



October 31, 2014

Thomas Brock, Commissioner  
National Center for Education Research  
and  
Joan McLaughlin, Commissioner,  
National Center for Special Education Research  
Institute of Education Sciences  
555 New Jersey Ave., NW  
Washington, DC 20208  
E-mail: Comments.Research@ed.gov

Dear Commissioner Brock and Commissioner McLaughlin:

On behalf of the American Educational Research Association (AERA), I am pleased to provide feedback on the focus and work of the National Center for Education Research (NCER) and the National Center for Special Education Research (NCSER). AERA is the major national scientific organization that strives to advance knowledge about education, to encourage scholarly inquiry related to education, and to promote the use of research to improve education and serve the public good. Many of AERA's 25,000 members have received grants from both centers, and they have contributed important scientific findings to inform education policy and practice. Therefore, we welcome the opportunity to contribute to your effort.

We concur heartily with your observation that you can be proud of the accomplishments of both centers. A scan of the award list and of the AERA highly ranked, peer reviewed journals underscores the significance of the research and the payoffs from IES investments. We applaud also the fact that you are not complacent about what your centers have achieved and that you seek both to reflect on the past and to consider how your centers might best advance research and set priorities for the field.

Overall, NCER and NCSER with limited resources over the last decade have contributed to expanding the knowledge base and increasing the rigor of federally-funded education research, including through the development and use of emerging methodological approaches and the pre-doctoral and postdoctoral training of scholars to conduct education research. Data and publications stemming from NCER- and NCSER-funded research have also promoted the understanding of phenomena in teaching and learning in early childhood, elementary and secondary, and postsecondary education. Building on extant data sets and the collection of new data have also helped to refine measures and methods that can have a broader impact on the field than a single specific study or work.

AERA would also be remiss if it did not applaud the development and preparation of the *Common Guidelines for Education Research and Development* (2013), the two-year collaborative project between IES and the Education and Human Resources Directorate of the National Science Foundation. While this initiative was not the singular work of your two centers, the contributions of NCER and NCSER loom large. The *Common Guidelines* are instructive to potential applicants, peer reviewers, and agency

decision-makers about the genres of research (foundational research and early-stage or exploratory research; design and development research; efficacy, effectiveness, and scale-up research) and their differing purposes, justifications, and the guidelines for the evidence to be produced. It is an exceptional piece of work that is a contribution in its own terms but also can be an asset in guiding the future work of both NCER and NCSER.

In reflecting on this invitation and preparing this response, AERA takes seriously the IES mission “to provide rigorous and relevant evidence on which to ground education practice and policy.” AERA is similarly dedicated to urging investigators to pursue research with the highest standards of excellence—bringing theories, methods, and modes of analysis to bear that are most appropriate to the problems being addressed and the stage of knowledge production most needed. To further inform our own observations, over the past couple of months, we reached out to NCER and NCSER grantees, as well as to scientific leaders in the field to gain their insight on the questions in this request.

We take each of the questions in turn below.

*Question 1: What are the characteristics of education and special education studies that have had the most influence on policy and practice during the past 10 years? What lessons can we draw from these studies to inform NCER’s and NCSER’s future work?*

