What Works? Evidence-Based Policymaking Under ESSA

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In the perpetual balancing act between federal, state, and local control over education, the Every Student Succeeds Act (ESSA) clearly grants states more power over key issues like accountability and school improvement. But potentially equally significant for states is the opportunity the new law offers state education agencies (SEAs) to strengthen their evidence-based policymaking and practices without stifling innovation. The law does this by emphasizing the use of evidence-based policies and practices throughout and defining evidence in a way that encourages a continuous search for what works.[1] SEAs can capitalize on this chance by taking some key steps, outlined here, to establish their capacity for and commitment to evidence-based policymaking and continuous improvement.

ESSA urges evidence-based policy, but with a more innovation-friendly vision of evidence. Martin West, among others, recently noted that No Child Left Behind (NCLB) too narrowly—and unrealistically—defined the standard of "scientifically based research" in an effort to limit the use of federal funds toward activities with statistically proven results. By contrast, ESSA maintains a clear commitment to evidence-based policy and practice but encourages state and district leaders to consider multiple levels of evidence and examine the strength of the evidence in making policy and program decisions.[2]

This represents a potentially important shift in what is deemed an evidence-based intervention—a shift that could free states to try new ideas in areas like school improvement or testing while still expecting SEAs to ground their efforts in a theory of action and successful outcomes from similar prior initiatives.

Specifically, the 2015 law defines four levels of evidence as part of an evidence-based approach:

1. **"Strong" evidence**—Evidence that lends itself to causal claims about a program's impact on specific outcomes based on experimental designs that involve randomly assigned treatments and a clear control group.

2. **"Moderate" evidence**—Evidence based on quasi-experimental designs, which try to mimic experimental conditions through statistical controls, such as when lotteries determine entry into treatments (like a charter school) or when arbitrary lines (e.g., district or school geographic boundaries) determine different treatment for otherwise similar groups.

3. **"Promising" evidence**—Evidence based on correlational studies, which examines the relationship between a policy/program and outcomes of interest while controlling for variables that may influence the results.

4. **"Research-based rationale"**—Policies or programs that are judged likely to improve student outcomes or other relevant outcomes, based on prior evidence, but that are still in an exploratory or experimental state.

When using federal school improvement funding, acceptable improvement strategies must meet the strong, moderate, or promising evidence standard. For other "allowable" but not required activities, or competitive funding, the law is more permissive, allowing states to use federal funding on interventions that meet any of the four categories of evidence.[3]

ESSA maintains a strong federal commitment to evidence-based policymaking. At the same time, the law reflects an acknowledgment that we still have much to learn about what works to improve schools, that what works today may be replaced by something better tomorrow, and that what works in one context or place may not work in another.

To be sure, states face challenges to fully capitalize on the law's view of evidence. Shortcomings in the law may also hamper SEAs' efforts to establish and sustain a comprehensive research and evaluation system. As always with large federal programs, the precise scope of ESSA's opportunities for states will be greatly shaped by how future regulations and U.S. Department of Education guidance interpret the law's details.

While taking stock of these challenges, this essay also offers concrete steps state agencies can take to leverage the possibilities embedded in the law. Doing so will help states further their own commitment to continuous improvement and creative problem solving and ultimately help educators and researchers better understand how to most effectively improve our nation's schools.

POTENTIAL LIMITATIONS IN THE LAW FOR STATES TO REDOUBLE EFFORTS ON EVIDENCE

While the precise contours of the opportunities that ESSA provides to states have yet to be hashed out in regulations and departmental guidance, observers have raised concerns that the law falls short on providing states with the needed incentives, resources, and direction to commit to becoming systems that routinely build and use evidence in policy and practice. These concerns include that ESSA forces fiscal trade-offs between programs and evaluation, lacks incentives for internal and external research partnerships, and does not sufficiently guide states in how to weigh implementation research and challenges.

No Incentives for a Broader Research Agenda

The law allows states to use federal dollars for evaluation when implementing specific improvement initiatives. But these financial incentives seem likely to create a collection of isolated research and evaluation initiatives versus a more systematic and sustained state research and evaluation infrastructure. Stand-alone evaluations of initiatives are valuable. But SEAs will likely best

benefit from a comprehensive, integrated, and sustainable research program that spans their federally, state-, and locally funded initiatives. This law can support some of that effort, but not all of it.

