Texas Early Childhood Integrated Data System Roadmap

April 2023

This report was developed by the Texas Early Learning Council Data Roadmap Work Group with support from the Early Childhood Interagency Work Group and SRI International through the Preschool Development Grant Birth through Five Technical Assistance Center.

Contents

Introduction

This report summarizes Texas' current data initiatives relevant to children from birth through age 5 and their families. It also presents a set of national lessons learned from states working on Early Childhood Integrated Data Systems (ECIDS) over many years. This report is intended to do the following:

- Educate agency leadership and stakeholders about ECIDS
- Communicate how an ECIDS might align with state initiatives
- Recommend next steps in planning
- Provide a draft timeline for consideration

This report was developed to inform decisions about the potential development of an ECIDS for the Texas Education Agency (TEA), Texas Workforce Commission (TWC), Texas Health and Human Services Commission (HHSC), and Texas Department of Family and Protective Services (DFPS). This report outlines critical steps toward planning for an ECIDS to inform the design of the ECIDS. The information contained in this document can be used by the team who may lead and manage ECIDS and other data-system-building initiatives in Texas. However, system design and a phased approach to the work is out of scope for this report and would require further analysis.

The Texas Early Learning Council (TELC) Data Roadmap Work Group worked with the Early Childhood Interagency Work Group and the Preschool Development Grant Birth through Five Technical Assistance (PDG B-5 TA) Center to outline the context and the state initiatives that an ECIDS could support. The intended audiences for this report are those who make decisions in Texas including state policy leaders, regional program administrators, local program decision-makers, and state and local elected officials.

What is an ECIDS?

Coffey et al. (2017)[1] define an ECIDS as a system that:

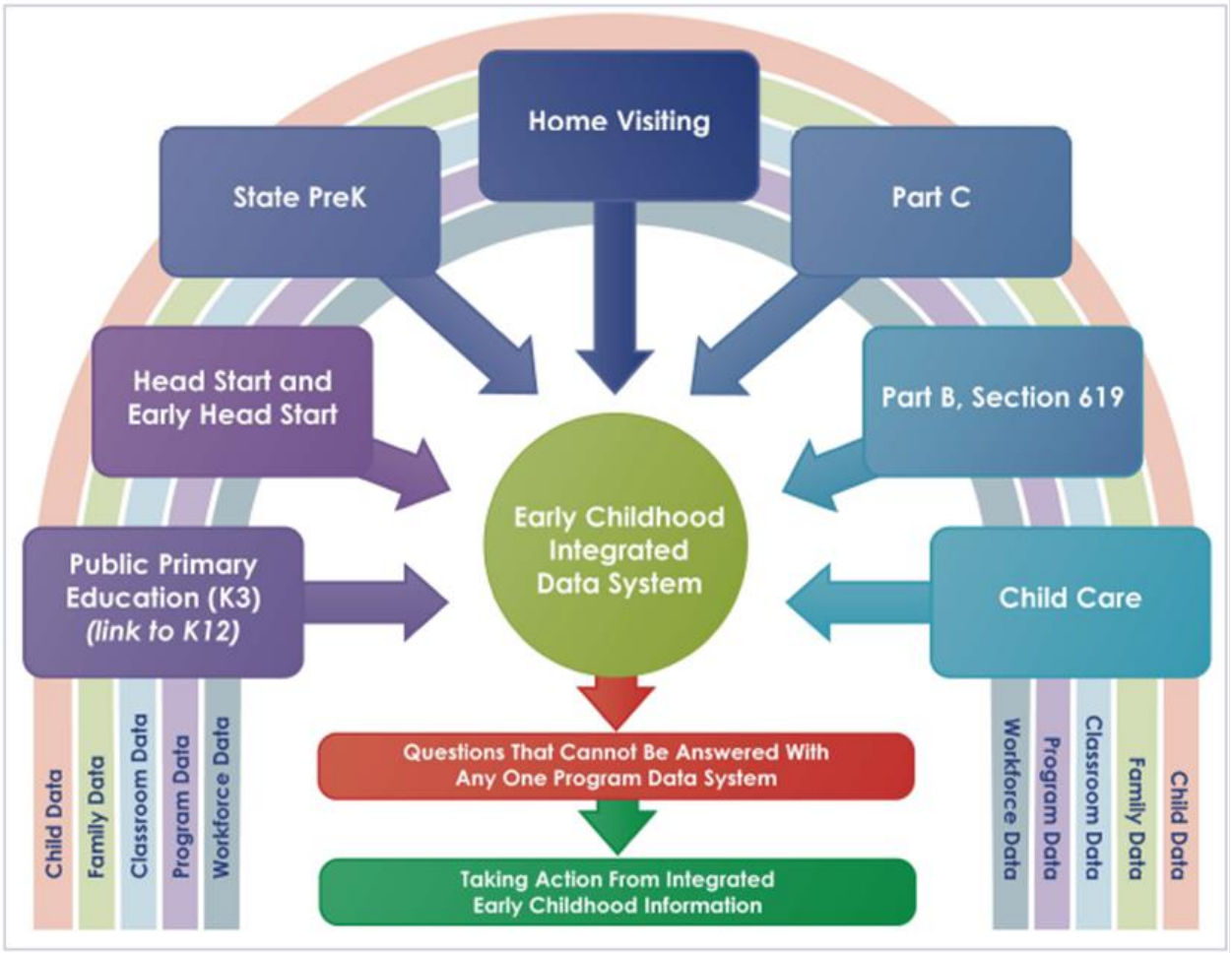
> Collects, integrates, maintains, stores, and reports information from early childhood programs across multiple agencies within a state that serve children and families from birth to age eight. Typically, the data included in an ECIDS are related to the individual child, the child's family, the classroom, the program/providers, and other services that provide comprehensive care and education for young children. (p. 1)

An ECIDS is not designed to replace existing program data systems. Rather, an ECIDS is designed to provide integrated data across systems so that state agency staff and policymakers have the information they need to make decisions in support of the state's early childhood goals and priorities. Figure 1 shows programs that can contribute to an ECIDS; however, each state's ECIDS is different. It is up to the state's early childhood leaders to articulate, disseminate, and

[1] Coffey, M., Chatis, C., Irvine, S., Sellers, J, & Duarte, S. (2017). *An early childhood integrated data system: What is an ECIDS?* U.S. Department of Education, National Center for Education Statistics.

drive the purpose of the ECIDS to meet the state's early childhood goals and the information needs of their intended users.

Figure 1. Components of an ECIDS



Source: Coffey, M., Chatis, C., Irvine, S., Sellers, J, & Duarte, S. (2017). An early childhood integrated data system: What is an ECIDS? U.S. Department of Education, National Center for Education Statistics.

The primary difference between an ECIDS and a P-20W+ SLDS[2] is the scope and focus. An ECIDS combines data from early childhood programs and agencies; a P-20W+ SLDS combines data from numerous sectors (for example, preschool, K-12, higher education, and the workforce). In many states, these systems are being designed simultaneously, so it is essential

[2] A P-20W+ SLDS is a statewide longitudinal data system that includes prekindergarten, K12, postsecondary, workforce, and other outcomes.

for states to establish the distinct purpose of each system, leverage the commonalities, and share best practices and lessons learned (Coffey et al., 2017[3]).

The PDG B-5 TA Center advised that states that have successfully implemented an ECIDS started by first articulating the overarching purpose of the ECIDS before making decisions on technical design and specifications (for example, how to assign unique identifiers to children and families). Therefore, understanding how stakeholders intend to use the integrated data to inform programs and policies is a primary goal of this report.

Current Early Childhood Collaboration in Texas

There are currently several early childhood collaboration efforts in Texas that could serve important roles and provide input as the state explores a potential ECIDS.

Tri-Agency Workforce Initiative

In 2016, the Governor established the Tri-Agency Workforce Initiative which is a collaboration among TEA, the Texas Higher Education Coordinating Board (THECB), and TWC. The Tri-Agency Workforce Initiative developed goals and strategies that focused on supporting pathways to credentials of value, ensuring students receive needed supports throughout their educational pathways and into the workforce, and building a robust infrastructure to support interagency collaboration and data governance policy. In 2022, the Initiative set specific goals related to the support of the state's youngest learners by strengthening and expanding coordination within the state's mixed-delivery early childhood education system to facilitate increased access to high-quality education for young children.

Texas Early Learning Council

The TELC was first established in 2009 as part of the Improving Head Start for School Readiness Act of 2007. The TELC utilizes its stakeholder representation to increase coordination and collaboration across state agencies and local programs and service providers in order to improve the quality of and access to early childhood services across Texas. In 2019, as part of its Preschool Development Grant Birth through Five (PDG B-5) planning grant, Texas completed a needs assessment of its birth through five early childhood systems. The TELC used the results of the Texas Early Learning Needs Assessment to help guide the development of its Texas Early Learning Strategic Plan. The strategic plan led the TELC to focus on six goals, one of which (Goal 6) is focused on strengthening early childhood data system coordination:

1. Early childhood programs in Texas are aligned to ensure children are ready to learn by kindergarten.
2. All families have access to a variety of high-quality programs and the information needed to discern which programs are the best fit for their child.
3. Families are equipped with knowledge and tools they need to be their child's primary caregiver.

[3] Coffey, M., Chatis, C., Irvine, S., Sellers, J, & Duarte, S. (2017). *An early childhood integrated data system: What is an ECIDS?* U.S. Department of Education, National Center for Education Statistics.

4. Early childhood professionals are well-qualified and have access to the supports and training needed to improve kindergarten readiness and the resources to ensure they have a successful career serving children.
5. Each community has a plan for a coordinated system of early childhood services.
6. **Texas has strong coordination across its early childhood system and the underlying data system to support a high degree of collaboration.** (Texas Early Learning Strategic Plan, 2019)

Early Childhood Interagency Workgroup

Texas also has an established Early Childhood Interagency Workgroup that consists of representatives from five state agencies, HHSC, DFPS, Texas Department of State Health Services (DSHS), TEA, and TWC, which seeks to promote collaboration across state agencies that serve families with young children. This workgroup strives to carry out the goals that were developed as part of the strategic plan as well as coordinate with the TELC.

Data Initiatives that Can Support ECIDS Development

Current and Prior Early Childhood Data Initiatives

The following early childhood data initiatives can serve as a foundation for a Texas ECIDS if the state chooses to pursue one.

Texas Ready Communities, Ready Schools, and Ready Students (TXR3)

TXR3 is an analytic tool that is currently in development and will use data from the TEA Early Childhood Data System (ECDS), the TWC Texas Rising Star program, and professional development data from the TEA and TWC-supported Engage platform at the University of Texas Health Science Center at Houston, Children's Learning Institute (CLI). The goal of TXR3 is to provide schools, child care programs, and the leaders that support them with greater insight into the specific strengths and needs of the incoming kindergarten cohort alongside relevant data on school systems and the workforce in an effort to facilitate strong decision-making on professional development, collaboration strategies, and resource allocations. TXR3 will be published in fall 2023.

Prevention and Early Intervention (PEI) Results-Based Accountability

Starting in 2016, PEI supported several communities across the state to implement Results Based Accountability (RBA) dashboards, an approach that seeks to start with the desired result, identify indicators of success, and use collective data tracking for shared accountability. PEI contracted with Clear Impact, a consulting firm that provided individualized training and technical assistance on the RBA approach and accompanying dashboard tool. Over fifteen PEI-funded organizations partnered across their local early childhood coalitions to identify and track local indicators to guide ongoing coalition efforts, including the ReadyKidsSA Coalition in San Antonio.

Building on this approach, in 2019, representatives from HHSC, DFPS, DSHS, TEA, and TWC convened to create the Early Childhood Systems Integration Group. The group worked together to identify state-level indicators to capture the collective impact of cross-sector early childhood

initiatives to work toward the goals that children in Texas are healthy, safe, and on-track to be school-ready. The Early Childhood Systems Integration Group drafted an initial set of state-level indicators but recalibrated to incorporate a focus on the ECIDS roadmap exploration and development.

