Building Agency Capacity for Evidence-Based Policymaking

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Contents

Introduction: Building Agency Capacity for Evidence-Based Policymaking 1
Better Policy Through Research: Pursuing High-Impact Research in State Education Agencies 3
Making Research Matter for the State Education Agency 23
Building Productive Research Partnerships 40
Technical Assistance to Support Evidence-Based Policymaking: A Conversation with the Regional Comprehensive Centers 53
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Introduction:
The SEA of the Future:
Building Agency Capacity for Evidence-Based Policymaking

Ashley Jochim
Center on Reinventing Public Education

November 2015
State education agencies (SEAs) are increasingly under the gun to boost their effectiveness and advance student outcomes. This means chiefs and their deputies have to make the most of their resources and better understand how well existing programs and policies are (or are not) working in the field.

To do just that, many state leaders are looking to grow their agency’s capacity for generating, evaluating, and using evidence. In the fifth volume of The SEA of the Future, we explore how state education agencies can bolster their ability to use research and data to drive key spending, policy, and program decisions. We draw on the experiences of agency staff from Massachusetts, Michigan, and Tennessee, as well as the work of the Regional Comprehensive Centers.

Carrie Conaway (Massachusetts Department of Education) describes why evidence-building is important, what types of research activities SEAs might focus on, and how to maximize research impact. As the head of the Office of Planning and Research in Massachusetts, Conaway offers SEA leaders concrete examples of how research can guide agency work in key areas like teacher evaluation and expanded learning time.

Nathaniel Schwartz (Tennessee Department of Education) describes how to build a research team within the SEA and details the strategies his agency uses to make findings user friendly (and therefore, more likely to actually be used). Dr. Schwartz cites specific examples of his agency’s work to describe how evidence plays different roles in policymaking, from informing policy design to implementation and evaluation.

Venessa Keesler (Michigan Department of Education) discusses how states can strategically leverage external research partnerships to supplement the SEAs’ own capacity to conduct research and advance evidence-based policy. Keesler draws on her experience working with external researchers in Michigan to describe how SEAs can make the most of partnerships.

Finally, in an audio essay with three Regional Comprehensive Center leaders, we discuss how states can use RCC resources to better connect research and policy. Readers can see a transcript of that conversation at the end of this volume or listen to the discussion in a podcast.

This volume includes practical tools SEAs can deploy around research and data. Ms. Conaway’s essay features a sample policy analyst job description and a research office organizational chart. Dr. Keesler’s essay includes a case study of a research partnership—the Michigan Consortium for Educational Research. Finally, our conversation with RCC leaders surfaced a blueprint for states looking to create a research office (based on Nebraska’s work with the North Central Comprehensive Center).

Through these essays, the accompanying tools, and the more comprehensive supports the BSCP Center provides, we aim to give SEAs a solid foundation on which to build capacity for evidence-based policymaking.
Better Policy Through Research: Pursuing High-Impact Research in State Education Agencies

Carrie Conaway
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November 2015
In spring 2014, my agency, the Massachusetts Department of Elementary and Secondary Education, was at a turning point. We were nearing the end of our first year rolling out our new educator evaluation framework for teachers and principals, with about half our districts having gone through an initial phase and the other half set to begin. While we had general statewide agreement that the old evaluation system didn’t do a good enough job differentiating strong, capable, and weak performance in teachers and principals—or identifying where educators could improve—the first year of implementation had been challenging. Districts struggled with training staff on the new model’s components, finding time for evaluators to conduct and document classroom observations, and identifying appropriate student growth measures. Anecdotal concerns surfaced that some teachers were more likely to get a positive evaluation simply due to the nature of the grade levels, subjects, or students they taught rather than their actual performance, thus creating a perception of unfairness. We planned to use a May 2014 statewide meeting on educator evaluation to acknowledge the new evaluation system’s challenges and districts’ good-faith efforts to implement the new system, but also to rebut misperceptions where we had evidence that they were inaccurate.

Fortunately, we had invested in research and evaluation projects to inform our implementation of the evaluation initiative: that meant we had solid evidence to share while we addressed districts’ challenges head on. We had examined the statewide distribution of performance ratings and compared them to student growth measures on our state assessment to understand how well the educator practice ratings aligned with the measures of educator impact on student growth. We had contracted for a large-scale program evaluation of the new system, including a representative sample survey of teachers and principals, as well as case studies and focus groups in a set of representative districts carrying out the new framework. With the survey conducted just a few weeks prior to the May meeting, we pushed for preliminary survey data so we could share new information on how educators perceived this major state initiative in time for the statewide event.

As a result, my agency’s commissioner was able to share real-time data with the field in his keynote address. From our internal analyses, he could show that the ratings distribution was bell curve-shaped, with the majority of educators rated “proficient” on the summative performance rating, a measure of educator practice. This sharply contrasted with other states, where most educators rated in the highest performance level; our data demonstrated that evaluators were taking seriously the goal of better differentiating teaching performance. From the alignment analysis, he could show that higher professional practice ratings were associated with higher impact on student learning, supporting the rating system’s validity. The external evaluation, meanwhile, found that most educators felt they had received sufficient training
on the system as well as timely and helpful feedback from their evaluators. Importantly, it also showed that while many educators had concerns that the system overall was unfair, nearly 90 percent of those evaluated felt that their own evaluation had been fair. The commissioner used these research findings to acknowledge the work our districts had done to implement the system with fidelity, to show that the new evaluation system had a statewide impact, and to begin to alleviate educators’ anxiety about the system. Our research investment in this key state initiative positioned us to start to shift the state dialogue about the new evaluation system and to better support our statewide implementation.

State education leaders face many choices about whether and how to invest in research and how to structure these inquiries to best support the state’s policy strategy. This essay will focus on where to begin: why research is valuable, what types of research activities state agencies might focus on, how to ensure the research is high impact, and how much it might cost.

**WHY RESEARCH IS VALUABLE**

Our story is just one example of how research has informed our state’s implementation of educator evaluation. We also relied heavily on research to develop our initiative in the first place. We combined the best evidence from existing research literature with stakeholder feedback to establish the program’s broad framework. Educators receive a professional practice rating of “exemplary,” “proficient,” “needs improvement,” or “unsatisfactory,” undergirded by a five-step cycle of self-reflection and goal setting. They also receive a separate rating that gauges their impact on student learning, which involves multiple measures of student achievement and growth over at least two years of data. Research also informed many decisions on the detailed regulatory requirements. The inclusion of staff and student feedback as a required data source for the professional practice rating was influenced by the Measures of Effective Teaching study, which showed these data provide insight on an important dimension of educators’ practice that other data sources fail to fully capture. And our decision not to require a set percentage of an educator’s rating to come from their impact on student learning was based in part on researchers’ cautions that these estimates are often imprecise at the teacher level. Findings from our commissioned program evaluation have shaped our technical assistance to districts: the state’s 2014–15 school year priorities on district-determined measures of student growth, ratings calibration across educators, and human resources practices all stemmed from evaluation findings indicating that these were areas where educators felt they needed more support. We have also deployed our internal analytical staff to monitor implementation, identify problem areas early, and redirect resources and assistance as needed.
But our agency’s research investment goes well beyond educator evaluation. Other recent projects have examined implementation of our 2010 curriculum frameworks in English language arts and mathematics, our school and district turnaround programming and supports, placement patterns of low-income students into special-education programs, the impact of the state’s college merit scholarship program, and the impact of career and technical education on students’ academic outcomes. Some of our research has been done internally, some by university researchers, and some by professional research and evaluation organizations. In all cases, findings are shared with the field and incorporated into the lifeblood of the agency’s decision-making processes.

Why have we spent so much time and effort on research? Because it makes our work better. It demonstrates to the field our commitment to gather and weigh their input and perspective as we implement major initiatives—and it does so in a systematic and democratic way so we do not hear only from those with the influence and power to communicate directly with state leaders. As our opening example demonstrates, research allows us to reframe public discourse about our initiatives and understand where the field faces challenges and needs more support. It helps us stay abreast of implementation challenges as they arise so we can adjust course as needed. It informs our strategic planning, both early on to help identify priorities and later to monitor rollout and outcomes. And it allows us to prioritize our financial and staff resources, determining what technical assistance is most valuable to the field and what resources can shift over time to programs with the greatest evidence of impact. Through all these mechanisms, research helps us continuously improve our program implementation to maximize results for our state’s educators and students.

WHAT RESEARCH CAN DO

Research encompasses a broad range of activities and inquiries that state education agencies can pursue. But all of them help support continuous improvement of policy implementation using various lenses, methodological approaches, and levels of sophistication.

Among the options are:

- **Literature reviews.** Particularly valuable in the early phases of policy development or at key decision points in a program’s implementation strategy, literature reviews let us examine what is already known about a particular policy approach’s likely impact. This can help narrow policy options to those most likely to succeed and can flag potential blind spots or opportunities to expand or refine the program. The federal government offers several useful resources: the What Works Clearinghouse reviews recent research on effective educational practices, the Regional Education Laboratory program has a reference desk service to provide literature...
reviews to education stakeholders, including state education agency staff, and the Comprehensive Center program provides technical assistance to states focused both regionally and on key education policy topics.

- **Descriptive analyses.** Simple descriptive analyses—percentages, averages, medians, and the like—are the bread and butter of many policy analyses, with good reason. They are straightforward to calculate and widely understood by stakeholders. For years in Massachusetts, there was widespread knowledge of and concern over our public colleges’ high remediation rates. But in 2008, we established for the first time that 37 percent of our state’s public high school graduates who enrolled in our public colleges were taking at least one remedial course in their first semester. This specific, concrete link between students moving from the public K–12 system to the public college system garnered far greater attention to and concern about our students’ college and career readiness than the general statewide data previously available. It ultimately resulted in changes to the state’s four-year college admissions requirements and a greater focus on the rigor of the high school curriculum. And it gave us a yardstick against which to measure our progress toward reducing remediation needs.

- **Comparative analyses.** Analyses that allow states, districts, and schools to compare themselves to one another and identify their strengths and areas for improvement are even more powerful. The Massachusetts research office produces a set of District Analysis and Review Tools (DARTs) that use enrollment and demographic data to identify the ten most similar districts for each district statewide, then display a range of simple charts and tables on student performance and other outcomes for these comparison districts. Identifying relevant comparison groups at the state level is particularly important, as it is hard for districts to know which others are most like themselves; the most similar district demographically might be on the other side of the state, far beyond the local district’s radar. Analyzing at the state level rather than the district level allows local educators to focus on their most important work: spotting opportunities to strengthen their practice.

- **Longitudinal analyses.** The last decade’s expansion of state longitudinal data systems has facilitated much greater access to data on trends over time. The DART tools generally display the five most recent years of data on most indicators, and many Massachusetts data series go back ten years or more. The simplest version of a longitudinal analysis compares across cohorts: for example, last year’s 4th graders versus this year’s. More powerful analyses link the same individual students over time and follow their educational trajectories. Massachusetts has used these linked data to
create college enrollment “waterfalls,” starting with the 9th grade cohort and measuring what percentage of them reach key college milestones: graduating from high school on time, enrolling in college, and persisting in college (see Figure 1.) These are published in the DART Detail: Success After High School tool.

**Figure 1. Student Progression from High School Through Second Year of Post-Secondary Education**

![Graph showing student progression from high school through second year of post-secondary education.]

**Policy modeling.** Research can also be beneficial in policy modeling: testing the potential impact of various policy options to help guide decisions. As Massachusetts developed our request for flexibility on certain provisions of the Elementary and Secondary Education Act, we modeled how many districts and schools would likely be affected by our proposals so we could reduce unintended consequences of our proposed accountability system changes. For example, we considered including student attendance in our accountability model, but once we tested it, we realized it made little difference in the determinations for most schools and decided to err on the side of simplicity.

