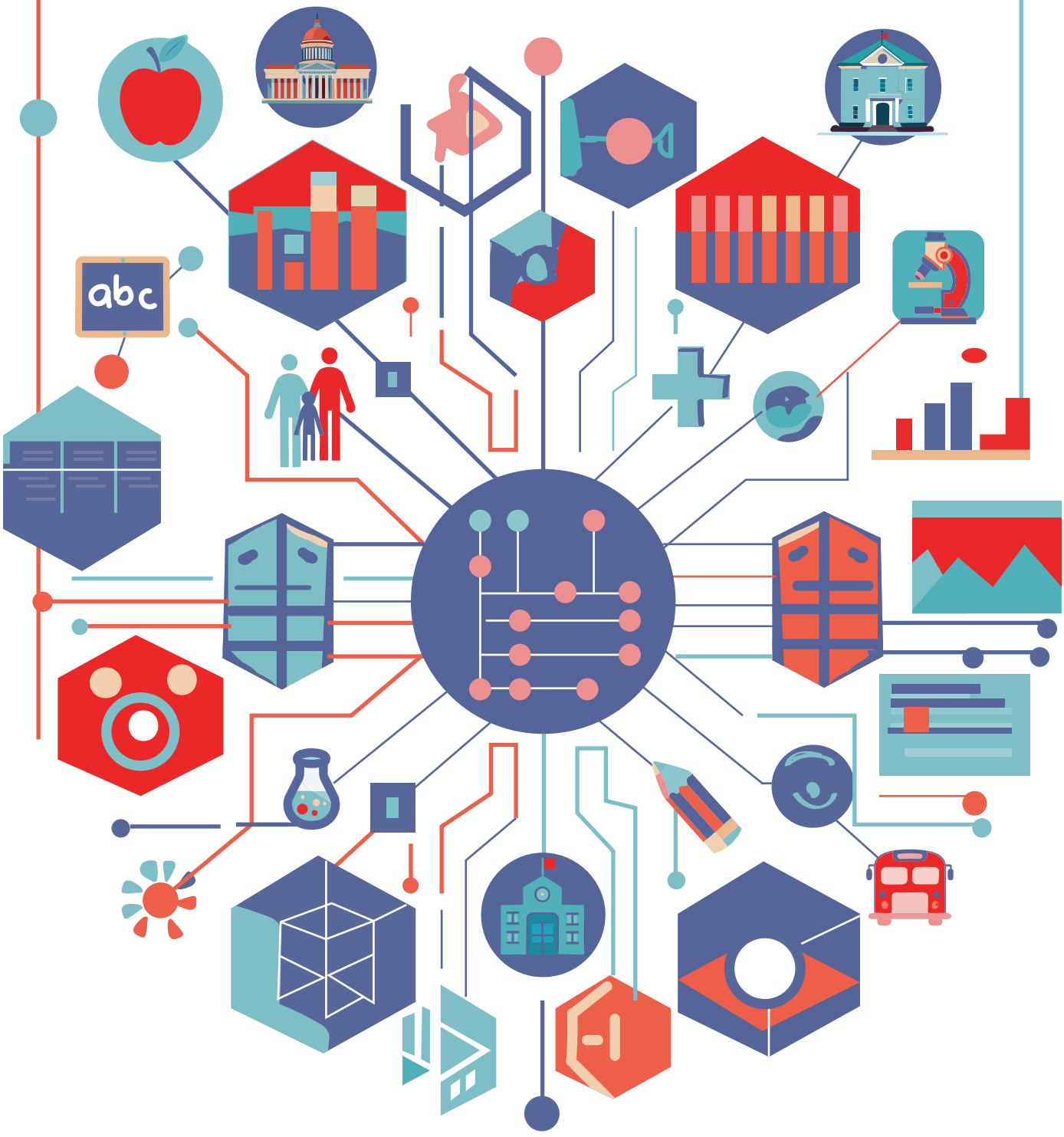
Field Guide for Financing Public-Sector Integrated Data Systems and Evaluation



USDR

National Academy of Public Administration

Preface

The imperative is clear: government must operate more efficiently and deliver results that the people it serves can see. While this message isn't new, the fervor behind it is growing. So how can states, localities, tribes, territories, and other organizations set themselves up to meet these demands now and into the future?

Success will ultimately depend on data – and not just any data. Policy leaders and implementers need timely and reliable access to the right information from across policy areas to inform policy and operations, to identify fraud and waste, and to figure out what's working and what isn't within any given jurisdiction.

This may seem like a tall order – but there's good news. Leading jurisdictions - from the State of Kentucky to Allegheny County, Pennsylvania; from the State of North Dakota to Denver, Colorado; and many more – have already paved the way by creating integrated data systems (IDS) that help meet these goals. An IDS brings together administrative data from different systems so it can be securely and efficiently managed and analyzed to generate useful insights for decisionmakers. Along the way, these leaders have developed funding strategies that leverage dollars across policy and operational silos, including diverse federal agencies, state and local revenues, and other sources like philanthropy.

This field guide draws on these state and local examples, on the expertise of federal funders and policymakers, and on the innovation and support of non-government organizations to lay out options and examples for other jurisdictions to follow. It can help anyone working on or interested in IDS as they consider or initiate a system, build or maintain a system, or consider how to finance expansions and improvements by:

- Walking through allowable ways to spend federal grants on data and evaluation capacity.
- Helping match funding strategies with IDS needs and goals.
- Providing rich examples and case studies from leading states and localities.
- Pointing to non-federal sources that can help fill gaps in IDS funding.
- Providing tips on ways to withstand an audit of IDS-related spending.
- Offering ideas for future collaboration with stakeholders inside and outside government that can accelerate progress in building data and evaluation capacity.

The field guide highlights diverse approaches to IDS. Some systems combine data on individuals served by multiple programs – ranging from health, human services, education, workforce, housing, criminal justice, and others – and include important protections for individual privacy. Others include data on physical infrastructure, such as parcels of land, addresses, roads, bridges, and tunnels as well as data on natural resources, environmental quality, economic development and other activities serving communities and regions.

The current environment calls for new ways of doing business. It's time to transform public-sector data infrastructure – and deliver efficiency and results that the public can trust.

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Where to Find State and Local Examples in the Field Guide

A field guide on IDS financing is a practical tool – but why does it matter in real life? The process of writing the guide brought to light how states, localities, and other organizations are achieving important wins for their constituents, with IDS at work in the background. Here's where to find the stories and accomplishments that really matter – and that show how IDS can help get there.

- **Building Powerful Neighborhood Coalitions for Change by Matching Individual Data With Place-based Data (pg. 33)**
  How could stakeholders combine individual and place-based data to build the evidence required to focus state and local leaders on the impact of lead poisoning on residents of Cleveland, Ohio?
- **Using Public Law 102-477 to Promote Data Sovereignty as Part of Self-determination for Tribes (pg. 35)**
  Where is there room for further federal effort to support tribes in building and maintaining data systems that allow greater control over the data that gets collected about their members and programs and how that data gets used to answer policy and program questions?
- **North Dakota's Early Childhood Integrated Data System (pg. 37)**
  How could the State integrate, manage, and analyze data across the different programs to improve service delivery and evaluate performance?
- **Addressing Homelessness Among Students in New York City (pg. 38)**
  How could school and city leaders learn how to identify students at highest risk of becoming homeless to inform how they design and target interventions to prevent homelessness?
- **Linking Data Across States to Measure Employment Outcomes of Postsecondary Education and Training Programs (pg. 39)**
  How could state policymakers, educators, and the public get better insight on how well postsecondary education and training programs are preparing students for successful employment?
- **The Camden Coalition's Regional Health Hub for Individuals With Complex Needs (pg. 40)**
  How could the New Jersey-based Coalition develop data-driven strategies to identify those individuals that our healthcare system is failing most, as indicated by high use of the emergency room and hospital, and to strengthen the pathways to medical and social services that best meet their unique needs?
- **Allegheny County's Jail Reduction Initiative (pg. 41)**
  How could the County develop effective strategies to reduce the jail population that would save money for taxpayers, improve outcomes for low-risk defendants, and continue to support lower crime rates for the public?
- **Using Integrated Data to Address Fraud in Pandemic Unemployment Assistance (pg. 42)**
  Almost overnight during the pandemic, the Ohio unemployment insurance system received more claims than in the entire previous year. How could Ohio use integrated data to respond?

- **Seattle's Civiform Initiative to Improve Access to Benefits (pg. 43)**
  How could Seattle help low-income families access its over 30 support programs in the face of significant barriers and cumbersome forms?
- **Using Integrated Data to Help Stabilize Vulnerable Families in Franklin County, Ohio (pg. 51)**
  How can a county operating numerous state programs help black boys and their families successfully navigate the challenges of a complex human services system that operates in data silos?
- **Minnesota's Impact Evaluation Unit (pg. 54)**
  How could Minnesota understand the effectiveness of state investments?
- **Tennessee and Its Statewide Learning Agenda (pg. 55)**
  How could Tennessee prioritize evaluation resources to drive evidence-based policymaking?

In addition, the field guide highlights a variety of practical implementation approaches that states and localities have used to build and sustain IDS.

- **KYSTATS: Building a Sustainable Financing Strategy (pg. 30)**
  How could Kentucky's Center for Statistics (KYSTATS) integrated data system move beyond initial seed funding to a sustainable and diverse set of funding sources?
- **Using One-time Funds to Build the Bedrock for Integrated City Data (pg. 32)**
  How could Detroit use one-time funds to integrate fragmented geographic information to help a struggling city?
- **How Rhode Island Is Joining Data Silos (pg. 49)**
  How can a state bring together data from multiple siloed platforms without starting over or picking a winner?
- **Pushing the Envelope by Rehoming Data Inside Government (pg. 53)**
  How could Ohio extend its longitudinal data system and data analytics capabilities beyond education and workforce analytics?
- **Indiana Performance Management Hub: Using Medicaid to Jumpstart Statewide Performance and Evaluation Capability (pg. 60)**
  How can work being done by Indiana Medicaid be leveraged to extend broader integrated data capacity?
- **A Toolkit Approach to Cost Allocation Eases Compliance Across Multiple Federal Programs (pg. 63)**
  How could states allocate costs consistently across multiple HHS and USDA programs with certainty that the allocation is aligned with federal regulations?
- **Sustaining Robust Integrated Data Practices with a City-county Cost Allocation Plan (pg. 65)**
  How could the City and County of Denver's technology organization ensure robust integrated data practices to share data across many departments, government organizations, and coalitions?

- **Using Statutory Language to Support and Enforce Enterprise-wide Integrated Data System (pg. 68)**
  How could Ohio's enterprise-wide integrated data systems and analytics capabilities allow it to use SWCAP to finance operations?
- **Building Conviction in the Legislature (pg. 71)**
  How could Kentucky build and sustain conviction in the legislature to support IDS?
- **Using Short Term Debt to Finance Shared Services (pg. 72)**
  How could Ohio fund its new shared services center to automate and standardize common business functions across the enterprise to help recoup savings?
- **Using a Public-private Partnership to Develop Enterprise Data Sharing Tools (pg. 73)**
  How could North Carolina leverage private sector analytics expertise, while retaining oversight and control?
- **Using One-Time ARPA Funds to Spur Integrated Data (pg. 74)**
  How was Harris County, Texas able to integrate data from multiple agencies to support its Accessing Coordinated Care and Empowering Self Sufficiency (ACCESS) integrated care model?
- **Arkansas: Billing for Value-added Integrated Data Services (pg. 75)**
  What is the best way to recoup the costs of value-added services provided to agencies?
- **Getting a Healthy Start with Philanthropic Funding (pg. 76)**
  How could South Carolina's Revenue and Fiscal Affairs Office, Data Integration and Analysis Division scale up its extensive health statistics work to gain a more granular view of healthcare trends and outcomes?

Acronyms and Abbreviations

Acronym or Abbreviation	Definition
Academy	National Academy of Public Administration
ACF	Administration for Children and Families
ADRF	Administrative Data and Research Facility
AI	Artificial Intelligence
APD	Advance Planning Document
ARPA	American Rescue Plan Act
CAM	Cost Allocation Methodology
CAP	Cost Allocation Plan
CARES	Coronavirus Aid, Relief, and Economic Security
CHIPS	CHIPS and Science Act
CIDI	Center for Data Innovation through Data Intelligence
CIO	Chief Information Officer
CMS	Centers for Medicare and Medicaid Services
COP	Certificate of Participation
CRF	Coronavirus Relief Fund
DIS	Division of Information Systems
DOL	Department of Labor
DOT	Department of Transportation
ED	Department of Education
EOHHS	Executive Office of Health and Human Services
ERAP	Emergency Rental Assistance Program
ERP	Enterprise Resource Planning
FERPA	Family Educational Rights and Privacy Act
FFP	Federal Financial Participation
FNS	Food and Nutrition Services

Acronym or Abbreviation	Definition
GEER	Governors' Emergency Education Relief
GFOA	Government Finance Officers Association
GRF	General Revenue Funds
HIE	Health Information Exchange
HIPAA	Health Insurance Portability and Accountability Act
HHS	Department of Health and Human Services
HHS PSC	Health and Human Services Program Support Center
HUD	Department of Housing and Urban Development
IDS	Integrated Data System
IIJA	Infrastructure Investments and Jobs Act
Indiana MPH	Indiana Management Performance Hub
IOP	Innovate Ohio Platform
IRA	Inflation Reduction Act
KYSTATS	Kentucky Center for Statistics
LER	Learning and Employment Records
MMIS	Medicaid Management Information Systems
NASCIO	National Association of State Chief Information Officers
NSF	National Science Foundation
ODJFS	Ohio Department of Job and Family Services
OEI	Office of Evidence and Impact
PUA	Pandemic Unemployment Insurance
R&D	Research and Development
SDOH	Social Determinants of Health
SLDS	State Longitudinal Data Systems
SLFRF	State and Local Fiscal Recovery Funds

Acronym or Abbreviation	Definition
SNAP	Supplemental Nutrition Assistance Program
SWCAP	Statewide Cost Allocation Plan
TANF	Temporary Assistance for Needy Families
WIC	Supplemental Nutrition Assistance Program for Women, Infants, and Children
WIOA	Workforce Innovation and Opportunity Act
UI	Unemployment Insurance

About the Academy

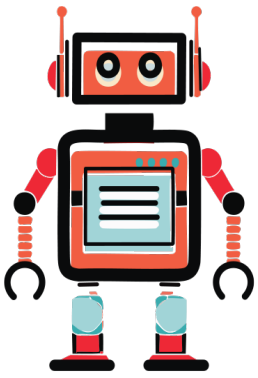
The National Academy of Public Administration is an independent, nonprofit, and non-partisan organization established in 1967 and chartered by Congress in 1984. It provides expert advice to government leaders in building more effective, efficient, accountable, and transparent organizations. To carry out this mission, the Academy draws on the knowledge and experience of its over 950+ Fellows—including former cabinet officers, Members of Congress, governors, mayors, and state legislators, as well as prominent scholars, career public administrators, and nonprofit and business executives. The Academy helps public institutions address their most critical governance and management challenges through in-depth studies and analyses, advisory services and technical assistance, congressional testimony, forums and conferences, and online stakeholder engagement. Learn more about the Academy and its work at www.NAPAwash.org.

About US Digital Response (USDR)

USDR is a nonprofit, nonpartisan organization that works alongside governments at all levels to ensure they have the capacity to meet the public's needs. Our vision is a government that keeps up with the needs of its people, now and for the future. USDR leverages a network of pro bono technical expertise to address common, systemic challenges facing public servants at the speed of need. As of October 2024, USDR has partnered with almost 500 government and nonprofit partners on projects across 38 states and territories. USDR is supported by a dedicated community of over 10,000 pro bono specialists driven to serve in a time of need.

Data Funders Collaborative

This field guide was funded through the generosity of the Data Funders Collaborative. The Data Funders Collaborative (DFC) is a partnership of leading philanthropic organizations working together to support learning, discovery and action focused on the ethical collection, protection and use of data. DFC members recognize how people can use information to improve the effectiveness of programs and policies and more broadly to confront entrenched inequity in systems. DFC's aim is to ensure communities have the information and the skills they need to achieve equitable outcomes in education, health and other social services sectors.



Foreword

People working across America at state, city, county, Tribal, territorial, and federal levels of government frequently struggle to answer questions about what is working well in the programs they administer as they strive to improve program outcomes. Having the right information at the right time to answer these questions requires both robust data infrastructure and capacity for analysis. The Office of Management and Budget (OMB) recently updated government-wide guidance to clarify that federal grant funding may be used to invest in integrated data systems (IDS) and evaluation. Some state and local governments are at the forefront of financing the development, operation, and maintenance of IDS, but many are still trying to best understand how to leverage and combine funding to create the most effective evaluation capacity.

This field guide provides sound and sustainable financing strategies for building, operating, and enhancing integrated data systems. It also answers many questions about how to take full advantage of federal grants to better use the data that is already generated to illustrate impact and inform future decision making.

As a congressionally chartered, independent, nonpartisan, and nonprofit organization with nearly 1,000 elected Fellows, the National Academy of Public Administration (the Academy) has a unique ability to bring nationally recognized public administration experts together to help government agencies address challenges. With generous funding from the Data Funders' Collaborative, the Academy worked closely with US Digital Response to collect perspectives and best practices of many experts at all levels of government. This team explored ways to optimize expenditure of federal grant dollars on data to create useful evaluation capacity. This plain language field guide would not be possible without the many thought leaders who participated in the focus groups and provided feedback and real-time examples of their successful efforts. I am enormously grateful for their contributions as well as the support of the Field Guide Study Team.

This guide builds on the efforts of our organizational studies, our work within the Center for Intergovernmental Partnerships, and a key tenet of Agile Principles of government to utilize data to inform decision making. It is incredibly valuable in guiding public leaders towards more effective program management and service delivery.

Teresa W. Gerton
President and Chief Executive Officer

National Academy of Public Administration

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This field guide would not have been possible without the leadership, expertise, and thought partnership of numerous people and organizations, especially the state and local governments leading the way in developing effective integrated data systems and evaluation capacity. Institutional affiliations are provided for identification purposes only.

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Section 1: Introduction

What's in This Section

- An introduction to this guide, and why it matters.
- What integrated data systems (IDS) and evaluation capacity are.
- Why establishing IDS and evaluation capacity is such a challenge.
- Who can benefit from this guide and how.
- The opportunity this guide represents, and why you should trust it.

This guide is a tool to empower the people working across America at any level of government – state, city, county, tribal, territorial, and even federal – who are wrestling with questions about what is and is not working in the diverse programs they administer and are striving to improve program outcomes. The only way to answer these complex questions and needs is by having the right information at the right time, which requires robust data infrastructure and capacity for analysis. Even though technology solutions are increasingly affordable, many government entities struggle to establish and pay for these needed tools. This guide provides sound and sustainable financing strategies for building, operating, and enhancing integrated data systems to meet this need.

If you are wondering how to use the federal grants that your jurisdiction already receives to better use the data that your programs already generate, this guide is for you. Drawing on recently updated federal guidance from the U.S. Office of Management and Budget that clarifies many areas of past confusion, this guide will:

- Walk you through allowable ways to spend your federal grant dollars on data and evaluation capacity.
- Help you match funding strategies with your goals for building, operating, and/or enhancing an integrated data system (IDS).
- Provide rich examples and case studies of how leading states and localities are already doing this work and paying for it effectively.
- Point the way to non-federal sources that can help fill gaps in IDS funding.

Why Is Establishing Integrated Data Infrastructure to Power Analytic and Evaluation Capacity Such a Challenge?

While government programs already collect plenty of data, it often lives in siloed systems that cannot produce meaningful insights in a timely way. As more and more governments realize that integrating their data systems allows them to better serve the public, figuring out how to pay for it can become a major roadblock. This has especially been true when it comes to navigating federal grant dollars from the various programs that generate important data that can help measure performance and outcomes. Often, grant dollars flow from different agencies and have separate rules and requirements that may be unclear or conflicting. Confusion about which federal funds can be used for integrated data systems and how to combine them in ways that meet audit requirements has impeded progress in many jurisdictions, including a chilling effect on willingness to try.

What Drivers Have Helped to Promote Integrated Data Systems?

Four key business and policy drivers have made the development of integrated data systems critical to managing state and federal programs effectively and efficiently.

1. For the last decade, the federal government has provided guidance and program priorities emphasizing the importance of evidence-based practice and evaluation. IDS are important to many types of evaluation as well as tracking the results of evidence-based practices.

2. Federal policy has also promoted integrated service delivery. This is especially true for programs that serve many of the same populations, such as Medicaid; the Supplemental Nutrition Assistance Program (SNAP); the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC); Temporary Assistance for Needy Families (TANF); the Workforce Innovation and Opportunity Act (WIOA); Statewide Longitudinal Data Systems (SLDS); and others.

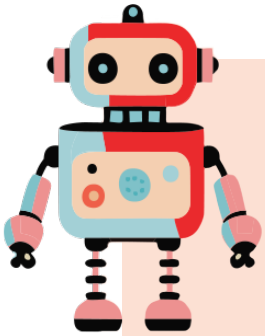
3. Research and practice around social determinants of health (SDOH) have become a priority for advancing community preventive healthcare strategies to lower costs and improve outcomes. Effective SDOH strategies require data collection and reporting across multiple data silos.

4. States are making efforts to improve economic mobility by focusing on population health, labor force participation, education attainment, food security, economic security and public safety. Data and evidence provided by integrated data systems have become critical to efforts aimed at improving program outcomes and understanding the community impacts of state and federal policies.

Advances in cloud-based and privacy-enhancing technologies have enabled savvy governments to dramatically increase their capacity to generate actionable, useful information at modest cost to address these and other priorities.

Who Can Benefit from Integrated Data Systems and Knowing How to Finance Them?

Integrated data systems create the ability to understand what is happening inside and across public programs and to manage programs more effectively. They provide value to everyone from visible, elected roles like governors, mayors, city councilors, and county commissioners to behind-the-scenes roles like budget directors, chief information and chief data officers, program staff, and auditors.



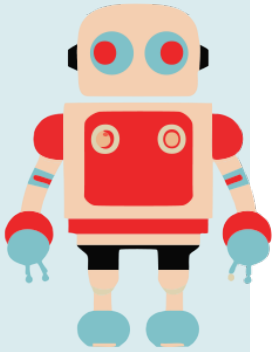
What Is an Integrated Data System?

An integrated data system (IDS) brings together administrative data from different systems so it can be securely and efficiently managed and analyzed to generate useful insights for decision-makers.

Many of the integrated data systems described in this guide combine data on individuals served by multiple programs ranging from health, human services, education, workforce, housing, criminal justice, and others. These systems host highly sensitive data and employ access controls and/or privacy enhancing technologies to restrict access to authorized users for authorized purposes. In some cases, such as health and human services systems, access to individual-level data is allowed for purposes such as targeted outreach, care coordination or fraud detection. In other cases, such as Statewide Longitudinal Data Systems, person-level data is only accessible in de-identified form to support performance management, research, and evaluation.

In some cases, integrated data systems combine data on physical infrastructure, such as parcels of land, addresses, roads, bridges, and tunnels as well as data on natural resources, environmental quality, economic development and other activities serving communities and regions. In this guide, we refer to these as place-based or asset-based data systems. Some state and local governments and external research partners are conducting analyses that combine individual-level, asset-based, and place-based data to inform their decisions.

What Is Evaluation Capacity?



While an IDS provides access to critical raw data, it isn't the whole picture. The ability to plan for, conduct, and use robust evaluation requires additional analytical tools, expert staff, and policies that set standards and processes. Moreover, there are many types of evaluation that can serve different purposes. The ability to align high-priority questions with the right data, evaluation design, research methods, stakeholder engagement, and ability to interpret results is critical to arriving at sound answers. Evaluation capacity includes this array of tools, expertise, processes, and capabilities. Integrated data is critical to this capacity.

