



SLDS Early Childhood Planning Guide





Table of Contents

Introduction	2
Section A: Defining the Purpose	4
Section B: Developing a Plan	7
Section C: Identifying the Current Capacity and the Need	10
Section D: Identifying and Engaging Stakeholders	13
Section E: Defining and Identifying Data Governance	16
Section F: System Design Planning	19
Section G: Planning to Use the Data within the SLDS	23
Section H: Sustainability	25

Appendices

Appendix A: State-Reported Challenges and Solutions	27
-----------------------------------------------------	----



Introduction

Regardless of where states are in the process of integrating early childhood (EC) data into their statewide longitudinal data system (SLDS), the need for strong project planning is clear. Some states are at the nascent stages of project planning, while others are revising their current systems and refining the process to gather and use quality data to inform decisions.

What is the Purpose of the SLDS Early Childhood Planning Guide?

The *SLDS Early Childhood Planning Guide* is a supplemental resource for the *SLDS Early Childhood Self-Assessment Tool*. The Self-Assessment Tool was created to help states assess their needs as they integrate EC data into an EC data system and the P-20W SLDS. The sections of the Planning Guide align with the sections of the Self-Assessment Tool (see Figure 1), and offer practical suggestions and resources for each step in the overall process of integrating EC data into an SLDS.



Figure 1. The eight sections of this document and the Self-Assessment Tool



The states that collaborated on this document are in different stages of incorporating EC data into the SLDS and have generously shared their experiences and resources to help all agencies and programs benefit from lessons learned. The first of its kind, this document is a comprehensive guide for states that are planning and developing systems that will integrate EC into their SLDS and have identified a need from their self-assessment.

Where do we begin?

First, conduct a self-assessment using the *SLDS Early Childhood Self-Assessment Tool*. Gather a team that works on integrating EC into the SLDS or, if you are at the beginning stage, establish the leadership team that will drive the planning of this effort.

Once a team is in place, work through the EC Self-Assessment Tool. This planning guide will serve as a resource if a state determines that it wants to enhance a project, or if a state needs assistance in a certain area. If further assistance is needed, states should reach out to the State Support Team (SST) by logging on to GRADS360° at <https://nces.grads360.org> and filling out a request form under the Request Support tab. To request a GRADS360° account, simply email a request to support@sst-slds.org.



Before We Begin:

What is the difference between an early childhood data system/SLDS and the P-20W SLDS?

The difference between an early childhood data system/ SLDS and a P-20W SLDS is, primarily, the sectors included. An EC data system is designed to bring together multiple programs or agencies. The questions the EC data system is designed to answer may be very different than the questions of a P-20W system and, therefore, the data needed in each system may be different. In many states, these systems are being designed simultaneously, but it is important for states to consider the similarities and differences of each system to leverage the commonalities and share best practices or lessons learned.

Section A: Defining the Purpose

Defining the purpose for the inclusion of EC data in an SLDS involves developing a clear mission and vision for the work of the SLDS. This includes identifying the audiences who will be served; defining what EC data (program, health, assessment, etc) are to be included; deciding who is leading the effort; determining how the end user might use EC data to inform decisions or change behaviors; gaining support from key leadership; and developing coordination across and between agencies, programs, data systems, and multiple funding streams. While all of these steps pose challenges, addressing these key components at the forefront will ensure that the next steps are strategic, coordinated, and smooth.

To facilitate this process, a state should consider using the framework of its Early Childhood Advisory Council (ECAC), whose membership is both diverse and comprehensive. Alternatively, some states develop a data governance group that includes leadership representation. This group may be a committee of the state's ECAC, or may be a separate group designed to provide leadership to the planning process. Ultimately, include partners in the process who will most meaningfully and feasibly assist the state in meeting the vision, mission, and purpose of including EC data in the SLDS.

A. Did your state document why it wants to include EC in the SLDS?

Having a clear mission and vision statement that underscores the reason for including EC data in the system is fundamental to the project's success. These statements are the pivot point for all future discussions, and serve as reminders to stakeholders of the reason the work is being done. This is particularly valuable when important project decisions need to be made. As these statements are being developed, a state should give careful consideration to the questions that agencies, programs,



and parents value with regard to data collection, analysis, and use. These statements should be reiterated during meetings and events to remind everyone of the reason for the work.

B. Did your state document *what value* these data will bring to the state?

It should be made clear very early on in the process what exactly the data system will provide, its significance, and how this system will promote the wellbeing of young children. Delineate this value in terms of the many users who might benefit (e.g., parents, programs, state administration, researchers, and children). These value statements will contribute to a communication plan tailored to the needs of a state's audiences and help clarify the benefit of including EC data in the state's SLDS. Ultimately, the statements will also help manage expectations among stakeholders.

C. Did your state document *whom* this data system will serve?

Along with mission, vision, and value statements, a state should take the time early on to identify the specific populations it intends to serve with an EC data system. The needs of the populations a state intends to serve will drive the design and implementation process. For example, a system tailored to teachers will look different from one tailored to serve the needs of researchers. To help initiate this discussion, look to the SST's resource to help determine whom the data system will serve. Also, states need to ensure that the data available to include in the EC SLDS is applicable/useful to the audiences they want to serve in terms of content, accessibility, and timeliness.

D. Did your state document the essential questions intended to frame the functions of the data system?

Essential questions usually fall into four general categories:

- Policy
- Program/Operational
- Research
- Instruction

A state may select one category or multiple categories as needed to align with the purpose and meet the needs of the appropriate end user. If multiple categories are selected, consider a phased planning approach to meet the needs of each group over time and show progress during each phase.

The Early Childhood Data Collaborative: Key Policy Questions

1. Are children, birth to age five, on track to succeed at school entry and beyond?
2. Which children have access to high quality early care and education programs?
3. Is the quality of programs improving over time?
4. What are the characteristics of effective programs?
5. How prepared is the workforce to provide effective education and care for all children?
6. What policies and investments lead to a skilled and stable early childhood workforce?



The process of developing these essential questions takes time and participation from a diverse group of potential end users. A great resource that is often overlooked is the contribution of researchers. Their presence during this process will help the state ensure that their questions are in fact answerable, relevant, and written for the intended outcome. Sample state questions have been included later in this section. *Please note that some states call these questions “policy questions,” but for the purpose of SLDS planning, states are encouraged to use the term “essential questions,” as there are more than just policy questions to consider.*

E. Did your state document the intended outcome(s)?

Simply put, did the state identify in writing what it wants from an EC SLDS? In addition to determining the overarching purpose, the group should document the expected result or effect of integrating EC data in the SLDS. That is, how will users make decisions or behave differently as a result of the information provided by the SLDS? When determining the desired outcomes, be mindful of the audience(s) you are serving and what will serve the audience’s best interest. The outcomes will remind project leadership and stakeholders where the work is leading, and what the end result(s) of the state’s documented mission, value statement, essential questions should be.

