

Advancing State Data Sharing for Better Economic and Workforce Development



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Dr. Kenneth E. Poole and Dr. Ellen D. Harpel



**STATE DATA
SHARING INITIATIVE**

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EXECUTIVE SUMMARY

States rely on sound workforce and economic development investments to fuel their economic engines. But are these investments working the way state leaders expect? Increasingly, leaders demand greater accountability for government resources invested in both workforce and economic development programs. Access to reliable, accurate data is critical to answering fundamental questions about the outcomes and effectiveness of these programs.

Administrative data is a strategic asset that states can use in this regard. Sharing administrative data for policy analysis and program evaluation can improve evidence available to state leaders as they determine which economic and workforce development programs are likely to produce the greatest benefits for the state's economy, workers, and communities.

Data sharing is important for evidence-based policy making, but it does not just happen. States have learned that enabling access to existing administrative records for program research and analysis requires active management.

This report offers five lessons learned on ways states can improve data sharing.

- States can “get to yes” by addressing cultural barriers to data sharing.
- Data stewards are more likely to support data sharing efforts when it is clearly articulated what the circumstances in which data may be shared are.
- States need to dedicate resources to data sharing efforts.
- Data sharing advocates must manage internal stakeholders within their organization to gain and sustain support.
- Standardizing data sharing processes creates meaningful progress.

Beyond these five lessons learned, states face a common set of data sharing challenges. These challenges relate to:

- Governance Policies
- Data Sharing Process Management
- Information Technology
- User Understanding and Access
- Integrating Quality Data and Program Metrics

The Center for Regional Economic Competitiveness (CREC) created the State Data Sharing (SDS) Initiative, which seeks to improve public policy program outcomes by enabling evidence-based policy-making in support of rigorous policy analysis and program evaluation through greater sharing of state administrative records. While the CREC-supported SDS Initiative focused on economic and workforce development, the experiences could also inform broader policy areas, including education, health, and criminal justice. Five states participated in the SDS Initiative and tackled these issues in a variety of ways. In this report, we summarize their experiences of working together and separately to address their state's data sharing practices during the Initiative. Overall, states participating in the SDS Initiative

implemented multiple strategies to address their challenges related to interagency sharing of administrative data to analyze and evaluate economic and workforce development programs.

Through the SDS Initiative, states learned that there is a need to build the capacity to sustain data sharing efforts, specifically in two areas. First, states benefit from bringing together data-owning agencies and data requestors to discuss the need for more data sharing and examine the current processes. Second, states need access to resources, both financial and human, for rigorous economic and workforce development program evaluation research using administrative data. CREC intends to continue work in this arena to provide guidance on what constitutes a quality analysis; develop replicable methods that states can use to validate collected data on incentive outcomes; design a process for evaluation in minimally-resourced environments; and ensure access to expertise to sustain this work going forward.

INTRODUCTION

States rely on sound workforce and economic development investments to fuel their economic engines. But are these investments working the way state leaders expect? Increasingly, leaders demand greater accountability for government resources invested in both workforce and economic development programs. Access to reliable, accurate data is critical to answering fundamental questions about the outcomes and effectiveness of these programs. Increased intrastate administrative data sharing for policy analysis and program evaluation that complies with federal or state data confidentiality laws can improve policymaker decisions concerning which public investments produce the greatest benefits for workers, communities, and the state's economy.

Increased intrastate administrative data sharing for policy analysis and program evaluation can improve policymaker decisions.

This paper explains the value of state data sharing, barriers states face in using administrative data for program analyses, and lessons learned from states on ways to overcome those barriers. Our purpose is to inform others of what worked and what did not during the Initiative and share strategies that other states might apply to improve and make their current programs more effective. The focus is on administrative data related to economic and workforce development, but the lessons learned could apply to data available in other policy domains, as well. We also offer next steps that states can take to improve data sharing to conduct rigorous analysis and make evidence-based policy decisions in their economic development and workforce programs.

BOX 1 WHAT ARE ADMINISTRATIVE RECORDS?

The terms “administrative records” and “administrative data” refer to data regularly collected through the operation or administration of state or local programs. These data are not collected for statistical purposes but for use in monitoring program impacts and performance, and the records contain valuable information about the characteristics and behaviors of companies and workers.¹ Corporate tax and unemployment insurance records are examples of state administrative data that can be useful to analyze and evaluate economic and workforce development programs.

BOX 2 WHAT IS DATA SHARING?

Data sharing is a formal process in which state agencies grant access to appropriate segments of their data to program agencies or non-government researchers that are supporting activities (such as program evaluations) authorized under federal or state data confidentiality laws and regulations. Data sharing embraces laws, policies and practices that allow data-gathering agencies to provide anonymized segments of their records for policy analysis and program evaluation purposes. Where combining records may be necessary, the data linkage is made in a secure environment, access is restricted, and results are reported in anonymized form so that private or confidential data are not revealed about individuals or firms.

Data sharing is important because it enables researchers and state government agencies to access administrative data sets for program evaluation and policy analysis. States frequently restrict access to full data sets – such as wage and tax records - to protect business and individual confidentiality. Therefore, states must take steps to manage the data sharing process so that confidentiality is protected at the same time program outcomes can be assessed.

¹ U.S. Office of Management and Budget. 2014. “Building Evidence with Administrative Data.” In Analytical Perspectives, Budget of the United States Government Fiscal Year 2016, cited in Improved State Administrative Data Sharing: A Strategy to Promote Evidence-Based Policymaking for Economic and Workforce Development,” CREC January 2017, p. 3. https://www.whitehouse.gov/sites/default/files/omb/budget/fy2016/assets/ap_7_evidence.pdf

DATA SHARING IMPROVES PROGRAM EVALUATION AND EVIDENCE-BASED POLICYMAKING

When appropriately directed, public workforce and economic development investments can improve the lives of individuals and help to strengthen our economic system. States are an important source of these investments. Each year more than \$7.2 billion in taxpayer dollars are invested directly in state economic development programs² and estimates of incentive spending range from \$22 billion to \$45 billion annually.³ However, little is known about the real economic and fiscal impacts of these investments. The lack of resources and adequate data gathering systems means that evidence-based policymaking in economic development is not currently a commonplace practice. Poorly defined objectives within many economic development and workforce programs that do not clearly indicate what outcomes programs are intended to achieve also hinder assessment efforts.

To evaluate these programs, states need to know: the metrics against which the programs will be evaluated;⁴ how data are collected and by whom; how and where to access the data; and who maintains the necessary data.