- It might seem obvious to say that efficacy and replication studies or scale-up evaluations have had the most influence because they are most adjacent to policy and practice. Here we urge the leadership of NCER and NCSER to adhere to the advice set forth in the *Common Guidelines* especially in assessing the value of your investments in studying some of the most complex, multiply-determined challenges in teaching and learning. While each study or program of research should meet the standards of rigor appropriate to the study, the most relevant bodies of knowledge evolve from iterative, rather than linear discovery. The *Guidelines* and similar documents (e.g., AERA’s 2006 *Standards for Reporting on Empirical Social Science Research in AERA Publications*) should more than serve to effectively guide future research.
- The expanded use of randomized controlled trials (RCTs) in the study of educational interventions has been a valuable and important methodology for enhancing the rigor of research. Quasi-experimental methods and experimental designs embedded in other methods (e.g., surveys) could also be beneficially employed. Further, unless grant solicitations are specifically focused on targeted ends, both NCES and NCSER should craft requests for proposals (RFPs) that encourage the use of the full spectrum of scientific methods and multiple methods appropriate for exploratory and explanatory purposes.
- Intervention research has contributed to the discovery of effective programs at small scale, providing an evidence base for further use and research at a larger scale.
- Studies using longitudinal data, including data sets from the National Center for Education Statistics, provide an important context for furthering the understanding of educational processes inside and outside of the classroom. Over the past years, there have also been some efforts to connect IES-funded research to the statewide longitudinal data systems (SLDS). Further attention to the value of connecting to SLDS in research funded by NCER and NCSER not only could add to cumulative knowledge but also could yield relevant insights for practice and potential interventions.

- Investing in replication studies; in sharing of data, instruments, code, and software; and in registries and other vehicles for reporting of null results with observational data as well as RCTs would elevate the quality of research and its relevance to practice and policy.

Question 2: What are the critical problems or issues on which new research is needed?

IES is perceived by different stakeholder groups to be a high-integrity, trustworthy agency dedicated to high-quality research. Thus, NCER- and NCSER-funded research and findings can provide a base of evidence for policymakers, teachers, and leaders at the school-, district-, and state-levels. Over the past decade, NCER and NCSER have staked out topics (approximately 16 for NCER and 11 for NCSER) that reflect long-term priorities and interests.

Complementary and other emerging issues of interest include:

- College and workforce readiness
- Teacher and principal preparation
- Teacher effectiveness and professional development in special education
- Social and emotional learning
- School discipline policies, their effects on students, and the evaluation of related tools in assessing behavior (e.g., positive behavior intervention and support)
- School climate and indicators that promote school safety
- Implementation and evaluation of standards adopted by multiple states (e.g., Common Core, Next Generation Science Standards)
- School turnaround strategies
- Financial aid policies and their effects on postsecondary costs and student loan debt
- Prevention of disabilities
- Effectiveness of assessment tools
- Games and learning, internet/new media learning, and online learning
- Research on the variation of implementation of interventions or technical assistance

Hot topics of study and new issues of salience are important to consider (the illustrative list above is but one), but NCER and NCSER need also to reflect on whether the topical approach produces the sustained and significant knowledge it ultimately seeks to provide. Appendix A (attached) uses the IES data on *Funded Research Programs and Grants* over a decade—from 2004-2013 for NCER and NCSER. As can be seen in the tables therein, for both centers, the number of awards and awarded dollars per topical area overall and by goal show a broad investment, with approximately 550 awards and \$928,970,218 for NCER and 247 awards and \$450,842,883 for NCSER. These data also indicate some core areas of emphasis. For NCER, for example, the leading areas for grants are cognition and student learning, mathematics and science education, and reading and writing—with grants in these areas spread across goals and with these three areas receiving the highest allocation of dollars.

It may be that, with rare exceptions (e.g., nascent areas where a specified topic warrants dedicated research), the detailed specification of topics limits IES' capacity to produce research with the broadest impact in relation to all the five goals. NCER and NCSER should consider the wisdom of substantially reducing the number of topics, introducing some new and very important topics (e.g., social and emotional learning), and then introducing a major RFP for investigator-initiated research across all goal levels. Consistent with the *Common Guidelines*, such an RFP should be equal in rigor and, if tagged to

goals, equally as germane to policy and practice. It could yield a more fulsome portfolio of innovative ideas than NCER and NCSER continuing to provide a structured topical list that in the end yields a wide spread of grants across many issues.