For more information:

- SST: Identifying End Users
- [Early Childhood Data Collaborative Policy Questions](#)
- SST Document: How to craft a high quality vision and mission statement
- [Developing P-20 Questions: Characteristics and Outcomes](#) (WA)
- [Traveling through Time: The Forum Guide to Longitudinal Data Systems- Planning and Developing an LDS](#)
- [Prioritizing Early Childhood Data](#) (Webinar)



Section B: Developing a Plan

Once the purpose has been established, a specific project plan should be created. A plan typically includes an analysis of the capacity of agency data systems, a list of key roles and responsibilities (including project sponsor, project manager, and person responsible for accomplishing each deliverable), an assessment of the knowledge base among pivotal leaders, an analysis of existing state legislation, a timeline with major milestones and dates, a list of funding sources, accountability measures to ensure the lead can move the project along, a communication plan, a state inventory of EC programs, and other components as the state/agency deems necessary.

A. Does your state have a project plan to incorporate early childhood data into the SLDS?

It is not always clear who should lead the planning process or what EC programs should be a part of the planning. Some states have referenced state legislation to plan, some have relied on precedents or practices of other states, and some have conducted state inventories or held data roundtables with EC programs to identify existing EC data collection practices in their state. Regardless, diverse representation is essential. As planning moves forward, it will become clear which agencies and programs will be most actively engaged and when, so expect representation to be dynamic. This also demonstrates the flexible nature of the SLDS, so adjustments can be made over time as new requirements are established.

When developing the state's project plan, be sure to include other sectors, such as public school education (K12), postsecondary, workforce, and health. If the state has a P-20W Council, consider linking efforts. Remember that data roundtables are a prime time to include other sectors.

Do keep in mind that legislative staff can be an important resource during planning. They can assist states in understanding and defining the impact of EC legislation, and in the promotion of legislative changes when needed. They can also assist in the sustainability of the EC SLDS/P-20W SLDS: if legislators/legislative staff are on board with the direction of EC, they are more likely to support it when state budget appropriations are needed.

The project plan should be developed early in the planning process and should be flexible enough to meet unexpected challenges. It is not necessary to have a perfect project plan, or to know every step necessary for the process, but allow for changes as needed throughout the development of the EC SLDS. At a minimum, the project plan should include goals, objectives, key deliverables, a timeline, the resources needed, and who is accountable. A solid project plan should also address the “Why,” “What,” “Who,” and “When” (see Figure 2, next page.)

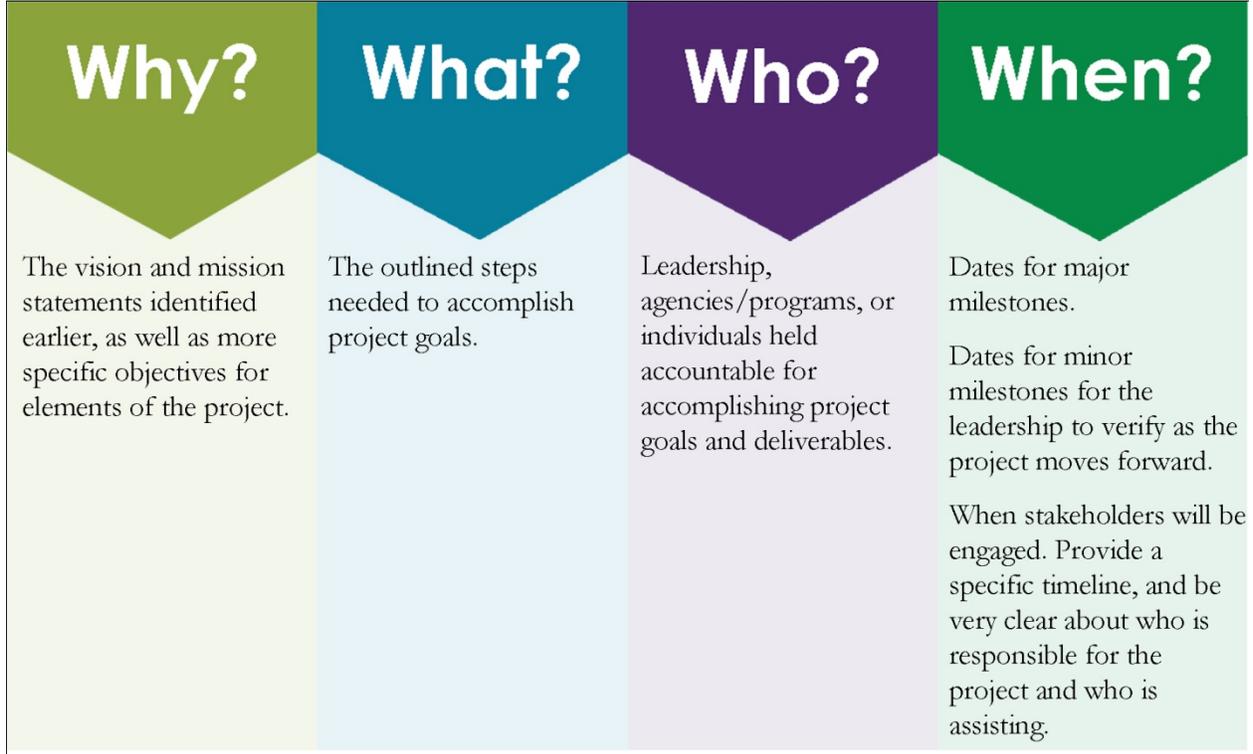


Figure 2. The key sections of a project plan for integrating EC data into an SLDS.

There is a wealth of resources available for planning, but it is important to find one that can be tailored for various stakeholders depending on their needs.

B. Has the project plan been communicated to all the stakeholders?

Communication is central to the success of any project. All project stakeholders should be informed about the project plan and should have regular updates regarding its progress. Be sure to include as part of the project plan the person or agency responsible for reporting on its progress.

For more information about identifying stakeholders, please see Section D.

C. Does your state have a communication plan?

A plan for both formal and informal communications is important. States should not rely solely on committees and meetings to communicate—relationship building is an essential part of success! Throughout the planning process, communication will occur (both formally and informally) across many different types of stakeholders. Devising a communication plan is as important as developing the overall vision. Educate and engage stakeholders regarding how data will be used to serve the purpose outlined in the vision and mission statements. Additionally, ensure there are frequent opportunities among stakeholders to discuss and respond to any project challenges that may arise.



Steps for creating a communication plan include:

- identifying the stakeholders with whom the state will need to communicate;
- identifying the means of communication;
- identifying what should be communicated; and
- identifying responsible parties and dates and accountability measures.

Much like a project plan, a communication plan should be outlined and include timelines. The communication plan should also identify steps to be taken to develop signature slides, presentation materials, and other products that will clearly convey the vision and mission statements.

D. Has the communication plan been shared with all the stakeholders?

Again, like the project plan, success is contingent upon how well the state keeps stakeholders engaged in the process. Be sure that those responsible for implementing the communication plan have full access to the communication plan and receive regular updates regarding its progress. These responsibilities should be delineated in a state's plan.

