Roadmap for Effective Data Use and Research Partnerships between State Education Agencies and Education Researchers

DQC DATA QUALITY CAMPAIGN

Key Focus Areas for Using Research Partnerships to Improve Student Outcomes

Where are we going?

When students, parents, educators, and partners have the right information to make decisions, students excel. By forming research partnerships, state education agencies (SEAs), policymakers, practitioners, and education researchers at universities and other research institutes can work together to use research to provide the best education possible for all students. Without high-quality and trustworthy education research, communities will be making decisions in the dark, and more students will be left behind. This roadmap is a guide for SEAs, policymakers, and policy leaders on how to partner with researchers to address important education questions through research.

Why is research important?

Research identifies areas of unmet need and opportunity, helps education leaders invest in effective and innovative practices, and pinpoints factors that keep kids on track for success. In addition, research uncovers dynamics that might challenge conventional wisdom and guide practitioners to more effective solutions to improve teaching and learning.

Research benefits states, districts, schools, educators, and families in three main ways:

- supporting the success of individual students
- making the best education programming and policy decisions
- building knowledge about how students learn

Access to research helps states and districts take the following actions:

- Develop tools and strategies to support each student's learning.
- Use tools, strategies, and resources most effectively by better understanding what interventions work best for which students and under which circumstances.
- Identify education inequities and the populations most at need or most likely to benefit from an intervention.
- Understand the long-term effects of education policies and practices on student outcomes.
- Understand emerging issues related to conditions and policies affecting students.
- Develop a greater understanding of how students learn.

Why form partnerships with education researchers?

Research partnerships formed with trained and engaged experts can result in answers to questions that cannot be found anywhere else. These answers can inform decisions about programming, staffing, how to use limited resources, and how to support each student's growth.

Additionally, forming partnerships with education researchers can improve the work of states and districts in the following ways:

- Build research capacity and data management expertise.
- Improve data quality, governance, and privacy.
- Provide technical support.
- Highlight new ways to use existing data collections.
- Help refine current data collections to better address state policy and practice questions.

What Is Research?

The American Educational Research Association (AERA) defines *education research* in part as "the scientific field of study that examines education and learning processes and the human attributes, interactions, organizations, and institutions that shape educational outcomes." Education research uncovers the evidence that policymakers and practitioners need to improve educational outcomes for all students.

Why does this matter?

States have a legal and ethical obligation to provide high-quality educational opportunities for their students. Far from being unrelated to states' and districts' core education functions, research plays a unique and integral role in identifying best practices, applying resources responsibly, helping keep our education system globally competitive, and preparing all students for success.

The Every Student Succeeds Act (ESSA) creates an opportunity for states to promote and model the importance of creating a culture in which evidence, rather than hunch or anecdote, is used to make decisions. Under this federal law, states may use evidence from different types of research and choose the types of evidence that help them select the best resources and interventions for the specific needs of their communities. Research partnerships can help SEAs take advantage of this flexibility. In addition to conducting their own research, states and districts already rely on independent researchers to help translate their policy questions into research questions and to help find answers to those questions. But even states and districts with full-time researchers lack the capacity to conduct and interpret all of the relevant research they need to make informed decisions. SEAs should develop research partnerships that align the analytical skills of researchers with policy expertise at the state level to collaboratively create a culture that uses data for continuous improvement based on evidence.

How do we get there?