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Administrative data can offer state leaders third-party validated evidence to help them determine which economic and workforce development programs are likely to produce the greatest benefits for the state's economy, workers, and communities.

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² "State Economic Development Expenditures Database," Council for Community and Economic Research, www.stateexpenditures.org.

³ Timothy J. Bartik, "A New Panel Database on Business Incentives for Economic Development Offered by State and Local Governments in the United States," W.E. Upjohn Institute for Employment Research, February 2017.

⁴ For more information see State Economic Development Performance Indicators White Paper, Center for Regional Economic Competitiveness (CREC) with Smart Incentives, 2016 and Redefining Economic Development Performance Indicators for a Field in Transition, CREC, 2017.

Administrative data is a strategic asset that states can use to improve public investment decisions (Figure 1). Shared administrative data can offer state leaders third-party validated evidence to determine how to make economic and workforce development programs work more effectively and then assess which programs are likely to produce the greatest benefits for the state’s economy, workers and communities.

FIGURE 1 DATA SHARING VALUES

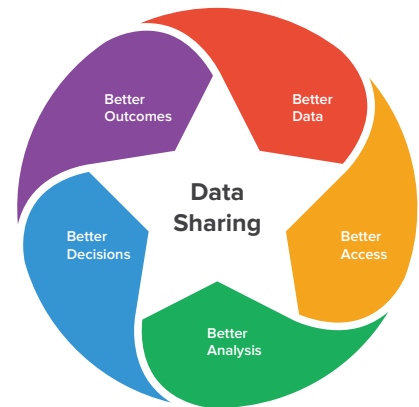
Better Data – Administrative records result from transactions between government and companies or workers, providing valuable insights about their program-relevant characteristics and activities.

Better Access – States can take steps to enable access to specified administrative data in compliance with the spirit and intent of federal and state data confidentiality laws.

Better Analysis – Available administrative data provides information not otherwise available that can improve researchers’ understanding of the impact of public investments.

Better Decisions – Leaders armed with better research can make more informed decisions.

Better Outcomes – Evidence-based decisions are likely to result in more effective program outcomes.



For example, many states wish to learn more about how well their tax credit programs work. State economic development agencies typically approve companies eligible to participate in certain tax credit programs, but they often do not have access to tax data to verify whether companies use those tax credits in any given year or the amount of the credit taken. The lack of data access hinders states’ abilities to determine the cost and impact of tax credit programs. For many discretionary tax credit programs, companies typically must apply to demonstrate that they are eligible to receive the credit in exchange for job creation or investment activities that they undertake. However, companies request receipt of those credits through their tax returns, and the economic development agency typically does not have access to these returns to determine whether the company used the correct level of credit or to validate whether they made the investment or produced the jobs required to be eligible for the credits taken.

BOX 3 STATE DATA SHARING INITIATIVE



In 2016, the Center for Regional Economic Competitiveness (CREC) undertook the two-year, two-phase State Data Sharing Initiative (SDS Initiative). The SDS Initiative helped states overcome barriers to data sharing by enabling specified access to data sets among the state agencies that maintain administrative records, their sister program agencies (such as economic and workforce development departments), and outside researchers who may support policy analysis and program evaluation efforts.

To perform the types of rigorous program evaluations that lead to more effective outcomes of public investments, state agencies need to define who can access confidential administrative data records, for what purposes they may access those data and how the user will maintain the security of those data. Improved data sharing processes not only lead to better research, it also improves the quality of administrative records. By working together, stewards and users can more quickly identify data errors and then jointly identify strategies to avoid those errors in the future, resulting in higher quality data.

We hope that these insights will inform the strategies of economic and workforce development departments interested in more effectively evaluating their programs through better data sharing practices.

FIVE LESSONS LEARNED FOR ADVANCING DATA SHARING PRACTICES

Data sharing is important for evidence-based policy making, but it does not just happen. Legal and organizational restrictions, incomplete understanding of both data availability and the rules for using data responsibly, and information technology infrastructure that hinders rather than helps agencies share data are among the barriers to using existing administrative data resources for program evaluation. States have learned that enabling access to existing administrative records for evidence-based policy making requires active management at both the leadership and staff levels.


States have learned that enabling access to existing administrative records for evidence-based policy making requires active management at both the leadership and staff levels.


CREC provided technical assistance to five multi-agency teams (Box 4) as part of the State Data Sharing Initiative. The work built upon CREC's research on laws, regulations, policies, and practices that govern the sharing of administrative data.⁵ CREC also facilitated multiple forums and other opportunities for interstate dialogue among the participating teams to better understand both the overarching policy barriers to data sharing and the day-to-day working challenges states experience as they strive to improve data sharing processes.

BOX 4 THE FIVE STATE TEAMS AND THEIR PARTICIPATING AGENCIES IN THE STATE DATA SHARING INITIATIVE ARE:

Iowa, represented by the Iowa Economic Development Authority, Iowa Workforce Development, Department of Revenue, and the Department of Management.

Minnesota, represented by the Department of Employment and Economic Development and Minnesota Management and Budget.

Utah, represented by the Governor's Office of Economic Development and the Department of Workforce Services.

South Carolina, represented by the Department of Commerce, Department of Revenue and Fiscal Affairs, and the Commission on Higher Education.

Wisconsin, represented by the Wisconsin Economic Development Corporation, Department of Revenue, and Department of Workforce Development.

⁵ Center for Regional Economic Competitiveness. 2016. "Improved State Administrative Data Sharing: A Strategy to Promote Evidence-Based Policymaking for Economic and Workforce Development." Arlington, VA: Center for Regional Economic Competitiveness.

1. STATES CAN “GET TO YES” BY ADDRESSING CULTURAL BARRIERS TO DATA SHARING

While privacy and confidentiality laws establish limits around administrative data sharing—especially when personally identifiable information is involved —many laws allow users to share some data for specified purposes, such as research and program oversight. In fact, barriers to data sharing are frequently cultural rather than legal, and states can “get to yes” with well-defined purposes.

Many perceive existing laws governing confidentiality around data management practices as impenetrable barriers to information sharing. Often data requests are rebuffed with, “We are not allowed to do that.” The lack of understanding about the actual legal parameters that govern data sharing in a state results in inaccurate presumptions of what is permitted and what is not.