For more information:

- Early Learning Challenge Fund - [RTT applications](#)
- [Traveling through Time: The Forum Guide to Longitudinal Data Systems- Planning and Developing an LDS](#)
- Data Roundtable template (Oklahoma)- we have this already
- Project planning template (we have from Jim)
- [Creative Solutions to Defining the "P" in "P-20"](#) (Webinar)



Section C: Identifying the Current Capacity and the Need

“Capacity” refers to the ability of the state or agency to take on the task of including EC data in the SLDS, and the degree to which it can. Assessing capacity may involve determining the role or function of state agencies in the process of planning and implementation, and/or current state needs for successful implementation. In a nutshell, identifying capacity requires putting a large wish list through a vetting process to develop a realistic and achievable scope.

A. Did your state identify all early childhood and development programs in the state and the agencies involved?

Assessing what EC programs exist in the state and what kind of data is being collected can be a lengthy process, so a partnership with the State’s ECAC is a great help. In fact, such an assessment might already be available—many ECACs have undergone an inventory of this type because of responsibilities outlined for them in federal legislation.

Start by thinking about all programs that provide EC services or administer EC programs. Programs may include:

State Preschool or Pre-Kindergarten programs	Head Start or Early Head Start
Part C - Early Intervention	Part B - Preschool Special Education
Center-Based Child Care	Family Child Care
Private Early Childhood Programs	Home Visitation
Early Literacy Programs	Family Support Programs
Early Childhood Professional Development Systems	Licensing or Accreditation Systems
Community-Based Early Childhood Networks (such as the Smart Start North Carolina Model)	

B. Did your state identify opportunities and challenges in this work?

Identifying challenges up front allows the state to begin working towards solutions early in the process. Consider the current ways that data is collected and used, and how the state’s efforts could reduce burden and redundancies. Engage stakeholders around both opportunities and challenges, as they will often have great ideas for solutions. Also consider opportunities for partnerships with agencies or programs whose resources would benefit this project. Use Appendix A of this guide to help identify potential challenges and possible solutions shared by other states.



C. Does your state have legislation impacting your ability to include early childhood data in the SLDS?

Many states have legislation impacting how data can be collected, where it can be stored, and who has access to it. During the planning phase, research all possible legislation that could impact the integration effort. Sample legislation has been included in this planning guide.

If the state does not have legislation, and this serves as a hindrance, develop relationships through the appropriate channels to begin the process of crafting legislation that will support this project. Otherwise, use the lack of legislation as an opportunity to develop the system, but involve policymakers from the beginning so there is buy-in for the project and it can be sustainable in the future.

D. Did your state identify what early childhood funding streams (federal and state) collect and report data that could be linked to the SLDS?

As mentioned in question A, many federal and state EC programs collect and report data that could potentially be used in the SLDS to answer the essential questions. The state may also decide that some funding streams beyond federal and state dollars, such as those supported by philanthropic dollars, may be a source of data worthwhile to include in the SLDS. It is important to remember that not all data needs to be included in the SLDS; there should be specific reasons and processes for adding elements. *For more information, see Section F.*

State Spotlight: Maryland

Why did your state decide to include EC data in its SLDS?

“Early childhood experiences form the foundation of future and personal development and academic performance. To evaluate the latter properly, one should understand the former.”

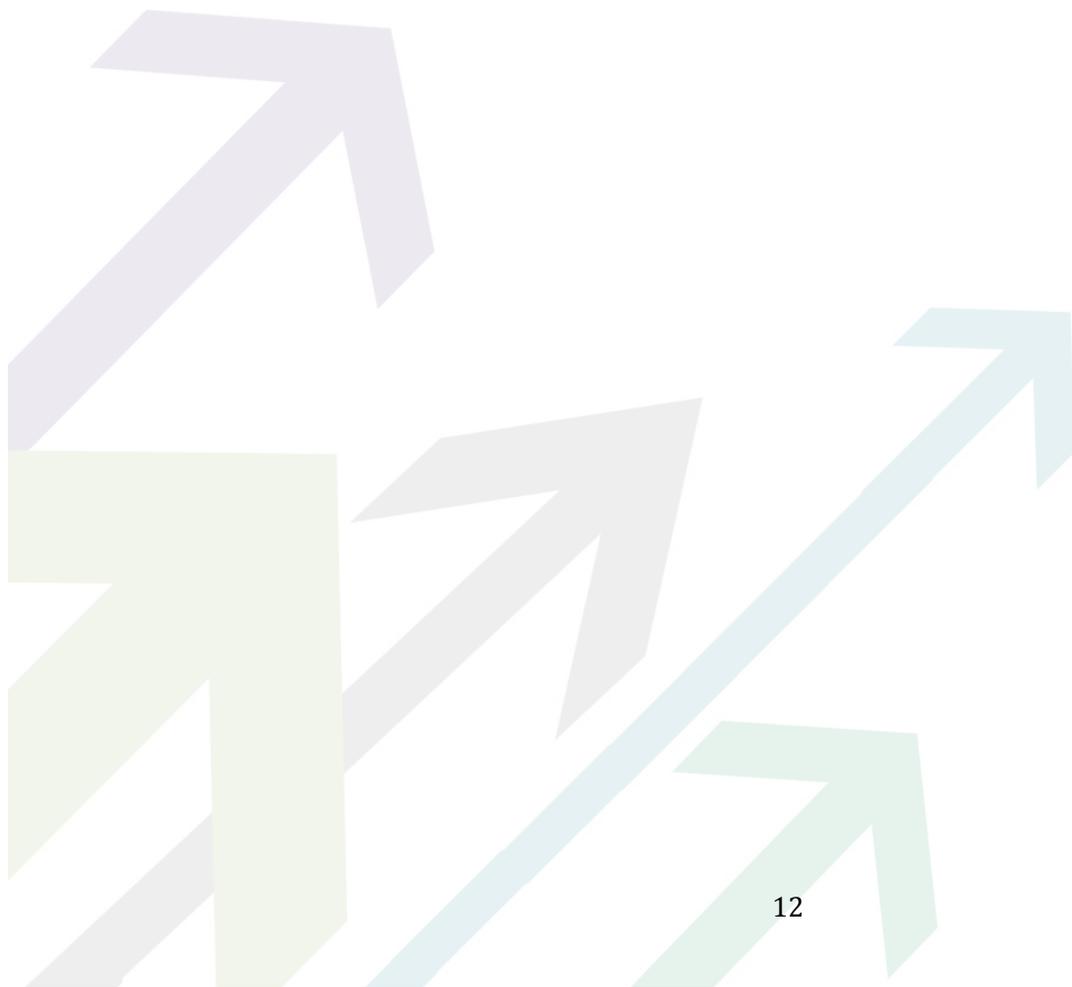
E. Did your state identify what other early childhood programs within the state have the capacity to collect data but are currently *not* using, reporting, or sharing the data?