Research partnerships can take different forms. Coburn, Penuel, and Geil describe three distinct approaches:

- **Research Alliances:** Formal, long-term partnerships between a state or district and an independent research organization that conducts research to investigate policy and practice questions
- **Design Research:** Ongoing research to inform and develop practices and refine resources and program implementation in real time
- **Networked Improvement Communities:** Collective efforts to combine research outcomes across settings to develop a more complete understanding of what works and where, when, and how it works

Regardless of the form the research partnerships take, SEAs need to consider the following areas for creating effective research–practice partnerships:

1. **Relationship Building and Creating a Vision:** A shared vision for the partnership to support effective collaboration to design, conduct, interpret, and use research to inform decisionmaking
2. **Data Governance:** A structure for using data effectively and for granting researcher access to data in consistent, accountable, transparent, and secure ways
3. **Data Sharing Agreements and Processes:** Agreements to establish how data will be shared, who will have access, and how data privacy will be protected, among other key features
4. **Quality Data:** Complete, accurate, and timely data to help ensure that research results in the creation of trustworthy, actionable findings to inform policy and practice decisions
5. **Public Engagement and Communication:** Proactive public communication about the research efforts and how research informs critical education decisions and policies
6. **Privacy and Security:** Robust and transparent privacy and security safeguards that protect privacy without unnecessarily limiting research
7. **Analysis, Reporting, and Use:** Reporting processes that help make research findings immediately actionable and applicable to policy and practice
8. **Capacity Building:** Development of internal agency capacity to design, conduct, interpret, and use education research to support student success

FOCUS AREA 1

Relationship Building and Creating a Vision

A shared vision for their work and partnership helps build trust between the SEA and its research partners and allows them to more effectively collaborate to design, conduct, interpret, and use research to inform decisionmaking.

Why do relationship building and creating a vision matter?

Relationships between the SEA and researchers built around a shared vision for their work and partnership enable the type of collaborative, innovative, and sometimes challenging research that informs meaningful policy decisions and improves education outcomes. Regardless of whether the SEA–researcher partnership is a formal research alliance, a design collaboration, or a network of community learning, a shared vision and understanding of roles and responsibilities should clarify how much independence the researchers will have in determining the research questions and in forming and disseminating conclusions. Ideally, the shared vision will support collaboration and communication, but the specific terms may vary depending on the SEA's goals and capacities—in fact, sometimes a more independent researcher can help navigate more politicized questions and provide an objective perspective for policymakers. When both the SEA and its research partners understand their roles and goals in shaping, conducting, disseminating, and using research, research findings are more likely to be relevant, useful, and used.

What do relationship building and creating a vision look like?

- The state has its own clear vision for research use at the agency, and it has a plan for how the work will be carried out and will inform internal policies and decisions.
- The state has clearly articulated high-level research questions based on its own policy priorities, education goals, and challenges.
  - Depending on the type of research partnership, researchers propose, and sometimes work with the state to refine, specific research questions and projects that are aligned to these policy and practice questions.
- The state's questions, priorities, and goals inform the type of researcher or organization it partners with. Program evaluations, large-scale longitudinal research, analytics, and implementation studies may require research partners with different expertise.
- Researchers and the SEA are clear about their respective roles in the research partnership including who decides what data is published, how the findings will be interpreted, and how any findings will be shared or disseminated.
- Researchers and the SEA articulate a process to ensure continuous communication throughout the research, interpretation, dissemination, and use processes.
  - The agreement builds in regular progress meetings and opportunities to share real-time findings as the research is being conducted.
- Researchers and SEA staff develop a process to work together to understand the research findings and subsequently brainstorm new research directions and interests.

How can a state achieve this?

Before entering into a partnership with a research organization or individual researcher, states should first consider their own needs, goals, resources, and capacity—and ensure that they have a clear internal vision and goal for the research work. State education goals; stakeholder engagement; and requests from legislators, educators, and the business community can all inform the research areas of interest to the state—and help identify relevant potential research partners and the best structure for the research–practice partnership. Depending on their own internal capacity and the type of research they are undertaking, states can consider working with individual researchers at state or private universities, research organizations, other state or district agencies, and independent think tanks.

The Houston Education Research Consortium

The Houston Education Research Consortium (HERC) is a research partnership built on a strong relationship between the Houston Independent School District (HISD) and Rice University. The consortium's research agenda is co-created by researchers and local education leaders, whose policy decisions are in turn informed by the consortium's research findings. HERC has been praised for its core relationship of trust between the HISD and Rice University, which is marked by a shared commitment to the long-term success of the partnership, open communication, and a willingness to learn from each other.