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Many laws and regulations addressing confidentiality and privacy often allow data to be shared for authorized purposes.
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While statutory language may allow room for data sharing, often partners need a clearer explanation of that language to better understand the meaning. The report, *The Promise of Evidence-Based Policymaking* explains, “What people care most about is not simply restricting the flow of information but ensuring that it flows appropriately.”⁶ CREC has also found through its previous research (Figure 2) that many laws and regulations addressing confidentiality and privacy allow data to be shared for “authorized purposes,” which may include analysis and evaluation of public programs. For example, Delaware’s corporate tax confidentiality law states that data can be disclosed for the “publication of statistics” if specific taxpayers are not identifiable. In Iowa, certain unemployment insurance data are available to other department employees in connection with “official duties” for research of a public nature if individual or employing entity identities are not revealed.

FIGURE 2



CONFIDENTIALITY LAWS & REGULATIONS DATABASE

The Data Sharing Clearinghouse available at www.statedatasharing.org provides a 50-state overview of confidentiality laws and regulations governing corporate tax and unemployment insurance data.

States participating in the SDS Initiative found that agency culture surrounding administrative data was a more important inhibitor to enabling access than legislative restrictions. Agency staff often expressed concern about severe penalties for violating disclosure rules, making it easier to say “no” even when unclear about the specific laws and regulations. Agencies may also have a tradition of data stewardship that emphasizes protecting and keeping data, rather than sharing access. Most importantly, agencies fear they will lose control over how others will use the data, which could result in negative reports about the agency itself or improper use of data in inferior quality research.

⁶ Helen Nissenbaum quoted by the Commission on Evidence-Based Policymaking (September 2017) “The Promise of Evidence-Based Policymaking. Report of the Commission on Evidence-Based Policymaking,” p. 50.

States are directly addressing these cultural barriers to data sharing. For example, Wisconsin administered a survey of administrative staff to learn more about how current data sharing practices affect the ability of both data stewards and data users within state government to do their jobs. The survey found 88% were unsure about data sharing rules and 75% said lack of access affected their ability to do their jobs. The survey's detailed questions in these categories created a compelling starting point from which to improve the data sharing environment for all participants and was the catalyst for more open discussions across agencies around identifying challenges and the manner and resources needed to address them. Although discussions between agencies are just beginning, agencies have come together and have identified points of contact within each agency to funnel requests related to data sharing. This creates a go-to person who can facilitate requests in each agency.

2. CLEARLY ARTICULATE THE LAWS GOVERNING DATA SHARING

CREC's research has revealed that staff interpret the laws governing data practices differently, which causes confusion about exactly what is allowable. The lack of clear guidance coupled with specific and severe penalties for improper data use make it easy to refuse data sharing requests. Data stewards are more likely to support data sharing efforts when the circumstances in which staff can share data is clearly articulated. Although counter-intuitive, states that have laws specifically identifying who could share, for what purposes, and when the sharing could occur, are more likely to share data.

In response, states have created either internal processes or statutory language that both provide a rationale and explicitly allow data sharing for specified purposes following agreed-upon rules. For example, Minnesota created a process for businesses participating in designated state programs to provide consent for department staff to access certain administrative wage and employment data for outcome verification purposes. Utah's legislature passed a bill that requires the Utah Tax Commission to provide the Utah Governor's Office of Economic Development greater access to tax record data of tax incentive recipients. South Carolina intends to pursue legislation enabling the capture of information concerning occupation and hours worked from state unemployment insurance reporting and to require longitudinal data sharing to better monitor workforce development outcomes.

3. STATES NEED TO DEDICATE RESOURCES TO DATA SHARING EFFORTS

Data sharing need not be a resource-intensive effort—after all, the point is to access data the state already has— but there are costs. Improving data sharing processes may require hiring or tasking staff who have appropriate technical, legal, statistical, or program evaluation expertise; making data sharing a priority rather than an afterthought to current staff workloads; and investing in information technology enhancements within and across agencies.

Agencies need these staff and information technology resources to streamline data sharing policies and processes, respond to requests for information and establish data governance procedures. Over time such streamlining will enable greater data access at lower costs to both data stewards and users. In turn, decision makers and taxpayers will gain more insight into program effectiveness, enabling better decisions on allocation of program funds.



Data sharing need not be a resource-intensive effort—after all, the point is to access data the state already has—but there are costs.



States are taking different approaches to allocating resources. At the beginning of the Initiative, Iowa’s key objective was to move beyond an ad hoc approach to data sharing, however, during the Initiative, the team realized the true barrier would be budget issues that would constrain its ability to invest in new processes and technologies. In response, the team added someone who had expertise in public data management processes and with the state’s information technology assets from the Iowa Department of Management. Because the Department of Management develops and manages the state’s data portal (iowa.data.gov), with this addition, Iowa was able to identify free tools to develop a web portal to manage the state’s data asset inventory, migrate a newly developed standard data request process into an integrated web form, and add web functionality designed to manage the collection and sharing of the data asset information.

At the opposite end of the spectrum, legislation in Utah led to the establishment of the Utah Data Research Center (UDRC) within the Department of Workforce Services. The statute requires the State Board of Education, State Board of Regents, Utah College of Applied Technology, Department of Workforce Services, and Department of Health to contribute data to the UDRC. The legislation also directs the UDRC to create a data research program that contains deidentified data from participating state entities; accepts requests from state government officials or members of the public; establishes a prioritized list of data research requests for the state; and creates an online data visualization portal. The bill provided for an ongoing appropriation of \$955,000 from the General Fund.

4. DATA SHARING ADVOCATES MUST MANAGE UP AND DOWN TO GAIN AND SUSTAIN SUPPORT

Leadership sets the stage for data-driven analysis and evidence-based policymaking, but staff make it happen. Data stewards and data users have learned that to advocate effectively they need to maintain visibility for the data sharing effort among both leadership and their staff peers. State participants communicated the importance of consistently engaging stakeholders around the value of administrative data in supporting evidence-based policymaking while reducing government costs to evaluate programs and enhancing the ability of staff members to do their jobs.



State participants communicated the importance of consistently engaging stakeholders around the value of administrative data.



Most state data sharing teams found that ongoing communication to engage, not just inform, staff and leadership was necessary to sustain the agency’s commitment to data sharing for evaluation. States found that the best way to engage others in the discussion was to appeal to the agency’s need to answer broad research questions that could help improve the agency’s strategic direction and how it delivered its programs and services. For example, Minnesota demonstrated that data sharing enabled

useful analysis of workforce training impacts for the state’s economic and workforce development programs. The project team also learned it needed to re-engage and build support among the research staff in the face of personnel turnover and competing priorities. Wisconsin administered a survey across agencies that revealed that current data sharing practices in the state negatively impacted personnel in doing their jobs. In response, the three participating agencies began to engage staff at all levels in the discussion of how to build a sustained data sharing effort between agencies. Agency leadership was on board with improving data sharing processes; the survey indicated that the rest of the staff needed to be brought on board and included in discussions as well. Similarly, the Utah team identified that their most critical challenges over the few years would be to instill trust, maintain the buy-in of agency staff, and encourage data sharing activities that were historically not part of an agency’s past responsibilities.

