

Strategies for Financing the Integration of Home Visiting and Early Childhood Data Systems

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Introduction

Over the last decade, state efforts to build stronger data infrastructure and integrate data about early childhood services have continued to grow. A stronger data infrastructure supports states in more easily linking data across programs, which in turn makes it easier to analyze and use that data to answer important policy questions. An Early Childhood Integrated Data System (ECIDS) is a type of data infrastructure being developed in some states. An ECIDS integrates early childhood data, such as data at the child, family, program, and workforce level, collected from a variety of early learning services across different state agencies.¹ However, home visiting data are often excluded from a state's ECIDS. This can happen for reasons ranging from a lack of accessible data on all home visiting models in a state, to the fact that home visiting services exist across a variety of models with different funding streams and reporting requirements, to the siloed nature of home visiting data, which is often stored in separate, proprietary data systems.

As states work to develop ECIDS, leaders need to identify funding to adequately support data systems that are inclusive of home visiting so that these data can be used for future planning and policy development. For example, states have used funds to increase cross-agency data sharing in order to answer policy questions about children's access to services and to track children's outcomes.

The purpose of this resource is to share strategies and state examples that state leaders may use to plan for costs associated with integrating home visiting and other early childhood data. This resource also identifies potential funding sources for different stages of data systems planning and development, staffing and administration, and analysis and use.

Strategies for Funding Data Integration Activities

This brief presents the following four strategies for funding data integration activities, based on information collected from states through surveys² and interviews³:

1. Allocate funds for data system planning
2. Leverage large data infrastructures

¹ Early learning services includes: home visiting, early intervention (Part C), preschool special education (Part B, 619), state preschool, Head Start, child care services, and other health and supportive services for children birth through 8 years of age.

² 2018 Early Childhood Data Systems Survey, Early Childhood Data Collaborative, Child Trends

³ Phone interviews with ECIDS representatives in Georgia, Utah, Wisconsin, and Pennsylvania.

The State-level Home Visiting Integration with Early Childhood Data Systems (SHINE) project aims to support states in integrating their home visiting data with other early childhood data. SHINE is a project of the Early Childhood Data Collaborative (ECDC), which focuses on the development and use of coordinated state early care and education data systems. This resource was funded by the Heising-Simons Foundation.



3. Ensure sufficient staffing to support data integration work
4. Identify on-going funding for analysis and use of collected data

For each strategy, we first describe common costs of an ECIDS that may require additional funding that states leaders should consider. State examples are provided for each strategy to highlight how states are making use of funding opportunities to plan, develop, administer, and use their data systems. Possible funding opportunities are summarized at the end of the brief.

Strategy 1: Allocate funds for data system planning

Data system planning, a crucial first step in building an integrated data system, often requires funding to engage the right stakeholders. It involves working with key stakeholders to identify achievable goals, developing a plan with action steps for state leaders, creating a governance structure, engaging with external stakeholders such as home visitors and data vendors, and identifying funding for the development of the data system infrastructure. Without a clear vision for data integration and its governance, states run the risk of over- or underestimating their data needs.⁴ During data system planning, states should determine if funding exists to cover planning costs or if additional funding is needed. Some common planning activities with funding implications that should be considered include:

- Staff time dedicated to planning and convening stakeholders
- Logistics (i.e., technology, room rental, travel) of gathering stakeholder input
- Materials for disseminating information about the planning process
- Materials for gathering feedback about the data system
- Development of data governance groups (e.g., privacy and security committee, home visiting consortium, etc.)

States should include the perspectives of home visiting stakeholders because these groups will help inform how to best integrate data from home visiting with other early childhood data. For example, Utah's governance structure engages the state's Home Visiting Advisory Committee, which includes representatives from multiple state and county agencies, home visiting models, and nonprofit organizations.

Many one-time federal and foundation grants have short timelines for states to spend funds, making these grants ideal for data system planning activities. Funding sources that allow for planning time can also be beneficial because a state can use the opportunity to develop a unified data coordination plan to become a better candidate for future funding. To qualify for or to receive additional points in applications for larger grants, states are required to have a clear sense of the purpose and intended uses of their data system. For this reason, states that need funding for strategic planning or developing research questions should try to identify opportunities early.

⁴ For more guidance about planning a data system that meets a state's needs and goals, see *Developing Policy Questions to Guide Integration of Home Visiting and Other Early Childhood Data* available at <https://www.childtrends.org/publications/developing-policy-questions-guide-integration-home-visiting-other-early-childhood-data>.