FOCUS AREA 2

Data Governance

Data governance gives the state a structure for collecting and using data effectively to answer critical questions about student achievement and school performance and for granting researcher access to that data in consistent, accountable, transparent, and secure ways.

Why does data governance matter?

Strong data governance is critical to a state's effective use of data, including its ability to partner with researchers. Cross-agency data governance is needed to ensure that data from all of the agencies that serve students (e.g., early childhood, K–12, postsecondary, workforce, child welfare, health, juvenile justice) are collected only to meet the state's needs, are properly safeguarded, and are used and disclosed only to approved parties for approved purposes. As a part of its work to govern the collection, access, use, and protection of data, the state's cross-agency data governance body, and any related governance body charged with reviewing researcher requests, should establish criteria articulating the circumstances under which data can be disclosed to researchers. Having these criteria and a process for applying them allows the state to respond to researcher proposals and data requests based on consistent and transparent rules and conditions that safeguard data privacy without unnecessarily limiting critical research. In addition, these clear guidelines and processes help researchers understand the state's priorities and the process for approving research requests so that they can help determine up front if their proposal is likely to be a good match.

What does strong data governance look like?

Composition

- Regardless of its exact structure, which can vary from state to state, the state's cross-agency data governance body includes leadership-level representatives from each agency or office that contributes data to the state system. Agency members have a foundational understanding of research and how it can help the state reach its goals.
- The data governance body includes research partners who are external to state agencies and can provide additional perspective and expertise on the value of research.
- The state has a documented process for responding to researcher requests for data. In many cases, states form a separate data governance committee to review researcher proposals and data requests.
  - The research review committee includes all individuals whose approval is needed to enter into a data sharing agreement with a researcher.
  - The research review committee incorporates diverse perspectives such as legislators and district leaders and does not consist of a single "gatekeeper."
  - The state requires collaboration between the cross-agency data governance body that develops data use and disclosure rules and the decisionmaking body that uses these rules to review research requests.

Scope and Responsibilities

- The cross-agency data governance body creates data privacy policies that are consistent across agencies and aligned with relevant federal and state laws. These data privacy policies include data access and use policies that govern the agencies' own use of data as well as external disclosures.
- The state establishes processes for reviewing and fulfilling different types of data requests. Establishing these processes could include creating a framework with considerations addressing the sensitivity of different data elements or data requests from different parties (e.g., from researchers vs. vendors or companies).
- The cross-agency data governance body has documented rules for disclosure avoidance (i.e., processes to avoid unintentionally releasing personally identifiable information) before publishing data.
- The state provides student data use, governance, and privacy orientation, which is required for researchers with approved access to student data.

How can a state achieve this?

Most states have established a data governance committee that has responsibility for and authority over data sharing, access, privacy, and use across agencies. States can build off of existing data governance processes and resources when creating processes for working with researchers. States, or even large districts, may already have data disclosure review processes and criteria for other types of partners (like data management organizations, program evaluators, and service providers) that could be adapted for use with researchers. In addition, states can embed existing practices and checks from the research community into their review process. For example, for an additional layer of protection and review, states can require that relevant data requests for research be approved by an Institutional Review Board (IRB). To increase transparency, the state can commit to issuing a report whenever a research request with IRB approval is denied by the cross-agency data governance body.

The Mississippi State Longitudinal Data System Governing Board

Mississippi is an example of a state with a cross-agency data governance committee with executive leadership responsible for state data use decisionmaking. The state longitudinal data system governing board consists of distinct subcommittees with the expertise and capacity to guide the board's data work. These subcommittees ensure that data-related decisions are policy focused, formalized, and transparent and are staffed by representatives from policy, legal, information technology, and research as well as experts in data stewardship, data collection, data quality, and privacy.