The federal government has extensive technical assistance resources at Evaluation.gov, including its Evaluation Toolkit. In addition, Results for America's Evaluation Policy Guide captures lessons from federal, state, and local governments about policies that help guide the use of evaluation and other forms of evidence in decision-making.

IDS add value at the individual level, such as when specific caseworkers get timely information about their clients´ holistic needs in order to provide the right support. They provide value at the program and agency level as decision makers are able to update program designs and services based on evaluations, predictive modeling, and better coordination of service delivery partners. They add value for taxpayers as governments root out fraud, improve customer service to the public, and provide consumers with information on how programs and service providers are performing.

In the leading states, cities, and counties that have already developed a strong IDS, examples of real-world benefit include:

- To help commuities to intervene prior to a fatal overdose, the Indiana Management and Performance Hub has developed an Overdose Fatality Review Dashboard by partnering with the Indiana University School of Medicine and many other state agencies. It equips County Overdose Fatality Review Teams to examine patterns in poisoning events and identify intervention opportunities.
- KYSTATS developed comprehensive dashboards for educational institutions across the state, summarizing post-education earnings statistics to assist citizens and legislators in understanding the relative performance of each.
- The City of Detroit's data team identified population growth for the first time in 66 years, leading to an increase in federal formula funding.
- Ohio identified hundreds of millions of dollars in fraudulent unemployment insurance and pandemic unemployment insurance claims while improving customer service to clients of the Ohio Department of Job and Family Services.

Identifying the right funding strategy is foundational to building, maintaining, and growing a system that can support these diverse functions. The table below offers examples of who can use this guide and the goals that the guide can support.

What are the key components of an IDS?

An integrated data system (IDS) brings together administrative data from different systems so it can be securely and efficiently managed and analyzed to generate useful insights for decision-makers. IDS can look very different across jurisdictions, including how they are built, staffed, and financed as well as the data sets that they use.

While an IDS is technology-based, it requires many other components in order to operate appropriately and effectively. This section provides a brief overview and links to resources about key components of a robust IDS[8], which include:

- **Governance** that involves the people, policies, and procedures that make sure data privacy, security, and use are handled appropriately. Strong governance and ownership by multiple stakeholders are critical to a strong and sustainable IDS. Governance includes big-picture ideas like the mission and vision for data integration and also practical considerations like selecting an organization to manage the technology. Governance makes sure that the right people and organizations have the right roles in operating and using an IDS.
- **Legal structures and framework** to document that everyone participating in the IDS agrees to the rules. These decisions are reflected in documents like memoranda of understanding and data sharing agreements.
- **Technical solutions** that are designed to meet the needs and goals of integrating data. For example, cloud-based technology solutions for accessing data lakes and data warehouses offer cost-effective, enhanced security and privacy compared with accessing data from multiple legacy systems. Different analytic tools may be required to create a public dashboard of program results than to evaluate the effects of an early childhood intervention. Data marts can allow a specific set of users to access data and analytics targeted to their particular purposes using a subset of the larger available data.

8 For more information on these topics, please see the seminal work of Actionable Intelligence for Social Policy at University of Pennsylvania. Particularly useful is the quality framework for IDS. https://aisp.upenn.edu/quality-framework-for-integrated-data-systems/

This guide is for...	Who are trying to...
Policy and program leadership	• Develop data tools to understand outcomes across programs, coordinate services, and show value to the public. • Grow capacity to evaluate programs using federal dollars.
Budget directors and financial management staff	• Find affordable, sustainable ways to fund data systems that produce actionable information using data linked across programs. • Reduce wasteful spending on siloed systems that are built for compliance rather than performance improvement and cross-program coordination. • Negotiate cost allocation plans across multiple organizations that receive federal funding. • Match their funding strategy to the phase of their IDS development and organizational capacity.
Evaluation officials	• Design and implement evaluation strategies to improve programs and understand results using federal funds.
Chief Information Officers or Chief Data Officers	• Enhance capabilities or harden an existing IDS, such as through artificial intelligence, privacy enhancing technologies, or cybersecurity. • Overcome financial barriers that deter senior policy and budget leaders from embracing integrated data systems as a tool for improving results.
Auditors	• Find context and background on permissible ways to use and combine grant funds for data systems and evaluation. • Assess the efficiency and effectiveness of government programs and identify fraud and error.

- **People** with the right expertise and capacity to build the necessary relationships, processes, and systems. This includes overall staff and agency capacity for analytics as well as key roles[9], such as:
    - Chief Information Officers, who have strategic oversight for an organization´s or enterprise´s use of technology and IT systems as a whole.
    - Chief Financial Officers, who make sure that financial management strategies and practices are sound and sustainable, including financing of IDS.
    - Senior policy officials, who lead policy and strategic decisions for a particular administration, making sure to deliver on administration goals and promises to the public.
    - Experts with the evaluation, technical, and analytical skills to work with data in advanced ways. These experts may include researchers, business analysts, software engineers, data scientists, and evaluators. Their work may include combining diverse datasets, building robust models to demonstrate performance, performing root cause analysis, and designing comprehensive evaluations using a wide variety of data and analytical methods.
    - Experts with the evaluation, technical, and analytical skills to work with data in advanced ways. These experts may include researchers, business analysts, software engineers, data scientists, and evaluators. Their work may include combining diverse datasets, building robust models to demonstrate performance, performing root cause analysis, and designing comprehensive evaluations using a wide variety of data and analytical methods.
    - Program administrators, who are typically senior career staff that have deep programmatic expertise and are accountable for their individual program operations and results.

Together, these roles collaborate to create governance, financing, and technology strategies that create the right conditions for an IDS to meet its goals and enable more effective policy and program decisions. In addition to policies and processes, relationships across these roles and functions are deeply important.

- **Considerations for community engagement and equity.** The data, interpretations, and decisions that an IDS supports will impact people's lives. Historically, some government decisions have led to significant disparities – both intentional and unintentional – in how different groups of people are served and the outcomes they experience, especially along lines of race and ethnicity. Actionable Intelligence for Social Policy´s Toolkit for Centering Racial Equity throughout Data Integration offers strategies and activities to support community engagement and promote fairness and justice as part of developing and operating an IDS. Moreover, OMB's revised Uniform Grants Guidance, which is discussed below, explicitly calls for programs to involve impacted populations in their design and implementation. Engaging people and communities in data activities is important to make sure that information and analysis valued by all stakeholders can be available.

Ultimately, these pieces of the IDS puzzle come together to enable an enterprise data analytics capability. This capability can support evaluation and performance management – such as reports, dashboards, alerts, forecasts, and models – without having to build redundant, separate infrastructures or capacity.

What Opportunity Does This Guide Represent, and Why Should You Trust It?

Just as an IDS requires engagement and buy-in from many roles and perspectives, this guide has been developed and vetted by federal, state, and local policy and program leaders; chief data officers; chief information officers; chief financial officers; auditors and inspectors general; and others who share the goal of helping government operate effectively, efficiently, and within fair rules. These diverse groups came together because of a unique window of

9 Actionable Intelligence for Social Policy (AISP) provides comprehensive guidance to localities interested in getting started in developing integrated data systems, including best practice approaches to assuring data quality, effective governance, legal and privacy issues and equity.

opportunity to reimagine how to build, sustain and enhance integrated data and analytics capacity using innovative financing approaches.

This window of opportunity includes acting on recent updates to federal OMB Uniform Grants Guidance that newly clarifies that spending on integrated data systems as well as on capacity for analysis and evaluation is both allowable and encouraged. This guidance creates a governmentwide framework for funding IDS, analytics, and evaluation that can be used to harmonize other spending guidance from specific agencies. The OMB guidance builds on recent work under the American Rescue Plan Act, such as through the State and Local Fiscal Recovery Funds, to embrace data and evaluation as allowable uses of funds and to build evidence about effective approaches. **However, because this is a new clarification of OMB guidance, you should expect that some grant programs may still be developing processes to address use of funds for data and evaluation.**

The opportunity also includes lifting up best practices by leading jurisdictions that are already demonstrating the value of IDS and different paths for financing, including jurisdictions highlighted here in case studies and examples. These jurisdictions are expanding the number of high-value data sets that can be linked to answer important questions for a range of stakeholders. Along the way, they are combining funding from multiple federal and non-federal sources to fund efficient, shared infrastructure and analytics capacity. They are finding ways to leverage data infrastructure already in place by creating new, affordable data platforms that serve as connective tissue across the existing systems, including both transactional systems that focus on operations as well as longitudinal data systems used primarily for research. In order to meet evolving real-world needs, leading jurisdictions are also adopting state-of-the-art tech solutions to enhance security, privacy, and artificial intelligence (AI) capacity and to create safeguards that ensure appropriate use of data.

With further engagement by jurisdictions using the guide, the opportunity may include adopting a broader, shared vision of enterprise-wide approaches to integrated data to power evaluation and performance and to help state, local, tribal, and territorial officials access and use more sources of federal funding for better decision-making.

Section 2: Federal Programs that Can Support Integrated Data Systems and Evaluation Capacity

What's in This Section

- Overview of how federal policies and incentives have encouraged data silos over time.
- How the federal Office of Management and Budget's (OMB) updated Uniform Grants Guidance supports spending on integrated data systems and data and evaluation activities across federal funding streams.
- Common federal programs that grantees can use to pay for integrated data systems and data and evaluation activities.
- Cross-cutting policy priorities where more robust integrated data systems and evaluation capacity can accelerate progress, including state and local examples.
- Why new federal policy incentives and intergovernmental collaboration are key to encouraging integrated data systems and evaluation capacity.

A. OVERVIEW

This section summarizes the sources of federal funding that all state, local, tribal, and territorial governments can leverage to develop and maintain integrated data systems (IDS) and associated evaluation capacity. While the focus of this section is on programs that can support integrated data systems and evaluations that link person-level data, it also covers programs that can support integration of place-based and asset-based data.

The federal government now spends over $1.1 trillion annually on grants to state, local, tribal, and territorial governments.[8] In 2023, over $900 billion was allocated to programs administered by state, local, tribal, and territorial governments that serve low-income and vulnerable populations. These programs include health, nutrition, income support, education, employment, housing, criminal justice, transportation and other social service programs that often serve the same client populations. IDS that securely link individual-level data across programs are a critical tool for helping program agencies and service providers improve coordination, effectiveness, and efficiency.

State, local, tribal, and territorial governments' capacity to integrate data across programs has been shaped by a wide array of federal laws enacted over many decades. Each federal program has its own requirements for reporting and documenting the services and benefits provided to eligible beneficiaries. These requirements affect the kind of data that is available to use and share. Federal program and privacy laws[9] govern how and when these data can be shared with other organizations. In addition, program-specific authorization and appropriations laws provide funding for grantee administrative activities and program support. These funding levels can affect how much state and local governments invest in data and evaluation capacity.

Federal efforts, which have been established by different Congressional committees and Executive Branch agencies, have provided strong financial incentives for states to establish two parallel integrated data infrastructures. While each of these efforts has encouraged integrated data capacity in specific areas, they have also created barriers to broader data sharing and shared infrastructure that

8 Office of Management and Budget (2024). Budget of the U.S. Government: Analytical Perspectives. Available at https://www.whitehouse.gov/wp-content/uploads/2024/03/ap_8_state_and_local_fy2025.pdf.

9 Privacy laws governing administrative data include HIPAA, FERPA and Title 42 CFR.

could benefit decision-makers and the people that the programs serve.

- **Health and human services programs: U.S. Department of Health and Human Services (HHS) & U.S. Department of Agriculture (USDA).** For decades, HHS and USDA have collaborated to encourage state agencies administering Medicaid, nutrition assistance, child support enforcement, and other safety net programs to develop integrated data systems to simplify eligibility and enrollment processes, coordinate care, and minimize improper payments. These large, ongoing safety net programs provide hundreds of millions of dollars per year to develop and operate administrative systems[10] that record millions of annual financial transactions and service encounters for program beneficiaries. They are designed to comply with data-sharing restrictions of the Health Insurance Portability and Accountability Act (HIPAA).
- **Education and workforce programs: U.S. Department of Education (ED) & U.S. Department of Labor (DOL).** Beginning in 2005, ED began making competitive grants to states to build Statewide Longitudinal Data Systems (SLDS) to track progress of K-12 students through the K-12 system. In 2009, Congress expanded the SLDS program to include early childhood, higher education, and workforce data to track students through critical life transitions that affect economic mobility. This expansion included data from workforce programs administered by DOL. SLDS are mostly used for performance management and research and are designed to comply with the data-sharing restrictions of the Family Educational Rights and Privacy Act (FERPA). They receive a fraction of the annual funding that HHS systems receive.

Federal laws such as the Government Performance and Results Act, updated in 2010, and the Foundations for Evidence-Based Policymaking Act of 2018 have sent signals to state, local, tribal, and territorial governments that they are accountable for results and impact, not simply compliance with program rules and reporting. In addition, philanthropy-funded initiatives such as Pew Results First, Results for America, and Actionable Intelligence for Social Policy have enabled leading states, counties, and cities to collaborate, developing and adopting new data and evaluation tools to help them learn what works and drive resources to more effective practices.

Some pioneering jurisdictions have taken the lead in establishing integrated data systems. These IDS join the separate administrative data infrastructures that perform millions of transactions for beneficiaries and provide business intelligence, analytics, and visualization tools to assist users in evaluating performance and measuring outcomes. While each system has a different story, these leaders have been successful by:

1. Understanding and communicating the importance of integrated data systems to executive branch and legislative leaders committed to performance improvement and evidence-based policy;
2. Developing a funding strategy to address different phases of development;
3. Combining multiple sources of funding to optimize funding; and
4. Providing the positive documentation and evidence required to substantiate compliance with federal regulations.

These efforts have been given a major shot in the arm by the April 2024 update to the Office of Management and Budget's Uniform Grants Guidance, which includes specific provisions clarifying that federal grant funds may be used for data, evaluation, and integrated data systems. This important clarification was intentionally made to give the green light to governments that are interested in building or expanding an integrated data system using federal funds. The green light applies both to integrated data systems that link person-level data and those that integrate place-based and asset-based data.

10 Government Accountability Office (2020). Medicaid Information Technology: Effective CMS Oversight and States' Sharing of Claims Processing and Information Retrieval Systems Can Reduce Costs (GAO-20-179). Available at https://www.gao.gov/assets/d20179.pdf.

B. HOW OMB UNIFORM GRANTS GUIDANCE SUPPORTS IDS AND EVALUATION CAPACITY

In April 2024, the federal Office of Management and Budget updated its Uniform Grants Guidance, which establishes government-wide administrative requirements, cost principles, and audit requirements for federal grants. Recognizing the important role of data and evaluation for improving performance and outcomes of federal grants, OMB inserted new provisions to clarify that grantees may use a portion of their grants for data, evaluation, and integrated data systems. Grantees may charge these activities to federal grants as either direct or indirect costs, as long as they benefit the program funded under the federal grant award.

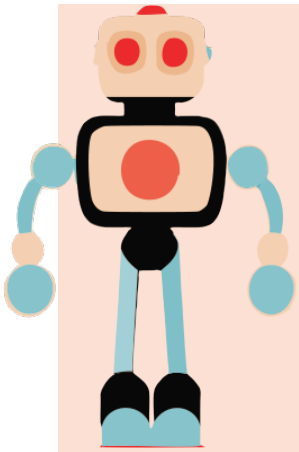
These provisions appear in Section 200.455(c) of the guidance, which states:

> *The costs related to data and evaluation are allowable. Data costs include (but are not limited to) the expenditures needed to gather, store, track, manage, analyze, disaggregate, secure, share, publish, or otherwise use data to administer or improve the program, such as data systems, personnel, data dashboards, cybersecurity, and related items. Data costs may also include direct or indirect costs associated with building integrated data systems—data systems that link individual-level data from multiple State and local government agencies for purposes of management, research, and evaluation. Evaluation costs include (but are not limited to) evidence reviews, evaluation planning and feasibility assessment, conducting evaluations, sharing evaluation results, and other personnel or materials costs related to the effective building and use of evidence and evaluation for program design, administration, or improvement.*

OMB issued useful reference guides on data and evaluation to elaborate on these provisions. These guides also explain how grant funds may be used for community engagement, which can build trust in government and meaningfully incorporate the knowledge, needs, and lived experiences of affected individuals and communities into program design, implementation, and evaluation.

OMB's revisions can help state, local, tribal, and territorial governments to create systems that best serve people and communities by investing in integrated systems and evaluations that efficiently and effectively use data from all the relevant programs – instead of building or reinforcing siloed systems that cannot communicate with each other and get in the way of better results.

It is important to note that the OMB guidance covers all federal grant programs except for Medicaid, which has its own requirements and policies. While the OMB guidance establishes a government-wide policy that grant funds may be used for data and evaluation activities, each federal agency and program will make the determination whether an applicant's proposed data and evaluation activities are related to the grant award. In addition, individual programs may have limitations on spending that were set in statute by Congress. **Because this is a new clarification of OMB guidance, you should expect that some grant programs may still be**



What Is the Federal Program Inventory, and How Can It Help Identify Funding Opportunities?

The Federal Program Inventory was recently launched to pull together information about all federal financial assistance programs into a single website. Users can search for any form of financial assistance (loans, grants, training, etc.) by policy area, agency, eligible applicants, and other filters. For example, an evaluation official can use the tool to identify programs that serve a particular population group or need across programs and agencies. This can help them to design a comprehensive evaluation program.

developing processes to address use of funds for data and evaluation. This guide provides further descriptions of federal programs that may be a good fit for funding IDS and of what federal agencies might look for in approving funding for integrated data systems as direct or indirect costs.

C. TYPES OF FEDERAL GRANT PROGRAMS THAT MAY BE USED FOR INTEGRATED DATA SYSTEMS

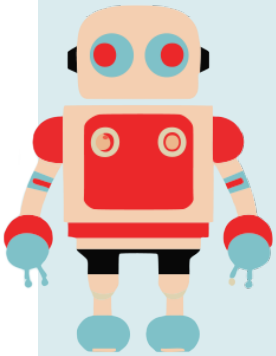
The revised OMB Uniform Grants Guidance makes clear that federal grant funds overall can generally be used to pay for integrated data systems and evaluation capacity. Nonetheless, a few types of federal grants are worth highlighting as strong candidates based on their history, purpose, or particular guidance related to integrated data and evaluation. These programs include Medicaid which, even though it is not covered by the updated guidance, can include relevant funding opportunities. The types of grants discussed here include:

a. Major health and human services programs for low-income populations
b. Competive programs that support statewide longitudinal data systems
c. Programs that build evidence about effective state and local policies and practices
d. One-time programs that can support IDS, data activities, and evaluation
e. Other ongoing federal grant programs that can support IDS and evaluation
f. Grants to tribal governments

a. Major Health and Human Services Programs for Low-Income Populations

Federal safety net programs serving low-income and at-risk populations include Medicaid, Child Support Enforcement, Temporary Assistance for Needy Families (TANF), Child Care, and Child Welfare programs under HHS and the Supplemental Nutrition Assistance Program (SNAP), and the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) under USDA. The statutes for most of these programs authorize federal matching funds for state administrative costs and development and operation of data systems at rates between 50 and 83 percent, depending on each state's per capita income. In the case of Medicaid, states may receive a 90 percent federal match rate for development of integrated systems used for eligibility determinations, claims processing, and fraud control and may receive a 75 percent federal match for maintenance of these systems. For every dollar spent by a state, county, territorial, or tribal government on administering Medicaid, the Federal program reimburses at its match rate.

Because these transactional systems are costly and complex, Advance Planning Documents (APDs) are used to request funding for systems planning and development from the HHS Centers for Medicare and Medicaid Services (CMS), the HHS Administration for Children and Families (ACF), and the USDA Food and Nutrition Service (FNS). While a planned transactional system has historically been started with the Medicaid program, it can be expanded to support multiple programs. In these cases, two tactics may be used in tandem to make funding stretch as far as



What Is the Advance Planning Document Process and Why Does It Matter?

The Advance Planning Document (APD) process establishes conditions for initial and continuing authority for the state, Indian Tribal Organization, or territory to claim federal reimbursement or "federal financial participation (FFP)" in the costs of the planning, development, acquisition, installation, and implementation of information systems and services. In short, an APD provides a written plan of action explaining the activities that would be funded under the IT project.

possible: cost allocation across multiple programs and using Medicad to jumpstart IT modernization.

- **Cost allocation across multiple programs:** States, Indian Tribal Organizations, or territories may design their systems to support multiple programs, making it necessary to allocate costs proportionately. To standardize and simplify the cost allocation process across some programs, CMS, ACF, and FNS encourage states to use the Cost Allocation Methodology (CAM) Toolkit, described in Section 3. This tool allows the state, Indian Tribal Organization, or territory to equitably divide the costs of a project benefitting multiple programs. Once that calculation is made, then the user requests the specific federal match for the expenditures allocated to each specific program. The table below shows some examples of differing statutory match rates across large, commonly joined programs.[11]
- **Using the federal Medicaid program to jumpstart IT modernization:** A state, Indian Tribal Organization, or territory may build out a data system to ingest, store, and support analysis of multiple data sets and types for the benefit of the Medicaid program, while concurrently exploring ways to design the system to ultimately also benefit other non-Medicaid programs in the future. For example, this may include making initial design and architectural decisions that

11 Courtesy of Nick Mozer, State Systems Coordinator, HHS

Department	Program	Match Rate	Eligible IT Costs
USDA Food and Nutrition Service	SNAP	50%	Design, Development, Implementation, Operations
	WIC	100%, capped at predetermined grant amount	Design, Development, Implementation, Operations
	Summer EBT	50%	Design, Development, Implementation, Operations
HHS Centers for Medicare and Medicaid Services	Medicaid	90%	Design, Development, Implementation, Operations
		75%	Maintenance and Operations for certified systems that are fully operational
HHS Children's Bureau	Title IV-E	50%	Design, Development, Implementation
		50%	Maintenance and operations for Comprehensive Child Welfare Information Services (CCWIS) Allowable Costs
		50%	After applying the Title IV-E participation rate
HHS Children's Bureau	Title IV-D	66%	Design, Development, Implementation, Operations

could support bi-directional data exchange, adopting inclusive data definitions (e.g. provider, service, member), and/or selecting data hosting platforms that have the potential to host very large and diverse data sets with high fidelity and performance. In this case, it is likely that the Medicaid 90/10 match for design, development and implementation can be used.

Each of these tactics allows states, Indian Tribal Organizations, or territories to leverage increased federal funding to build or modernize health and human services systems that support a larger number of federal programs than their current systems serve.

The APD process can be a powerful tool to support a strong foundation for an integrated data system, and many states and localities have leveraged it to provide funding for key components of their integrated data system. More detail on how to access the APD process and keys to success in navigating this complex area are described in Section 3.

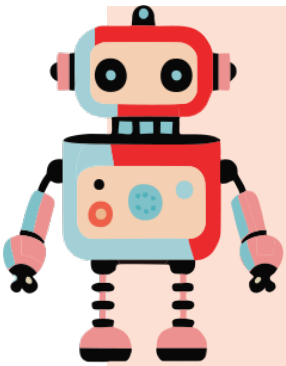
b. Competitive Grant Programs that Support Statewide Longitudinal Data Systems

The Departments of Education (ED) and Labor (DOL) administer parallel competitive grant programs to help states develop and implement Statewide Longitudinal Data Systems that integrate individual-level data from education and workforce programs. A number of states have used their SLDS grants as seed funding for expanded statewide systems – using the same SLDS architecture – that include health, human services, and other data.

