only in reading, mathematics, science, and writing. Background data collected through questionnaires administered to sampled students, the teachers of those students, and administrators of the schools those students attend are also available for main NAEP assessments. The long-term trend assessments are conducted at the national level only, and are administered less frequently than the main assessments. Long-term trend assessments are conducted in only reading and mathematics. Background data for schools and students are also available for the long-term trend assessment.

In addition to these assessment programs, NAEP periodically conducts the High School Transcript Study (HSTS) to investigate the current course offerings and course-taking patterns in the nation’s secondary schools. Thousands of transcripts of high school seniors who graduate from public and nonpublic high schools are collected from a nationally representative sample of schools. Transcript study data are linked to the NAEP 12th grade assessment results providing information on the relationship between course-taking patterns and achievement.

NAEP produces a number of different publications each time assessment results are released. These reports provide summary data to the general public, and focus on the overall national and state results, as well as subgroups of the population. In addition, NAEP has an extensive web site (<http://nces.ed.gov/nationsreportcard>) that provides easy access to all NAEP publications. The web site

also houses a number of tools that make the NAEP data and released assessment questions accessible to the general public.

The data collected by NAEP represents one of the richest and most in-depth databases of information about student achievement. As part of its mission to the education community, NAEP encourages researchers and policy makers to make use of the data and to perform their own analyses and studies on education achievement. Beyond the summary data available on the NAEP website and in NAEP reports, complete access to all detailed data is available to data analysts who apply for and are granted restricted use licenses.

Despite the depth of the information and the availability of the databases, the Institute believes that the NAEP database remains underutilized. Through this program of secondary analysis grants, the Institute hopes to encourage greater use of the NAEP data to inform education research, policy, and practice. Much potentially valuable information that could be gained from the NAEP data remains untapped. This grant program was developed to make resources available to qualified data analysts to explore the NAEP data more fully.

By broadening the user base, the Institute believes that not only will the data be more widely disseminated, but also fresh perspectives and new ideas will be applied to analysis of NAEP data. Although the federal government assumes responsibility for collecting these data and making them available to the public, there are opportunities for more analysis of and reporting on the NAEP data than can or should be done by the federal government. By encouraging such broad use of this rich database, the Institute expects that education policy and practice can be informed and enhanced.

It is also expected that by inviting data analysts to work more closely with the NAEP assessment and its data, the program will benefit from additional perspectives on the strengths and weakness of the current methodology underlying NAEP. The Institute welcomes applications for studies that will explore new methodological techniques and new software or analysis models that may help make the NAEP data accessible to a broader range of users.

Descriptions of recently funded proposals are available at <http://nces.ed.gov/nationsreportcard/researchcenter/naepgrants.asp>.

PART IV REQUIREMENTS FOR PROPOSED RESEARCH

5. GENERAL REQUIREMENTS OF THE PROPOSED RESEARCH

A. Basic Requirements

- a. *Resubmissions.*** Applicants who intend to revise and resubmit a proposal that was submitted to one of the Institute's FY2006 competitions but that was not funded must indicate on the application form that their FY 2007 proposal is a revised proposal. Their FY 2006 reviews will be sent to this year's reviewers along with their proposal. Applicants should indicate the revisions that were made to the proposal on the basis of the prior reviews using no more than 3 pages of Appendix A.
- b. *Applying to multiple competitions or topics.*** Applicants may submit proposals to more than one of the Institute's FY 2007 competitions or topics. In addition, within a particular competition or topic, applicants may submit multiple proposals. However, applicants may submit a given proposal only once (i.e., applicants may not submit the same proposal or very similar proposals to multiple topics or to multiple goals in the same topic or to multiple competitions). If the Institute determines prior to panel review that an applicant has submitted the same proposal or very similar proposals to multiple topics within or across competitions and the proposal is judged to be compliant and responsive to the submission rules and requirements described in the Request for Applications, the Institute will select one version of the application to be reviewed by the appropriate scientific review panel. If the Institute determines after panel review that an applicant has submitted the same proposal or very similar proposals to multiple topics within or across competitions and if the proposal is determined to be worthy of funding, the Institute will select the topic under which the proposal will be funded.
- c. *Applying to a particular goal within a competition.*** To submit an application to one of the Institute's education research programs, applicants must choose the specific goal under which they are applying. Each goal has specific requirements.
- d. *Inclusions and restrictions on interventions under each competition.*** For the NAEP Secondary Analysis competition, applicants must propose analyses using at least one of the currently available NAEP or HSTS data sets. Applicants who are interested in conducting research projects that generate new data on education processes and attainment should review the other research grant programs supported by the Institute (<http://ies.ed.gov>).