FOCUS AREA 3

Data Sharing Agreements and Processes

Depending on the nature of the partnership, data sharing agreements can be an important part of successful researcher–practitioner partnerships. When researchers are responsible for interacting with data and conducting analyses, these agreements establish how data will be shared, who will have access, and how data privacy will be protected, among other key features.

Why do data sharing agreements and processes matter?

Data sharing agreements articulate the technical terms of the relationship between the SEA and the researcher. These legal agreements are negotiated before any data sharing takes place and are critical to describing what data variables will be shared and what analyses will be completed, determining which parties can access data, clarifying data use and protection processes, and mediating any unexpected situations or potential disagreements.

What do strong data sharing agreements and processes look like?

- Data sharing agreements follow general guidelines set by data governance bodies and are largely consistent across projects and relationships, but they are still created on a case-by-case basis.
- Data sharing agreements and processes are clear yet flexible, recognizing that research may need to change course mid-study and that capacity or data needs may change over time.

How can a state achieve this?

To create strong data sharing agreements, states may look to their districts for effective practices. Many larger districts have long relied on research partnerships to improve their education services and may have templates and processes that could be adapted for use at the state level. For example, Allegheny County in Pennsylvania has integrated student and human services data for research and decisionmaking purposes under formal data sharing agreements between the Allegheny County Department of Human Services and 18 local school districts, including Pittsburgh Public Schools.

The integrated data provides a comprehensive picture of students involved in human services and offers greater insight into students, service gaps, and the effectiveness of interventions. Allegheny County has used the linked data for research on issues such as the impacts of child welfare system involvement on school stability.

For more on the work in Allegheny County and states sharing child welfare and education data with researchers, see *Roadmap for Foster Care and K–12 Data Linkages: Key Focus Areas to Ensure Quality Implementation*.

Components of a Data Sharing Agreement

Depending on the nature of the research partnership and the researcher's data responsibilities, strong data sharing agreements may address the following components:

ROLES AND RESPONSIBILITIES

- clear expectations about the scope of agreed-to work, its goals and deliverables, and timeline
- the variables or data sets to which the SEA grants researchers access, including how many years of historical or longitudinal data are needed
- personnel who will have access to data within the research partner organization
- a point of contact within the SEA who manages that project's researcher relationship and can help troubleshoot any challenges that may arise (this person should have a foundational understanding of research and how it can help the state reach its goals)

PROCESSES

- allowable uses of the data shared (for example, will data be shared to answer questions only for the specific scope of the partnership, or will researchers also have the opportunity to develop new hypotheses and engage in further exploration with the shared data)
- how data will be kept secure during transfer, storage, and use and how the research partner will protect data privacy and comply with all relevant state and federal laws
- the length of the data sharing agreement and any terms for renewal or extension
  - if the research is ongoing, how often new data will be collected and shared
- whether matching data across different data sets is authorized
- what will be done with the data after it is exchanged and after the research project or partnership is complete (for example, should researchers destroy or return the data they used for the research partnership)
- how the research partner will provide interim findings and conclusions to the state and how it will consider or incorporate state feedback

The Virginia Longitudinal Data System

The Virginia Longitudinal Data System (VLDS) is a collaborative data initiative that securely links data from numerous participating state agencies including the Virginia Department of Education, the State Council of Higher Education for Virginia, the Virginia Employment Commission, the Virginia Department of Social Services, the Virginia Community College System, the Virginia Department for Aging and Rehabilitative Services, and the Virginia Department of Health Professions. The state's system uses a "federated" model—each participating agency maintains its own records, which can be temporarily and securely connected to allow policy-relevant research to be conducted. The goals of this research are to help answer the state's "Burning Questions"—priority topics for Virginia citizens and policymakers ranging from the return on investment for education and social service programs to workforce pathways across the state. The VLDS has a detailed process for requesting, reviewing, and approving research proposals to ensure that the state's data investment yields relevant, timely, and useful findings.

