Helping States and Districts Swim in an Ocean of New Data
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A few years ago, I was presenting data to a group of senior Chicago administrators and principals who had been charged with a formidable goal: Increase the number of high school students graduating with an ACT score of 20 or above—a score that would give students access to most public colleges in Illinois. About halfway through my presentation I showed a complex graph that demonstrated the likelihood of reaching 20 on the ACT based on 8th grade state test scores. I projected an animated power point slide and first showed that students who <u>exceeded</u> the 8th grade math standard had better than 60 percent chance of scoring 20 or above on the ACT three years later. Then I clicked on the animation to highlight the students who met, but just barely met, the 8th grade math standard. The graph showed that the probability of scoring 20 or above on the ACT three years later for these students dropped to below 10 percent. What I heard then was a collective gasp. Here was a finding that revealed a yawning disconnect between elementary school standards and the demand on high schools to produce college-ready students. Here was a finding that swiftly explained why elementary and middle grade scores looked so much better than high school scores. The standards were completely out of alignment. This illuminated the nature of a major problem in a new way and gave these school administrators a better sense of how to address their new policy goal.

1

Before I came to Washington early last summer, I spent my entire career analyzing data, researching reform and school improvement efforts, and working with members of Chicago's education community to make those findings useful. Hearing a room full of school leaders gasp over a complex graph—well, that's a rare thrill for a researcher.

So, this is the kind of thrill I'm hoping awaits all of you as you promote the useful analysis of school data. Thanks to an infusion of money for state longitudinal data systems and educational reforms that demand timely scrutiny, this nation soon will be awash in an ocean of data from longitudinal systems that promote the linking of data across time and databases, from early childhood into career. As you move beyond *building* these systems to actually *using* them, you can start answering some of the most practical and pressing educational questions facing our schools—such as:

- How many students who were proficient on state tests in 8th grade remained proficient in 10th or 11th grade? (This was the very question I was able to answer with the "Path to ACT 20" example I mentioned above)

- What percentage of students earning credit for Algebra II met college readiness benchmarks on the ACT or earned a corresponding score on the SAT?

- What are college enrollment and graduation trends in the most popular feeder colleges for a particular school district?

- Which schools and districts do the best job of producing growth among advanced students, and which are best at helping struggling students catch up?

- Which teacher training colleges are producing the "best" teacher candidates?

This is a question, by the way, that researchers in Louisiana are trying to unpack. This program, which started to take shape in 2003 at the behest of the Louisiana Board of Regents, links teachers to their student test results, and uses value-added methods to compare the growth of student achievement for both new and experienced teachers. The idea is to see whether certain teacher preparation programs can produce new teachers who outperform their peers from other programs--or even more experienced teachers.

Yet despite all this opportunity, many of you are struggling with significant obstacles – you don't have the time, money or staff you need to answer these questions quickly or comprehensively. Doubtless, many of you must feel like you are drowning in this ocean of new data.

So I want to spend some time talking about what the Institute of Education Sciences is and how we are working to build capacity in this area – especially by developing *mutually beneficial* partnerships among researchers, practitioners and policy leaders.

Conferences such as this one offer an incredible opportunity to learn from colleagues in other states. It also exposes you to the work of some key specialists at NCES and in the Department of Education who are working most closely with data systems. But I'm not sure it's always clear to all of you where IES fits into this mix and how all these moving parts fit together.

IES is the independent research arm of the Department of Education, and by law our work must be free of partisan political influence. We take this independence VERY seriously at IES because the public and Congress need to trust that our work is reliable and scientifically valid. But this doesn't mean we shouldn't collaborate with our colleagues throughout the department of education or consider the policy implications of our work – as indeed we do, not only here in Washington, but in states and districts across the nation. With a budget of **almost $700 million** and a staff of nearly 200 people, IES encompasses four centers. NCES, which as all of you know, collects and analyzes statistics on the condition of education, conducts long-term longitudinal studies and surveys, runs the SLDS program, supports international assessments, and carries out the National Assessment of Educational Progress, also known as the Nation's Report Card. At NCEE, the National Center for Education Evaluation and Regional Assistance, we conduct evaluations of large-scale educational projects and federal education programs – which soon will include examining reforms driven by stimulus funds. This center also informs the public and reaches out to practitioners with a variety

4

of dissemination strategies and technical assistance programs, including the ten

Regional Educational Laboratories, the What Works Clearinghouse and the ERIC

education database. At NCER and NCSER, the National Centers for Education Research

and Special Education Research, we fund top educational researchers nationwide to

conduct studies that seek answers on what works for students from preschools to

postsecondary, including interventions for special education students. These two

centers also support and train researchers across the country.

While your most tangible connection to IES is probably through the SLDS program or

the work of the National Forum, we have a number of projects in the works that we

hope will support your efforts to provide timely descriptive and analytic feedback to

your schools.

As many of you well know, we already provide technical assistance to our SLDS grantees

in the form of consultants, webinars and sponsored "'exchanges" that allow for state

data leaders to visit and share practices with colleagues from other states. We will be

expanding this assistance to states that did not receive SLDS grants but did qualify for

State Fiscal Stabilization Funds under ARRA. Also in the works is a privacy technical

assistance center, a contract we hope to award in September. This center will develop

materials and host regional meetings to shape and share guiding principles on privacy,

confidentiality, and security. IES is very involved in discussions about improving the

Department of Education's technical assistance capacity and building greater coherence among the various support centers across the department.