5. STANDARDIZING DATA SHARING PROCESSES CREATES MEANINGFUL PROGRESS

Each of the state’s plans during the Initiative addressed in some way the creation of some type of data inventory and/or the standardization of the procedures to request access to available administrative data. Participants identified establishing data inventories as a priority. Many researchers acknowledged that they were not familiar with what data other agencies collected, so they did not know what data was available. It is hard to request data when you do not know what data is available. Researchers need to know the context of administrative data sets; what is collected, how it is collected, how it is stored and how variables are defined. These elements of data inventories help analysts determine how to use the data sets correctly for research and evaluation projects.

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Even small steps toward standardization of data inventories and access requests can help streamline the data sharing process for both data stewards and users.

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Data sharing requests require procedures (FAQs, forms, templates, online queries) and criteria for accepting the requests, steps for determining eligibility and appropriateness of the requested data use and ensuring that data use remains in compliance with operating data sharing agreements, including maintaining the data in a safe and secure environment. Even small steps toward standardization of data inventories and access requests can help streamline the data sharing process for both data stewards and users.

Representatives from several agencies in Iowa collaborated to build a data inventory. Prior to the launch of the SDS Initiative, state employees had difficulty identifying what data other agencies possessed and who served as the steward for that data. The Iowa team built and began populating the data inventory cataloguing data assets at the Iowa Workforce Development and Department of Revenue. South Carolina established a state [Coordinating Council for Workforce Development](#) to bring players from multiple agencies to the table and work to eliminate barriers that prevent data sharing. Among the council’s accomplishments is establishment of by-laws and procedures for sharing information and creation of a data catalog among the participating agencies. Several states also recommended documenting frequently asked questions (FAQs) about data sharing by tracking and recording questions and responses to transition from an ad hoc to a defined data sharing process.

COMMON DATA SHARING CHALLENGES – AND HOW STATES ARE OVERCOMING THEM

Beyond the five lessons learned, CREC identified a common set of data sharing challenges that most states face. This section examines those challenges and describes how the SDS Initiative states are working to overcome them.

FIGURE 3



GOVERNANCE POLICY CHALLENGES

- » Interpreting legal restrictions
- » Establishing effective data governance models
- » Managing legislative activity to promote data sharing



DATA SHARING PROCESS MANAGEMENT CHALLENGES

- » Streamlining the data sharing process
- » Building staff capacity to respond to an increasing number of data sharing requests
- » Granting access to business data within administrative records



USER UNDERSTANDING AND ACCESS CHALLENGES

- » Educating public officials on the importance of data sharing
- » Informing data users of what data is and is not available
- » Establishing data warehouses or hubs to manage data access



INFORMATION TECHNOLOGY CHALLENGES

- » Finding common identifiers to match different data files
- » Establishing appropriate safeguards to protect shared data
- » Accessing IT resources (e.g., software, hardware, skills) to manage complex data systems

GOVERNANCE POLICIES

Data governance⁷ refers to the processes and framework for managing data assets, including decisions about who can use the data, who “owns” the data, when the data can be used, and for what purposes it can be used. CREC identified the following elements of data governance policy as challenge areas for states pursuing data sharing efforts:

- Interpreting legal restrictions
- Establishing effective data governance models
- Managing legislative activity to promote data sharing

⁷ While there is no single agreed-upon definition for “data governance,” the Data Governance Institute describes it as “a system of decision rights and accountabilities for information-related processes, executed according to agreed-upon models which describe who can take what actions with what information, and when, under what circumstances, using what methods.” <http://www.datagovernance.com/defining-data-governance/> accessed November 2017.

In response, data governance and the legal and cultural framework for data sharing were targeted as an SDS Initiative technical priority. Participating states responded in the following ways:

TABLE 1. STATE GOVERNANCE POLICIES ACTIVITIES

State	Governance Policies Activities	» Completed	» Ongoing
IA	» Improved cross-agency culture of collaboration on data sharing		
MN	» Sustaining interest in and advancing overarching data governance policies to guide efforts » Institutionalizing policies and procedures		
SC	» Sustaining interest in and advancing data governance among stakeholders » Understanding actual versus perceived legal restrictions in sharing data » Agreed to and adopted draft legislation to be recommended to the Coordinating Council for Workforce Development (CCWD)		
UT	» Advanced data sharing practices from ad-hoc and relationship-based to codified legislation providing clear guidance to state agencies about sharing data for measuring program impacts » Passed legislation enacting requirements for the State Tax Commission to share certain data with GOED to better assess economic incentives » Passed legislation creating the Utah Data Research Center (UDRC) as a program within the Department of Workforce Services		
WI	» Addressing cultural challenges to data sharing » Overcoming legal data sharing challenges related to status as a public-private entity		

Data governance continues to be a challenge for most of the participating states. While each state made progress, most are still working on some aspect of the ongoing governance of their data sharing program. Addressing the legal framework remains an issue because staff participating in the SDS Initiative typically do not play leading roles in generating legislation and are recipients rather than creators of legal restrictions. Legislative change takes time. Similarly, establishing data governance policies involves a more complex set of issues than the mechanics of data sharing process management, and states are still in the initial stages of developing and gaining agreement to pursue data sharing policies for the benefit of improving economic and workforce development programs.