- **ED's Statewide Longitudinal Data Systems** program makes competitive grants to State Education Agencies to design, develop, and implement longitudinal data systems to manage, analyze, disaggregate, and use student-level data efficiently and accurately to improve decision-making. The first round of grants was made in 2005 and the eighth round in 2023. In 2024, the grants program received approximately $22.5 million. SLDS systems link K-12 student data with early childhood, postsecondary education, and workforce data. They use the linked data to answer key questions about whether young children are ready for kindergarten, whether K-12 students are adequately prepared for postsecondary education, and whether K-12 and postsecondary students can earn a living after completing their degrees. Some states have begun to incorporate data from corrections, health, social services, and training and certificates.
- **DOL's Workforce Data Quality Initiative (WDQI),** a smaller program that began in 2010 and is funded at $6 million in 2024, makes competitive grants to state workforce agencies and community college systems. These grants help to develop or expand workforce longitudinal databases and use them for analyses of state workforce and education systems. Grantees pull workforce data from Unemployment Insurance (UI) wage records, training and employment services funded by DOL and ED, the State Wage Interchange System, and other sources. WDQI grantees are expected to produce user-friendly materials on state workforce performance to share with workforce system stakeholders and the public.

SLDS systems funded by ED and DOL are built primarily for performance measurement, longitudinal analysis, and research, rather than to administer benefits and services to individuals. As such, they are simpler and significantly less expensive to operate than HHS systems. ED's SLDS and DOL's WDQI funds may be used for planning, design, build , and enhancement of systems but not maintenance costs. While these systems must comply with federal privacy and security requirements, ED and DOL staff generally do not review and approve their technical design.

Under both programs, state grantees are expected to find alternative funding sources to sustain funding for SLDS systems when they move into operations and maintenance phases.



KYSTATS: Building a Sustainable Financing Strategy

Challenge: How could Kentucky's Center for Statistics (KYSTATS) integrated data system move beyond initial seed funding to a sustainable and diverse set of funding sources?

In the early years, funding from a U.S. Department of Education State Longitudinal Data System (SLDS) grant comprised 100% of the budget for KYSTATS. Without a diverse set of funding sources, KYSTATS would struggle to carry on and to incorporate additional data sets to yield high-value insights.

Approach: While the SLDS funding was being implemented, KYSTATS worked intentionally to build relationships with new programs and identify how it could attract other funding by helping programs meet their needs. KYSTATS has aggressively reached out to new programs requiring significant participant data over longer periods of time to both extend its capabilities, as well as to secure more diverse sources of funding.

Impact: When KYSTATS received its last SLDS grant in 2019, the SLDS funding comprised only 30% of the total organization budget. Almost 10 years after receiving its first funding through the SLDS program, KYSTATS expects to be entirely weaned off SLDS funding by fiscal year 2025. To sustain SLDS operations, the Kentucky Department of Education has successfully obtained a line item in their budget to sustain longitudinal student data. In addition, KYSTATS uses direct costing to other federal grants and chargebacks to agencies and outside organizations that use its services.

c. Programs that Build Evidence about Effective State and Local Policies and Practices

In addition to funding specifically for systems, grant programs that support research and evaluation to build evidence about program effectiveness can also contribute to supporting and using integrated data systems.

- **Research & development programs.** A wide range of federal agencies including HHS, ED, USDA, the Department of Housing and Urban Development (HUD), the Department of Justice (DOJ), the Environmental Protection Agency (EPA), and the National Science Foundation (NSF) make research and development (R&D) grants to organizations conducting applied research and evaluation at the state and local level. These grants generate insights about what approaches are most effective for advancing societal goals including health, education, economic mobility, workforce preparation, community safety, environmental quality, and food and housing security. Most traditional federal R&D programs make grants to academic institutions to carry out peer-reviewed research studies.
- **Programs that require rigorous evaluation.** Another class of evidence-building programs that has emerged in the past 15 years provides grants to state and local governments or non-profit organizations that provide services to individuals and families and require each project to conduct or participate in a rigorous evaluation to study its effectiveness in improving outcomes. These include ED's Education Innovation and Research program and Postsecondary Student Success Grants; DOL's Re-employment Services and Eligibility Assessment Grants; and HHS's Teen Pregnancy Prevention and Maternal, Infant and Early Childhood Home Visiting Programs.

Integrated data systems designed to allow external researchers access to linked data can significantly reduce the time and cost required to conduct high quality studies. Such access is often provided through a secure data enclave using anonymized data. Some

gold-standard randomized controlled trials that used to cost millions of dollars to evaluate program impact can now be conducted for less than a few hundred thousand. Researchers working in or with state and local governments that can access robust integrated data systems are well positioned to compete successfully in R&D and other federal grant programs that require rigorous evaluations.

d. One-time Programs that Can Support IDS, Data Activities, and Evaluation

During the Biden Administration, several federal agencies issued specific guidance to clarify that grant funds from large one-time programs could be used for data and evaluation activities. For example, the Department of the Treasury (Treasury) encouraged state and local grantees receiving funds under the $350 billion State and Local Fiscal Recovery Funds to evaluate their program activities and make the necessary investments in data systems. Treasury´s 2022 final regulation explicitly allowed spending on program evaluation and evidence, data analysis, technology infrastructure, community outreach and engagement, and capacity building to support using data and evidence.[12] For the Infrastructure Investment and Jobs Act, OMB strongly encouraged federal agencies to request that applicants allocate funds for "personnel and data infrastructure to support performance management and program evaluation needs associated with their proposed application." A recent Department of Transportation report highlights Federal Highway Administration formula grants as a potential funding source for tracking demographic information on the workforce available for public infrastructure projects.

Some states and local governments have used these one-time investments to develop or enhance their integrated data and evaluation capacity.

These jurisdictions will need to find alternative sources of funds to sustain or expand the systems they developed with the one-time federal funding. The recent clarifications in the OMB Uniform Grants Guidance provide grantees with significant flexibility to identify other federal funding sources that could support these systems, provided there is a benefit to whichever grant programs contribute funds.

e. Other Ongoing Federal Grant Programs that Can Support IDS and Evaluation

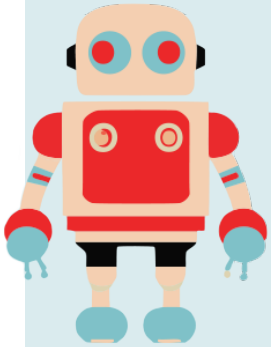
The OMB Uniform Guidance emphasizes that grant recipients are allowed to spend a portion of their award funding on data gathering, analysis, and evaluation activities that are related to the award. This is a clarification of existing policy that has not been widely understood by federal grant-making agencies or grantees. This clarification explains that programs that may traditionally have built their data capacity within silos can use federal grant funds to build the tools to both contribute to and benefit from integrated systems. Below are three categories of such programs.

Category 1 is federal programs that could utilize this flexibility is federal programs focused on special purpose data activities that are housed within a specific state agency or program office. This category includes, for example:

- HUD grants to local lead agencies for its Homeless Management Information System,
- Centers for Disease Control and Prevention (CDC) Public Health Infrastructure grants to public health departments
- DOL grants to states for Unemployment Insurance systems modernization and Labor-Management Information Systems,
- DOJ grants for data projects under the Justice Reinvestment initiative, and
- EPA grants to states, tribes, and territories for the Environmental Exchange Information Network program.

Under the updated OMB Grants Guidance, grantees of these programs could use a portion of their funding to build capacity to link their data with existing integrated data systems to generate actionable insights that would benefit their programs. This could

12 For examples of how states and localities have used flexible State and Local Fiscal Recovery Funds money to use data and evidence to drive impact, see Results for America's American Rescue Plan Data and Evidence Dashboard at https://results4america.org/press-releases/new-arp-dashboard-highlights-how-states-cities-and-counties-are-using-data-and-evidence-to-increase-impact-of-federal-recovery-funds/.



Using One-time Funds to Build the Bedrock for Integrated City Data

Challenge: How could Detroit use one-time funds to integrate fragmented geographic information to help a struggling city? After Detroit's foreclosure crisis and bankruptcy, the City struggled to access current, reliable data related to land and addresses. Only the Assessor's office maintained data with unique identifiers for each parcel of land in the entire City that could be used for managing and tracking City operations. It served as a reference point for most departments even when this level of geography was not granular enough for many operational needs. In preparation for Census 2020, and a kickoff to enterprise Data Governance, the Base Units effort was born. The Data Strategy and Analytics office sought to create a definitive and up to date list of all the City's addresses and integrate it with other important geographic data identifiers. For example, one commercial parcel might house multiple storefronts with different addresses, permit and inspection histories, and licenses. Because the City had many separate data systems operated by different departments, establishing a single point of authority under the Chief Information Officer became critical. Without integration at the most base level, it was impossible to answer basic questions about the City's current state. By creating a custom geo-coder that could accurately identify locations across Detroit's multiple systems in a schema that integrated all base units, departments could finally join siloed datasets and work cross functionally.

Approach: Detroit was able to quickly scale its Base Units effort by leveraging one-time American Rescue Plan Act (ARPA) State and Local Fiscal Recovery Fund (SLFRF) dollars to build a modern and flexible enterprise data warehouse. The Chief Data Officer led the City in developing a unified vision for data. This vision included the analogy of a layer of data "bedrock" on which the topsoil of rich analytics and performance measurement could be harvested. The hope was to utilize ARPA funds as a way to further develop a data culture, and specifically one that incorporated performance management.

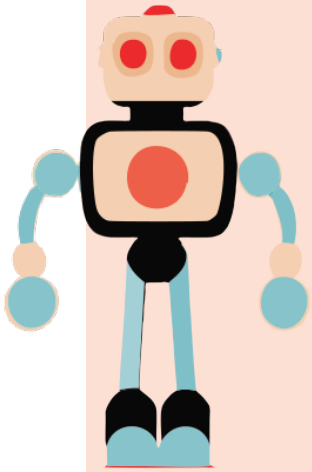
Impact: Detroit's new capacity has yielded impact in multiple ways, including financially and in service to the public. The public can now access an open data portal with datasets that have all associated location markers required for integration, as well as supplementary data, such as council district or neighborhood. Detroit was able to significantly increase staff on its data team using ARPA funds. Using integrated administrative data, the data team was able to show Detroit population growth for the first time in 66 years, enabling the City to bring in additional federal formula funding in line with its population. The enterprise data infrastructure has allowed new city council ordinances to be met in a timely way such as Energy Benchmarking of City buildings and the consumption patterns. Other major projects from 2024 included:

- Visualizing COVID-19 Emergency Rental Assistance data to improve the distribution of rental assistance leading to over $262 Million dispersed to renters and landlords and over 32,000 approved applications.
- Setting up a city-managed paratransit system for the Detroit Department of Transportation, which runs over 5000 weekly trips with a 99.2% on-time performance.
- Developing platform integrations to improve the Neighborhood Enterprise Zone Homestead Tax Abatement process for appraisers, identifying 30,000 eligible homes and improving the experience for 9,000 households to apply and take advantage of the program.

involve building the interfaces and analytical capacity within their own organizations or contributing funds to a centralized data and analytics team that provides data, analytics, and evaluation services related to the grant.

Category 2 is programs that provide services to individuals and families where many state and local grantees are not currently contributing funds to, or benefiting from, an integrated data system or a centralized analytics or evaluation office. These might include major formula grants to state and local governments, such as:

- ED grants to local school districts to close educational achievement gaps and grants to states for special education and career and technical education;
- DOL employment and training programs funded by the Workforce Innovation and Opportunity Act;
- HHS Maternal and Child Health Block Grants, Community Services Block Grants, and Substance Abuse and Mental Health Block Grants;
- HUD HOME Investment Partnership formula grants to state and local governments to support building, buying, and/or rehabilitating affordable housing or providing direct rental assistance to low-income families and the Community Development Block Grant to states, cities,



Building Powerful Neighborhood Coalitions for Change by Matching Individual Data With Place-based Data

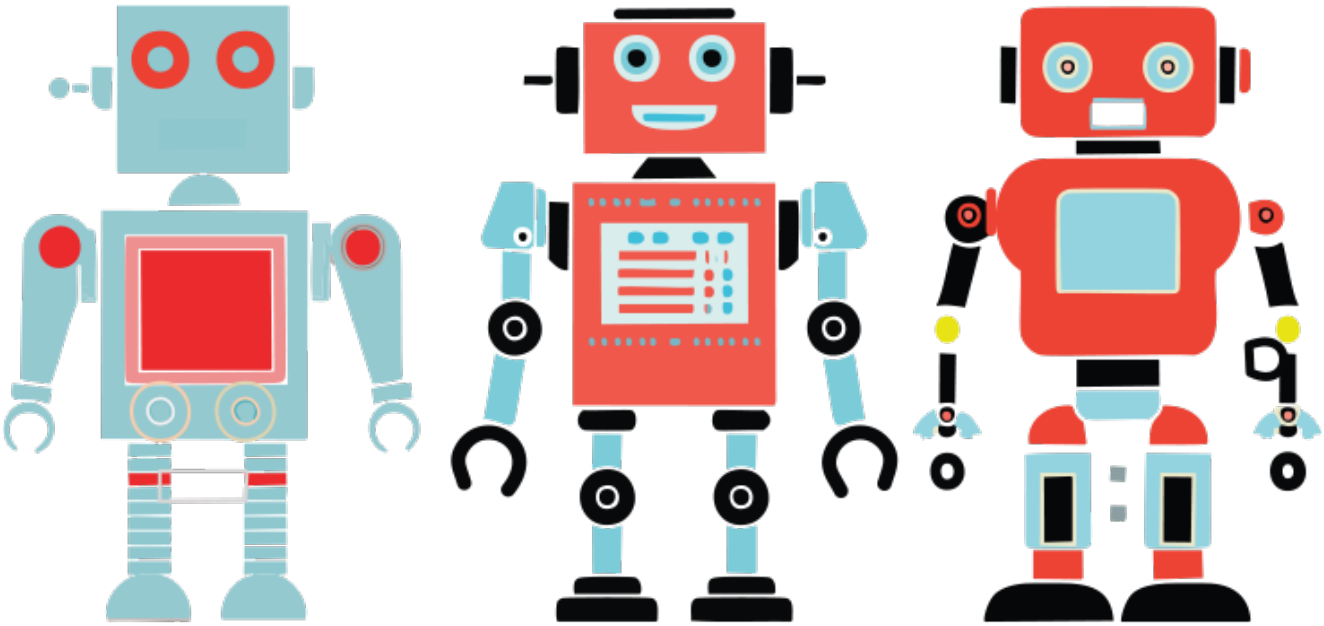
Challenge: How could stakeholders combine individual and place-based data to build the evidence required to focus state and local leaders on the impact of lead poisoning on residents of Cleveland, Ohio?

Approach: Beginning in 2018, the Case Western Reserve University's Center on Poverty & Community Development launched a program of research focused on childhood lead poisoning in Cuyahoga County, Ohio. The research drew on administrative data from public health, public assistance and social services agencies, early childhood programs and K-12 education as well as on public location-based data on housing, taxes, and crime.

A region-wide group of philanthropists, advocates and community leaders was eager for the Center's integrated data on lead exposure by neighborhood and parcel and on outcomes for early childhood, kindergarten readiness, and vulnerable populations.

Impact: The Center's work resulted in several groundbreaking studies and recommendations for action to address lead exposure issues impacting Cleveland children, families, and residents. The data laid the groundwork for the launch of the Lead Safe Cleveland Coalition and the passage of Cleveland's Lead Safe Ordinance, both in 2019. The Ordinance seeks to have all rental properties built prior to 1978 attain a Lead Safe certificate and also calls for education and community engagement, increased screening and testing for lead poisoning and early intervention for children and families impacted by lead. It also instituted a City Lead Safe Auditor to measure and report on progress.

Since 2019, the Center has provided key research and data to support the work of the Coalition with funding from the George Gund Foundation, the Mt. Sinai Healthcare Foundation, the Saint Luke's Foundation, and the Eva L. and Joseph M. Bruening Foundation. The Center has also served as the City's Lead Safe Auditor since 2020. The integrated data is currently used to inform the Lead-Safe Cleveland Coalition's remediation priorities and to monitor progress.



and counties to support housing and economic opportunity.

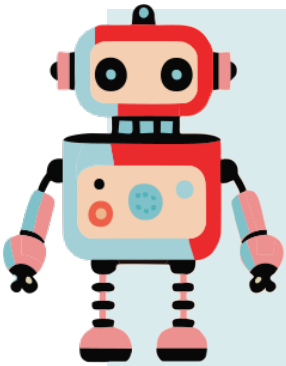
- DOJ Byrne Justice Assistance Grants to states to strengthen criminal justice systems
- Department of Energy (DOE) grants for Weatherization Assistance for Low-income Persons.

The federal government also operates dozens of *competitive* grant programs providing services to individuals and families that are administered by ED, DOL, HHS, HUD, DOJ, USDA, and Americorps. Some of these programs provide grants to state and local governments, and others support non-profit service providers that work in partnership with state and local governments. Many if not all of these programs could benefit from access to integrated data systems and central analytics and evaluation capacity.

Category 3 is place-based and asset-based programs that support physical infrastructure, natural resources, environmental quality, economic development and other activities serving communities and regions. These include both competitive and formula grants such as:

- Department of Homeland Security (DHS) grants for disaster and emergency assistance and cybersecurity;
- DOT grants for highway, transit, rail and other forms of transportation;
- Department of Commerce (Commerce) grants for broadband, economic development, and coastal and fishery management;
- HUD grants for community development, public housing, and economic mobility;
- USDA grants for rural housing, economic development, and conservation; and
- Department of Interior (DOI) grants for parks, recreation, and conservation.

State and local governments are increasingly focused on coordination of the assets and services to meet the needs of urban, suburban, and rural communities. Grantees in these programs can use a portion of their grants to support central data warehouses and analytics teams that integrate administrative data for these programs to strengthen coordination and accountability. Some of these analytics teams link their asset-based data with person-level integrated data systems so they can understand the impact of their activities on communities and regions.



Using Public Law 102-477 to Promote Data Sovereignty as Part of Self-determination for Tribes

The federal government has recently taken new steps to protect and promote Tribal Nation sovereignty and self-determination. However, there is still room for further federal effort to support tribes in building and maintaining data systems that allow greater control over the data that gets collected about their members and programs and how that data gets used to answer policy and program questions.

An important step came from the December 2023 Executive Order 14112 Reforming Federal Funding and Support for Tribal Nations To Better Embrace Our Trust Responsibilities and Promote the Next Era of Tribal Self-Determination, which references the concept of data sovereignty. Independent data infrastructure is a core enabler of determining the most relevant and important information to generate, how to use it, and how to protect it. Such administrative data could, alongside other types of Indigenous knowledge, play a critical role in understanding and addressing high-priority policy and program questions for individual Tribal Nations and communities.

Together with OMB´s updated Uniform Guidance, the 477 program could play a strong role in developing the systems and capacity to promote data sovereignty. The 477 process of blending funds from across agencies could enable a tribe to create a single pool of funds to support integrated data systems and analytic capacity that encompasses data from all of the relevant, participating programs. Because OMB´s guidance makes explicit that federal assistance can support spending on integrated data systems and evaluation, these activities are likely permissible for any participating 477 programs. In addition to federal reporting requirements, tribal governments could use systems to collect data and to support analyses that most align with the objectives and priorities that they determine while more fully controlling which individuals and entities can access the information.[6]

f. Grants to Tribal Governments

Most formula grants to states include a set-aside or parallel program for tribal governments. In accordance with federal laws and executive orders supporting tribal sovereignty and self-determination, tribes have significant flexibility to determine how to allocate resources and implement programs. One example is P.L. 102-477, the Indian Employment Training and Related Services Demonstration Act, which is known as 477. As expanded by P.L. 115-93 in 2017, 477 allows tribal governments to consolidate certain federal funding streams from across 12 federal agencies under a single plan, budget, and set of reporting requirements. This approach of blending funds significantly reduces administrative burden, enabling more funds to go to direct programming. Nearly 300 federally recognized tribes currently participate in a 477 plan and, in fiscal year 2023, $316 million was transferred to tribes and tribal organizations for the 477 program.[14] For 477 and other tribal grant programs, tribes may use a portion of their funding to develop integrated data systems and evaluation capacity to inform high-priority decisions.

13 For more information on this topic, please see https://www.newamerica.org/education-policy/edcentral/blended-funding-supports-streamlined-service-delivery-for-native-nations/#:~:text=First%20passed%20in%201992%2C%20the,a%20single%20plan%20with%20a or https://www.acf.hhs.gov/blog/2024/05/how-acf-leveraging-477-program-promote-tribal-sovereignty

14 https://www.bia.gov/bia/ois/dwd

D. CROSS-CUTTING POLICY PRIORITIES THAT CAN BE FUNDED FROM MULTIPLE FEDERAL PROGRAMS

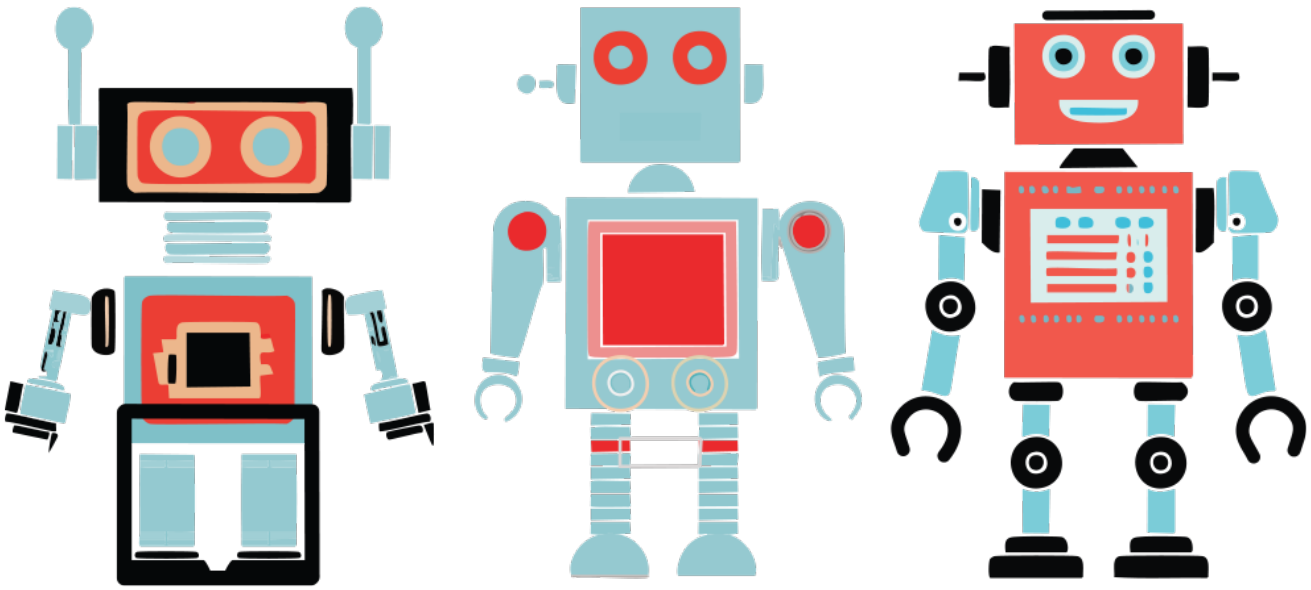
Many of the biggest policy challenges and priorities require holistic approaches that draw on multiple agencies. Across levels of government, leaders have coalesced around high-priority policy goals that require effective cross-agency collaboration at each level of government. At the federal level, these cross-cutting initiatives are often led by the White House Domestic Policy Council and OMB to define shared goals and facilitate alignment of policy and implementation strategies. Effective implementation can break down when state, local, tribal, and territorial program administrators are unable to link and analyze data on intended and actual program beneficiaries to answer questions such as:

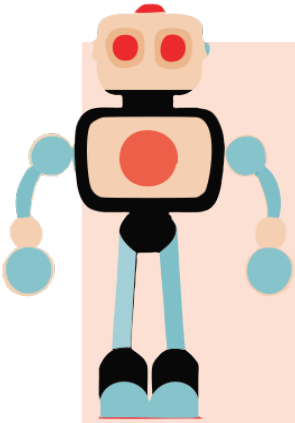
- Who is in greatest need of services, and what are the best channels to reach them?
- How can eligibility determinations and service delivery be better coordinated to improve customer experience and achieve better results?
- What outcomes are being achieved?
- Where are improper or duplicate payments occurring?