For the FY 2007 NAEP Secondary Analysis competition, applicants must submit under *either* Goal One *or* Goal Five. The numbering of goals is consistent across the Institute's research programs. The NAEP secondary analysis program only supports Goals One and Five.

B. Requirements for Goal One (Identification)

- a. *Purpose of identification studies.*** Through all of its research programs that include the Identification goal (Goal One), the Institute is primarily interested in analyses of multivariate data, such as longitudinal individual student data that exist in a number of federal-, state-, and district-level databases, to identify existing programs, practices, and policies that may be associated with better

academic outcomes, and to examine factors and conditions that may mediate or moderate the relations between student outcomes and these programs, practices, and policies.

Under Goal One of the NAEP secondary analysis program, the Institute expects applicants to use at least one of the currently existing NAEP data sets to capitalize on natural variation in education practices or policies. For example, investigators might link data on state teacher certification requirements that have been compiled by the investigators with NAEP Grade 4 reading and mathematics achievement data to examine the relations between different requirements and student achievement.

The strongest approaches to statistical modeling of multivariate data involve testing two or more models of relationships using the same data. Because multivariate analyses cannot fully adjust for selection biases and the effects of variables that were not measured or were not measured well, they are seldom if ever sufficient to support strong causal conclusions about what works. However, when two or more models of relationships among variables are tested with the same data, it may be possible to determine that one is more plausible than another, thus providing information relevant to understanding what does not work, as well as what does work. That, in turn, can direct future efforts in avenues that are more likely to be productive.

Evidence obtained through a Goal One project of the association between exposure to a program, practice, or policy and better student outcomes has the possibility of being used to support a subsequent application for a Goal Two (Development) or Goal Three (Efficacy) project.

For the NAEP secondary analysis program, applicants must use at least one of the currently existing NAEP data sets.

By addressing the theoretical and empirical rationale for the study and the practical importance of the intervention (e.g., policy, program) that will be examined, Goal One applicants are addressing aspects of the significance of their proposal.

b. Methodological requirements. For all applications, including those submitted under Goal One, the proposed research design must be appropriate for answering the research questions or hypotheses that are posed.

- (i) *Database.* The applicant should describe clearly the database(s) to be used in the investigation including information on sample characteristics, variables to be used, and ability to ensure access to the database if the applicant does not already have access to it. The database should be described in sufficient detail so that reviewers will be able to judge whether or not the proposed analyses may be conducted with the database. If multiple databases will be linked to conduct analyses, applicants should provide sufficient detail for reviewers to be able to judge the feasibility of the plan.
- (ii) *Data analysis.* The applicant must include detailed descriptions of data analysis procedures. The data analytic strategy used in the analysis of any NAEP data must take into account the sampling and the psychometric designs of the NAEP data. All the NAEP data are collected using a multi-stage clustered sampling design. The sampling designs for the national data and most of the

older assessment data sets also use stratification and over-sampling within strata. This sampling design has major implications for secondary analysis of the NAEP data.

Similarly, the NAEP psychometric design produces proficiency estimates that are not actual individual scores for the students who participate in the assessments. These multiply imputed estimates of student proficiency are called “plausible values,” and five such values constitute the “score” for each examinee. Secondary analysts may use these plausible values as their unit of analysis or they may use marginal maximum likelihood techniques to estimate the statistics of interest to their study directly. The psychometric design of NAEP also has implications for secondary analysis.

An accurate and defensible explanation of how the proposed project will account for both the sampling and psychometric design of NAEP is a critical component of every application to this program.