**Predictive modeling.** Predictive modeling uses prior data on a student (or school or district) to predict their future outcomes. Massachusetts uses this approach extensively in its Early Warning Indicator System, which predicts for each Massachusetts student in grades 1 through 12 his or her likelihood of missing key academic milestones: proficiency on grade 3 reading, proficiency on grade 6 English language arts and mathematics, successful completion of all grade 9 courses, and on-time high school graduation.
Each student is assigned a “low,” “moderate,” or “high” risk of missing the milestone based on patterns of similar students in prior years. We produce both individual student-level and aggregate reports of these data and make them available to the educators serving each student through our secure online data system. These data allow district staff to better prioritize their resources and focus on students at greatest risk. The reports are among the most popular in our district data reporting tool.

- **Qualitative data collection.** Quantitative analyses like those above are often fairly straightforward to run, particularly when they involve existing state data. But the nuance of the story—and the anecdotes that can prove so powerful when talking about policy to general audiences—typically comes from qualitative data collections such as interviews, focus groups, and observations. When done systematically, qualitative data collection can also shed light on implementation challenges. Our statewide educator evaluation implementation study included interviews and focus groups of educators in 12 case study districts. This qualitative data indicated that teachers of and staff in non-core academic subjects tended to look the least positively on the new evaluation system. When this finding became clear, our agency worked with four state associations representing these educator groups to develop additional resources to make sure the evaluation system was effectively applied to these roles.

- **Stakeholder perceptions.** Collecting systematic, representative data on stakeholders’ perceptions on policy implementation—whether qualitative or quantitative—can reap enormous benefits for the state. It is a tangible way the state can demonstrate that it is listening and actively responding to criticisms and concerns. And it wards against paying too much attention to squeaky wheels when their perceptions are at odds with the majority opinion. Massachusetts collects these data through satisfaction surveys for superintendents and principals, statewide surveys of stakeholder perceptions on key initiatives, commissioned research, and other sources.

- **Causal analysis.** We are often limited by available data to measuring only whether a particular policy is correlated with an outcome: for example, whether student achievement appears to increase along with implementation of a new policy. But some types of policies and programs lend themselves to what academic researchers call causal analyses: analytical approaches that can credibly claim that a particular intervention actually caused the observed outcome.

Of these, the simplest analytically—but often hardest to implement—is a randomized controlled trial, in which participants are randomly assigned to either receive an intervention or to serve as a control. Because assignment is
random, program participants and non-participants are on average statistically the same before the intervention begins—so therefore any difference between treatment and control groups after the intervention must be due to the treatment (intervention or program) itself. But random assignment is often difficult in real-world policy settings, so researchers have invented other analytical approaches that approximate random assignment. These approaches include comparing outcomes for students who fell just above and below a qualification for eligibility in a program (for instance, a minimum GPA or an income threshold), comparing the trajectory of student outcomes before and after a policy was implemented, comparing outcomes for “treated” students versus other students with similar measurable characteristics, and so forth.

When executed well, all these approaches allow us to be more confident that any difference we see between the treatment and control or comparison group is due to the intervention itself, not other factors that might have changed simultaneously. This can make for convincing evidence to share with legislators and funders. But these studies can also be complex and difficult to explain and can sometimes limit the generalizability of the findings. They are particularly worthwhile when a policy area is highly politicized and a definitive study is needed to address rebuttals, or when a program is new so it is easier to set up a random-assignment mechanism to study its impact.

In Massachusetts, probably the most influential research of this kind has been the work of the School Effectiveness and Inequality Initiative based at the Massachusetts Institute for Technology, which has conducted a series of studies examining the impact of the state’s charter schools on student outcomes by using the school lottery process as a type of random assignment. This work has convincingly demonstrated that students enrolled in charter schools in our state’s urban areas are achieving remarkable performance gains relative to similar students who applied to charter schools but did not gain admittance—and that those gains are greatest among the most disadvantaged students.

• **Cost analysis.** It is valuable but often quite challenging to determine the actual cost of running a program, particularly when much of the cost comes from reallocating existing staff to the new work. Research can shed light on this through resource cost analyses that tie individual salaries and other expenditures back to the programs they support. My agency has used resource cost analysis to examine the cost of implementing Expanded Learning Time, a state grant program that provides $1,300 per pupil to about 20 schools per year to implement a longer school day. We learned that the per-pupil program cost varied from approximately $1,500 to $4,300 depending on how districts chose to pay for the additional time required for staff and external partners to cover the longer day.
have used this insight to develop guidance for new schools entering the program. In cases where it is possible to measure a program’s impact, we may be able to go a step further and analyze the program cost relative to its impact. Such cost-benefit analyses are infrequently done but are increasingly important as state and district leaders look to maximize their K–12 education investments. Several research and technical assistance organizations are leading the way in this area by developing new methodologies and tools for districts and states to analyze how effectively they are using their resources.

CONDUCTING HIGH-ImpACT RESEARCH

With myriad options for analyses, it is crucial that states make smart choices about the research they choose to support. The most important consideration is selecting the right program for study. Principally, the program should be visible and sit squarely on the agency’s strategic agenda so that learning more about its implementation and impact will help drive agency priorities forward. Further, strong candidates for research are policies or programs that are malleable (potentially adjustable on the basis of findings) and durable (likely to be sustained for at least a few years), because this creates conditions where change is possible. If more information about a program’s implementation or impact will not affect decisions about its course—for example, if it has strong support from funders or stakeholders in its current form—or if the program is likely to be short-lived, then further study is likely not worthwhile. That said, if the state could conduct a causal analysis, that methodological rigor might counterbalance the voices supporting the program. But this is as much a political consideration as a technical one.

Almost as important as selecting the right program for study is designing the right set of products from the research. Too often when state education agencies commission research, they require researchers to produce a lengthy document describing the program in great detail and including every imaginable analysis of its impact. This research often comes at the end of an implementation timeline—well past the time when the program is malleable or when its durability can be secured. Massachusetts made this mistake with its five-year evaluation of Expanded Learning Time. We hired an external evaluation firm Abt Associates, to conduct a study of both program implementation and impact. The firm interviewed stakeholders, conducted student and staff surveys, and analyzed state data to measure program outcomes, taking a comprehensive look at the program statewide each year. But we requested just a single deliverable: an annual report covering all findings. Each year the researchers had to wait until well into the fall for our state assessment data from the prior year to become available so they could measure student outcomes from the program. They then needed time
to analyze and write up their findings. As a result, we typically didn’t have a report on the preceding school year until around February of the following year—far too late to influence program design decisions. Further, the 200-page document put off all but the most dedicated program staff from reading it, further diminishing its usefulness. And though the researchers spent considerable time thinking about how to fairly and accurately measure the extent and variability of program implementation, those ideas rarely crossed over to inform our agency’s program monitoring work, let alone into tools districts or schools could use to assess their own implementation. Abt Associates did just what we asked them to do. Unfortunately, the report we explicitly asked for wound up not being useful.

Having learned our lesson the hard way, we now require shorter, differentiated products to more quickly get research findings into the agency’s discourse. We rarely commission the classic end-of-year tome unless the legislature or a grant funder requires it. We only “do the tome” when a program is ending or substantially changing course and we want definitive documentation of the program’s history to date. We now ask the researchers we hire to produce smaller, quick turnaround reports immediately after pieces of data collection are completed so that we can learn from their work in near real time. These might be internal memos, briefings for program leadership, or short summaries of findings intended for district audiences. Even when we are simply sharing data with academic researchers, rather than explicitly commission their work (see box), we require them to produce short, field-oriented summaries of their research papers that we then share with agency staff, superintendents, and principals.
Working With Academic Researchers

University-based researchers are a great resource for conducting high-quality research. Academics interested in education policy want their research to be used and are often eager to contribute to state agency work. They can identify clever ways to answer research questions with existing data or new questions you had not thought to ask. They often can develop a more rigorous research design than your own staff. They can be particularly valuable in politically charged waters, for their work will often be viewed as more independent and even-handed. And if graduate students are involved in a project, investing time in them can pay off in a stream of work for years to come as they become familiar with the state’s data and policy context.

Working with academics, however, also comes with some challenges. The academy values a different skill set than the policy sector. Academics are expected to narrow their focus to a very small question and expend as much time and resources as needed to answer it; policymakers must view each question in a broader context and likely face trade-offs in how much time and effort to expend across different program areas in a dynamic, relatively fast-moving environment. Similarly, complaints about academic writing are legendary; sometimes it seems the academy’s lingua franca is the Greek equation. But most challenging is the subset of researchers who view their interaction with a state agency as an opportunistic request for data with no real spirit of collaboration or partnership to answer questions of mutual interest.

State agencies seeking to work with university-based researchers would be wise to clearly set expectations: What is the expected timeline for the work? Does the state want briefings on preliminary results along the way or an opportunity for agency staff to work alongside the university-based researchers? Should the researchers plan to present their findings at state board meetings or other public forums? An up-front investment in clarifying roles and responsibilities goes a long way toward establishing productive, enduring partnerships.
We also carefully examine variation in program implementation to gain insight into the conditions under which programs work best. To this end, we generally require that researchers produce school- and district-level results, not just statewide aggregations, with the specific schools and districts named whenever confidentiality is not a concern. We also break down results for key subgroups, such as student demographic groups or types of educators. This gives us much better insight into the context of the findings and informs our technical assistance plans.

Finally, we increasingly look for opportunities to turn researchers’ data collection methods into concrete tools for districts. For example, the research team analyzing our educator evaluation implementation came up with a methodology for assessing whether educators’ evaluations met various criteria of our statewide evaluation system; for example, establishing goals, providing effective feedback, and so forth. We are turning this into a toolkit for districts to do their own self-assessments, more efficiently leveraging the dollars invested in that research work. Similarly, we have shared with districts the questionnaires we used for our statewide analyses so they can gauge their own educators’ perceptions of the evaluation system.

RESOURCES NEEDED

To successfully build a central role for research in policy making, sufficient agency resources must be dedicated to the work. A key resource of any state education agency is its longitudinal data system. This can be used both by internal staff and external researchers to answer key policy questions. For internal staff, access to these data and training on how to properly analyze them may be needed to make the most of the data set. (See the “Getting Started” section regarding building an internal research team.) Since external researchers need timely access to these data to conduct most studies, setting up systems to facilitate appropriate researcher access is an important investment in promoting research. The Federal Education Rights and Privacy Act allows state agencies to provide personally identifiable student information to researchers under certain conditions. State agencies should develop memoranda of understanding with researchers that detail those conditions and any additional requirements they may want. For example, states might want to require researchers to provide them with an advance copy of findings before public release or require them to use industry-standard encryption to secure data files.

Another resource, of course, is staff time. Internal staff will need to carve out time away from other priorities to make time for conducting actionable policy analysis. Making sufficient space for this work in your analysts’ portfolios is probably the single most important thing a state leader can do to increase
the use of data and research in policy making. This might be made possible by automating or simplifying some required data collection or reporting activities or by growing the number of staff with analysis skills by retraining existing staff or hiring new staff. Your analysts will also need time to assist external researchers to ensure that these external parties are using state data accurately. A simple first step is to create a researcher’s guide to your state data, to save staff from repeatedly answering the same basic questions. This guide should include an overview of what data are available to researchers and under what conditions, links to data codebooks with details of how variables are coded and formatted, and any key business rules researchers may need to know to use the data correctly.