Georgia used federal funding through the Child Care and Development Fund⁵ (CCDF) and Race to the Top Early Learning Challenge⁶ (RTT-ELC) to develop and expand their ECIDS, known as Cross-Agency Child Data System (CACDS). Specifically, Georgia used RTT-ELC funds to expand the amount of data collected by CACDS and develop a public-facing website. Part of the CACDS expansion included strategic planning to integrate home visiting data. Including home visiting data as a grant deliverable helped to get key decision makers involved in order to move planning forward. In addition, the grant's short timeline created urgency for the work to happen sooner than it would have without the federal funding. Following the RTT-ELC grant, in 2018, Georgia requested funding for CACDS in their Preschool Development and Expansion Grant (PDG) application⁷ to assess additional data needs and identify modifications and upgrades for CACDS.



To learn more about Georgia's CACDS go to: <http://www.gacacds.com/>

Strategy 2: Leverage large data infrastructures

Leveraging infrastructures from existing state integrated data systems is a strategy for reducing the cost of building an ECIDS that incorporates home visiting data. The startup phase of developing an integrated data system often involves the largest costs, such as those associated with the technological and staff resources needed to manage and govern the data system (e.g., data management software and server costs, license fees, information technology staff). States with an established State Longitudinal Data System (SLDS), ECIDS, or data warehouse have opportunities to leverage existing data system investments or ongoing funding to link home visiting or other early childhood data. SLDS grants can be used to support the integration of data from early childhood through the workforce. These grants have been used to support the integration of early childhood data in different states.

Because home visiting and other early childhood data are siloed across agencies, a large data infrastructure is needed to integrate these data. For example, Minnesota's Early Childhood Longitudinal Data System (MN ECLDS) pulls in early childhood data from the state's departments of health, social services, and education. Now that it is operational, MN ECLDS is an existing data infrastructure with an online reporting dashboard that can be leveraged for integration of additional programs as needed. Building off an existing infrastructure allows for sharing of the overall technology costs associated with data integration. Examples of costs that could be shared include:

- Technology costs such as hardware, software, servers, platforms, and websites
- Information technology (IT) staff for development, regular maintenance, and upgrades of the system
- Vendor costs of modifying/adjusting current vendor systems to support data linkages
- Program or agency staff to oversee the development of the system

⁵ <https://www.acf.hhs.gov/occ/occ-guide-to-ccdf-resources>

⁶ <https://www2.ed.gov/programs/racetothetop-earlylearningchallenge/index.html>

⁷ <https://www.acf.hhs.gov/occ/resource/pdg-b-5-initiative>

Wisconsin leveraged two federal infrastructure grants to conduct planning and build-out an ECIDS inclusive of home visiting. Funding from a State Longitudinal Data Systems (SLDS) grant was used to conduct a feasibility study to determine best practices around policy, funding, staffing, and technology needs for an ECIDS. Wisconsin implemented recommendations from the feasibility study using funding from the Race to the Top Early Learning Challenge grant (RTT-ELC). For example, staff in Wisconsin developed a file manager tool that allows for encrypted exchanges of data and produces reports uploaded to the WI ECIDS. In addition to building the infrastructure, funding was used to create a sustainable governance structure to make decisions regarding appropriate uses of data, as well as future data development, technology, and research needs. The current governance structure includes representatives from the Department of Public Instruction, the Department of Children and Families and the Department of Health Services. Because home visiting programs are housed in multiple agencies, this approach works well to facilitate data sharing to answer questions using data across departments.



To learn more about Wisconsin's ECIDS go to: <https://dpi.wi.gov/early-childhood/ecids>

Strategy 3: Ensure sufficient staffing to support data integration work

States undertaking data integration projects should avoid the common mistake of focusing on technology and forgetting about the people who will make it work. Effective staffing and administration are key to running an integrated data system. Without the staffing and planning needed to run the system, it is likely the data system will not meet stakeholders' needs. Because home visiting data may exist across various agencies and programs, proper administration is essential to ensure that data are linked correctly. This pertains not only to information technology staff, but also to program staff who oversee the governance of the system. While staffing and administration costs may seem straightforward, there are several unique costs associated with running an integrated data system:

- Staff to govern how data within the integrated data system are collected, housed, and used
- Information technology staff for trouble-shooting and ongoing maintenance
- Staff to coordinate data collection and communication with participating agencies
- Resources to support data cleaning/management for data sources

Maintenance of an ECIDS can be complex because it typically involves multiple agencies and programs. This complexity presents an opportunity for greater efficiency if costs can be shared across multiple state agencies (see *Strategy #2: Leverage large data infrastructures*). States that can share costs across departments of health, human services, education, and even business management often find that the burden of staffing and administering their ECIDS is reduced. For example, in Wisconsin the maintenance costs of the ECIDS are shared equally across the three lead agencies and are funded through each agency's budget. A total of 12 staff, four people employed by each lead agency, comprise Wisconsin's ECIDS Management Committee and Executive Sponsors. Wisconsin also specifically developed a sustainability plan to ensure that the ECIDS could exist without additional federal funding. Funding for ongoing ECIDS staff can also be supported through state appropriations, federal funding or research grants.