That said, there is one area equally germane to NCER and NCSER that merits special attention—the challenge of persistent inequality in learning produced, or at least not sufficiently ameliorated, by education. Researchers supported by IES have made much progress in this area, and it is a specified IES priority. Nonetheless, we are now at our stage where both centers could productively give special attention to research that addresses such factors as socioeconomic conditions, cultural assets, educational opportunities in diverse geographic areas that can help shape or limit the efficacy of interventions intended to provide equity in educational outcomes. NCER and NCSER might similarly put a research priority on instructional and situational factors that accelerate learning of students who enter school with special educational needs or enter significantly behind peers with backgrounds better aligned with success in terms of current educational contexts and practices.

*Question 3: How can NCSER and NCER target their funds to do the most good for the field?*

AERA has urged Congress to increase funding for all of IES in order for the agency to fund more high-quality and rigorous education research projects. Both NCER and NCSER have received less funding over the past few years due to sequestration and the reliance on continuing resolutions for appropriations. Indeed, NCSER was not able to fund any new research grants in FY 2014. We appreciate fully that NCER and NCSER are operating with limited resources and have not been able to award all of the proposals that qualify for funding. We encourage the centers to continue to fund as many high-quality proposals as they can, but note some areas where NCER and NCSER could enhance awarded projects.

**1: Develop a mechanism for funding interdisciplinary and cross-cutting projects.** Too often, education researchers are separated by subfields within education research, by discipline, or by the methodology used in their work. As an example, NCER currently provides training for conducting interdisciplinary work, but this important professional development can be hampered in the grant application process as an applicant is required to submit a proposal for a specific research topic (e.g., Cognition and Student Learning). This requirement holds even when there is overlap among other research topics. The National Science Foundation (NSF) has several initiatives that encourage interdisciplinary research among different scientific disciplines and fields. We would encourage the development of a similar effort at IES and a leadership role by NCER.

**2: Encourage grantees to use existing data sets, including from NCES and other federal statistical agencies, federally funded longitudinal data, and state longitudinal data systems.** Encourage the exploration of data linkages including to new and additional primary data collection. Encourage the use of various forms of “big data,” with particular attention to exploring and enhancing the quality of these data and methods of analysis attentive to the limitations and potential strengths of such data.

**3: With new data collection or enhanced data collection with extant data, require that data are shared (along with research instruments, protocols, and so forth).** Sharing of data and ideally locating data and related deliverables in a public data repository, such as the Interuniversity Consortium for Political and Social Research (ICPSR), is essential to maximizing data use, replication, and preservation.

**4: Apply findings from the recently-funded National Research Center on Policy and Practice to future grantees to foster use and dissemination of NCER and NCSER work.** There is little evidence currently available on how researchers, policymakers, and teachers use research, despite calls for making IES-funded research more relevant and accessible. The National Center for Research on Policy and Practice plans to address this gap by conducting three studies and developing a training module that will advance research on knowledge utilization. Although the center only recently received funding in June, we believe the center would be a valuable resource for future NCER and NCSER grantees to develop strategic mechanisms for disseminating and supporting the use of their findings to various stakeholders.

AERA looks forward to working with you both in continuing to foster sound education research at IES. Please do not hesitate to call upon the Association for assistance in your efforts to shape the future research advances made possible through NCER and NCSER.

Cordially,

A handwritten signature in cursive script, appearing to read "Felice J. Levine".

Felice J. Levine, PhD  
Executive Director

## **Appendix A:**

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**Table 1. Number of Grants Funded by NCER, by Program and Goal, 2004-2013**