DATA SHARING PROCESS MANAGEMENT

Data sharing process management entails the day-to-day work of creating and/or responding to data sharing requests, determining eligibility and appropriateness of use, preparing MOUs or data sharing agreements, and ensuring data use remains in compliance with agreements. Among the key issues is ensuring that data requestors have the capacity to maintain the data in a safe and secure environment. CREC identified the following elements of data sharing process management as challenge areas for states pursuing data sharing efforts:

- Streamlining the data sharing process
- Building staff capacity to respond to increasing data sharing requests
- Granting access to business data within administrative records

In response, the SDS Initiative targeted data management as a technical priority. Developing data inventories became a specific emphasis within this priority because states need to understand the full range of administrative data sets and data elements collected by agencies that are relevant for conducting research and policy analysis. Participating states responded in the following ways:

TABLE 2. STATE DATA SHARING PROCESS MANAGEMENT ACTIVITIES

State	Data Sharing Process Management Activities	» Addressed	» Ongoing
IA	<ul style="list-style-type: none"> » Developed data inventory to compile and categorize available agency data and data stewards » Recruited a leader from Department of Management to build and populate the data inventory » Developing MOU template to include all relevant information 		
MN	<ul style="list-style-type: none"> » Improved staff access to wage record data, resulting in a better ability to provided business-specific data to economic development staff to understand program outcomes » Documented data sharing processes » Updated data inventory » Standardized data sharing agreement template and data request form » Continuing work to improve data transparency and accessibility 		
SC	<ul style="list-style-type: none"> » Established a data sharing working group comprised of more than a dozen agencies and entities to meet regularly, to identify and prioritize data sharing projects that are most beneficial to the state, and to promote an environment conducive to data sharing » Reviewed existing MOUs with appropriate parties to align requirements and to have model templates to access 		
UT	<ul style="list-style-type: none"> » Establishing data sharing MOUs across agencies 		
WI	<ul style="list-style-type: none"> » Developing a web portal using Salesforce for agencies who report economic development award outcomes as part of the state's Annual Report on Economic Development 		

States made substantial progress addressing this challenge, with many creating, updating, or expanding data inventories. Several states also reached across agencies to identify points of contact and build relationships with data stewards throughout state government. Finally, many states took steps to standardize data request forms and data sharing agreements.

INFORMATION TECHNOLOGY

States acknowledged that technical solutions around the mechanics of sharing data were as important as determining preferred governance structures. Advances in technology should favor greater data sharing, but access cannot come at the expense of protecting personally identifiable information and ensuring data security. CREC identified the following elements of information technology as challenge areas for states pursuing data sharing efforts:

- Finding common identifiers to match different data files
- Establishing appropriate safeguards to protect shared data

Information technology issues undergird data sharing efforts but were a middle-tier priority for the participating states.

TABLE 3. STATE INFORMATION TECHNOLOGY ACTIVITIES

State	Data Sharing Process Management Activities	» Completed	» Ongoing
IA	<ul style="list-style-type: none"> » Developed a web portal using Google Sites that includes a data asset inventory that catalogs state agency data resources » Developing an automated data request process to streamline data sharing, which includes a new data sharing MOU template 		
MN	<ul style="list-style-type: none"> » Developing user-friendly tools and finding more efficient ways to securely manage and share data 		
SC	<ul style="list-style-type: none"> » Finding more efficient ways to inventory, document, and manage data, with an emphasis on data security 		
UT	<ul style="list-style-type: none"> » Encrypting all data to ensure the confidentiality of the information and protect the identity of individuals » Building a team of developers and analysts for the Utah Research Data Center » Created a single sign-on database for businesses to interact with state and local government » Created in-house dashboard of incentive recipient activity using unique identifiers and anonymized data 		
WI	<ul style="list-style-type: none"> » Identified points of contact within each agency for data sharing requests » Created standardized data-request form » Reviewed existing MOUs to see what data is currently being requested 		

States striving to improve data sharing for research and program evaluation need to work on technological challenges. The experience of the state teams suggests that leveraging other lead state agencies or offices (typically outside of the participating agencies) or university partners (as exemplified by Maryland’s relationship with the Jacob France Institute at the University of Baltimore) can provide additional resources and technical expertise necessary to make significant advances in improving the information technology infrastructure for data sharing. Otherwise, data stewards and users—who are often subject matter experts but not necessarily IT experts—will continue to take the small steps available to them to tweak processes and systems within their own offices or agencies.

USER UNDERSTANDING AND ACCESS

State leaders and program managers often do not understand the nuances of administrative data. Consequently, they may not value its potential contributions to policymaking, so data sharing is rarely a prominent issue to them. Even engaged leaders could lack an appreciation for important data characteristics that influence whether data is useful for either evaluation or evidence-based decision-making. Accordingly, some participating states focused on how to effectively explain and convey the importance of data sharing, and the amount and detail of work that goes into data sharing, to develop political champions to support their efforts. CREC identified the following elements of user understanding and access as challenge areas for states pursuing data sharing efforts:

- Educating public officials on the importance of data sharing
- Informing data users of what data is and is not available
- Establishing data warehouses or hubs to manage data access

User understanding, and access was initially a lower-tier priority for the participating states, in part because they were already working on stakeholder engagement. However, midway through the SDS Initiative technical assistance, it became clear that sustained stakeholder engagement had reemerged as a critical issue. Accordingly, one of the top lessons learned involved data sharing advocates managing up and down the management chain to gain and sustain support.

TABLE 4. STATE USER UNDERSTANDING AND ACCESS ACTIVITIES

State	Data Sharing Process Management Activities	» Completed	» Ongoing
IA	» Building support among agency leadership and staff by (1) creating a shared data inventory website and standardized data request form that was presented to data agency directors, (2) designing a communications plan to share information about ensure the website and tool, and (3) developing a logistics plan to ensure that agencies incorporate information about priority data sets in the inventory		
MN	» Communicated details regarding data availability and accessibility through stakeholder meetings and an updated data inventory, data request form, and FAQ for data users » Kept data sharing on the agenda and built ongoing support » Continuing to communicate the value of data sharing for performance reporting and accountability		
SC	» Established a data sharing working group comprising more than a dozen agencies and entities to meet regularly, to identify and prioritize data sharing projects that are most beneficial to the state, and to promote an environment conducive to data sharing		
UT	» Creating a dashboard to compile data for the public		
WI	» Implemented cultural survey to determine willingness to share and ease of access » Clarifying to other agencies that while the Wisconsin Economic Development Corporation is not a state agency, it is the state's public-private entity for economic development and thus needs to be a partner in data sharing » Maintaining focus on data sharing issues in the context of changing state priorities » Improving communication on the importance of state data sharing		

State efforts to address user understanding and access ranged from building relationships with internal and external stakeholders to finding ways to sustain those relationships and keep data sharing on the state government or department agenda.