Pennsylvania's Enterprise to Link Children Across Networks (PELICAN) is funded with a combination of state and federal funds. Funding for staffing and administration comes from state agencies such as the Department of Human Services and the Department of Education and federal block grants such as the Temporary Assistance for Needy Families Block Grant, Child Care Development Block Grant, and Medicaid. Pennsylvania staffs their ECIDS through subcontractors as well as program and agency staff. For example, they use a vendor for business planning and design work for PELICAN. Additionally, program staff communicate regularly with IT and accounting staff to ensure that the braided funding mechanisms that support PELICAN are being used properly. This staffing structure allows program staff to communicate the agency's needs to accounting and IT staff, and non-program staff to identify and communicate the status of funding.



To learn more about Pennsylvania's PELICAN go to:

<https://www.pakeys.org/pa-early-learning-initiatives/pelican/>

Strategy 4: Identify ongoing funding for analysis and use of collected data

In order to reap the benefits of investing in an integrated data system, state leaders must ensure that the data are being used often. Once the data system is developed, states must maintain the everyday operations to ensure its quality and accuracy. This consists of adequate and appropriate staffing and training for use of the integrated data system. States that integrate home visiting data must pay attention to the data needs of individuals and communities interested in using that data in conjunction with other early childhood data. States may need staff who understand the uses and details of home visiting data. Though individual states will determine uses and timelines appropriate to their needs, all states should consider some of the following costs associated with the analysis and/or use of collected data by policymakers, administrators, researchers, educators, and families:

- Capacity to respond to data requests
- Documentation to support the use of data collected (e.g., data dictionaries, codebooks)
- Materials for disseminating information to stakeholders (e.g., reports, data tables, search tools)
- Staff to clean and analyze data
- Staff to create and update dashboards and tools to communicate data to stakeholders
- Staff to work with participating agencies on program and policy decisions regarding the uses and analyses of data.

States that use grant money to fund the startup of their data systems may find that funding runs out once it comes time to operate the data system. Some states may need to think creatively about how to fund this phase of managing their data system and may want to assess the capacity of their state's budget to sustain the system. For example, North Carolina's state budget provides funding for ongoing maintenance and support of their ECIDS, including two staff members who oversee the system, as well as IT staff. This planning process, including determining how much ongoing funding the ECIDS would need, was started during the first year of the data system development to ensure there would be no lapse in funding after the initial grant funding ended.

There are several additional funding strategies states may use to address the cost of data analysis and use of integrated data. Some of these include:

- Leverage internal research staff: For states that have research staff within their agencies, these teams can analyze the data to create reports and conduct research studies.

- Partner with research organizations: Some states collaborate with universities or research organizations that are able to support ongoing analysis and reporting needs.
- Apply for research grants: States may use research grants and funding for program administration to fund the work of staff who use data from their integrated data systems to understand the reach and effectiveness of government programs. For example, South Carolina used a research capacity grant from the Administration for Children and Families to integrate child care data with other health and social services data to answer questions regarding access to services. The state also has an internal research team that manages the South Carolina data warehouse and regularly responds to data requests from state policymakers, so they were able to leverage those resources as well.⁸

Utah's funding model uses federal and foundation grant money to support and enhance the use of their ECIDS. The development and initial maintenance costs were supported through the Early Childhood Comprehensive Systems Impact Grant, which paid for staff positions and contracts. Utah's largest cost associated with their ECIDS—a matching system that allows for tracking of individuals across the data warehouses of multiple programs and agencies using a unique identification (ID) number—is a key component to being able to effectively use the data collected. Utah used funding from the Medicaid Implementation Advance Planning grant to fund the development of their matching system. After developing their ECIDS and matching system, Utah worked on how to leverage funds to be able to use the linked data. For instance, Utah leveraged foundation funding from the State-level Home Visiting Integration with Early Childhood Data Systems Initiative (SHINE)⁹ and ECDataWorks¹⁰ to develop a community assessment tool that will allow the state to more easily display data collected in the ECIDS.