In some cases, these questions can only be answered by linking and analyzing data across different jurisdictions, across levels of government, or between government and private and non-profit organizations. The OMB Uniform Grants Guidance permits government and non-profit grantees to build data-exchange and analytical capacity that can cross these organizational boundaries.

Below are examples of cross-cutting policy priorities where progress can be accelerated through state, local, tribal, and territorial development and expansion of robust, reusable integrated data systems and analytical tools for the vast amounts of administrative data they hold. By leveraging funding from the full range of federal programs described above, state, local, tribal, and territorial governments can build modern, efficient data and evaluation infrastructures to answer these and other important questions for a broad range of programs and policy priorities.

- **Early childhood development.** Early childhood development. HHS, ED, and USDA operate over a dozen programs focused on children under five to





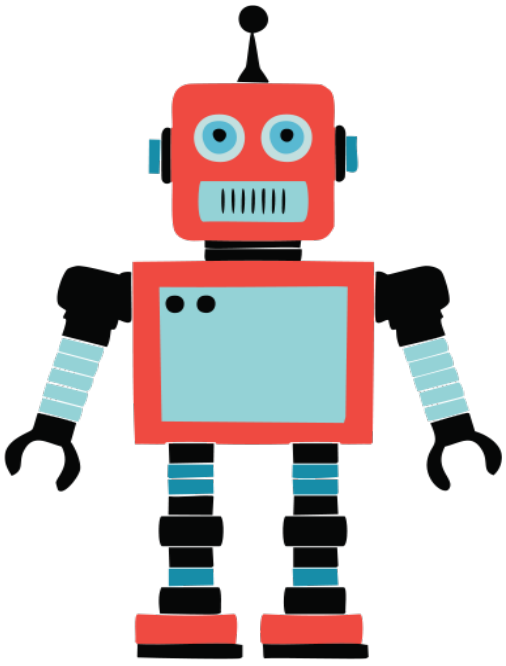
North Dakota's Early Childhood Integrated Data System

Challenge: North Dakota's governor and legislature sought to move from a disjointed early childhood system of siloed programs to a cohesive system that ensures all children and families in the state have access to top quality early childhood experiences. The coordination challenges were largely the result of fragmented federal organization and program structures, each with its own rules and reporting requirements. How could the state integrate, manage, and analyze data across the different programs to improve service delivery and evaluate performance?

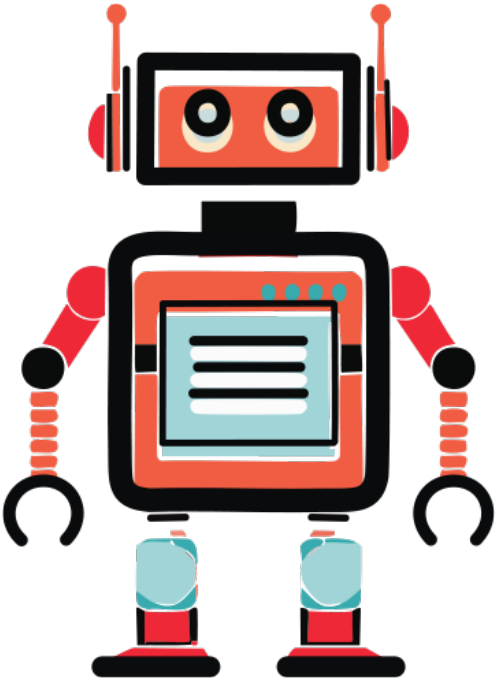
Approach: With its first wave of Coronavirus Relief Fund (CRF) resources, the state had begun to build initial nodes for a cloud-based integrated data system to link administrative records across human services programs. The initial focus was integration of administrative records between the Emergency Rental Assistance Program (ERAP) and other social services programs, which was essential for effective implementation and evaluation of ERAP. The state realized that the same integrated data infrastructure could be expanded to support early childhood programs, leveraging additional sources of federal funding. To finance the early childhood components, North Dakota combined federal funding from one-time pandemic assistance grants and funding from existing federal programs: the HHS Child Care and Development Block Grant, and Preschool Development Grant program. North Dakota is now leveraging one-time and ongoing funding sources as it continues to add data sources to this newly integrated data environment.

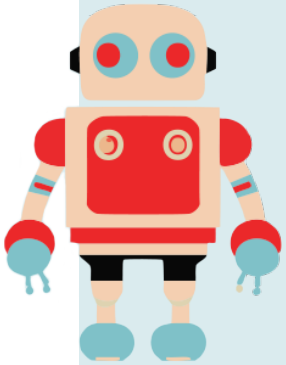
Impact: By leveraging the broader, cloud-based infrastructure that was initially developed to support other human services initiatives, the state was able to quickly build capacity to link and analyze early childhood data and produce data products that better help families access childcare resources, help providers improve their financial sustainability, and help policymakers evaluate impact.

support their health, nutrition, early development, and pre-school education. These include HHS's Child Care and Development Block Grant; Preschool Development Grant program; and Maternal, Infant, and Early Childhood Home Visiting program; ED's Infants and Toddlers and Preschool programs for children with disabilities; and USDA's WIC and Child and Adult Care Food programs. Integrated data systems can facilitate strong coordination across these programs and with social services programs serving families, such as TANF, Child Welfare, and the Social Services Block Grant. SLDS that link pre-school and K-12 data can generate insights on whether and which early education programs are adequately preparing young children for kindergarten.



- **Homelessness.** HUD, HHS, ED, and the Department of Veterans Affairs (VA) administer over two dozen programs to reduce homelessness, the majority of which are run by state and local governments and non-profits. In addition to using integrated data systems to coordinate services across these programs, integrated data systems can be used to develop risk models to assess who is at greatest risk of becoming homeless and devise interventions to avoid homelessness. The use of integrated data systems has been instrumental in understanding patterns of crisis and emergency housing services among veterans, especially those experiencing homelessness.





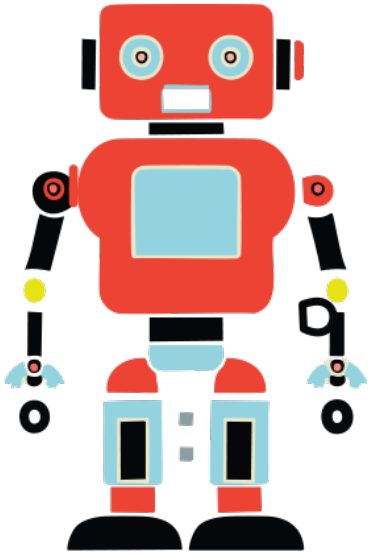
Addressing Homelessness Among Students in New York City

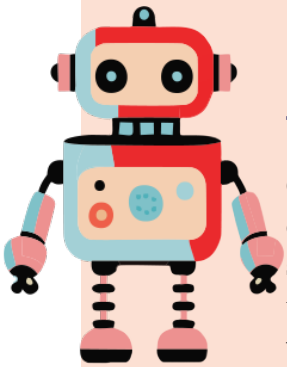
Challenge: In the 2021-22 school year, more than 104,000 (1 out of 10) students in New York City (NYC) schools resided in temporary housing, over one-third of whom resided in homeless shelters. Students in these circumstances face enormous challenges to learning that contribute to a cycle of poverty, homelessness, and poor educational outcomes. School and city leaders wanted to learn how to identify students at highest risk of becoming homeless to inform how they design and target interventions to prevent homelessness.

Approach: Five city departments responsible for schools, youth, homelessness, and social services shared their data with NYC's Center for Data Innovation through Data Intelligence (CIDI), the data and research hub for NYC human services agencies, and provided guidance to CIDI on the project. Using the studies exception under the Family Educational Rights and Privacy Act (FERPA), the school system was able to share student-level data with CIDI. By analyzing the linked data, CIDI researchers were able to identify risk factors for student homelessness in the next academic year. CIDI also explored predictive models using these risk factors. CIDI published their findings and convened all stakeholders to discuss the implications and how to best design and implement interventions to prevent homelessness among those most at risk.

Impact: This project demonstrated how linking data across multiple agencies can help to confront youth homelessness and inform targeted interventions for students at risk for homelessness. While this study identified students at highest risk of experiencing homelessness, the size of the group indicated as "elevated risk" is much larger than a prevention program focused on this population could serve. However, this project highlighted the need for a cross-agency, holistic approach to homelessness prevention.

- **Education and training to improve economic mobility.** Increasingly, federal, state, local, tribal, and territorial leaders are seeking to hold education and training programs accountable for ensuring students are prepared for economic success when they enter the workforce. Leading states have created robust longitudinal data systems that can measure employment and earnings outcomes for high school and postsecondary students by linking student-level data to state wage records or to more comprehensive state and federal data sets on earnings.





Linking Data Across States to Measure Employment Outcomes of Postsecondary Education and Training Programs

Challenge: How could state policymakers, educators, and the public get better insight on how well postsecondary education and training programs are preparing students for successful employment? To measure employment outcomes, many states link data from their unemployment insurance (UI) systems to student-level data from education systems. However, this analysis often produces flawed results because UI data don't capture information on individuals who find work in other states or in federal civilian and military jobs.

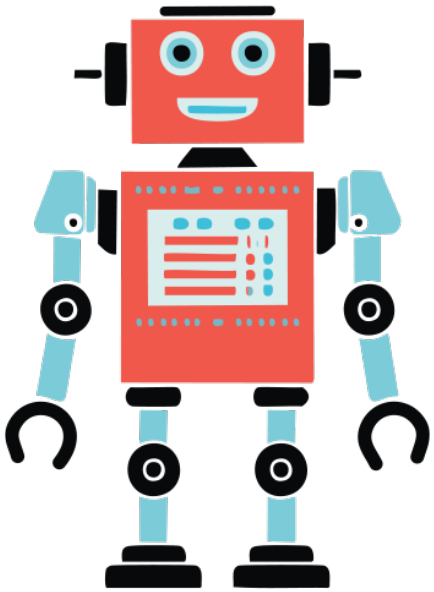
Approach: Beginning in 2018, a partnership between the Coleridge Initiative and state data leaders and research organizations in the Midwest Regional Data Collaborative developed a multi-state solution. They combined student and employment data from multiple states to more accurately measure and report on employment outcomes of postsecondary credential and degree programs. The solution involved:

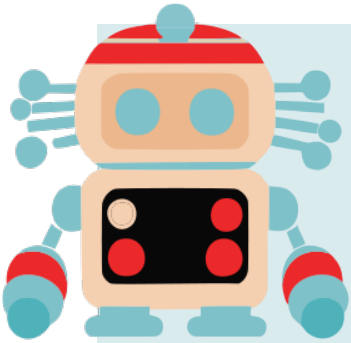
- Use of the Coleridge Administrative Data Research Facility (ADRF) – a secure, cloud-based platform – to link data on postsecondary students with employment and earnings data from multiple states.
- Training teams of data and program analysts from midwestern states how to combine data across organizations and jurisdictions to answer pressing workforce-related questions.
- Developing a standardized data model to reproduce analyses that could be publicly disseminated through the Multi-State Postsecondary Dashboard.

Impact: This project spurred interest by other states in co-creation of common data models and products that can be produced by linking sensitive data sets in a secure environment. Today, multi-state collaboratives involving over 25 states are working with de-identified micro-data to develop shared solutions to pressing questions, with a strong focus on economic mobility.

Securely combining data from multiple programs and jurisdictions can provide important insights that can't be understood by looking at data within a single system or jurisdiction. Non-government organizations can be catalysts for cross-jurisdiction partnerships that dramatically accelerate state and local evidence-building.

- **Social determinants of health (SDOH).** Tackling upstream social factors such as nutrition, housing, transportation, and education can significantly improve health outcomes. As a result, health systems are forming partnerships with state and local governments and non-profit service providers to improve access to these services for low-income and disadvantaged populations. A recent report by the Convergence Center for Policy Resolution explains how data integration across systems is essential for successful partnerships between government, health care providers, and social service providers to address health-related social needs. Integrated data systems can be used to identify individuals and families in need, refer them to service providers, coordinate care, and measure





The Camden Coalition's Regional Health Hub for Individuals With Complex Needs

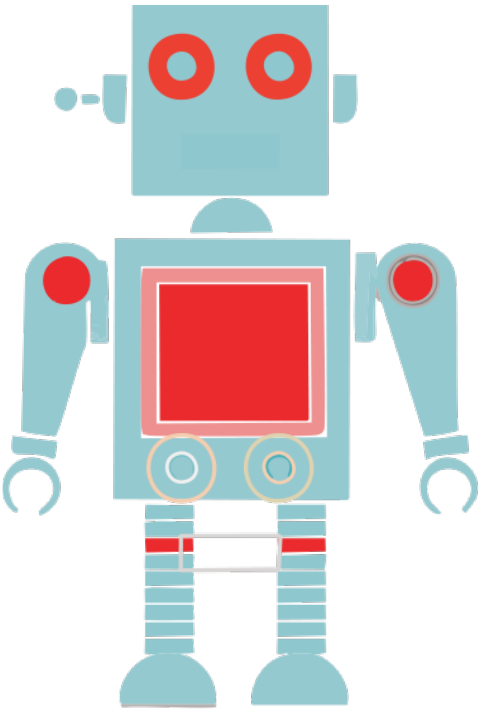
Challenge: The Camden Coalition is a multi-disciplinary, community-based nonprofit that formed over two decades ago. It works to improve health outcomes for people with complex health and social needs in the City of Camden, across New Jersey, and around the country. To achieve this, the Coalition collaborates with a diverse ecosystem of partners, such as community members, health systems, community-based organizations, and government agencies. Together, they design interventions, activate data, and implement person-centered programs to address chronic illness and social barriers to health. A core challenge that the Coalition has undertaken is developing data-driven strategies to identify those individuals that our healthcare system is failing most, as indicated by high use of the emergency room and hospital, and to strengthen the pathways to medical and social services that best meet their unique needs.

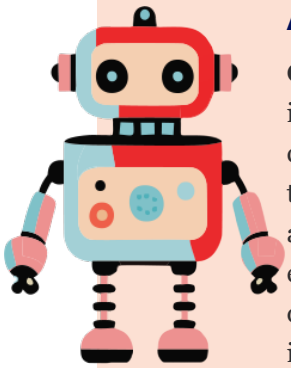
Approach: In 2010, the Coalition established a regional health information exchange (HIE). The HIE was initially populated with Camden city hospital admission, discharge, and transfer (ADT) data, which is accessible to authorized care professionals in accordance with the Health Insurance Portability and Accountability Act (HIPAA). It expanded to serve five South Jersey counties and established additional integrations with multiple hospital systems, the state Medicaid agency, local health departments, skilled nursing facilities, jails, and social service providers. The Coalition uses advanced quantitative and qualitative analytics from the HIE to identify and understand the population served, design and activate critical population health workflows, coordinate care across the region, and evaluate what's working to continuously improve care delivery.

Impact: In 2020, modeled on the Camden Coalition's example, New Jersey established the Regional Health Hubs program to coordinate provision of person-centered health care throughout the state. In 2023, the White House highlighted New Jersey's regional health hubs in its social determinants of health (SDOH) Playbook. Experts from the Camden Coalition now provide technical assistance to regions and states across the country on how to build cross-sector care coordination systems that are powered by integrated data and analytics.

the effectiveness and return on investment of SDOH strategies. Further, governments and their networks of healthcare providers may find it beneficial to attach Z Codes for SDOH (e.g., housing, food insecurity, transportation) to individual records through an integrated data system to avoid costly duplication in each benefit or claims system.

- **Improving public safety.** Reducing and preventing community violence is a top priority across levels of government. A growing body of evidence shows that coordinated approaches involving law enforcement, mental health systems, social services, and community engagement can lead to measurable reductions in community violence and improve the fairness of the criminal justice system. State, local, tribal, and territorial governments can use integrated data systems to inform the design and implementation of interventions and measure their effects.





Allegheny County's Jail Reduction Initiative

Challenge: Mirroring national trends, the jail population in Allegheny County (which includes Pittsburgh) rose 55 percent between 1995 and 2018, while both violent and property crime rates dropped by 41 percent during the same period. Research shows that as little as two days of incarceration for low-risk defendants is correlated with worse outcomes at trial and increased risk of re-arrest. The county – which was spending 32 percent of its direct expenditures on criminal justice, including $91 million annually on the jail – wanted to develop effective strategies to reduce the jail population that would save money for taxpayers, improve outcomes for low-risk defendants, and continue to support lower crime rates for the public.

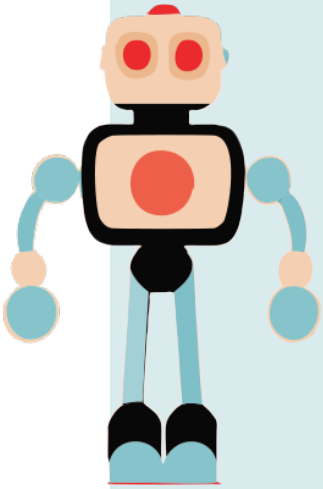
Approach: In 2018, with a grant from the MacArthur Foundation's Safety and Justice Challenge, the county implemented a data driven, multi-pronged strategy to safely reduce the jail population. The development, monitoring, and evaluation of the impact of these strategies was conducted using the county's integrated data warehouse. This included creating public facing Jail Population Management Dashboards to monitor key indicators in the criminal justice system. These dashboards include data from jail, probation, juvenile justice, and health and human services programs, including child welfare, behavioral health, homeless and housing services, Medicaid, hospital emergency departments, and public benefits. The public dashboards support implementation of strategies developed with community input, measure outcomes, and provide insights about factors that influence criminal justice involvement.

Impact: Since 2018, Allegheny County has reduced its jail population by 33 percent. The county has emerged as a national exemplar for how criminal justice and human services systems can collaborate, using insights from linked administrative data, on strategies to improve public safety and reduce the negative consequences of jail stays for low-risk defendants.

- **Fraud detection.** For auditors and the Inspector General community, the most useful data source for fraud detection is state and local transparency websites, such as "Open Checkbook" showing actual expenditures by payee. These extremely granular databases can generate payback quickly by identifying patterns of fraudulent transactions quickly and easily, especially across multiple programs. Integrated data systems can also be helpful in detecting fraud and improper payments by identifying individuals who applied for or received payments but do not meet income or other program eligibility requirements.
- **Customer experience.** With multiple public systems impacting many citizens during some of their most vulnerable periods in life, services must be made more accessible and easy to use, especially for diverse populations. To address this imperative, the Biden Administration issued an Executive Order on Customer Experience to drive federal agency efforts to make services more accessible and easy to use. Several federal-state life experience initiatives seek to reduce administrative hurdles and paperwork burdens for individuals in need, including disaster assistance, care for young children, and emergency financial support for people facing financial shock. State and local governments are also pioneering new ways to integrate and re-use data across programs to reduce red tape and improve customer experience.

E. CONCLUSION

By investing a portion of federal grant funds in shared data infrastructure and analytics capacity, state, local, tribal, and territorial governments can achieve their most basic goals of improved efficiency



Using Integrated Data to Address Fraud in Pandemic Unemployment Assistance[8]

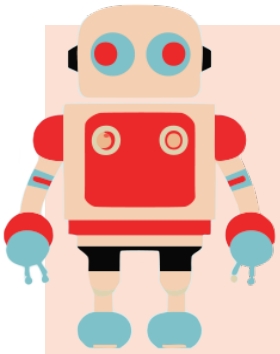
Challenge: Almost overnight during the pandemic, the Ohio unemployment insurance (UI) system received more claims than in the entire previous year.[8] How could Ohio use integrated data to respond?

Approach: Ohio successfully integrated advanced data technologies, as well as diverse data sources, processes and people, to detect fraud and address the challenge. The Ohio Department of Job and Family Services (ODJFS) was administering claims for conventional unemployment insurance in its legacy system, while claims for pandemic unemployment insurance assistance (PUA) used a new application. Therefore, the state needed an "enterprise" approach to integrate data between the two systems and root out fraudulent claims. With the assistance of an outside vendor, the Innovate Ohio Platform (IOP) Data Analytics team designed and developed a fraud dashboard solution that mined UI and PUA data to identify potentially fraudulent claims.

Impact: Ohio's solution identified hundreds of millions of dollars in fraud. It also allowed ODJFS to substantially improve business processes–expanding contact center capacity by 65% to better serve Ohioans. There was an 87% reduction in new claims in the traditional UI system, and a 98% reduction in initial PUA claims within the first 60 days of the new processes and systems.

IOP and ODJFS continue to collaborate on this project, using lessons learned to inform the development of a new UI system to replace the legacy system, as well as providing law enforcement with critical data to catch fraudsters. Additionally, they are looking to expand the dashboard solution approach across ODJFS' other human service programs.

8 For more information on this, please see https://data.ohio.gov/wps/portal/gov/data/projects/jfs+fighting+-covid+fraud.



Seattle's Civiform Initiative to Improve Access to Benefits

Challenge: Seattle has over 30 programs that can help low-income families, but residents face significant barriers and cumbersome forms when trying to apply to these programs, leaving many programs underutilized despite the city's affordability issues. Residents previously had to apply to each program on a different platform, sometimes through paper forms, and often repeating information they already provided to the City.

Approach: Seattle's Innovation and Performance team partnered with city departments and collaborated with google.org to use human centered design approached to create CiviForm, an open-source tool to simplify the application process and user experience for multiple benefit and discount programs. Residents can now use a single online platform to apply to multiple programs in their preferred language by entering personal information once. CiviForm also takes into account residents' preference for trusted community-based organizations and provides a portal for CBOs to apply on behalf of many clients.

Impact: The average time to complete an application dropped from 30 minutes using previous applications to 5 minutes on CiviForm. Seattle continues to add new programs into the platform—residents are now able to save up to $25,200 on the programs currently onboard. Because of its success and open-source nature, other governments are adopting CiviForm including Arkansas, Miami-Dade County, Charlotte, and Bloomington with others onboarding soon. CiviForm is supported by a collaborative involving the governments currently using it as well as Exygy, as the product steward.

and reach toward more ambitious goals of improved outcomes and a higher return on investment. An urgent question for the federal government is how to shift policy incentives so that the default approach for states, localities, tribes, and territories is to build and sustain this capacity. Why is this question urgent? Government leaders at every level commit to deliver results for taxpayers, but government agencies that implement programs often lack the information they need to meet those expectations. The information grantees report to federal agencies for compliance purposes, in isolation, rarely provides meaningful insights on how effectively programs are performing and how they could be improved. Integrated data systems that combine data across programs and systems enable state, local, tribal, and territorial agencies to probe more deeply to learn what's working, where inefficiencies and duplication can be reduced, and how to align program services to achieve better results.

Leading state and local governments, in addition to those highlighted in this section, have demonstrated how strong data, evaluation, and budget leaders can work together to build and sustain interoperable systems, standardized data-sharing processes, and centralized analytics and evaluation capacity to produce actionable insights for a wide range of programs and users at modest cost. These practices can become the norm instead of the exception if federal, state, local, tribal, and territorial government agencies work together to enable and encourage all jurisdictions to build and continually enhance integrated data and evaluation capacity.

