

May 7, 2011. Talk to graduating IES fellows at the Graduate School of Education, University of Pennsylvania.

Thanks so much for inviting me to join you at this special event. You all deserve to be proud – and I hope you are – for Clare, David, Ellie, Nirav, and Whitney, who are finishing and are soon to graduate, but also your family, friends, peers, colleagues and teachers. We at IES are also proud of you, the training you’ve received, and the opportunities ahead of you and the contributions that we expect you to make to improving education.

Let me say a little about the history of the IES pre-doctoral training program. My predecessor, Russ Whitehurst developed this program “to increase the supply of scientists who are prepared to conduct rigorous education research, including developing new interventions, carrying out rigorous evaluations of education programs and policies, and designing and validating assessments and measurement tools.” We at IES feel that this program has been highly successful and I point to you here today as evidence of that success.

IES made its first pre-doctoral training awards to five universities in 2004 and then to an additional five in 2005. Five more followed in 2008 and 11 in 2009, though some of these were renewals from the first set of grants. Next fall, there will be 16 IES sponsored pre-doctoral training programs across the country. Currently there are about 500 IES

fellows and there are 110 former fellows who are in the field as professors, researchers and evaluators in applied research organizations, and I'm especially glad to note, researchers for state and local education agencies. Of course I am also happy to be able to say that at least one former IES fellow is employed at the Institute of Education Sciences. I should also note that I had the privilege of working with many IES fellows at the University of Chicago at the Consortium on Chicago School Research.

In case you haven't noticed, Penn's Graduate School of Education has a major presence at IES and the Department of Education. As you know, we have an esteemed commissioner from Penn, a new associate commissioner, several staff members from Penn, advisors, board members, review panelists and members of technical Work Groups, not to mention grantees. All of which points to the quality of the work here, your influence, and your willingness to really get involved with the tough issues we face in educating our youth today.

Just as Russ Whitehouse saw the need for these training programs, I also deeply value them for several reasons.

Here at Penn, I admire the rigor of the coursework in the program and the way that students study research designs, sampling issues, psychometrics, a variety of analytic methods, and the wide range of tools of the trade, not just for the sake of the methods but for how they are applied to important problems.

I also like the interdisciplinary nature of the Penn program. When students come from fields such as sociology, economics, business and public policy, they cross fertilize and enrich education by bringing different perspectives and traditions to bear on education problems.

The weekly lecture series is fantastic. I looked through the list of speakers the other day and see that you've been exposed to so many important people, projects and methods, ranging from Rick Hanushek's teacher labor market work, Bob Pianta and Heather Hill's instructional measurement research, Dick Murnane's work on the effects of testing, to name just a recent few. I think these opportunities to be exposed to some of the leading thinkers in our field are an important aspect of the program.

Our field needs more interdisciplinary Ph.D. students like you who have studied rigorous research methods -- both qualitative and quantitative -- and understand how to apply them in the real world.

I would like to spend a few minutes talking about my own goals for IES, especially two themes: making our research and evaluation more relevant and usable; while at the same time building a stronger science of education that helps us understand more about the school improvement process, better teaching, and more student learning and the policies and practices that we need to put in place to reach these goals. As we often

say and hear, education research needs to move beyond trying to discover “what works” to learning about why, when, where, for whom and under what conditions.

I think that one key to achieving both of these goals is that we need to work more collaboratively with practitioners and policy makers and build partnerships that engender relevant, useful research that confront the difficult questions. This remains one of my biggest priorities at IES.

We are encouraging these partnerships and collaborations at IES in a variety of ways.

First, our newest RFA’s quote the new IES research priorities:

The work of the Institute is also grounded in the principle that effective education research must address the interests and needs of education practitioners and policymakers, as well as students, parents and community members. To this end, the Institute will encourage researchers to develop partnerships with stakeholder groups to advance the relevance of the Institute's work, the accessibility of its reports, and the usability of its findings for the day-to-day work of education practitioners and policymakers. Further, the Institute will seek to increase the capacity of education policymakers and practitioners to use the knowledge generated from high quality data analysis, research, and evaluation through a wide variety of communication and outreach strategies.