Some programs may collect data that is currently unusable because of its lack of alignment or because of data quality, among other problems. Still other programs may collect data, but not report the data. Be sure to use the inventory of EC programs to identify potential partners for including EC data in the SLDS, and/or conduct a data roundtable session so that other EC programs have the opportunity to identify their data collection processes. Remember that just because a program collects data does not mean that it can be shared or should be included in the SLDS. Use the mission, vision, and purpose of the project to define questions and ultimately collect relevant data from multiple programs and/or agencies.



For more information:

- [Traveling through Time: The Forum Guide to Longitudinal Data Systems- Planning and Developing an LDS](#)
- [Publication of Early Childhood Data & its Interface with Early Childhood Advisory Councils](#)
(Webinar)





Section D: Identifying and Engaging Stakeholders

Planning for EC data system development cannot be accomplished without the right stakeholders engaged in the work. However, with so many different types of EC programs and so many different funding streams and sources for EC data, identifying the right stakeholders can be a real challenge. This section outlines some key questions to consider when identifying and engaging stakeholders.

A. Did your state identify who has been or will be included in the conversation from each *department and program* administered within the state?

To begin this process, the state should consider how it defines “stakeholder,” then use the state’s inventory of EC programs (*see Section C*) and resources of the State’s ECAC to identify those stakeholders essential to the project. Be sure to include researchers in the planning process! Researchers, who are often overlooked stakeholders, may offer excellent support for creating the state’s essential questions. Their feedback helps to ensure that the state’s EC essential questions are in fact answerable in the ways that will be needed for the various end users.

Determine the key leaders whose involvement is critical to the project. Ensure that they fully understand the purpose of the project and can serve as spokespeople to communicate the vision, mission, and purpose of including EC data in the SLDS. Identify the necessary agencies whose partnership is essential, as well as the staff who are equipped and trained to do the actual work of implementation. Also consider the funding sources and policy makers.

In addition to identifying stakeholders, roles and responsibilities should be clarified, as well as strategies for “buy-in.” This is not to mean that *all* stakeholders are necessary—the ability to manage and limit stakeholder input is as important as diverse representation and knowing when to bring in the right people at the right time. The state should address these kinds of questions when considering different stakeholders:

Do they contribute data?

Are they users of data?

What is their function and role?

Is there a cross-section of state and program stakeholders?

Are they stakeholders or partners? Be aware of the difference (a partner is a person or organization associated with another in some action or endeavor and who shares in both the risks and rewards of the joint effort; A stakeholder is a person or group having an investment or interest in an enterprise.)



Most importantly, be clear about the state's expectations of stakeholders and what it will provide them in return for their engagement.

B. Did your state document the process and reason for selecting and engaging the identified stakeholders?

Documenting the process for selecting various stakeholders provides transparency around the stakeholders' value in the project, and also explains why certain stakeholders were selected to participate. Additionally, when others need to be added to the stakeholder group, a process for adding stakeholders will already be in place, allowing the project to move forward without interruptions. As the plan is reviewed, be mindful about other stakeholders who are not currently engaged but who should be, and take steps to secure their involvement.

C. Did your state identify *when and how* to engage specific stakeholders?

While it is necessary to include a variety of stakeholders, keeping them engaged—and engaged *at the right time*—can be a challenge. One way to keep the work flowing and productive is to think about how stakeholders will interact with one another. For example, separating policy and data groups can help streamline the process (but understand that they may need to be brought back together to establish what is needed and wanted for future project planning). Sometimes keeping these two groups together for the entirety of the process elicits frustrations: their roles are different, and the expertise from which the state will draw is meant for different purposes. This is one example of many of how different stakeholder groups may interact with one another.

Sometimes bringing on a new stakeholder may be unexpected (such as when a program is transitioning leadership), so a state should take into consideration how it will handle organizational change. It will become essential to develop signature slides that quickly and concisely speak to the vision, mission, and purpose, and to develop training materials for new staff or leadership. Keep in tune with changes in staff and leadership, and quickly acclimate new membership to the project plan.

Stakeholders need to trust the process, so responsiveness and timeliness are essential. Use technology to help—webinars, web pages, conference calls, electronic communication methods, and document servers can assist with collaborative planning. Give stakeholders dates and times when the communication team will deliver materials and publications. Build trust among these groups by sticking to the state's project plan and facilitating ongoing communication. Above all, listening and prompt follow up are key.



D. Did your state identify stakeholders who will prioritize the needs of the state, and how these decisions were made?

Transparency regarding how the state identified the key leadership team, who determined the state's list of prioritized needs, and how these decisions were made will serve the project well in the long run. The broader stakeholder community wants to know and be able to trust that the process is fair, transparent, and free of political gain, and that the well being of the state's young children is central to the decisions made by the team. Without this trust, the necessary buy-in for continued work and for full implementation of the project may be limited. As the list of prioritized needs is established, consider also how key decisionmakers can be more fully informed about the complexity of a broader cross-system analysis, necessitating more intentional collaboration and elimination of "silos."

E. Did your state engage the state's Early Childhood Advisory Council in this work?

The state's ECAC was designed with the purpose of providing a centralized coordinating body for strategic planning and EC data analysis. Because federal legislation articulates the diverse representation of the councils, an ECAC provides a "ready made" stakeholder group. Many ECACs have already developed or are in the process of developing a data workgroup/committee whose role is to specifically look at how data can be coordinated among EC programs. The federal legislation lists questions for which ECACs are accountable for answering annually to the state's Governor, along with recommendations for future EC state investments.

State Spotlight: Delaware

What is the state's intended outcome of including EC data in its SLDS?

"We see the ability of the effort to provide a retrospective analysis of what we have done and initiated – and the impact of those activities on the hopeful success of children."

For more information:

- [Stakeholder Communication: SLDS Best Practices Brief](#)
- [Traveling through Time: The Forum Guide to Longitudinal Data Systems- Planning and Developing an LDS](#)



Section E: Identifying and Defining Data Governance

Naturally, the concept of ‘data governance’ must be understood before a state can identify the data governance required to integrate EC data into an SLDS. In general, data governance refers to the overall management of the availability, usability, integrity, and security of data. A sound data governance program includes a governing body or council, a defined set of procedures, and a plan to execute those procedures.

Data governance is both an organizational process and a structure. It establishes

responsibility for data, organizing program area staff to collaboratively and continuously improve data quality through the systematic creation and enforcement of policies, roles, responsibilities, and procedures. Data governance is necessary for creating clear roles and responsibilities for each member of the project team.

For the purposes of this Planning Guide, data governance can be both horizontal (within the EC sector) and vertical (across EC, K12, postsecondary, and workforce sectors).

A. Does your state have a data governance structure that includes early childhood?

Many states are trying to create both an EC SLDS or consolidated data system and a P-20W SLDS, so the first step in this process is to determine whether the scope of effort the data governance will support EC data governance, P-20W data governance, or both simultaneously. If a state already has a data governance group, the team should meet with the group’s coordinator for insight into the process, roles, and membership. Develop a partnership with the coordinator to leverage work and resources already in place.