It is helpful to have a designated research and evaluation coordinator or at least to have a staff person with those duties as part of a broader work portfolio. This person can help define and execute the agency’s research agenda and serve as a liaison for researchers to help them use state data effectively. But, equally importantly, they can also work with senior leadership and program staff to ensure that the agency gets the most possible out of the research work, whether conducted internally or externally. Because our research coordinator in Massachusetts has a background in both research and program implementation, she can speak credibly to both sides and serves as a valued connector and translator between the two. When we hire external researchers, she ensures our procurement documents include the right information for bidders to be able to design appropriate research projects, getting us more for our money. She also manages most of our evaluation projects to ensure that vendors produce high-quality deliverables and answer our program staff’s research questions.

A common rule of thumb in hiring an external research firm or academic researcher is for an evaluation to cost about 5 to 10 percent of the program budget (lower budgets may be feasible depending on circumstances.) In most cases, the data collection strategy is the key factor driving costs, with three main considerations:

- **The nature of the research questions.** Research questions that can be answered with quantitative analysis of existing data are least expensive; questions that require extensive interviewing, focus groups or other qualitative data collections cost substantially more. Questions that require classroom observations to answer are often the most expensive, since researchers typically need to visit a large number of classrooms to ensure a representative snapshot. That said, classroom observations can also offer the most valuable data since they give evidence of whether your policy or program is affecting classroom instruction—the ultimate aim of most education interventions.
• **The structure of the program.** Programs carried out similarly across all program sites are least expensive to study, since fewer sites need to be contacted to get a representative look. If program sites have flexibility about what or how to implement, the sample selection will need to be more complex and, therefore, more costly.

• **The desired representativeness of the sample.** If all you want is a rough statewide picture on a particular research question, researchers may only need to collect data from a few districts or schools. But if for political or practical reasons you want to ensure that all districts can participate in the study, or you want the researchers to stratify their sample to ensure that different types of districts are included (e.g., rural vs. suburban vs. urban, high- and low-performing, regions within the state), costs may increase.

Another cost factor besides the data collection strategy is embodied in the classic trade-off: “Cheap, quick, and good: pick two.” You can always make a project cheaper if you are willing to sacrifice quality or speed. But if you need an answer quickly, or if the results need to be unassailable, costs will likely be higher.

To give some specific cost examples, in Massachusetts we dedicated about 5 percent of the state’s Race to the Top grant to external program evaluation and hired two additional analysts to support our reporting, analysis, and evaluation work. This gave us sufficient funds to do in-depth implementation analyses of our major Race to the Top initiatives, as well as run specialized studies on other select initiatives. Project budgets ranged from $40,000 for a one-time, small-scale analysis of how districts were using results from a statewide educator survey to a multi-year $625,000 study on educator evaluation, which included substantial qualitative components and a statewide representative sample survey of principals and teachers. A from-scratch, moderate-length statewide survey of all superintendents and principals we developed cost about $40,000 including survey development, deployment, and results reporting for respondents overall and broken down by several district types. When we re-administered a similar survey the next year and requested similar reports, the cost was about half that. We have generally found that a case study done well costs $20,000 to $30,000 per site to look at implementation and outcomes from a single program. Those costs can quickly add up if you want case studies representing the range of districts or schools in the program, in terms of either district characteristics (e.g., urban/rural, size, etc.) or quality of implementation.
Apart from cost, another key resource that supports research in state agencies is agency leadership. Leadership’s role is to consistently signal that research is high-priority work that you want staff to undertake, and that you expect staff to use evaluation results and data analyses as part of your continuous improvement strategy. With competing demands for staff time, research can easily be relegated to the back burner and ultimately never completed. And all too frequently, after the research is completed, the results are left to gather dust. Leadership can drive a culture of interest in both the research findings and in using findings to drive agency and system improvement. Clear direction from the top is critical to ensure a state agency research program’s success.

GETTING STARTED

If you are ready to start boosting your state’s research capacity, below are steps to get started.

1. **Build the Team**
   You probably already have staff analysts who prepare your state’s federal reporting and other special data analyses. These staff may be helpful in conducting research, but do not assume the required skills are identical. Ideally, your research staff should be more than just number crunchers (see box for sample job description and Figure 2 for an organizational chart). They should substantively understand both research methodology and education policy, as well as data analysis. That said, staff do not need doctoral degrees; often master’s students are well qualified for state analyst roles. Look for candidates who have taken beyond the minimum-required graduate coursework in statistics or research methodology and who have worked previously as a research assistant or analyst (not just class research projects.) Demonstrated skill in writing about technical topics for a general audience is key; you don’t want your staff to produce work that you yourself (let alone stakeholders) can’t understand. In Massachusetts we require a writing sample that demonstrates analyst candidates’ skill in writing about data. Second-round interviewees do an exercise in which they analyze state data and produce a short report similar to what they might do on the job. The exercise requires that they make judgments about which data to highlight and clearly explain the results.
Sample Policy Analyst Job Description

Job duties:

• Analyze qualitative and quantitative data on the implementation and impact of the state’s education initiatives

• Develop comparative, longitudinal analyses of state, district, and school performance

• Conduct analyses to model the potential impact of proposed policy changes

• Prepare reviews of recent research literature on key topics

• Work with program staff to identify program goals, implementation benchmarks, and outcome measures to help evaluate their programs

• Write memoranda, presentations, briefing materials, and other reports summarizing findings for program managers and senior executives

Qualifications:

• Strong quantitative analysis skills, preferably including prior work experience in statistical analysis and reporting

• Successful completion of substantial coursework in statistics or econometrics, with coursework in multivariate statistical models and/or research methodology (preferred)

• Ability to use information gathered from research and key stakeholders to identify effective policy levers and promote improved outcomes

• Strong ability to write effectively for general audiences

• Strong project management skills

• Excellent interpersonal skills and collaborative and consultative approach
You may opt to invest in improving existing staff’s research skills in addition to (or in lieu of) hiring outside. Most analysts who completed graduate work more than five years ago will not have had much exposure to today’s more sophisticated analytical techniques. My agency bridged this gap by hiring an advanced graduate student from a local university to teach seminars for the agency’s analysts on those techniques. Our goal was for our analysts to at least understand when such techniques could be appropriately used, even if the analysts were not employing the techniques themselves. Other options for strengthening your existing staff’s research skills are having them participate in national programs such as Harvard University’s Strategic Data Project, sending them to research conferences by organizations such as the Association for Education Finance and Policy or the American Education Research Association, or providing them with training offered by local universities or national centers like the Interuniversity Consortium for Political and Social Research. Staff might also develop formal partnerships with any external researchers the agency is working with to build their skills as they are embedded in their job. All these opportunities will expose them to and connect them with the broader education policy research world.

2. **Build the Agenda**

   If you are just beginning your research work, start small. Pick just one program or policy to study, ideally one that meets the criteria described above: visible, malleable, and durable. Your analyst staff may help you further narrow options by determining which programs have existing data.
or program information (therefore making them easier to study). Consider launching a pilot project; this allows you to embed an evaluation design from the program’s inception, ensuring a knowledge base is built on the program implementation and impact throughout the pilot period. As your agency knowledge and capacity grow to manage the work, more projects become feasible. Ultimately, you should build an agency research agenda that tightly aligns with your agency’s strategic plan, with each goal in your plan carrying a set of attached research questions and planned deliverables to answer them. This will help strategically guide your agency to improve program implementation and heighten impact.

3. Organize the Data

Your state longitudinal data system is a great research resource, but it may take effort to organize it in a way that allows researchers to easily use it for analysis. The first step is to document the available data and business rules, as noted earlier, to save time answering basic questions. Creating special research files that integrate data across sources and removing some identifying student data (such as name and date of birth) may be helpful. That way, as researchers request data or as internal research requests arise, your staff will have everything at hand rather than having to make special files each time. Finally, you should establish a standard data-use agreement or memorandum of understanding that all external researchers must sign to gain access to your agency data.

4. Mobilize Resources

Since your internal staff will be major contributors to your agency’s research, they should play a key role from the get-go in producing analyses to support your agency’s research agenda. That said, some research is best done by external partners, whether local universities, for-hire research firms, or the federal Regional Education Laboratory program (which offers research and data analysis to state education agencies). Nate Schwartz’s essay in this volume provides more details on how to make the “build or buy” choice and how to manage work most effectively.

Consider applying for grant funding to support your research. The Institute for Education Sciences, part of the U.S. Department of Education, recently created several grant programs that can help launch or sustain collaborations between state education agencies and research organizations. In fiscal year 2015, available grants to support emerging partnerships topped out at $400,000 over two years; grants to support major research and evaluation projects hit $5 million over five years. Other local and national funders are increasingly interested in supporting research partnerships as well.
5. **Formalize Feedback Loops**

All this research effort is for naught if it does not improve your agency’s work. In Massachusetts, we use the **U.S. Education Delivery Institute** strategic planning and implementation systems, which provide us with routines and structures for sharing research with agency staff and leadership. Even without this degree of formality, simple steps such as asking analysts or external researchers to write short summaries of their findings and provide timely briefings to leadership and program staff can go a long way to infusing research into the agency’s work. The key is consistently making clear to staff that you expect to have data and information available as you make decisions and that you expect them to use those same data to improve their own work. Having program staff help build the research agenda and questions for their work establishes continuous improvement as an agency goal and creates a way for it to actually happen.

**CONCLUSION**

State education agencies have much to gain from investing in their research capacity. Developing a research agenda that dovetails with the agency’s strategic direction and making thoughtful choices about how to carry out that research agenda gives agencies a better chance of having the right information at hand when they need to shift course or make major decisions. State agencies can also more credibly demonstrate to the field that their input makes a difference in how the agency operates. These factors make research critical to advancing productivity in K–12 education as decision makers become better equipped to make informed decisions and to shift resources to maximize impact. Ultimately, research supports a cycle of continuous improvement that yields better programs and smarter investments.
ENDNOTES

1. I would like to thank Heather Peske of the Massachusetts Department of Elementary and Secondary Education and the CRPE staff, along with two external reviewers, for helpful comments on previous drafts of this essay.


5. Many in this line of work distinguish between research and program evaluation. As with any academic distinction, perspectives abound as to whether a difference between the two exists and, if so, where precisely the line between them is. In the end, the techniques used to conduct studies—the ones I list in this section—are largely the same, irrespective of whether the study is called research or an evaluation. My view is that, from the perspective of a state education agency leader, the distinction is not important.


Making Research Matter for the SEA

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State education agencies (SEAs) have significantly expanded their reach in the past few decades, driven partly by standards-based reforms that make states the primary actor in school accountability and partly by educator evaluation initiatives that grant states new authority to define and measure instructional quality.

This broader state role means that the decisions of today’s SEAs are more consequential and demand more thoughtful analysis than ever before. Yet few SEAs are meaningfully poised to respond to these demands. To date, 21 states have no defined research or analysis office; those that do vary widely in their capacity to take on strategic analysis.

This creates a difficult dynamic. The call for evidence is only growing, as is the recognition that data matters for strategic decision-making. But because state agencies often have little capacity for such work, research and evaluation tends to get outsourced or avoided altogether.

In 2012, the Tennessee Department of Education established an office of research and policy to coordinate internal and external research across the agency. Before this office was created, analytic capacity was scattered throughout the organization; no team had clear ownership over the work. The office’s establishment heralded our state’s intent to have outcome-focused research help drive organizational policy. But it also forced us to rethink how to conduct research and analysis within a state education agency.

Many state departments often view rigorous research as a nice-to-have supplement, but in the meantime, decisions must get made with or without definite evidence. To change this, agency officials must be able to expect in-time analyses that offer clear direction in decisions where the path is not already determined. Success cannot be defined by the research alone but also by the extent to which the research office changes the agency’s trajectory in measurable and meaningful ways.

