INSTITUTE OF EDUCATION SCIENCES

National Board for Education Sciences Meeting

July 2011 through June 2012

2012 NBES ANNUAL REPORT

NBES 2012-6003

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CHAIR'S MESSAGE

In our current environment, educational research has become even more important as the penalties of poor achievement and lack of opportunity have never been greater. As we work to raise student achievement, foster productive learning environments, and bolster the social contributions of our schools and universities, the knowledge, inventions, and partnerships created through educational research will be necessary to produce the needed gains and make tough decisions about how to use our limited funds.

The National Board for Education Sciences (NBES) has a vital role to play in this arena. Drawing from the expertise and experience of a diverse group of researchers, practitioners, and leaders, our goals have been to support the development of innovative research and emphasize the importance of evidence in improving education.

The Board's activities during the past year reflect our focus on advocating for the support and use of research while simultaneously considering ways to increase the impact of existing educational research. As reflected in this report, the NBES and the Institute of Education Sciences (IES) take seriously the communication of research findings to multiple audiences, including practitioners, policymakers, and other researchers. These exchanges aim to impact how we support education in all of its forms as well as the research we perform to uncover and determine ways to improve educational opportunity and outcomes. Moreover, support for educational research, even during a time of constrained resources, is key to finding and implementing practices and policies that will support the long-term progress of the United States.

IES has been effective in producing the research, programs, and tools necessary to support educational practice, policy, and research. The accomplishments of IES, and the researchers and innovators supported by IES funding, are numerous and will continue to have positive impacts on the lives of students as well as many other parts of our society. As we note many times in this report, IES has ably led the way as the quality and breadth of educational research continues to grow. The Board also applauds the continued support and attention of the Administration and U.S. Congress towards improving education in the United States and beyond.

Nevertheless, in light of the Board and IES's commitment to continuous improvement, it is clear more can and needs to be done. In this spirit, the NBES serves to advise and review the activities of IES. As is reflected in this report, the NBES has matured to be an important place of discussion and expertise, and we will continue working towards the goal of improving education in the years to come.

Dr. Bridget Terry Long, Ph.D.
Xander Professor of Education and Economics
Harvard Graduate School of Education

I. INTRODUCTION

The Education Sciences Reform Act of 2002 (P.L. 107-279) created the National Board for Education Sciences (NBES) to serve as an advisory board to the Director of the Institute of Education Sciences (IES) within the U.S. Department of Education.

Purpose of This Report

Among the duties listed in the Education Sciences Reform Act, the Board is required to submit to the Director of IES, the Secretary of Education, and the appropriate congressional committees not later than July 1 of each year:

> *…a report that assesses the effectiveness of the Institute in carrying out its priorities and mission, especially as such priorities and mission relate to carrying out scientifically valid research, conducting unbiased evaluations, collecting and reporting accurate education statistics, and translating research into practice.* Education Sciences Reform Act of 2002, 20 U.S.C. § 116 (e)

This report constitutes the Board's 2012 assessment of IES's effectiveness in carrying out its priorities and mission, based on the Board's meetings and deliberations from July 2011 through June 2012. **The Board finds that IES has been highly effective in carrying out its priorities and mission of providing rigorous and relevant evidence about education and sharing that information broadly. The Board commends IES's leadership and staff for achieving these outcomes, thereby improving U.S. educational research.**

Through its discussions, the Board has learned that achieving better outcomes, whether educational or organizational, requires engaging in continuous improvement. The challenges facing American education—for example, helping every student achieve the 21st century skills needed to prosper in today's world despite tight fiscal conditions—require us to do more, even where our past accomplishments have been impressive. It was in this spirit of continuous improvement that the Board discussed during its 2011-12 meetings how IES could further improve on its already notable record of accomplishment. This report reflects those discussions. It is not intended as a critique but should instead serve as a reflection of the Board's thoughts about how IES can continue to expand on its activities to support and communicate rigorous and relevant education research.

The remainder of this section provides information on the Board membership and meetings during 2011-12 that produced this report.

Membership of the Board

The National Board for Education Sciences consists of up to 15 presidentially appointed and Senate-confirmed members who "shall be highly qualified to appraise education research, statistics, evaluations, or development…." Each member may serve up to two consecutive 4-year terms.

Current Members
As of May 1, 2012 the Board consists of 11 voting members:

Chair: **Dr. Bridget Terry Long, Ph.D.**
Xander Professor of Education and Economics
Harvard Graduate School of Education, Cambridge, MA
Term expires November 28, 2012

Vice Chair: **Dr. Kris D. Gutiérrez, Ph.D.**
Professor of Literacy and Learning Sciences and Inaugural Provost's Chair
School of Education, University of Colorado, Boulder, Boulder, CO
Term expires November 28, 2012

Dr. Deborah Loewenberg Ball, Ph.D.
Dean, School of Education
William H. Payne Collegiate Professor in Education
University of Michigan, Ann Arbor, MI
Term expires November 28, 2012

Dr. Anthony S. Bryk, Ed.D.
President
Carnegie Foundation for the Advancement of Teaching, Stanford, CA
Term expires November 28, 2015

Dr. David J. Chard, Ph.D.
Dean, Annette Caldwell Simmons School of Education and Human Development
Southern Methodist University, Dallas, TX
Term expires November 28, 2015

Dr. Adam Gamoran, Ph.D.
John D. MacArthur Professor of Sociology and Educational Policy Studies
Director of the Wisconsin Center for Education Research
University of Wisconsin-Madison, Madison, WI
Term expires November 28, 2015

Dr. Robert C. Granger, Ed.D.
President
The William T. Grant Foundation, New York, NY
Term expires November 28, 2014

Dr. Margaret R. "Peggy" McLeod, Ed.D.
Educational Consultant, Washington, DC
(former Executive Director for Student Services, Alexandria City Public Schools, Alexandria, VA)
Term expires November 28, 2012

Dr. Judith Singer, Ph.D.
James Bryant Conant Professor of Education, Harvard Graduate School of Education
Senior Vice Provost for Faculty Development and Diversity, Harvard University, Cambridge, MA
Term expires November 28, 2014

Dr. Robert A. Underwood, Ed.D.
President, University of Guam, Hagatna, GU
Term expires November 28, 2012

Dr. Hirokazu Yoshikawa, Ph.D.
Walter H. Gale Professor of Education and Academic Dean
Harvard Graduate School of Education, Cambridge, MA
Term expires November 28, 2015

Members Whose Terms Expired in 2011

The following Board members' terms expired on November 28, 2011. They participated in the June and October 2011 meetings that are covered by this report:

Former Chair: **Mr. Jon Baron, J.D.**
President
Coalition for Evidence-Based Policy, Washington, DC

Dr. Adam Gamoran, Ph.D. *(Dr. Gamoran was nominated for a second term and was confirmed by the Senate on April 26, 2012.)*
John D. MacArthur Professor of Sociology and Educational Policy Studies
Director of the Wisconsin Center for Education Research
University of Wisconsin-Madison, Madison, WI

Mr. F. Philip Handy, M.B.A.
Chief Executive Officer
Strategic Industries, LLC, Winter Park, FL

Dr. Sally E. Shaywitz, M.D.
Audrey G. Ratner Professor of Learning Development
Yale University School of Medicine, New Haven, CT

Nominees

In 2011 and 2012, President Barack Obama nominated six additional members to the Board, four of whom were confirmed and two of whom were awaiting Senate confirmation as of May 1, 2012. The nominees awaiting confirmation are:

Dr. Larry V. Hedges, Ph.D.
Board of Trustees Professor of Statistics and Social Policy, Institute for Policy Research
Northwestern University, Evanston, IL

Dr. Susanna Loeb, Ph.D.
Barnett Family Professor of Education
Stanford University, Stanford, CA

The Board notes with great concern that if the two current nominees fail to be confirmed and the five current Board members whose terms expire in November 2012 are not re-nominated and confirmed in a timely fashion, then the Board will be reduced to six members as of November 29, 2012.

Ex Officio Members
The Board has nine non-voting, ex officio members. The ex officio members of the Board are:

Dr. John Q. Easton, Ph.D.
Director, Institute of Education Sciences

Dr. Sean "Jack" Buckley, Ph.D.
Commissioner, National Center for Education Statistics

Dr. Rebecca Maynard, Ph.D.
Commissioner, National Center for Education Evaluation and Regional Assistance

Dr. Deborah Speece, Ph.D.
Commissioner, National Center for Special Education Research

Dr. Elizabeth Albro, Ph.D.
Acting Commissioner, National Center for Education Research

Dr. Alison Aughinbaugh, Ph.D.
Designate for Dr. Kevin Hall, Commissioner, Bureau of Labor Statistics

Dr. Joan Ferrini-Mundy, Ph.D.
Designate for Dr. Subra Suresh, Director, National Science Foundation

Dr. Robert Kominski, Ph.D.
Designate for Dr. Robert Groves, Director, U.S. Census Bureau

Dr. Margaret McCardle, Ph.D.
Designate for Dr. Alan Guttmacher, Director, National Institute for Child Health and Human Development (NICHD)

Executive Director

Dr. Monica Herk, Ph.D.

NBES Meetings, July 2011 through June 2012

The Board met on October 14, 2011 and February 24, 2012 and is scheduled to meet on June 20, 2012. The Board also met during the previous reporting period on June 29, 2011. Given the timing of the June meetings, this report will cover material from the June 29, 2011 meeting but not from the June 20, 2012 meeting.

Agendas from the three meetings covered by this report appear in Appendices A through C. Additionally, the minutes of these meetings are available at http://ies.ed.gov/director/board/minutes/index.asp.

- The **June 29, 2011** meeting included sessions on the National Center for Education Statistics' longitudinal surveys and state data systems; important emerging topics in education research; communication of IES research; and approaches to lowering the cost of randomized controlled trials.
- The **October 14, 2011** meeting featured sessions on IES's process of peer review of research proposals; tiered evidence initiatives in the Department of Education and other federal agencies; the congressionally mandated Committee on Science, Technology, Engineering, and Mathematics (CoSTEM); and continuous improvement research.
- At the **February 24, 2012** meeting, Board members reviewed an initial draft of this Annual Report and participated in sessions on communication of IES's research findings; the experience of other federal agencies in implementing tiered evidence initiatives; a briefing on the funded research of the National Center for Education Research and the National Center for Special Education Research; and a legislative update.