FOCUS AREA 4

Quality Data

By investing in producing complete, accurate, and timely data, states can help ensure that research results in the creation of trustworthy, actionable findings to inform policy and practice decisions. In many cases, research partners can actually help states improve the quality of their data and ensure that they are collecting the data needed to answer policy questions.

Why does having quality data matter?

If data is to be used and valued, it must be high quality. For research findings to be actionable and useful, the data used to conduct the research must be accurate, complete, timely, and relevant. When states and local communities are not confident that research has been conducted with high-quality data, they cannot trust the research results or the policy and program decisions the research informs. In addition to helping determine data quality, researchers can sometimes work with the state to assess, clean, and improve state data quality.

What does a focus on quality data look like?

- The state invests in a statewide longitudinal data system that securely links data collected over time and across systems and can be used to generate research and tools to ensure that those working closest to students have the information they need at the right time.
- Before any analysis is planned or completed, the state and researchers work together to identify the data elements and characteristics needed to answer the policy or practice question being asked.
- The state and researchers discuss whether the central questions of the partnership can be answered using existing data and, if not, what additional data is needed given the questions of interest.
- If needed, the state and researchers work together to figure out alternative ways to collect data and measure outcomes, such as implementing new data collection efforts or tweaking existing efforts (e.g., adding questions to an existing survey instrument to better answer specific questions).
- As part of the partnership, the state works with researchers to improve state data quality, security, and usefulness.
- As part of the partnership, the state may consider arranging, either through a grant proposal or through a PhD program, for a data analyst from the researcher team to work on data management and quality from within the local education agency or SEA during the project.

How can a state achieve this?

States can benefit from making long-term investments in the quality of their data and statewide longitudinal data system. Having high-quality data facilitates easier and more secure data sharing and reduces the time, effort, and cost of identifying and correcting low-quality data needed for research. In many cases, research analyses require only publicly available data; one way states can invest in the quality of that public education data is by developing high-quality administrative data sets (i.e., agency records that track the SEA's activities and outcomes) that can be used by researchers to answer a wide array of research and policy questions.

The Research Alliance for New York City Schools

The Research Alliance for New York City Schools, a partnership of New York University's Steinhardt School of Culture, Education, and Human Development and the New York City Department of Education (NYC DOE), is an example of an initiative that has not only used administrative data but also helped improve its quality and scope. In addition to using individual-level data provided by NYC DOE and its own fieldwork and surveys, the Research Alliance developed a school-level master file (SCHMA) of publicly available data compiled from NYC DOE and the US Department of Education. The SCHMA includes data dating back to the 1995–96 school year and encompasses information on student demographics, attendance, course-taking, test scores, graduation rates, school spending, and identifiers that allow these education records to be securely linked to other data sets such as those from the New York State Education Department, the Census Bureau, and the US Department of Education.

FOCUS AREA 5

Public Engagement and Communication

To ensure that the public and education community value research, states must proactively communicate about their research efforts and how research informs critical education decisions and policies.

Why do public engagement and communication matter?

Education research should not only improve states' understanding of their students and schools but also inform public conversation and prompt action. Meeting these goals is possible only if research initiatives answer questions of value to the community and if research findings are communicated to the public and to practitioners in clear, accessible, and actionable ways.

What do good public engagement and communication look like?

- The state engages diverse stakeholders including educators, families, business leaders, and policymakers in developing key education policy questions and research goals.
- The SEA disseminates research and communicates the value and benefit of research to the public in diverse ways including videos, town halls or other events, social media, press conferences and briefings, webinars for the public and media, public-friendly publications, and the sharing of success stories informed by research.
  - The state communicates with the public about how research has informed policy decisions or changed education outcomes and how the findings may lead to new research questions.
- The state provides opportunities (e.g., statewide education policy forums, research conferences, professional learning communities) for district and SEA staff to connect and share findings with other districts and states engaged in similar work.
- The SEA incorporates discussion of data privacy and the ethical use of data in all public communications about data and research. This discussion includes clear and transparent information about how data privacy is protected by researchers.
- The state cultivates champions within and outside the SEA who can talk clearly about the state's research agenda and how it contributes to improving education outcomes.