Because predictor variables relevant to education outcomes (e.g., student characteristics, teacher characteristics, school and district characteristics) often co-vary, the Institute expects investigators to utilize the most appropriate state-of-the-art analytic techniques to isolate the possible effects of variables of interest. Analytic strategies should allow investigators to examine mediators and moderators of programs and practices. The relation between hypotheses, measures, independent and dependent variables should be well specified. Strong applications will include an explicit discussion of how exclusion from testing, or missing data, will be handled within the statistical analyses. Strong applications will propose an approach for comparing hypotheses or models of relationships among variables.

c. *Personnel and resources.* Competitive applicants will have research teams that collectively demonstrate expertise in (a) the relevant academic content area (e.g., reading, mathematics); and (b) implementation of and analysis of results from the research design that will be employed. Competitive applicants will have access to institutional resources that adequately support research.

d. *Awards.* Typical awards for projects under this goal will be \$65,000 to a maximum of \$100,000 (total cost = direct cost + indirect cost) for a period not to exceed 18 months. Applications for smaller awards and shorter durations are also welcome. The size of the award depends on the scope of the project.

C. Applications under Goal Five (Measurement)

Across the Institute's research programs, the Measurement goals differ in purpose. Requirements described below apply to the NAEP secondary analysis research program.

a. *Purpose of NAEP Goal Five proposals.* Under Goal Five, the Institute intends to improve the usefulness of NAEP data. Applicants under Goal Five must propose projects to develop tools or procedures that will assist other users of the NAEP data to analyze, interpret and report NAEP data more easily and accurately or may propose projects to develop methodological or analytic procedures that will improve precision in the estimation and reporting of NAEP results.

An example of an appropriate project under Goal Five is one that adapts an existing system for creating student skill profiles for use with the NAEP data. Student skill profiles would allow NAEP results to be reported in terms of mastery and non-mastery of the skills represented in the NAEP achievement levels. Applicants under Goal Five may propose projects that are of particular interest to their state education agency or professional organization and that can be generalized to be useful to other NAEP users. Projects that include the development of new software that permits advanced analytic techniques to be readily applied to the NAEP data are encouraged under this goal.

Also appropriate under Goal Five are robustness studies or validity studies. Applicants may propose to test alternatives to some component of the NAEP sampling or psychometric model or to test analytic solutions to problems that were previously intractable in the context of NAEP. For example, an applicant might propose to compare different approaches to estimating statistical bias in analyses of the NAEP data.

For the NAEP secondary analysis program, applicants must use at least one of the currently existing NAEP data sets.

b. *Requirements of proposed tools or procedures.* Applicants should provide a compelling rationale for the proposed tool or procedure. Reviewers will consider the strength of the theoretical foundation for the proposed tool or procedure, the existing empirical evidence supporting the proposed tool or procedure, whether the proposed tool or procedure duplicates existing tools or procedures, and whether the tool or procedure is practical for potential users.

By describing the theoretical and empirical support for and the practical utility of the proposed tool or procedure, applicants are addressing aspects of the significance of their proposal.

c. *Methodological requirements.*

- (i) *Database.* The applicant should describe clearly the database(s) to be used in the investigation including information on sample characteristics, variables to be used, and ability to ensure access to the database if the applicant does not already have access to it. The database should be described in sufficient detail so that reviewers will be able to judge whether or not the proposed analyses may be conducted with the database. If multiple databases will be linked to conduct analyses, applicants should provide sufficient detail for reviewers to be able to judge the feasibility of the plan.
- (ii) *Data analysis.* The applicant must include detailed descriptions of data analysis procedures. The data analytic strategy used in the analysis of any NAEP data must take into account the sampling and the psychometric designs of the NAEP data. All the NAEP data are collected using a multi-stage, clustered sampling design. The sampling designs for the national data and most of the older assessment data sets also use stratification and over-sampling within strata. This sampling design has major implications for secondary analysis of the NAEP data.

Similarly, the NAEP psychometric design produces proficiency estimates that are not actual individual scores for the students who participate in the assessments. These multiply imputed estimates of student proficiency are called “plausible values,” and five such values constitute the “score” for each examinee. Secondary analysts may use these plausible values as their unit of

analysis or they may use marginal maximum likelihood techniques to estimate the statistics of interest to their study directly. The psychometric design of NAEP also has implications for secondary analysis.