Texas Early Childhood Data Landscape and Inventory

In January 2023, a report, "Texas Early Childhood Data Landscape and Inventory," was completed by Third Sector Intelligence (3Si) that summarizes the current early childhood data landscape in the state. More information on this report is included in the Current Early Childhood Data Systems section of this report.

Ongoing Data Coordination Initiatives

Beyond early childhood data initiatives, Texas has several other well-established data coordination initiatives. Early childhood data integration efforts can learn from and build upon these existing initiatives.

Statewide Longitudinal Data System (SLDS) Initiative

The Texas Student Data Center (TSDS), hosted by TEA, encompasses data from early childhood to K-12 education. Through the SLDS grants, TSDS has evolved and expanded its reports over the years. This allowed for the creation of Texas Public Education Information Resource (TPEIR), which includes multiple data sources to produce useful information about Texas public school students from PreK through college and into the workforce. Data from TPEIR allows stakeholders to analyze data over time to answer key research questions and enact policies based on data.

Tri-Agency Workforce Initiative Strategic Priorities

One of the three priorities of the Tri-Agency Workforce Initiative is to develop a modern data infrastructure and integrate data systems with research and development efforts across TEA, THECB, and TWC to make educational and workforce data accessible and useful to the public, stakeholders, and decision-makers. In the Tri-Agency Workforce Initiative Goals and Strategies published in 2022, tri-agency partners also included a goal to strengthen and expand coordination within the state's mixed-delivery early childhood education system to facilitate increased access to high-quality education for young children to support kindergarten readiness.

Education Research Centers (ERCs)

The three state-designated ERCs provide approved researchers, practitioners, state and federal agency staff, and other policymakers access to de-identified longitudinal student-level data for the use of policy and practice. The ERCs are housed at the University of Houston, the University of Texas at Austin, and the University of Texas at Dallas. They include data from Texas Education Agency (TEA), the Texas Higher Education Coordinating Board (THECB), the Texas Workforce Commission (TWC), and other sources of educational information for the state of Texas, spanning PreK through higher education and into the workforce.

See Appendix A for funding details of each initiative.

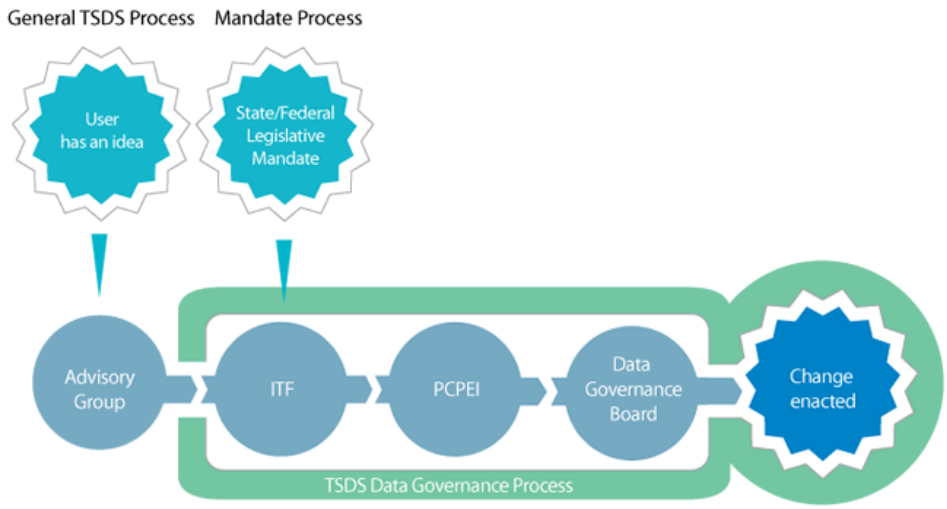
Existing Data Governance

Each agency serving young children and families has its own data governance structure with committees and processes to review and approve data projects. These existing structures could be leveraged in the development of a cross-agency data governance model.

Texas Student Data System (TSDS) data governance model

One example of an existing structure is TSDS data governance at TEA. All data collected by TEA must be reviewed via the TSDS data governance process. This process provides user insight on how TEA collects legislatively mandated data from local education agencies including school districts and charter schools. The TSDS governance process includes three main bodies: TEA's Information Task Force (ITF), Policy Committee on Public Education Information (PCPEI), and TEA's Data Governance Board (DGB). (See Figure 2 below.)

Figure 2. Texas State Data System Data Governance Process



Source:https://www.texasstudentdatasystem.org/TSDS/About/Data_Governance/User_Involvement_and_Data_Governance

Existing Statutory Requirements around Data

The following legislation has shaped the current early childhood data sharing landscape and should be considered if the state pursues an ECIDS.

House Bill 2607 (2021)

House Bill 2607, passed by the 87th Texas Legislature, Regular Session (2021), requires TEA to share data, as necessary, related to 3- and 4-star child care providers participating in partnerships with public school districts and public charter schools.

House Bill 680 (2019)

House Bill 680, passed by the 86th Texas Legislature, Regular Session (2019), and enacted September 1, 2019, requires TWC to coordinate with TEA to assign a "Public Education Information Management System (PEIMS) number" for each child enrolled in the child care financial assistance program who is younger than age six. Assigning such IDs to young children participating in TWC's child care financial assistance lays the foundation for longitudinal analyses of participation and outcomes. Beginning in 2021, TWC collaborated with TEA to develop and manage a process that allows TWC to request a unique ID, which is created by TEA's Texas Student Data System (TSDS), and to transfer that ID back to The Workforce Information System of Texas (TWIST).

House Bill 3 (2019)

House Bill 3, passed by the 86th Texas Legislature, Regular Session (2019), included several requirements related to early childhood data in the state. It requires the Commissioner to adopt one multidimensional kindergarten assessment tool and requires full-day PreK for eligible four-year-olds.

House Bill 4 (2015)

House Bill 4, passed by the 84th Texas Legislature, Regular Session (2015), added the following data elements to be collected in ECDS: class size, instructional staff-to-student ratio, type of curriculum, PreK student progress monitoring tool and results, PreK teacher qualifications, and family engagement plans. It also required the agency to report the following data elements at the district and campus level: general enrollment/demographics, half-day and full day classes, class size and ratio, type of curriculum, type of assessment and results, certification that the district/campus has a family engagement plan, and kindergarten readiness results.

Existing Data Sharing Agreements

Establishing necessary data sharing agreements will be a key step in the development of an ECIDS and cross-agency early childhood data governance. The state may consider leveraging one or more of the following existing agreements for this purpose.

TEA - Early Childhood Intervention (ECI) Memorandum of Understanding (MOU)

TEA and HHSC ECI currently have an MOU in place to share data related to the Individuals with Disabilities Education Act (IDEA) Part B and Part C.

Tri-Agency Master Data Sharing Agreement

As part of the Tri-Agency Workforce Initiative, the tri-agency partners, TEA, THECB, and TWC, created a master data sharing agreement that will significantly improve the efficiency of data sharing across the three agencies.

The Texas Statewide Data Exchange Compact (TSDEC)

The TSDEC is a uniform data sharing and data security agreement for participating Texas state agencies to facilitate an efficient and consistent method of compliance with state and federal laws regarding data sharing and data security. As of January 2023, DFPS, HHSC, TEA, and TWC have signed the TSDEC.

Data Security

Texas state agencies are required to meet state and federal data security requirements. Minimum information security and cybersecurity standards are outlined in Texas Administrative Code, Chapter 202 (TAC §202). The development of an ECIDS would require building robust data security standards and controls. Chief Information Security Officers and other staff dedicated to protecting agency data from each participating agency will need to be involved throughout the creation of an ECIDS in the state.

Current Early Childhood Data Systems

The graphic in Figure 3 depicts the various early childhood programs that serve children and families in Texas, along with the names of the current state-level data systems used in each program. In some cases, multiple data systems are used in a single program. This graphic also represents the degree to which the systems have an existing overlap in infrastructure. Note that Figure 3 includes program-specific data. Other data sources, like Texas Demographic Center Population Estimates and the U.S. Census, including the American Community Survey, may also be utilized in an ECIDS to estimate the total or eligible child population in the state.

Current Data Sharing across Systems

In existing state data systems, some overlapping infrastructure currently exists and could be utilized if the state pursues an ECIDS.

Child Care Licensing Automation Support System (CLASS) and The Workforce Information System of Texas (TWIST)

The HHSC Child Care Regulation (CCR) regularly shares provider-level data from their data system, CLASS, with TWC and their data system, TWIST. TWC shares information on which providers accept child care financial assistance from TWIST with CLASS.

Public Education Information Management System (PEIMS) and TWIST

The TWC data system, TWIST, sends information on children under the age of six to the TEA PEIMS data system. If a match is found in PEIMS based on the child's name, date of birth, and social security number, PEIMS sends TWIST a matched unique identifier or creates a new unique identifier if no match is found. This matching began in September 2021 as required by Texas Labor Code, §302.0043.

Texas Kids Intervention Data System (TKIDS) and TEA

HHSC regularly sends TEA data from TKIDS on the names and dates of birth of children deemed potentially eligible for the Early Childhood Special Education program for children ages 3 to 5 (IDEA Part B 619) as they near a transition out of the Early Childhood Intervention program for children from birth to 36 months (IDEA Part C).

Figure 3. Overview of Texas' Early Childhood Data Systems

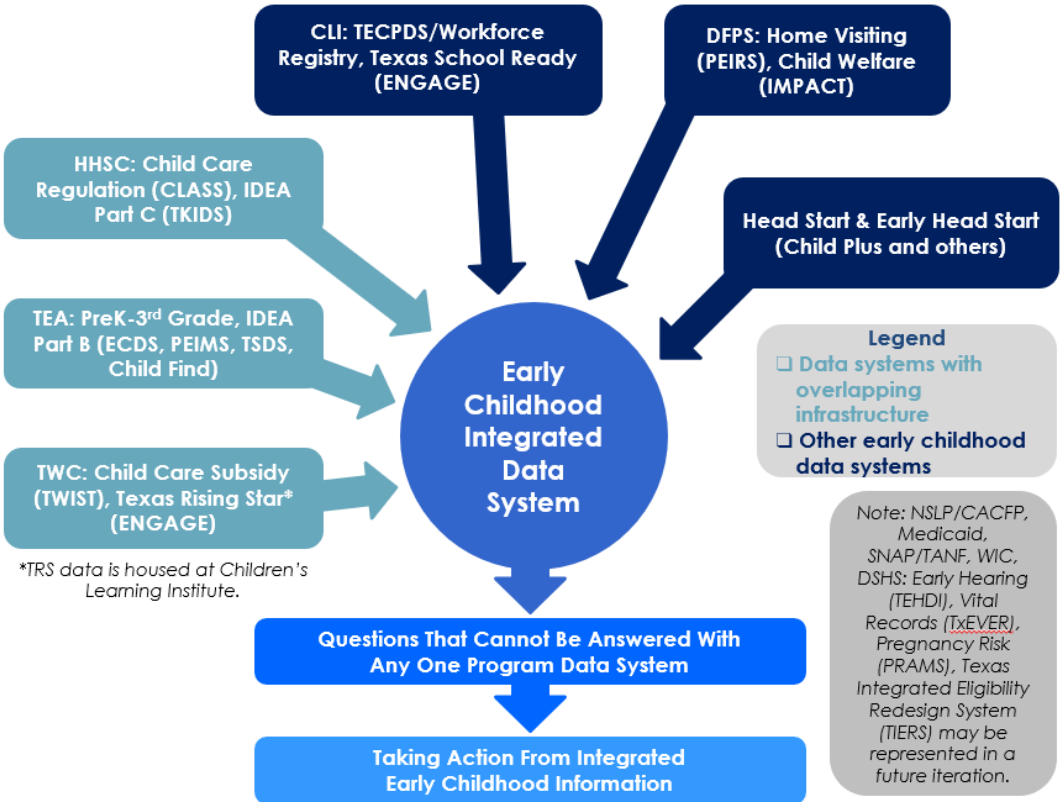


Table 1. Description of Data Systems by Agency

Agency	Data System Name and Description
Department of Family and Protective Service (DFPS)	• **PEIRS** (Prevention and Early Intervention Reporting System): Home visiting and other prevention program data • **IMPACT** (Information Management Protecting Adults and Children in Texas): Child welfare, protective services, and child care investigations data
Health and Human Services Commission (HHSC)	• **TKIDS** (Texas Kids Intervention Data System): Early intervention services data • **CLASS** (Child Care Licensing Automation Support System): Child care licensing data • **TIERS** (Texas Integrated Eligibility Redesign System): Eligibility and benefit data for certain publicly funded programs, for example, SNAP, TANF, CHIP, and Medicaid) data
Texas Education Agency (TEA)	• **ECDS** (Early Childhood Data System): Public PreK and kindergarten assessment data • **PEIMS** (Public Education Information Management System): Education organization, finance, staff, student demographics and academic data • **Child Find**: Special education compliance indicators (SPPI-11 and SPPI-12) data
Texas Workforce Commission (TWC)	• **TWIST** (The Workforce Information System of Texas): Child care financial assistance data