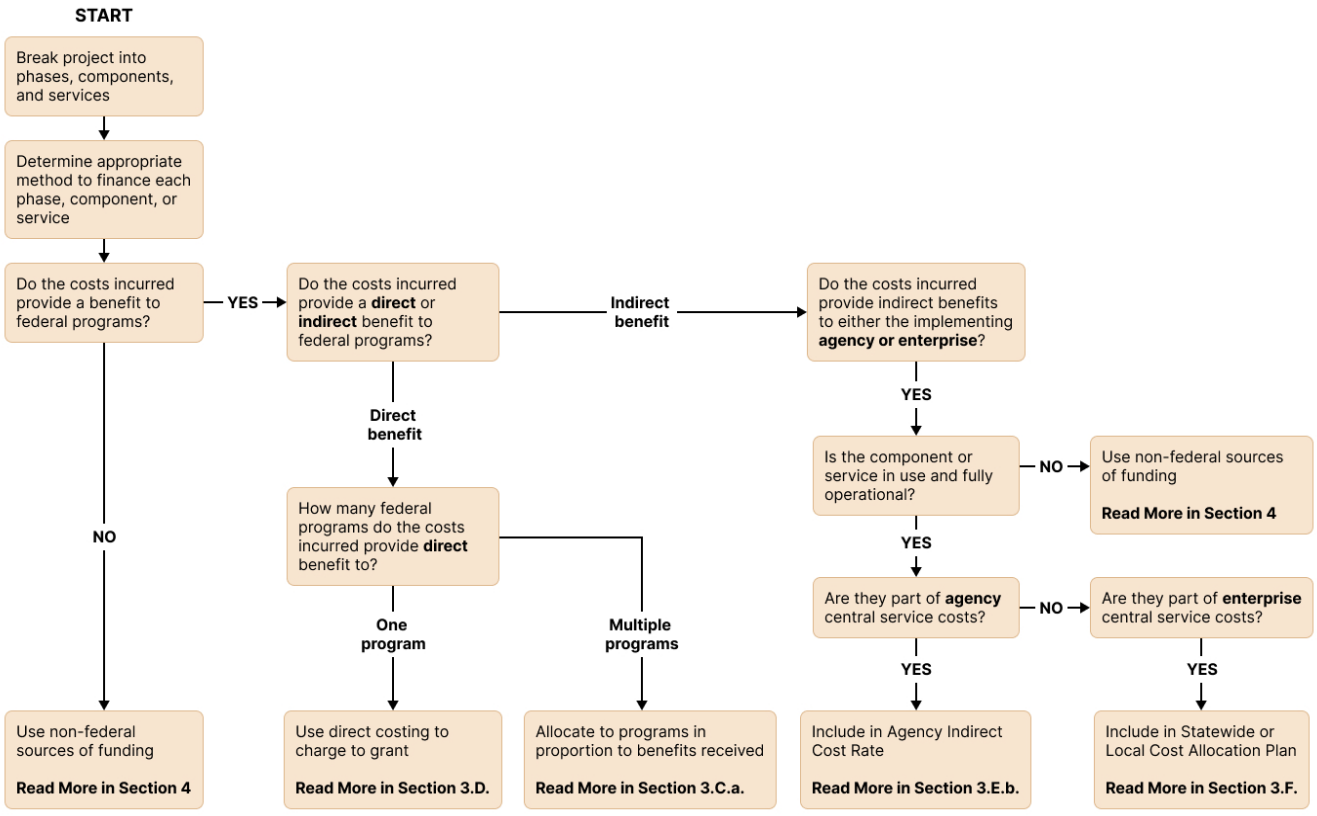
Section 3: Methods of Financing Integrated Data Systems Using Federal Funds

What's in This Section

- Financing integrated data systems and key concepts to consider.
- Addressing challenges in the current IDS landscape and ecosystem.
- Financing IDS using federal funds.
- Using the direct costing approach to support IDS.
- Using the indirect costing approach in grants.
- Using state and local central service costs, or statewide cost allocation plans.

The decision tree below shows what questions you will need to ask to determine the appropriate financing approach. You can use this guide to jump to the right part of this section to learn more.

Federal Cost Allocation At-a-Glance



A. FINANCING INTEGRATED DATA SYSTEMS AND KEY CONCEPTS TO CONSIDER

Paying for an IDS often involves multiple sources of funding that may vary during different phases of development, such as planning and design versus operating and maintaining the system.

In this section, we pay special attention to the different ways of using federal funds to support part or all of the expenses of an integrated data system, which can be complex.

Whether your jurisdiction is just beginning to consider an integrated data system or has long experience, planning for how to sustain your IDS is important. As you develop a plan, it is critical to involve multiple perspectives to answer key questions that will help untangle possible financing options. This guide provides a roadmap and basic understanding of the information needed. Importantly, a successful planning process should include input from multiple stakeholders and support a collaborative approach to governance, system design, and identifying future intended uses.

This part addresses two key concepts in financing IDS: phases of development and program alignment.

Phases of IDS Development	Key Characteristics
Planning and design	Initial design of core system infrastructure
Build core elements	System is under construction. Data standards are being developed. Initial data sets are being extracted, transformed and loaded for external use.
Ongoing maintenance and operations	• System is fully operational. • Datasets are regularly updated, accessed by agencies or outside users.
Enhancements	System management has developed a multi-year strategic growth plan to increase staffing, capacity, scope, or other technical capabilities to make the system more comprehensive, such as: • New datasets from new agencies • Business intelligence and visualization tools • More robust cybersecurity measures • Privacy-protecting technologies • Artificial intelligence (AI) tools

a. Phases of Development

An integrated data system (IDS) moves through four stages of development, each of which opens up a different set of options to obtain the resources to support it, as shown in the table below. These approaches are combined and coordinated as the IDS grows and matures, and as new programmatic datasets are added to further enhance its utility to power wide-ranging program evaluations across multiple disciplines.

At each stage, combining and leveraging multiple funds in different ways will help to build, operate and maintain, and enhance integrated data systems. Federal funds as well as general revenue funds generated at the state, local, tribal, or territorial level and potentially other resources can all contribute.

objectives are sometimes crystal clear, in other cases agency guidance, technical assistance, and other communications may point towards or "signal" supporting integrated data systems in a broader way. For example, these federal policy signals may require or encourage reporting that an integrated data system can support or even improve. The ability to support required reporting is an example of providing a benefit to the federal program.

In Arkansas, Chief Data Officer Robert McGough has been watching signals from the federal government for decades as technology and culture have moved to support integrated data and recognized its importance to program evaluation and results. He has done so by becoming well versed in the programs with which he must align and by demonstrating to state program managers that integrating data is both allowable and

What Is Program Alignment?

Program alignment describes how an integrated data system can benefit a single program by providing data from multiple sources. To the extent that your integrated data system is aligned with federal programs – meaning that programs get specific benefits from the system – the tools described in this field guide will help you to use federal funding to support the IDS.

b. The Importance of Program Alignment to Drive Financing Options

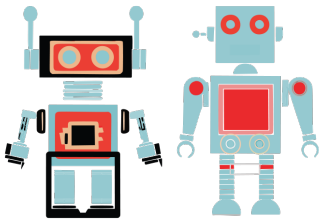
Throughout development, identifying the benefits that a system provides to a program or its users – a concept known as program alignment – is critical to informing the funding strategy to build out and operate an integrated data system over the long term. At each stage of development, the concept of program alignment will determine how different federal funds may be used to support ongoing costs. This means asking the right questions when new datasets or functionalities are being added to the system to ensure that the benefits can be attributed appropriately to programs and agencies.

When an integrated data system provides a clear and direct benefit to a federal program´s objectives, there is strong program alignment. This means that the federal program is a strong candidate to help pay for the system. While federal program

needed to advance the priorities of federal program managers. McGough's approach is to understand that when the federal government indicates they'd "like to" see something, that spurs a process where he and program managers work together to craft a program and financing strategy to accomplish the goals.

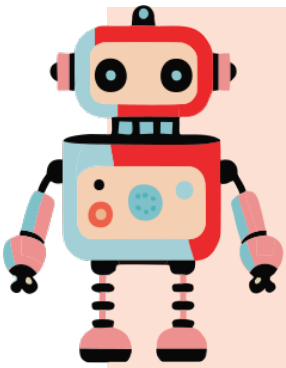
Executive Director of North Dakota HHS Human Services Division Jessica Thomassen had a similar experience in building the funding plan and rationale for a new IDS. She realized that an integrated data infrastructure would be critical to assemble the evidence and proof points required in grant reporting to show impact. She combined several policy signals to build a case to her state leadership to begin its IDS journey in earnest. These signals included guidance language in grant agreements that provided support for funding data as an "eligible use" as well as program requirements for enhanced performance reporting and comprehensive evaluations.

Understanding these signals, advocating with program managers about the policy priorities they convey, and linking them to concrete enhancements to your integrated data system will help you to aggressively engage program managers and other stakeholders in advancing the IDS incrementally.



Arkansas' Integrated Data System: Diverse Funding Sources and Datasets

Funding Source	Datasets
HHS Medicaid Expansion	• Medicaid
ED Statewide Longitudinal Data Systems	• Early Childhood Education • Elementary and Secondary Education • Career and Technical Education • Higher Education • Noncredit and Nondegree Workforce Education • Foster Care • Juvenile Justice
DOL Workforce Data Quality Initiative	• Adult Education • Workforce Development (WIOA) • Supplemental Nutrition Assistance Program (SNAP) • Temporary Assistance for Needy Families (TANF) • Vocational Rehabilitation • Registered Apprenticeship
DOJ Reinvestment Initiative	• Public Safety • Corrections • Courts
Philanthropic	• Unemployment Insurance • Prison Education Pipelines • Skills-based Practices



Program Alignment Allows an IDS to Benefit Multiple Programs

Challenge: How can data on babies born to mothers enrolled in Medicaid be combined to evaluate performance, improve outcomes, streamline business processes and provide evidence for program changes and improvements?

Approach: An early InnovateOhio Data Analytics initiative combined 30 different data sets to determine that babies born to mothers enrolled in Ohio's Medicaid program are at a heightened risk of infant mortality. The data analysis was aligned with programs like the Supplemental Nutrition Assistance Program (SNAP); Special Supplemental Nutrition Program for Women, Infants, and Children (WIC); Temporary Assistance for Needy Families (TANF); and Medicaid that each address a different aspect of interventions that can assist vulnerable mothers and their children.

Impact: The project revealed two major insights that led to concrete action:

Finding	Action
Eligible mothers were not enrolled in WIC, despite enrollment in SNAP and/or Medicaid.	Linking WIC, SNAP, and Medicaid became automatic in the integrated data system, Innovate Ohio Platform
Half of individuals referred to the Home Visiting program in 2019 did not receive services.	Ohio identified enrollment gaps and acted to improve recruitment and retention.

Ohio's example shows how program alignment leads to actionable business intelligence, analytics and other data that help to improve operations, achieve program objectives and promote efficiency and effectiveness.

B. ADDRESSING CHALLENGES IN THE CURRENT IDS LANDSCAPE AND ECOSYSTEM

The IDS landscape has changed markedly over the past 20 years since the earliest systems were established. Five trends have shaped the evolution and transition of these systems over time.

a. Federal funding patterns

b. Technology change

c. Localities' use of place- and asset-based data

d. Options to build, rent, or buy IDS

e. Increased use of evaluation

a. Federal Funding Patterns Have Created Data Silos at Other Levels of Government

As discussed in Section 2, in the early stages of IDS development, federal funding was directed to building data systems to administer and evaluate either specific programs related to K-12 education or programs associated with Medicaid and social services for low-income individuals and families. For this reason, many states are supporting two "silos" of data: one for SLDS/workforce data and one for Medicaid/social services data.

There are major advantages to integrating data within sectors to better support research, provide the broad outcomes data required for program evaluation, as well as improve service coordination and case management for beneficiaries. Funding, governance,

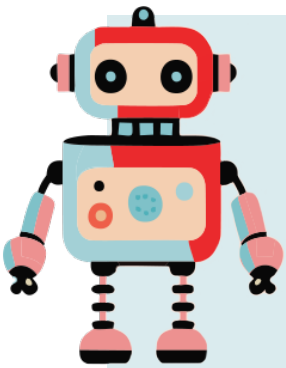
"A lot of what I'm doing is cultural change, you know, changing hearts and minds … we've got all these silos of money coming down from the federal level that end up in essentially data silos at my level. My goal is to mitigate the silos of the past while preventing the silos of the future, which is a lot like 'whack-a-mole'."

— Robert McGough, Chief Data Officer, Arkansas

privacy, and institutional issues often complicate the ability of governments to build the connective tissue to connect these siloed systems.

b. Technology Change Has Unleashed the Potential of Transactional Systems to Power Analytics and Evaluation

The technology of massive data storage, access, and manipulation has been transformed over the past 25 years – and has significantly lowered the costs of operating and maintaining systems. Historically, administrative systems typically housed transactional data to safeguard access to data in accordance



How Rhode Island Is Joining Data Silos

Challenge: How can a state bring together data from multiple siloed platforms without starting over or picking a winner?

Like many other states, Rhode Island has two platforms that integrate data to improve state operations and services to its citizens: The Office of the Postsecondary Commissioner's Rhode Island Longitudinal Data System and the Executive Office of Health and Human Services (EOHHS) Ecosystem. In order to deploy artificial intelligence (AI) tools and other enhancements across both systems, Rhode Island needed to find a way to work across them effectively.

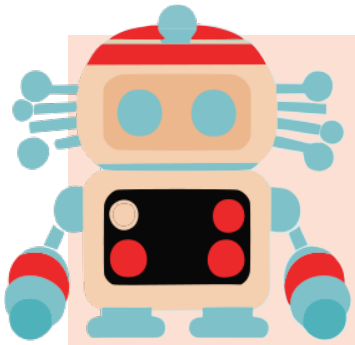
Approach: Rhode Island developed a unified governance structure and is developing a federated data platform to enable data linkage across the two systems and improve data availability for internal state use and external researchers. The Governor released an Executive Order that addressed key issues and created a path forward by providing for:

- A single state data governance structure
- Improvement of transparency and accessibility of data for the public as well as for researchers
- Maintaining agency ownership of data, with agencies approving any data sharing efforts
- Enhancements to data availability for internal state use to analyze the effectiveness of state programs
- Preparing the state for the ethical use of AI and to minimize bias

Impact: By creating a Chief Data Officer, Rhode Island designated a single point of coordination across the two systems. The CDO has responsibility for improving intergovernmental collaboration around data operations, data quality, effective use of data for analytics and evaluation, and standards for improved data sharing and integration.

While Rhode Island financed the new approach using one-time general revenue funds indirectly made available via American Rescue Plan Act funding, the state is exploring statewide cost allocation as a potential strategy for ongoing expenses.

with privacy requirements. Separate systems were developed to use administrative data without personally identifiable information to perform analytics and to conduct research and evaluation. Today, the need for duplicate stores of data has been overtaken. Instead, enterprise-wide data rights management tools use robust user rights frameworks to limit access to data to only those users with the appropriate permissions. These controls allow access to administrative datasets while protecting sensitive data elements. Additionally, new and innovative tools have been developed by the private and non-profit sectors to help open up administrative datasets for analytic purposes in an efficient and cost-effective way.



Organizations and Firms Transforming Tools to Accelerate Integration of Administrative Data

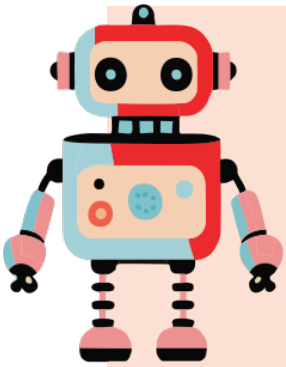
Coleridge Initiative is a nonprofit organization that collaborates with governments to ensure data is effectively used for public decision-making across states and agencies. The Coleridge Initiative aims to do this through its Applied Data Analytics Training program that teaches government professionals how to utilize Coleridge's Administrative Data Research Facility (ADRF) platform to securely link their longitudinal data with other states and agencies securely. Within the secure ADRF infrastructure, state and cross-agency data sharing is enabled to develop a state-owned and administered data environment. Since its development, state agency staff have produced more than 130 projects in the ADRF that focus on a variety of issues impacting their communities. The ADRF was established under guidance from the Census Bureau to inform the decision-making of the Commission on Evidence-Based Policy. The ADRF was a recipient of the 2018 Government Innovation Awards.

Teradata is a global firm with a cloud-based platform that can store multiple types of government data in a secure, Fed-Ramp certified environment. Like a container ship, each container of data can only be accessed with the permission of its owner. Combined with analytics and other powerful metadata and machine learning tools, it allows users to combine data sets to solve issues ranging from mental health outcomes to tracking fraud and program integrity. These systems are used in several state Health and Human Services departments to link a broad range of information on healthcare and outcomes across multiple Federal programs, including Medicaid, behavioral health and child protective services.

Asemio's focus is using data for social good, and they have pioneered ways to mask data to enable community data sharing while protecting privacy. Using a combination of web scraping tools, hashing and other tools, Asemio has helped municipalities and non-profits link data across organizations and jurisdictions to address local policy priorities.

c. Local Government Linking Asset-based or Place-based Data With Individual Data

The expectation of transparency and accountability at the local government level encouraged many municipalities to be early adopters in the open data movement. Public interest in local government operations and a desire for data-informed decision-making meant that releasing operational and administrative data became the norm. That new norm increased the need for quality, standardized data. Investment in asset- and place-based data has led to a broader approach to IDS for local governments. Municipalities are pulling data from a variety of sources to create a primary source of truth in their centralized data ware-



Using Integrated Data to Help Stabilize Vulnerable Families in Franklin County, Ohio

Challenge: How can a county operating numerous state programs help Black boys and their families successfully navigate the challenges of a complex human services system that operates in data silos?

Approach: Franklin County built a first-of-its-kind "Family Stabilization Unit" to provide wraparound assistance while taking a tailored approach to meet the unique needs of each family across multiple state-funded, county-operated programs – all through a social determinants of health and racial equity lens. The Family Stabilization Unit works with Black youth (ages 5-18) who are involved with the justice system, typically dealing with lower-level offenses like truancy or minor delinquency. Informed by integrated place-based and individual data, the unit:

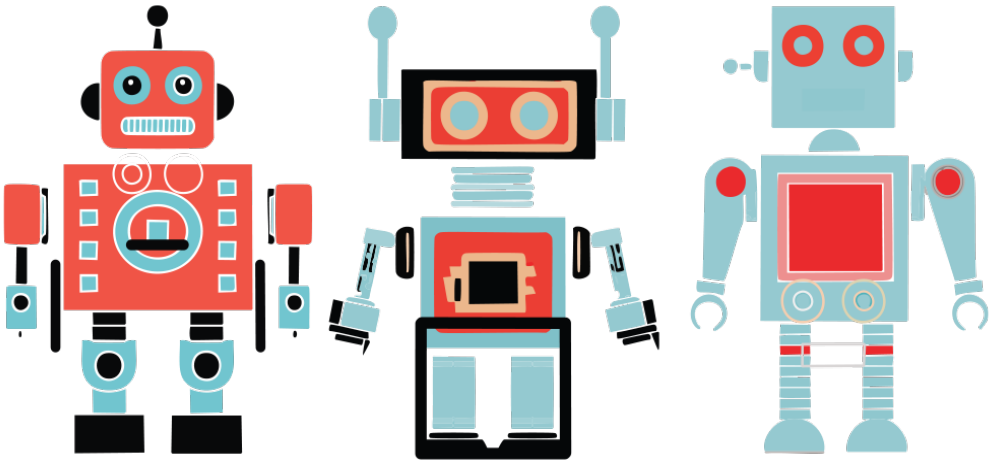
- Supports the individual needs of *everyone* in the household
- Assists clients in enrolling in core benefits like Food Assistance, Medicaid or Publicly Funded Child Care
- Connects with additional supports like housing, mental health or substance abuse treatment, mentoring, parenting supports and employability training
- Provides coaching and support to help the whole family achieve their goals

Impact: Franklin County developed the integrated information system that powers the Family Stabilization Unit, involving place-based and individual data from county systems in numerous departments:

- Office on Aging
- Child Support Enforcement
- Children Services
- Public Health
- County Courts
- Alcohol, Drug and Mental Health Board
- Columbus State Community College
- Nationwide Children's Hospital

Integrated data across all these legacy systems puts the individual at the center of the system and provides a unified view to each case worker. Integration is especially important because legacy systems were largely built on outdated concepts of nuclear family units, when today's families are likely to be multi-generational and non-traditional. Franklin County envisions building a 360 degree view of the modern family that enables caseworkers to proactively identify families at risk and develop plans for prevention, response and contingencies.

"We can do a lot more if we connect these systems, but there is so much fear regarding data sharing, especially as it relates to data about vulnerable populations." -- Juan Torres, Chief Information Officer, Franklin County



houses or integrated data systems. Municipal data hubs are rapidly becoming common practice. They can help city leadership track performance and uncover ways to deliver better service, determine whether municipal operations and investments are achieving strategic goals, or allow the public to evaluate government performance and hold it accountable for results.

These trends have been accelerated with the availability of significant one-time resources that have been made available through the American Rescue Plan Act (ARPA), CHIPS and Science Act (CHIPS), Inflation Reduction Act (IRA), and Infrastructure Investment and Jobs Act (IIJA) for data, technology, and evaluation investments. In fact, some localities have made great strides in unifying data across multiple agencies delivering services to residents using funds available under ARPA.

For example, the City of Detroit has used ARPA funds as a major source of support for personnel in the Office of Data Strategy and Analytics, which manages the City's data warehouse. Detroit has been able to develop a geocoding layer that unifies all the disparate geographic data sources used by the city agencies. This unique data governance model emphasizes how a modern data ecosystem can develop the healthy "topsoil" to promote development of automated data products and insights and the ability to tailor data views and data services for diverse audiences and business needs.

Multiple federal agencies offer grants on an ongoing basis that can support integration of place- and asset-based data with person-level data as well. For example, most DOT discretionary grants include selection criteria associated with creating good jobs and expanding workforce opportunities in defined geographic areas where projects are located. Each project requires development of a "Workforce and Labor Plan" that includes data on the number of skilled trade jobs by craft/position or type, expected gaps, existing workforce and apprenticeship training programs, populations that are under-represented in the infrastructure workforce, and existing training programs and workforce development partners[8]. The research and data required to set targets for hiring underrepresented populations requires the use of integrated datasets across geographic factors, economic factors, and individual income factors. As a result, these programs will benefit from integration of the place-based and individual data available in many government integrated data systems. Importantly, the OMB Uniform Grants Guidance is applicable to both person-based and asset-based data and can apply to integrated data systems providing data to support reporting requirements of infrastructure projects.

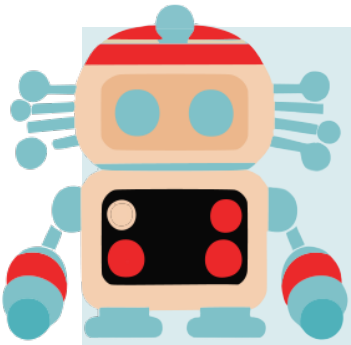
8 U.S. Department of Transportation. (2023, February 13). Grant Application Checklist for a Strong Transportation Workforce and Labor Plan. https://www.transportation.gov/grants/dot-navigator/grant-application-checklist-for-strong-workforce-and-labor-plan

d. New IDS Options: Build It, Rent It, Buy It, or Something Else?

There are as many operating arrangements for integrated data systems as there are systems. Many IDS actually got their start by outsourcing many of their functions to a university. Whether an IDS is built using internal resources or outsourced in whole or in part to a vendor or university will depend on the IT culture in your government, on governance and institutional bias, and on the level of skills and experience your organization enjoys. The OMB Uniform Grants Guidance gives grantees flexibility to determine what activities should be performed in-house or by third parties.

As IDS evolve, some states, such as Rhode Island, are using vendors to help set up a "Center of Excellence" to help them stand up and staff an integrated data system office with data analysts and data science capabilities that are difficult to recruit to the public sector. Other states use outsourced data scientists, evaluators, and other experts to assist with specialized products and services to meet specific agency needs.

As IDS evolve, some states are bringing previously outsourced functions back inside government to be managed and performed by government employees. For certain activities, in-house staff can operate more nimbly to address new priorities or emergencies, can complete key tasks more quickly and at lower cost, and can reduce the risk of privacy and security violations.



Pushing the Envelope by Rehoming Data Inside Government

Challenge: How to extend Ohio's longitudinal data system and data analytics capabilities beyond education and workforce analytics?

