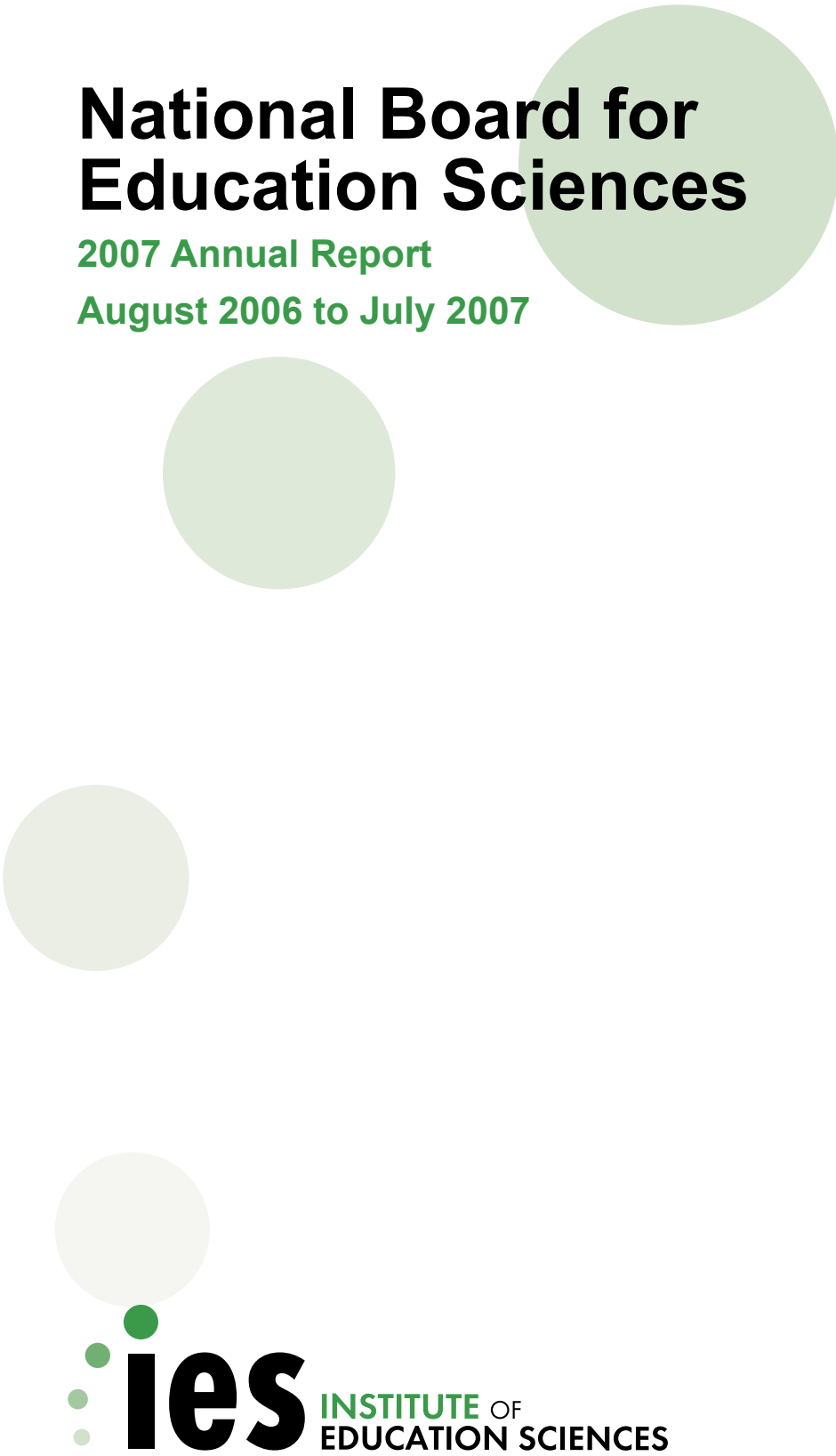


National Board for Education Sciences

2007 Annual Report

August 2006 to July 2007



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On November 5, 2002, Congress passed the Education Sciences Reform Act of 2002 (ESRA), establishing the Institute of Education Sciences (IES, or the Institute) and its advisory board, the National Board for Education Sciences (NBES, or the Board). The Institute reports to Congress yearly on the condition of education in the United States. The Institute provides thorough and objective evaluations of federal programs, sponsors research relevant and useful to educators and others (such as policymakers), and serves as a trusted source of gold-standard, reliable, unbiased information on what works in education.