Next, bring all involved stakeholders to the table and discuss why data governance is important. Often states and agencies include key leadership at the executive level, director-level representatives from each program area, the program data stewards, and IT members involved in the project. The key is to design a committee structure that meets the needs of the state. Generally there are two types of committees: 1) executive/policy and 2) data management. The executive/policy committee is a group of the executive leadership in the state. Sometimes these are agency directors, governor’s advisors, and program directors. They are responsible for the vision of the project and the questions

Initial Steps to Establishing Data Governance

- Identify participating agencies/programs
- Establish executive sponsors and data policy committee
- Develop and enact a data governance policy
- Identify data governance coordinator
- Identify data stewards/managers for each agency or program
- Identify other members of data management committee (e.g., IT representation)



that guide the work of the SLDS. The data management committee is comprised of the program area data stewards who are responsible for the data, and IT representatives who are responsible for the technology infrastructure that collects, stores, and reports the data. Identify a data coordinator to manage the work of the various committees, and make sure that all work is documented and shared with the entire governance group.

If a state is developing a P-20W SLDS, the team should reach out to the EC representative on that committee. This will help in coordinating data governance both horizontally and vertically. If a state has a P-20W Committee but does not have EC representation, the team should work through the appropriate channels to ensure adequate representation for EC is included. Make sure to coordinate efforts from the horizontal and vertical data governance teams.

A Note on EC Data Governance and P-20W Data Governance

A key distinction that needs to be made early is what the EC SLDS Data Governance committees are responsible for deciding, and what the P-20W SLDS Data Governance committees are responsible for deciding. As an example, when a decision or request comes in for something intra-sector (EC SLDS), then that is handled by EC SLDS Data Governance. But if a decision or request comes in for inter-sector (P-20W SLDS) then it is taken to the P-20W SLDS Data Governance committees.

“This separation makes it clear to all partners that intra-sector analyses are best understood by that sector, and inter-sector analyses are best understood by those focused on P-20W work. It also assists in communicating to those who want data who they should go to.” (WA State)

B. Does your state have a data governance policy and manual that includes the outlined items (mission, vision, objectives, membership, responsibilities, decisionmaking process)?

A data governance policy demonstrates state and agency leadership’s acknowledgement that data is a critical resource, as well as their commitment that it will be managed and used as such in support of the EC agencies’ mission and strategic plan. One benefit of a data governance policy is that all participating agencies and/or program areas are more likely to understand their commitment to the work. The policy provides strategic direction by creating a framework for decisionmaking about and accountability for how data will be managed within early childhood.

A data governance manual should be created from the data governance policy to help each committee establish its purpose and processes moving forward. *(The SST has an example and template available to help start the conversation, which includes questions to help the group decide on the mission, purpose,*



decision making structure, and other key committee planning items.) Finally, the data coordinator compiles the responses into one data governance manual.

C. Did your state define the role of the state's Early Childhood Advisory Council in data governance?

As addressed earlier in this document, the state's ECAC is federally legislated to serve as a coordinating body for strategic planning and data analysis. Members of this council have also been identified in federal legislation, so at a minimum, any state involving the state ECAC will have a "ready-made" and diverse stake holder group representative of many state agencies.

A good contact person for initiating this discussion will either be the council's director, a data committee chair of the council, or the state's governor's office. The National Governor's Association and the Chief Council of State School Officers have both provided extensive support to ECACs, and can also help ensure the right connections are made within each state to engage them in this work.

For more information:

- [Traveling through Time: The Forum Guide to Longitudinal Data Systems- Book III: Effectively Managing LDS Data](#)
- SST Data Governance Policy Guide
- SST Guide to Creating Data Governance Manual
- [Findings from the National School Readiness Indicators Initiative: A 17 State Partnership](#)
- [State Advisory Councils](#): a one-page primer

State Spotlight: Utah

Why did your state decide to include EC data in its SLDS?

"Key data from the Early Childhood Data Integration Project will be integrated into the state's longitudinal data system being developed by the Utah Data Alliance, resulting in a usable source of data from early childhood through elementary, secondary, and postsecondary education and into the workforce. This will enable agencies and programs to track long-term outcomes from early childhood investments, and make better-informed policy and resource decisions.



Section F: System Design Planning

When thinking about SLDS and integrating EC data, it is natural to want to jump to the IT element: system design. So why is system design the sixth section of this guide? Because the mission, goals, objectives, and users of the SLDS must be clearly identified and articulated first, so that the data system can be designed to serve them. If system design is solely an IT effort devoid of critical input from program areas, design decisions might be made that may prohibit the systems from ultimately meeting the objectives of the organizations and users involved. However, once the preceding decisions have been made, IT leadership and support are crucial for success.

IT is a great partner in this work, as the system needs to be designed to meet the needs of the state. Designing a system that can follow a child's progress longitudinally requires much thought and sensitivity across various sectors. This section outlines the various things to consider when thinking about system design.

A. Has your state an implementation model to reflect the needs of the state?

When planning the model for the early childhood data system it is imperative that it align to the needs of the state as mentioned in the introduction. Once the vision for the data system is clear then the decision about the early childhood data system model can be considered. There are two prominent models to integrating EC data into an EC data system or into the P-20W SLDS: centralized and federated.

- Centralized: In general, EC data from across all participating programs and agencies is initially consolidated into one database or data warehouse. Once in a consolidated EC data system a state can then feed into the P-20 SLDS using only the appropriate data needed at the P-20 level
- Federated: In general, EC data from across all participating programs and agencies is not consolidated, but feeds from each program or agency into a P-20 SLDS directly from each data source.