An accurate and defensible explanation of how the proposed project will account for both the sampling and psychometric design of NAEP is a critical component of every application to this program.

The Institute expects investigators to utilize the most appropriate state-of-the-art analytic techniques to investigate the research questions of interest. The relation between hypotheses, measures, independent and dependent variables should be well specified. Strong applications will include an explicit discussion of how exclusion from testing, or missing data, will be handled within the statistical analyses.

d. *Personnel and resources.* Competitive applicants will have research teams that collectively demonstrate expertise in (a) the relevant academic content area (e.g., reading, mathematics); and (b) implementation of and analysis of results from the research design that will be employed. Competitive applicants will have access to institutional resources that adequately support research.

e. *Awards.* Typical awards for projects under this goal will be \$65,000 to a maximum of \$100,000 (total cost = direct cost + indirect cost) for a period not to exceed 18 months. Applications for smaller awards and shorter durations are also welcome. The size of the award depends on the scope of the project.

PART V GENERAL SUBMISSION AND REIVIEW INFORMATION

6. APPLICATIONS AVAILABLE

Application forms and instructions for the electronic submission of applications will be available for the program of research listed in this RFA from the following web site:

<https://ies.constellagroup.com>

by the following date:

NAEP Secondary Analysis Program

June 15, 2006

The application form approved for use in the competitions specified in this RFA is the new, government-wide SF424 Research and Related (R&R) Form (OMB Number 4040-0001).

7. MECHANISM OF SUPPORT

The Institute intends to award grants for periods up to 18 months pursuant to this request for applications. Please see specific details for each goal in the [General Requirements of the Proposed Research](#) section of the announcement.

8. FUNDING AVAILABLE

The size of the award depends on the scope of the project. Please see specific details in the [General Requirements of the Proposed Research](#) section of the announcement. Although the plans of the Institute include this program of research, awards pursuant to this request for applications are contingent upon the availability of funds and the receipt of a sufficient number of meritorious applications. The number of projects funded under a specific goal depends upon the number of high quality applications submitted to that goal. The Institute does not have plans to award a specific number of grants under each particular goal.

9. ELIGIBLE APPLICANTS

Because only organizations may be licensed to receive the restricted use NAEP data, only organizations may apply for grants under this program. Any organization or consortium of organizations that has the knowledge and capacity to conduct secondary analysis of the NAEP data is eligible to apply. Eligible applicants include, but are not limited to, non-profit and for-profit organizations and public and private agencies and institutions, such as colleges and universities.

10. SPECIAL REQUIREMENTS

Research supported through this program must be relevant to U.S. schools.

Recipients of awards are expected to publish or otherwise make publicly available the results of the work supported through this program. The Institute asks IES-funded investigators to submit voluntarily to the Educational Resources Information Center (ERIC) an electronic version of the author's final manuscript upon acceptance for publication in a peer-reviewed journal, resulting from research supported in whole or in part, with direct costs from the Institute. The author's final manuscript is

defined as the final version accepted for journal publication, and includes all modifications from the peer review process. Details of the Institute's policy are posted on the Institute's website at <http://ies.ed.gov>.

Research applicants may collaborate with, or be, for-profit entities that develop, distribute, or otherwise market education products or services. Involvement of the developer or distributor must not jeopardize the objectivity of the research.

11. LETTER OF INTENT

A letter indicating a potential applicant's intent to submit an application is optional, but encouraged, for each application. The letter of intent must be submitted electronically by the date listed at the beginning of this document, using the instructions provided at the following web site:

<https://ies.constellagroup.com/>

The letter of intent should include a descriptive title, the goal which the application will address, and brief description of the research project (about 3,500 characters including spaces, which is approximately one page, single-spaced); the name, institutional affiliation, address, telephone number and e-mail address of the principal investigator(s); and the name and institutional affiliation of any key collaborators. The letter of intent should indicate the duration of the proposed project and provide an estimated budget request by year, and a total budget request. Although the letter of intent is optional, is not binding, and does not enter into the review of subsequent applications, the information that it contains allows Institute staff to estimate the potential workload to plan the review.