II. NATIONAL EDUCATION CENTER UPDATES AND BOARD RESPONSES

The statutory duties of the Board include:

> *To review and regularly evaluate the work of the Institute, to ensure that scientifically valid research, development, evaluation, and statistical analysis are consistent with the standards for such activities under this title.* Education Sciences Reform Act of 2002, 20 U.S.C. § 116 (b)(7)

Due to its limited membership, the Board has chosen to operate as a "committee of the whole" in reviewing the activities of the four National Education Centers: the National Center for Education Evaluation and Regional Assistance (NCEE), the National Center for Education Research (NCER), the National Center for Special Education Research (NCSER), and the National Center for Education Statistics (NCES). At every

Board meeting the Commissioners from each of the centers update the Board on activities within their centers. At times the Board will ask a Commissioner to present at greater length on important issues related to that center. The following summarizes these presentations and the Board's comments and responses from the June 29, 2011, October 14, 2011, and February 24, 2012 meetings.

Updates from the National Center for Education Statistics (NCES)

Longitudinal Studies and State Administrative Data

In response to a Board request, Commissioner Jack Buckley presented in depth at the June 29, 2011 Board meeting on:

- The steps NCES is taking to explore linkages between national survey data collected by NCES and state administrative data, at both the school and student levels.
- NCES's long-term plan for its longitudinal study series and how that plan can provide a consistent, ongoing portrait of US schooling and student cohorts.

To begin his presentation, Dr. Buckley described the current longitudinal studies that NCES fields and the challenges facing these studies. Studies currently in the field include the High School Longitudinal Study of 2009 and the Early Childhood Longitudinal Study and Kindergarten Class of 2010-2011.

Dr. Buckley commented that the nature of NCES's work has changed due to the existence of vastly more educational administrative data than existed a decade ago (e.g., student data from state data systems).

He went on to explain that NCES's longitudinal surveys have advantages, including rich data for each student from multiple sources including teachers, parents, and the student herself; a large, nationally representative sample; and large enough subsamples to allow generalizations about significant subgroups of students. However, the longitudinal surveys also have disadvantages: high and rising cost; the inability to generalize about every important subgroup; limited coverage of a cohort of students, and the growing difficulty of conducting the surveys.

Dr. Buckley stated that recruiting schools for the longitudinal studies is a major challenge. He also noted that a gap in the longitudinal studies has been the failure to conduct a middle school study.

Board comments and response to Dr. Buckley's presentation

- Dr. McCardle of NICHD urged NCES to follow through on its plans for a ***middle school longitudinal study*** because girls move away from science between the 4th and 8th grades, and policymakers need middle school data to understand why. She emphasized the importance of collecting data during early adolescence. Dr. Gutiérrez underscored the importance of

collecting data on this understudied and rapidly growing population, particularly among long-term English learners.

- Dr. Gamoran stated that since the federal government has invested significant funds in having the states develop state longitudinal data sets, it is important to devote as much effort as possible to making the data useful for more than just reporting student test scores. Although there has been progress in ***making the state longitudinal data sets more available to researchers***, Dr. Gamoran asserted that consistent pressure and leverage from NCES will help overcome the remaining data access barriers that researchers face. *(Dr. Buckley responded that it is an IES-wide mission to get NCES data into the hands of state education agencies, school districts, and schools to improve student achievement.)*

- Dr. Long noted that researchers sometimes have difficulty accessing state administrative data because states interpret the Federal Educational Rights and Privacy Act (FERPA) differently. Although the U.S. Department of Education (ED) has tried to ***clarify FERPA***, Dr. Long suggested that it might serve the public good to invest the funds in resolving the legal issue. *(Dr. Buckley responded that the latest clarification of FERPA to the states should be completed in 2011, and in fact it was completed in December 2011.)*

- As the U.S. population grows more diverse, Dr. Gutiérrez emphasized the importance of ***continuing to oversample subgroups***. For example, she pointed out that NCES's longitudinal studies may yield a better understanding of the developmental trajectories of English language learners.

October 2011 and February 2012 NCES Updates to the Board

At the **October 14, 2011** meeting, Dr. Buckley briefly updated the Board on:

- NCES's posting of a new Request for Applications for the next round of Statewide Longitudinal Data System grants, with applications due 12/15/11.
- The latest iteration of NCES's state mapping project, which uses National Assessment of Educational Progress (NAEP) scores to compare states' No Child Left Behind proficiency scores on a common scale.
- NCES's effort to identify all public K-12 catchment zones through geocoding and geomapping. This will allow NCES to report real data (e.g., demographic, economic) about the neighborhoods surrounding a school rather than proxy data, such as eligibility for free and reduced lunch programs.
- The launch of the College Navigator website (http://nces.ed.gov/collegenavigator/), which provides a net price calculator for all Title IV colleges and universities.

At the **February 24, 2012** meeting, Dr. Buckley provided the following updates:

- Because the quality of state-level longitudinal data is a high priority, NCES convened the National Forum on Education Statistics on February 13-14, 2012

to bring states and districts together to discuss systems and data quality issues. NCES is also publishing numerous best practices as guides for states and districts on data use.

- Dr. Buckley has been playing a lead role in the effort to create a voluntary set of Common Education Data Standards (CEDS) to allow states to exchange data both for research and logistics purposes, such as transferring student records. The Standards are not a mechanism for data collection, and the federal government is not creating a centralized education database. Rather CEDS defines the data elements that should be included in databases across systems to facilitate data exchange. Ultimately, the goal of CEDS is to create a voluntary common vocabulary, tools, and a model that will allow the use of data systems across states.

Updates from the National Center for Education Research (NCER)

At the **June 29, 2011** meeting, Dr. Easton announced that Dr. Lynn Okagaki, NCER Commissioner and Acting NCSER Commissioner, was stepping down to become the Dean of the College of Education and Human Development at the University of Delaware. Dr. Elizabeth Albro would become the Acting NCER Commissioner and Dr. Joan McLaughlin would become the Acting NCSER Commissioner.

Mr. Baron introduced a resolution thanking Dr. Okagaki for her service to the nation, IES, and the Department of Education in light of her many contributions to NCER, NCSER, and IES. The motion carried unanimously.

Dr. Okagaki provided the following brief update on NCER and NCSER:

- Both centers were working on syntheses of funded research to assess what has been learned and the gaps the centers should be addressing. A synthesis on struggling readers was in the review process, and one on early childhood was ready to be sent to IES's Standards and Review Office. *(As of March 2012, these syntheses were under revision in response to reviewers' comments. NCER and NCSER hope that the syntheses will be released before October 2012 but the timing of the release is contingent on final approval of the syntheses by the Standards and Review Office.)*

At the **October 14, 2011** meeting, Acting Commissioner Albro provided the following brief update on NCER:

- NCER and NCSER had awarded 38 FY 11 research grants to researchers who had applied under the September 2010 deadline, including 14 focused on math and science.
- NCER had also established the Center for Analysis of Postsecondary Education and Employment to identify links between postsecondary education and the labor market.
- *Building Blocks*, an early childhood math curriculum whose efficacy testing was partially funded by IES, is currently in the scale-up and evaluation phase.

Longitudinal follow-up indicates a sizeable positive effect in pre-K children that persists if the children receive instructional reinforcement in kindergarten.

At the **February 24, 2012** meeting, Acting Commissioner Albro provided the following updates:

- Another round of NCER research awards was scheduled to be announced on March 6, 2012. (The awards, which were announced after the 2/24 Board meeting, are listed at http://ies.ed.gov/ncer/projects/12awards.asp.)
- NCER takes part in the IES Small Business Innovation Research (SBIR) program. Of the 35 projects funded since 2002, 12 have developed commercially viable products for schools, and another 12 projects are working toward commercialization of a product. One SBIR-funded project, Filament Games, won the grand prize at the 2011 National STEM Video Game Challenge, and another project, Insight Learning Technology, has received national media attention.
- Dr. Albro attended the research conference of the Center for Analysis of Longitudinal Data in Education Research, which receives NCER funding. She highlighted research from the conference on the effect of a school district's decision to require algebra in middle school. The analysis indicated that the decision had a negative impact on the math achievement of students who were not algebra-ready.[1]

Updates from the National Center for Special Education Research (NCSER)

(See the NCER update summary for **June 29, 2011**)

At the **October 14, 2011** meeting, Dr. Easton introduced the recently appointed NCSER Commissioner, Dr. Deborah Speece—NCSER's first commissioner in 5 years. Dr. Speece comes to IES from the University of Maryland, where she spent nearly three decades studying learning disabilities. Dr. Easton said Dr. Speece is highly regarded by her peers, and he looked forward to the leadership and guidance she would provide to the community. Dr. Speece made brief remarks, saying that in the 38 days since she began at NCSER, she had learned a lot and come to understand the breadth of the IES research portfolio. She was working with Dr. Albro on documents that synthesize and highlight the contributions of IES research on reading in early childhood and among children and youth with (or at risk for) disabilities.

At the **February 24, 2012** meeting, Dr. Speece provided the following updates:

- In order to identify important research subjects in special education, NCSER convened a technical work group of scholars in November 2011 to discuss pressing issues for children and youth with disabilities. Themes from the meeting included the need to address intractable problems of children and adolescents

[1] Charles T. Clotfelter, Helen F. Ladd, and Jacob L. Vigdor, "The Aftermath of Accelerating Algebra: Evidence from a District Policy Initiative," National Center for Analysis of Longitudinal Data in Education Research Working Paper 69, January 2012. http://www.caldercenter.org/upload/Clotfelter-et-al.pdf

with learning disabilities; adolescents in general; and the importance of focusing on the context of interventions for children, such as the school and district context.