Agency	Data System Name and Description
Children's Learning Institute (CLI)	• **Texas Rising Star**[a]: State Quality Rating and Improvement System (QRIS) for child care providers • **Engage**: Birth-second grade professional development and child progress monitoring • **TECPDS** (Texas Early Childhood Professional Development System): Workforce and trainer professional development and educational attainment data

Source: "Texas Early Childhood Data Landscape and Inventory," by Third Sector Intelligence, 2023.
a. While the data are maintained at CLI, TWC is the state entity that runs Texas Rising Star.

Texas Early Childhood Data Landscape

A more detailed view of Texas early childhood data systems and potential linkages can be found in a companion report, "Texas Early Childhood Data Landscape and Inventory," by Third Sector Intelligence (3Si).

This report provides more information on the types of data included in each data system. Table 1 summarizes the child-level data available in several key early childhood data systems in the state and whether the data are mandatory or optional. This table can also be found in the companion report by 3Si.

Table 2. Texas Early Childhood Data Landscape Excerpt: Summary of Key Child-Level Data Relating to Children Served[a]

"Yes" denotes mandatory. "No" denotes not mandatory. Blank cells denote that data is not collected[b]

Data Element	**DFPS** PEIRS	**DFPS** IMPACT	**HHSC** TKIDS	**HHSC** TIERS	**TEA** PEIMS	**TEA** Child Find	**TEA** ECDS	**TWC** TWIST
Child Age	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Child Disabilities	Yes	Yes	Yes	Yes	Yes			Yes
Risk Factors (Program)[c]	Yes	Yes	Yes		Yes			Yes
Household Size	Yes	Yes	Yes	Yes				Yes
Household Income	Yes	Yes	Yes	Yes				Yes
Work/School Status of Parent / Caregiver			No	Yes				Yes
Address	Yes	Yes	Yes	Yes				Yes
Child Gender	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Child Race/Ethnicity	No	Yes	Yes	No	Yes	No	Yes	No
Child Language	Yes	Yes	Yes	Yes	No			No

Source: "Texas Early Childhood Data Landscape and Inventory," by Third Sector Intelligence, 2023.

a. HHSC's CLASS and CLI's Texas Rising Star systems collect provider-level data but not child-level data, so are excluded from this table.
b. Not mandatory = optional and/or conditionally mandatory.
c. Risk factors vary across data systems and depend on the at-risk population a program serves, so this category is a catch-all that consolidates each system's risk factor. For example, risk factors such as family conflict or substance abuse are collected for DFPS' early intervention and prevention services, which is managed by the PEIRS system, while TEA's PEIMS system collects information on homelessness and protective services status.

The "Texas Early Childhood Data Landscape and Inventory" also explores whether current data systems have the necessary data to match across systems. Table 2 summarizes the child-level data that could be used to match data across systems and whether the field is mandatory or optional in each data system. This table is also available in the companion report by 3Si.

Table 3. Texas Early Childhood Data Landscape Excerpt: Summary of Common Child-Level Identifiers[a]

"Yes" denotes mandatory. "No" denotes not mandatory. Blank cells denote that data is not collected[b]

Data Element	**DFPS** PEIRS	**DFPS** IMPACT	**HHSC** TKIDS	**HHSC** TIERS	**TEA** PEIMS	**TEA** Child Find	**TEA** ECDS	**TWC** TWIST
Unique ID	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Child First Name	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Child Last Name	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Generation Suffix		No		No	No	No		No
Child Date of Birth	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Plural Birth Flag[c]								
Child Gender	Yes	Yes		Yes	Yes	Yes	No	Yes
Child Race	Yes	Yes	Yes	No	Yes	No	No	No
Child Ethnicity	Yes	Yes	Yes	No	Yes	No	No	No
Child SSN	No	No	Yes	Yes	No	No	No	No
Phone	Yes	No		Yes				
Address	Yes	No	Yes	Yes				Yes
Parent 1 Name	Yes	No	Yes	Yes				Yes
Parent 1 Date of Birth	Yes	No	No	Yes				Yes
Parent 2 Name	Yes	No						
Parent 2 Date of Birth	Yes	No						
Mother Maiden								

Source: "Texas Early Childhood Data Landscape and Inventory," by Third Sector Intelligence, 2023.

a. HHSC's CLASS and CLI's Texas Rising Star systems collect provider-level data but not child-level data, so are excluded from this table.
b. Not mandatory = optional and/or conditionally mandatory.
c. Plural birth flag can assist in child-level matching in instances where multiple children within a household have the same date of birth (for example, twins).

Lessons Learned from Other States

As Texas explores the creation of an ECIDS, leveraging the lessons learned from other states can inform discussions about design and implementation and can enhance the utility of the systems. The PDG B-5 TA Center provided the following recommendations based on its work to

support ECIDS efforts in a variety of states. Currently, there are 18 operational ECIDS[4] and more than 40 in development across the United States. Lessons learned from these states' efforts fall across three main areas: organizational capacity, technological capacity, and human capacity.

Lessons Learned about Organizational Capacity

To develop an ECIDS, interagency collaboration is essential. The number of states with ECIDS demonstrates that cooperation and information sharing across agencies is possible, but the difference between states that are currently in operation and states that have not yet implemented an ECIDS is often due to the organizational capacity of the core state agencies. Each agency must achieve a level of organizational capacity required for the system. Organizational capacity, as defined by Century (1999)[5], is the interactions, relationships, and communications between individuals in the system that shape culture regarding data use and set the tone for collaboration.

Three lessons learned about organizational capacity are:

1. Establish which agency(ies) will lead the effort and a cross-agency decision-making body.
2. Understand that data governance is an ongoing process.
3. Listen to and incorporate the feedback of stakeholders for sustained engagement.

Organizational Capacity Lesson #1: Establish which agency(ies) will lead the effort and a cross-agency decision-making body

Identifying a lead agency is an essential step toward building an ECIDS, because, although multiple agencies are involved, one agency needs to provide staff to build and maintain the ECIDS. The lead agency staff should establish a cross-agency executive leadership team to make decisions and contribute staff to manage this work across agencies by developing new procedures and guiding and documenting the process. Any agency that contributes relevant data to the ECIDS can be eligible to take the lead, and the multi-agency governing body must define and adhere to processes for making decisions across agencies in support of the lead. Across the country, various ECIDS lead agencies showcase the range of possibilities, including the Department of Health and Human Services and Department of Education. The success of the ECIDS did not vary based on which agency became the lead; rather, the key factor was that one agency was designated the lead and was assigned the necessary resources to do its work.

Lead agency staff should be responsible for developing partnerships with staff from other state agencies who can provide program data that addresses the purpose and vision of the ECIDS. Forming and maintaining these partnerships takes initial and ongoing efforts, especially to build trust among the team, which is essential, for example, to convince and demonstrate to partner

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[4] King, C., Perkins, V., Nugent, C., & Jordan, E. (2018). *2018 State of State Early Childhood Data Systems.* https://www.childtrends.org/wp-content/uploads/2018/09/ECDC-50-state-survey-9.25.pdf

[5] Century, J. R. (1999). *Determining capacity within systemic educational reform*. American Educational Research Association. (ERIC Document Reproduction Service No. 434162). **http://files.eric.ed.gov/fulltext/ED434162.pdf**

agencies that their data will be safe, secure, and used in appropriate ways (SRI Education, 2019b[6]).

Organizational Capacity Lesson #2: Understand that data governance is an ongoing process

Data governance is an organizational process and a structure: "It establishes responsibility for data, organizing program area staff to collaboratively and continuously improve data quality and use through the systematic creation and enforcement of policies, roles and responsibilities and procedures" (National Forum on Education Statistics, 2011, p.1[7]). Although establishing a process for data governance may seem daunting, state staff members have found that each small step makes progress. Many resources about data governance are available, including an overview video, Introduction to Data Governance (National Center for Education Statistics, 2015[8]).

Many states begin by developing a Data Governance Charter to define the scope of early childhood data governance in the state, identify roles and responsibilities, and establish authority among data governance committees and sub-committees. There are several models that Texas can build upon when creating a Data Governance Charter, including South Carolina, Virginia, and Utah.

Typically, the next step in the process is establishing an executive committee aligned to the broad early childhood governance body of the state to address data challenges, monitor trends, investigate critical questions, and engage families and other stakeholders (Bernstein et al., 2017[9]). Using established priorities, the data governance committee outlines the needs of the ECIDS, the design and implementation plan, and the procedures that will be enforced to manage and protect the integrated data. As the ECIDS is implemented, the group evaluates various aspects to inform continuous improvement of the data system.

For successful data governance, all agencies and programs that will contribute data to the ECIDS should be represented in the executive committee. Additional early childhood program staff, information technology (IT) staff, and systems analysts should contribute to program management, and these contributors, along with researchers and other stakeholders, should have opportunities to voice their perspectives to the ECIDS decision-making authorities. For example, as illustrated in Figure 4, North Carolina's ECIDS governance council is composed of

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[6] SRI Education. (2019b). What is an ECIDS? *(Webinar 1)*.