As we have moved down this path in Tennessee, we have faced choices about how to take on the work most effectively. This essay aims to make these decision points explicit. What defines the research agenda? What are the products? And what structures make it possible to achieve measurable results? The decisions we have made are not necessarily right for every agency, but the questions are ones that each SEA will likely face in prioritizing research-driven practice.
RESEARCH THAT COUNTS: CRAFTING AN AGENDA TO INFORM THE POLICY CYCLE

Researchers within the SEA confront an extravagance of data riches. Where most researchers struggle to gain access to a data set that might allow meaningful analysis, those of us in state departments stand at the base of a waterfall with data rushing past us from every angle.

Ever-expanding data and a broad array of state initiatives make for more research questions than even the most heavily staffed research office could hope to answer. This creates a continual dilemma about how to identify the highest priority topic areas and how to decide where we can get the greatest payoff for our research investment.

Policymakers and observers commonly call for ever-more program evaluation. Although we in Tennessee field internal requests for impact evaluations more frequently than any other demand, we do not think research can focus only on program evaluation if we want the research to drive policy. Such a single-minded focus severely limits research’s influence over practice, as explained further below.

Figure 1 represents a typical policy cycle within an education department. The cycle begins with policy design and moves through implementation and evaluation. But for most policies, the starting point is fairly irrelevant since the cycle constantly iterates among all three components.

Figure 1. How Research Fits in the Policy Cycle
When our research and policy team meets with department members about possible analyses, the discussion often jumps almost immediately to questions about program impact (represented by the “evaluation” box in Figure 1 above). This is understandable since these meetings are usually with officials who have launched a series of policy initiatives and want to know whether these initiatives have made a difference. But confining the research office’s work to the back end of a policy means research cannot inform policy and practice at other key junctures, such as policy design and implementation.

Impact analyses are necessarily backward-looking and often must take place considerably after the fact to be able to draw on outcomes such as state test scores and/or teacher observations. By the time an evaluation can be completed, a policy has often already been in place for several years and state officials are already thinking about an entirely new set of initiatives. Moreover, without careful setup on the front end of the policy roll-out, it can be difficult or impossible to determine the extent to which a change in outcomes represents a true causal effect of the policy.

In order to influence policy on the front end, research within a state department must focus equally—if not primarily—on the other two boxes in Figure 1: policy design and implementation (see Figures 2 and 3 for concrete examples of projects and outcomes aligned with each type of question). The sections below expand on this and offer concrete examples of some of our most successful projects at each stage of the policy cycle.

**Forward-Looking Policy Design Analysis**

Within our Tennessee office, we often refer to work on the design end as “landscape analysis.” By this, we mean analysis aimed at giving department personnel a clearer picture of a particular issue in order to drive initial policy efforts and pilot strategies.

For example, after the Tennessee legislature set aside a relatively small grant to fund pilot strategies aimed at increasing student success on Advanced Placement (AP) exams, we did a landscape analysis of AP testing across the state, focused on understanding the factors that had kept low the numbers of students who actually earned college credit through AP exams. We identified trends in the type of obstacles students faced in different schools; in some schools, AP-ready students were rarely placed into AP courses in the first place, while other schools did better at placement but had few students who chose to pay for and sit the AP exams. By analyzing the landscape, we could offer a framework for classifying schools that prompted a series of differentiated, small-scale pilots aimed at helping remove obstacles we identified. We are now evaluating these pilots and choosing which to expand in coming years.
Similarly, a simple investigation into the typical math course progressions that students followed in different areas of the state yielded the surprising fact that enrollment in 8th grade algebra I (versus 9th grade algebra I) had fallen over several years from nearly a third of the cohort to less than one-sixth, severely limiting the number of students reaching advanced math by 12th grade.

This study started as a design-focused analysis to inform curriculum decisions for our division of curriculum and instruction, but its results triggered an immediate shift in school and district accountability policies. And it prompted prolonged discussion with districts about how to ensure schools make course-placement decisions that push qualified students forward rather than hold them back.

Such design analyses primarily aim to better define the problem our SEA seeks to resolve. Done well, these analyses can sufficiently narrow the scale of the issue and make it concrete so the agency can ultimately make a real difference in the field. If students are not completing the prerequisites for advanced coursework, a statewide program aimed at training new calculus teachers will have little payoff. If schools are not counseling enough qualified students into AP classes, covering the cost of AP tests is unlikely to yield major benefits.

The best landscape analyses also create the conditions for further research on the effectiveness of department programs. A well-defined problem coupled with deep knowledge about the range of challenges and outcomes across the state makes it far easier to propose defined initiatives to solve the problem. These can then be rolled out and rigorously tested in comparison to other proposed alternatives. In our agency, our initial forays into data landscapes often wind up driving the creation of future programs. These data landscapes then serve as necessary precursors to most of the research that follows.

Ongoing Implementation Analysis
In the same way landscape analyses provide the foundation for policy design, implementation analyses serve as a crucial benchmark of progress on the path toward program effectiveness. Yet implementation research is the SEA’s most difficult kind of research. State administrative data tends to offer little in the way of meaningful implementation feedback. And few state departments have the personnel to undertake prolonged, qualitative research.

While our research office is constrained in assessing implementation, we have found that we can offer valuable program development feedback through several relatively limited efforts that do not require the time and travel costs typically associated with deep, qualitative implementation studies.
Most importantly, we have benefitted from an effort launched several years ago with the Tennessee Consortium on Research, Evaluation and Development at Vanderbilt University to **annually survey all teachers and administrators in the state**. Reliable survey data allows us to monitor crucial changes in educator perceptions over time, as well as determine the extent to which the field is aware of and acting on state guidance around key initiatives. For example, the survey has tracked both the extent to which Tennessee’s teacher evaluation system is being faithfully implemented according to department guidelines, as well as how often teachers feel they receive feedback that helps them improve their practice. Data demonstrating success in the first realm and challenges in the second has helped push the department toward initiatives aimed at helping districts use evaluation as an improvement tool. Several efforts around teacher evaluation have been launched in ways that allow rigorous research on their effectiveness.

We have also reaped payoff from “take-up” studies. These simple, descriptive analyses map the extent to which department initiatives reach their desired audience. For instance, when Tennessee offered leadership trainings through its regional offices, department officials noted considerable statewide interest, but few realized these trainings wound up reaching principals or assistant principals in 80 percent of Tennessee schools. Coupled with stats on the take-up of teacher trainings as part of the Common Core transition, as well as teacher subscription rates to regional reading instruction courses, this data allowed our office to map the extent to which state messages had penetrated the school level.

Such studies (which we supplement, when possible, with the work of external researchers who have greater capacity for qualitative work) offer low-cost options to understand the ways state programs develop over time. Like the design-focused research described previously, these studies aim to bring research to bear on department policy long before program evaluation could provide results.

**Backward-Looking Impact Analysis**

Under the right circumstances, impact evaluations can be a smart use of department resources. But circumstances help dictate how helpful these evaluations can actually be. Below, we outline some considerations to keep in mind.

*Impact evaluations are much more likely to yield valid measures of a program’s effect if they are planned as part of a policy roll-out rather than after the fact.* Pilot programs can often provide ready-made opportunities for meaningful evaluation, assuming that someone is thinking about these opportunities during the pilot set up. For instance, in Tennessee the law
required us to create dual-credit courses, offering high school students the chance to receive college credit by passing statewide end-of-course exams. Early on, it made sense to limit some of these courses to a select set of schools. We gathered a pool of interested schools and randomly selected some from each region to create our initial pilot sample. This kept the initial pilot a manageable size and created a gold-standard research design that would allow us to directly measure the effects of the program on student outcomes (as we would have some schools with the program and some schools without, as a control). Recognizing the research design’s strength, the Institute of Education Sciences (IES) awarded $2 million in 2014 to the project partners, including the Tennessee Department of Education, to support ongoing research.

When stakes are high, we recommend passing impact studies to trusted, independent researchers to ensure results are buffered from organizational politics. Evaluations are judgments of program effectiveness, and therefore have winners and losers. Even the most research-driven organization will struggle at times to come to terms with negative evaluations of popular programs. In the case of the dual-credit courses study described above, we enlisted the help of nationally known researchers at the University of Michigan and the University of North Carolina, whose work in this area ensures the final findings will receive serious consideration from both practitioners and academic researchers.

Although state departments administer many programs, usually only a handful are positioned for evaluation results to have an immediate impact on departmental strategy. In these cases, we advocate doing whatever it takes to allow rigorous research to weigh in on the strategy. For example, as part of its Race to the Top grant, Tennessee offered statewide summer teacher trainings through an innovative peer coaching system. As the grant wound down, department staff questioned whether the trainings—though popular—were worth future investment. Our team’s rigorous impact evaluation found that teachers who attended the state trainings both received higher classroom observation scores and saw better student results on state tests. While the effects were not huge, they were enough to deliver a clear cost-benefit payoff, and they helped drive the decision to continue training teachers beyond the federal grant.

Choosing the right program evaluations to undertake means choosing only those questions for which the department has:

A. the right set of decision points;
B. the opportunity to apply appropriately rigorous methods, and;
C. access to data on meaningfully aligned outcomes.
Meeting this criteria demands constant communication between research staff and department leadership, which in turn requires explicit attention to the relationship between the department’s research and operational divisions.

**RESEARCH THAT MAKES A MARK: DRAWING ACTION FROM RESULTS**

Just as the agency’s research agenda needs to speak to the agency's needs, so do research results. Asking the right questions and conducting the right analysis is only a piece of the puzzle. Too often, researchers see the analysis as the endpoint rather than the beginning.

What does it take to make findings meaningful for department leadership?

First, analyses must be done within the right time frame. This does not preclude a lag between project conception and results. Certain questions are likely to be meaningful for long-term department strategy; investing in long-term research on these topics can be worthwhile. Others will only catch the department’s attention if they are linked to particular decision points. The key is to fit the research to the time-frame rather than the other way around. We have seen projects our researchers thought fairly uninteresting take on outsize influence simply because they appeared at a time when people were hungry for our answers. Similarly, we have done other projects that our office saw as hugely important and watched the work languish because we developed the findings at a time when no one was ready to take ownership over the results.

Second, research must be framed to speak to department policymakers. In other words, department personnel must be convinced that the findings relate directly to what they do.

One cannot assume that the questions will speak for themselves. From the outset, the research must be framed to explicitly suggest the kinds of “takeaways” that various department groups might draw from it. In other words, researchers bear the responsibility to explain why findings in one direction or another matter for department policy.

As findings develop, team leads within the department must be given time to process the findings and integrate them into their worldviews.¹ This can only happen through discussion and engagement. Again, it becomes incumbent on the research team to ensure that these department discussions are taking place—to ensure that they not just pass on findings but also launch a reflection on the results that will culminate in department action.

Third, presentation matters. Often, this gets reduced to a discussion about a report’s length and the attractiveness of its graphics. In my job, I am frequently...
reminded that department personnel have so much on their plates that they won’t bother to read anything that is more than a few pages long. Though often true, the simplification around report length sidesteps a lot of other important considerations that help make research influential within a state education department.

After much trial and error, our office of research and policy has adopted several informal principles that guide the translation of initial research and analysis into a product that can drive policy. These are by no means revolutionary; they represent much of what people have said for years about actionable research. However, consciously abiding by the principles has pushed us to make our work both more digestible and more immediately impactful.

In our view, **presenting research to drive policy means constructing an actionable narrative, illustrated with meaningful figures, in order to build lasting frameworks that organize departmental thinking and policymaking within a particular area.** In the space below, I describe these principles in more detail.

**A Clear Storyline:** Policies often get driven by small-scale, anecdotal evidence. This can be frustrating, particularly for researchers, but it is not surprising when we consider that policymakers are necessarily in the business of communication and communication thrives on stories.