- The Council for Exceptional Children has also organized a meeting to bring teachers together with staff from NCSER and from the Department of Education's Office of Special Education Programs (OSEP) to discuss needs of teachers that may inform NCSER and OSEP activities.
- Dr. Speece said she also hopes to increase NCSER's communication about special education across government. She has initiated conversations and collaboration with OSEP, the National Institute on Disability and Rehabilitation Research, the National Science Foundation, and the National Institutes of Health about capacity building.

Updates from the National Center for Education Evaluation and Regional Assistance (NCEE)

At the **June 29, 2011** meeting, Dr. Maynard provided the following brief update:

- Since the March 2011 Board meeting NCEE had hired a manager for the *What Works Clearinghouse* and a senior staff member to work with the Regional Educational Labs (RELs).
- NCEE has 47 active projects in its evaluation portfolio, half of which are major randomized controlled trials conducted by the RELs. NCEE is in charge of evaluating three new large projects: Race to the Top, the Investing in Innovation (i3) Technical Assistance contract, and School Improvement Grants.
- The *What Works Clearinghouse* was in the process of a major website redesign, including the addition of a Find What Works button.

Board comments and response to Dr. Maynard's presentation

Mr. Baron asked how well it was working for the i3 grantees to conduct their own evaluations or hire their own evaluator. Dr. Maynard responded that the i3 evaluations are funded at reasonable levels and most of them have credible, professional evaluators attached to them. Dr. Easton commented that he had recently attended a session for i3 evaluators, and at that session he saw strong evaluation designs from strong contractors.

At the **October 14, 2011** meeting, Dr. Maynard provided the following updates:

- She encouraged Board members to visit the newly reorganized *What Works Clearinghouse* website.
- NCEE was in the final stages of the competition for the new RELs that would launch in January 2012. NCEE is reaffirming with the RELs its commitment to well-designed causal inference studies.
- NCEE has been persistent in working to include a strong invitation to Elementary and Secondary Education Act waiver recipients to work with the Department of Education to add evaluation to their activities. NCEE wrote a model plan

describing how a state or district could use evaluation to improve the success of its implementation efforts and how a state could implement most but not all components of its plan and then evaluate progress.

At the **February 24, 2012** meeting, Dr. Maynard updated the Board that:

- NCEE awarded new REL contracts in January 2012 and kicked off the contracts with an opening conference with the new labs in January that focused on expectations and challenges. The previous round of REL contracts generated 26 randomized controlled trials of education initiatives, whose results are available on the NCEE website.
- Efforts are underway to find new directors of the National Library of Education and the Education Resources Information Center (ERIC) following the retirement of the previous directors in December 2011.
- NCEE continues to work with other agencies including the Social Security Administration, and the Departments of Health and Human Services, Labor, Justice, and Homeland Security on evidence standards, reviews, and dissemination. NCEE staff are also working with NSF on developing common evidence standards.

III. IES'S RESEARCH PORTFOLIO

IES's mission is to provide rigorous and relevant evidence on which to ground education practice and policy and to share this information broadly. IES's funded research is a large part of its mission, and one of the Board's goals is to assist IES in maximizing the impact of its funded research.

IES's Scientific Peer Review

The Board's statutory duties include:

> *To review and approve procedures for technical and scientific peer review of the activities of the Institute.* Education Sciences Reform Act of 2002, 20 U.S.C. § 116 (b) (3)

IES, through its Standards and Review Office (SRO), provides scientific peer review both of research grant applications submitted in response to Requests for Applications (RFAs) as well as of reports conducted by or supported through IES. The Board last reviewed and approved IES's *Procedures for Peer Review of Grant Applications* on January 24, 2006. During 2011 the Board began considering whether the Board should revisit IES's scientific peer review procedures for grant applications. Several members have raised this issue, and it will be addressed during the 2012 meetings.

Presentation by Dr. Anne Ricciuti, IES Deputy Director for Science, October 14, 2011

At the Board's request, Dr. Anne Ricciuti, IES's Deputy Director for Science, presented at the October 14, 2011 Board meeting about SRO's procedures for conducting peer

review of grant applications for NCER or NCSER funding.[2] In addition, the Board was provided significant background material on IES's peer review process for grants in the Board packet sent out in advance of the meeting, including the procedures for peer review approved by the Board in 2006, information about updates and improvements that SRO has implemented since 2006, reviewer materials and guidance, a list of reviewers for Fiscal Year (FY) 2011, and a sample Request for Application (RFA).

Dr. Ricciuti explained that NCER and NCSER write the RFAs that guide applicants. The Standards and Review Office handles receipt of the applications and their peer review, while the centers make the final funding decisions based on each application's rating by the peer reviewers. Dr. Ricciuti said that she and her staff identify potential peer reviewers. She and the Director of IES must approve individuals invited to serve a 3-year term on a review panel.

Dr. Ricciuti reported that the Standards and Review Office received more than 1,400 applications in FY 2011, about twice as many as in FY 2006. It has expanded use of its online review system to include online scoring by reviewers during panel meetings, and to allow compliance and responsiveness screening and conflict-of-interest identification and documentation to be handled online. It has also sought to improve instruction and guidance for reviewers.

In response to applicants' request to receive feedback more quickly after panel meetings, IES is exploring an online applicant notification system, similar to the one used by the National Institutes of Health and the National Science Foundation, where applicants log in to get their summary statements.

Presentation by Dr. Deborah Gorman-Smith, Senior Research Fellow, Chapin Hall at the University of Chicago, October 14, 2011

In the interest of receiving outside perspectives on peer review processes, the Board requested that Dr. Deborah Gorman-Smith, a Senior Research Fellow at Chapin Hall at the University of Chicago and President of the Society for Prevention Research, present to the Board concerning her experiences with recent changes in the National Institutes of Health (NIH) peer review process.

Dr. Gorman-Smith explained that NIH undertook the changes to (1) decrease the burden on reviewers and (2) encourage reviewers to focus more on the significance of the proposed work and less on minor details about the approach and methodology.

On the basis of her experience as a reviewer, findings from focus groups, and issues raised at a recent National Institute on Drug Abuse meeting on the review process, Dr. Gorman-Smith described some of the key ingredients for a high-quality review.

- Scientific review officers (SROs) are key to the review process because they oversee the peer review panels, set the tone for the quality of the review, and signal to panel members the important aspects of the review.

[2] Contracts for NCEE's evaluations are handled through a different process.

- Having a mix of seniority on the panel is even more important than having a range of expertise across substantive and methodological areas.
- Many qualified potential reviewers opt not to serve on panels because it undermines their own funding prospects.
- Panels sometimes suffer from high turnover.
- The panel chair sets the tone for the review by keeping panelists focused and shaping the review summaries.
- Discussion limits of 10-15 minutes per application may seem insufficient for effective review of a proposal, but the scores obtained are very similar to those that result from longer discussions.
- Over time, reviewers learn to balance the relative importance of proposal impact and proposal methodology in their scores, partly through training and partly through interactions with others on the panel.

Board comments on IES's scientific peer review process

- Dr. Gamoran commended NCER and NCSER for making their **RFAs very clear**. He also commended the Standards and Review Office and its peer review panels for providing **very constructive and timely feedback to applicants**.
- Dr. Bryk commented on the fact that the bulk of NCER's and NCSER's grant applications fall into the category of "development and innovation" – terms that are likely to elicit enormous variability among reviewers and review panels. Dr. Bryk noted that since innovation can be quite risky and **assessing innovation proposals** requires more subjective judgment on the part of reviewers than other grant categories, it may be worthwhile to explore whether different reviewer qualifications are needed to review these proposals.
- Dr. McLeod commended SRO on the rigor of its peer review process but expressed concern about the relative lack of Spanish surnames on the list of reviewers as an indicator of a lack of Hispanic reviewers. She urged IES to consider how to **increase the number of Latino reviewers and the diversity of reviewers in general**. Dr. Gutiérrez urged that reviewers reflect a diversity of perspectives, methods, and experiences, including racial and ethnic diversity.
- In response to Dr. Gorman-Smith's comments about reviewers balancing their scores between a proposal's impact and its methodology, the Board engaged in an extended discussion of **how a proposal's significance and potential innovativeness should be weighed**.
    - Dr. Long commented that there was a need for IES to highlight and support education research that has the potential to fill a major gap in our understanding or to push a boundary in the field. She expressed the

opinion that currently many studies are designed to make small contributions or do not provide information about outcomes of interest to education decision-makers.

- Dr. Shaywitz proposed evaluating the effectiveness of IES's peer review process by assessing the impact of funded proposals on improving education or changing policies and practices. She suggested identifying those IES studies that have had a significant impact and looking at the scores of those applications when they went through the peer review process.
- On the topic of innovative potential, Dr. McCardle commented that programs must balance their funding decisions to allow for some risk (and potentially high payoffs) from highly innovative proposals while also ensuring stability.
- Dr. Granger pointed out that Board members were using the term "significance" to refer both to the impact of research on the scientific literature, but also to its impact on policy and practice. He believed that program officials, not reviewers, should determine what would significantly impact policy and practice—and that their determination should be reflected in the RFAs.
- Dr. Ricciuti commented that IES struggles with balancing the evaluation of an application's significance with the need to ensure that its methodology is sound. She stated that guidance to reviewers emphasizes new language in the RFAs that input from those directly involved in policy and practice can be part of a reviewer's rationale regarding a proposal's significance.
- Mr. Baron stated that as a **way of evaluating the effectiveness of IES's peer review process** he supported identifying IES-funded studies that produced important results and looking at the score they received in IES's peer review process. However, Dr. Ricciuti noted that, if a study received IES funding, it necessarily had received a high peer-review score. Dr. Long suggested identifying studies of effective educational practices in the *What Works Clearinghouse* and evaluating whether they were funded by IES or rejected and funded by another entity. Dr. Granger warned against placing too much emphasis on the results or impact of a single study, and Dr. Maynard concurred. Dr. Shaywitz suggested that the Board further consider how the Board or IES could assess which funded research has made or is likely to make a difference. Dr. Maynard noted that research can also make a major contribution by identifying widely accepted practices that are ineffective.