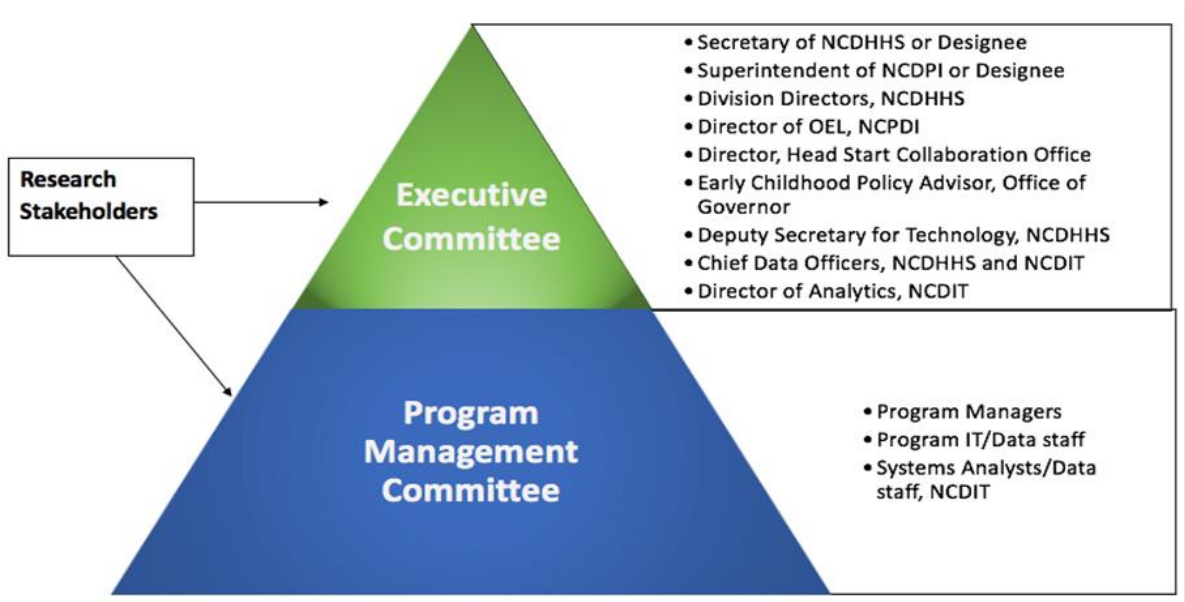
[7] National Forum on Education Statistics. (2011). Traveling through time: The forum guide to longitudinal data system. *Book three of four: Effectively managing LDS data* (NFES 2011–805). U.S. Department of Education. **http://nces.ed.gov/forum/pub_2011805.asp**

[8] National Center for Education Statistics, U.S. Department of Education. (2015). Introduction to Data Governance. **https://www.youtube.com/watch?v=8SurYfQYeyI**

[9] Bernstein, H., Anketell, M., & Hackleman, E. (2017). *Components of an effective data team*. https://dasycenter.sri.com/downloads/2017/July2017_Posters_Handouts/OSEPLead2017_EffectiveDataTeam.pdf

leaders across the system with diverse expertise and advocacy to help push the vision and continuous quality improvement of the ECIDS forward (SRI Education, 2019a[10]).

Figure 4. North Carolina ECIDS Governance Council



Source: SRI Education. (2019b). What is an ECIDS? (Webinar 1).

In addition to establishing multi-agency data governance, each individual participating agency or program must have its own well-established data governance process. This is necessary to ensure that each organization contributes high-quality data to the ECIDS and that agency representatives hold the authority to share data with other state agencies. The overall security of an ECIDS depends on the lead and partner agencies' capacity to manage complex privacy concerns and to implement and maintain rigorous and state-of-the-art security mechanisms to protect the data within the confines of cross-agency budgets. States acknowledge that it takes persistence, trust, leadership, and shared information to build an effective ECIDS leadership team (Cochenour & Hebbeler, 2015[11]; SRI Education, 2019a[12]).

An ECIDS data governance body will also need to fit within the state's broader SLDS and Tri-Agency data governance structure. Figure 5 demonstrates the connection to the early childhood data governance body that will have a similar structure and feed into the existing P-20W SLDS data governance process. The executive leadership of the ECIDS data governance body is typically the council or a subset of the council to ensure alignment between the data initiatives and the state's early childhood priorities. The various program administrators typically make up

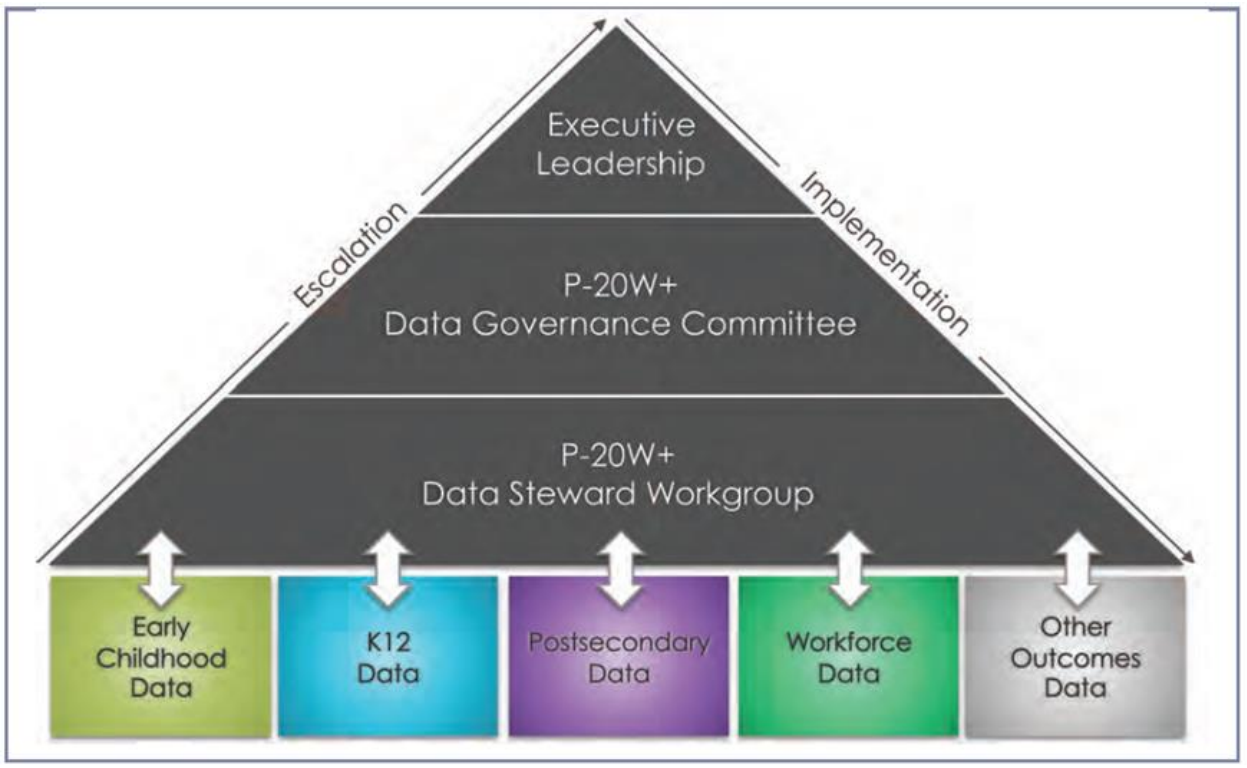
[10] SRI Education. (2019a). What does it take to create an ECIDS? *Technical Design & Privacy Lessons Learned (Webinar 3)*. **https://www.youtube.com/watch?v=70oMOHSitDI**

[11] Cochenour, M., & Hebbeler, K. (2015). Early Childhood Data Governance: A prerequisite for Answering Important Policy Questions. In S. L. Kagan (Ed.), *Early childhood governance: Choices and consequences* (pp.112-120). Teachers College Press.

[12] SRI Education. (2019). What does it take to create an ECIDS? Technical Design & Privacy Lessons Learned (Webinar 3).

the middle tier to ensure that all data are authorized to be used as determined by the governance body and in alignment with the priorities set by the executive leaders. Leaders who oversee data collection and reporting, referred to as the data stewards, from each program are involved to articulate the implications on sharing, linking, or integrating the data to understand the nuances of each data element needed to respond to the priorities.

Figure 5. Data Governance across P-20W+ Partner Agencies[13]



Source: https://slds.ed.gov/services/PDCService.svc/GetPDCDocumentFile?fileId=25962

Organizational Capacity Lesson #3: Listen to and incorporate the feedback of stakeholders for sustained engagement

Developing and sustaining an ECIDS is a long-term and ongoing process. Sustainability is ensured by strategically engaging stakeholders throughout the process. States shared two key lessons about effective stakeholder engagement.

The first lesson is to develop a feedback loop, which is a mechanism for stakeholders to provide feedback and for the lead agency, in return, to implement a process to report back how the feedback was used (if at all). ECIDS program staff members represent a broad set of stakeholders, including community leaders, county and district-level administrators, teachers, and parents. Each group should have the opportunity to inform the ECIDS about their concerns.

[13] National Center for Education Statistics, U.S. Department of Education. (2017). Best Practices Brief: P-20W+ Data Governance.

For example, using a feedback loop, some states found that their stakeholders were worried that certain programs would be eliminated due to the implementation and use of an ECIDS.

Creating feedback opportunities helps to nurture stakeholder buy-in to the ECIDS process. State leaders can engage stakeholders early in the planning stages in many ways, such as incorporating the voice of parents and the community into the draft purpose and vision of the ECIDS.

Data governance teams and state ECIDS leads shared that they found it helpful to use an external facilitator to help engage a broad set of stakeholders and agency authorities in discussions and more effectively listen to and synthesize the feedback. Vermont, for example, is in the process of designing their ECIDS system, and state staff members have adopted an agile methodology of rapid iteration and feedback sessions that have "placed a high value on user input" (National Center for Education Statistics, 2016, p.2[14]).

In the words of one agency staff member, Bentley Ponder of the Georgia Department of Early Care and Learning: "If I were going to give any state any advice, it would be to continually engage all the partners, because that is what really propels you to success."

The second lesson around engaging stakeholders is for the data governance body routinely celebrate small project milestones to show the use of stakeholder feedback and progress over time. Some states have used an ECIDS self-assessment tool to demonstrate quick wins and other changes. Stakeholders reported higher levels of buy-in and engagement when they can see incremental progress.

Lessons Learned in Developing the Technical Capacity to Build an ECIDS

The integration of data systems from multiple agencies requires technical capacity, including the infrastructure needed to integrate data and the technical expertise to build an ECIDS.

Five lessons learned about technical capacity are:

1. Drive technical infrastructure choices by looking at intended usage
2. Leverage existing technology and identifiers to make quick progress
3. Integrate the data in prioritized phases
4. Begin to design an analytic tool for one of the established information needs
5. Manage expectations by communicating system complexity

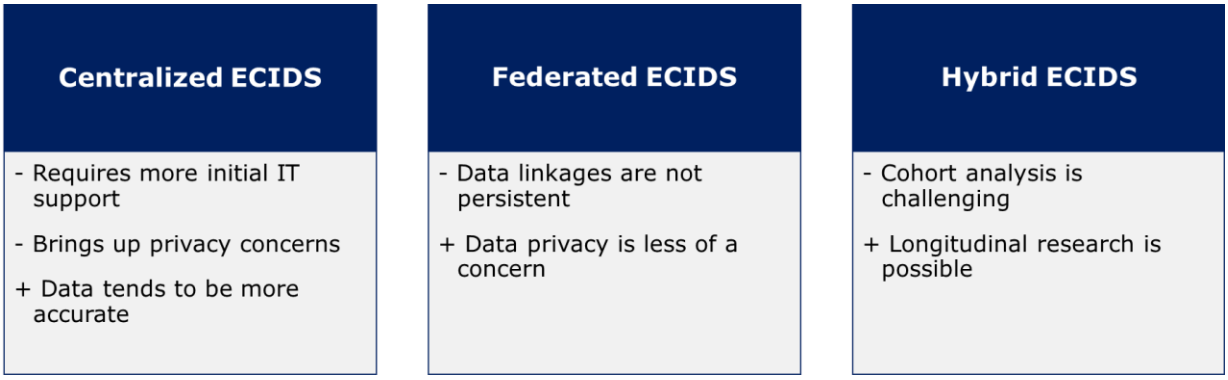
Technical Capacity Lesson #1: Drive technical infrastructure choices by looking at intended usage

In a centralized ECIDS, data from partner agencies are integrated into a single, centrally located repository; whereas, in a federated system, partner agencies provide access so data can be linked. Hybrid models combine features of both, with some data linkages continuously integrated and others pulled in as needed. States must consider existing infrastructure within

[14] National Center for Education Statistics, U.S. Department of Education. (2016). State Spotlight: Early Childhood Integrated Data Systems: Vermont Insights.

the state, lead agency, and partner agencies before deciding which of the three models, as summarized in Figure 6, is most appropriate for the intended uses of the ECIDS (Duarte et al., 2014[15], National Center for Education Statistics, 2018a[16]). As the system develops, new usages and information or the participation of new partner agencies may require the system to evolve. For example, North Carolina began with a federated model but eventually realized that it would not be feasible long-term because stored data sets are not available, the system is unable to produce reports with persistent data linkages, and longitudinal datasets are limited; therefore, they adapted their infrastructure to become a hybrid model.