Members of the Board are nominated by the President and confirmed by the Senate. The Board has met three times. In July 2007, the President nominated a new board member, David Geary, Ph.D., and welcomed a new executive director, Norma Garza, the second person to serve in this position.

Since the inception of IES, significant progress has been made in transforming education into an evidence-based field through

- a notable increase in the number and percentage of research and evaluation projects using scientifically rigorous designs, especially randomized designs;

Example of rigorous, randomized design

Effectiveness of Reading and Mathematics Software Products: Findings from the First Cohort.

This study called for the use of “scientifically based research methods and control groups or conditions” to focus on the impact of technology on student academic achievement.

- the establishment of a credible scientific peer-review process for research and evaluation that is independent of the program offices; and
- the adoption of concrete performance measures for IES that focus on building the number of research-proven interventions that are of policy and practical importance.

ESRA mandates that the Board shall submit an annual report “*that assesses the effectiveness of the Institute in carrying out its priorities and mission, especially as they relate to carrying out scientifically valid research, conducting unbiased evaluations, and collecting and reporting accurate education statistics, and translating research into practice.*” The Board is pleased to submit the 2007 Annual Report in the hope that it will convey the extent of the progress the Institute has made to transform education into an evidence-based field in which decisionmakers turn to scientifically reliable data to inform policies and practices. This report is intended primarily as a summary of developments over the past year. A more systematic assessment awaits

the results of the evaluation now under way, and will be included in our next report.

Research Priorities

At the Board meeting held in September 2005, the Board approved IES's priorities for research. The long-term goals associated with the Institute's priorities are fourfold:

- First, to develop or identify a substantial number of programs, practices, policies, and approaches that enhance academic achievement and that can be widely deployed; second, to identify what does not work and what is problematic or inefficient, and thereby encourage innovation and further research; third, to gain fundamental understanding of the processes that underlie variations in the effectiveness of education programs, practices, policies, and approaches; and fourth, to develop delivery systems for the results of education research that will be routinely used by policymakers, educators, and the general public when making education decisions. By providing an independent, scientific base of evidence and promoting and enabling its use, the Institute aims to further the transformation of education into an evidence-based field, and thereby enable the nation to educate all of its students effectively. (See Attachment A for full text of the approved priorities.)

NBES is pleased with the Institute's initial progress consistent with the priorities above and looks forward to the results of

the ongoing evaluation to provide a more complete appraisal.

Major IES Updates

A. Organization, Staffing, and Budget

IES has a full-time staff complement of about 185 and has been appropriated approximately \$557 million in annual expenditures for 2007 external grants and contracts through seven budget line items:

1. *research, development, and dissemination;*
2. *statistics;*
3. *National Assessment of Educational Progress (NAEP);*
4. *statewide longitudinal data systems;*
5. *special education research;*
6. *special education studies and evaluations;*
and
7. *regional education labs*

and through evaluation and national activity set-asides in the budgets of other U.S. Department of Education programs.

B. Communication and Outreach

● Web-based Dissemination

Based on the most recent information available, IES's website now exceeds 18 million page views per month. IES accounts for about one-third of the web traffic of the entire U.S. Department of Education and substantially more traffic than popular sites such as that of the U.S. Census Bureau.