Approach: Ohio's longitudinal data and data analytics capabilities were previously managed by several universities across the state, including Case Western Reserve University, The Ohio State University, and Ohio University. While keeping those efforts moving forward, the State continued parallel work to build its own InnovateOhio data platform and to onboard data from across state government to promote advanced analytics for all enterprise programs. This parallel system now also includes the longitudinal data archive. As one of the first acts of the DeWine Administration in 2019, the Governor issued an Executive Order directing Cabinet Agencies and Boards and Commissions to make data available to the InnovateOhio Platform (IOP).

Impact: The IOP allows for resilient data storage, reporting, analytics and data sharing to the State's data lake environment managed by the Department of Administrative Services State Data Office. State programs and researchers can now responsibly manage, govern, and execute advanced analytics projects to address critical issues, such as infant mortality, opioid use disorder, and human trafficking, by leveraging data science and machine learning tools. This effort also enabled Ohio to launch and expand the DataOhio Portal, which provides public datasets and facilitates the request, approval, and delivery of secured datasets.

Ohio's example highlights how universities can serve as a launchpad for initial data integration and analytics. University researchers can remain critical for research and insights even as governments are developing their own long-term data and analytics strategies to meet their own internal and external needs.

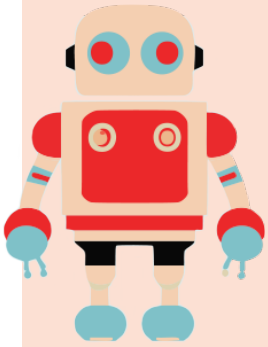
e. The Growth of Enterprise Evaluation Initiatives

Federal, state, local, tribal, and territorial policymakers and program administrators are continually challenged to identify strategies to improve cost-effectiveness of their programs and strategies. Historically, high-quality evaluations to help provide answers have been costly and slow because of data access challenges. Now, advances in data-linkage technology, privacy-enhancing techniques, and reusable integrated data infrastructure have slashed both the time and cost of conducting many types of research and evaluation. As a result, an increasing number of state and local governments are building their own evaluation capacity by establishing internal evaluation units staffed with researchers and data scientists and by partnering with academic researchers who receive access to government data to study priority questions. Many of these state and local efforts were catalyzed by philanthropy and subsequently have been embedded into ongoing government operations through legislation and executive actions.

This integrated infrastructure facilitates both traditional evaluations to learn whether, and to what degree, a program or approach has caused the desired outcomes and also new techniques to improve programs by leveraging vast administrative data. **Predictive analytics,** which examine many different variables and many units of analysis, can identify who is in greatest need of services and how they are likely to respond to different interventions. **Rapid-cycle evaluations** test program and operational changes to see if they produce incremental improvements likely to result in better long-term outcomes.

These state and local efforts are complemented by the federal government's work to implement the Foundations for Evidence-Based Policymaking Act of 2018 (Evidence Act). The Evidence Act is helping to institutionalize a focus on evaluation and evidence-building, including in programs administered at the state and local level.

As dicussed in Section 2, State, local, tribal, and territorial governments that want to strengthen their evaluation capacity can leverage federal grant funding. OMB guidance describes the wide range of evaluation activities that are permissible uses of federal grant funds.

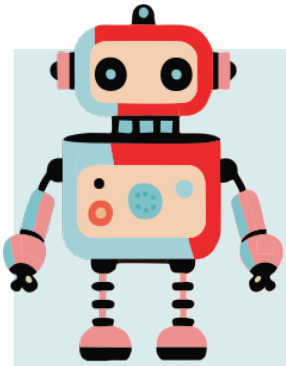


Minnesota's Impact Evaluation Unit

Challenge: How could Minnesota understand the effectiveness of state investments?

Approach: In 2019, the Minnesota legislature provided funding and direction to Minnesota Management & Budget to partner with agencies to study the causal impact of health and human services investments. A team of data and social scientists in the Impact Evaluation Unit works with agencies and other partners to prioritize key questions and design and conduct studies to create rigorous and policy-relevant evidence. The Unit uses administrative data from across agencies to measure the holistic impact of services on the health and wellbeing of participants.

Impact: The Impact Evaluation Unit has more than a dozen completed or ongoing evaluations on topics ranging from childcare to substance use order to public safety. For example, one project found peer recovery services for substance use disorder had no impact on non-fatal overdose, all-cause mortality, inpatient treatment admission, housing instability, or child welfare maltreatment reports for participants relative to similar nonparticipants. This appeared likely due to inadequate training, mentoring, and support for peers. The report recommendations formed the basis for a Governor's Budget proposal that was enacted into law in 2023. It was also published in the academic journal Drug and Alcohol Dependence Reports.



Tennessee and Its Statewide Learning Agenda

Challenge: How could Tennessee prioritize evaluation resources to drive evidence-based policymaking?

Approach: Since 2019, Tennessee's Office of Evidence and Impact (OEI) has been working across agencies to foster a culture of data and evidence-based policymaking. In 2024, OEI released the first Tennessee Learning Agenda as a "strategic roadmap" to prioritize policy questions, focus evaluation resources, and feed findings back into decision-making. The learning agenda focuses on identifying which program approaches work, why and for whom, for programs that advance the Governor's and agency priorities.

Impact: Though newly released, the learning agenda creates an opportunity to coordinate evidence-building across agencies on pressing issues. It aims to spur innovation beyond state government by encouraging researchers, practitioners, and state and local leaders to pilot and assess innovative practices to learn what works in different communities.

These activities can be conducted by in-house staff, by third-party contractors, and by academic partners collaborating with government agencies on shared research priorities. OMB's reference guide on evaluation that accompanied the Uniform Grants Guidance further clarifies how federal funds can support the building and use of evidence to improve program performance.

C. METHODS OF FINANCING INTEGRATED DATA SYSTEMS

There is no single ¨right way¨ to finance all systems. Many, if not all, projects will likely use a number of different financing methods across stages of the system´s maturity. A key concept in selecting the right financing methods for your purpose is cost allocation, or the process of deciding which programs should pay for which costs.

a. Cost Allocation in Federal Funding and Grants

Cost allocation is a method by which costs for IDS are assigned to a number of different programs or beneficiaries, based upon how the IDS benefits them.

In the case of integrated data systems, many programs combine administrative data from multiple program systems to achieve a number of program objectives such as program evaluation, continuous improvement, and program integrity. For example, the IDS might produce analyses that provide insights on:

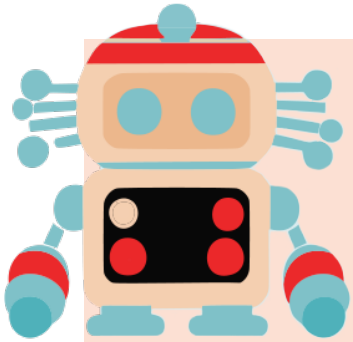
- Identifying characteristics of individuals and families.
- Identifying individuals most in need of services.
- Coordinating service delivery to improve effectiveness.
- Quantifying outcomes of federally funded programs.
- Identifying individuals receiving duplicate or improper payments.

These insights may be useful to either a single program or multiple programs. This differentiation is important because it informs the first step in cost allocation, which is to identify direct costs and shared costs.

- **General Cost Allocation Plans:**

Below are several types of cost allocation plans and a brief summary of how each type works.

1. **Cost Allocation Plans for Direct Costs.** This is fairly simple. The state, local, territorial, or tribal government or agency uses a CAP to allocate shared, direct costs to several grants, as long as those costs are eligible for reimbursement under the grant agreement. No advance certification



Cost Allocation Basics

What is Cost Allocation? Cost allocation is a process that quantifies and distributes costs equitably among programs or beneficiaries of programs. The way that this process works depends on the nature of the costs, their intended beneficiaries, and the phase of the project.

What Are Direct Costs? Direct costs can be specifically tied to a project or a grant.

What Are Shared Costs? Shared costs are direct costs that benefit multiple programs and have to be allocated fairly among those programs.

What Are Indirect Costs? Indirect costs are those costs incurred to run government operations necessary to administer the federal grant or program. They can only be assigned to a federal grant to the extent that the spending benefits the grant.

What Is a Cost Allocation Methodology? A cost allocation methodology is the specific mathematical method by which costs are allocated – or distributed – to programs that benefit. The simplest way to think about cost allocation is to visualize a fraction. The numerator represents total costs to be allocated. The denominator is the "allocation base" which is chosen to represent the actual incidence of costs of servicing the program. For example, an allocation base might be caseload, the number of transactions in a system, or number of times a dataset is accessed. The result is used to determine a benefitting program's portion of the shared system costs. There are many different types of cost allocation methodology that have been developed to equitably distribute shared costs among all benefiting programs.

What Is a Cost Allocation Plan? A Cost Allocation Plan (CAP) uses a cost methodology to allocate direct or indirect costs between programs. CAPs are found at every level of government and in multiple programs. The Government Finance Officers Association (GFOA) has useful guidance for governments on developing, updating and negotiating cost allocation plans here.

or review is required by federal government agencies. Instead, the CAP may be reviewed as part of the Single Audit. For the typical materials and documentation required for that review, please see Section 5.

2. **Cost Allocation Plans for Indirect Costs.** This is more complicated than allocating direct costs. Assuming that the state, local, territorial, or tribal government doesn't have an indirect cost rate9, but still wants to charge indirect costs to a grant for which it has permission, then they are required to use a CAP. The CAP for indirect costs must be reviewed and approved by the cognizant federal agency for the state, local, tribal, or territorial government or other entity. The cognizant federal agency is typically the agency that provides the largest portion of f ederal funding to the government or entity (See table "Who Approves Your Cost Allocation Plan?" below). There are three major types of CAPs for indirect costs:

   a. **Statewide Cost Allocation Plans (SWCAP).** SWCAP is a method by which a state's central agency appropriately allocates the costs required to operate the government to federal programs.

9 Two (of many) different tools used to accumulate and allocate indirect costs are an indirect cost "rate" and an indirect "cost allocation plan". Typically, academic and research institutions negotiate an indirect cost "rate", which requires the institution to bill the federal agency funding a grant in labor hours at the certified indirect cost rate. Indirect costs may only be charged to a federal grant if a state, local or tribal government has a negotiated indirect cost rate. This is to ensure that indirect costs are not being charged twice to the federal government.

These plans must be submitted and certified each year by HHS, the cognizant agency for states. They typically comprise multiple indirect cost pools for human resources, computing infrastructure, facilities, utilities, telecommunications, and others.

b. **Local Government Cost Allocation Plans.** Local governments that are designated as "major" are required to submit a cost allocation plan similar to SWCAP, but their cognizant agency is the Department of Labor. Local and other units of governments that are not designated as "major" are not required to submit their cost allocation plans for federal review and approval unless they are instructed to do so by a federal agency. However, they should prepare and retain their cost allocation plans for audit by independent and federal auditors.

c. **Tribal Cost Allocation Plans.** Tribal governments follow the guidance for local government cost allocation plans, but their cognizant agency is the Department of the Interior.

- **Specific Program Cost Allocation Plans:**

Specific federal HHS and USDA programs have established special processes to help states, Indian Tribal Organizations, and territories to build integrated systems servicing multiple programs and providing one face to the beneficiary. As discussed in Section 2, the Advanced Planning Document (APD) process is used by HHS Center for Medicare and Medicaid Services (CMS) and Administration for Children and Families (ACF) and by USDA Food and Nutrition Service (FNS) to qualify state IT modernization projects for federal financial participation.

A number of state IDS leaders have found it beneficial to work very closely with state HHS leadership to incorporate functionality required to support integrated data investments being made either concurrently or sequentially with the project proposed in the APD process. This is largely because Medicaid drives such a large portion of the transaction volume – it's like the sun around which lots of other HHS program IT investments orbit. An IDS project that is associated with a Medicaid system can, of course, leverage components integral to Medicaid Management Information Systems (MMIS), such as an identity management tool or a benefits eligibility engine. In this way, collaborating with the Medicaid program can help to jumpstart an IDS but will add complexity by requiring extensive cost allocations between Medicaid and other programs.

Who Approves Your Cost Allocation Plan?[3]

Cognizant Federal Agency	Key Characteristics	Illustrative IDS Types and Domain Areas
Department of Health and Human Services	• Public Assistance Cost Allocation Plans • Statewide Cost Allocation Plans • State and local hospitals • Libraries • Health Districts	• Coordinated benefit delivery • Broad enterprise-wide IDS • IDS focused on social determinants of health, especially with local public health data • Early childhood data
Department of the Interior	• Indian tribal governments • Territorial governments • State/local park and recreational districts	• Tribal government enterprise-wide IDS • Place-based and asset-based systems at state/local level
Department of Labor	State and local labor departments	Workforce data
Department of Education	School districts and state/local education agencies	• K-12 Education data • Preschool data • Workforce data
Department of Transportation	• State/local transportation agencies • State/local airports • State/local port authorities • Transit Districts	Place-based and asset-based data systems
Department of Commerce	State/local economic development districts	• Workforce Data • Place-based and asset-based data systems
Department of Housing and Urban Development	State and local housing and development districts	• Place-based and asset-based data systems (housing, Home Mortgage Disclosure Act) • Homelessness data
Environmental Protection Agency	State/local water and sewer districts	Place-based and asset-based data systems

10 Appendix V to Part 75, Title 45

Below are four best practices to maximize the eligibility of an IDS project component added to the APD Process:

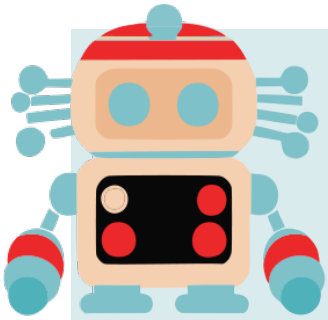
1. **Build a strong value proposition emphasizing how the IDS can improve the administration of the HHS program originating the APD.**
    - The reviewers of the APD are systems analysts looking first for the following:
        - Are the costs and activities eligible for reimbursement?
        - Do they relate to activities and functions already underway in the state plan?
2. **Relate the IDS investment to the efficiency and effectiveness of the originating program, and focus on how it will help systems work better together.**
    - Do new integrations improve program administration?
    - Might additional data stored in the integrated program administration system (MMIS, SNAP, Child Support, Child Welfare Information System) improve data validation, accuracy, or results from a cost management program? Does data made available through the integrated data system help to better forecast or control caseloads? Does the existence of an integrated data system improve the resilience of the program administration architecture in some way?
    - Does the IDS allow the reuse or electronic consent functionality across multiple programs?
3. **Break the project into components to assure appropriate federal financial participation.**
    - Use the CAM Toolkit to allocate costs to those programs benefiting from the project.
    - Note that functionalities that increase the volume of transactions, spur changes in data traffic rates, and increase utilization should have costs allocated to the highest volume program users.
4. **Be aware of the need for HHS agencies to maintain custody of transaction source data.**
    - It's best to avoid situations where control of administrative transactional source data is moved to a separate non-HHS agency to ensure that IDS activities do not endanger data that is critical to program operations.

The cost allocation methodology you choose may differ depending on the nature of the costs and what phase of work the system development might be in. The federal government has developed some ways to make this choice easier and more standard for states, as described below.

b. Choosing the Right Cost Allocation Methodology

Choosing the best cost allocation methodology depends on what phase of work the system development might be in. The key concept is that the cost allocation methodology should equitably distribute costs to the programs that benefit. For costs that are incurred for the ongoing operations of the agency or the enterprise and that provide equal benefits to all programs administered, a statewide or local government-wide cost allocation methodology is best.[11]

11 As added by P.L. 269-2017 Section 5 in 2017, the Indiana Statute IC 4-3-26-13 Sec. 13 reads: "The MPH is considered to be an agent of the executive state agency sharing government information and is an authorized receiver of government information under the statutory or administrative law that governs the government information. Interagency data sharing under this chapter does not constitute a disclosure or release under any statutory or administrative law that governs the government



Indiana Performance Management Hub: Using Medicaid to Jumpstart Statewide Performance and Evaluation Capability

Challenge: How can work being done by Indiana Medicaid be leveraged to extend broader integrated data capacity?

Approach: In 2017, as the new Holcomb Administration took office, the Chief Information Officer of the Indiana Family and Social Services Administration (FSSA) informed the Centers for Medicare and Medicaid Services (CMS) that he could leverage investments in his Medicaid Management Information System (MMIS) for other datasets. An innovative leader, he realized that a natural partner was the Indiana Management Performance Hub (Indiana MPH).

At that time, Indiana MPH was funded by state general revenue funds (GRF) and projects with agencies. It had a good track record, including a prior Medicaid project that created a dashboard forstate leadership to understand the effectiveness of their responses to the opioid epidemic.

In the next Advanced Planning Document (APD) process to fund Indiana's MMIS, the FSSA CIO charged MPH with helping to establish an FSSA Open Data Portal that could protect privacy while releasing more valuable data to the public.

Impact: The Medicaid APD process helped to jumpstart a significant integrated data capacity at the state level. The new administration put the Indiana MPH office into statute and gave it broad new powers to enable enterprise data sharing across the government. They did so by making Indiana MPH an "agent" of all administrative agencies of the executive state agency and an authorized receiver of government information[4], thus easing the way for robust data sharing across all executive branch agencies.

The status of the Indiana MPH as an "agent" for FSSA means that they can operate an enterprise data warehouse that FSSA and multiple social service and other cabinet agencies can share across the entire state. If funding is involved, Indiana MPH uses MOUs to manage funding, reimbursement and deliverables. For Medicaid projects, staff time is charged to projects based upon time reports. Data costs are allocated based upon the proejct's share of total data held in the Data Hub.

D. USING THE DIRECT COSTING APPROACH TO SUPPORT IDS

What You Will Learn in This Part

- What OMB Uniform Grants Guidance clarifies about direct costing.
- When and how to use direct costing to support IDS.
- Financial implications of using direct costing for IDS.

Direct costing is used when a functionality, operation, or analysis performed by the IDS benefits specific federal programs. This section provides more detail on direct costing, when to use it to support IDS, and the financial implications. In addition, Medicaid should not be ignored as a resource to support the inception and buildout of an IDS for social services. Please see Section 2 for more detail on these federal programs.

a. Clarifications to OMB Guidance

OMB's revised Uniform Grants Guidance defines direct costs as "costs that can be identified specifically with a particular final cost objective, such as a Federal award." It goes on to point out that these costs should be able to be easily accumulated and directly assigned to activities undertaken with a "high degree of accuracy."[12]

What Are Direct Costs?

Direct costs can be specifically tied to a project or a grant.

In terms of costs that are eligible for direct costing, the revised OMB guidance provides a general description and an illustrative list of types of expenditures that would qualify. Section 200.455(c), which addresses organizational costs, includes the following examples specific to data and evaluation:

Data costs include (but are not limited to) the expenditures needed to gather, store, track, manage, analyze, disaggregate, secure, share, publish, or otherwise use data to administer or improve the program, such as data systems, personnel, data dashboards, cybersecurity, and related items. Data costs may also include direct or indirect costs associated with building integrated data systems—data systems that link individual-level data from multiple State and local government agencies for purposes of management, research, and evaluation.

In addition, the revised guidance also describes the types of evaluation costs that are eligible for both direct and indirect costing, stating:

Evaluation costs include (but are not limited to) evidence reviews, evaluation planning and feasibility assessment, conducting evaluations, sharing evaluation results, and other personnel or materials costs related to the effective building and use of evidence and evaluation for program design, administration, or improvement.[13]

b. When and How Should a Grantee or Recipient Use "Direct Costing" to Cover IDS Costs?

As noted above, costs related to integrated data systems can be charged as a direct expense to federal grants if they contribute directly to the outcomes expected as part of the grant itself. This is often the best way to get the core components or "base" of an integrated data system funded when the system is being built and has not yet begun to deliver services to end users or programs it intends to benefit.

Here are a few examples of when and how direct costing may work on a tactical level:

- If the foundational components of an IDS are being built out, and an agency has included it as part of a grant, the easiest way to assign these costs accurately would be to set up a separate project code or cost center within the agency administering the grant. Payroll and equipment costs related to building out the system would be assigned to that project code, and the code would then be directly charged to the grant.

12 2 CFR 200.413(a)

13 2 CFR 200.455(c)

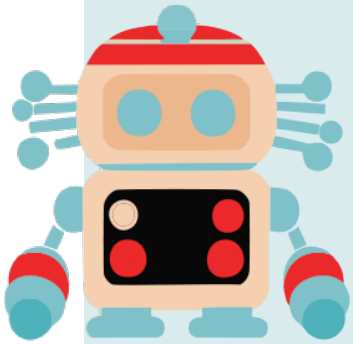
Phase of IDS Project	Context	Methodologies that May Be Used
Plan and Build	Typically these costs are incurred before benefits are realized. Simple methods should be used because no benefits are yet evident to programs.	• Split between programs in proportion to expected benefits. • Share between programs based upon some easy to understand metric, such as labor hours, number of covered lives, or FTEs devoted to planning phase.
Development Phase	As central core systems are being built out and integrations from agency sources of data are being developed and tested, it becomes more complex to parse out parts that can be allocated to programs based upon an approximation of "benefit received". For each participating program, the definition of "benefit received" will differ based upon its use of core system functionalities and the level of effort involved to create integrations or modify functionalities.	• Break apart the IDS project into component parts in order to isolate different cost/benefit combinations. The cost allocation methodology may be different for different components of the system. • Each agency contributing data may charge their own grant programs directly or use an agency indirect cost percentage to cover the costs to build out integrations or extract, transform, and load data from their transactional systems to the integrated data system. • Some states have used short-term debt to finance the cash flow needed to stand up a system, then used SWCAP to pay off that debt.
Operations and Maintenance	If the services are provided to benefit all users of the IDS across an agency or across the enterprise, they would fall in the category of central service costs. As such, they may be allocated either across all departments in an agency through their indirect cost allocation plan, or across the entire enterprise, through the statewide cost allocation plan.	• Complete documentation and assemble evidence that the system qualifies as a central service operation that is supporting the enterprise to add a new cost pool to the SWCAP. • Break apart the full operations of the IDS project into component parts in order to isolate different cost/benefit combinations and put each into a different indirect cost pool. The cost allocation methodology may be different for each cost pool. • Each agency contributing data may charge their own grant programs directly or use an agency indirect cost percentage to cover the costs to build out integrations or extract, transform and load data from their transactional systems to the integrated data system.
Enhancements	Enhancements and add-on services may include analytics support, business intelligence, visualization engines, and other value-added services. These are critical functionalities enabling broad usage of the system for analysis and insights. If these services are provided to benefit all users of the IDS across the agency or across the enterprise, they would fall in the category of central service costs. As such, they may be allocated either across all departments in an agency through their indirect cost allocation plan, or across the entire enterprise, through the statewide cost allocation plan.	• Some enhancements that are system-wide are difficult to ascribe to a specific program because they benefit all users and all programs participating in the system. In this case, agency indirect cost rate or a SWCAP approach should be used. • For some add-on services, such as analytics support, business intelligence and visualization, consumption can be measured and will vary across participating programs. In these cases, a chargeback approach should be used.

- Often, an IDS must be built using resources from a government's central IT division, which is often in a separate agency. If the central IT department uses timesheets or other methods to record time spent on the project, they can be charged as direct expenses to the grant, even though it is housed in another agency. If the accounting and payroll system being used does not allow direct charging, then interagency transfers can be used to assign these costs as direct costs to the grant.

c. Financial Implications of Using Direct Costing for an IDS

While in the planning and building phase, budget leadership may view a data system as more likely to be successful if it is built and directly costed from one source of funds. This is because the agency that received the grant is authorized to initiate development and get those costs reimbursed partially or totally by the federal government. This provides certainty that the project has a concrete scope, executive sponsorship, and key metrics for performance and a higher likelihood of successful completion.[14]

Multiple funding sources may agree to co-invest in development of shared infrastructure, as is the case with CMS, ACF, and FNS. The CAM Toolkit developed in 2003 by these three federal agencies and the States of Kansas and Texas has facilitated co-investment in shared data infrastructure for state-administered health and human services programs moving through the APD process. Importantly, it provides a "safe harbor"-- states using this tool are automatically in compliance with cost allocation requirements across the many programs in which it is used.