Research Funded by NCER and NCSER

The Board's statutory duties include:

> *To advise the Director on the establishment of activities to be supported by the Institute, including the general areas of research to be carried out by the National Center for Education Research.* Education Sciences Reform Act of 2002, 20 U.S.C. § 116 (b)(4)

In keeping with this responsibility, the Board has engaged in many discussions related to IES's research portfolio. The Board commends IES on its effectiveness since its establishment in 2002. IES is widely recognized for having increased both the quality of and resources available for education research. Evidence, like the evidence supplied by IES-supported research, is essential to improving the educational attainment of all of America's young people.

Presentation by Dr. Deborah Speece, Commissioner, NCSER and Dr. Elizabeth Albro, Acting Commissioner, NCER, February 24, 2012

In order to learn more about IES's research portfolio, the Board invited Dr. Elizabeth Albro, Acting Commissioner of NCER and Dr. Deborah Speece, Commissioner of NCSER, to report on their centers' respective research investments at the February 24, 2012 Board meeting. Both Commissioners focused primarily on the Education Research line item in their center budgets, which funds grants for educational research through an annual Request for Application process. Highlights of their presentations include:

- From 2002 through 2011, NCER awarded 488 education research grants totaling $803.9 million in funding. NCSER has funded 188 education research grants totaling $335.0 million since its creation in 2006 through 2011.
- Both centers use the same framework of five research goals:
    - ***Exploration*** (e.g., hypothesis generation);
    - ***Development and Innovation*** (e.g., development of new interventions or further development of existing interventions);
    - ***Efficacy and Replication*** (e.g., testing of an intervention on a small-scale for beneficial impact, or replication under different conditions of an efficacy test for an intervention for which there is already evidence of beneficial impact);
    - ***Scale-Up Evaluation*** (e.g., testing of the impacts of fully developed interventions when they are implemented under routine practice conditions); and
    - ***Measurement*** (e.g., development of new educational assessments, or refinement or validation of existing assessments).

The breakdown of grants by goal is as follows:

Goal	NCER since 2004 (Percentage of Grants)	NCSER since 2006 (Percentage of Research Funding)
Exploration	13%	8%
Development and Innovation	46%	51%
Efficacy and Replication	26%	24%
Scale-Up Evaluation	2%	1%
Measurement	13%	16%

- Since 2004, 16 interventions that were initially supported through NCER Development and Innovation awards have been evaluated or are being evaluated through subsequent Efficacy and Replication awards.
- Over the past 5 years, NCER and NCSER have funded between 9 and 13% of the applications they receive, depending on the year.

Board comments on the presentations

The Board received this information from the Commissioners with great interest and commends NCER and NCSER on their careful and important work supporting rigorous and relevant education research. In the interests of further increasing the impact of IES's research, the Board raised the following questions during the discussion that followed the Commissioners' presentations at the February 24 meeting as well as during the rest of the period covered by this report.

- Approximately half of the research that IES funds through NCER and NCSER falls under Goal 2 – Development. Given IES's desire to support research and development that leads to educational innovation and improves students' academic achievement, is this mix of research funding optimal? Or would a different allocation of funding among the five goal categories prove more effective?
- What is the right balance to strike in IES's research portfolio between innovative risk (i.e., funding high-risk but high-payoff projects) and research stability (i.e., funding projects that are less risky but also potentially less groundbreaking)?
- How does IES identify innovations that are promising enough to warrant further development?
- How should IES balance its research portfolio between developing new, innovative practices and evaluating existing practices in widespread use whose effectiveness has never been tested?
- To what extent should IES allow researchers to drive the choice of research topics (i.e., field-initiated research) and to what extent should IES more narrowly focus funding on IES-chosen research priorities?

- For example, when the contracts for the Regional Educational Labs (RELs) were recompeted during the winter of 2011-12, applicant organizations were allowed to choose from among the national and local priorities the research topics their REL would focus on. Was this the best strategy? Or should IES have more strongly specified the areas of IES's research interest? Some Board members expressed the opinion that IES should have specified the research areas more strongly.
- If federal research funding becomes more limited, does it make sense for IES to focus its RFAs more narrowly on particular research priorities? Or would this cut off funding for unpredictable sources of innovation? Board members noted that if IES were to decide to focus its funding more narrowly, then that change would need to be communicated to the research community very clearly.

- To what extent should IES devote its resources to scaling up interventions that were successful in smaller efficacy trials and to what extent should it devote resources to projects that were ineffective overall in smaller efficacy trials but showed promise for specific subgroups?
- Is funding 9-13% of applications the "right" level of funding? If NCER and NCSER are not receiving enough high-quality proposals from researchers, are there ways to increase the quality of proposals that the centers receive? Or is the constraint the amount of funding that the centers have to support proposals?

In general, these are difficult questions, and the Board, like IES, does not have immediate answers to them, although it plans to continue engaging them in the coming year.

In one area – choosing interventions for scale-up evaluations that are more likely to show positive outcomes – the Board did have specific suggestions. The Board suggested that to increase success rates for these relatively costly research projects, IES should:

- Choose interventions that are more strongly supported by already established educational theory. An intervention is more likely to be successful in a large-scale evaluation if it coheres with empirically supported existing theory than if it was developed atheoretically.
- Choose interventions that have stronger evidence from previous efficacy trials. An intervention that has shown success in more and larger efficacy trials across a more diverse set of populations is more likely to be successful in a large-scale evaluation.
- When choosing large-scale implementation of less tested innovations (i.e., approaches that are so new that they do not have strong evidence from previous efficacy trials), require an even stronger theoretical basis for expecting the intervention to effect the desired outcome. That is, require an even stronger, empirically supported, and coherent theory of change.

- Be certain to evaluate well-defined ***interventions*** (e.g., a well-specified school reform model) as opposed to ***formats*** (e.g., charter schools). That is, the effectiveness of well-defined interventions in specific settings can be assessed. However, "formats" such as charter schools can vary so widely in their details that it is largely meaningless to evaluate whether charter schools as a whole are effective or not.
- Devote significant attention to the **organizational context** in which an intervention is implemented. That is, the organizational context in which an intervention is deployed can be as significant to its effectiveness as the details of the intervention itself. Organizational support factors may play a large role in determining whether interventions that were successful in smaller efficacy trials scale up successfully.

IV. IMPORTANT RESEARCH TOPICS IDENTIFIED BY THE BOARD

The Board's statutory duties include:

> *…to recommend to the Director topics that require long-term, sustained, systematic, programmatic, and integrated research efforts…* Education Sciences Reform Act of 2002, 20 U.S.C. § 116 (b) (9)

The Board commends IES for doing much to address identified needs in education research and encourages IES to continue building on those efforts. Two specific areas of research that the Board discussed during the 2011-12 meetings were (1) the importance of implementation and (2) teacher quality, preparation, and effectiveness. In calling attention to these two topics, the Board's intent is not to question IES's current research investments, but simply to signal to the field more broadly areas which the Board believes could benefit from increased research and investment.

Research, Implementation, and Quality Improvement Science

Throughout the year, the Board repeatedly affirmed that the important questions for IES in education research are not simply, "What works?" but:

What works? For whom? Under what set of conditions?

Context is important when educational interventions are implemented, and not every effective intervention works in every context. In addition to complicating public policymaking, these nuances also add complexity to communicating effective interventions to practitioners and the public.

During 2011-12, the Board frequently took up questions related to implementation and research in education.

- Many Board members called for more ***implementation research*** – that is, more research into the factors and conditions that increase the likelihood that a promising intervention will be successful when implemented more widely.

- Dr. Ball and others called on IES to conduct more ***research on implementation*** in order to help researchers better understand how to conceptualize implementation. This would improve researchers' ability to theorize and study how interventions are taken up and their effects.
- The Board also discussed the related topic of ***quality improvement (QI) science***. QI is similar to implementation research in that QI aims to understand variability in outcomes of particular practices or interventions and suggests specific mechanisms for improving outcomes across different settings. QI comes out of an "action research" tradition and places a stronger emphasis on quick research cycles and ongoing improvement and innovation.

Implementation research and quality improvement science are described in somewhat greater detail below.

Implementation research aims for more "wins" during the scale-up of promising interventions through the understanding of factors and conditions that increase the likelihood that an intervention will be successful when implemented more widely. To state it more formally, implementation science asks:

> How do we explain variation in effects of interventions when implemented in new sites for different kinds of students?

In particular, implementation research looks at elements in an intervention's delivery system that should be in place to make a scale-up as effective as possible. It considers the organizational conditions that support or impede the intervention's implementation.

As a concrete illustration, at the June 29, 2011 meeting, Dr. Gamoran gave a hypothetical example of a professional development program that succeeds during early trials only to fail during scale-up because half the teachers leave, or half the principals turn over, or the study district has four superintendents in 5 years, or the district's entire science leadership team is dismissed and the research office is closed. In short, the underlying professional development program might be effective, but the conditions for successful implementation were not in place. Implementation research seeks to identify what these necessary conditions are – both for a particular intervention and for educational improvements more generally.

Thus, implementation research poses questions such as, "What makes schools good implementers (of a particular intervention)?" The answer might be: Schools with strong leadership and strong emphasis on instruction. This might lead to a subsequent question, such as, "Can average principals be trained to practice this type of leadership?"

Quality improvement (QI) science is similar to implementation research in that QI aims to understand variability in outcomes of particular practices or interventions in order to reduce that variability where it contributes to undesired outcomes – that is, it aims to "reduce the negative tail of variation" in outcomes. QI approaches to education improvement recognize that there is diversity across teachers, students, and settings that affects the effectiveness of interventions that have shown effectiveness elsewhere. QI approaches aim to use data from targeted performance measures, quick evaluation, and ongoing tweaking to successfully adapt interventions to new settings. In the words of Dr. Bryk in his October 14, 2011 presentation to the Board, QI is about learning how to use evidence to improve what works. He stated that QI is especially important for innovation and development.