12. SUBMITTING AN APPLICATION

Applications must be submitted **electronically by 8:00 p.m. Eastern time** by the application transmittal deadline, using the standard forms and the instructions provided at the following web site:

<https://ies.constellagroup.com>

Potential applicants should check this site for information about the electronic submission procedures that must be followed and the software that will be required.

13. CONTENTS OF APPLICATION

All applications and proposals for Institute funding must be self-contained within specified page limitations. Internet Web site addresses (URLs) may not be used to provide information necessary to the review because reviewers are under no obligation to view the Internet sites.

All of the instructions and requirements regarding (a) submission of the application, (b) acceptable format of the application, (c) page limitations, and (d) required forms will be provided on the application submission website (<https://ies.constellagroup.com>).

In this section, the Institute provides instructions regarding the content of the (a) project summary/abstract, (b) project narrative, (c) bibliography and references cited, (d) biographical sketches of key project personnel, (e) narrative budget justification, (f) subaward budget, (g) Appendix A, and (h) additional forms.

A. Project Summary/Abstract

The project summary/abstract is limited to 1 single-spaced page and must adhere to the margin, format, and font size requirements described in the project narrative section. The project summary/abstract will be submitted as a .PDF attachment, and should include: (1) The title of the project; (2) the RFA goal under which the applicant is applying (e.g., identification, measurement); and brief descriptions of (3) the purpose (e.g., to develop and obtain preliminary evidence of potential efficacy of a reading comprehension intervention for struggling high school readers); (4) the sample population(s) (age groups, race/ethnicity, SES); (5) key variables; and (6) data analytic strategy (e.g., structural equation models, hierarchical linear models).

B. Project Narrative

The project narrative will be submitted as a .PDF attachment. Incorporating the requirements outlined under the section on [Requirements of the Proposed Research](#), the project narrative provides the majority of the information on which reviewers will evaluate the proposal. The project narrative must include the four sections described below (a. "Significance" through d. "Resources") in the order listed and must conform to the format requirements described on the application submission website.

The project narrative is limited to **20 single-spaced pages** for all applicants. The 20-page limit for the project narrative does not include any of the SF 424 forms, the one-page summary/abstract, the appendices, research on human subjects information, bibliography and references cited, biographical sketches of senior/key personnel, narrative budget justification, sub award budget information or certifications and assurances. **Reviewers are able to conduct the highest quality review when applications are concise and easy to read, with pages numbered consecutively.**

For the purposes of applications submitted under this RFA, a "page" is 8.5 in. x 11 in., on one side only, with 1 inch margins at the top, bottom, and both sides. Text must be single spaced in the narrative. To ensure that the text is easy for reviewers to read and that all applicants have the same amount of available space in which to describe their projects, applicants must adhere to the type size and format specifications for the entire narrative including footnotes. **It is very important that applicants review carefully the "Application Format Requirements" outlined in [Fiscal Year 2007 Application Package Highlights](#).**

a. Significance. Describe the contribution the study will make to providing a solution to an education problem identified in the Background Section of this RFA.

Provide a compelling rationale addressing, where applicable, the theoretical foundation, relevant prior empirical evidence, and the practical importance of the proposed project.

b. Methods. The Methods section of the application should address all of the requirements detailed in the methodological requirements sections for [Goal One](#) and [Goal Five](#)

- (i) Include clear, concise hypotheses or research questions;
- (ii) Present a clear description of, and a rationale for, the assessment or transcript study data selected; and

- (ii) Present a detailed data analysis plan that justifies and explains the selected analysis strategy, shows clearly how the measures and analyses relate to the hypotheses or research questions, and indicates how the results will be interpreted. Applicants must account for the sampling and psychometric constraints of the NAEP data.

c. Personnel. Include brief descriptions of the qualifications of key personnel (information on personnel should also be provided in their curriculum vitae). For each of the key personnel, please describe the roles, responsibilities, and percent of time devoted to the project.

d. Resources. Provide a description of the resources available to support the project at the applicant's institution and in the field settings in which the research will be conducted.

C. Bibliography and References Cited

This section will be submitted as a .PDF attachment. Please include complete citations, including titles and all authors, for literature cited in the research narrative.