INTEGRATING QUALITY DATA AND PROGRAM METRICS

The states involved in the SDS Initiative never lost sight of the fact that state data sharing is a means to an end. State economic development leaders need accurate, reliable data to assess the outcome and impact of public investments in economic and workforce development programs. For instance, in 2016, Maryland conducted an extensive assessment of 12 of their tax incentive programs, including their enterprise zone and “Sunny Day” fund. Based on the analysis, the Governor proposed legislation in 2017 and 2018 to re-imagine the criteria for making incentive investments to provide an advantage for traditionally disadvantaged rural or disinvested communities. In 2017, Oklahoma completed an evaluation of 12 tax credits using tax record data from the Department of Revenue. Among the credits included several related ‘quality jobs’ tax credit programs. An appointed Incentives Evaluation Commission recommended retaining several of these programs while repealing the High Impact Quality Jobs because the data suggested it needed to be reconfigured to work as intended.

This goal must remain front and center as the framing argument for increasing data access. State efforts to integrate data sharing with program outcomes included discussions about how to articulate the most relevant metrics and how administrative data can help to validate program outcomes to internal and external audiences.

Overall, this engagement informed multiple strategies to address state-specific challenges related to the interagency sharing of administrative data for analyzing and evaluating economic and workforce development programs.

TABLE 5. STATE ACTIVITIES TO INTEGRATE DATA AND PROGRAM METRICS

State	Data Sharing Process Management Activities	» Completed	» Ongoing
IA	» Pushing legislative language defining outcome metrics in any new economic development programs		
MN	» Addressed ways to measure economic development performance via University of Minnesota collaboration » Aligned efforts around data sharing and program evaluation that the state took with this Initiative with the Governor’s goals to improve equity outcomes of the state’s programs » Made progress in determining how to present and share outcome data » Developing a single web-based clearinghouse for performance data		
SC	» Recommended capturing Standard Occupation (SOC) data and hours worked to improve the planning and program evaluation efforts of several agencies, including human services, criminal justice, education, workforce, and economic development.		
UT	» Advanced data sharing practices from ad hoc and relationship-based to codified legislation providing clear guidance to state agencies about sharing data for measuring program impacts » Passed legislation enacting requirements for the State Tax Commission to share certain data with GOED to assess economic incentives » Economic development is working to create a white paper and dashboard on effectiveness of incentives		
WI	» Working to include lean and needs assessments with agency heads		

NEXT STEPS/FUTURE DIRECTIONS

Data sharing is critical to supporting program evaluation and evidence-based policy making within economic development and workforce organizations. Data sharing that enables appropriate access to existing sources of reliable, accurate data will help answer fundamental questions about the effectiveness of these programs. The dollars that support economic development and workforce programs are public dollars and the public, i.e., residents, workers and legislators, are paying more and more attention to how these dollars are used and are putting more pressure on public agencies to justify their investment decisions. Unfortunately, most economic development and workforce organizations currently have limited access to third-party, validated data— such as administrative records—that enable rigorous research. Improving access to existing administrative data sets as a resource to enable quality research on the effectiveness and outcomes of economic and workforce development programs should therefore remain a priority.

As stated early in this paper, states need to build their capacity if they hope to sustain data sharing practices that promote public confidence in public investments and ensure data confidentiality. Below we lay out some thoughts on the future direction of data sharing practices. efforts, specifically in two areas.

EXPANDING THE ROLE OF DATA INTERMEDIARIES

Data intermediary groups collect records from various agencies and combine them for later reuse by researchers. They are typically independent and not tied to specific government agencies. The value add is that they provide access to information, they ensure and that it is used effectively and properly in the public interest.⁸ Data intermediaries bring specialized expertise to the table that data producers

8 Catalog of Administrative Data Sources for Neighborhood Indicators, A National Neighborhood Indicators Partnership Guide. Claudia J. Coulton. Urban Institute, 2006, p. 2. Citing Kingsley and Pettit 2004.

and users often lack, including knowledge about research methodologies, data confidentiality laws and regulations, and management of secure data sites.

This effort focused on state data centers, such as those created in South Carolina and Utah, but in other national instances centers exist in state universities that have developed data sharing agreements to govern and manage data. Some states have designated relationships with universities to clean and curate their data in exchange for conducting research of interest to the state. The Jacob France Institute at the University of Baltimore represents just such a group in Maryland, but other examples abound.

In other cases, there are organizations independent of a state's government that are contracted to link restricted use data from multiple sources together on behalf of multiple users (including public and academic analysts) and requires specialized expertise in enabling data sharing. These organizations, which could be a university or non-profit research organization, are referred to as administrative data research facilities (ADRFs). ADRFs understand the criteria for the sharing of data, validating the eligibility of potential data users, maintaining the security and confidentiality of the data set, and managing data use requests and approvals. These intermediaries are becoming increasingly important as states recognize that data sharing requires the time and expertise that state data holding agencies may not have. While the focus of this Initiative has been to promote data sharing both within state agencies and between state agencies, the rise of ADRFs as users of administrative data as contractors hired to conduct policy analyses or program evaluations for a state suggest that future discussions will include how states will work with these outside entities as well.

IMPROVING STATE CAPACITY TO CONDUCT PROGRAM EVALUATIONS

With better access to administrative data about economic and workforce development investments, states can conduct better analysis based on more rigorous social science standards. This research could guide leaders to make better decisions. Better decisions, in turn, lead to better outcomes. Several proponents of evidence-based policy making in economic development have worked to improve the data sharing environment (see Appendix I). These efforts have been important in transforming states' willingness to conduct rigorous analysis, and this work has helped to advance evaluation efforts in many states. Yet these efforts are only the beginning of a journey for state economic development agencies seeking to adopt evidence-based decision making as a guiding principle. Much work remains to be done to transition to a culture in which rigorous, independent evaluation is valued as a resource for making sound economic and workforce development investments.

CREC intends to continue work in this arena to provide guidance on what constitutes a quality analysis, develop replicable methods that states can use to validate collected data on incentive outcomes, design a process for evaluation in minimally-resourced environments, and ensure access to expertise to sustain this work going forward.

APPENDIX I. DATA SHARING RESOURCES

DATA SHARING CLEARINGHOUSE

This online data sharing landscape tool provides insight into current and existing data sharing practices by select states. The clearinghouse highlights potential solutions to challenges that states experience while expanding their capacities to confidentially and securely share administrative data. By capturing a cross-section of state efforts to address the data-sharing challenges, states can use the clearinghouse to compare their own situation to other states aspiring to enhance intrastate data sharing practices. Importantly, state decision makers and policymakers can reference the tool to provide potential precedent for transforming the discourse, culture, and utility of data sharing.