Dr. Granger noted how the discussion following Dr. Bryk's presentation highlighted the ways in which QI differs from the traditional National Institutes of Health (NIH) or IES research paradigm. Each approach has strengths, and we have not yet learned how to combine them to capitalize on these mutual strengths. The traditional approach produces strong, internally valid estimates of the efficacy of various interventions over many years, but many interventions fall by the wayside before they proceed that far. The continuous QI approach begins with the practitioner and uses rapid research cycles so that the users are invested in the solutions. Practitioners borrow from each other's successes, and so valid, reliable metrics must be in place to distinguish real improvements from random variation. Dr. Granger stated that the challenge for IES is to recognize the opportunities and limitations of each approach and build on the strengths of each. He noted that the Regional Educational Labs may be a particularly appropriate venue to incorporate the continuous QI approach.

The Board will continue to explore these issues in future meetings. However, on the basis of its discussions during 2011-12, the Board reached consensus that:

- Important questions for education research are not simply, "What works?," but "What works? For whom? Under what set of conditions?"
- Education interventions should be conceptualized more broadly so that they include not only the specific practices but also the systems that are needed for take-up and successful implementation of the intervention.

Teacher Quality, Preparation, and Effectiveness: "Instructional Quality"

During a Board discussion of the "Big Picture" in education research at the June 29, 2011 meeting, the single topic that came up most consistently was the need for better understanding of teacher quality, preparation, and effectiveness. Dr. Ball suggested that a better term for these issues is "instructional quality" because it highlights that teachers alone do not bear sole responsibility for student outcomes. For example, the organizational and policy contexts within which teachers operate have a strong impact on teacher effectiveness.

There was general Board consensus around the need to know more about how to select, prepare, assess, and retain effective teachers.

The Board notes that within the federal government support for research on teachers and teaching is unique to IES. The Board commends the fact that the National Center for Education Evaluation and Regional Assistance launched two new studies on these topics in September 2011: *A Study of Promising Features of Teacher Preparation Programs*[3] and *Impact Evaluation of Teacher and Leader Performance Evaluation Systems*[4].

The Board observes that interventions aimed at improving teacher effectiveness have generally produced null results to date. However, as Dr. Ball suggested and other Board members agreed:

- Teaching is a complex process.
- As a result, we lack strong theories to serve as a basis for designing interventions to improve teacher training.
- The primary gap in our knowledge is that we lack a detailed understanding of what it is in the interaction between students and teachers that produces positive student outcomes. This makes it difficult to design approaches to prepare teachers most effectively.

The Board noted the importance of also focusing on **teacher/instructional quality at the postsecondary level**, where much less attention has been paid to these issues historically.

V. PARTNERSHIPS AND COLLABORATION BETWEEN RESEARCHERS AND PRACTITIONERS

The "About IES" page on the IES website states:

> *Moving forward, IES' rigorous research agenda will be informed by the voices and interests of practitioners and policy makers, who will be involved in shaping the questions most relevant to their practice. We will seek to build the capacity of states and school districts to conduct research, evaluate their programs and make sense of the data they are collecting.*[5]

The Board commends IES on its commitment to making its research findings more relevant and accessible by building stronger partnerships between researchers and practitioners, both at the state and local levels.

[3] See http://ies.ed.gov/ncee/projects/evaluation/tq_teacherprep_us.asp
[4] See http://ies.ed.gov/ncee/projects/evaluation/tq_performance.asp
[5] See http://ies.ed.gov/aboutus/ accessed on 1/31/12.

As with the issues related to the communication of research findings, the topic of collaboration between researchers and practitioners raises many issues that the Board is beginning to explore. To date, the Board has identified several key questions, which it hopes to return to in the coming year and beyond. Some of these questions include the following:

- What are the roles of the various government entities – i.e., IES, the state education agencies, the local school districts – in the creation and use of applied education research?
    - What are the relative strengths (and weaknesses) of the various actors in these efforts? What should IES's role be?
    - How are the questions that IES-funded research addresses generated and how does this affect their relevance for state and local decision-makers?
    - How does the level of ***research capacity*** at the state and local levels affect the ability of decision-makers at these levels to (1) use and (2) conduct their own data analysis and research? What do the answers to these questions imply for IES?
- What should IES's role be in promoting research and evaluation at the state and local level?
    - To what extent is IES's role simply to disseminate findings of "what works"?
    - To what extent is IES's role to develop state and local capacity to ***use*** research in their education decision-making? To what extent is IES's role to develop state and local capacity to ***conduct*** their own research and analysis?

The Role of the Regional Educational Laboratories

An important step that IES took in 2011-12 to create stronger partnerships between researchers and practitioners was the award in January 2012 of the next round of 5-year contracts for the Regional Educational Laboratories (RELs). These new REL contracts represent a re-envisioning by IES of the RELs' role: one that emphasizes capacity building, especially through new "research alliances." The IES website states:

> *Each REL will build research capacity and a knowledge base by assisting states, districts, and schools in using their data systems; conducting high quality research and evaluation; providing opportunities for practitioners to learn about the best education research; and helping education policy makers and practitioners incorporate data-based practices into regular decision-making.*
>
> *The RELs will carry out these priorities primarily through "research alliances," which are partnerships among practitioners, policy makers, the REL and others to develop a thorough understanding of an education issue of concern.*[6]

[6] See http://ies.ed.gov/ncee/edlabs/whatsnew/. January 2012 issue. Accessed on 1/31/12.

The Board invited Dr. Ruth Neild, Associate Commissioner of NCEE, to brief the Board on the new RELs at the February 24, 2012 Board meeting. Dr. Neild explained that the new generation of RELs will focus their work on a smaller number of topics in education research and will be able to go deeper in their analyses as a result. The RELs will conduct their work through research alliances, which are partnerships of researchers and practitioners that are sustained over time. The new RELs must not only supply research findings but also understand the demand for data – that is, how to ensure that their research meets the needs and expectations of state and local education agencies (SEAs and LEAs).

On the supply side, Dr. Neild said, REL research must address questions important to practice. The research alliances will allow for an ongoing conversation between researchers and practitioners. Results of REL research should be made available in a timely manner. Research by the RELs should be informed by the local context, and the findings should be clearly presented and appropriate to the target audience.

On the demand side, Dr. Neild stated that RELs will use the research alliances and face-to-face conversations with SEAs and LEAs to foster the understanding that what their data tells them is important and that the resulting findings should be applied to their educational practice. RELs will work closely with SEAs and LEAs to ensure that they can review research findings and their own data with confidence.

Dr. Neild also described possible "suites" of related products that NCEE suggests the RELs develop to target different practitioner audiences. Examples of possible products include:

- *What's Happening?* Descriptive studies of baselines, trends and implementation of policies, programs, and practices
- *What's Known?* Literature reviews, including systematic reviews
- *Making Connections*: Correlational studies
- *Making an Impact*: Studies of effectiveness
- *Applied Research Methods*: Methods-related lessons and studies
- *Briefly Stated*: Summaries of research, tailored to specific target audiences

All REL products should emphasize usability and readability.

Clearly, the 2012-17 iteration of the RELs represents a new chapter in their history. The Board looks forward to learning about the RELs' experiences as they engage the new set of responsibilities that Dr. Neild described. In particular, the Board is interested in:

- How does IES evaluate the RELs' performance? To what extent do these assessments include consultations with the RELs' "customers" at the state and local levels to gain their perspective?

Encouraging States and Large Districts to Conduct More Evaluations

At its October 14, 2011, meeting the Board discussed how to encourage more states and large districts to evaluate their own education programs and interventions.

- As the section above indicates, one obstacle may be ***lack of research capacity*** and expertise within states and local districts to conduct such evaluations. This may be an area where the new RELs and the National Center for Education Evaluation and Regional Assistance can play an important role in assisting states and large districts that wish to undertake evaluations.
- The Board also noted that evaluations on the part of states and large districts may be unlikely in the ***absence of outside encouragement***. In response, the Board took action to encourage states receiving waivers under No Child Left Behind to rigorously evaluate their school improvement efforts under the waiver. (See *Advocacy* section below for details.)
- Finally, the Board noted at its October 14, 2011, meeting, that under current fiscal conditions states and large districts have ***little money for evaluation*** and research. It is important that the federal government (or others) step up to cover the costs of such evaluations so that we can actually learn from the innovations that states and localities are introducing.

Increasing Researcher/Practitioner Collaboration: Where to Strike the Balance?

Throughout the year, the Board grappled with the larger question of how to increase researcher/practitioner collaboration, and how to strike a balance between the concerns and interests of the two groups.

- On the one hand, some researchers – especially academic researchers – may be most interested in more theoretical questions related to basic research or "hot" topics in their academic discipline that are likely to gain publication in academic journals. These interests are reflected in many of the research proposals these researchers submit for IES funding.
- Practitioners, on the other hand, are typically more interested in fast-turnaround answers to applied questions from their local setting. They may care more about getting "good enough" answers quickly using local data than methodologically robust answers that take longer or are based on data from a different jurisdiction.

In the worst case, practitioners can end up viewing researchers' findings as irrelevant, and researchers can end up viewing practitioners' proposed questions as uninteresting or the "wrong questions."

In the context of applied research, each group needs the other. Practitioners benefit when researchers provide them rigorous and relevant evidence to assist them in decision-making. Moreover, long-term, basic educational research into areas such as children's cognitive development may pave the way for later classroom applications.

Researchers, in turn, need practitioners to keep them grounded in the realities of classrooms and the decisions that their research is intended to help.

The challenge with which the Board began to grapple during 2011-12 was how to strike the balance between investigator-initiated research (with its risk of not addressing practitioners' concerns) and applied research aimed at answering practitioners' questions (with its risk of not being generalizable beyond a very specific local context). In one response to this tension, Dr. McLeod suggested at the June 29, 2011, Board meeting that IES-funded researchers should regularly ask practitioners, "What questions do *you* need answered?"

The new RELs represent a new approach to balancing these tensions between researcher-initiated and practitioner-relevant research. The Board looks forward to learning how this experiment plays out in the years ahead. At the same time, the Board will seek to continue assisting IES with the challenges inherent in supporting applied research.