Figure 6. Types of Integrated Data System



Technical Capacity Lesson #2: Leverage existing technology and identifiers to make quick progress

In states with an operational ECIDS, the leadership teams decided to leverage existing technology infrastructure in their state. For most, that meant building from the SLDS platform. Although the ECIDS captures information across early childhood programs, a subset of the ECIDS data is needed for longitudinal purposes; however, the technology infrastructure of an SLDS is typically aligned to the technology needs of an ECIDS. Using the state's existing technology allowed state leaders to make progress quickly, save money, share IT resources, leverage any relevant data from early childhood with the SLDS, and build interoperability. Similarly, identifiers likely exist within programs and, in some cases, across programs. A unique child identifier (UID) is a single unduplicated identifier (Cochenour et al., 2014[17]). Other UIDs are also needed in early learning and child care (for example, workforce, classroom, site, and family). States can choose from three approaches to establish UIDs (Cochenour et al., 2014[18]).

The first approach creates a unique, statewide, early childhood identifier that stays with a child regardless of the program. No states are currently using this approach because it requires all the programs to change their identifiers, requires significant resources, and, in some states, violates privacy laws. The second approach is to have many early childhood identifiers and one

[15] Duarte, S., Sellers, J., & Cochenour, M. SLDS. (2014). *Which ECIDS system model is best for our state ECIDS?*

[16] National Center for Education Statistics, U.S. Department of Education. (2018). Centralized vs. Federated: System Models for P-20W+ Data Systems.

[17] Cochenour et al., (2014) SLDS Issue Brief: Unique Identifiers: Beyond K12.

[18] Cochenour et al., (2014) SLDS Issue Brief: Unique Identifiers: Beyond K12.

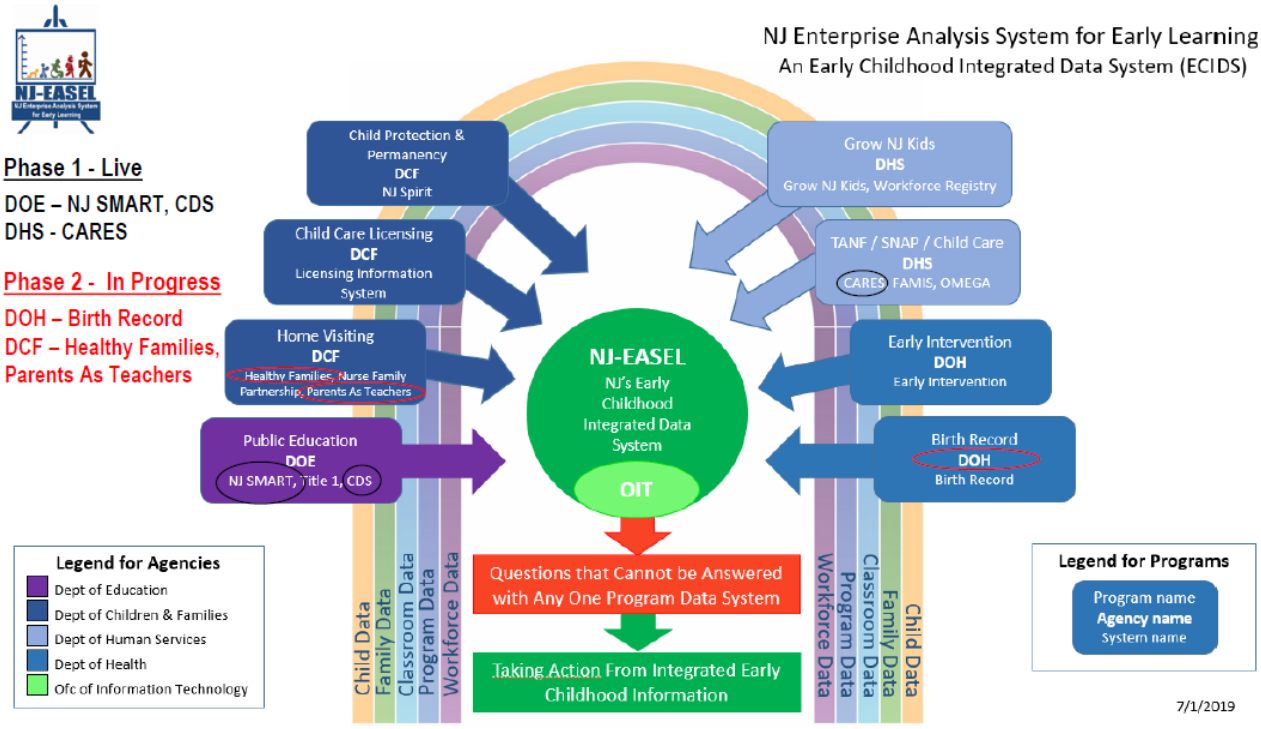
unique identifier for the ECIDS system (North Carolina). The third approach uses the existing identifiers and matches them in a third-party system, providing additional identity protection for children (Utah). Other state staff members have learned and made their decisions about UIDs based on state laws and an understanding of the existing identifiers used across the state. Partner agencies' leaders can come together and identify possible existing identifiers that would require little system adaptation.

Technical Capacity Lesson #3: Integrate the data in prioritized phases

As discussed in the organizational capacities section, lead agencies should work to develop a partnership with at least one other agency. This partnership would become the first phase of data integration. Phasing in one or two programs at a time allows for troubleshooting and formative learning opportunities at a lower risk than integrating several agencies' data at once. Every state with an operational ECIDS has built its system in this way.

Figure 7 shows how New Jersey used a diagram to communicate the phasing of data systems (SRI Education, 2019a[19]). The diagram also provides information about the involvement of future New Jersey agencies.

Figure 7. New Jersey's EASEL



[19] SRI Education. (2019a). What does it take to create an ECIDS? *Technical Design & Privacy Lessons Learned (Webinar 3)*.

Source: SRI Education. (2019a). What does it take to create an ECIDS? Technical Design & Privacy Lessons Learned (Webinar 3).

Like New Jersey, North Carolina staff prioritized the most easily transferable systems first. They acknowledged that home visiting data presented the biggest challenge for them, so they planned to learn from other successes before attempting to integrate those data.

Technical Capacity Lesson #4: Begin to design an analytic tool for one of the established information needs

Many states designed their ECIDS first and then realized that they did not have the analytics needed for state leaders to use the system. Working early to select one priority analytic solution and building from a pilot platform can help states build partnerships and demonstrate the technical capacity to use and benefit from an ECIDS (SRI Education, 2019b[20]).

In states, such as Utah, Minnesota, and Georgia, staff members have worked to create innovative data analytics to support the use of ECIDS data. Utah created the Community Assessment Tool (CAT), which allows leaders from across the state to see the needs in various areas and how children and families are currently being served (ECDataWorks, 2019[21]).

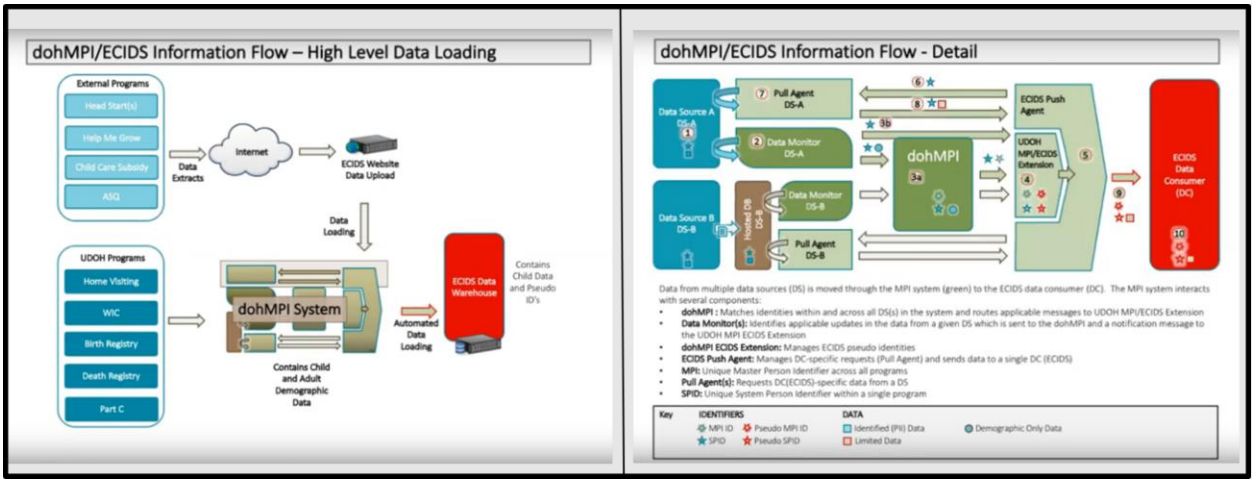
Technical Capacity Lesson #5: Manage expectations by communicating system complexity

As an ECIDS begins to take shape, most states have found that communicating technical information to a variety of stakeholders becomes a necessity. Most state ECIDS teams have chosen to do this through flow charts and diagrams. Figure 8 provides two examples from Utah's ECIDS documents. The document on the left illustrates information for a non-technical audience. It identifies the types of programs providing data to their centralized data management system. The image on the right contains all the components of the left diagram plus more technical detail.

[20] SRI Education. (2019b). What is an ECIDS? *(Webinar 1)*.

[21] ECDataWorks. (2019). *Community assessment: A new approach to using community-level early childhood service data*.

Figure 8. Utah's ECIDS Documents



Source: SRI Education. (2019a). What does it take to create an ECIDS? Technical Design & Privacy Lessons Learned (Webinar 3).

Lessons Learned in Developing the Human Capacity Needed to Implement an ECIDS

The human capacity, the knowledge, skills, and will of the system's key stakeholders to use data effectively (Century, 1999[22]), is essential for the ECIDS to inform policy and practice.

Three lessons learned about human capacity are:

1. Build the data literacy of the stakeholders.
2. Build a team that can withstand turnover.
3. Participate in national peer engagement opportunities.

Human Capacity Lesson #1: Build the data literacy of the stakeholders

Building the data literacy of stakeholders is a crucial component of ECIDS sustainability. Many state and local program leaders feel uncomfortable using data, so the development of an ECIDS system provides a unique and critical educational opportunity. During the initial phases, as the cross-agency executive leadership team begins to map out the intended use of the system, data-sharing agreements, and infrastructure choices, they should also engage stakeholders in conversations about data concerns. Stakeholders will be able to provide practical and useful feedback if they have the vocabulary and knowledge about the system. Assessing the data literacy of key users and building their skills help ensure that if the ECIDS is ready to be launched in Texas, the users will be ready to understand and act from the data presented.

In the words of one agency staff member, Anita Larson of the Minnesota Department of Education: "We de-identified the data early in the process, I think that helps. Once you create some very plain language documents explaining the flow, explaining how few people actually

[22] Century, J. R. (1999). *Determining capacity within systemic educational reform*. American Educational Research Association. (ERIC Document Reproduction Service No. 434162).

get to see anything, where it resides, and how it is used, people seem to feel better. We had an internal communication and a public document that did the same."

Assessing the data literacy skills of a large group of potential users is important because it is not always clear who will use the ECIDS when it is made public. Many types of users, including researchers, administrators, and families, will interact with the data, but the analytic resources may need to be tailored to meet their data-literacy levels. For example, Georgia's Department of Early Care and Learning (DECAL) ECIDS team saw more community-level use of the tool than the higher-level administrators they had planned to support with the initial launch of their ECIDS. The community members' knowledge of the system created ideas for use that were not apparent to the workgroup. Because the data governance team was focused on improvement, they were able to identify and expand the tool to meet the data-literacy level of their new users (SRI Education, 2019a[23]). However, building the data literacy of the internal team is usually where state leaders see the largest gap, and the Minnesota team learned strategies for sharing information with families and state leaders in different ways using the same data sets. The ECIDS became a way to integrate the data and to tell a data story that could inform various audiences.