Few Incentives for Sustained Internal or External Research Partnerships

Embedding research and evaluation in schools and districts and collecting and aggregating results, using frameworks like those built by Stanford University researcher Anthony Bryk and his colleagues[4] and others promoting local inquiry cycles,[5] could dramatically boost the understanding of new practices and how they play out across multiple contexts. ESSA, however, is silent on promoting efforts to systematically build such capacity. And while ESSA encourages states to partner with institutions of higher education for specific programs or initiatives, the law doesn't provide explicit support for building productive long-term research partnerships. Bill Penuel's research shows that such partnerships can help local leaders better understand whether a statistically significant finding is meaningful for their school or district and what a particular study's limitations might mean.[6] In the long run, a strong state infrastructure will be critical to ensure that learning opportunities are not lost as educators across the state try new ideas and adapt others to their local contexts. SEAs will likely need to use nonfederal resources and initiative to build out a complete evidence-based infrastructure.

No Clear Emphasis on Weighing Implementation Factors

Programs or practices that proved effective under the most rigorous experimental conditions often flounder when actually rolled out across diverse districts, schools, and classrooms. It is not enough to select programs that do well in tested conditions; understanding the complexity of implementation is key. Just as evidence of a policy or program's impact on student outcomes should be weighed in any decisions about whether and/or how an intervention is positioned in state policy, so too should evidence on implementation dynamics. But ESSA does not guide states in this direction. Moreover, solid implementation analysis rarely lends itself to the methodologies the law requires under the "strong" or "promising" evidence labels. This may mean crucial implementation information gets left out of discussions on states' most difficult and complicated efforts, such as school turnaround.

INTERNAL STATE CHALLENGES TO CAPITALIZING ON ESSA'S WIDE-ANGLE VIEW OF EVIDENCE

Beyond the letter of the new law itself, SEAs clearly face several challenges to operating as well-oiled evidence-based systems that can most effectively help local districts and schools. Scarce resources, competing policymaker roles, and the relevance of existing research all factor into the challenges.

Constrained Resources

Despite significant increases in their analytic capacity, state agencies still struggle to free dollars for research and evaluation. Today, SEAs are better equipped than ever to research and be researched. In the wake of NCLB, states dramatically expanded their data infrastructure and bureaucratic units with the capacity to generate student growth measures.[7] These data systems—which often include detailed information on students, teachers, schools, and school systems—provide the specifics needed to analyze the impact of new approaches for teaching, learning, and system design.

But resources for internal research and evaluation capacity have not necessarily kept pace with the investments in data systems. Many SEAs continue to have their budgets dominated by federal and state mandates. And many SEAs still operate with limited personnel to support analysis.[8]

Complex and Competing Roles

Even if state agencies find the resources for research and evaluation, they are still forced to navigate a complex, at times politically charged, education policy environment with leaders whose roles often overlap. At a minimum, each state's education leadership includes the governor's office, the legislature, and the state agency itself. Some states have state school boards in the mix. While we might hope that evidence of effectiveness would protect "what works" from opposition, evidence is not immune to politics. Different agencies and leaders often have competing agendas, which can translate into competing priorities for resources and evaluation. And when a leader or agency invests in a project, evaluations that reveal less-than-stellar results for the project can be received coolly.

Mismatched External Research

Research has a higher profile in education policy and practice discussions today than even just a decade ago. In fact, in a study of state agencies' research use Margaret Goertz and colleagues found that the agency teams in each of the three states they examined routinely sought research to inform school-improvement practices. That said, state agency leaders remarked that

external research from universities and research organizations often misses the mark when it comes to providing timely, relevant, and usable information for policymakers and practitioners.[9]

Tools like the What Works Clearinghouse have helped improve state access to research.[10] But SEA staff contend that they rarely have the luxury of waiting years for study conclusions to become available, nor do they have the time and expertise to accurately gauge the transferability of studies that narrowly focus on implementation of a policy in a specific context.[11]

HOW STATES CAN LEVERAGE ESSA'S EVIDENCE FOCUS TO GROW AS EVIDENCE-BASED SYSTEMS

Challenges and limitations aside, a focused state agency can piggyback on the federal government's expanded commitment to and vision of evidence in policymaking to advance the state's own commitment to research. Outlined below are six key steps states can take to manage the challenges noted above and move forward on fostering evidence-based policymaking and practice that supports a system of continuous improvement.

1. Build the Mind-Set and the Team in the State Agency
Creating an evidence-driven agency requires building an organizational culture of evidence as much as it involves building the specific team to do the research and evaluation work. By integrating evidence in the agency's day-to-day work and backing up that commitment with ample resources, leaders make clear that generating and vetting evidence on policy is a state responsibility.