We have come to believe that making the findings deliver the same communication power as individual anecdotes is key. Research results must function as stories that lead to a clear conclusion. If it is impossible to put together a list of bulleted takeaways that elucidate a series of potential project implications, the researcher has failed to take the final crucial step to make the research relevant.

During our weekly research team meetings in Tennessee, we listen to research analysts present the studies they are working on and press them with pointed questions to succinctly convey what they are trying to say and what makes it meaningful. Through this process, we work to distill each project to the storyline that offers a clear reflection on department policy. Each eventual product comes with a clear set of driving ideas and implications. The point is not to force every product to only a single page of results, but rather to force every product to make clear takeaway points that convince both researchers and practitioners that the project has offered something concrete to facilitate department decision-making.

**Meaningful Figures:** This is not a call for sophisticated infographics. Every moment spent deciphering a graph’s intricacies is a moment lost to understanding the graph’s implications for the department’s work. If
department staff are accustomed to stacked bar graphs created in Excel, there is no need for anything more. Eventually, as the audience expands, more complex graphic design is worth considering. But we have found that the initial pass should come in a language familiar to the audience.

An exception to the rule of sticking with what people initially know is when certain types of difficult-to-understand graphs or figures can add value to multiple projects. In these cases, it can be worth investing the time to help decipher them for the given audience and regularly include these types of graphs across presentations, allowing department personnel to become accustomed to their look and feel. One example from our work in Tennessee comes from the common observation—that is not specific to Tennessee—that statewide averages tend to mask considerable variation at the district and school levels. To make this picture visible, we present bar graphs, such as Figure 2, where each bar represents a single district (or school). The example figure shows variation in district-level teacher retention. This kind of figure allows easy comparison between individual districts and the state average, it raises a series of questions about the districts (or schools) that fall at the extreme ends of the x-axis—and it can easily be altered to include more information, as in Figure 3, which compares different districts’ ability to retain their most versus least effective teachers. Simply because of the number of bars, such graphs can be initially confusing to a new audience, however, we have used them frequently enough across presentations to make them immediately comprehensible to our audience within the Tennessee Department of Education.

**Figure 2. Overall Retention Rates by District (All Teachers)**

![Overall Retention Rates by District (All Teachers)](image-url)
Frameworks for Anchoring Main Ideas: This principle has prompted considerable discussion across our research team, since the meaning of “framework” shifts from project to project. Yet increasingly we agree that the models and frameworks research can provide for approaching a policy dilemma often add as much value as the quantitative results that fit inside the research. In the best cases, the logic model offers organizing principles for defining an issue that can live on in people’s minds long after they have forgotten the exact numbers that accompanied the principles.

For example, the earlier noted landscape study of Advanced Placement testing across our state developed the idea of an AP-ready student (identified by 8th grade test-score results) and classified schools into buckets based on the types of AP obstacles their students encountered. “Low preparation schools” were high schools whose feeder schools never produced enough AP-ready students to justify AP course offerings. “Low access schools” had AP-ready students but no AP course offerings. “Differential enrollment schools” had low-income, AP-ready students enrolled in AP courses at far lower rates than non-low-income, AP-ready students.

The model included six buckets of schools in all, each of which defined an access problem in a particular way. What developed was both a concrete analysis—X percent of schools are low access schools, Y percent of schools are differential testing schools, etc.—and a broader way of thinking about targeted school supports. As we wrote in a sidebar to the AP report, “Too often, our policy solutions and interventions are crafted as one-size-fits-all policies that fail to differentiate based on the highly variable data coming from individual
schools and districts.” By creating a data-based diagnosis tool for school problems in the AP realm, the research work prompted a discussion on how we could use similar techniques in other circumstances to more accurately identify intervention needs.

Our AP intervention organizing model, and others like it, have taken on a life of their own after initial presentation, recurring in a host of different discussions and prompting different department groups to consider their own work in new ways—even outside of the initial project arena. The right models make individual projects generalizable, providing new vocabulary and new guidelines for confronting recurring policy problems.

STRUCTURING THE WORK

The agency has to commit to make research possible. And this requires supporting arrangements: personnel, resources, and management structures. What does this look like and what does it take to make such support available within an SEA bureaucracy?

Team Dynamics

It is entirely possible for a state department to prioritize research without consolidating its researchers into a single team, but the group structure impacts the type of work that can happen.

Before Tennessee moved to a single-office structure, department divisions carried out high-quality individual pieces of analysis, but no one was responsible for focusing on developing research to inform department-wide strategy. The old structure meant Tennessee lost the ability to deploy research as a surveying tool across programs and divisions. This in turn contributed to our department’s already silo-like nature.

The lack of a unified research office also translated into little to no oversight of the external research partnerships formed during this time. Research partnerships tended to look more like one-sided transfers where Tennessee provided data and researchers carried out their own analyses for their own purposes. Giving a single team oversight over the research agenda has made it far easier to seek out partnerships that answer departmental needs rather than the other way around.

At the same time, a separate research team brings its own challenges, the biggest being a lack of predefined connection with the research’s end-users. In Tennessee, we see building these connections as a discrete component of our work. Each research team member serves as a liaison to a department division, regularly meeting with division staff and seeking feedback on the direction of their research.
Equally important, research team members look for opportunities to perform “technical assistance” for their given division. Technical assistance here refers to the many data tasks that always need doing in a state agency—tasks that would not necessarily classify as research but that require some skill in manipulating data. By pitching in on data-related tasks for different divisions, research team members build the relationships that allow them to meaningfully connect their research to the department’s operational work. Without these personal relationships built on mutual benefit, our research team’s influence would likely be much diminished.

One issue to note: It is easy for technical assistance requests to overwhelm the actual research and analysis work. In Tennessee we have found that the department has an insatiable need for people who can answer questions about data and combine files into new spreadsheets. The quantity of federal reporting always outstrips the quantity of individuals trained to create the necessary spreadsheets; demand for data to be sliced in new ways is constant. While it is important for the research group to provide immediate technical assistance benefit to different department divisions, it is equally important for the research office to be insulated from the department’s many operational data tasks. Without some buffering, the research group will soon struggle to keep up with the day-to-day work of compliance and reporting and fail to serve the strategic purpose for which it was created.

Building and Financing the Team
Making research relevant is difficult work. In Tennessee we have benefitted greatly from ready access to well-trained researchers from institutions like Vanderbilt University. Yet the people we look for are not only those with strong methodological skills (or even with the ability to deal with large and messy data sets). Instead we look for people who are both ready to engage in rigorous analysis and who value the “everything else” described in the above sections that must accompany research to make it relevant.

Happily, the number of applicants who fit this description seems to be on the rise. Organizations like the Strategic Data Project have seen a steady increase in applications and their programs’ cohort size. The Institute of Education Sciences encourages training through pre-doctoral fellowship programs that require focusing on applied research and practitioner collaboration. In Tennessee, we have received a steady stream of well-qualified applicants for every open position and have benefitted from a series of interns from area Master’s in Public Policy programs who seek useful practicum experiences.

But even with a strong research team ready to do the work and an agency that prioritizes research, we in Tennessee still face the reality of limited funding and staffing. One way we have been able to combat this is to explicitly place
our research in service of various federal cost objectives and thus parcel out federal dollars across individual researchers. Each member of our team logs hourly personnel activity reports noting the projects they have worked on and the program link. For example, at the end of the year, one team member may wind up having worked 20 percent of his or her time on Title II initiatives, 30 percent on ESEA Title I initiatives, 40 percent on IDEA initiatives, and another 10 percent on state activities.

Even where federal funding might not be a possibility, the strategy of splitting funding for a research team across the areas where the analysts actually add value remains an important principle for us in Tennessee. Among other advantages, it forces the research team to actually make good on its value proposition. Since research team members are getting paid from buckets of money that other department teams control, our researchers must constantly ensure agency members feel like they receive direct benefit for the dollars spent.

Balancing the Work Across Internal Personnel and External Partners

Even among SEAs with strong research offices, the approach to external partnerships is often quite different. Some SEAs choose to rely on their own analysts to complete most of the work; others farm all projects out to research firms and academic partners. The place where an SEA falls on this spectrum has considerable implications for the type of staff needed to staff the research team.

In Tennessee, we aim to place ourselves somewhere near the center point, claiming most of the quick turnaround and forward-looking analysis for our internal team, and then passing off longer-term evaluations to external researchers. Under this theory, external researchers serve a role that is meaningfully different than that of even the best internal staff members. Research partners offer an independent look at state initiatives, they bring new ideas into the department, and they often use more rigorous (and slower) methodologies than a rapid-response state team. The challenge that states face is finding ways to balance these gains with the additional challenges of taking research outside the agency.

While it is simple enough to define a set of products for research that is created by an internal team of researchers, it is far more difficult to communicate these expectations to a varied set of research partners that are drawn from a wide set of research firms and academic institutions.

Even the best of research partners do not operate within the agency, and so they will tend to be less adept at framing questions and findings in a way that feels relevant and influential than an internal team that communicates with its
constituents on a day-to-day basis. Moreover, research partners face different cost structures and incentives, all of which can interfere with demands of timeliness and/or presentation.

Managing this process while containing the amount of time spent on this management has proved to be a considerable challenge for our team in Tennessee, and we feel like it is an area where we have much to learn from other states. Notwithstanding some striking successes with individual researchers, we continue to struggle to reach a point where the process of partnership—and the considerable cost of time and effort—feels like it consistently pays off in terms of research and policy impact.

DEVELOPING THE WORK

While we have logged several successes tying department practice to research in recent years, our team believes that our current structures fail to meet our agency’s needs in two central areas. First, we are not set up to track recurring metrics over time and to support repeated analysis of these metrics, even as we increasingly produce data points that we would like to track longitudinally. Second, we struggle to connect the dots across research projects (internal and external) within the same areas, contributing to a sense that we are undertaking a series of disconnected studies rather than producing definitive work within a few high-priority focus areas. This final section details our diagnosis of these missing pieces and our strategy for moving from where we are to where we hope to be.

Our team often jokes that we only start new projects, never finish old ones. Successful work produces new metrics and new ways of looking at data that in turn generate further appetite for tracking these metrics over time. For example, analyses investigating the landscape of human capital management across the state (teacher retention, equity in student-teacher assignment, etc.) produced a series of data breakdowns within these areas that department personnel hope to keep tabs on over time, both at the state level to monitor progress on strategic priority areas, and at the district and school levels to target interventions and support district strategic planning. Yet if our group committed to producing yearly analyses or even yearly data reports following human capital metrics at the state, district, and school level—and if we were to meet similar demands in other areas such as discipline disparities, chronic absenteeism, and several others—we would quickly lose the ability to undertake new projects. Moreover, at some point, the work of tracking chosen metrics and analyzing these data starts to look less like research and analysis and more like progress monitoring—a different, though equally vital, organizational need.
To answer this need, we are investigating the possibility of creating a small offshoot group to help coordinate department-wide strategic progress monitoring. With assistance from each division, this team would help ensure that we follow the right metrics and use these as levers to drive our work. The goal would be to take the indicators and tools developed on the research side and put them into the hands of an expanding state audience. Over time, some metrics might develop into established ways of looking at state educational data, at which point they would migrate to our state’s online report card. Others may serve a particular need at a moment in time and then eventually drop out of use. Importantly, the team’s charge would not be to create platforms and structures just to monitor recurring strategic metrics over time (we expect that such data points on their own would be only marginally useful). Instead, the team would work closely within the department and with our regional offices to directly engage others in understanding these metrics and to draw on their expertise in order to surface new ideas for current state strategies.