How can a state achieve this?

While the SEA has a key role in engaging and informing the public about research activities and findings, it can also work collaboratively with its research partners on communication efforts. For example, researchers may take the following actions:

- Use state and local forums to publicly show the value of research and demonstrate to policymakers the benefits of the work being done. For example, researchers could present on research and findings at conferences and university symposia, on webinars, or for relevant research and policy funders.
- Submit and publicly share confirmatory or exploratory research questions as part of their preanalysis plans.
- Highlight successful implementation of research-supported initiatives.
- Articulate the value of their research findings for policymakers and advocates.
- Connect statements made by policymakers to relevant research.

States can also ensure that they are engaging the public and communicating the value of data and research by creating a process for monitoring how the research they conduct and commission is being used. States have a responsibility to ensure that their investments are providing value and answering key questions. One way states can do this is by monitoring citations or asking districts for information on how they are using the data and the produced research.

Indiana Network of Knowledge

The Indiana Network of Knowledge (INK) is part of the state's Management Performance Hub created to use state data to better understand, improve, and communicate the effectiveness of state agencies and programs. INK was designed to answer critical questions about the state's education-to-workforce pipeline by allowing for the secure matching of education and workforce data sets for analysis purposes. An INK newsletter helps communicate the initiative's work and findings. Ultimately, not only will the state produce analyses on education and workforce questions, but stakeholders like education professionals, community leaders, and the public also will be able to use INK to conduct their own analyses.

FOCUS AREA 6

Privacy and Security

People will not rely on research or data that they do not trust is being used ethically and safeguarded against inappropriate access or use. States must ensure that they have robust data privacy and security safeguards and are transparent with the public about how data is used and protected.

Why do data privacy and security matter?

Safeguarding student information is paramount to successful research partnerships; if the public does not feel confident that student data is being kept secure and accessed and used appropriately, they are unlikely to support education research efforts. Robust data privacy and security policies are critical to ensuring that data is used effectively and ethically by both the SEA and its research partners. In addition, transparency about how data is used and safeguarded helps build trust with the public.

What do strong privacy and security look like?

- The state (often through the cross-agency data governance body) develops data privacy and security policies that are based on industry best practices (such as the National Institute of Standards and Technology standards) and are aligned with the Family Educational Rights and Privacy Act and other federal and state data privacy laws. Policies should address the following:
  - role-based access to data for researchers and other data users
  - encryption and security protocols for data transmission and storage
  - data breach response procedures
- The SEA clearly communicates about data privacy and security policies and practices with education researchers, educators and education leaders, and parents and the public.
  - Clear, jargon-free information on how the state safeguards data privacy and security and maintains compliance with all relevant federal and state laws is publicly available on the agency website.
  - Contact information for an individual SEA staff person (not a generic agency email address or online question form) charged with responding to public questions about data and privacy is listed on the agency website.
- The state (often through the cross-agency data governance body) creates a data classification system that articulates different privacy and security protections for different types of data that could be used by researchers.
  - This classification system clearly defines the different levels of data security with corresponding differences in levels of protection depending on the sensitive nature of the data. These classifications recognize that although all student data may be considered sensitive, some student-level data (e.g., special education status) may be considered more sensitive than other data (e.g., school enrollment).

How can a state achieve this?

In recent years, legislatures in nearly every state have been playing an active role in developing education data and privacy policy standards. In 2016, states introduced more than 100 student data privacy bills, several of which sought to govern how researchers could access and use student data. However, legislators often rely on expertise from the SEA and researchers to understand how to effectively govern the use of data for research. Policymakers at all levels can work together to ensure that the state's laws provide robust data privacy and security protections without unnecessarily limiting research.