Human Capacity Lesson #2: Build a team that can withstand turnover

Members of the data governance team, specifically the technology experts, have unique knowledge about how the data and the system infrastructure work together. Investing in staff training and documentation can help a state save resources. In states with an operational ECIDS, each state agency leading the ECIDS had a dedicated program manager called an ECIDS lead. The lead role is complex and requires the lead to engage with all types of stakeholders. The ECIDS lead communicates decisions of the data governance council and solicits and tracks feedback from stakeholders.

A series of webinars hosted by Heising-Simons on ECIDS for stakeholders in 2019 showcased the depth of knowledge that program managers have about their systems. During one webinar, the North Carolina technology lead shared that they experienced high staff turnover and had to invest resources in training. They realized that documentation could have helped ease the financial burden of training a new staff person. Other states' staff developed procedures to help ensure that, if one person left a role, the information would not be lost. Beyond documenting decisions and processes, state leaders have built teams with more than one person supporting the ECIDS and a process for training others across the agencies.

Human Capacity Lesson #3: Participate in national peer engagement opportunities

Across the nation, state staff members have learned that a culture of collaboration is integral to the development of an ECIDS. This culture transcends state boundaries. Many staff members seek advice in other states when faced with a new barrier. States that are in the same planning stage as Texas offer opportunities for peer engagements regarding the newest trends, best practices, and lessons learned. Over the last decade, an array of peer learning opportunities has emerged and will continue to expand as a crucial network of support to ensure the successful design, use, and implementation of a new system. The state leaders who

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[23] SRI Education. (2019a). What does it take to create an ECIDS? *Technical Design & Privacy Lessons Learned (Webinar 3)*.

successfully launched an ECIDS have built relationships across states to help them work through issues that arise over time and to support new states, such as Texas, that are in the process of developing an ECIDS.

Texas ECIDS Purpose and Goals

Defining the purpose and goals for an ECIDS in the state is an important first step in the exploration of an ECIDS. The Early Childhood Interagency Work Group developed the following purpose, goals, and strategies to identify what the state would hope to accomplish with an ECIDS:

Purpose: Through collaboration across and within agencies and programs, a Texas ECIDS would provide an integrated and aligned approach to enable Texas to make informed decisions about programs and policies that promote positive outcomes for young children and their families.

Goals: We believe integrated early childhood data will lead to:

- Better insight into how early childhood services are utilized across Texas
- Improved decisions regarding use and refinement of early childhood programs
- Clearer information for stakeholders and policymakers
- Better outcomes for the children and families of Texas

Use data to:

- Identify bright spots
- Identify gaps in services
- Identify underserved populations
- Identify opportunities to align programs and services
- Identify where early childhood services correlate with child progress in key metrics
- Inform coordination across our programs
- Tell Texas' story of collective investment in early childhood programs

Stakeholder Engagement

A top priority of the TELC Data Roadmap Work Group was to engage stakeholders to ensure that the vision and any recommendations made in this report reflect the needs of stakeholders. The TELC Data Roadmap Work Group began these efforts by reviewing and building on prior stakeholder engagement efforts. This included reviewing survey and interview data collected during the development of the TXR3 project and reviewing the guiding policy questions from other states that have implemented an ECIDS.

In the fall of 2022, the TELC Data Roadmap Work Group administered a survey with 68 responses from over 40 groups and organizations. They also conducted eight virtual listening sessions, targeting a broad range of stakeholder groups, including advocacy groups, agency staff, early childhood service providers, parents, and research organizations. In the survey and listening sessions, stakeholders were asked about their current data use and integration efforts, their input on the policy questions, and feedback on how additional data would impact their work.

Stakeholders identified several challenges to using and integrating current early childhood data in the state, including siloed data systems, data quality within and across systems, and the complexity of matching and combining data. With additional data made available through an ECIDS, stakeholders reported that they would save time and resources, be able to make better informed decisions, and be able to serve children and families more effectively. Finally, stakeholders suggested that an ECIDS should integrate and align with other state efforts and data systems. A full summary of this stakeholder feedback can be found in Appendix D.

The TELC Data Roadmap Work Group and participating agencies can continue to engage with stakeholders throughout the design and implementation if the state pursues an ECIDS. As the data governance structure is built, a formal pathway for stakeholder engagement should be considered.

Recommended Business Cases

The following recommended business cases were developed by the TELC Data Roadmap Work Group based on the feedback from stakeholders. These business cases provide a proposed starting point, incorporating key contextual information and potential business needs, that can help to guide next steps in the development of an ECIDS if the state decides to pursue one.

Table 4. Recommended Business Case #1: Foundational Questions around Eligibility, Access, and Enrollment in Early Childhood Services and Programs in Texas[24]

Topic	**Description**
Business Case Domain:	Foundational Questions around Eligibility, Access, and Enrollment in Early Childhood Services and Programs in Texas
Background	Early childhood data in Texas currently exist within complex, independent data systems across multiple agencies. Current data sharing efforts are limited and often narrow in scope, making it difficult to understand the full early childhood landscape in the state. Integrating early childhood data would provide agencies and stakeholders with a more holistic view of early childhood programs and services and their impacts. Access to integrated data will allow policymakers and other stakeholders to better understand the full scope of how young children and their families are being served across programs and services, particularly at key transition points.

[24] Business cases structure is adapted from: Morrison, Howard; Coffey, Missy; and Sirinides, Philip, "ECDataWorks Programmatic Use Case for the Development of an Analytic Tool" (2022). *ECDataWorks*. 8. **https://repository.upenn.edu/ecdataworks/8**

Topic	Description
State Priority / Goal	Goal 6 of the Texas Early Learning Strategic Plan: Texas has strong coordination across its early childhood system and the underlying data system to support a high degree of collaboration 2025 Targets: ● By 2025, Texas will have an early childhood integrated data system that meets the needs of policy makers, families, and providers. ● By 2025, Texas' early childhood data system will link data points related to kindergarten readiness and other transition indicators from and across the early learning system.
Key Policy Questions	Foundational Questions that an Early Childhood Integrated Data System will Answer: ● What is the total population of families and children birth to 5? ● What is the population of families and children eligible for early childhood services and programs? ● What is the population of families and children with access to early childhood services and programs? ● Which potentially eligible families and children are/are not being served by early childhood services and programs? Programs included: ● Public school PreK ● Early Childhood Special Education (ECSE) ● Child care financial assistance ● Early Childhood Intervention (ECI) ● Prevention and Early Intervention (PEI) programs
Primary Users / Audience	Primary: ● State agency staff ● Policymakers Secondary: ● Researchers ● Advocacy groups ● Early childhood service providers ● Parents

Topic	Description
Actions Expected	Determine an unduplicated count of how many children in the state are being served by one or more of the following programs: public school PreK, Early Childhood Special Education, child care financial assistance, Early Childhood Intervention (ECI), and/or Prevention and Early Intervention (PEI) programs. Specifically: ● Determine which eligible children are enrolled in public PreK and/or receive child care financial assistance. ● Determine how many of the children not served by public PreK are in Texas Rising Star 3- or 4-star child care and how many are not in either Texas Rising Star 3-or 4-star child care or public PreK. ● Identify children receiving ECI services who are eligible but not receiving child care financial assistance or enrolled in public school PreK-3. ● Identify children receiving PEI services who are eligible but not receiving child care financial assistance or enrolled in public school PreK. ● Determine how many children exiting ECI enroll in ECSE. ● Determine how many children receiving PEI services also receive ECI or ECSE services. ● Identify providers serving children receiving ECI or ECSE services and child care financial assistance who are not receiving the inclusion assistance rate. ● Determine how many children are served by PEI (including home visiting programs) and are not enrolled in public PreK.
Impact	An Early Childhood Integrated Data System will empower state and community leaders to: ● Prioritize PreK enrollment and partnership efforts based on child care financial assistance and home visiting enrollment. ● Improve the referral process among ECI, child care financial assistance, public school PreK, ECSE, and PEI programs, leading to increased uptake of available resources. ● Increase awareness of the inclusion assistance rate, leading to increased uptake of available funding and increased rates of child care providers serving children with disabilities or delays.

Topic	Description
Functionality	Filter by: ● State, agency-specific region (for example, Local Workforce Development Area, Education Service Center, Independent School District), county, ZIP code ● Demographics (for example, gender, race/ethnicity, age) ● Other key eligibility criteria (for example, family income, military)
Access Level	Restricted Access: De-identified, child-level data will only be available to a small group of approved, trained researchers and agency staff. Public Access: Aggregated, FERPA-, HIPAA-, and IDEA-compliant reports and dashboards will be available to the public. Data masking will occur for any data point below 10.
Frequency	At least annually (more frequent updates may be available depending on the data source)

Topic	Description
Datasets	**TEA (ECDS; PEIMS; Child Find)** Children in public PreK, Kindergarten, 1st grade: ● Enrollment ● Early Childhood Special Education (ECSE) enrollment and type of services ● Demographics **TWC (TWIST; Engage)** Children receiving child care financial assistance: ● Enrollment ● Texas Rising Star-level ● Demographics ● Disability status flag ● Inclusion assistance rate **HHSC (CLASS; TKIDS)** Licensed/regulated provider: ● Capacity Children receiving ECI services: ● Whether the child received services ● Services provided ● Demographics **DFPS (PEIRS)** Children receiving support from PEI funded programs: ● Whether the child received services ● Type of services provided ● Demographics

Table 5. Recommended Business Case #2: School Readiness

Topic	Description
Business Case Domain:	School Readiness
Background	There are currently more than two million children from birth to age five in Texas. The Texas Early Learning Strategic Plan provides a framework for public and private action to achieve the bold vision that all Texas children are ready for school and ready to learn through the achievement of measurable system, family, and child outcomes by 2025.
State Priority / Goal	Same as Foundational Questions Business Case, plus: Goal 1 of the Texas Early Learning Strategic Plan: Early childhood programs in Texas are aligned to ensure children are ready to learn by kindergarten. 2025 Target: ● By 2025, 75% of Texas' children will be ready for kindergarten. Baseline: 52% Interim Target: 65%
Key Policy Questions	School Readiness: Are the state's children, starting at birth, healthy and on track to succeed? Programs included (same as Foundational Questions Business Case): ● Public school PreK ● Early Childhood Special Education ● Child care financial assistance ● Early Childhood Intervention ● Prevention and Early Intervention programs
Primary Users / Audience	Same as Foundational Questions Business Case

Topic	Description
Actions Expected	● Identify relationship between child care provider quality (based on Texas Rising Star level) and student outcomes (for example, PreK and Kindergarten assessments, PEI-related outcomes, ECSE services). ● Identify relationship between PEI and ECI services and student outcomes. ● Identify PreK partnerships with positive student outcomes.
Impact	An Early Childhood Integrated Data System will empower state and local leaders to: ● align Texas Rising Star requirements with positive child outcomes. ● align high quality PreK indicators with positive child outcomes. ● leverage resources for the greatest impact on program development and management, including program improvement and guiding best practices.
Functionality	Same as Foundational Questions Business Case
Access Level	Same as Foundational Questions Business Case
Frequency	Same as Foundational Questions Business Case

Topic	Description
Datasets	Same as Foundational Questions Business Case, plus: **TEA (ECDS)** Children in public PreK, Kindergarten: ● Scores (PreK assessment, Kindergarten assessment) **HHSC (CLASS)** Licensed/regulated provider: ● Citations and citation severity **DFPS (PEIRS)** Children receiving support from PEI funded programs: ● Confirmed allegations while receiving PEI services

Recommended Next Steps for Texas

The state received Preschool Development Grant Birth Through Five Renewal funding, which includes funding to continue to support the development of an ECIDS. Beginning in 2023, the first year of the grant, participating agencies proposed to select the lead agency, develop a scope of work, and create a data governance charter. In 2024, agencies proposed to gather technical and design requirements and begin implementation in 2024 and 2025. More details and a table outlining potential short- and mid-term planning follows.