In our last volume of *The SEA of the Future*, Carrie Conaway described a state agency with a pervasive commitment to evidence in state policymaking. Conaway leads the Massachusetts agency's eight-person Office of Planning and Management, dedicated to overseeing research and evaluation for all aspects of agency work. That office works closely with the state superintendent and their cabinet, taps internal and external resources to support research and evaluation, and collaborates with program staff across the agency to ensure evidence infuses all agency decisions.

With the commitment to evidence in place, building the team to execute on the vision requires that states confront—and attempt to creatively and thoughtfully manage—the fiscal constraints and trade-offs discussed earlier. Tennessee, for example, expressly includes research capacity in federal program activities, as the department's Nathaniel Schwartz explained in our last volume of *The SEA of the Future*:

One way we have been able to combat [the lack of resources] 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.[12]

Although ESSA does not require states to set aside federal dollars for evaluation, the law clearly encourages evaluation efforts and federal dollars can be used for such. As indicated earlier, the federal resources may need to be supplemented with other funds to support a comprehensive agenda. But if the agency establishes a deep commitment to evidence, federal aid can provide a valuable building block for a comprehensive research program.

2. Engage External Partners
External research partners can add still more valuable and flexible capacity to the state agency's research team and supplement thin state resources. External researchers can also serve as a useful buffer when the agency reviews controversial policies or popular policies that generate controversial evaluations, as Tennessee's Schwartz wrote:

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.[13]

Of course, not all external partners are equally valuable to state agencies. Michigan Department of Education's Venessa Keesler emphasized the importance of structuring the relationship wisely, following some key principles:[14]

- Find partners who are committed to using state data to drive policy.

- Connect external researchers to projects that match their specialization and strengths.

- Be cautious when pursuing multiple-institution partnerships: universities and research agencies have complex bureaucracies of their own, creating possible administrative challenges.

- Get agency buy-in at all levels and try to demonstrate partnership value early on.

- Partner on answerable questions, not broad, unspecific agendas.

- Be honest on the front end with partners about internal SEA dynamics and politics; this can help researchers understand when and where to tread lightly, ideally avoiding data collection or reporting problems.

- Ask for accessible products that clearly articulate the question asked and the answer the research results provide.

- Set clear expectations and guidelines about data use and presentation of results.

- Build SEA staff interest and understanding with exposure to key research conferences, such as the Association for Education Finance and Policy and the American Educational Research Association.

3. Establish a Coherent Research and Evaluation Agenda
A clear agenda provides critical focus to agency work. A state's research agenda should be directly tied to the state's strategic plan but this is difficult to launch right out of the gate. Conaway recommends starting with a single program and building out the agenda from there. SEAs should also detail what the state wants to learn at what points along the way to ensure that states get information at intervals that can feed into pivotal decision points (e.g., when budgets are set, when staff are allocated, or when natural transitions in the academic year occur).

4. Leverage Local Learning
Schools and districts across a state have the capacity to support research and evaluation, but it often remains untapped. While the states that Goertz and colleagues examined routinely sought practitioner input on new policies, strategies, or problems, the research team reported that the states were less likely to use local educators and leaders to generate evidence.[15] States should not miss this valuable opportunity.

Talented educators and leaders constantly tinker with and test new ideas; the state agency is positioned to leverage the learning from such local initiatives. To allow more experimentation in schools and districts, state agencies (and lawmakers, when required) can provide local schools and districts more latitude in key operational and programmatic areas, such as:

- How schools spend money.

- Who is hired to teach, how they are trained, where they are assigned, and how they are paid.

- How student time is structured.

- How courses are defined and organized.

- How students are assessed for progress.

With these flexibilities, school systems can consider a host of novel approaches in teaching, learning, and teacher preparation. ESSA, for its part, encourages SEAs to track and research new approaches in a way that supports both short- and long-term feedback to practitioners.

Maximizing learning from this experimentation requires state agencies' support and coordination. The Center for American Progress underscored this point in a recent report:

> State education agencies also should provide local education agencies with additional supports so that leaders can use data effectively for school improvement. Midcourse corrections will be necessary as any approach encounters the reality of the varied needs and contexts of schools in need of improvement. Ongoing use of data is critical for making these corrections.[16]

Local educators and leaders will likely need training on how to design pilot efforts and how to generate, collect, analyze, and interpret evaluation data. Recent contributions from the district Reform Support Network provide tools for building local evaluation capacity. And the Mid-Atlantic Regional Education Laboratory is producing guidance to help schools and districts develop and conduct surveys.