Better Data
Administrative records contain valuable microdata for policy analysis and program evaluation.
[Learn More](#)

Better Access
Understanding laws that protect administrative records can help create secure pathways to efficient data access.
[Learn More](#)

Better Analysis
Using microdata from administrative records enables more rigorous policy analysis and program evaluation.
[Learn More](#)

Better Decisions
Leaders provided with rigorous program impact assessments can make more informed decisions about public investments.
[Learn More](#)

Better Outcomes
Data-driven decision making can result in better outcomes for public program participants.
[Learn More](#)

STATE DATA SHARING INITIATIVE

The State Data Sharing Initiative (SDS) seeks to improve public policy program outcomes by enabling evidence-based policymaking through greater sharing of state administrative records in support of rigorous policy analysis and program evaluation. Our efforts, focused on economic and workforce development, could also inform broader policy areas, like education, health, and criminal justice policy.

[LEARN MORE ABOUT DATA SHARING](#) [LEARN MORE ABOUT THE SDS INITIATIVE](#) [READ ABOUT OUR RESEARCH](#)

The Data Sharing Toolkit on the site is organized as follows:

- **Data Management Bodies and MOUs**
This tab captures information from states that 1) have established data management governance processes featuring a designated data management body or entity (i.e. nonprofit, department, agency, or office within the state) and 2) have Memoranda of Understanding (MOUs) that accompany the data management governance strategies for a given state.
- **Data Sharing Legislation**
This tab provides information on states that have enacted legislation (active) that delineates the entities, roles, responsibilities, and permitted purposes for sharing data in each state.

- **Data Inventories/Data Dictionaries**

This tab captures a snapshot of states that have agencies that employ data inventories or data dictionaries.

- **Metrics for Success Legislation**

This tab lists states that have legislation on metrics of success for economic and workforce development programs.

Learn more at www.statedatasharing.org.

SDS LEGAL PLAYBOOK

The SDS Legal Playbook, entitled “Legal Guide to Administrative Data Sharing for Economic and Workforce Development”, is an accompanying publication to CREC’s data sharing work over the past two years and is available on the SDS website. It provides the legal context for state data sharing, including an overview of federal and state requirements related to privacy and data security. It addresses key elements of legal agreements, including establishing a clearly defined purpose, terms, and conditions for data access; reviews legal data sharing authority and practices; and discusses establishing uses, roles, and responsibilities for interagency data sharing. Processes for creating recurring agreements as well as one-off transactional agreements will also be covered.

IMPROVED STATE ADMINISTRATIVE DATA SHARING: A STRATEGY TO PROMOTE EVIDENCE-BASED POLICYMAKING

This 2017 report from the Center for Regional Economic Competitiveness summarizes SDS Initiative research about the legal and regulatory environment, best practices, and the status of reform efforts to encourage safe and secure data sharing efforts that protect confidentiality while improving analysis and evaluation. Available at http://statedatasharing.org/about/SDS_Initiative_Research_Paper_2017.pdf

OTHER NATIONAL DATA SHARING INITIATIVES

- The Commission on Evidence-Based Policymaking released its report, The Promise of Evidence-Based Policymaking, in September 2017. The Commission’s purpose was to study and develop a strategy for strengthening government’s evidence-building and policymaking efforts. This report describes the Commission’s findings and presents recommendations for fundamental improvements to the Federal government’s evidence-building systems and capabilities. Specifically, the Commission’s report includes recommendations on (1) how the federal government can provide the infrastructure for secure access to data, (2) the mechanisms to improve privacy protections and transparency about the uses of data for evidence building, and (3) the institutional capacity to support evidence building.
- The Administrative Data Research Facilities (ADRF) Network is a collection of professionals sharing approaches and fostering collaborative opportunities for using administrative data (primarily at the federal level) within the research community. The Network, managed under a grant from the Alfred P. Sloan Foundation by Actionable Intelligence for Social Policy (<https://www.aisp.upenn.edu/>), includes three working groups aimed at developing collective network resources to improve the sharing and use of administrative data for social science research: Privacy and Data Security, Data

Sharing Governance and Management, and Data Quality Standards for Administrative Data. Learn more at <https://www.adrfconference.org>.

- The Center for Administrative Records Research and Applications (CARRA) strives to enhance Census Bureau operations and extend demographic and socioeconomic research capabilities. CARRA is charged with the strategic reuse of administrative data from federal, state, and third-party providers. The Center's working papers can be accessed via <https://www.census.gov/library/working-papers/series/carra-wp.html>.
- The Workforce Data Quality Initiative helps states use longitudinal data systems to follow individuals through school and into and through their work life, using data reported by employment services and training providers. <https://www.doleta.gov/performance/workforcedatagrants09.cfm>
- The Statewide Longitudinal Data Systems (SLDS) Grant Program works to enhance the ability of states to efficiently and accurately manage, analyze, and use education data. The SLDSs are intended to help states, districts, schools, educators, and other stakeholders to make data-informed decisions to improve student learning and outcomes as well as to facilitate research to increase student achievement and close achievement gaps. <https://nces.ed.gov/programs/slids/>
- The Workforce Data Quality Campaign (WDQC) is a nonprofit, nonpartisan project of the National Skills Coalition. It promotes federal and state policies that provide stakeholders (students/workers, employers, policymakers, educators/practitioners) with actionable data that is effectively used to assess and improve the nation's education and workforce strategies. <http://www.workforcedqc.org>
- The National Association of State Workforce Agencies (NASWA) Labor Market Information Committee believes that ensuring access to quality data assists states in making data-driven decisions that result in positive labor market outcomes for customers. The Committee's Data Sharing Initiative focuses on streamlining the agreement process to make wage record data exchange more efficient, conducting quasi-experimental evaluations, enhancing supply and demand analysis, improving longitudinal data sets, and enhancing survey data through the addition of demographic data. <https://www.naswa.org>
- The Western Interstate Commission for Higher Education (WICHE) data work facilitates resource sharing among the higher education systems of the West, including longitudinal data captured by K-12 education, postsecondary education institutions, and workforce sectors. <http://www.wiche.edu>
- The Local Employment Dynamics Partnership merges data from workers with data from employers to produce a collection of enhanced labor market statistics. https://lehd.ces.census.gov/state_partners/