VI. COMMUNICATION, DISSEMINATION, AND THE IMPACT OF IES'S RESEARCH

The Board's statutory responsibilities include:

> *...to recommend to the Director topics that require long-term, sustained, systematic, programmatic, and integrated research efforts,* ***including knowledge utilization and wide dissemination of research****... (Emphasis added)* Education Sciences Reform Act of 2002, 20 U.S.C. § 116 (b) (9)

The Board showed great interest throughout the year in the topic of communication of IES's research findings, discussing it at a number of meetings. The Board commends IES on its efforts during 2011-12 to improve communication between IES and educational practitioners and researchers, including:

- A major redesign of the *What Works Clearinghouse* website, including the addition of a Find What Works button;
- The recompetition and award of the Regional Educational Labs (REL) contracts for 2012-17 that introduced a new focus for the RELs on partnerships with researchers and practitioners aimed at improving the translation of research into practice; and
- NCSER's meetings with groups of researchers and teachers to identify pressing issues and research topics for children and youth with disabilities.

At the February 24, 2012 meeting, the Board invited Dr. Diane Massell from the University of Michigan's School of Education to present preliminary findings from a study she is co-leading on how state education agencies access and use evidence in school improvement decisions. Dr. Massell concluded her presentation with the

following observations about the characteristics of useful research from the perspectives of users within state education agencies:

- *"The research looks like me."* That is, the research describes schools or populations that are similar to the schools or populations in the state in question.
- *"The research shows me what to do."* That is, the findings describe specific actions, give clear examples, and outline the steps involved.
- *"The proposed approach is cheap and addresses my problem."* That is, the findings include the cost of implementation and are relevant to the user's perceived problem. (Fiscal considerations are powerful factors in acting on knowledge, said Dr. Massell.)

The Board encourages IES to consider the findings of Dr. Massell and her colleagues, and other additional findings in the emerging field of knowledge utilization as IES continues to develop and refine its communication strategies.

The Board's discussions during the year also identified a number of key questions.

1. Who are the target audiences for IES's communication efforts?
    a. What are the goals for communicating with particular audiences? For example, a goal with practitioners might be for practitioners to be aware of and use practices shown by research to be effective. Another goal might be to have practitioners' needs and questions shape subsequent research.
    b. What channels of communication does IES use to reach each audience? Are these the most effective channels? Is IES not reaching certain audiences most effectively because it is not using that audience's preferred communication channels?
    c. Do the same channels (e.g., the *What Works Clearinghouse*) work for all audiences or should audiences have their own tailored set of communication channels?
    d. Who within IES determines the answers to these types of questions?
2. How proactive should IES be in its outreach efforts?
3. How does IES evaluate its communication efforts?
    a. What metrics does IES collect or use to measure the effectiveness of its communication efforts?
    b. Specifically, do non-researchers find the IES website useful and understandable? Does the site provide sufficiently detailed descriptions of interventions for practitioners? Is the cost-effectiveness of interventions addressed adequately?
4. Overall, is IES effectively reaching and communicating with each of its identified audiences? Are there ways in which IES's efforts could be improved?

The Board plans to explore the questions listed above in the coming year and beyond.

During 2011-12 the Board:

- Commends IES for its efforts in updating and improving the *What Works Clearinghouse (WWC)* and IES's other communication efforts, including IES's plans to hold focus groups with users. The Board looks forward to learning the results of these focus groups.
- Notes that ongoing attention to communication metrics is especially important while the *WWC* website and other IES communication efforts are evolving in order to allow for ongoing and continuous improvement of those efforts.
- Commends IES for communicating null research findings – that is, reports about educational practices that show no positive impact on student achievement. The Board notes that such findings are also important for moving the science and practice of education forward.
- Notes that the Regional Educational Labs (RELs) are another potential channel for translating research findings to practitioners and commends IES for including this focus in the new REL contracts.

In addition to providing "rigorous and relevant research on which to ground education practice and policy," an equally important part of IES's mission is to "share this information broadly."[7] The Board commends IES's work to broadly communicate important education research and looks forward to IES's continuing efforts in this crucial area.

VII. ADVOCACY FOR EDUCATION RESEARCH

The Board sees as part of its mission being a voice for education research – including the improvement of education research and its appropriate use in decision-making.

Education research provides the opportunity for the United States to improve the education of its citizens, by making policy and practice more effective, more efficient, and able to produce to higher levels of achievement. It holds the promise of reducing persistent educational achievement gaps that subject some groups to reduced opportunities throughout their lives. By applying science to the study and practice of education, we embrace the prospect of achieving advances in education akin to those experienced by medicine and other research-based disciplines. In this era of increased global competition, when both America's national security and our economic well-being depend on the education of our citizenry, we can do no less than create the best educational system that our science allows. Education research is key to this vision. As such, the Board has taken several steps to urge the use and support of education research.

[7] See the IES mission statement at http://ies.ed.gov/aboutus/

Encouraging Evaluation as Part of ESEA Waivers

As part of its advocacy mission, the Board periodically advocates on behalf of education research. In July 2011, Jon Baron, who was Board Chair at the time, and Bridget Terry Long, who was Vice Chair, sent a letter on behalf of the Board to the education leadership in Congress and the Executive Branch[8] urging them to encourage states to "build credible evidence about what works in K-12 education" as part of any waivers to No Child Left Behind (as shown in Appendix D).

Subsequently, the Department of Education's *ESEA Flexibility* document, issued on September 23, 2011 contained the following language:

> ***EVALUATION***
> *Implementing this [ESEA waiver] flexibility presents a valuable opportunity for SEAs, LEAs, and the Department to learn more about the effectiveness of various programs, practices, and strategies and to contribute to the evidence base of what works. The Department encourages an SEA that receives approval to implement this flexibility to collaborate with the Department to evaluate at least one program, practice, or strategy the SEA or its LEAs implement under principle 1, 2, or 3. For example, an SEA could propose to evaluate an aspect of its plan for transitioning to college- and career-ready standards; the interventions the SEA and its LEAs are implementing in priority or focus schools; or its teacher and principal evaluation and support systems. Interested SEAs will need to, upon receipt of approval of this flexibility, nominate for evaluation a program, practice, or strategy the SEA or its LEAs will implement under principle 1, 2, or 3. The Department will work with the SEA to determine the feasibility and design of the evaluation and, if it is determined to be feasible and appropriate, will fund and conduct the evaluation in partnership with the SEA, ensuring that the implementation of the chosen program, practice, or strategy is consistent with the evaluation design.*[9]

Encouraging States Receiving ESEA Waivers to Engage in Research

The Board commends the Department on creating this emphasis on evaluation in its ESEA waiver process and encourages states receiving ESEA waivers to use this opportunity to generate nationally useful knowledge from the innovations they are undertaking. In order to further advance this effort, the Board wrote a letter (shown in Appendix E) to be delivered to SEAs that received an ESEA waiver.

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[8] The letter was sent to the Secretary of Education, Arne Duncan; the Director of the Office of Management and Budget, Jacob Lew; the Director of IES, John Q. Easton; and the Chairs and Ranking Members of the House Education and Workforce Committee and the Senate HELP Committee: Rep. John Kline, Rep. George Miller, Sen. Tom Harkin, and Sen. Michael Enzi, respectively.

[9] U.S. Department of Education, *ESEA Flexibility*, September 23, 2011, p.6. Downloaded from http://www.ed.gov/esea/flexibility on 1/31/12.

Appendix A:

Agenda of the June 29, 2011 NBES Meeting

ies INSTITUTE OF EDUCATION SCIENCES

National Board for Education Sciences Meeting

June 29, 2011

Washington, DC

Agenda

Wednesday, June 29, 2011

8:30 A.M. – 8:45 A.M. **Call to Order, Approval of Agenda, Chair Remarks**

Jon Baron, National Board for Education Sciences (NBES) Chair

Swearing-in of New NBES Member, *Kris Gutiérrez*

8:45 A.M. – 9:15 A.M. **Update: Recent Developments at the Institute of Education Sciences (IES), including the Centers for Evaluation, for Research, and for Special Education Research.**

John Q. Easton, IES Director

Rebecca Maynard and *Lynn Okagaki,* IES Commissioners

9:15 A.M. – 10:30 A.M. **National Center for Education Statistics (NCES): Linking NCES and State Data, and Other Initiatives to Create a More Comprehensive Portrait of U.S. Students and Schools.**

Opening remarks by *Jack Buckley*, Commissioner, NCES

Roundtable discussion by NBES members

10:30 A.M. – 10:45 A.M. **Morning Break**

10:45 A.M. – 12:15 P.M. **The "Big Picture"**

- Within the overall Board-approved IES research priorities, what are the most important and compelling research questions and topics to address?
- Among these, where are the gaps in knowledge the greatest and most serious?

Roundtable discussion by NBES members

12:15 P.M. – 1:15 P.M. **Box Lunch**

1:15 P.M. – 2:45 P.M. **Communications**

What are effective ways to communicate key research findings so as to inform—

- federal, state, and local education *policy*?
- educational *practice* at the school or classroom level?