- What Works Clearinghouse

In July 2007, IES awarded a 5-year contract to Mathematica Policy Research, Inc., of Princeton, NJ, for operation and expansion of the What Works Clearinghouse (WWC). The WWC provides educators, policymakers, researchers, and the public with a central and trustworthy source of scientific evidence of what works in education through high-quality reviews of programs, products, practices, and policies intended to improve student outcomes.

From August 2006 through July 2007, the What Works Clearinghouse produced and released 81 Intervention Reports across the topics of beginning reading, character education, dropout prevention, early childhood education, English language learning, and elementary and middle school mathematics. Of these 81 interventions, the WWC determined that 61 demonstrated positive or potentially positive effects in at least one outcome domain related to student achievement. The Clearinghouse also produced and released six Topic Reports on elementary and middle school math, English language learning, beginning reading, dropout prevention and character education. The topic reports summarize the findings across all intervention reports within a topic area.

Example of a program found to have positive effects in the WWC

Check and Connect. This is a dropout-prevention program for at-risk high school students that assigns them a “monitor” (e.g., graduate student) who serves as a year-round mentor and service coordinator. This program has been shown to be highly effective in two well-designed trials, producing a 40 percent increase in students staying enrolled in or graduating from high school 4 years later, compared to the control group.

- Annual Research Conference

In June 2007, IES held its second conference of what is expected to be a series of annual research conferences. More than 700 people attended the conference, which showcased the wide range of research activities supported by IES and brought together education researchers from around the country. Researchers turned out from more than 100 colleges and universities and nearly 80 companies and research organizations.

- Urban Education Research Task Force

In October 2006, IES announced the formation of a 15-member task force charged with advising IES on issues related to the nation’s largest public school districts. Task force duties include making recommendations of areas of research and data collections

that are not covered through existing programs; helping IES leaders think about the design of large, cross-district research projects; and identifying and supporting greater collaboration between the research community and urban educators.

- Society for Research on Educational Effectiveness

IES has made a competitive grant to support the formation of the Society for Research on Educational Effectiveness (SREE). SREE was formed to provide a home for researchers who have a commitment to using the procedural norms of science to investigate questions of cause and effect critical for effective educational practice.

C. IES Centers

IES Centers' highlights, as outlined in its Director's Biennial Report to Congress, *Toward a Learning Society* (May 2007):

- Twenty-four large evaluation studies are under way in the National Center for Education Evaluation and Regional Assistance (NCEE). NCEE's What Works Clearinghouse and redesigned ERIC digital research library are both thriving, with ERIC receiving 62 million separate searches in 2006.
- The National Center for Education Statistics (NCES) awarded grants to 14 states to create or enhance statewide longitudinal data systems. NCES drew national attention to several reports, and the National Assessment

of Educational Progress remained the "gold standard" of educational testing.

- IES's newest Center, the National Center for Special Education Research (NCSER), devoted considerable energy to organizing, staffing, and putting the mechanisms in place to carry out its responsibilities. Last year, NCSEER conducted grant competitions on 12 different research topics that produced 252 applications and resulted in 28 grants.
- The National Center for Education Research (NCER) experienced a large increase in the number of competitions and the number of applications received. In 2006, 94 percent of funded grant applications received a score of excellent from review panels.

Next Steps

Since inception, the Board has approved the following resolutions:

1. *Congress should designate the Institute of Education Sciences, in statute, as the lead agency for all congressionally authorized evaluations of U.S. Department of Education programs, responsible for all operations, contracts, and reports associated with such evaluations. (September 2006)*
2. *Congress should allow the U.S. Department of Education to pool funds generated by the 0.5 percent evaluation set-aside from smaller programs. (September 2006)*

3. *The U.S. Department of Education should use its “waiver” authority to build scientifically valid knowledge about what works in K–12 education. (September 2006)*
4. *Congress, in authorizing and funding evaluations of federal education programs, should require [program] grantees, as a condition of grant award, to participate in the evaluation if asked, including the random assignment to intervention and control groups as appropriate. (April 2005)*
5. *Congress should create, in statute, effective incentives for federal education program grantees to adopt practices or strategies meeting the highest standard of evidence of sizeable, sustained effects on important educational outcomes. (May 2007)*
6. *Congress and the U.S. Department of Education should ensure that individual student data can be used by researchers (with appropriate safeguards for confidentiality) in order to provide evaluations and analyses to improve our schools. (September 2006)*

The Board is planning to work with Congress, the U.S. Department of Education and IES to advance implementation of these resolutions.