Our second major challenge has been to connect the myriad research efforts going on simultaneously through our office and external research partnerships. We are in the midst of two internal projects that look at the connection between our state teacher evaluation system, teacher feedback, and instructional improvement. Two other external research projects take on the same topic from different angles. Each of these studies is likely to produce interesting results and we hope each will drive agency action. But each project feels like an individual venture independent of the others, which we believe significantly lessens the total impact. We have not yet managed to create a system or process where we regularly look across current projects to ensure that each ongoing study takes advantage of the other researchers’ information. And we have not developed a way to tell the broader story—to our department or the public—of what we have learned in Tennessee from all the research on teacher evaluation and instructional improvement.

CONCLUSION

As our office continues to develop, we are looking for ways to make each research project contribute to a broader picture of educational practice and policy in Tennessee, potentially with help from outside research organizations. We aim to synthesize findings across our research portfolio to offer integrated recommendations about state and district action. But this work demands both a different skill set and a greater number of positions than our office can currently fund. We join other SEAs in struggling to balance priorities as we identify new project goals.
ENDNOTES

1. For a thoughtful discussion of the time and effort it takes to integrate research results into agency operations, see Melissa Roderick, John Easton, and Penny Bender Sebring, *The Consortium on Chicago School Research: A New Model for the Role of Research in Supporting Urban School Reform* (Chicago: University of Chicago, 2009).
INTRODUCTION

State education agencies (SEAs) have increasingly shifted the focus of their work from compliance monitoring to performance management. Inherent in this shift is a need to use data and information on “what works” to drive decision-making. Leading states are not only investing in longitudinal student data systems that can help track key outcomes over time but also in research partnerships that allow states to make use of their data in sophisticated ways to advance state policy. This chapter focuses on these research partnerships—why they are needed, what it takes to build and sustain them, and the common challenges involved.

THE VALUE OF RESEARCH PARTNERS

As Nate Schwartz discusses in this volume, states can and should build their internal research capacity. But external research partners offer states unique benefits. By leveraging both internal and external resources, SEAs can more effectively and efficiently meet the demand for quality research.

External partners give states unbiased and politically neutral research results that are independent of the state’s policy environment. They can add to (and complement existing) analytic capacity. They integrate both policy and academic approaches to analysis and problem solving. And they can provide needed specialized expertise to support state policy. Think of the SEA-external research partner relationship as a Venn diagram (Figure 1), with the overlap representing shared topics of interest.

Figure 1. External Researchers Can Complement the SEAs’ Research Needs
Flexible Source of Expertise

Research is a specialty field: most researchers focus on just a few areas and become expert in them. Partnering with external researchers allows SEAs flexibility to get the “best of breed” in diverse expertise areas and skill sets. Depending on the question or task at hand, an SEA may need someone who is expert at randomized control trials, survey development, or quasi-experimental designs with longitudinal data. Alternatively, an SEA may want someone steeped in turnaround research, teacher induction practices, or school safety. Finding this breadth and depth from the limited number of in-house SEA researchers is impossible. When SEAs partner strategically with external researchers, they can match agency needs with the person (or organization) with the best mix of technical skills, content knowledge, and interest in policy work.

In our Michigan agency, we faced research questions about the impact of school choice policies on sending and receiving districts that our agency was not methodologically equipped or politically positioned to answer internally. We partnered with a local university researcher who brought the right skills, interest, and profile as an independent observer with no vested interest in what findings the research revealed. In other projects, we have been able to partner with researchers armed with expertise in longitudinal data analysis, methods of estimating “effects” over time while controlling for many factors, and specific econometric modeling skills.

Partnerships with external researchers also establish mutually beneficial connections between research, policy, and practice. An external research partner can serve an SEA as both a source of expertise and as a good critical friend. This can help both the SEA and the researcher cultivate a more nuanced, grounded, politically neutral, and long-range view of how to tackle a problem than might not be possible if each party worked alone. A prime example is the educator evaluation work going on in many states. States are tasked with building the educator evaluation system; researchers in many external institutions have been considering for decades the components of educator quality and how to measure those components. The conversation is enhanced when we have it together—SEAs need to know how to do this work and researchers need their theories to have real-world application.

In my Michigan agency, an initial partnership with an external researcher interested in the impact of mandatory college-entrance exams evolved into a much more elaborate intervention strategy to improve the college matriculation of at-risk students. As the researcher was working through his initial questions, we were developing a postsecondary transition plan. This gave us a chance to try some new strategies and study their effectiveness at the same time. We were also able to connect the researcher with the Michigan College Access Network, creating a three-way collaboration that benefited all involved. We
now know not only the impact of mandatory college entrance exams, but we were also able to develop and offer to districts a suite of research-based, postsecondary supports designed to improve student outcomes.

Benefits and Challenges of Research Partnerships

Benefits:

• Achieving flexible capacity based on need for methodological or topical expertise

• Tapping in-demand talent that would otherwise be out of reach

• Providing fruitful connections between policy, research, and practice

Challenges:

• Finding research partners with the right expertise, interest, availability, and skill sets

• Finding resources to fund the research

• Ensuring results are visible to internal and external stakeholders

GETTING BEYOND THE CHALLENGES OF PARTNERSHIPS

SEAs seeking to build productive research partnerships must overcome several challenges: 1) finding research partners with the right expertise, interest, availability, and skillsets; 2) finding resources to fund the research project, and 3) ensuring results are visible to internal and external stakeholders.

Finding and Developing a Research Partner Relationship

An SEA’s first challenge is identifying a partner with an active research agenda in the agency’s area of interest. Sometimes this is as simple as looking for a researcher with a specific expertise; for example, if the SEA wants to identify best practices in literacy instruction, it can tap leading literacy experts working in local universities or other research organizations.
But often the SEA is interested in broader questions than specific specialty areas cover. For example, a question like, “What are the characteristics of high-performing schools?” could be addressed by research on whole-school reform, reading and literacy, culture and climate, or myriad other topics. But the SEA needs a partner capable of synthesizing all the relevant research literature, not just individual pieces. When the SEA requires broader expertise, the agency can form “umbrella” partnerships with an institution so the state can tap both a range of expertise, from broad to narrow.

Another challenge is balancing the reward structures of external researchers, which differ from those of SEA staff. SEAs focus on (and are judged on) addressing policy problems and ensuring implementation fidelity. Researchers typically focus on (and are judged on) publishing articles in peer-reviewed journals, where journalistic standards and specialization can limit the research findings’ applicability to real-world policy problems.

In Michigan, we have worked to build a bench of external researchers with the right interests and skill sets. While an SEA can mine existing connections to build such a bench, continually building new connections with the research field through conferences, like the Association for Education Finance and Policy, is key. In the Michigan Department of Education, our research staff makes time to attend research conferences twice a year. We prepare for these conferences ahead of time in order to maximize their utility, identifying researchers to connect with and relevant panels to attend.

We also cultivate ties with graduate students, who will eventually move on to full-time research roles. Together with the University of Michigan, we sponsor the Education Data Fellows program, connecting graduate students interested in working with SEAs to expand their technical and policy skills. This program not only boosts our internal research capacity, it also deepens our connections to future researchers.

In Michigan, we have faced a partnership constraint around aligning timelines. Unless an SEA has ongoing research partnerships, or a stable of “on call” researchers, it can be challenging to get a research partner on board, get them up to speed, provide the data, and get results in a policy-relevant timeframe—which is definitely shorter than a typical research-relevant time frame. External partners need to be willing to produce on firm deadlines and produce exactly what the SEA needs.

To better manage these challenges, in Michigan we now try to start all partnerships with a scoping meeting that includes all impacted program and research staff. We use this meeting to establish key milestones and products. We give each of our priority partners firm internal deadlines and a single agency point of contact, rather than trying to manage the relationship in a more informal and ad hoc way.
Research partners who want to work with state administrative data need to have strong quantitative skills and reasonably good detective abilities. The SEA administrative data sets are a departure from what many researchers are used to working with, such as those from the National Center for Education Statistics or small survey data sets. Our SEA has millions of records amassed over decades, and the way things were collected, stored, and documented has changed over time. Schools and districts do not always enter data cleanly and we do not catch all their mistakes. Bottom line: An external partner must be an expert data manager, strong data cleaner, and have the patience to work with data sets that were collected for one purpose—basic reporting—but now are being used for another, namely, program evaluation.

External partners must also be able to translate research into digestible formats for a non-technical policy audience. Overwhelming the superintendent or commissioner with information simply because the research partner is not willing or able to express findings in an easily understandable brief winds up harming—not helping—the SEA research cause.

Family Educational Rights and Privacy Act: Implications for Research Partnerships

The Family Educational Rights and Privacy Act (FERPA) guides both SEAs and external researchers in using educational data and is only growing in importance with concerns over “big data” and how student information is used and shared. An SEA can only re-disclose student data in certain circumstances; they include partners studying outcomes of educational importance and interest to the state. This helps explain why research partnerships and studies need to align with an SEA’s priority policy areas. It also underscores how important it is for an SEA to have thorough documentation on how data are being used. SEAs should refer to the National Forum on Education Statistics Guide to Supporting Data Access for Researchers.
Research partners must also understand the SEA's bureaucratic constraints and be willing to work with the SEA to address emerging challenges. When this understanding and willingness is weak or absent, SEA staff become frustrated and the partnership is less likely to be productive. SEAs need research partners who can serve as partners not only in research, but also in learning. They must be willing to help SEAs develop their processes for this potentially fruitful work.

Funding the Partnership
Building productive partnerships takes resources for both SEA staff and the external researchers. States can seek out partners to compete for funding through the Institute of Education Sciences (IES), foundations, or other grant sources. A growing number of grants are available to research partnerships, such as the Partnerships and Collaborations Focused on Problems of Practice or Policy research program initiated by the Institute of Education Sciences. These grants focus on SEAs and local districts finding research partnerships on mutual topics of interest and are an encouraging development for research-driven SEAs. The grants are designed to support a range of partnerships and large-scale evaluation of state and local programs.

Regional Educational Laboratories as Research Partners
The Regional Educational Laboratories (REL) work in partnerships with state education departments. In Michigan, we have partnered with REL Midwest on several research projects including understanding:

- Which measures predict whether a student is on track for college
- Key issues related to early-childhood education quality
- Which methods are most reliable for evaluating educators
- Which strategies and practices differentiate schools that are beating the odds from demographically similar schools that are persistently low performing

These projects leverage the federally funded REL program resources to inform the state’s ongoing policy and program work.
Building Productive Research Partnerships

To date, IES grants include:

- Evaluation of State and Local Education Programs and Policies, first awarded in 2009 and totaling 17, including the Michigan Consortium for Educational Research (see p.51). Evaluates major state or local policy initiatives using rigorous methods to estimate program impacts.

- Researcher-Practitioner Partnerships in Education Research, first awarded in 2013 and totaling 20. Targets researcher-practitioner partnerships and frequently serves as a precursor to successful bids for the larger evaluation grants above.

- Continuous Improvement Research in Education, first awarded in 2014 and totaling six. Helps states and districts with short-cycle implementation science grants to regularly evaluate a program or intervention in shorter time frames to enable more rapid course corrections and continuous improvement.

In summer 2016, IES will award more grants in each category and run a special competition for evaluation of federal ESEA flexibility waivers.

Timing is a challenge in leveraging grant funds; the grant cycle is often too long to help a state answer a timely policy question. For instance, if an SEA and its research partner apply for a grant in August 2014, they will not hear if their bid was successful until July 2015, with a start date between July and September 2015. That means a nearly year-long lag before work can begin. Meantime, potential partner schools and districts have moved on, policy has shifted, and the imperative for an answer to the policy question may have disappeared. SEAs and researchers are challenged to pick questions and topics that will remain relevant in a year, plus figure out what work to do and how to fund it while they wait for an answer on a grant proposal.