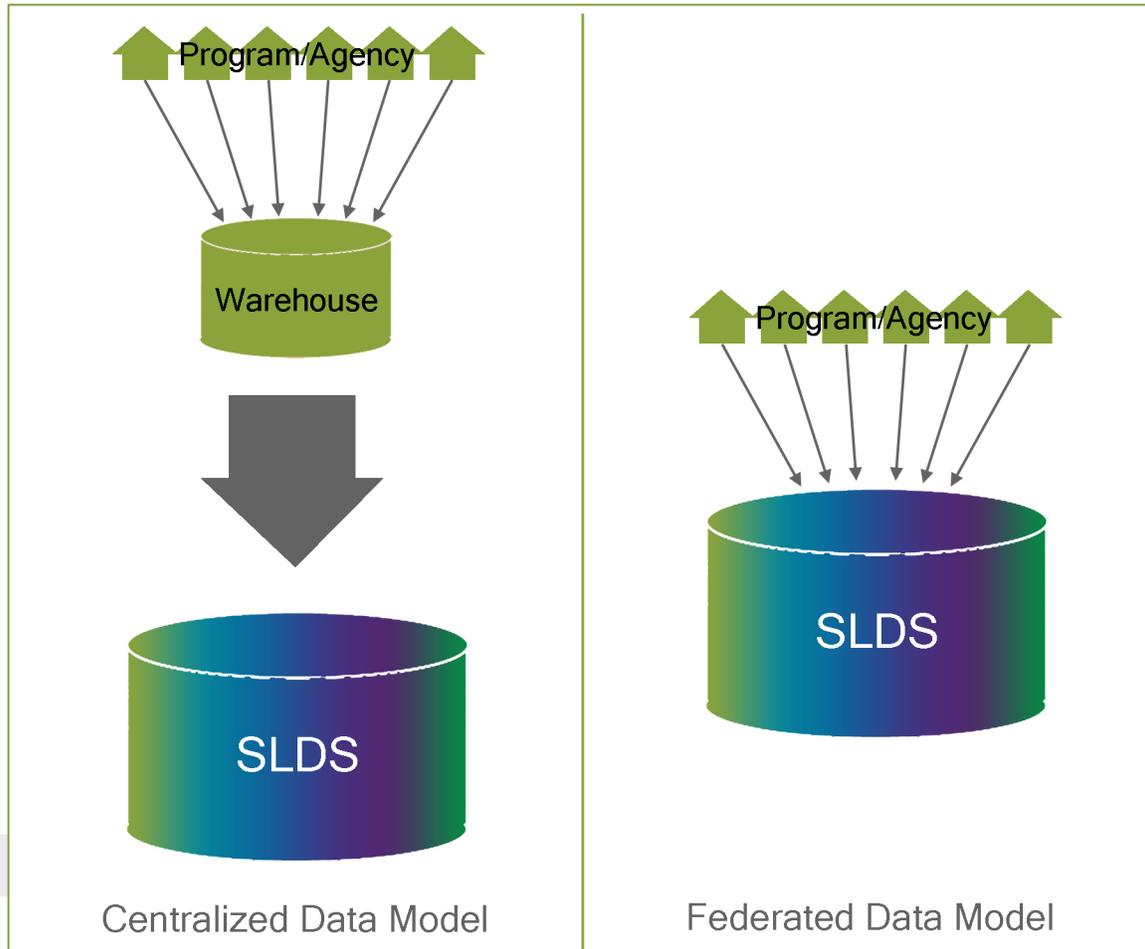


Figure 3. Centralized and federated data models.

It may be helpful to build off of existing state systems (legacy systems). The legacy system may not be sufficient to meet the project’s goals, and a new system will need to be designed. However, some states have found that building upon what already exists can be efficient, effective and timely, both from a technology infrastructure and organizational change management perspective. Efficiency is key when thinking about systems, as it takes time to develop a system and train the necessary staff.

When designing a system, one of the early critical issues to address is the assignment of unique IDs. It is essential for states to think about how to identify a child and match that child longitudinally through other sectors, such as K12 and postsecondary. Some states use the existing K12 identifier and assign it to children in all participating EC programs; others use their own unique EC identifier and create a temporary linkage via an external match routine so that the privacy and confidentiality of the data are preserved and any state confidentiality requirements are met.



Across Early Childhood Agencies

Unlike K-12 where the data is usually in one agency, but multiple program areas, in early childhood the data will be contributed from multiple agencies, and multiple programs within each agency, as well as some stand-alone programs depending on the vision of the project. As the state begins to think about which data system model fits the needs of the state, be aware that the needs for the P-20W data system may be different than the needs of the early childhood data system. **These differing needs may require the use of two different models.** In any case, when designing the early childhood system it is beneficial to have a representative from another sector, such as P-20W, help think about how the early childhood data system design will align with the P-20W system.

Integration in P-20W

When looking to integrate early childhood data into the P-20W data system the purpose for including this data should drive the design of the data system model. In a centralized system, EC data from across all participating programs and agencies is initially consolidated into one database or data warehouse, and then fed into a P20W system. In a federated data system model, EC data from various programs and agencies can be directly fed into the P20W system.

B. Does your state know which data elements to include?

The state's needs for data collection should go beyond "collection for compliance." Consideration of which data elements to include must be given in order to make data-informed decisions and answer the essential questions developed by the state. Needs should be prioritized as those most timely and important and those to be accomplished over a scheduled timeframe.

Review the essential questions that the data system should answer, and determine what data is needed (and where it is located) to answer these questions. Data that is neither relevant nor going to provide value should not be captured—always design the data elements to align with the use and intended users of the system.

In addition, for each data element the level of granularity of data (e.g., daily attendance versus average daily attendance for a time period) and the frequency with which the data will be refreshed

State Spotlight: Wisconsin

What is the state's intended outcome of including EC data in its SLDS?

"An ECLDS would greatly enhance Wisconsin's ability to engage in effective data-driven decision making, to improve instruction, practices, services, and policies. In particular, the system would provide ways of measuring progress on the State's goals of improving the quality of Early Learning and Development Programs, and ensuring that children with high needs enter kindergarten ready to succeed."



from the respective source systems, should be decided in support of the intended essential questions to answer and users' needs.

For more information:

- State Data Models examples
- SST Resource: Identifying users and data needs
- RFP Data Warehouse Sample: [Evergreen State P-20 Data Warehouse Implementation Study RFP No. 11-1400](#)



Section G: Planning to Use the Data within the SLDS

Why integrate EC Data into the SLDS—or create an EC data system at all? As the planning process begins with creating a clear purpose for this work, it is important to consider how the data from the data system will be used to meet the needs of the state and the purpose of the project, as well as respond to the end users and guiding questions.

A. Did your state identify which audience(s) will be able to use the data?

Based on the decision about whom the end user of the data will be, it is important to consider the audience and how they will need the data presented to them in order to use it effectively. It is not uncommon for states to have an intended user, but still be able to meet the needs of additional stakeholders. Think carefully about how these other stakeholders might use data that is intended for the targeted user—both in productive ways, and potentially political or self-serving ways.

B. Did your state outline how information is being shared back to programs?

This question is relevant for states and agencies that have decided to share data with programs. Think about the access that will be provided to different program and various users of the data. A few ideas to consider are use of portals, dashboards, and program reports.

C. Did your state outline what information is being shared with other sectors?

If the answer is no, engage the appropriate stakeholders to determine what the needs are from the data. For example, how will parents, teachers, school administrators, school board members, community representatives, or policy makers use this data? Consider convening focus groups of stakeholders to discuss what their needs are and how the SLDS may help them meet those needs.

Bring together relevant groups to discuss how the data can be shared and used. Develop a collaborative partnership between sectors that will foster trust as data is shared. Memorandums of Understanding (MOU) may be used to address official sharing agreements, but make sure the MOU states explicit uses of the data and particular data elements.

State Spotlight: South Carolina

Why did your state decide to include EC data in its SLDS?

“Within early childhood, including EC data gives the state the ability to assess whether programs are having the desired impact on readiness, both short-term and long-term. For K-12, including EC data gives the state the ability to know the developmental readiness of children at school entry, and which children are at greater risk as they enter school.”



D. Did your state outline how it developed capacity among stakeholders to use the data?

Developing the capacity of stakeholders ensures that they are equipped to use data appropriately. It is essential to provide teachers with developmental data about a child, but if they do not understand the information provided, then it may not be valuable to them. Include all stakeholders in the process from the beginning so that the system can be designed to meet their needs, and provide data back to them in a way they can readily use. Tailor training to meet the specific needs of various stakeholders. Ensure that those leading the training can speak the “language” of the stakeholder(s) receiving training.