Two projects underway in NCER show great promise in using existing longitudinal systems to answer some of those critical policy questions I mentioned above. Richard Murnane and his team from Harvard are trying to determine the impact of high-stakes high school exams in Massachusetts. Are students who don't pass the state exam required for graduation more likely to pursue a GED, or alternative diploma? Are they less likely to aspire to and enroll in college? The answers to these questions are already starting to take shape on this critical policy issue.

A team from the University of Pennsylvania, led by Henry May, is using longitudinal data from Florida's K–20 Education Data Warehouse to determine the effects of the International Baccalaureate (IB) Diploma Program on college readiness, college performance and college graduation. Are students from these programs more prepared for college coursework? Are they more likely to graduate on time? The beauty of Florida's system is that it allows researchers to track these students from their high school IB programs into college to weigh the benefits of these increasingly popular programs, which allow students to take and earn credits for college level courses: Is IB paying off in terms of college success and attainment?

I offer these projects as examples of the kind of policy-relevant research we are supporting at IES--work we will continue to fund, especially through a research program called Evaluation of State and Local Education Programs and Policies. I would encourage you all to consider pursuing this opportunity, perhaps by creating partnerships with trusted researchers.

Another effort is taking shape in the knowledge utilization division of NCEE, where we are thinking about what role our 10 Regional Educational Labs can play in developing these partnerships between researchers --who want access to this rich trove of data -- and state and local policy leaders --who want this data used to answer questions relevant to policy and practice. This involves a new vision for defining the technical assistance role of the RELs, which by law also conduct applied research projects and disseminate high-quality findings to inform practice in their regions. Our Lab in the Southwest, operated by Edvance Research, is leading the way on this with a project that is near and dear to my heart because it was inspired by and modeled on the Consortium on Chicago School Research, where I spent most of my career. REL Southwest and the research center at the University of Texas at Dallas' Education Research Center are partnering with 18 school districts, which collectively enroll about 1.2 million Texas students. The Texas Consortium on School Research will conduct their work in three phases, and the work already done by Chicago's Consortium identifying on-track indicators will serve as the basic framework.

As some of you heard from Mickey Garrison on Monday, Oregon, with the help of an SLDS grant, launched a collaborative project among the state Department of Education, local school districts, and the state Higher Education System that trains teachers how to use student data to improve student outcomes in the classroom. Now in its third year, the goal was to create one large professional learning community in the participating districts. Teachers would be trained in data use, and then they would engage their peers in ideas that could help them improve their teaching. At a tiny rural elementary school in Oregon, teachers are starting to use the disaggregated testing data to improve their students' writing skills by focusing on a weakness revealed by the data. These are small examples, tiny interventions, but this is how change happens at the school level.

Another project, supported by a research grant, also relies on a strong partnership between researchers and local agencies. The Kids Integrated Data System (KIDS) was created as a project between the University of Pennsylvania, the city of Philadelphia, and the Philadelphia public schools. UPenn researchers John Fantuzzo, Dennis Culhane, and Trevor Hadley worked with their partners to create a rich, fully integrated data system that would be able to track Philadelphia children from birth to age 21 – which meant pulling in some data that dated back to 1990.

Now you can imagine the obstacles this kind of project would face and the questions this team was grappling with: How do we clean the data, especially when it is old and incomplete? How do we code it uniformly so it makes sense across agencies? How can we ensure privacy? Who is going to manage the system? And most importantly, with so many partners involved, how are we going to agree on the right questions, the most pressing policy concerns? Somehow, this group not only managed to plow through some of their thorniest data challenges, but they also are starting to produce work that is informing decisions around improving both early childhood readiness and high school graduation rates. For example, one analysis revealed the positive effect on preschool for African American boys with one or more "risk factors''—homelessness, exposure to lead, teenage moms – and this sparked new partnerships with outside agencies, who incorporated the research into their programs for pregnant and parenting teens. The researchers also won new funding to bring together other sites using similar integrated models for sharing ideas and learning from one another.

Now I've just spent some time highlighting projects that I believe represent true partnerships between researchers and state policy leaders. But as you all understand, these partnerships are more the exception than the rule. There is mistrust on both sides. Researchers believe states create unreasonable barriers to accessing public data in a timely way. And state leaders are understandably frustrated by "drive-by research"

9

from academics solely focused on their own agendas. These education researchers don't ask the questions that state policy makers need answers to, and they don't share the research they do in a way that's meaningful and relevant to practice.

But guess what? You all have the power to change that imbalance, thanks to the creation of these new SLDS systems. You *should* be collaborating with researchers because you need their expertise and resources to tap into the power of these databases. But you need to be in the driver's seat when it comes to asking the right research questions and getting answers in a timely, understandable way.

Too much time and money have been invested in these systems--and we can't afford to squander this opportunity by letting these divides persist.

Thanks for your time. Are there any questions?