To learn more about Utah's ECIDS go to: <http://earlychildhoodutah.utah.gov/ECIDS.html>

Funding Opportunities to Support Data Integration

There is an array of funding sources for states to consider for data integration of home visiting and early childhood data. Table 1 below provides a sample list of funding mechanisms that states can use to support this work (some of which were mentioned in the state examples above). A common theme across funding opportunities is the broad support of early childhood health, learning, and development. Rarely do grants focus only on the development and maintenance of ECIDS, which is perhaps why states reported drawing funding from multiple sources to develop and maintain ECIDS. As such, when seeking funding to develop integrated data systems, it is important to pursue grant opportunities that include early childhood services more generally in their scope rather than solely grants that explicitly fund data systems. For example, the Early Childhood Comprehensive Systems Impact Grant focuses on tracking progress indicators across early childhood services to improve systems and could also be used to integrate data to support this goal.

⁸ https://www.acf.hhs.gov/sites/default/files/opre/opportunities_state_agency_research_partnerships_admin_6_18_18_b508.pdf

⁹ Funded by the Heising-Simons Foundation

¹⁰ Funded by the W.K. Kellogg Foundation

Table 1. Examples of Funding to Support Early Childhood Data Integration

Grant	Description
Individuals with Disabilities Education Improvement Act (IDEA)	The IDEA broadly aims to improve educational opportunities for children with disabilities. States can apply for a number of discretionary grants under IDEA, each with the goal of better serving children with disabilities. Through these grants, many states have taken the opportunity to design or improve their data systems.
Maternal, Infant, and Early Childhood Home Visiting Program (MIECHV) under the Affordable Care Act	The goals of the MIECHV program are to improve maternal and child health, prevent child abuse and neglect, encourage positive parenting, and promote child development. States can use MIECHV funding to improve their home visiting services as well as the data systems that support those services.
Statewide Longitudinal Data Systems (SLDS)	The SLDS grant funds states in the design, development, and implementation of longitudinal data systems from early childhood to workforce. This federal grant is an excellent source of funding for states looking to create or improve their ECIDS since its intended goal is supporting data integration efforts.
Preschool Development and Expansion Birth through Five Grants	These grants support states in conducting needs assessments and strategic planning designed to improve parent choice and expand states' mixed-delivery early childhood systems. Designing and improving data systems may be a part of states' strategic plans as they look to improve delivery of services that span multiple types of child care providers, federal and state child care programs, and home visiting services across different sectors.
Early Childhood Comprehensive Systems (ECCS) Impact Grant	The ECCS Grant aims to improve early childhood systems and improve outcomes for children. Additionally, the grant aims to develop a set of core indicators and monitor progress across ECE services. Each grantee state must have at least one community receiving MIECHV funding. States interested in using their ECIDS to track key ECE indicators may be interested in this funding mechanism.
Temporary Assistance for Needy Families (TANF) Block Grant	The purpose of TANF funding is to help families gain self-sufficiency. States may use TANF funding to support child care subsidy programs and generally support early childhood systems and delivery of services.
Child Care and Development Block Grant	CCDBG funding is the main federal source for supporting low-income families in receiving child care services. CCDBG funding also supports the improvement of child care quality. Data collection to document access to services and quality initiatives can be used be leveraged with other data integration efforts.
State Systems Advance Planning Document (APD) Process	The APD process oversees how states get approval for federal assistance in covering the costs of implementing information technology projects. As such, the APD process is not specifically designed to support early childhood but instead focuses more on improving state data systems. The process is under the umbrella of three federal agencies: Office of Child Support Enforcement (OCSE), Administration for Children and Families (ACF), and Department of Health and Human Services (HHS).

Grant	Description
Foundation funding	Private foundations may have mission statements that support early childhood education and systems development. Foundation funding can be used for a variety of data integration tasks, from planning and development to creating data dashboards and piloting innovative approaches to document program outcomes.

Conclusion

States can use multiple strategies to fund the integration of home visiting data with other early childhood data. It is important for state leaders to first identify funding to develop a strong data system plan. That plan can then guide decisions to leverage existing data infrastructures, determine appropriate staffing needs, and establish resources to analyze and use integrated data. The timeline or scope of funding sources can make it hard to identify a single funding mechanism to develop and maintain data systems, so planning for sustainability and continued funding is essential.¹¹

¹¹ For suggestions on ways states can start the process of integrating home visiting data with other early childhood data see *One Step at a Time: The Benefits of an Incremental Approach to the Integration of Home Visiting and Other Early Childhood Data* available at <https://www.childtrends.org/publications/one-step-at-a-time-benefits-of-incremental-approach-the-integration-home-visiting-and-other-early-childhood-data>.