E. Did your state document what decisions are being informed by these data?

Documentation is important so that all parties involved understand the decisions being made. It also provides the group with the ability to go back and see why a particular decision was made and how it impacted the project. While it is possible to move forward without documenting decisions, consider what would happen if a key participant left or new political leadership came in during the middle of the project. How would that impact the work? Documentation of the process ensures the project continues seamlessly, even during transitions or sudden changes.

For more information:

- [Traveling through Time: The Forum Guide to Longitudinal Data Systems- Planning and Developing an LDS](#)
- [Oregon's Data Training for Teachers and Administrators](#) (Webinar)
- [Using SLDS Data - Working with Researchers](#) (Webinar)
- [Legalities of Data Sharing and the Issue of Commonality](#) (Webinar)
- [Innovative and Effective Utilization of Early Childhood Data](#) (Webinar)
- State example: [Washington Reports](#) (not EC specific, but provides examples)



Section H: Sustainability—Planning to Keep EC Data Integrated into the SLDS

The planning process should not only focus on how to initially integrate EC data into the SLDS, but also on how to maintain successful integration in the long term. How does a state ensure that funding is preserved, key leadership and stakeholders are continually engaged, and the data system can handle changes in a state's needs? Sustainability can take many forms—the most important of which may often be showing the value of the data in informing decisions.

Finding the necessary resources for the project can be a real challenge! Explore potential funding streams—the right people, agency partnerships, and existing resources from other states that can help the state accomplish its goals. This planning guide provides numerous references to resources provided at no cost from other states.

A. Does the state know how much it will cost to maintain the integration of EC into the SLDS?

States/agencies are often asked to justify budget figures, and it is helpful to understand how much the system and/or data integration cost. If the need to make difficult decisions arises, it is necessary to have this information at hand in order to prioritize costs. In the same vein, don't get too comfortable with the system as it is today—be creative and think about ways to maintain the data and provide the data more efficiently.

B. Does the state know how it would fund the integration if federal funding for the project decreased?

Be aware of other funding options outside the federal arena. For example, some state agencies have asked their states to match federal funding. Others have kept the design and maintenance of the system separate, so the state could maintain the system even if a freeze was put upon the design work.

C. Did the state document the demand for the EC data from the SLDS?

By documenting and communicating how the EC data is providing value from the beginning, states show a need for the data. Communicate openly about the system—small mile markers are a good way to show progress and garner continuing support from the public. Additionally, brainstorm about how to create demand for the system and its product. Think strategically about creating use for all stakeholders, as they may be important allies when budget cuts or political pressures occur.



D. Did your state document training opportunities and ensure that all end users were properly equipped?

States have taken different approaches to training. Some have created modules, while others put on a “road show”: going out and working hands-on with the stakeholders to use the data. This keeps stakeholders in the loop and has them using the data from nascent phases of development. If end users are properly trained to collect and enter data at the onset, then the result will be quality data.

For more information:

- [Traveling through Time: The Forum Guide to Longitudinal Data Systems- Planning and Developing an LDS](#)
- [Alternative Sources of Support for SLDS Work: SLDS Best Practices Brief](#)

Appendix A: State-Reported Challenges and Solutions

The following challenges and solutions were identified by states, and may be helpful in planning and integrating EC data into an SLDS.

1. Defining the Purpose

State-Reported Challenges	Potential Solutions
Defining a clear purpose, vision, mission	<ul style="list-style-type: none">• Use a structured process to develop and document the purpose, vision, and mission• Communicate it to others using multiple of levels of communication – from informal to formal
Communicating the clear end use of early childhood data	<ul style="list-style-type: none">• Develop policy questions. Use policy researchers to assist in their development and to flesh out• Develop program questions• Engage stakeholders by communicating how the data will be used to serve the purpose outlined in the vision and mission statements
Obtaining support from various levels of leadership	<ul style="list-style-type: none">• Start the conversation early in the process• Include leadership representation in the data governance group• Coordinate efforts with the State Early Childhood Advisory Council
Coordinating between agencies, programs, data systems, and multiple funding streams	<ul style="list-style-type: none">• Create a unified EC data system that is also a part of the SLDS P-20W system• Include a diverse and representative stakeholder group in the conversation from early on• Provide structured opportunities for conversations about challenges in coordination
Identifying the need	<ul style="list-style-type: none">• Use a self-assessment• Create a data roundtable

Unclear legislation

- **Build cooperation with legislative staff**
- **Work with legislative staff to understand and define the impact of legislation**
- **Promote changes to legislation that is ambiguous**

Determining what programs/entities to include in EC data collection efforts

- Conduct an inventory of publically and privately funded EC programs and current data collection efforts.
 - Include those which most feasibly and meaningfully meet the vision, mission, purpose, and policy questions of the EC data collection
-

2. Developing a Plan

State-Reported Challenges	Potential Solutions
Assessing what already exists	<ul style="list-style-type: none"> • Identify funding sources • Analyze capacity of agency data systems • Review legislation • Assess knowledge base--to what extent pivotal leaders understand the purpose, mission, and vision of including EC in the SLDS
Knowing all the steps for the process	<ul style="list-style-type: none"> • Create a project plan early on that is flexible enough to meet the needs • Appoint a leader who holds the team accountable
Communicating the plan and resources	<ul style="list-style-type: none"> • Create a communication plan, including timelines, that will address the communicate needs of all stakeholders that the state/agency has identified as the end users and process planners. • Identify formal and informal lines of communication
Lack of knowledge about all programs and between programs	<ul style="list-style-type: none"> • Participate in the State Early Childhood Advisory Council • Review the state inventory of EC programs & schedule opportunities to gather information about these programs • Convene EC programs in a data roundtable to determine what data each program is collecting. Use this information to narrow the list of stakeholders
Working with other sectors (K12, postsecondary, workforce, health)	<ul style="list-style-type: none"> • Create a communication plan

3. Identifying the Current Capacity and Need

State-Reported Challenges	Potential Solutions
Distinguishing between a “Wish List” and reality	<ul style="list-style-type: none"> • Align objectives and work plan with the vision, mission, and purpose. • Prioritize the needs as those most timely and important and those to be accomplished over a scheduled timeframe
Handling organizational change	<ul style="list-style-type: none"> • Develop signature slides that quickly and concisely speak to the vision, mission, and purpose • Develop a training module or education materials for new staff or leadership • Stay in tune with changes in staff and leadership and quickly acclimate them to the project plan
Making data-informed decisions as opposed to “collection for compliance” culture	<ul style="list-style-type: none"> • Define a clear purpose • Create and stick to a communication plan
Gathering resources: funding, people, agency partnerships, existing documents/initiatives	<ul style="list-style-type: none"> • Explore and identify potential funding sources • Determine key leaders whose involvement is critical to the project • Identify the necessary agencies to accomplish the purpose, vision, and mission • Identify the workers equipped and trained to do the work • Conduct a data roundtable
Collecting data from multiple people and places	<ul style="list-style-type: none"> • Conduct frequent planning meetings with “working” staff who do the work of data collection and coordination • Establish data governance and key stakeholder groups • Build trust and relationships