In the first year, agencies could select the lead agency and begin defining a scope of work, including detailing project requirements and high-level functionality of the ECIDS. They could also begin creating a cross-agency data governance plan, including crafting an objective, framework, roles and responsibilities, and documenting relevant privacy laws and regulations. Another key component of the data governance work will be to review existing statutory and legal requirements and develop required data sharing agreements for the priority business case(s) and a process for updating interagency agreements. While this work will begin in the first year, it will be an iterative process throughout the life of an ECIDS.

In the second year, as part of gathering technical requirements and developing a design plan, agencies could focus on various aspects of these data: security, storage, retention, management, processing, transportation, and analytics/products. This work would also require a clear plan for data integration roles and responsibilities of relevant agency personnel.

In the second and third year, when developing and implementing the proposed business case or cases, agencies would design and build the proposed business case(s) and build any needed analytic tools based on those business case(s).

Table 5. Timeline: Short and Mid-term Planning

Activity/Task	Year 1: 1-3 mos	Year 1: 4-6 mos	Year 1: 7-9 mos	Year 1: 10-12 mos	Year 2	Year 3
Define the Scope of Work	Yes					
Gather Technical Requirements and Develop a Design Plan					Yes	
Develop and Maintain a Data Governance Plan	Yes	Yes	Yes	Yes	Yes	Yes
Develop Required Data Sharing Agreements for Priority Business Case(s)	Yes	Yes	Yes			
Development and Implementation of Proposed Business Case(s)					Yes	Yes
Design and Implement Business Case(s)					Yes	Yes
Analytic Tool Development					Yes	Yes

Conclusion

The background and state policy context, data landscape of existing state systems, and lessons learned from other states all provide a compelling foundation to inform the path forward. Texas is poised to better use existing data to inform policies and programs for young children and their families in the state. Stakeholder feedback reflects a desire for a better ability to leverage these data, and state leaders have crafted a starting point for the recommended policy questions to focus on first.

Appendix A. State and Federal Funding Details for Current and Prior Early Childhood Data Initiatives

Table A.1. Current and Prior State and Federal Funding Details for Current and Prior Early Childhood Data Initiatives

Early Childhood Data Initiative	Funding Details	Funding Type
Texas Early Learning Needs Assessment and Strategic Plan	Preschool Development Grant Birth through Five (PDG B-5) from the U.S. Department of Education and U.S. Department of Health and Human Services	Federal
Texas Ready Communities, Ready Schools, and Ready Students (TXR3)	SLDS grant from the U.S. Department of Education	Federal
House Bill 680 (2019)	Child Care & Development Fund (CCDF)	Federal
PEI Results-Based Accountability	Maternal, Infant, and Early Childhood Home Visiting (MIECHV)	Federal

Table A.2. Ongoing State and Federal Funding Details for Current and Prior Early Childhood Data Initiatives

Early Childhood Data Initiative	Funding Details	Funding Type
Statewide Longitudinal Data System (SLDS) Initiative, Texas Student Data System (TSDS)	State appropriations for implementation and modernization; federal SLDS grants from the U.S. Department of Education	Federal, state
Tri-Agency Workforce Initiative	Governor's Emergency Education Relief (GEER) Fund for certain tri-agency data modernization efforts	Federal
Education Research Centers (ERCs)	State appropriations	State

Appendix B. List of Federal and State Statute Identified as Related to Early Childhood Data and Data Sharing by Agency Staff

Texas Health and Human Services Commission, Early Childhood Intervention

- 34 CFR § 303.124 – Related to data collection.
- 34 CFR § 303.701 – Related to state performance plans and data collection.
- 34 CFR § 303.720 – Related to general data requirements.
- 34 CFR § 303.722 – Related to data reporting.
- 20 U.S.C. § 1232g – Related to family educational and privacy rights.

- 34 CFR § 99.31 – Related to prior consent for information disclosure.
- 34 CFR § 99.37 – Related to disclosure of directory information.
- (HIPAA) Public Law 104-191 Sec. 262 § 1173 – Related to standards for information transactions and data elements.
- (HIPAA) Public Law 104-191 Sec. 262 § 1175 – Related to HIPAA requirements.
- 26 TAC § 350.207 – Related to parental consent.
- 26 TAC § 350.221 – Related to access rights.
- 26 TAC § 350.225 – Related to amendment of records at parent's request.
- 26 TAC § 350.233 – Related to the release of personally identifiable information (PII).
- 26 TAC § 350.235 –Related to safeguards.
- 26 TAC § 350.239 – Related to destruction of information.

Texas Health and Human Services Commission, Child Care Regulation

- HRC § 42.025 – Related to the maintenance of a searchable database.
- HRC § 42.026 – Related to access to a searchable database.
- HRC § 42.0412 – Related to the collection of licensed day-care center data.
- HRC § 42.04425 – Related to the establishment of an inspection information database.
- HRC § 42.0583 – Related to identifying at-risk providers.

Texas Workforce Commission, Child Care Financial Assistance

- 45 CFR § 98.71 – Related to child care financial assistance (CCDF).

Appendix C. Additional Policy Questions Identified by the TELC Data Roadmap Work Group

The TELC Data Roadmap Work Group identified a broader set of policy questions that an ECIDS might answer. The full set of policy questions was narrowed to develop the two identified business cases based on feasibility, stakeholder input, and feedback from the Early Childhood Interagency Work Group. The following additional policy questions were identified:

- Which characteristics of various early childhood programs are associated with positive outcomes for which children?
- Is the number of quality services and programs increasing over time?
- What policies and investments lead to a skilled, stable and effective early care and education workforce?
- What are the educational and economic returns on early childhood investments?

Appendix D. Stakeholder Feedback Executive Summary, Fall 2022

Early Childhood Integrated Data System (ECIDS) Roadmap Background

In April 2022, the Texas Early Learning Council (TELC) formed a Data Roadmap Work Group to explore a possible Early Childhood Integrated Data System (ECIDS). Most early childhood programs and services in Texas are delivered through five state agencies (Texas Education Agency, Texas Department of Family and Protective Services, Texas Department of State Health Services, Texas Health and Human Services Commission, and Texas Workforce Commission). To maximize the outcomes for Texas children and families, the state agencies established the Early Childhood Interagency Work Group, which is partnered with the TELC Data Roadmap Work Group in the creation of a Texas ECIDS Roadmap.

Data Collection

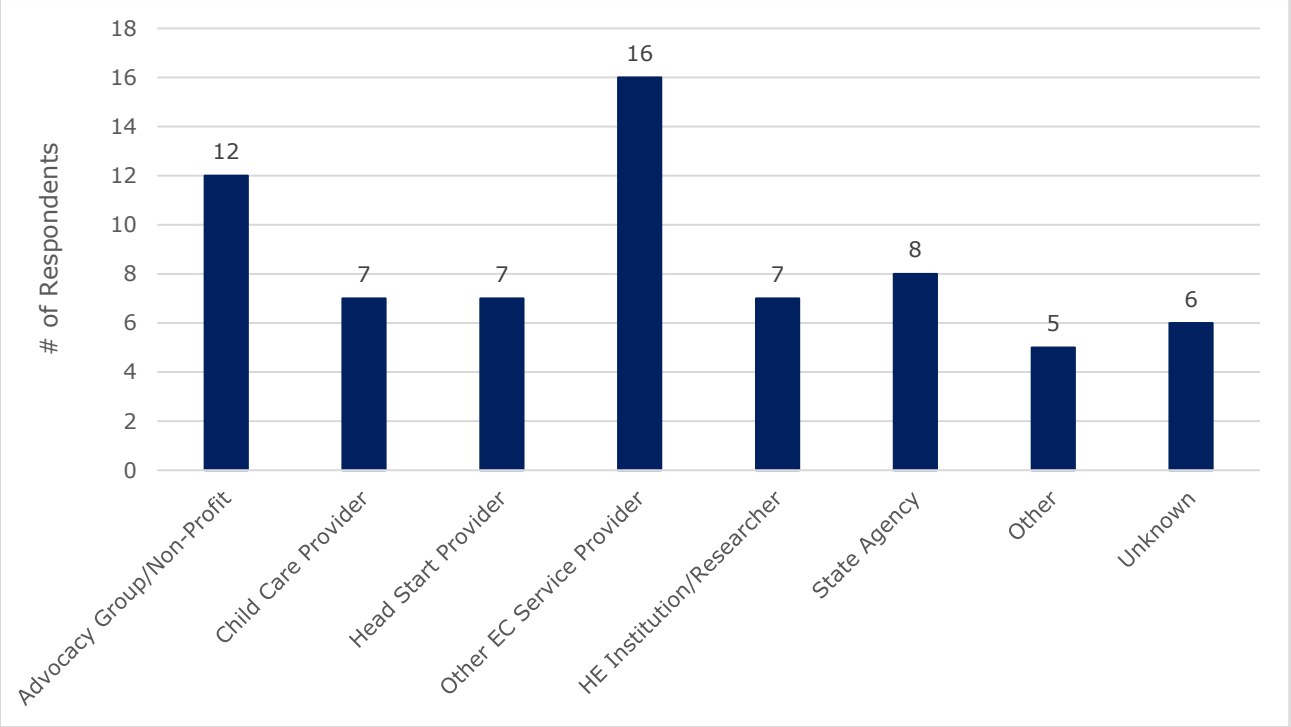
Listening Session Participation

In August and September 2022, the TELC Data Roadmap Work Group members led eight virtual listening sessions to gather feedback from stakeholders to inform the recommendations included in the roadmap. Participants included state agency staff and data system users, researchers, advocacy groups, parents, early childhood teachers and administrators, and early childhood service providers.

ECIDS Stakeholder Survey Participation

A Texas ECIDS Stakeholder Survey was sent to all listening session participants and was distributed by the Texas Early Childhood Council and Data Roadmap Work Group members. The survey was completed by 68 respondents from over 40 organizations. Figure 1 shows the distribution of respondents across stakeholder groups. Early childhood service providers made up 34% of respondents, with 10% from child care, 10% from Head Start, and 24% from other service providers including Early Childhood Intervention and home visiting. Approximately 18% of respondents were from advocacy groups and non-profits, 10% were from higher education institutions or research organizations, 12% were from state agencies, 7% were from other groups including local government agencies or family support organizations, and 9% did not identify an organization.

Figure 1. Survey respondents by stakeholder group



Stakeholder Feedback

The following section summarizes the feedback received through the survey and listening sessions. This is a summary of common themes from the feedback and is not meant to be exhaustive.

Current Data Use and Integration

According to survey results, the top five data systems that respondents reported contributing data to include: Texas Kids Intervention Data System (TKIDS), Head Start, Texas Early Hearing and Detection and Intervention (TEHDI), Texas Early Childhood Professional Development System (TECPDS), and data systems from the Texas Education Agency (TEA), while the top used data systems include: TEA data systems, TECPDS, TKIDS, the Workforce Information System of Texas (TWIST), and Medicaid. When asked about current data integration efforts, 49%[25] of respondents reported currently integrating data. Among those not currently integrating data, 14% reported planning to do so.

One of the major themes that emerged regarding participants' current data use and integration is that current data systems are siloed. Many respondents stated that combining data is time-consuming and burdensome. Several respondents reported that they currently piece together data points from multiple sources, and it is difficult to convey a clear picture. Timeliness of data

[25] Percentages included in this report exclude non-response unless otherwise specified.

was also cited as a concern, as publicly available data are often lagged, which can affect the usefulness of data for decision making.

Another theme that emerged is the complexity of matching across and within data systems. Respondents suggested being thoughtful when developing a matching methodology to ensure that it can link to other systems in the future and suggested potentially assigning TEA's Public Education Information Management System (PEIMS) IDs across systems.