D. Biographical Sketches of Senior/Key Personnel

This section will be submitted as a .PDF attachment. Abbreviated curriculum vitae should be provided for the principal investigator(s) and other key personnel. *Each vita is limited to 4 pages and should include information sufficient to demonstrate that personnel possess training and expertise commensurate with their duties (e.g., publications, grants, relevant research experience) and have adequate time devoted to the project to carry out their duties (e.g., list current and pending grants with the proportion of the individual's time allocated to each project).* Previous experience with NAEP data should be emphasized. The curriculum vita must adhere to the margin, format, and font size requirements described in the project narrative section.

E. Narrative Budget Justification

This section will be submitted as a .PDF attachment and should provide sufficient detail to allow reviewers to judge whether reasonable costs have been attributed to the project. The budget justification should correspond to the itemized breakdown of project costs that is provided in the Research & Related Budget (SF 424) Sections A & B; C, D, & E; and F-K. It should include the time commitments and brief descriptions of the responsibilities of key personnel. For consultants, the narrative should include the number of days of anticipated consultation, the expected rate of compensation, travel, per diem, and other related costs. A justification for equipment purchase, supplies, travel and other related project costs should also be provided in the budget narrative for each project year outlined in the Research & Related Budget (SF 424).

For those applications that include a subaward(s) for work conducted at collaborating institutions, the narrative should also provide the details about the subaward(s). Include the actual subaward budgets as a separate attachment. (See below "[Subaward Budget](#)".)

Applicants should use their institution's federal indirect cost rate and use the off-campus indirect cost rate where appropriate (see instructions under Section 9 Special Requirements). If less than 75 percent of total indirect costs are based on application of the off-campus rate, the applicant should provide a detailed justification.

F. Subaward Budget

This section will be submitted as a .PDF attachment. For applications that include a subaward(s) for work conducted at collaborating institutions, applicants must submit an itemized budget spreadsheet for each subaward for each project year. As noted above, the details of the subaward costs should be included in the Narrative Budget Justification. An Excel spreadsheet will be provided in the electronic application package to allow applicants to enter the subaward budget information in accordance with the prescribed format. Applicants will complete the spreadsheet in Excel format, convert it to a .PDF file, and then upload it as an attachment.

G. Appendix A

Appendix A should be included at the end of the Project Narrative, and will be submitted as part of the same .PDF attachment.

The purpose of *Appendix A* is to allow the applicant to include any figures, charts, or tables that supplement the research text, examples of measures to be used in the project, and letters of agreement from partners (e.g., schools) and consultants. In addition, in the case of a resubmission, the applicant may use **up to 3 pages** of the appendix to describe the ways in which the revised proposal is responsive to prior reviewer feedback. These are the only materials that may be included in Appendix A; all other materials will be removed prior to review of the application. Narrative text related to any aspect of the project (e.g., descriptions of the proposed sample, the design of the study, or previous research conducted by the applicant) must be included in the research or postdoctoral training narrative. Letters of agreement should include enough information to make it clear that the author of the letter understands the nature of the commitment of time, space, and resources to the research project that will be required if the application is funded. The appendix is limited to 15 pages. The Institute recognizes that some applicants may have more letters of agreement than will be accommodated by the 15-page limit. In such instances, applicants should include the most important letters of agreement and may list the letters of agreement that are not included in the application due to page limitations.

H. Additional Forms

Please note that applicants selected for funding will be required to submit the following certifications and assurances before a grant is issued:

- (1) SF 424B-Assurances-Non-Construction Programs
- (2) ED-80-0013-Certification Regarding Lobbying, Debarment, Suspension and other Responsibility Matters; and Drug-Free Workplace Requirements
- (3) ED 80-0014 (if applicable)-Lower Tier Certification
- (4) SF-LLL (if applicable) - Disclosure of Lobbying Activities
- (5) Protection of Human Research Subjects assurance and/or Institutional Review Board certification, as appropriate

14. APPLICATION PROCESSING

Applications must be received by **8:00 p.m. Eastern time** on the application transmittal deadline listed in the heading of this request for applications. Upon receipt, each application will be reviewed for

compliance and for responsiveness to this request for applications. Applications that do not address specific requirements of this request will be returned to the applicants without further consideration.