A Toolkit Approach to Cost Allocation Eases Compliance Across Multiple Federal Programs

Challenge: How to help states allocate costs consistently across multiple HHS and USDA programs and give them certainty that the allocation is aligned with federal regulations?

Approach: Almost 20 years ago, U.S. HHS and USDA realized that if they wanted multiple programs administered at the state level to share the same information technology infrastructure, they would need to allocate costs across many programs serving overlapping populations. They came together with two states, Kansas and New York, to create the Cost Allocation Methodology Toolkit (CAM). The CAM Toolkit is an excel-based, step-by-step tool that takes the user through an easy to understand process to allocate planning, development, and building costs for HHS and USDA systems serving multiple programs. Federal agencies participating in using the Toolkit for cost allocation include the Supplemental Nutrition Assistance Program (SNAP), Medicaid, Temporary Assistance for Needy Families (TANF), Child Care, Child Support Enforcement, Medicaid, and Child Welfare programs as well as other federal refugee assistance programs. Today, the CAM Toolkit must be used as part of the APD process.

Impact: The CAM Toolkit approach offers a model for intergovernmental collaboration to create a simple cost allocation system that could potentially be expanded or replicated to other programs and agencies. It provides consistent accounting treatment and predictable flows of funds to sustain systems, and it would withstand audit scrutiny. This model could be a useful approach to extend and expand to integrated data systems.

14 As Jennifer Pahlka observes in her recent book, Recoding America, there are huge barriers to be overcome in successfully spurring digital transformation in government, particularly in an environment of fixed, scarce resources, as is the case in local and state government. This is why many budget leaders are skeptical of large IT projects with uncontrolled scope and uncertain governance and accountability.

Once the system is operational and delivering services, several factors influence whether it can become sustainable. These include whether its governance originates from a broad group of interests at the state, local, tribal, or territorial level and whether the system benefits from a broad base of funding, such as combining indirect charges to multiple grants or chargebacks on a "fee for service" basis. These factors assure that the operations and maintenance costs are both defensible to the legislature as a high priority across government operations and independent of just one funding source that may be endangered as a result of funding cuts or sequestration.

E. USING THE INDIRECT COSTING APPROACH IN GRANTS

What You will Learn in This Part:

- What OMB Uniform Grants Guidance clarifies about indirect costing.
- When and how to use indirect cost rates or Agency Indirect Cost Allocation Plans.
- Why indirect costs matter.

Indirect costs are costs incurred to run the federal funding recipient's operations. As a result, they benefit multiple programs and can't be readily assigned to a specific program or activity. They may be allocated to federal grants if they meet the "benefits principle" for cost allocation, meaning that the costs can only be assigned to a federal grant to the extent that they benefit that particular grant. This assures that indirect costs are fairly shared between multiple sources of funds, such as general revenue funds, other sources of revenue and federal funds.

a. Clarifications to OMB Guidance

What Are Indirect Costs?

Indirect costs are those costs incurred to run government operations necessary to administer the federal grant or program. They can only be assigned to a federal grant to the extent that they benefit the grant.

OMB's revised Uniform Grants Guidance clarifies that the costs of integrated data systems to support program performance and evaluations at state, local, tribal, and territorial levels as allowable as indirect costs. As provided in *Section 200.455(c)* of the guidance and elaborated in the Reference Guides:

Data costs may also include direct or indirect costs associated with building integrated data systems—data systems that link individual-level data from multiple State and local government agencies for purposes of management, research, and evaluation.

b. When and How to Use Indirect Cost Rates or Agency Indirect Cost Allocation Plans

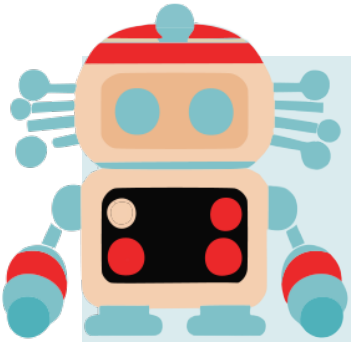
Agencies receiving grants can charge allocated portions of internal, central service costs back to federal grants as support for managing those federal programs. These costs might include agency procurement operations, human resource operations, cybersecurity, internal audit, finance, IT network, beneficiary processing, case management tools used for multiple agency programs, and other operations critical to agency operations. To claim these costs, there are three ways in which an agency might get some or all of these costs reimbursed. First, the government might negotiate an indirect cost rate to allocate these costs to a grant or project. This method is particularly useful when a local agency receives the same federal grant year after year. Second, it might develop an agency indirect cost allocation plan which itemizes the annual costs of each agencywide function it carries out in support of activities covered by federal funds. Developing a plan helps provide the needed resources to invest in centralized service costs for common functions, such as cybersecurity or integrated data. Third, for simplicity, OMB allows all governments to charge a 15% de minimis indirect cost rate in the absence of either a negotiated indirect cost rate or a cost allocation plan.

c. Why Are Indirect Costs So Important?

Analysis has shown that government entities on average spend 30-40%[15] of total program costs on indirect costs. Even though the newly revised OMB guidance has raised the *de minimis* rate from 10% to 15%, it most likely does not cover the actual costs incurred to support the federal grant, especially if the government wants to invest in enterprise approaches to integrated data systems.

The method you choose to recoup these costs can help to generate the resources needed to invest and reinvest in common management functions to assure that the government is sustaining the capability to effectively and efficiently manage federal grants. Governments with centralized service organizations that manage functions such as HR, IT network, or other costs will often go the extra mile and negotiate an indirect cost allocation plan with the federal government. They've done so because while developing and negotiating a cost allocation plan might seem to be a significant investment of time and effort, it will provide the additional resources that governments need in order to properly manage the grants being administered.

Indirect cost allocation plans are easier to execute in a highly controlled, centralized governance structure. Where government operates in a fairly loose, decentralized manner, indirect cost allocation plans may be quite difficult to execute. In one city, each agency has negotiated its own federal indirect cost rate for those federal grants it handles most often. Other, smaller cities may opt for the simplified 15% de minimis indirect cost rate.



Sustaining Robust Integrated Data Practices with a City-county Cost Allocation Plan

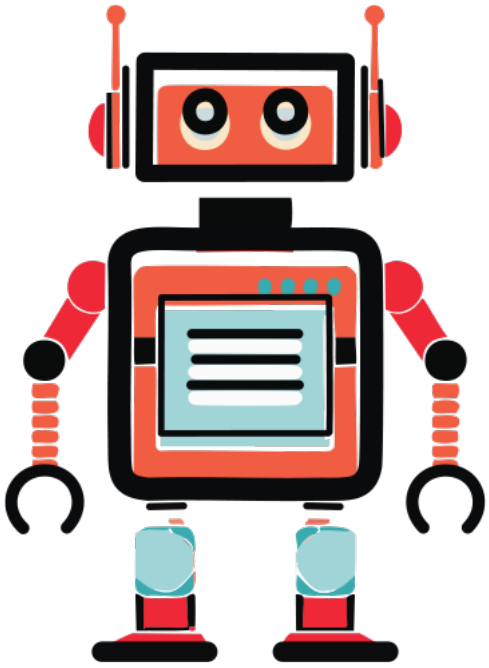
Challenge: The City and County of Denver operates in a highly federated metropolitan area. Networks of hundreds of local governments, non-profit organizations, and coalitions focus on a variety of issue areas, such as affordable housing and homelessness, newcomer and migrant services, and workforce training. How could its technology organization ensure robust integrated data practices to share data across many departments, government organizations, and coalitions?

Approach: Technology Services for the City and County of Denver provides the governance, platform, tools, and the training to enable agency use of data and analytics to drive decision-making, and allocates its central service costs using a cost allocation plan. Sixteen aligned technology policies governing procurement, security, privacy, data standards, and ownership assure that agencies are operating on platforms that facilitate a high level of integration and data sharing. To exercise tight control over the collection and reuse of citizen and city data, every grant agreement specifies that all technology used for grant operations must be approved by the central IT organization.

Impact: A robust governance framework allows Technology Services for the City and County of Denver to finance and sustain its operations using a central services cost allocation plan, which is updated annually. The CAP is supported by an enterprise resource management system for the 350 employees which tracks actual hours against resource plans and provides documentation to support the CAP as well as direct and indirect costing to grants.

15 Cherry Bekaert. Understanding the Need for Cost Allocation Plan and Indirect Cost Rate Preparation Services. https://www.cbh.com/services/advisory/cost-allocation-plan-and-indirect-cost-rate-preparation-services/

d. How Do Cost Allocation Plans Work?



A cost allocation plan collects and allocates the total indirect costs of centrally provided services and allocates them to grants to obtain an equitable reimbursement for those costs. The numerator of the allocation fraction is the total costs in the cost pool developed to collect a particular category of expenses. The denominator might be the volume of transactions, the number of agency employees engaged in managing the federal grant, or other valid base measurement that realistically reflects how costs are incurred. A vast number of possible allocation bases can be used. Many governments select an allocation base for different cost pools, agencies, and programs to reflect how costs are incurred in order to support that grant program.

Some examples of bases used for allocation of IDS indirect expenses might include:

Allocation Base	How to Substantiate
Hours spent using system	Random time studies, timesheets
Labor hours incurred	Timesheets
Size of IT budget	Latest budget or financial statements
Dollars spent per program recipient	Recipient data from program
Size of program	Program budget
FTEs in agency	Demonstrate that costs are variable by FTE (ie: personnel/payroll costs)
Transactions	Number of transactions run through system
Rate of data access or analysis	Number of times data is accessed or analytic reports are generated

F. USING STATE AND LOCAL CENTRAL SERVICE COSTS, OR STATEWIDE COST ALLOCATION PLANS (SWCAP)

What You will Learn in This Part:

- How new clarity in OMB Uniform Grants Guidance can inform use of SWCAP.
- How to get started with SWCAP.
- What evidence is required, how approval works, and the current status of the SWCAP process.
- What the financial implications are of using SWCAP.

Across an entire state or local government enterprise, central services are provided that benefit all agencies, such as human resources, collective bargaining, legal counsel, budget, accounting and finance, legislative relations, information technology, procurement, or public information. These enterprise-wide costs must be equitably shared between the state or local government and the federal sponsors of grants that fund agency operations. Central services can also include indirect costs of an IDS that provides all agencies with integrated data and linkages to individual-level data from multiple systems. Many states choose to fund these services using a Statewide Cost Allocation Plan (SWCAP).

a. Clarity Provided in Current OMB Guidance

With OMB's clarified policy on allowable data and evaluation costs, available in *Section 200.455(c)*, statewide cost allocation plans (SWCAP) will be a particularly important financing tool for long-term maintenance and operation[16] of an integrated data system when it is both operated by a central service agency and designed to benefit and include all agencies or departments across the state or local government. A government using this method of funding must be able to show that the system is (1) fully operational, and (2) benefits the government enterprise as a whole.

b. How to Get Started with Statewide Central Service Cost Allocation (SWCAP)

For states, the central service cost allocation plan is negotiated with the federal Department of Health and Human Services Program Support Center (HHS-PSC). The annual SWCAP is based upon a projection of the next year's allocated central service costs using actual costs incurred for the most recently completed year. In order to incentivize use of the IDS and build transparency for both operators and users, simplicity is critical for these cost allocation plans.

From a cash flow perspective, it's important to note that the federal government and auditors will regularly review the cash balances remaining in the internal cost pools comprising the cost allocation plan. Typically, significant cash balances extending beyond the cash needs for 60 days are not allowed to accumulate. For this reason, upgrades and routine updates are typically staged over a continuous period so that they may be smoothly blended into the overall rate. For more on how audits work and how to prepare, see Section 5.

c. Evidence Required, Process for Approval, and Current Status

Below are practical considerations for preparing a SWCAP that includes IDS.

- **Evidence required**

For the IDS to qualify to be included in the SWCAP plan, its "enterprise-wide" nature will need to be demonstrated and documented. This is typically done in the annual application for SWCAP, the process for which is described in Section 4.5 of the most recent guidance available. In general, the evidence required for a new indirect cost pool to be reviewed and approved is:

- Briefly describe the service.
- List the unit of government providing the service.
- List the agencies that are receiving the service.
- List the items of expense included in the cost of service.
- Identify the method used to distribute the cost of the service to benefitted agencies.

16 Maintenance and operations can include debt service on debt incurred to build out or develop the integrated data system and make it fully operational.

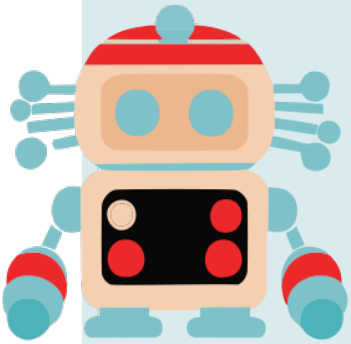
- Provide a summary schedule showing the allocation of each service to benefitted agencies.

If the IDS is going to collect funds for services rendered via chargebacks to agencies or outside entities (like universities or research institutions), then they must set up a separate internal service fund for these billed services. For each internal service fund of $5 million or more, the proposed cost allocation plan must include additional documentation on revenues, expenses and flows of funds, as described in Section 4.6. of the most recent guidance available, which is issued by HHS on behalf of the federal government.

- **Process for approval of SWCAP**

Typically, the budget office that authorizes, monitors, and executes functions that are part of central service costs is charged with completing work to develop the SWCAP plan. The sponsors of a "whole of government" IDS will need to work closely with the budget office as it proposes the annual SWCAP plan with adjustments to HHS-PSC on an annual basis. A cost pool or cost pools may be developed for the core operational costs, including personnel required to support enterprise operations. A separate cost pool might be developed for analytic services and other consumable services, since many of those will be charged back to agencies in a fee for service or chargeback arrangement.

Any new service or cost category to be added to the SWCAP must be submitted to HHS-PSC no later than 6 months before the fiscal year when the government proposes to add it to their plan. These cost categories are to be approved by the HHS-PSC prior to including them in an overhead cost rate on a federal grant. In this way, the SWCAP cost allocation will normally lag actual costs incurred by at least one year, depending on the time required for HHS-PSC to complete its review and approval.



Using Statutory Language to Support and Enforce Enterprise-wide Integrated Data Systems

Challenge: How does a state's enterprise-wide integrated data systems and analytics capabilities allow it to use SWCAP to finance operations?

Approach: Ohio leadership developed an interest in this topic as the state was implementing a new integrated eligibility system for Medicaid and other social service programs. Using the Medicaid system as a backbone, additional capabilities were added to the InnovateOhio Platform (IOP) to make it truly enterprise wide. Statutory provisions in the Ohio Revised Code and Executive Order 2019-15D Modernizing Information Technology Systems in State Agencies, establish the IOP Data Analytics as the single statewide enterprise data management and analytics program. The statute requires all state agencies to provide data for use under the program. IOP Data Analytics is charged with gathering, combining, and analyzing data provided by agencies to accomplish key tasks:

- Measure the outcome of state-funded programs.
- Develop policies to promote the effective, efficient, and best use of state resources.
- Identify, prevent, or eliminate the fraudulent use of state funds, state resources, or state programs.

Impact: Ohio's statutory basis for an enterprise-wide integrated data capability across agencies was a key additional support on the state side for IOP as an eligible statewide central service cost. IOP Data Analytics provided an important building block to spur evidence-based decision making across multiple Ohio programs. IOP's DataOhio Portal also provides a comprehensive library of up-to-date datasets to the public and advocates interested in state policy issues.

- **Current status**

Within HHS-PSC, the Cost Allocation Program of the Accounting Services Division is charged with reviewing and approving statewide cost allocation programs. They operate through a number of regional offices, to which states are assigned. An HHS Inspector General Report issued in June 2022 pointed out that the division needed to update its indirect cost-setting guidance to align with the then-current OMB guidance and changes in agency requirements. Since that time, the division's informational website has not posted any current guidance,[17] although its list of field offices does offer individual contacts.

In an April 2024 letter to HHS Secretary Becerra, the National Association of State Auditors, Comptrollers, and Treasurers noted that the absence of current guidance is problematic for a number of reasons. Until the most recent plan submitted for review has been approved, state agencies must rely on outdated information from the last federally approved SWCAP. Unfortunately, the approval for such plans is very delayed with some states currently as many as four years behind. With these delays, there is a resulting backlog of delays in negotiations, potentially leading to extended periods of either overstating or understating cost recoveries. Since the guidance received from federal negotiators is to use the most recently approved plan year, state agencies are calculating overhead rates with data from pre-COVID periods. And since COVID pandemic response tremendously increased the amount of federal funds that were provided to the states, there is an increased amount of overhead associated with distributing these COVID funds that may not be reflected in states' approved plans.

What does this mean for IDS leaders? These extensive delays could mean that they may not be able to access SWCAP to help finance operations and maintenance on the IDS for a number of years, depending on the status of their state's plan in the federal approval process.

d. Financial Implications of Using SWCAP

While SWCAP is an extremely useful tool for integrated data systems that are in full operation and providing central services to all agencies, there are three issues that merit attention.

First, costs must be "simultaneous and current" with the grants to which the central service costs are being allocated. For this reason, costs related to start-up and build-out of an integrated data system cannot be financed with SWCAP. However, once the system is up and operational, a proposal can be prepared for inclusion in the next year's SWCAP overhead rate. There is one exception to this rule. Some governments have been able to take out short-term debt instruments to finance the start-up and build-out of their integrated system. Then, when the system is operational, they have used SWCAP to amortize the debt service. Please see Section 4 for more information on using debt instruments to finance IDS.

Second, many integrated data systems use a "fee for service" model to support a portion of their services, using either an hourly rate or fixed fee for personnel assigned to a business analytics project or an evaluation using the data in the system. Other systems use a "chargeback" model to user agencies. These revenues and credits must be applied to the cost pool used in the SWCAP plan to assure that costs being allocated are "net" of revenues recognized by fee for service arrangements or chargebacks. This assures that the costs being allocated using SWCAP are not being billed twice to the same program or administrative unit.

Third, SWCAP will not cover additional features or functionality that only provide benefits to a limited number of programs or agencies, such as costs related to the addition of new agencies, programs, or datasets. Because these costs typically benefit one agency, they should either be included in agency indirect costs, or local or state government general revenue funds should support these investments. If they largely benefit only one or a small number of programs, the simplest option is to use direct costing, when permissible. For example, the InnovateOhio Data Analytics program requires agencies to pay for integrations required to extract, transform or load data to the integrated data system. Funding through the SWCAP is used to pay for the core infrastructure of the IDS.

17 As of November 22, 2024

Section 4. Filling Funding Gaps with Non-Federal Sources

What's in This Section

- Options to fund IDS using non-federal sources, including:
    - General revenue funds.
    - Capital funds.
    - Vendor-financed models.
    - Chargebacks or fee for service.
    - Philanthropic funds.

When funding a project or system or system from multiple sources, often state, local, tribal, and territorial governments will need to fill resource gaps. For example, they may need additional resources to make their system more comprehensive, or to add enhancements to align with their data or security architecture, or to manage project timing or cash flow. This can be true in a variety of circumstances, including:

- In the initial building stage for the system, when it is not yet operational.
- As the IDS matures and regularly provides analytics, insights, and data products to users as they demand these products.
- In a jurisdiction where a leader or legislature is committed to robust uses of data, to provide performance information to their residents or citizens. In this case, specific budget allocations and programs will often be funded through the normal budget process using general revenue funds.

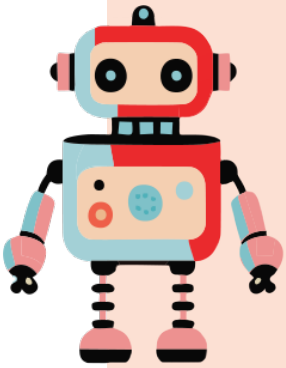
This section of the field guide provides a brief overview of ways to use non-federal sources to finance and sustain IDS, ranging from general revenue funds, capital resources, debt, chargebacks or vendor financing (including use of software as a service (SaaS) products).

A. GENERAL REVENUE FUNDS

Many integrated data systems have gotten their start from a legislature convinced of the importance of data to drive good decision-making. Using general revenue funds (GRF) as a sweetener or an incentive to help partner agencies put their own data (and money) in the system is a common practice across integrated data systems nationwide. GRF is most often used during the early phases of planning, design, and actual build of the integrated data system.

For relatively small and quick projects that require a small amount of capital to get started, GRF is probably the best way to secure initial funding. With new tools and technologies, establishing an IDS only requires limited resources. Therefore, legislatures, city councils, or county commissioners are unlikely to impose the limits and heavy oversight that can be applied to large projects. But in times of shrinking budgets, cross-agency projects like an IDS can be the first to get cut, in part because the impact on direct benefits can be hard to quantify. For example, the InnovateOhio Data Analytics program requires agencies to pay for integrations required to extract, transform or load data to the integrated data system. Many IDS leaders are focused on how to both diversify their funding base while cementing a strong relationship with the state legislature to ensure ongoing funding.

General revenue funds can be used to seed activities to prove the utility of the IDS to a new partner or to help support a new program direction for a partner agency. For example, one use of the GRF received by the Indiana Management Performance Hub is to provide



Building Conviction in the Legislature

Challenge: How to build and sustain conviction in the legislature to support IDS?

Approach: When the Kentucky Center for Statistics (KYSTATS) was established over a decade ago, the legislature played a large role in crafting the legislation which established its governance and operations. Since then, interaction with the legislature has been a significant part of KYSTATS activities. For example, one of the tools KYSTATS has developed enables legislators to see their district on a dashboard with a variety of education, economic health, and housing statistics. Another project has helped a housing task force dig into commuting patterns that might impact housing demand.

KYSTATS also monitors what issues are relevant in the legislature and elsewhere so that they are prepared to provide background and data as context for the discussion, partnering with agencies for questions beyond their scope.

Impact: KYSTATS has remained a non-partisan agency that provides data and research. Producing insights of interest to key stakeholders and legislators is critical to their legitimacy and ability to continue to command resources, both general revenue funds and from other sources.

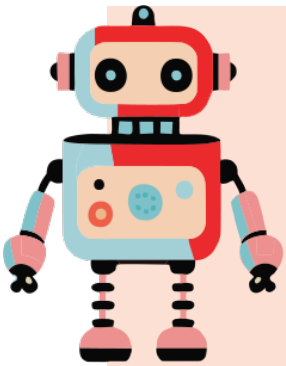
KYSTATS has a vision of helping to anchor program evaluation efforts statewide, using its data to help build out analytics and metrics to help program managers undertake evaluations for multiple years across multiple programs.

matching funds required to draw down substantial federal funding for Medicaid or other programs interested in building out data capability to address program or business process needs.

B. CAPITAL FUNDS OR DEBT FINANCING

Capital funds are ideal to generate funding for the initial design and build of a system. Capital funds that flow from debt issues backed by revenue sources, such as fees or payments, are often a possibility. Capital funds that come from bond financing can be more complicated. This is because there are statutory or constitutional limits on how they can be used. Non-taxable municipal bonds – the most commonly utilized debt instruments for states, local governments, tribes, and territories – may not be used to fund intangible assets such as information technology, data, or cloud-based services.

However, there are debt instruments that can be used to finance the upfront costs of planning and design as well as initial build. Some states and municipalities have used Certificates of Participation (COPs), a debt instrument that is also tax exempt but is secured with revenue from a lease on the assets. COPs enable governmental entities to finance capital projects without technically issuing long-term debt. Investors are paid back using lease revenues passed through a trustee, typically a financial institution or investment bank. This method of financing is ideal for an integrated data system with a funding model predicated on long term cost avoidance, chargebacks to users, or expecting to harvest savings from fraud identification or program integrity activities. A portion of those expected proceeds, recognized revenues, or cost savings would be dedicated to the lease payments to participating investors.