APPENDIX II. SDS INITIATIVE STATE PARTICIPANT PROFILES



IOWA

Impetus for Action	Persisting Challenges	Key Accomplishments	Next Steps
<p>Iowa's efforts focused on facilitating data sharing through a centralized inventory describing administrative data that state agencies possess and a standardized application process for data sharing requests between state agencies.</p> <p>Without any funding dedicated to our efforts, the team had to find free tools to develop a website for managing the data inventory and the sharing process.</p>	<p>Getting buy-in from all state agencies to provide data asset information in the inventory.</p> <p>Concern that some agencies will not want to share OR that they will not dedicate the resources needed to complete the inventory, weakening the benefits to all state agencies.</p> <p>Working on communication to agency directors promoting success stories from prior data sharing among various agencies to demonstrate the benefits from this more systematic and widespread effort.</p>	<p>Team has developed a Data Asset Inventory website for Iowa state agencies to search and make requests.</p> <p>Iowa Department of Revenue and Iowa Workforce Development have loaded data asset information into the inventory.</p> <p>Promotion of the site to all other agencies began with an outreach by the Iowa Department of Revenue Director at the 2017 Governor's Retreat.</p>	<p>Develop a communication plan to promote agency participation in adding data assets to the inventory and use the inventory to search for data and make requests.</p> <p>Implementing an automated follow-up on open requests to ensure agency participation.</p> <p>Working through the process to automate reporting of the status changes to the requestor of the data asset.</p> <p>If an MOU is used in the data sharing process, develop a practice and method for the agency owning the dataset to submit a template to the inventory for future use by other agencies.</p>



MINNESOTA

Impetus for Action	Persisting Challenges	Key Accomplishments	Next Steps
<p>Minnesota state agencies have varying levels of internal data governance, while some cross-agency data systems have very advanced data governance structures.</p> <p>Department of Employment and Economic Development (DEED) efforts to begin organizing an agency-wide data governance initiative stalled.</p> <p>Focus to work on what staff can control—streamline process for internal data sharing and extend that process out, where possible.</p>	<p>State statutes limit the scope of how some individual-level administrative data may be shared.</p> <p>State has mandated and rigorous evaluations of workforce training programs, but not of business development programs.</p> <p>In the absence of mandates, how to influence greater data sharing and data governance structures?</p>	<p>Process for allowing economic development program staff greater access to administrative wage and employment data to verify business goals.</p> <p>Extended this data sharing to quasi-state government agency also involved in business development programs.</p>	<p>Leveraging the Minnesota State Longitudinal Education Data System, which has an established data governance structure.</p> <p>Meeting with potential new data partners and data users: Veterans Affairs, Labor and Industry, Revenue, Human Services.</p>



SOUTH CAROLINA

Impetus for Action	Persisting Challenges	Key Accomplishments	Next Steps
<p>Getting all the right players to the table.</p> <p>Eliminate barriers and concerns presented by agencies including legal ramifications that might prevent data sharing.</p> <p>Agreeing to and adopting draft legislation to be recommended to the Coordinating Council for Workforce Development (CCWD).</p>	<p>Eliminating silos.</p> <p>Legislature is in the second year of a two-year cycle.</p>	<p>Key Accomplishments</p> <p>Approval from the CCWD of draft legislation that will be submitted to the General Assembly to:</p> <ul style="list-style-type: none"> Capture occupation and hours worked information through Unemployment Insurance (UI) Require longitudinal data sharing <p>CCWD by-laws and procedures have been adopted to eliminate issues with administration changes.</p>	<p>To receive feedback from the business community and other stakeholders.</p> <p>Educating legislators and legislative staff on how draft legislation was developed and the buy-in from multiple agencies and entities.</p>



UTAH

Impetus for Action	Persisting Challenges	Key Accomplishments	Next Steps
<p>Silo approach to data stewardship</p> <p>Culture of limited sharing</p> <p>Limited data intake</p> <p>Lack of legislatively mandated access</p>	<p>Residual silo effect</p> <p>Limited funding resources</p> <p>Federal regulations</p> <p>Technological solutions</p>	<p>Passage of HB25—greater access to tax record data</p> <p>Creation of online sharing portal with Tax Commission</p> <p>Improved data intake</p> <p>Step toward centralized data stewardship via SB194 Utah Data Research Center</p>	<p>Expand legislatively mandated access to information to all incentives—“authorization to disclose language”</p> <p>Increase data intake on incentive use</p> <p>Legislative tax reform – seek measurements and metrics for all inducements and tax incentives moving forward.</p>



WISCONSIN

Impetus for Action	Persisting Challenges	Key Accomplishments	Next Steps
<p>Cultural misperceptions of data sharing</p> <p>Inherent past practices of protecting data</p> <p>Perception of retaining “power over data” by being the subject matter expert</p> <p>Overcoming the mentality of, “We’ve tried this before, it’s just going to fail again”</p>	<p>Will need to continue building on advances made toward increased awareness of data sharing needs</p> <p>Working through lingering legal framework questions related to data sharing between state agencies and public-private entities that are part of the Executive Branch</p> <p>Prioritizing on-going work groups to complete implementation of identified strategies, review of new opportunities and leadership check-ins</p> <p>Identifying technical solutions for data warehousing, including security measures needed to protect data, plus costs associated with enterprise-wide implementation</p>	<p>Solidified leadership to encourage all staff to work together for solutions</p> <p>Deployment of data sharing survey, using results to verify work plan was on target and to identify additional action steps to implement</p> <p>Hosted a tri-agency meeting to review survey and discuss next steps. Outcomes included recommendation to identify a point of contact at each agency; develop a standardized request form; and encourage staff in data sharing roles to meet on a more regular basis.</p> <p>Centralized internal lists of existing MOUs and data sharing agreements</p>	<p>Leverage momentum of internal stakeholders to complete the data inventory</p> <p>Reconvene meeting with data stakeholders</p> <p>Establish quarterly leadership meetings to review progress and review/prioritize new opportunities</p> <p>Catalog efforts to date to present to executive leadership</p> <p>Look at opportunities to expand with other agencies</p>

The Center for Regional Economic Competitiveness (CREC) is an independent, 501(c)3 not-for-profit organization founded to provide policy-makers with the information and technical assistance they need to formulate and execute innovative, regional, job-creating economic strategies.

Our primary public service goal is to help regions compete. Through our network of partnerships, we continually work to further regional economic competitiveness. Our work emphasizes the importance of data in informing evidence-based public policy decision making. To this end, CREC conducts research, provides technical assistance, offers expert advice, provides training, and offers leadership to practitioners and policymakers in the economic development, workforce development, and higher education fields. These activities are provided on a fee-for-service basis to an array of federal, state, local, and philanthropic clients. These projects represent the primary source of funding support for the organization, and they rely on our team's technical expertise in the fields of economic and workforce development.

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