Networking across local educators can further amplify learning. The Carnegie Foundation-led "networked improvement communities" provides a model for coordinating local experimentation and evaluation efforts. The Student Agency Improvement Community is one such example, bringing together school and district leaders to develop and test strategies around equipping students to persist in the face of rigorous learning challenges. While this effort drew districts and charter networks from across the country, the same principles of collaborative problem solving would apply to more locally organized networks.

The Center for American Progress suggests that the federal Regional Educational Laboratories (RELs) or comprehensive centers could also be useful SEA partners in aggregating and disseminating new evidence statewide.

5. Work Across States, Not Just Within States
SEAs are reasserting their leadership in education policy. And ESSA represents a significant shift from federal mandate to state and local autonomy in key areas. Criticism that SEAs are little more than administrators of federal programs is giving way to serious debates about states' differing approaches to transforming school systems.[17] State agencies are leading with innovative approaches to turning around low-performing schools, creating competency-based assessment systems, assessing the effectiveness of teacher-training programs, incorporating the latest technology tools into instructional practice, and many other initiatives.[18]

State agencies tackling common problems have much to gain from working together, as has already happened through the consortia organized around developing common standards and assessments. So far, collaboration that has been focused on research, evaluation, and problem-solving has been less common and generally limited to the federal RELs, which organize states by geography, not (necessarily) by shared interests. This may help explain why Goertz and colleagues found that two of the three states they examined made little use of their REL.[19]

Self-affiliated networks offer states an alternative, allowing states with shared problems to jointly seek and test solutions. For example, the Council of Chief State School Officers recently launched the Innovation Lab Network, a consortium of 11 state agencies focused on spurring system-level change by scaling locally led innovation in teaching and learning within and across states.[20] Among the network initiatives are pilots of new state-level, competency-based assessment.

6. Build Evaluation Into Policy and Reevaluate and Revise Regularly
Building research and evaluation into policy, rather than treating it as a separate exercise, should help states embody the vision of and optimizethe benefits of evidence-based policymaking. Done wisely, it lets state agencies put into action the theory of continuous improvement. States should explicitly—and regularly—schedule re-evaluation and revision of all programs, policies, or regulations based on what research and evaluation show. By doing so, states acknowledge that even "proven" policies and programs benefit from tweaking over time.[21] States' research and evaluation efforts will also likely demonstrate that some policies and practices—even if popular—have limited life spans and should be phased out after their impact fades or new initiatives prove more effective. Making research and evaluation an integral part of states' evidence-based policymaking has two additional benefits: quelling resource battles between programs and evaluations and reinforcing the state's evidence-based mind-set. Once evaluation becomes nonnegotiable, it is less vulnerable to showing up on the chopping block at budget time.

CONCLUSION: SEAS ARE POSITIONED TO BECOME SAVVY PRODUCERS AND CONSUMERS OF EVIDENCE

State agencies, and the school systems they work with, have much to gain from becoming more evidence-driven operations. And states are better positioned to lead the way on evidence-based policymaking and practice than ever before.

ESSA layers on opportunities for states to recommit to this approach, setting clear expectations for the use of evidence in making decisions on policies and programs, creating a broader—more reasonable—definition of what kinds of research methods generate legitimate evidence, and granting states opportunities to use federal dollars to conduct needed research and evaluation. All this sets up states to embrace the work of innovation and continuous improvement. While critics[22] worry that the more permissive definition of evidence will translate into SEAs relying too often on the least robust evidence in policymaking, SEAs are better positioned now than ever to become savvy producers and consumers of evidence. The steps outlined in this essay could help SEAs more fully operationalize what it means to be a system built on evidence. If SEAs ultimately put evidence-based policymaking into practice, they will be better set to help their states' schools and school systems deliver on the promise of quality education for all.

ENDNOTES

1. For a summary of evidence-based provisions in ESSA, see "Evidence-based policy provisions in the Every Student Succeeds Act," Results for America, accessed October 20, 2016.

2. Martin R. West, "From evidence-based programs to an evidence-based system: Opportunities under the Every Student Succeeds Act," Brookings, February 5, 2016.

3. Results for America provides a graphic illustration of the required evidence by type of program in the document "The evidence provisions of the Every Student Succeeds Act (ESSA)," accessed October 20, 2016.

4. Anthony S. Bryk, Louis Gomez, Alicia Grunow, and Paul G. LeMahieu, *Learning to Improve: How America's Schools Can Get Better at Getting Better* (Cambridge, MA: Harvard Education Press, 2015).