Developing state block grants to fund SEA research questions would enable more flexibility in individual research projects and would greatly benefit SEA and local district research partnerships. The SEA would be the grant recipient and therefore be responsible for both meeting quality research and partnership standards and reporting on progress made with the grant funds. The SEA would have discretion to develop requests for proposals to use grant funds and to select research partners. Ideally, the funds would be used for a mix of short and descriptive “rapid response” studies to respond to immediate policy questions as well as for long-term ongoing partnerships on broad policy areas. This would also support states in developing ongoing partnerships that can be quickly leveraged to respond to new policy research needs without the conventional lag time involved.
Even without grants, partnerships are still possible. The key challenge is identifying researchers positioned to conduct the research without securing new funds. In Michigan, we have successfully partnered with senior university researchers who have built-in access to the needed resources (e.g., research assistants, software) and are relatively free from political interference to pursue relevant policy questions.

Ensuring Visibility and Use of Findings
Ensuring that findings and research products are well disseminated is a critical piece of building productive partnerships. Elsewhere in this volume, we discuss the importance of building internal capacity to produce, interpret, and act on useable research. But SEAs also need research partnership-generated findings to have visibility; it helps state agencies demonstrate that they are using research to make decisions and are invested in having solid information or the “right answer” to a policy question. Many state agencies suffer from a public relations problem of sorts—as the regulatory agency, they are often seen as overly compliance-driven and mired in bureaucracy. When SEAs contribute research, data, and information to the policy conversation, or can support their initiatives and policy decisions with relevant and timely research, it helps create a common conversation around difficult policy topics and, ultimately, can help the agency successfully carry out policies. Researchers, for their part, need their work to be visible because their professional worth is often judged by their success in publishing research and having their results referenced in the public policy domain. Partnerships between SEAs and external research can help researchers achieve public interest in their work.

It can be challenging for states to ensure this visibility. Researchers generally do not write for a policy audience; SEAs generally lack a communications or public relations arm aimed at disseminating research findings. Suggestions for SEAs include:

- **Focus on developing defined deliverables and timelines for each partner.** Michigan requires partners to produce four types of deliverables: a policymaker-focused document (1 to 2 pages, key takeaways); an executive summary; a full report; and a technical working document. Massachusetts requires a four-page summary for all research findings.

- **Highlight with research partners the importance of descriptive statistics and graphical representations.** Many researchers produce these as an afterthought of sorts on their way to the “real question,” but this is valuable information for SEAs. Ask research partners to produce short descriptive reports every three to six months as they work on the larger question.
• **Set regular times for researchers to present ongoing findings within the SEA.** Options include department-wide leadership team meetings, executive team meetings, office-specific meetings, or brown bag lunches. Do this several times a year to help break the information into manageable pieces.

• **Ask research partners for six-month updates outlining their ongoing work and deliverables.** This allows the SEA to take an active role in dissemination, through public releases of information and internal and external presentations.

• **Request that research partners submit to major research conferences and include an SEA staffer as a co-presenter in sessions.** This highlights both the partnership and the work. Discuss the possibility of co-authorship with SEA staff, particularly on policy briefs or white papers geared to more of a policy than academic audience.

• **Preserve researchers’ independence and their ability to publish.** In Michigan, we request a time to review all external researchers’ results for appropriate use of data and FERPA compliance, as well as to arrange our internal messaging if the findings are going to be highly visible or potentially contentious. But we protect the researcher’s academic freedom and do not interfere with the publication of results.
Case Study: Michigan Consortium for Educational Research

In 2010, the Michigan Department of Education entered into a 6-year, $6 million partnership with the University of Michigan and Michigan State University to form the **Michigan Consortium for Educational Research**. The consortium focused on two key questions: what is the impact of the **Michigan Merit Curriculum** and what is the impact of the **Michigan Promise Scholarship**. The partnership also had another aim—to build an ongoing, collaborative research partnership with Michigan’s leading research institutions and use this to beef up the state’s infrastructure and capacity to do research with external partners. A few lessons learned include:

- **How to handle related studies and researchers.** Since the partnership focused on two research questions, initial data approvals were related to those questions, as FERPA requires. But, over time, both universities added new graduate students, postdoctoral fellows, and other interested faculty. While interested in the original questions, these parties were even more interested in the state administrative data and the chance to do relevant policy research. This led to adding research questions and related hypotheses—a new concept for us. From the state’s perspective, a partner got data to do a certain study and when that study was done, the partnership was over. But related questions arise all the time as research unfolds. As the consortium studied the Michigan Merit Curriculum and its impact on achievement, new questions surfaced. What about teacher mobility? What about teacher supply and demand? What about schools that open and close over the study’s life? We had to strike a balance that afforded the consortium enough flexibility to grow while also maintaining strict documentation to ensure we followed the rules around researchers needing to study the educational question for which they are approved, not any question of interest.

- **How to provide appropriate longitudinal files.** The consortium was approved for certain data sets and received those data. But where previous partners had gotten a data dump and then done their analyses, this time we created a standard process for researchers to request a regularly updated longitudinal data.

- **How to deal with special requests.** In the consortium’s desire to address the research questions with the most rigorous data available, researchers often wanted data outside our ‘normal’ data set. This was initially a source of confusion or even worry on the part of the SEA: Why did the researchers want address data? How can we ensure compliance with FERPA’s requirement that we release only the most-needed data? To address this, we assigned an SEA “case manager” to each of our key research partners and, conversely, asked the external researchers to assign a point person on their side. This helps us solve problems and facilitate unusual data requests.
GETTING THE MOST OUT OF A RESEARCH PARTNERSHIP

Building and sustaining mutually beneficial, ongoing research partnerships is not simple. It requires both the SEA and the researcher to build trust and invest in the relationship. The benefits that accrue from these partnerships include high-quality, relevant research using the state’s longitudinal data; regular reports and feedback; data “products” like researcher-ready data files; and being able to deploy the data to drive policy, versus leaving it to sit in data warehouses for reporting use only. To reap these benefits, however, states must overcome some challenges: facilitating work between multiple bureaucracies across different timelines and senses of urgency about the work, as well as communicating results to the public, particularly when negative attitudes prevail toward key policy initiatives.

To maximize partnerships, SEAs should:

- **Leverage institutional and personal relationships within the state.** Spend time developing a professional relationship with researchers. Find individuals who are committed to the state and the use of state data to drive policy; this will help you work through challenges in SEA-research institution collaboration.

- **Think about the strengths of different research universities in your state.** Some might be best at research techniques that use advanced quantitative methods and longitudinal data; others better at studying certain interventions and how they work; others stronger in behavioral research. Research institutions are known for different things. Build the partnerships around strengths. Don’t be afraid to “cherry pick,” taking the best each has to offer.

- **Establish multi-university partnerships cautiously.** These have great potential, but also can compound difficulties in navigating relationships. If you want to partner with multiple universities, make sure you have fully committed individuals from each university, ideally with some demonstrated track record of working together.

- **Get buy-in from SEA people at all levels, from the executive to program offices.** Articulate a clear vision and need for this work, then show some ‘quick wins’ or early value that these partnerships generate. Make sure someone is in place to translate between researchers and program staff—someone who knows the language of each and can help make sure they do not talk past each other.
• **Make sure the questions tackled are answerable.** It would be great to know conclusively what instructional practices are being used in our lowest-performing schools and how those relate to student engagement and motivation—but that is very tough to measure and requires much additional data collection. Many worthwhile questions and studies are much harder to accomplish than others. Prioritize so you can show the partnerships’ value.

• **Be honest with researchers about SEA internal dynamics and politics and the limits of what the agency can do.** Researchers will be better partners if they understand the lay of the land from the outset.

• **Encourage research partners to develop policy briefs in a “question driven” format and address key questions in a non-technical way.** Keep the writing simple, clear, and to the point. *Tennessee’s exploration of course enrollment patterns for high school students* provides a nice example of a research summary designed for a general audience.

• **Set clear expectations, guidelines, and rules, particularly around partners presenting results and giving the SEA sufficient notice.** Make sure external researchers state that their findings reflect the researchers’ work and not necessarily the views of the state education department. Involve the SEA communications office early on to determine concurrent or related messaging and ensure agency staff know when a release is coming. Ensure researchers understand this is not about control or censorship, but about the SEA being able to have a policy-relevant response.

• **Have SEA staff attend key research conferences,** such as those held by the Association of Education Finance and Policy and the American Educational Research Association.

Identifying, recruiting, training, and supporting external research partners provides many excellent opportunities for SEAs, although agencies must invest time and internal resources to develop and maintain an infrastructure to support these partnerships. But the benefits of having high-quality, independent research on major policy areas of interest outweigh the costs. As states have developed comprehensive longitudinal data systems, developing the concurrent infrastructure to use those data is of utmost importance and supports the SEA’s ability to make smart, data-based policy decisions.
Technical Assistance to Support Evidence-Based Policymaking: A Conversation With the Regional Comprehensive Centers

Facilitated By
Betheny Gross

November 2015
The following is an edited transcript of the conversation the editors Betheny Gross (Research Director, Center on Reinventing Public Education) and Ashley Jochim (Research Analyst, Center on Reinventing Public Education) had with Kathleen Dempsey (Director, North Central Regional Comprehensive Center), Caitlin Howley (Director, Appalachian Regional Comprehensive Center), and Paul Kohler (Director, West Regional Comprehensive Center). To listen to the audio, visit BSCPCenter.org. Readers interested in learning more about how one state featured in this conversation built SEA capacity for research should look at the Nebraska Blueprint, featured at the end of this conversation.

Betheny: Many people talk about the value of evidence-building in state education agencies, but it’s often not obvious where states should start or how research can inform their work supporting districts and schools. Paul, can you get us started by telling us a little bit about where you have seen research add value to state education agencies?

Paul: Sure, I’d be glad to do that, and let me as a way to get started, talk about a regional collaborative with four states, and then talk about what’s happened with that. The states I’m going to talk about (Arizona, Colorado, Nevada, and Utah) were all prompted by national initiatives such as Race to the Top, or the school improvement grants, or the ESEA waivers. Each passed legislation on educator effectiveness that set specific requirements and timelines for the new standard statewide systems of teacher and principal evaluation. It included using student achievement as a significant indicator of effectiveness, and this was new for each of these states. Teacher evaluation has both technical components that require validation and implementation, and components that need to be monitored for [implementation] fidelity.

In 2012, the West Comp Center formed a community practice and convened state department education leaders, which included policymakers and stakeholder groups from the four states to address these issues collectively and use available expertise and experiences to inform the design of these new evaluation systems. Once their frameworks were developed and adopted, it was apparent that the studies of these systems would need to be conducted.

The West Comp Center partnered with a regional lab, in this case the Regional Education Laboratory West, to provide assistance to the Arizona Department of Education to study a pilot of the evaluation model in the selected districts. The findings from year one of the pilots informed changes to the program in year two with the West Comp Center and the REL West supporting the translation of findings into practice.

After the pilot was completed, Arizona Department of Ed turned its attention to gathering information on how districts were using the data from teacher evaluations to inform the decisions related to professional development or assignment, compensation, remediation, retention, as well as identifying
teacher leaders. In Arizona, five districts participated in the study to understand how their districts were using the evaluation system and whether it aligned with the state policies and best practice guidelines.