Using Short Term Debt to Finance Shared Services

Challenge: After implementing a transformational enterprise resource planning (ERP) platform, the State of Ohio locked in expected savings by developing a shared services center. The State knew that a new shared services center to automate and standardize common business functions across the enterprise could help them to recoup some savings, but it needed the funds to design, develop and implement the system.

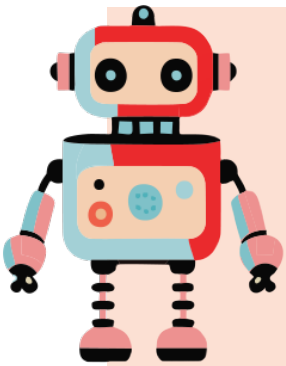
Approach: Ohio financed the upfront costs of the shared services organization, facility, equipment, and change management by issuing Certificates of Participation (COPs). The COPs were backed by a robust forecast of 30% cost savings across the enterprise for accounts payable, travel reimbursements, and benefits processing. Once the shared services center was fully operational, it received its own indirect cost pool in the statewide cost allocation plan (SWCAP). The COPs debt repayment costs were included as part of the center's ongoing costs.

Impact: The shared services center now provides accounts payable processing services to 25 state agencies, comprising 91.5% of all payment transactions, travel and expense reimbursement processing for all state agencies, boards and commissions, and a contact center for benefits processing. On average, state agencies save 30% in administrative costs by utilizing Ohio Shared Services, which saved the state $21.5 million in its first 5 years of operations.

This example finances shared services, but could serve as a precedent for financing the design, development, and implementation of an enterprise integrated data system that will produce future cost savings.

C. VENDOR-FINANCED MODELS

As more and more technology has moved to the cloud, the search for creative ways to fund planning, design, operations, and maintenance of an integrated data system has spawned a wide variety of vendor-financed models. Sometimes, an IDS can lock into a technology or a capability that a vendor will finance over, say, a 10 year period, incurring significant upfront costs, but agreeing to a flat "lease" rate for each year of the contract. Other vendors provide analytics, visualizations, or other data services on top of the facility, allowing the sponsoring agency to amortize the lease payments against a stream of chargebacks to users for these value-added services. The government rebids the contract for services and products through an open procurement process periodically.



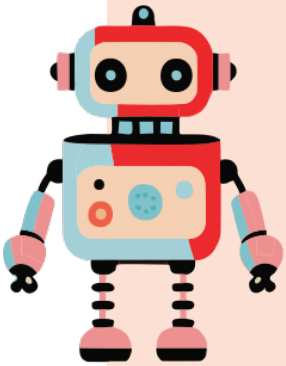
Using a Public-private Partnership to Develop Enterprise Data Sharing Tools

Challenge: How can the government leverage private sector analytics expertise, while retaining oversight and control?

Approach: The North Carolina Government Data Analytics Center (GDAC) was created out of a public-private partnership between the State of North Carolina and SAS Analytics in 2011. It focused initially on the potential of integrated datasets to drive better decision making around criminal justice issues, creating the CJLeads centralized database of real-time information about offenders for use by state and local criminal justice professionals. This enterprise approach seeded initiatives that resulted in a transformational approach to data integration and analytics statewide.

SAS Institute and the state have continued to collaborate on the GDAC. Scaling up the approach used to develop CJLeads, GDAC developed NC eLink, which integrates data from disparate administrative systems to create a comprehensive view of residents and beneficiaries without sharing personally identifiable information. Data linked from multiple sources have helped to improve service delivery, operational efficiencies, and data-driven decision-making.

Impact: Development of the NC eLink tool has facilitated the extension of GDAC data integration to over 50 streams of data across 15 different agencies, allowing the state to develop powerful analytics across criminal justice, health and human services, unemployment insurance, and other social services. During the pandemic, NC eLink helped the Department of Employment Security to identify over 60,000 unemployment insurance claims that were associated with fraud.



Using One-Time ARPA Funds to Spur Integrated Data

Challenge: In Harris County, Texas, safety net departments, agencies, and systems provide essential services to communities and individuals who are vulnerable due to poverty, lack of vehicle access, crowded housing and other measures of well-being. Historically, the challenge in reducing social vulnerability and providing effective social safety net services is the lack of an integrated, holistic approach. Harris County Public Health implemented ACCESS (Accessing Coordinated Care and Empowering Self Sufficiency) Harris County as an integrated care model that addresses the root causes of poor health and life outcomes by holistically addressing the social determinants of health. How was Harris County able to integrate data from multiple agencies to support ACCESS?

Approach: ACCESS Harris County focuses on delivering intensive wraparound services to individuals across the County's safety net system through a no-wrong-door approach. Frontline staff across the County and community safety net programs make up care coordination teams to eliminate the siloed and fragmented service delivery experience and provide holistic, individualized wraparound services to shared populations. Data plays a key role in implementing ACCESS successfully.

Modeling their approach on Sonoma County, California, Harris County procured a SaaS solution, the IBM Connect 360, for master data management and the Watson Case Manager solution. An outside contractor has assisted agencies in developing the integrations necessary to prepare their data for a single identity management system. This feeds into a case management system that serves up a seamless, tailored set of wraparound services to address key population groups in need. Focus areas include: Violence Prevention, Homelessness with mental and/or a physical condition, Black Maternal Health, Latino Chronic Disease, & Re-Entry Cohorts.

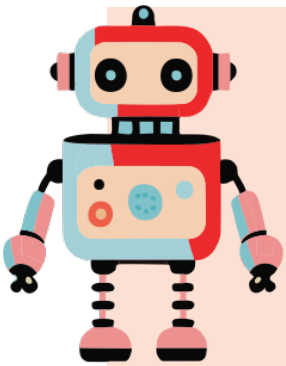
Impact: Using ARPA State and Local Fiscal Recovery Funds, the county obtained a commercial, off-the-shelf solution to implement a solution more quickly, scale results from the Sonoma prototype, and have the "seed" to build a solid, long term solution that will safely use and store sensitive data. With the long-term system now in full operation, ongoing funding will come from county funds and charges to federal grants using the County's indirect cost rate.

D. CHARGEBACKS OR FEE-FOR-SERVICE

Integrated data systems often build out extensive staff teams of business analysts, experts in evaluation, data scientists, and other highly skilled individuals that are difficult for an individual agency or program to acquire and support. Chargebacks or fee for service arrangements are a common way to recoup costs for this kind of centralized service unit in government. These fees may be charged internally within government, as well as to outside researchers and users from the academic or non-profit community.

Chargebacks or fee-for-service arrangements are best used when costs of providing services are variable and could be one-time charges or be based upon the demand or consumption of the services. Fees may be on an hourly, project, or other basis.

For example, as described in Section 3, Arkansas raises much of their funding from chargebacks to users. Users can contract with the integrated data system or its sponsor for analysis or research. Users inside of government can often assign those costs to a federal grant as a direct cost. In many cases, a government agency or program can write these activities and expenses into a grant application to make sure that



Arkansas: Billing for Value-added Integrated Data Services

Challenge: What is the best way to recoup the costs of value-added services provided to agencies?

Approach: The Arkansas Division of Information Systems (DIS) saw the need among state agencies for help with small data analysis and visualization projects, such as assembling federal reports that require linking data across multiple sources. DIS began to assemble teams to help provide these services, being careful to segregate both the costs and the revenues from these additional services from their activities supported by the statewide cost allocation plan (SWCAP) or other direct costing to federal grants. Because the DIS is prohibited from recognizing revenues, its leadership added the new services to its catalog, allowing it to bill agencies as a contractor when its services cost less for an agency than an in-house option or private contract. When these items are billed for work performed on federal grants, they are treated as direct costs.

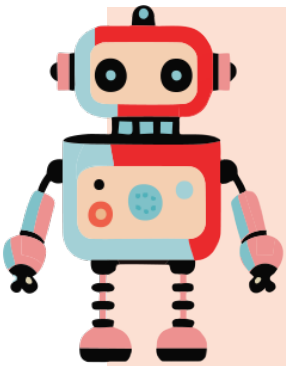
Impact: Using the DIS hub as an anchor for value-added services has become a valuable source of funding for the system to assist with cash flow and sustain operations and growth.

funding is adequate and to demonstrate capacity to implement and measure the project effectively.

In addition, some integrated data systems also provide secure and appropriate data access to academic researchers outside of government. These external researchers pay with their own funding, which may include federal grants as well. In these cases, external researchers could also assign the fees to their federal grant as a direct cost.

E. PHILANTHROPIC SOURCES

Philanthropies are increasingly focused on assisting public and non-profit social impact organizations to use information to improve the effectiveness of programs and policies. A number of national and regional philanthropies provide direct support to governments to strengthen their technical capacity to securely link and analyze individual-level data for projects that can have a measurable impact on vulnerable populations. For example, philanthropic funders have supported data fellows embedded within government agencies, communities of practice, and intensive training workshops to build data and analytical skills of government professionals. They have also helped fund the development of third-party, cloud-based data platforms that governments use to securely and inexpensively link their data across programs and jurisdictions and with non-profit service providers. Some philanthropies provide direct financial support in the form of donations to support start-up of data-related initiatives that the government commits to sustain. Philanthropies provide indirect financial support when they fund academic researchers and non-profit organizations that pay service fees to state and local governments to get access to their integrated data and analytical services.



Getting a Healthy Start with Philanthropic Funding

Challenge: How could South Carolina's Revenue and Fiscal Affairs Office (RFA), Data Integration and Analysis Division (DIA) scale up its extensive health statistics work to gain a more granular view of healthcare trends and outcomes?

Approach: In the early 1990s, the Budget and Control Board (1940-2014) received a grant from the Robert Wood Johnson Foundation to link patient/client data with administrative data to better understand trends and healthcare outcomes. This project demonstrated to state agencies, health care researchers, and policy makers the benefits and insights of using integrated data, while maintaining patient/client confidentiality. As benefits and insights became known, additional data owners have come forward to build an integrated data system with even broader reach. Today, the Data Integration and Analysis Division, formerly known as the Office of Research and Statistics, hosts a vast array of data as well as online solutions for accessing and visualizing publicly sourced data around healthcare, education, workforce, population, demographics, and geography. As an independent custodian of records provided by data owners, RFA maintains a high level of neutrality, data management, and stringent approval process for use of the data, which provides confidence for the data owners. As a single point of data collection, it provides the most cost-efficient structure for users.

Impact: RFA, established in 2014, is an agency of 75 staff, comprised of analysts, statisticians, epidemiologists, database administrator, web developers, GIS analysts, economists, surveyors, and project and program managers that produce professional analyses for policy makers and program administrators. This integrated data system supports the legislature, agencies, and private researchers with data analysis and vital information on trends and program results in education, health care, and other areas. RFA continues to work with agencies to be more collaborative in identifying common problems and seeking common solutions by working to get additional and better data when possible.

Section 5. Preparing for Audits of Integrated Data Systems

What's in This Section

- What to know and how to prepare for an audit of IDS.
- What to expect for an audit of direct costs.
- What to expect for an audit of indirect costs.
- What to expect for an audit of cost allocation plans.

A. AUDITING INTEGRATED DATA SYSTEMS:

What to Know and How to Prepare

a. What Are Auditors Looking for When They Examine the Treatment of IDS Costs?

Any recipient (states, tribes, territories, local governments, non-profits) of more than $1,000,000 annually in federal funds is required to undergo a "single audit." State-level auditors or other independent non-federal auditors "stand in" for the federal government in examining how grants and other expenditures are accounted for in the single audit using instructions in the most recent Compliance Supplement issued by OMB. The 2024 version of the Compliance Supplement mentions the newly revised OMB guidance, thereby making the new clarifications around data and evaluation a full part of the federal compliance approach. Under generally accepted government auditing standards (GAGAS, or the Yellow Book), auditors are required to attest to a government's compliance with provisions of contracts or grants. As part of the single audit, the auditor looks at specific federal awards to see if the grantee is in compliance with the terms and conditions of the award for the specific program(s).

This is relevant because the auditor may examine the agency cost allocation plan to assess whether it is systematic and rational, as well as to identify two major risks: (1) that costs have been incorrectly allocated, and thus, the recipient government might need to refund the federal government; or (2) that incorrect cost allocation may result in a material misstatement on the government's financial statements. To assess the likelihood of those risks, they will examine the documentation used to determine the cost allocation methodology and to assure that costs are allocated appropriately.

b. Types of Evidence Auditors Will Request

Auditors are evaluating key aspects of the cost allocation methodology chosen, as well as the costs included in the amounts directly or indirectly charged to federal grants, to answer these questions:

- In what phase of development is the IDS?
- What types of costs are allocated in this plan?
- To which programs or agencies in the government are benefits being provided? What evidence shows how you came to this conclusion?
- Are these costs being directly charged? If so, what terms in the grant have led the team to believe that they are eligible?
- If they are shared costs, what safeguards are in place to make sure these particular costs have not also been charged to another grant as a direct cost?
- What allocation base is being used? Is the data valid, and does it produce results that are repeatable? Are the results equitable, and do they fairly approximate the benefits being shared between programs or across government?

Having the links and answers to these questions available in a folder or central repository to document decisions made about accounting treatment will be very useful. The table below shows the audit evidence that may be required to show that the accounting treatment is correct for an IDS.

c. Navigating the Interplay between Federal Approval Process and Audit Opinion

When federal priorities change, and guidance is revised or clarified, there is likely to be a period of some turbulence as audit guidance catches up to changes in

Principle	Rule	Evidence	Typical Format
Purpose of activity and link to program	Activity must support purpose and link to program to which they are charged	Demonstrate connection to goals of federal program	Memo, program document, proposal or budget rationale
Eligibility of Costs	Costs incurred in support of activities must be eligible as program costs	Cost classification aligned with guidance in the program guidance and in the OMB Uniform Grants Guidance	Cost objects, codes and definitions, project detail budget and cost center plans
Allocation base	Costs allocated to federally funded programs must be proportional to extent the federal program benefits from costs incurred	Quantitative analysis to support holding that costs are being distributed in proportion to benefits received	Excel spreadsheet or analysis tied to cost documents and accounting records
Personnel Costs	Must be supported by detailed timesheets	Timesheets detailing tasks performed in support of program activities and costs or random moment surveys	Timesheets and personnel assignments
Integrity in Cost Allocation– Avoiding duplication of cost charges	Like treatment in like circumstances; consistency in treatment of direct/indirect costs	Need to show internal controls and processes that assure that costs are accumulated only in one allocation method to assure that federal and other sources are not charged twice for the same expenditure	Workflow schematics used to identify sources of costs, accumulate costs in cost centers, and credit those costs to appropriate cost pools.

policy approach or program requirements. This is a common occurrence because changes in guidance are forward looking. For that reason, the clarifications and policy priorities reflected in the updated OMB Uniform Grants Guidance released in April 2024 would be reflected in the 2025 Compliance Supplement. Using these documents together will assure that auditors are working with the same interpretations of the Uniform Grants Guidance as those executing policy and fiscal decisions.

Some keys to success in acquainting the external audit team with plans for accounting for a major IDS project include:

- **Locate precedents,** such as other states or localities, that have treated costs in a similar way. You may have used these examples in getting executive approval for the program.
- **Document any guidance** or advice you have received directly from the granting agency for use with the audit team.

Make certain that the audit team is consulting the most recent versions of the Uniform Grants Guidance and the Compliance Supplement or other program guidance or waivers, and is aware of how clarifications and reference or technical guides provide further direction on the eligibility of costs for reimbursement from federal grants. Consult early and often with the audit team about your plans, and familiarize them with the treatment being proposed.

Early in the adoption cycle for the new OMB guidance, there are likely to be inconsistencies between areas it has clarified and some agency guidance. In these cases, consult with the agency and OMB personnel and understand why this might be true.

B. AUDITING DIRECT COSTS

The key risk for IDS expenditures charged as direct costs to grants is whether the costs are eligible for funding under the federal grant in question. While the updated OMB Grants Guidance provides broad clarification that data and evaluation costs – including the costs associated with building an IDS – are allowable under federal financial assistance, it is important to confirm that each specific participating program does not have a unique limitation or other requirements for such costs. Auditors will want to review the federal grant descriptions of eligible costs and documentation showing that the system investments support those expenditures.

C. AUDITING INDIRECT COSTS

The auditor reviewing an agency indirect cost plan will be assessing the risk that all and only those indirect cost expenditures that are eligible for federal funding have been included in the agency indirect cost rate. They will also be focused on whether the cost allocation methodology is systematic and rational, distributing costs on an equitable basis to federal and other agency programs. To assess this, they will look for documentation that the indirect costs are eligible under the federally funded programs to which they are being charged, in line with the guidance provided in the Compliance Supplement for those programs.

D. AUDITING COST ALLOCATION PLANS

Since the state's SWCAP plan has been reviewed and approved by the cognizant federal agency, the auditor will be focused on whether the underlying accounting transactions are consistent with the approved plan. This means that they will be focused on the accounting entries and cost accumulators used to identify costs and distribute to the appropriate indirect cost pools included in the SWCAP plan.

Section 6: Looking Ahead

What's in This Section

- Two parallel tracks for cooperation and progress across levels of government to support integrated data systems.
- How cross-sector collaboration must support these parallel tracks.
- Concluding insights for how to transform public sector data infrastructure.

As the examples in this guide illustrate, the value of integrated data systems to drive better results in government programs is clear. And creative, sustained financing that draws funding from multiple sources is possible, but complicated. It shouldn't be so hard. Cooperation across agencies and levels of government is key to making progress. This can happen on two parallel tracks, with cross-sector collaboration as a key ingredient for both.

A. TRACK ONE:

Navigating Existing Rules and Processes

Federal, state, local, tribal , and territorial governments should come together to better understand and help navigate existing rules and processes for financing integrated systems and associated evaluation capacity.

Federal agencies could generate momentum by synchronizing federal efforts that build upon OMB's recent clarification that grant funds may be used for integrated data systems and evaluation. They can maximize their impact by working together to:

- **Learn about the benefits** of state and local government integrated data systems and cross-program analytics and evaluation to advance their program portfolios.
- **Provide consistent, coordinated guidance and technical assistance** and pro-actively disseminate best practices and real-world examples to grantees, helping to publicize permissible ways to finance shared infrastructure, analytics, and evaluation capacity.
- **Incentivize grantees** to develop, maintain, and continually enhance shared infrastructure, analytics, and evaluation services. For example:
    - Agencies can **give preference in competitive grant** programs to projects that will help strengthen re-usable data infrastructure and evaluation capacity.
        - » The Department of Education recently revised its selection criteria for competitive grant programs to consider the extent to which "the evaluation will access and link high quality administrative data from authoritative sources" and "the project will create reusable data and evaluation tools and techniques". [See Education Department General Administrative Regulations section 75.210 (h) and (i)]
    - Federal agencies can **reduce compliance reporting requirements** for grantees that develop more meaningful, outcome-focused metrics and indicators to better demonstrate accountability for results.
        - » This existing flexibility is explicitly cited in OMB's Uniform Guidance. [See 2CFR section 102(d)]
- **Strengthen two-way communications** between grantees and federal agencies to identify and devise practical solutions to bureaucratic barriers that impede better use of data.

At the **state, local, tribal, and territorial levels,** governments can make progress by:

- **Forging partnerships** across C-suite executives and program agencies to build a shared vision and data governance structure that guides financing, technology, and organizational decisions. In pioneering jurisdictions, leaders of budget, finance, data, information technology, performance management, and evaluation work together to ensure that centralized data, analytics, and evaluation activities are creating value for their chief executives, program administrators, legislatures, and the public.
- **Becoming active participants in communities of practice** and other networks to gain knowledge of best practices and powerful use cases that can be replicated.
- **Sharing constructive feedback and potential solutions** to federal agencies that have limited understanding of the confusing federal financial guidance that stifles data modernization.

B. TRACK TWO:

Simplifying Financing Mechanisms

The federal government should radically simplify the mechanisms it and its state, local, tribal, and territorial partners use to finance integrated data infrastructure and evaluation capacity in state, local, tribal, and territorial governments.

The path state and local budget and finance offices must travel to unlock funding for integrated data systems is byzantine and nonsensical. As illustrated in Section 3, these officials must be highly savvy, well resourced, and unnaturally persistent to plan and execute financing approaches for integrated data systems that use direct costs, indirect costs, and cost allocation plans to combine funds from multiple sources. The maze of current rules and processes and the imperative to avoid audit findings are enormous deterrents for many jurisdictions. As a result, far too many of them continue to waste money on inefficient, siloed data and reporting processes and fail to gain critically important insights that are only possible when data is integrated.

Many of the current rules and processes should be simplified or streamlined through federal administrative action, while maintaining responsible fiscal controls. An important precedent for this is the Cost Allocation Methodologies (CAM) Toolkit developed over two decades ago by certain HHS, USDA, and state agencies administering low-income assistance programs. The agencies, with the support of auditors, agreed upon simplified rules and formulas for allocating systems planning and development costs, which reduced workload for all parties. Today, through a similar process, federal and other levels of government could co-create new versions of the toolkit using simple rules to allocate costs across a broader set of federal programs (e.g., education, workforce, housing, criminal justice, economic development, and transportation). In addition to covering planning and development costs as the current toolkit does, a new version could also simplify the allocation of funds for ongoing maintenance and operations that can be financed with indirect costs and statewide cost allocation plans.

Congress could also take action to reduce financing and accounting barriers. For example, using a government-wide general provision in appropriations legislation, Congress could authorize grantees to blend funding from multiple sources to finance integrated data systems that increase program effectiveness and meet federal privacy and security standards. This approach could significantly reduce the administrative burden of tracking each separate funding stream and serve as an incentive for jurisdictions to build and continually enhance integrated systems that leverage advances in technology. As one potential example, Congress could allow grantees to redirect unspent project funds, up to a certain threshold, for centralized data infrastructure and analytics capacity that will benefit future projects that support related policy goals.

C. CROSS-SECTOR COLLABORATION

For both of the above tracks, outside organizations should play an important role in contributing expertise, assistance, and safe forums for modernizing financing processes.

It is unrealistic to expect federal agencies to devise solutions to complicated bureaucratic hurdles they don't experience or understand. A more effective and efficient way to make progress is through problem-solving forums and working groups that bring together expert practitioners and government innovators with experience working at different levels of government. State, local, tribal, and territorial government associations (especially those focused on budget, finance, and audits); universities and academic researchers; data- and evidence-focused non-profits; and philanthropies can provide expertise and resources for solutions-focused collaborations.

The production of this field guide is an important example of how this can be done. The Data Funders Collaborative provided funding for this project, which was sponsored by the congressionally chartered National Academy of Public Administration. The project team included former federal and state senior executives and staff who had led innovative government initiatives that used data and evaluation to break down programmatic and functional silos. Focus groups of federal, state, and local officials that oversee budget, finance, data, audit, and evaluation functions provided critical input and case studies for a comprehensive guide on how to finance integrated data systems in ways that withstand audit scrutiny. University researchers and non-profits shared stories about how they've helped state and local governments harness data and evaluation to improve outcomes. Notably, auditors provided forward-looking ideas for how the federal government could simplify and encourage state and local governments to leverage and combine funds from multiple federal programs to strengthen their data and analytics capacity.

D. CONCLUSION: TRANSFORMING PUBLIC SECTOR DATA INFRASTRUCTURE

Despite the fact that integrated data systems are critical to support comprehensive performance and evaluation efforts, it is no one's job at the federal level to understand the challenges state, local, tribal, and territorial governments must overcome to strengthen this capacity.

> **"Everybody's business is nobody's business."**

There is also no institutionalized process for cross-agency, intergovernmental collaboration to help governments strengthen enterprise-wide capabilities to integrate and analyze data from many sources. Modernizing financing mechanisms is only one of the challenges requiring an intergovernmental approach. Other efforts to improve data quality, accessibility, and use by decision-makers are necessary and are prerequisites for government use of AI to improve efficiency and effectiveness.

Transforming public sector data infrastructure to address the nation's complex challenges will require new ways of doing business, where multiple levels of government work as partners. With strong federal leadership and coordination, it can be done.