5. See also The W. Edwards Deming Institute for information on an inquiry cycle referred to as a PDSA (Plan, Do, Study, Act) cycle.

6.   William Penuel, "What will research use look like under the Every Student Succeeds Act?," National Center for Research in Policy and Practice (blog), December 10, 2015.

7. According to the Data Quality Campaign, by 2014, 46 states had statewide data repositories; two-thirds of these states had student-level data that allowed them to measure student growth over time.

8. Margaret E. Goertz, Carol Barnes, Diane Massell, Ryan Fink, and Anthony Tuf Francis, *State Education Agencies' Acquisition and Use of Research Knowledge for School Improvement Strategies*, CPRE Research Report #RR-77 (Philadelphia, PA: Consortium for Policy Research in Education, September 2013).

9. Goertz, et al., *State Education Agencies' Acquisition and Use of Research Knowledge for School Improvement Strategies*, 2013. See also Schwartz, "Making Research Matter for the SEA," in Gross and Jochim (eds.), *SEA of the Future: Building Agency Capacity for Evidence-Based Policymaking*, The SEA of the Future 5 (San Antonio, TX: Building State Capacity & Productivity Center at Edvance Research, Inc., 2015); and William Penuel and Caitlin Farrell, "Research-Practice Partnerships Under ESSA: A Learning Agenda for the Coming Decade" (unpublished book chapter, August 11, 2016), Word file.

10. In addition to the What Works Clearinghouse, other aggregation tools include the Results First Clearinghouse Database and Best Evidence Encyclopedia.

11. See Goertz, et al., *State Education Agencies' Acquisition and Use of Research Knowledge for School Improvement Strategies*, 2013; Betheny Gross and Ashley Jochim (eds.), *SEA of the Future: Building Agency Capacity for Evidence-Based Policymaking*, The SEA of the Future 5, San Antonio, TX: Building State Capacity & Productivity Center at Edvance Research, Inc., 2015.

12. Schwartz, "Making Research Matter for the SEA," in Gross and Jochim (eds.), *SEA of the Future: Building Agency Capacity for Evidence-Based Policymaking*, The SEA of the Future 5 (San Antonio, TX: Building State Capacity & Productivity Center at Edvance Research, Inc., 2015), 35.

13. Schwartz, "Making Research Matter for the SEA," in Gross and Jochim (eds.), *SEA of the Future: Building Agency Capacity for Evidence-Based Policymaking*, The SEA of the Future 5 (San Antonio, TX: Building State Capacity & Productivity Center at Edvance Research, Inc., 2015).

14. Venessa Keesler, "Building Productive Research Partnerships," in Gross and Jochim (eds.), *SEA of the Future: Building Agency Capacity for Evidence-Based Policymaking*, The SEA of the Future 5 (San Antonio, TX: Building State Capacity & Productivity Center at Edvance Research, Inc., 2015), 40-52.

15. Goertz, et al., *State Education Agencies' Acquisition and Use of Research Knowledge for School Improvement Strategies*, 2013.

16. Steve Fleischman, Caitlin Scott, and Scott Sargrad, *Better Evidence, Better Choices, Better Schools: State Supports for Evidence-Based School Improvement and the Every Student Succeeds Act* (Washington, DC: Center for American Progress, August 31, 2016), 18.

17. Nelson Smith, *Redefining the School District in America* (Washington, DC: The Thomas Fordham Foundation, 2010).

18. Betheny Gross and Paul Hill, "The State Role in K-12 Education: From Issuing Mandates to Experimentation," *Harvard Law and Policy Review* 10, no. 2 (2016): 299–326.

19. Goertz, et al., *State Education Agencies' Acquisition and Use of Research Knowledge for School Improvement Strategies*, 2013. The recent Center for American Progress report, however, recommends that SEAs mobilize their REL to support at least their own evidence-building initiatives, even if they don't find strong shared issues with other states in their lab (Fleischman, Scott, and Sargrad, *Better Evidence, Better Choices, Better Schools*, 2016).

20. The Innovation Lab Network has recently collaborated in redesigning accountability systems with the new flexibility available under ESSA. See Andrew Ujifusa, "*States Collaborate in Pursuit of Fresh Accountability Ideas*," *Education Week*, January 7, 2016.

21. Charles Sabel, "Dewey, Democracy, and Democratic Experimentalism," *Contemporary Pragmatism* 9, no. 2 (December 2012): 35–55.

22. Robert E. Slavin, "Evidence and the ESSA," *Huffington Post* (blog), December 8, 2015.