**Betheny: Why do you think [the collaboration] was so effective in this case?**

**Paul:** [T]he three-year collaboration, and, by the way, it continues now into the fourth year, is an example of a strong partnership between the state education agency, a regional lab, which offered guidance in research design, methodology analysis of data, and the West Comprehensive Center, which provided technical assistance in the design and implementation of this system, and in using research findings to inform practice. The focus has been to help the state adopt a thoughtful, evidence-based improvement approach to implementation, and it has been shared work, collaboratively with defining questions of interest, as well as data and methods needed to address them. Then after data are collected by Arizona Department of Ed and the West Comprehensive Center, and analyzed by the regional lab, the preliminary findings were reviewed internally and the implications discussed.

The collaboration has resulted in four of the lab studies and they are available on REL West’s website. Two have been published, one is in final editorial review, and another is now entering peer review. The Arizona Department of Ed is currently sharing the available results of these studies to districts across the state, not just the original five, as well as the state board of education, and they recently convened a task force by revisiting the state framework and timelines. In this case, the Arizona Department of Ed was successful at identifying changes that needed to be made in the model, capacity issues at the district level and at the state, by the way, early implementation strengths and the needs for improvement, and in making needed adjustments in a continuous improvement cycle.

Arizona was able to take advantage of the complementary services and collaborations between the regional lab and the West CC and use the findings to inform their decisions, and we did this and we continue to support it because the state agency itself needed that assistance and really didn’t have the capacity to do that kind of work.

**Betheny:** Caitlin, Paul’s discussion shows how fruitful good research can be for SEAs, but it also highlights how complex it is to get the pieces together. You’ve noted that many state agencies are hungry for research. In your experience, what do you think is holding SEAs back from building the requisite analytic capacities?

**Caitlin:** Unfortunately, although lots of state education agencies really want good systematically collected information, they face some pretty substantial
obstacles to their ability to perform those analyses themselves. For example, the majority of their work tends to focus on implementing, often really ambitious, programs. Much of their knowledge and skill and energy ends up concentrated on crafting policies and guidelines that will work, standing up new programs, managing communication about new efforts and helping districts and schools with new implementations.

At the same time, adding fuel to the proverbial fire, state agencies facing a proliferation of responsibilities including new federal requirements and work that emerges from the continually shifting policy environment that they are working in. Given the precedence of these responsibilities and pressures, there’s relatively less time and energy available for analytic work.

Another challenge is that SEA staff are generally hired for their content knowledge, their management skills, their familiarity with federal education regulations, etc., not as often for their research capacities. While many states do have research offices, they often are overloaded with requests for help, so they may not be available to answer staff’s questions.

A third challenge: lack of, or depleting, funding. For example, in the four states that Appalachian Regional Comprehension Center serves, education funding from the state remains lower than it was before the recession in 2009. Those kinds of funding losses make education more difficult all-around and money for research and evaluation is often not the highest priority.

Betheny: Kathleen, I know that you have had the experience of working with Nebraska in overcoming some of these challenges. Can you say a little bit more about how states you’ve worked with are meeting the challenges Caitlin discussed?

Kathleen: The North Central Comprehensive Regional Center worked with Nebraska Department of Education starting in 2012. The Nebraska Department of Education had received a three-year state longitudinal data system grant, and they had four goals with this grant. One of the goals was to provide a data analysis tool to districts that used multiple data sources to produce reports for local decision makers. Another goal was to provide a statewide system of data analysis, professional development for every district. The third goal was to build a research and evaluation, or an RE, team. Then, of course, they needed to be able to sustain this grant.

North Central Comprehensive Center was asked to help NDE with this third goal, and that was to build a research and evaluation team. Because of some internal staffing transitions, NDE had lost the expertise necessary to establish this blueprint for this new data team, and so NCC was called to support them with that. What we did was to help bring in someone with some strong
experience and background in working with research teams, and that was one of our REL directors. Through that experience, as far as having that expertise, he started work with that team to think about the course of action that they might take, and so some milestones were set up for the work.

The first one was to determine how the data and research team at Nebraska would actually be positioned within their department. The second goal was to determine the mission, the vision, and the values of this team. The third goal was to determine the priorities for the team. The fourth one was to identify the roles and responsibilities of what was called a cross-team group. As they were putting this data research team together, they actually had people from across the department participate to help establish what the mission and vision of this team would be. Finally, to create a blueprint document that was to guide the work of the data research team.

We were so glad to be able to work with them in this way, and within the year we were able to help them set up their team. They, in fact, did identify their mission, vision, and values. They set up priorities, meaning what they would do in-house, what they should outsource, when they might work with a partner, and all of those kinds of things just to kind of set up their working system, their processes and procedures. They got their roles and responsibilities set up and all of those things within that first year. They had a blueprint for how they would work as an organization.

We continue to work with them. In fact, in this last year, we’ve been helping them put together a curriculum for how they will work with internal Nebraska Department of Education staff to help them be able to better use data to support their own decisions.

**Betheny:** All three of you have really pointed to the fact that the lack of research capacity isn’t because states lack the desire to do the work. There’s a lot of interest out there in our SEAs, and they’re just sort of coming up against some challenges. Caitlin and Kathleen, what are other ways that states can tap the regional centers for more help when it comes to leveraging research to support their work?

**Caitlin:** In our experience, state education agencies definitely want research. Not necessarily the “what works” experimental or consumer reports kind of research, but often more descriptive analyses of how certain groups of students are performing or how various programs that they’re running are implemented and with what results. What other state education agencies are doing to address shared issues or achieve similar goals. Given these kinds of needs, Regional Comprehensive Centers are really well positioned to provide technical assistance around analytical needs.
For example, the Appalachian Regional Comprehensive Center has assisted one state to plan, implement, and assess outcomes from a pilot of formative assessment instructional practices implemented in several school divisions, and is helping the state to use findings from that pilot to plan for scaling up.

In another state, our team provided what’s essentially evaluation capacity-building services, to help the state plan, administer, and analyze results from a survey about which teacher performance assessment the state should begin using.

Other examples include technical assistance to a state board of education to identify, review, adapt, administer, and analyze their first self-evaluation. In another state, we’ve helped the state education agency to investigate how teachers use that state’s online professional development system to better inform decisions that they were planning to make about whether or not or how to continue the use of that online professional development system.

Other kinds of analytic assistance we’ve provided include help with the development of logic models so that states can monitor the progress of various initiatives, or assistance with creation of crosswalks to compare various state policies, so even as Regional Comprehensive Centers help state education agencies build their capacity to implement important new reforms, we also help enhance their capacity to access and use research to support their implementations of such reforms.

Kathleen: Certainly, there are many ways to help our SEAs use and get the research that they need to make those decisions. The North Central RCC is helping the Wyoming Department of Education to find out about what’s happening in other states and in other locales as far as schools that serve populations with large numbers of Native Americans. We’re working with the department to identify schools that serve a high population of Native American students, and that are achieving at high rates regarding student attendance, graduation rates, and academic achievement in English language arts and mathematics.

To do this, we turn to our REL Central partners, and they’ve been a part of the discussions with Wyoming Department of Education, so we worked with them to identify schools and to help us craft survey questions. There have been more than 100 schools that have been identified across 10 states, and we’re getting ready to send out surveys, and hopefully we’ll get a good response on that. Wyoming is looking forward to the information, so they’ll inform next steps and certainly it’s aimed at thinking about better ways to serve Native American schools in Wyoming.

Paul: I think the point that needs to be made is that state agencies need a research component as they work to implement some of these policies. The
districts are asking for it. State policymakers, both at the legislature and the state board, are asking for it.

You’ve already heard in this conversation that while the states are interested in doing it, they don’t always have the capacity to provide that service. The West Comp Center Department of Education does a lot of turnaround school work by training leaders and their teams, and we are following up those state initiatives with case studies that are being written by our staff at the Comp Center, but also with the help of the REL, to find out what the impact of the turnaround leadership work is in school districts that are sponsored by the states. That’s another example where the credibility of a research group such as an REL can be very helpful to a state, again providing a service that they may not be able to do, but providing a third party credibility and validations to some of the work.

THE NEBRASKA BLUEPRINT

Context: The Nebraska Department of Education (NDE) received a three-year State Longitudinal Data System (SLDS) grant in July 2012. The grant goals were to provide a data analysis tool to districts that uses multiple data sources to produce reports for local decision makers, provide a statewide system of data analysis professional development for every district, build a research and evaluation (R&E) team in NDE, and sustain the SLDS. NDE requested NCCC assistance with the third grant goal. Due to internal NDE staffing transitions, NDE lost the expertise necessary to establish a blueprint for the new team. NCCC support intended to help NDE create a Data, Research, and Evaluation (DRE) Team to support SLDS work in collaboration with the NE research community (i.e., higher education institutions, Education Service Units [ESUs], and schools), assist NDE with R&E needs, coordinate the research community’s involvement in the NDE Data Analysis Cadre (a combined NDE and ESU cadre team), and disseminate research findings to NDE and the NE research community. NCCC assistance on this project included supporting a McREL Senior Fellow to collaborate with the DRE Team director on how to develop a blueprint to guide the formation of the DRE team. Progress toward milestones includes:

1. **Determine how the DRE team will be positioned within NDE.**
   During a February 2013 meeting, participants decided the DRE Team should be reflected in the NDE organizational chart to highlight their role as an NDE supporting unit. DRE Team work is expected to help NDE become more intentional about integrating work across NDE. NCCC assistance included supporting the attendance of the McREL Senior Fellow at two meetings and providing meeting facilitation.
2. **Determine the mission, vision, and values of the DRE team.**
NCCC supported participants in identifying a mission, vision, and values by facilitating the meeting in a way that all voices were heard. The revised mission emphasizes new R&E functions and expands the scope of NDE work. The DRE Team will collect and report on data necessary to comply with state and federal legislation and data related to other NE research community priorities.

3. **Determine the DRE team work priorities.**
A third priority for the meeting was to establish parameters for the DRE team to ensure quality work. Questions guided the discussion of work parameters: what work do we do in-house, what work should we outsource, and what work do we partner to accomplish. NCCC supported these discussions by suggesting productive meeting structures for discussions, taking notes, and facilitating discussions.

4. **Identify the role and responsibilities of the cross-team group.**
The cross-team group was established to provide guidance to the DRE team, including the new director. Participants will meet to support the DRE team. NCCC supported this milestone by providing productive meeting structures.

5. **Create a blueprint document to guide the work of the DRE team.**
After each meeting, NCCC compiled a blueprint document with detailed notes on meeting discussions by topic. This document is intended to provide guidance to the DRE team.

Another milestone was to determine the agenda and structure for two cross-team meetings. NCCC, McREL Senior Fellow, and DRE team director held several meetings to plan the cross-team meetings goals and the meeting structure to get input from all participants. The planning insured that the meetings were productive and that the milestones were met.

**Outcomes:** Progress toward the project outcomes was made in Year 1. The DRE team role was formalized, including policies and procedures to guide their work.

NCCC continues to assist NDE to build internal SEA capacity for using data to inform decision-making.
About the *SEA of the Future* Series

*The SEA of the Future* is produced by the Center on Reinventing Public Education (CRPE), a non-partisan research and policy center at the University of Washington developing system-wide solutions for K–12 public education. Through research, policy analysis, and technical assistance, CRPE focuses on how states can better support school and district improvement.

**About the BSCP Center Partners**

*The SEA of the Future* is a product of the Building State Capacity and Productivity Center (BSCP Center), which focuses on helping state education agencies (SEAs) throughout the country, as they adapt to increased demands for greater productivity. As state departments of education are facing the daunting challenge of improving student performance, the BSCP Center provides technical assistance to SEAs that builds their capacity to support local education agencies (LEAs or districts) and schools, and to the other 21 regional comprehensive and national content centers that serve them, by providing high-quality information, tools, and implementation support. The partners in the BSCP Center are Edvance Research, Inc., the Academic Development Institute, and the Edunomics Lab (Georgetown University).

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