Proposed new directions for IES research priorities

For discussion at NBES meeting, April 7, 2010

Research funded to date by IES has focused largely—but not exclusively—on the average impacts of schooling practices on test scores in reading and math. This will remain a principal topic of interest. Yet for future research, IES should expand the range of educational outcomes of interest, while still maintaining its focus on student academic achievement. In particular, IES should support work identifying the effects of policies, programs, and practices on educational attainment and on a set of additional cognitive and dispositional outcomes that current research suggests are highly valued in the labor market. In addition, IES should support work that examines the impact of policies, programs, and practices on the equitable distribution of student outcomes with respect to socioeconomic status, race/ethnicity, disability status, English learner status, and gender.

IES should support work that is designed to understand educational and learning processes and the mechanisms through which schooling policies and practices affect students. IES's mandate and work to date have largely focused on answering "what works" questions. In future work, IES should continue to support research identifying effective policies and practices, but with a greater attention to questions of "how?" "why?" "for whom?" and "under what conditions?" This will require i) supporting research on the effects of practices and programs on different subgroups of students; ii) supporting research explicitly designed to test hypotheses regarding mediating processes and mechanisms; iii) supporting research to study the roles of classroom, school, and social contexts in moderating the effects of policies and practices; and iv) supporting research on program implementation processes and the relations among implementation and key contextual, organizational, and leadership factors at the district, school, and classroom levels.

Because questions regarding mechanisms and context are not always answerable within randomized controlled trials, this broadened research agenda must be accompanied by the development of high standards of evidence for such research, similar in clarity and rigor to the high standards IES has set for impact research. IES should support the development of standards of evidence for a broad range of research designs and methods, including i) the investigation of mechanisms and moderators using data from randomized trials; ii) the analysis and use of quasi- and non-experimental evidence for studying schooling processes and context; and iii) the study and measurement of program implementation processes, fidelity and sustainability.

Classroom instruction is the core of schooling processes. However, the knowledge base regarding what constitutes quality teaching, how to identify it, and how to better train teachers remains thin, even as recent research has demonstrated the importance of quality teaching. IES should support more research focused on understanding "quality teaching," including research on how to better train current and prospective teachers.   Such research, in conjunction with the current focus on the identification, recruitment, and retention of "quality teachers," is necessary for improving the quality of instructional

practices in our schools.   This research will require the application of rigorous research methods and improved measurement of classroom contexts and instructional processes to investigate the practices, mechanisms, and processes inside classrooms that lead to increased learning for students.

Inadequate measurement of schooling processes and outcomes remains a substantial limitation to much educational research. IES should support work to improve the measurement of key aspects of educational processes and outcomes. In particular, IES should promote the development of more and better measurement instruments and systems for measuring i) a broader range of student cognitive outcomes (including higher-order thinking) ; ii) important other cognitive and dispositional outcomes (for example, student self-regulation, perseverance); iii) classroom and instructional processes; iv) district, school, and classroom processes related to program implementation, fidelity and enactment; and v) district- and school-level leadership and organizational structures (for example, teacher hiring and placement systems).

IES should dedicate some resources and outreach activities to increase the capacity of the SEA/LEA/practitioner community to conduct and use high quality data analysis, research, and evaluation. Through the REL program, training programs and grants IES can assist state and local education agencies in creating learning systems that use data well, conduct stronger program evaluations, develop robust feedback loops, and foster environments of continuous learning. IES should also support work that encourages collaboration between researchers, policy makers, and practitioners, in order to ensure greater relevance of research to their needs.

IES should foster better aggregation of learning and generalizability of findings from the research and evaluation studies that it sponsors across all of its centers. This will expand the IES role in facilitating the construction of coherent bodies of scientific knowledge regarding schooling and learning processes and incentivizing knowledge building and long-term sustained research. It also entails mechanisms for synthesizing scientific knowledge from multiple studies.