Data Privacy and Security Resources

West Virginia is an example of a state that proactively and clearly communicates its data privacy practices to the public. After working with a diverse group of stakeholders to develop state privacy policies, state leaders created a strategic communications plan to show how West Virginia collects and protects student data. By engaging with the public and clearly explaining how and why data is collected and how privacy and security are provided, West Virginia built an important foundation of trust and support for its work statewide.

To help other states develop privacy policies and procedures, several resources are available. The US Department of Education's Privacy Technical Assistance Center and Family Policy Compliance Office website provides information about federal privacy laws along with tools and resources to support the effective use and sharing of data.

In addition, the Data Quality Campaign has numerous other resources on data privacy, including the *Roadmap to Safeguarding Student Data*, which provides specific, practical recommendations for prioritizing the safeguarding of student data and continuously reviewing and updating data privacy policies and practices to address changes in technology.

FOCUS AREA 7

Analysis, Reporting, and Use

SEA research partnerships should ideally result in findings that are immediately actionable and applicable to policy and practice. To ensure that this goal is met, SEAs and researchers should plan from the start how they will report and use their research findings.

Why do analysis, reporting, and use matter?

Education research should yield meaningful results for both education researchers and SEAs. But the policy and practice implications of research findings are not always easy to distill into actions. SEAs and researchers must work together at the start of their partnership to establish how research findings will be analyzed, reported, and used to support improved teaching practice and student learning. When reporting and use are built into a research plan, making changes based on the results is easier.

What do good analysis, reporting, and use look like?

Data Analysis

- The SEA and its research partner have a plan for communication and iterative decisionmaking throughout the research process, including how researchers will provide the SEA with updates on progress and share preliminary results and findings.
- The SEA and its research partner have an up-front agreement about whether researchers will be authorized to create restricted use and/or public use data files for other researchers to use. If so, the agreement articulates the value of creating these research data sets and how data privacy will be protected.
- Data analysis methods enable policy and practice action. For example, research designed to answer different questions may require different types of cross-tabulations or comparisons to uncover patterns for different populations of students. Program evaluation, operational administration, and other types of research may require differently structured analyses.

Research Reporting

- The SEA and its research partner discuss all findings and their meaning and implications before any results are released or published.
- The SEA and researchers determine together how data will be disaggregated, shared, or published and how research findings will be reported and disseminated to policymakers and practitioners.
- Where relevant, the partnership requires the researcher to write up findings in practitioner-friendly language to inform SEA, district, and policy leader decisionmaking.

Research Use

- The SEA and researchers work together to identify the analysis and reports that are needed to inform action at the state and local levels.
- To the extent possible, research findings are reported alongside raw data (either publicly available or available by request) that can be used for additional analyses and investigation.
- The SEA and researchers determine how to disaggregate data so it is useful for researchers and actionable for the SEA.
- The SEA and researchers agree on their unique roles in disseminating and acting on research findings. The SEA has an internal plan for acting on the results and sharing them with different audiences, including the public and policymakers.
- The SEA and researchers work together to understand the research results to determine what additional research may be needed to fully understand results, implications, and long-term impacts. Part of this discussion could take the form of the state asking the researchers for feedback on proposed next-step actions that the state is considering.

How can a state achieve this?

When considering how data will be reported and disseminated, SEAs and researchers may consider specific audiences (e.g., a dropout prevention office, state office of higher education) and the information or report formats that meet these audiences' individual needs. For example, while policymakers may need only high-level findings, program auditors and evaluators may require more complex analyses and data.

Baltimore Education Research Consortium

The Baltimore Education Research Consortium is a partnership consisting of Baltimore City Public Schools (BCPS); Johns Hopkins University; Morgan State University; and other civic/community partners including the Greater Baltimore Urban League, Associated Black Charities, and Baltimore City Health Department. Part of the Consortium's focus is on rapid response analyses requested by BCPS that can be used to inform district decisionmaking. In addition, the Consortium's participatory model provides multiple opportunities for community groups to hear updates about the research and invites stakeholders to review and comment on preliminary findings.