4. Identifying and Engaging Stakeholders

State-Reported Challenges	Potential Solutions
Defining stakeholders	<ul style="list-style-type: none"> • Create criteria: Examples: do they contribute data? Are they users of data? What is their function/role? • Start early
Identifying stakeholders	<ul style="list-style-type: none"> • Start early • Coordinate work with the State’s Early Childhood Advisory Council • Use local universities/partnerships • Include a cross section of state and program people
Identifying stakeholder roles	<ul style="list-style-type: none"> • Start early • Create a data governance manual • Separate policy and data groups, but know when to pull them together to establish what is wanted/needed
Building “buy-in”	<ul style="list-style-type: none"> • Communicate early and often; encourage everyone to participate but have a plan of when and how to engage
Managing/limiting stakeholder input	<ul style="list-style-type: none"> • Learn to listen • Create a data governance plan and manual • Define and differentiate between the roles of stakeholders and partners • Be transparent (web page, post documents, and minutes)
Knowing when to bring in new people	<ul style="list-style-type: none"> • Create a data governance manual and revise as needed
Communications for the end-user	<ul style="list-style-type: none"> • Translating documents (for example, Spanish)

5. Defining and Identifying Data Governance

a. Data Governance in General

Potential Challenges	Potential Solutions
IT-led as opposed to program area-led	<ul style="list-style-type: none"> • Have a lead that can bring together the various programs, agencies, and groups, including IT

b. Within Early Childhood Data Governance

Potential Challenges	Potential Solutions
Obtaining support from agency/program leadership	<ul style="list-style-type: none"> • Create brief overview of benefits of data governance, including value proposition for supporting EC goals within state. Ask leadership to approve data governance policy.
Engaging the appropriate program representatives	<ul style="list-style-type: none"> • Identify all agencies and programs currently collecting EC data, and the staff in them responsible for collecting data.
Uncertainty about scope and purpose of data governance effort	<ul style="list-style-type: none"> • Create a data governance policy and manual that includes the goals, objectives, roles and expectations for the group(s).
Limited understanding of data collected by Early childhood agencies and/or organizations	<ul style="list-style-type: none"> • Have all participating agencies/organizations submit description of data collections. Compile into master EC data collection calendar.
Establishing and maintaining focus of data steward meetings	<ul style="list-style-type: none"> • Establish a data governance coordinator to spearhead the effort. Create a critical data issues log to identify and track progress towards resolving EC sector-wide data quality and use issues.

c. Data Governance Across Sectors (including Early Childhood)

Potential Challenges	Potential Solutions
Lack of understanding across sectors	<ul style="list-style-type: none"> • Educate all sectors about EC
Knowing who the right person from EC would be for the P-20W data governance	<ul style="list-style-type: none"> • Determined by EC Data Governance
Data security and confidentiality	<ul style="list-style-type: none"> • Memoranda of understanding, involvement by state’s attorney general
Lack of vision for EC’s role in P-20W	<ul style="list-style-type: none"> • Involvement by Executive and Legislative representatives
Establishing accurate data linkages between EC and P-20	<ul style="list-style-type: none"> • Involvement by P-20W Data Governance folks (Board, Council, Committee, &c.) to determine data matching business rules
The need EC has for K-20 data	<ul style="list-style-type: none"> • Articulate the added value EC brings to K-20 and vice-versa
Concerns for how EC data will be used and reported in P-20W environment	<ul style="list-style-type: none"> • P-20W data use policy as determined by the P-20W Data Governance folks

6. System Design Planning

Potential Challenges	Potential Solutions
Lack of documentation about the legacy system	<ul style="list-style-type: none"> • Leverage pre-existing stakeholders as much as possible and build relationships with those that created the legacy systems
Other sectors understanding EC elements	<ul style="list-style-type: none"> • Create an education plan • Never assume others “know”
Not all EC programs are at the same level of data collection	<ul style="list-style-type: none"> • Hold a data roundtable to assess capacity
Aligning data elements to the purpose (policy questions, etc.)	<ul style="list-style-type: none"> • Start with clear policy questions that can be directly linked to the data needed to answer. • Use the Data alignment tool and Use Case Generator to align across programs and sectors to address particular questions
Linking <i>only</i> the appropriate data across programs	<ul style="list-style-type: none"> • Work from a prioritized list of data elements that has been aligned to the purpose, vision, and mission statements and that answers the policy questions developed by the state
Unwillingness for some programs to share data	<ul style="list-style-type: none"> • Educate stakeholders about the mission, vision, and purpose • Create incentives for sharing data
Funding complex systems	<ul style="list-style-type: none"> • Leverage resources from multiple grants at federal, state, and local groups
Understanding the role of IT	<ul style="list-style-type: none"> • Understand that IT cannot drive content

7. Planning to Use the Data within the SLDS

State-Reported Challenges	Potential Solutions
Poorly framed policy questions	<ul style="list-style-type: none">• Partner with a well-trained researcher, specifically in policy research
Improper use of data	<ul style="list-style-type: none">• Partner with a well-trained researcher• Build relationships with key leaders and legislators who might be engaged in data use• Designate staff who coordinate communication to end users
Limited capacity of stakeholders	<ul style="list-style-type: none">• Develop education materials tiered for different audiences• Use signature slides that provide a consistent message that resonates with different types of stakeholders
Understanding and designing end products	<ul style="list-style-type: none">• Partner with a well-trained researcher• Use communication teams from partnering agencies to assist with designing and messaging end products

The Early Childhood Work Group

A group of states participated in a work group to evaluate the Early Learning Self-Assessment Tool and create the Early Learning Planning Guide. It was developed in collaboration with the State Support Team and funded by the National Center for Education Statistics (NCES) Statewide Longitudinal Grant Program.

State Representatives

Reyna Hernandez
Illinois State Board of Education

Stacie Demchak
Colorado Department of Education

Teresa Whiting
Bureau of Child Development, State
of Utah

Jennifer Stedron
Colorado Early Childhood Leadership
Commission (ECLC)

Colleen Murphy
Early Childhood Comprehensive
Systems Initiative, State of Utah

John Pruett
North Carolina Public Schools

Carol Noddings Eichinger
Department of Public Instruction
State of Wisconsin

Phil Koshkin
Maryland State Department of
Education

Hilary Shager
Department of Children and Families,
State of Wisconsin

Tony Ruggiero
Delaware Department of Education
Early Development & Learning
Resources

Betty Gardiner
South Carolina First Steps

Katie Weaver-Randall
The Education and Research Data
Center (ERDC), State of Washington

Corina McCleary
Department of Early Learning, State
of Washington

Mike Rebar
Oregon Department of Education

SLDS State Support Team

Missy Cochenour

Susan Illgen

Consulting Author

Mary Barron
Quality Information Partners, Inc.