Listening session participants and survey respondents identified several other common challenges to using and integrating data, including:

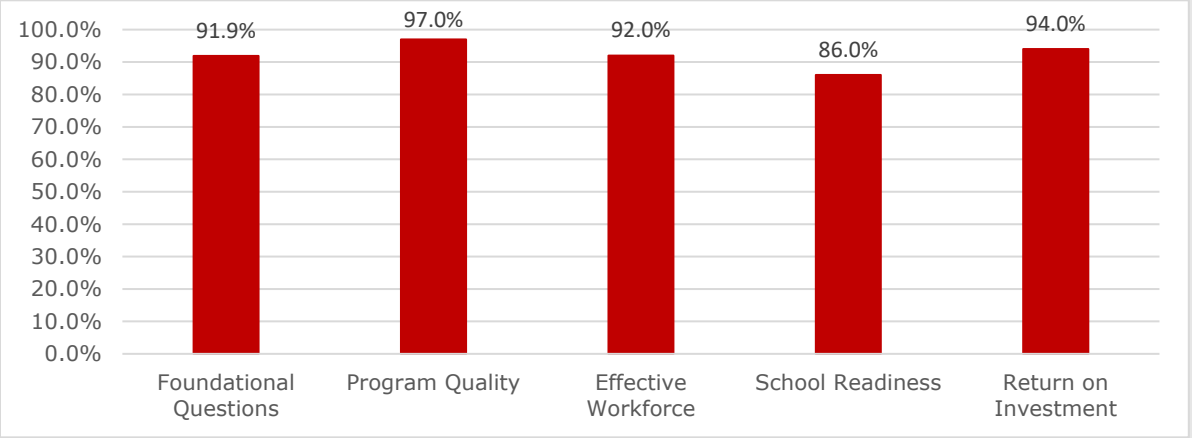
- weighing the benefits to families with concerns for privacy and determining levels of data access;
- aligning geographies across systems, since each agency uses different definitions of regions; and
- assuring data quality within and across systems.

Participants also identified additional data sources to utilize, including population data from the U.S. Census (including the American Community Survey), Texas Demographic Center, and Vital Statistics.

Policy Question Feedback

Survey respondents rated how relevant each policy question is to their work. Figure 2 shows the percentage of respondents who reported that the policy question is "moderately" or "very" relevant to their work.

Figure 2. Percentage of respondents reporting a policy question as relevant to their work



When asked for their thoughts and input on the policy questions, participants suggested separating the foundational policy question, "What is the population of families and children eligible and with access to early childhood services and programs?" into two separate questions: one question addressing eligibility and one addressing access. Participants also suggested beginning to define the key terms in the policy questions, including "access," "quality," and "on-track," and beginning to outline the methodologies and data that would be

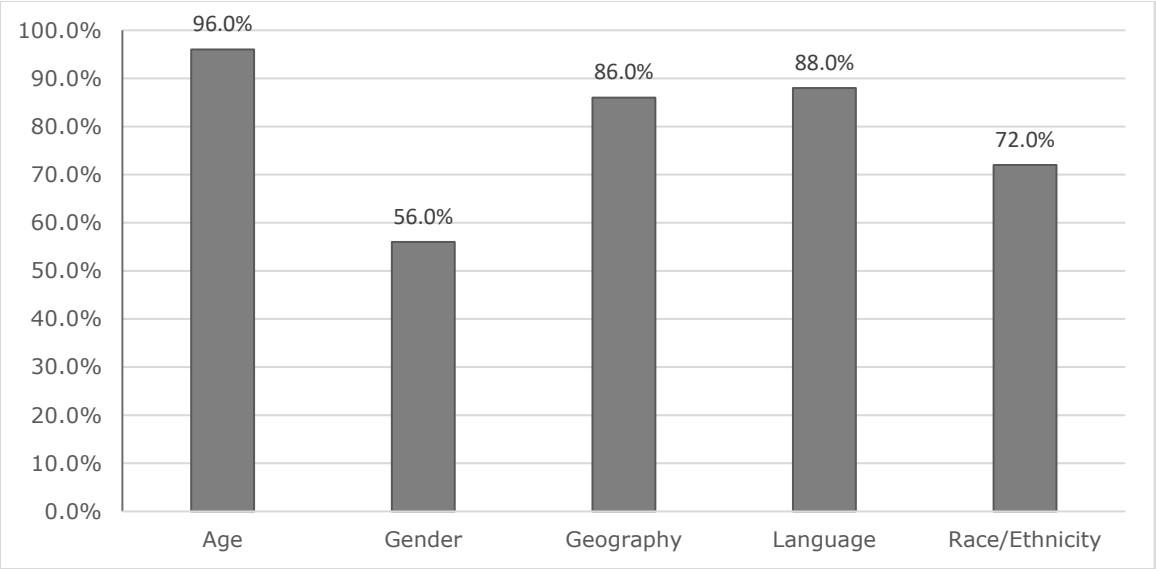
needed to answer the policy questions. They also asked for more information on which programs and services might be included.

Respondents suggested focusing on why we may see certain patterns in the data. Particularly, when looking at children and families not being served, they emphasized that it will be important to explore *why* they are not being served.

Disaggregation Characteristics

Survey respondents rated how important it is to analyze data by several characteristics. Figure 3 shows the percentage of respondents reporting that a characteristic is "moderately" or "very" important.

Figure 3. Percentage of respondents reporting a characteristic is important



Survey respondents identified several additional characteristics as important, including: socioeconomic status (income and parent education), family structure, disability status, homelessness, foster care, and other eligibility characteristics. Participants also emphasized the need for flexibility in the disaggregation, allowing for different age ranges or different levels of geography.

New Data Use

Survey respondents were asked how they would use the new data from each policy question if available, and several themes emerged around planned data use. Many respondents reported that they would use the new data for planning and decision-making, including using the data for program development and management, to help with family engagement, and to inform policy recommendations. Respondents also mentioned using the new data to target resources, for research and evaluation, and for education purposes.

Respondents specifically identified that they would use data on the following programs, if made available: Head Start and Early Head Start, Early Childhood Intervention (ECI), Child Care Scholarships, Child and Adult Care Food Program (CACFP), and Special Education services.

More detailed information on respondents' planned data use is available in the Appendix.

New Data Impact

Respondents identified how the new data would impact their work. Participants emphasized that being able to use several data points from one source would save them time and often money if they are contracting services to combine and analyze data. Having one place to get information could also create shared definitions and language across programs and allow stakeholders to use data from the same reliable source, increasing confidence in the data.

They mentioned that the integrated data would also allow for better data-driven decision making among agencies, policymakers, researchers, advocates, and other stakeholders. They emphasized that better quality data leads to more informed decisions.

Respondents reported that the data would allow agencies, service providers, and advocacy groups to better serve children and families. It would allow these groups to reach children and families in need more easily and target areas or populations where the data show gaps in programs and services. They emphasized that it would allow these groups to take action on what moves the needle for improved program quality, school readiness, and other outcomes. They also cited that the new data would increase accountability.

Parents mentioned that they would like to see themselves and their families in the data and know that they are part of a larger community of other similar families. With better data, they would be able to more easily share information with one another. They also emphasized the importance of clear, usable information.

Other Feedback

Respondents also provided general feedback on the development of an ECIDS. They emphasized the need for data systems to speak to one another and that any new data system should be able to connect to existing systems. They mentioned a desire for integration and alignment with the Education Research Centers (ERCs) and Tri-agency work, other Statewide Longitudinal Data Systems (SLDS) like the Texas Student Data System (TSDS) at TEA, and other existing data systems. Participants mentioned the need to keep future ECIDS development in mind when developing new data systems to ensure the systems can align.

Participants expressed a desire for better coordination among agencies. They would like to see steps toward coordinated eligibility and enrollment across multiple early childhood programs and services.

Participants also suggested developing a plan for scalability, pointing out that it will be important to think about how an ECIDS can be built out over time and identify what will be needed at each stage.

Appendix (New Data Use)

Below is a summary of the survey respondents' planned data use for each policy question.

Foundational Questions: *What is the total population of families and children birth to 5? What is the population of families and children eligible and with access to early childhood services and programs? Which families and children are/are not being served by early childhood services and programs?*

Program development and management:

- Understand target population and scope
- Determine where services are needed and not needed
- Staffing plans and apprenticeship program planning
- Determine service area
- Open and fill slots and build waitlist
- Identify and address gaps in service

Family engagement:

- Target eligible families and where there are gaps
- Evaluate current engagement efforts

Policy recommendations and decision-making:

- Understand target population and scope
- Determine where services are needed and not needed
- Identify and address gaps in service
- Assess current eligibility and access

Targeting resources and grants:

- Assess resources necessary to meet demands
    - Including population growth and where future investments might be needed
- Target which programs and regions to invest in

Research and evaluation:

- Understand why children are not receiving services
    - Identify financial and other barriers
- Track changes over time

Program Quality*: Which characteristics of various early childhood services and programs are associated with positive outcomes for which children? Is the number of quality services and programs increasing over time?*

Program development and management:

- Guide best practices
- Direct referral processes
- Prepare early childhood educators
- Evaluate program effectiveness
- Program improvement

- Compare across programs

Policy recommendations and decision-making:
- Maximize impact
- Program improvement
- Identify and scale best practices

Targeting resources and grants:
- Direct resources for the greatest impact and strongest outcomes

Research and evaluation:
- Identify bright spots
- Determine which programs and services have the most positive outcomes
- Identify barriers
- Track change over time

Education:
- Integration into college courses
- Inform students and faculty

School Readiness: *Are the state's children, starting at birth, healthy and on track to succeed?*

Program development and management:
- Identify where child populations need priority support
- Identify unmet need
- Help children reach milestones

Policy recommendations and decision-making:
- Identify unmet need
- Measure impact

Targeting resources and grants:
- Determine what resources to offer
- Identify and address gaps

Research and evaluation:
- Determine key ages for health and development
- Identify interventions
- Measure impact
- Identify successful models and quality programs
- Track change over time

Return on Investment*: What are the educational and economic returns on early childhood investments?*

Program development and management:

- Program improvement
    - Identify programs that are working and what to do if they are not
- Scaling evidence-based and promising practices
- Inform program planning and budgeting
- Inform partnerships

Policy recommendations and decision-making:

- Direct resources to programs that provide the greatest impact for kids and highest return on investment
- Marketing and public awareness
    - Build support for and credibility of investments in quality programs and workforce
- Leverage additional or continued funding
- Identify needed resources
- Identify efforts that are not compensated

Targeting resources and grants:

- Direct resources to programs that provide the greatest impact for kids / highest return on investment
- Identify areas of inefficiency that can be eliminated
- Demonstrate the impact made relative to resources used
- Identify and address gaps

Research and evaluation:

- Identify programs that provide the greatest impact for kids / highest return on investment
- Identify programs that are working and what to do if they are not
- Identify areas of inefficiency

Education:

- Integration into college courses
- Inform students and faculty

Effective Workforce*: What policies and investments lead to a skilled, stable and effective early care and education workforce?*

Program development and management:

- Program improvement (ways to enhance high quality services provided)
- Inform professional development, training, and staff growth efforts
- Inform postsecondary and career and technical education (CTE) program improvement (including identifying gaps in current approaches)
- Inform recruitment, hiring and retention (including identifying gaps in current approaches)
- Identify best practices and best areas for investments

Policy recommendations and decision-making:

- Advocate for policies to improve the quality of the workforce, continuing professionalization of the sector, and adequate pay structures

- Direct resources to programs that provide the greatest impact for kids
- Help maintain and sustain a healthy workforce
- Identify best practices and best areas for investments

Targeting resources and grants:

- Drive investments in training
- Identify best practices and best areas for investments

Research and evaluation:

- Identify if programs are working as intended
    - If not, identify why
- Identify impact on workforce of advanced degrees or certifications / moving up a career ladder

Education:

- Integration into college courses
- Inform students and faculty