FOCUS AREA 8

Capacity Building

Research partnerships provide an opportunity to build not only long-term relationships with researchers outside of the SEA but also internal agency capacity to design, conduct, interpret, and use education research to support student success.

Why does capacity building matter?

Developing SEA research capacity does not eliminate the role of the research partnership or mean that all research will be conducted internally and the state will no longer partner with external researchers. Rather, building SEA capacity is a way to make partnerships even more effective as the state develops the ability to help plan, understand, and use research to shine a light on important issues that affect students.

What does strong capacity building look like?

- Internal SEA teams have the skills, structure, time, and support to take on research projects and make policy decisions based on research findings.
- The SEA emphasizes using data for continuous improvement, and it models and encourages the use of data and research to inform conversations and inspire change at both the policy and program levels.
- The SEA invests in data literacy for staff at the state and local levels and in developing data analysis and interpretation skills across the agency.
- The SEA engages research partners for technical assistance to help build SEA capacity in handling data.
- The state works to identify federal, private, and foundation grants and programs that could be used to help build research capacity within the SEA.
- The SEA develops intrastate and interstate partnerships to build capacity and learn how to overcome common obstacles.

How can a state achieve this?

SEAs can build internal research capacity in part by rethinking staffing and personnel expertise. SEA staff who can help design, conduct, interpret, and report research do not necessarily need to be research scientists. Many graduates of data-intensive master's programs, for example, can perform the same basic analysis or interpretation as someone with a PhD. SEAs can also build their internal capacity by facilitating interagency conversations to share expertise and allow researchers from across the state to use data that is held by different departments to answer statewide research questions. In addition, SEAs can work with partners committed to helping grow state research capacity. For example, the Tennessee Education Research Alliance is focused on conducting and directing research to help Tennessee build its capacity for continuous education improvement.

Strategic Data Project

The Strategic Data Project at the Center for Education Policy Research at Harvard University is an initiative committed to applying high-quality research methods and data analysis in local education policy decisions in service of student achievement. The Project's fellowship program places data analysts in school systems, state education departments, and nonprofit organizations. Over the course of the two-year program, the analysts help develop their host agency/organization's data use culture and build its research and data management capacity. Like many states, Delaware has benefited from a partnership with the Strategic Data Project to make data-driven decisions and grow its capacity to understand and use data.

APPENDIX

In May 2017, the Data Quality Campaign (DQC) and a group of education researchers and policy experts embarked on a project to define what effective research partnerships between education researchers and SEAs look like. DQC identified the partners listed below to help develop, refine, and review the recommendations. SEAs that are looking to develop effective research partnerships with education researchers can build on the lessons that these researchers provided in this roadmap.

NAME	ORGANIZATION
Juliane Baron	American Educational Research Association
Heather Boughton	Ohio Department of Education
Caitlin Farrell	National Center for Research in Policy and Practice
Dan Goldhaber	Center for Education Data and Research at the University of Washington; CALDER (National Center for Analysis of Longitudinal Data in Education Research)
Doug Harris	Education Research Alliance for New Orleans at Tulane University; Brookings Institution
Michele Leardo	The Institute for Education and Social Policy at New York University
Macke Raymond	The Center for Research on Education Outcomes at Stanford University
Rachel Rosen	MDRC
Nate Schwartz	Tennessee Department of Education
Will Snow	The Center for Research on Education Outcomes at Stanford University
Amelia Vance	Future of Privacy Forum

DQC
DATA QUALITY CAMPAIGN

The Data Quality Campaign is a nonprofit policy and advocacy organization leading the effort to bring every part of the education community together to empower educators, families, and policymakers with quality information to make decisions that ensure that students excel. For more information, go to www.dataqualitycampaign.org and follow us on Facebook and Twitter (@EdDataCampaign).