Opening remarks by *John Q. Easton*, IES Director

Dr. John W. Wallace, formerly Vice President for External Affairs, MDRC

Roundtable discussion by NBES members

2:45 P.M. – 3:00 P.M. **Afternoon Break**

3:00 P.M. – 4:30 P.M. **Low-Cost Randomized Controlled Trials (RCTs): Could They Play a Key Role in Building Knowledge About "What Works" in Education?**

Opening remarks by *Dr. Eric Bettinger*, Stanford University School of Education

Dr. Robert Slavin, Johns Hopkins University and the Success for All Foundation

Roundtable discussion by NBES members

4:30 P.M. – 5:00 P.M. **Closing Remarks, including Next Steps**

John Q. Easton, IES Director

Jon Baron, NBES Chair

5:00 P.M. **Adjourn**

Appendix B:

Agenda of the
October 14, 2011 NBES Meeting

ies INSTITUTE OF EDUCATION SCIENCES

National Board for Education Sciences Meeting

October 14, 2011 Washington, DC

Agenda

Friday, October 14, 2011

8:30 A.M. – 8:45 A.M.	**Call to Order, Approval of Agenda, Chair Remarks** *Jon Baron*, National Board for Education Sciences (NBES) Chair
8:45 A.M. – 9:30 A.M.	**Update: Recent Developments at the Institute of Education Sciences (IES), Including the Centers for Evaluation, for Research, for Special Education Research, and for Statistics** *John Q. Easton*, IES Director Swearing-in of NBES Members, *Anthony Bryk* and *Robert Granger* Introduction of *Deborah Speece*, newly appointed Commissioner of the National Center for Special Education Research IES Commissioners *Rebecca Maynard*, *Elizabeth Albro* (Acting), and *Jack Buckley*
9:30 A.M. – 10:45 A.M.	**Peer Review of Research Proposals: The IES Approach, and Possible Refinements to Increase Findings of Policy Importance** Opening remarks by *Anne Ricciuti*, IES Deputy Director for Science Opening remarks by *Deborah Gorman-Smith*, Senior Research Fellow, Chapin Hall at the University of Chicago, and President, Society for Prevention Research NBES roundtable discussion
10:45 A.M. – 11:00 A.M.	**Morning Break**
11:00 A.M. – 12:00 P.M.	**The Administration's "Tiered" Evidence Initiatives in Education and Other Areas: New Approach to Stimulating Development and Use of Rigorous Evidence** Opening remarks by *Kathy Stack*, Deputy Associate Director for Education and Human Resources, Office of Management and Budget Opening remarks by *Saskia Levy Thompson*, Chief Executive Officer, Office of School Support, New York City Department of Education NBES roundtable discussion

12:00 P.M. – 1:00 P.M.	**Box Lunch**
1:00 P.M. – 2:00 P.M.	**The Congressionally Established Committee on Science, Technology, Engineering and Math Education (CoSTEM): Developing a Strategic Plan for Federal STEM Education** Opening remarks by *Carl Wieman*, Associate Director for Science at the White House Office of Science and Technology Policy, and Co-Chair of CoSTEM NBES roundtable discussion
2:00 P.M. – 3:20 P.M.	**Continuous Improvement Research: Is It a Path for Achieving Program Effectiveness in Large-Scale Implementation?** Opening remarks by *Gilbert Botvin*, Chief, Division of Prevention and Health Behavior, Weill Cornell Medical College Opening remarks by *Anthony Bryk*, NBES member and President, The Carnegie Foundation for the Advancement of Teaching NBES roundtable discussion
3:20 P.M. – 3:30 P.M.	**Afternoon Break**
3:30 P.M. – 4:10 P.M.	**NBES Annual Reports: How to Ensure Their Independence and Usefulness, Consistent with congressional Authorizing Language** Opening remarks by *Monica Herk*, Executive Director, NBES NBES roundtable discussion
4:10 P.M.– 4:40 P.M.	**Election of Board Officers**
4:40 P.M.– 5:00 P.M.	**Closing Remarks, including Next Steps** *John Q. Easton*, IES Director *Jon Baron*, NBES Chair
5:00 P.M.	**Adjourn**

Appendix C:

Agenda of the
February 24, 2012 NBES Meeting

ies INSTITUTE OF EDUCATION SCIENCES

National Board for Education Sciences Meeting

February 24, 2012 Washington, DC

AGENDA

Friday, February 24, 2012

8:30 A.M. – 8:45 A.M.	**Call to Order, Approval of Agenda, Chair Remarks** *Bridget Terry Long*, National Board for Education Sciences (NBES) Chair
8:45 A.M. – 9:30 A.M.	**Update: Recent Developments at the Institute of Education Sciences (IES), Including the Centers for Evaluation (NCEE), for Research (NCER), for Special Education Research (NCSER), and for Statistics (NCES)** *John Q. Easton*, IES Director IES Commissioners *Rebecca Maynard*, *Elizabeth Albro* (Acting), *Deborah Speece*, and *Jack Buckley*
9:30 A.M. – 10:45 A.M.	**NBES 2012 Annual Report: Review of Initial Draft** Introduction and Framing by *Bridget Terry Long*, Chair, NBES Presentation of draft by *Monica Herk*, Executive Director, NBES NBES members present comments on their assigned section
10:45 A.M. – 11:00 A.M.	**Morning Break**
11:00 A.M. – 12:30 P.M.	**The Importance of Disseminating Research Results: How Can We Better Reach Practitioners and Policy-Makers?** *Ruth Neild*, Associate Commissioner, NCEE, on the new Regional Educational Laboratory contracts and their implications for dissemination *Diane Massell*, Research Associate, School of Education, University of Michigan, on how State Education Agencies use evidence in decision-making Commentary by *Margaret (Peggy) McLeod*, NBES member NBES roundtable discussion and feedback
12:30 P.M. – 1:30 P.M.	**Box Lunch and Ethics Training for NBES Members** *Marcia Sprague*, Ethics Division, Office of the General Counsel

1:30 P.M. – 2:30 P.M. **Scaling up Promising Models: What Can the Field of Education Learn From the Experiences of Other Federal Agencies?**

Naomi Goldstein, Director, Office of Policy Research and Evaluation, Administration for Children and Families, Department of Health and Human Services

Paul Carttar, Director, Social Innovation Fund, Corporation for National and Community Service

Commentary by *Robert Granger*, NBES member

NBES roundtable discussion

2:30 P.M. – 3:30 P.M. **IES-Funded Research: Reviewing Current Activities and Considering Avenues for Improvement**

Introduction by *Bridget Terry Long*, Chair, NBES

Presentation on NCER's Research Portfolio by *Elizabeth Albro*, NCER Commissioner (Acting)

Presentation on NCSER's Research Portfolio by *Deborah Speece*, NCSER Commissioner

NBES roundtable discussion

3:30 P.M. – 3:45 P.M. **Afternoon Break**

3:45 P.M. – 4:45 P.M. **Legislative Update: Status of IES Appropriations and the Reauthorizations of (1) the Elementary and Secondary Education Act (ESEA) and (2) the Education Sciences Reform Act (ESRA)**

Gabriella Gomez or *Lloyd Horwich*, Office of Legislation and Congressional Affairs, U.S. Department of Education

NBES roundtable discussion

- What role should the Board take in advocating for education research?
- Should the Board be involved in advocating for the use of research in forming policy legislation?

4:45 P.M. – 5:00 P.M. **Closing Remarks, Including Next Steps**

John Q. Easton, IES Director

Bridget Terry Long, NBES Chair

5:00 P.M. **Adjourn**

Appendix D:

NBES Memo about
ESEA Waivers – July 2011

NATIONAL BOARD FOR EDUCATION SCIENCES

Board of Directors for the Institute of Education Sciences
Established by Public Law 107-279

July 19, 2011

TO: The Honorable Arne Duncan, Secretary, Department of Education
The Honorable Jacob Lew, Director, Office of Management and Budget
The Honorable John Easton, Director, Institute of Education Sciences

The Honorable John Kline, Chair, House Education and Workforce Committee
The Honorable George Miller, Ranking Member, House Education and Workforce Committee

The Honorable Tom Harkin, Chair, Senate HELP Committee
The Honorable Michael Enzi, Ranking Member, Senate HELP Committee

SUBJECT: **We urge that any federal "waivers" from *No Child Left Behind* be used to build credible evidence about what works in K-12 education, drawing on the successful precedent from U.S. welfare policy in the 1980s and 90s.**

In recent years, the National Board for Education Sciences has unanimously approved a set of policy recommendations to advance the use of credible evidence of effectiveness in education policy and practice. We believe these recommendations are especially relevant now, as federal officials consider granting widespread waivers from certain accountability provisions of No Child Left Behind (NCLB). A 2006 Board recommendation, for example, urged the U.S. Department of Education to "use its waiver authority to build scientifically-valid knowledge about what works in K-12 education."[1] The attached memo briefly outlines why such an approach is needed, and how it might work, in any forthcoming NCLB waiver policy.

Importantly, we note that this approach could be used regardless of what form the waivers take – i.e., initiated legislatively by Congress or administratively by the Department; conditioned on state/local adoption of certain policies (as the Administration is considering), or unconditioned (as was done in welfare policy in the 1980s and 1990s). The approach would require no new federal expenditures.

We appreciate your consideration of this matter.

Jon Baron, J.D. M.P.A.
Chair, National Board for Education Sciences
President
Coalition for Evidence-Based Policy
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Bridget Terry Long, Ph.D.
Vice Chair, National Board for Education Sciences
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[1] National Board for Education Sciences recommendation, approved September 2006. Available at http://ies.ed.gov/director/board/res5.asp.

Federal "Waivers" from No Child Left Behind (NCLB) Provisions Should Be Used To Build Credible Evidence About What Works in K-12 Education

Precedent from Welfare Policy in 1980s and 1990s Shows How It Could Work and Benefit Students and Schools

Problem: The U.S. has made little progress in raising K-12 achievement over the last 35 years; a primary reason may be the dearth of credible evidence about what works.

Our nation has made very limited progress: (i) in raising K-12 reading, math, or science achievement since the 1970s, according to the long-term trend of National Assessment of Educational Progress (NAEP) scores; or (ii) in raising the high school graduation rate, which peaked around 1970.

Credible evidence about what works may be the missing piece needed for progress. No Child Left Behind (NCLB) has sought to spur progress by holding schools and districts accountable for improving student achievement and attainment. Yet if schools and districts ask *how* they can meet the NCLB goals – that is, which specific classroom curricula, school reform programs, and teacher training models will get them there – the answer is that too little is known.

Specifically, the number of educational practices proven in rigorous studies to produce sizable gains in achievement, graduation, or other key outcomes is small. Thus, schools and districts are being held accountable for improving student outcomes without having a substantial set of proven strategies to help them succeed. And, unfortunately, predominant *unproven* strategies too often do not work – including those acclaimed by experts and backed by less-rigorous studies. As one of many examples, a recent major randomized controlled trial of 16 leading – in some cases, award-winning – software products for teaching reading and math found no overall difference in reading or math achievement between students using these products in their classrooms, and those receiving schools' usual instruction.[2]

However, research holds a key to identifying important ways of improving educational outcomes for all students. As the examples below illustrate, when schools partner with researchers to identify what does and does not work, considerable gains can be made in education. The following discusses how federal waivers may offer a unique opportunity to advance such partnerships and grow the number of strategies proven to improve key educational outcomes.