<b>Program Name</b>	<b>Goal 1: Exploration</b>	<b>Goal 2: Development</b>	<b>Goal 3: Efficacy and Replication</b>	<b>Goal 4: Measurement</b>	<b>Goal 5: Scale-Up Evaluations</b>	<b>Grand Total</b>
Cognition and Student Learning	20	62	15	5		102
Early Learning Programs and Policies	7	8	13	11		39
Education Leadership	3	4	3	2		12
Education Policy, Finance, and Systems	11	6	14	3		34
Education Technology	1	23	4	2		30
Effective Teachers and Effective Teaching	2	2	1	1		6
English Learners	2	8	4	4		18
Improving Education Systems: Policies, Organization, Management, and Leadership	6	1	4			11
Interventions for Struggling Adolescent and Adult Readers and Writers		6	3	3		12
Mathematics and Science Education	4	36	22	12	5	79
Middle and High School Reform	5	3	3			11
Postsecondary and Adult Education	7	6	15	1	1	30
Reading and Writing	11	26	11	12	4	64
Social and Behavioral Context for Academic Learning	8	16	17	2		43
Teacher Quality: Mathematics and Science Education		21	7	2		30
Teacher Quality: Reading and Writing	1	10	7	7		25
<b>Grand Total</b>	<b>88</b>	<b>238</b>	<b>143</b>	<b>67</b>	<b>10</b>	<b>547</b>

Source: U.S. Department of Education, Institute of Education Sciences (2014). *Funded research programs and grants*. Retrieved from <http://ies.ed.gov/funding/grantsearch/index.asp>.

**Table 2. Amount of Grants Funded by NCER, by Program and Goal, 2004-2013**

Program Name	Goal 1: Exploration	Goal 2: Development	Goal 3: Efficacy and Replication	Goal 4: Measurement	Goal 5: Scale-Up Evaluations	Grand Total
Cognition and Student Learning	\$25,964,609	\$76,110,750	\$34,649,557	\$7,918,691		\$144,643,607
Early Learning Programs and Policies	5,579,064	11,449,930	38,375,398	18,605,100		74,009,492
Education Leadership	2,650,000	5,475,635	9,415,486	3,197,179		20,738,300
Education Policy, Finance, and Systems	6,918,350	7,880,663	24,244,500	4,268,874		43,312,387
Education Technology	1,600,000	35,572,253	13,716,389	2,763,995		53,652,637
Effective Teachers and Effective Teaching	2,587,152	2,647,710	3,427,187	1,291,941		9,953,990
English Learners	1,817,077	11,631,952	10,344,805	6,158,820		29,952,654
Improving Education Systems: Policies, Organization, Management, and Leadership	3,944,558	1,085,309	8,442,410			13,472,277
Interventions for Struggling Adolescent and Adult Readers and Writers		10,444,955	6,494,056	5,909,935		22,848,946
Mathematics and Science Education	1,567,955	52,742,337	64,155,235	19,141,495	\$26,010,466	163,617,488
Middle and High School Reform	1,879,182	4,464,928	7,712,135			14,056,245
Postsecondary and Adult Education	5,992,142	8,075,053	25,706,730	1,568,413	4,899,247	46,241,585
Reading and Writing	12,883,505	37,253,517	23,630,624	19,677,977	22,107,235	115,552,858
Social and Behavioral Context for Academic Learning	9,290,295	20,726,441	48,779,265	3,764,636		82,560,637
Teacher Quality: Mathematics and Science Education		30,219,565	17,974,957	3,048,243		51,242,765
Teacher Quality: Reading and Writing	500,000	14,158,210	19,609,256	8,846,885		43,114,351
<b>Grand Total</b>	<b>\$83,173,889</b>	<b>\$329,939,208</b>	<b>\$356,677,990</b>	<b>\$106,162,184</b>	<b>\$53,016,948</b>	<b>\$928,970,218</b>

<b>Total Number of Grants Per Goal</b>	<b>88</b>	<b>238</b>	<b>143</b>	<b>67</b>	<b>10</b>	<b>547</b>
<b>Average Award Per Grant/Per Goal*</b>	<b>\$945,158</b>	<b>\$1,386,299</b>	<b>\$2,494,252</b>	<b>\$1,584,510</b>	<b>\$5,301,695</b>	<b>\$1,698,300</b>

\*Note that the Average Award Per Grant/Per Goal does not take into account what may be variation both by goal and the duration of the grant period.

Source: U.S. Department of Education, Institute of Education Sciences (2014). *Funded research programs and grants*. Retrieved from <http://ies.ed.gov/funding/grantsearch/index.asp>.