The Board has engaged an independent research team to collect data to assist NBES in an evaluation of IES, which will

look at IES’s effectiveness in carrying out its priorities and mission. The evaluation will provide a systematic and balanced assessment of IES’s progress in the areas of rigor, relevance, and utilization. The findings will aid in identifying any elements of IES and ESRA that will impede the agency’s ability to support and disseminate rigorous research. Due to logistical constraints, this evaluation is expected to be completed in April 2008. Upon completion, the Board will provide a report to the congressional education committees.

Conclusion

NBES members agree that the Institute has made important initial progress in transforming education into an evidence-based field in which decisionmakers routinely seek out the best available research and data before adopting programs or practices that will affect significant numbers of students. Appropriate support from Congress and the American public for evidence-based education can help ensure improvements in academic achievement for all students.

Attachment A

The National Board for Education Sciences has approved research priorities for the Institute of Education Sciences (IES). Proposed by IES Director Grover (Russ) Whitehurst under terms of the Education Sciences Reform Act of 2002, the priorities were submitted for public comment this summer and approved at the National Board's meeting on September 6–7, 2005, in Washington, D.C. The text follows:

The long-term goals associated with the Institute's priorities are fourfold: First, to develop or identify a substantial number of programs, practices, policies, and approaches that enhance academic achievement and that can be widely deployed; second, to identify what does not work and what is problematic or inefficient, and thereby encourage innovation and further research; third, to gain fundamental understanding of the processes that underlie variations in the effectiveness of education programs, practices, policies, and approaches; and fourth, to develop delivery systems for the results of education research that will be routinely used by policymakers, educators, and the general public when making education decisions. By providing an independent, scientific base of evidence and promoting and enabling its use, the Institute aims to further the transformation of education into an evidence-based field, and thereby enable the nation to educate all of its students effectively.

In pursuit of its goals, the Institute will support research, conduct evaluations,

and compile statistics in education that conform to rigorous scientific standards, and will disseminate and promote the use of research in ways that are objective, free of bias in their interpretation, and readily accessible.

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

With academic achievement as the major priority, the Institute will focus on outcomes that differ by periods of education. In the infancy and preschool period, the outcomes of interest will be those that enhance readiness for schooling, for example, language skills, and for infants and toddlers with disabilities, developmental outcomes. In kindergarten through 12th grade, the core academic outcomes of reading and writing (including reading and writing in the disciplines), mathematics, and science will be emphasized, as will the behaviors and social skills that support learning in school and successful transitions to employment, independent living, and postsecondary education. At the postsecondary level, the focus will be on enrollment in and completion of programs that prepare students for successful careers and lives. The same outcomes are emphasized for students with disabilities across each of

these periods, and include the functional outcomes that improve educational and transitional results. The acquisition of basic skills by adults with low levels of education is also a priority.

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

The successful pursuit of the Institute's goals and priorities requires increased capacity to produce and use rigorous education research. To that end, the Institute's priorities include support of postdoctoral training and interdisciplinary doctoral training in the education sciences, development and refinement of education

research methods, and expansion and use for research of longitudinal databases that link student data to information on the conditions that affect outcomes, such as curriculum. To assure increased capacity to use and apply the results of research, the Institute will support systematic reviews of evidence, enhanced access to findings through advanced information systems, and outreach to parents, educators, students, policymakers, and the general public.

These are not exclusive or absolute priorities: To the extent that resources permit and the Institute's priorities are being adequately addressed, the Institute may address other important education issues.