Reading for Understanding. Last year, IES unveiled the Reading for Understanding Research Network, a \$100 million commitment that represents a fundamental shift for us and is our largest single investment. This network is bringing together 130 researchers working in partnership with teachers and school leaders to tackle a critical need: Improving reading comprehension for students from preschool through high school, with a special focus on students from low-income families. These six teams—representing a range of disciplinary specialties including linguistics, cognitive psychology, developmental psychology, reading, speech and language pathology, assessment and evaluation—are working together to rapidly develop instructional strategies, technology, curricula, teacher professional development, and assessments to enable all students to read with understanding.

Regional Education Laboratories. The National Center on Education Evaluation and Regional Assistance at IES supports ten regional educational laboratories. We are about to post Requests For Proposals for a new competition for the ten labs in 2012. The primary mission of the RELs will be to help states and districts systematically use data and analysis to answer important issues of policy and practice with the goal of improving student outcomes. Each REL will build research capacity and a knowledge base in states and districts by:

- (1) Assisting states, districts, and schools in using their data systems;
- (2) Conducting and supporting high quality research and evaluation analyses that focus

on a few key topics; and

(3) Helping education policy makers incorporate data-based inquiry practices into regular decision-making.

The RELs will carry out these priorities primarily by organizing partnerships or networks of practitioners, policy makers, and others in what we are calling "research alliances." A research alliance is defined as a group of stakeholders (Local Education Agencies, State Education Agencies, and others) who agree to work together to use data to learn more about a specific education concern in order to make sound decisions to improve education outcomes. The structure, size, and focus of each alliance will reflect the needs of the region and the administrations four assurances. RELs are encouraged to form regional, cross-state, or cross-district research alliances where appropriate, and/or to partner with existing alliances

Conclusion. I've just mentioned a couple of cases where we are bringing researchers and policy makers and practitioner to help make research more relevant and usable and to build stronger theories and more cumulative and interconnected research that address them. What are those factors and processes that produce positive changes in our schools and classrooms? How do you go beyond "what works" to why, where, when, for whom and under what conditions?

A month or two ago I moderated a panel at the SREE conference “Beyond Impacts: Building an explanatory science of education.” The panelists were among the sharpest social scientists you could assemble: Rebecca Maynard, Mike McPherson, president of the Spencer Foundation, and Judith Singer from Harvard. I asked them what we needed to do to build this explanatory science and here is a summary of their remarks and comments:

- Build a scientific culture of experimentation in partnership with practitioners and policy makers that may result in more, simpler, quicker and cheaper experiments that can lead to improvements in practice and policy
- Embrace and acknowledge the complexity of teaching and of interventions; learn about how schools and districts operate
- Privilege the substance of research on an equal par with its methods;
- Be more ambitious in substantive theory building and testing; build a careful theory of action to help look inside the black box and try to identify the “active ingredients”
- Conduct more synthetic research; think and work across disciplines
- Build a new professional identity in the education research community– the educational equivalent of epidemiology or engineering

What kind of skills do researchers need for this work?

I'm drawing here from a summary that Catherine Snow made of the skills of researchers at Strategic Education Research Partnership and in other organizations that work in partnership with schools and districts, like CCSR and the New York City Research Alliance.

- They are action-oriented researchers who seek to both generate longer-term knowledge while also providing short or long-term service to districts.
- They use their formidable technical skills to help design studies and refine research questions rather than to create questions.
- They develop and use their complex communication skills to engage with practitioners and policymakers.
- They often begin their work with powerful descriptive data to explicate current practices and outcomes in new and useful ways, building a theory of action around the topic of concern.
- And finally, they recognize the interconnectedness of classroom-level, building-level and district-level functioning so as not to create interventions that ignore these relationships.

I think that you here today have these skills and the potential to build them, so I look to you to use them to help improve schools for children today.