Opportunity: U.S welfare policy in the 1980s and 1990s shows how waivers can greatly expand the number of rigorously-evaluated strategies and identify the subset that work.

Specifically, from the Reagan through the Clinton Administrations, U.S. Department of Health and Human Services (HHS) had in place a "demonstration waiver" policy, as follows:

HHS waived certain provisions of federal law to allow states to test new welfare reform approaches, but only if the states agreed to evaluate their reforms in randomized controlled trials. This policy directly resulted in more than 20 large-scale randomized controlled trials of welfare reform programs from the mid-1980s through the mid-1990s.

These trials – along with those that HHS funded directly – built valuable evidence about what works, and helped pave the way for national welfare reform in 1996. Of particular value, they showed convincingly that reform models that emphasized short-term job-search assistance and training, and encouraged participants to find work quickly, had larger effects on employment, earnings, and welfare dependence than reform models emphasizing remedial education. The work-focused models were also much less costly to operate.[3] Such findings helped shape the 1996 federal welfare reform act and the work-focused reforms in state and local welfare programs that followed, leading to major reductions in welfare rolls and gains in employment among low-income Americans.

[2] Institute of Education Sciences (2009). Available at http://ies.ed.gov/ncee/pubs/20094041/pdf/20094042.pdf.
[3] Bloom, Hill, and Riccio (2003). Available at http://www.jstor.org/pss/3325972.

How a similar "waiver-demonstration" policy might work in education:

1. **A state or district seeking a waiver from the U.S. Department of Education would:**
   - (a) **Propose to implement a promising, well-defined program or strategy in a sizable number of schools to improve educational achievement/attainment.** We suggest it be "well-defined" so that, if found effective, it can be replicated elsewhere so that many schools can benefit.
   - (b) **Identify an appropriate sample of its schools willing to participate in a randomized evaluation of the program/strategy** (where schools, classrooms, or students would be randomly assigned to a program versus control group).
   - (c) **Identify a credible evaluator to conduct the evaluation and disseminate the results.**
   - (d) **If needed, request flexibility to use districts' existing federal funds (e.g., from School Improvement Grants or Title I) to pay for the program and evaluation.**
2. **Applicants meeting criteria such as the above would receive a waiver from appropriate NCLB sanctions and legal restrictions on funding to allow the effort to go forward.**

To keep the number of ongoing evaluations to a manageable amount, the Department or Congress might limit this policy to certain types of waiver requests – e.g., those from whole states or large school districts.

Illustrative examples: How such studies can produce credible, policy-important evidence about what works – and what does not – to improve under-performing schools. New York City has used randomized evaluations to assess several of its major education initiatives. Because these evaluations were built into the initiatives from their inception, and measured outcomes using state data that were already collected for other purposes, the studies were done at low cost[4] yet produced convincing, valuable evidence about what did and did not work. They illustrate how a larger national effort to encourage such evaluations through the use of federal waivers could help build the credible evidence needed to make important progress in education.

- **Small Schools of Choice (SSCs).** Between 2002 and 2008, New York City closed many of its large high schools with graduation rates below 45%, and replaced them with SSCs – i.e., high schools that are smaller, academically non-selective, and designed to ensure students receive individualized attention from teachers. For the 105 SSCs that were over-subscribed, slots were allocated by lottery (i.e., random assignment), enabling a rigorous test of these SSCs compared to the schools chosen by students who lost the lottery.
  - **Results four years later: Students assigned to SSCs were 7 percent more likely to graduate from high school, and 10 percent more likely to score above the remedial level in English,** than students in the control group.[5]
- **Teacher Incentive Program in low-performing schools.** This was a $75 million initiative, launched in 2008, in which 396 of the lowest-performing elementary, middle, and high schools in New York City were randomly assigned to (i) an incentive group, which could receive an annual bonus of up to $3000 per teacher if the school successfully increased student achievement and other key outcomes; or (ii) a control group that was not offered the incentive.
  - **Results three years later: The program had no effect on student achievement, attendance, graduation rates, behavior, GPA, or other outcomes** (versus control schools), therefore encouraging the district to focus on other ways of improving outcomes.[6]

Conclusion: As the welfare reform waivers and New York schools examples illustrate, an effective waiver-demonstration policy could help provide states and districts with the valid, actionable evidence they need to improve important educational outcomes for American children.

[4] For instance, the Teacher Incentive Program study (second example) cost approximately $50,000.
[5] MDRC (2010). Available at http://www.mdrc.org/publications/560/overview.html.
[6] Fryer (2011). Available at http://www.nber.org/papers/w16850.

Appendix E:

NBES Memo to
State Leaders – February 2012

MEMORANDUM FOR CHIEF STATE SCHOOL OFFICERS

FROM: Bridget Terry Long, Chair, National Board for Education Sciences and Jon Baron, outgoing Chair

We are writing on behalf of the National Board for Education Sciences – the Congressionally-established board of directors for the U.S. Department of Education's research arm, the Institute of Education Sciences. We strongly support the Department's "rigorous evaluation" offer to states receiving NCLB waivers, outlined below, and encourage you to contact the Institute of Education Sciences to explore next steps (see contact information on the next page).

NCLB Waivers

We encourage you to accept DoED's offer to partner with you on – and fund – evaluations that build credible evidence about "what works" to improve education in your state.

As you may be aware, the U.S. Department of Education's policy on NCLB waivers includes the following invitation to State Educational Agencies (SEAs):

> *The Department encourages an SEA that receives approval to implement this flexibility to collaborate with the Department to evaluate at least one program, practice, or strategy the SEA or its LEAs implement under principle 1, 2, or 3. For example, an SEA could propose to evaluate an aspect of its plan for transitioning to college- and career-ready standards; the interventions the SEA and its LEAs are implementing in priority or focus schools; or its teacher and principal evaluation and support systems. Interested SEAs will need to, upon receipt of approval of this flexibility, nominate for evaluation a program, practice, or strategy the SEA or its LEAs will implement under principle 1, 2, or 3. The Department will work with the SEA to determine the feasibility and design of the evaluation and, if it is determined to be feasible and appropriate, will fund and conduct the evaluation in partnership with the SEA, ensuring that the implementation of the chosen program, practice, or strategy is consistent with the evaluation design.*[1]

We underscore that the Department is offering to pay for and carry out the evaluation, working in partnership with the SEA.

The Opportunity

States have a unique opportunity to learn which of their programs are truly effective in improving student achievement and attainment.

> **During the last 35 years, our nation's schools have made very limited progress:** (a) in raising K-12 reading, math, or science achievement, according to the long-term trend of National Assessment of Educational Progress (NAEP) scores; and (b) in raising the high school graduation rate, which peaked around 1970.
>
> **Credible evidence about what works may be the critical missing piece needed for progress.** The number of educational practices shown in rigorous studies to produce sizable

[1] U.S. Department of Education, *ESEA Flexibility*, September 23, 2011, p.6. http://www.ed.gov/esea/flexibility.

gains in achievement, graduation, or other key outcomes is small, leaving schools and districts without a substantial set of proven strategies to help them succeed. And unfortunately, *unproven* strategies that predominate in this country too often do not work, including those acclaimed by experts and backed by less-rigorous studies. As one of many examples, a recent major study of 16 leading – and in some cases, award-winning – software products for teaching reading and math found no overall difference in reading or math achievement between students randomly chosen to use these products in their classrooms and those receiving schools' usual instruction.[2]

Illustrative Examples

How states and districts have used rigorous evaluations to build important evidence about what works – and what does not – to improve their under-performing schools.

- **The benefits of small schools.** Between 2002 and 2008, New York City closed many of its large high schools with graduation rates below 45% and replaced them with Small Schools of Choice (SSCs) i.e., high schools that are smaller, academically non-selective, and designed to ensure students receive individualized attention from teachers. For the 105 SSCs that were over-subscribed, slots were allocated by lottery (i.e., random assignment), enabling a rigorous test of these SSCs compared to the schools chosen by students who lost the lottery.

  - **Results four years later: Students assigned to SSCs were 7 percent more likely to graduate from high school, and 10 percent more likely to score above the remedial level in English,** than students in the control group.[3]

- **Book fairs to promote summer reading.** This study, conducted in 17 high-poverty elementary schools in two large Florida school districts, evaluated a low-cost program that provided students with books to read over the summer for three consecutive summers starting at the end of first or second grade. The goal was to prevent summer learning loss, the well-established tendency for low-income children's reading achievement to fall relative to their more advantaged peers during summer break. 1,713 students were randomly assigned to (a) a group that participated in the program or (b) a control group that did not.

  - **Results three years later: Compared to the control group, students in the Book Fairs group scored 35-40 percent of a grade level higher on Florida's state reading test.**[4]

- **A teacher incentive program that did not work.** Launched in 2008 in New York City, this $75 million initiative randomly assigned 396 of the lowest-performing elementary, middle, and high schools to either (a) an incentive group, which could receive an annual bonus of up to $3000 per teacher if the school successfully increased student achievement and other key outcomes; or (b) a control group that was not offered the incentive.

  - **Results three years later: The program had no effect on student achievement, attendance, graduation rates, behavior, GPA, or other outcomes** (versus control schools). Based on this important finding, the city ended the program, freeing up resources for other strategies to improving low-performing schools.[5]

***To Find Out More*: Please contact xxxx in DoED's Institute of Education Sciences, at xxxx@ed.gov, 202-xxx-xxxx.**

[2] Institute of Education Sciences (2009). Available at http://ies.ed.gov/ncee/pubs/20094041/pdf/20094042.pdf.
[3] MDRC (2010). Available at http://www.mdrc.org/publications/560/overview.html.
[4] Allington et. al., (2010). Available at http://www.tandfonline.com/doi/abs/10.1080/02702711.2010.505165#preview.
[5] Fryer (2011). Available at http://www.nber.org/papers/w16850.