**Table 3. Number of Grants Funded by NCSEER, by Program and Goal, 2004-2013**

<b>Program Name</b>	<b>Goal: Development</b>	<b>Goal: Efficacy and Replication</b>	<b>Goal: Exploration</b>	<b>Goal: Measurement</b>	<b>Goal: Scale-Up Evaluations</b>	<b>Grand Total</b>
Autism Spectrum Disorders	4	9	2			15
Cognition and Student Learning in Special Education	3	1	4			8
Early Intervention and Early Learning in Special Education	26	24	4	6		60
Families of Children with Disabilities		1				1
Mathematics and Science Education: Special Education Research	13	2	2	4		21
Professional Development for Teachers and Related Services Providers	15	1	3			19
Reading, Writing, and Language Development	17	6		9		32
Social and Behavioral Outcomes to Support Learning	21	15	3	5	2	46
Special Education Policy, Finance, and Systems	9	2		10		21
Technology for Special Education	2					2
Transition Outcomes for Secondary Students with Disabilities	8	5	7	2		22
<b>Grand Total</b>	<b>118</b>	<b>66</b>	<b>25</b>	<b>36</b>	<b>2</b>	<b>247</b>

Source: U.S. Department of Education, Institute of Education Sciences (2014). *Funded research programs and grants*. Retrieved from <http://ies.ed.gov/funding/grantsearch/index.asp>.

**Table 4. Amount of Grants Funded by NCSER, by Program and Goal, 2004-2013**

<b>Program Name</b>	<b>Goal: Development</b>	<b>Goal: Efficacy and Replication</b>	<b>Goal: Exploration</b>	<b>Goal: Measurement</b>	<b>Goal: Scale-Up Evaluations</b>	<b>Grand Total</b>
Autism Spectrum Disorders	\$5,876,709	\$24,012,879	\$1,879,500			\$31,769,088
Cognition and Student Learning in Special Education	3,870,698	2,330,163	5,363,583			11,564,444
Early Intervention and Early Learning in Special Education	37,652,259	73,001,820	2,071,821	8,989,361		121,715,261
Families of Children with Disabilities		3,206,013				3,206,013
Mathematics and Science Education: Special Education Research	19,612,980	5,423,672	749,652	6,395,876		32,182,180
Professional Development for Teachers and Related Services Providers	21,397,943	2,856,880	3,306,066			27,560,889
Reading, Writing, and Language Development	23,893,389	19,086,071		14,722,183		57,701,643
Social and Behavioral Outcomes to Support Learning	29,304,027	44,065,773	3,650,887	7,572,010	\$12,456,954	97,049,651
Special Education Policy, Finance, and Systems	13,612,920	8,099,215		13,203,873		34,916,008
Technology for Special Education	2,703,596					2,703,596
Transition Outcomes for Secondary Students with Disabilities	9,974,020	13,011,881	3,880,350	3,607,859		30,474,110
<b>Grand Total</b>	<b>\$167,898,541</b>	<b>\$195,094,367</b>	<b>\$20,901,859</b>	<b>\$54,491,162</b>	<b>\$12,456,954</b>	<b>\$450,842,883</b>
<b>Total Number of Grants Per Goal</b>	<b>118</b>	<b>66</b>	<b>25</b>	<b>36</b>	<b>2</b>	<b>247</b>
<b>Average Award Per Grant/Per Goal*</b>	<b>\$1,422,869</b>	<b>\$2,955,975</b>	<b>\$836,074</b>	<b>\$1,513,643</b>	<b>\$6,228,477</b>	<b>\$1,825,275</b>

\*Note that the Average Award Per Grant/Per Goal does not take into account what may be variation both by goal and the duration of the grant period.

Source: U.S. Department of Education, Institute of Education Sciences (2014). *Funded research programs and grants*. Retrieved from <http://ies.ed.gov/funding/grantsearch/index.asp>.