15. PEER REVIEW PROCESS

Applications that are compliant and responsive to this request will be evaluated for scientific and technical merit. Reviews will be conducted in accordance with the review criteria stated below by a panel of scientists who have substantive and methodological expertise appropriate to the program of research and request for applications.

Each application will be assigned to one of the Institute's scientific review panels. At least two primary reviewers will complete written evaluations of the application, identifying strengths and weaknesses related to each of the review criteria. Primary reviewers will independently assign a score for each criterion, as well as an overall score, for each application they review. Based on the overall scores assigned by primary reviewers, an average overall score for each application will be calculated and a preliminary rank order of applications prepared before the full peer review panel convenes to complete the review of applications.

The full panel will consider and score only those applications deemed to be the most competitive and to have the highest merit, as reflected by the preliminary rank order. A panel member may nominate for consideration by the full panel any proposal that he or she believes merits full panel review but would not have been included in the full panel meeting based on its preliminary rank order.

16. REVIEW CRITERIA FOR SCIENTIFIC MERIT

The goal of Institute-supported research is to contribute to the solution of education problems and to provide reliable information about the education practices that support learning and improve academic achievement and access to education for all students. Reviewers for all applications will be expected to assess the following aspects of an application in order to judge the likelihood that the proposed research will have a substantial impact on the pursuit of that goal. Information pertinent to each of these criteria is also described above in the section on [Requirements of the Proposed Research](#) and in the description of the project narrative, which appears in the section on [Contents of Application](#).

a. *Significance.* Does the applicant present a compelling rationale for the proposed project? Are there strong theoretical reasons, empirical support, and practical reasons to justify the development and/or evaluation of the proposed intervention or assessment? Does the applicant make a compelling case for the potential contribution of the project to the solution of an education problem?

b. *Research plan.* Does the applicant present (a) clear hypotheses or research questions; (b) clear descriptions of and strong rationales for the assessment or transcript data selected; and (c) a detailed and well-justified data analysis plan? Does the research plan meet the requirements described in the section on the Requirements of the Proposed Research and in the description of the research narrative in the section on Contents of Application? Is the research plan appropriate for answering the research questions or testing the proposed hypotheses?

c. Personnel. Does the description of the personnel make it apparent that the principal investigator, project director, and other key personnel possess the training and experience and will commit sufficient time to competently implement the proposed research?

d. Resources. Does the applicant have the facilities, equipment, supplies, and other resources required to support the proposed activities? Do the commitments of each partner show support for the implementation and success of the project?

17. RECEIPT AND START DATE SCHEDULE

A. Letter of Intent Receipt Date:

NAEP Secondary Analysis applications

June 1, 2006

B. Application Transmittal Deadline:

NAEP Secondary Analysis applications

July 27, 2006

C. Earliest Anticipated Start Date:

NAEP Secondary Analysis applications

March 1, 2007

18. AWARD DECISIONS

The following will be considered in making award decisions:

- Scientific merit as determined by peer review
- Responsiveness to the requirements of this request
- Performance and use of funds under a previous Federal award
- Contribution to the overall program of research described in this request
- Availability of funds

19. INQUIRIES MAY BE SENT TO:

Dr. Alexandra Sedlacek
 Institute of Education Sciences
 National Center for Education Statistics
 1990 K Street, NW
 Washington, DC 20006

Email: Alex.Sedlacek@ed.gov

Telephone: (202) 502-7446

20. PROGRAM AUTHORITY

20 U.S.C. 9010 et seq., section 303 of the National Assessment of Educational Progress Authorization Act. This program is not subject to the intergovernmental review requirements of Executive Order 12372.

21. APPLICABLE REGULATIONS

The Education Department General Administrative Regulations (EDGAR) in 34 CFR parts 74, 77, 80, 81, 82, 84, 85, 86 (part 86 applies only to institutions of higher education), 97, 98, and 99. In addition 34 CFR part 75 is applicable, except for the provisions in 34 CFR 75.100, 75.101(b), 75.102, 75.103, 75.105, 75.109(a), 75.200, 75.201, 75.209, 75.210, 75.211, 75.217, 75.219, 75.220, 75.221, 75.222, and 75.230.