

The Early Childhood



Collaborative

Coordinated State Early Care and Education Data Systems

What's Next in the States?



INTRODUCTION

State policymakers are increasingly focused on closing the achievement gap and preparing all students to succeed in school and in life. Differences in the developmental progress of disadvantaged children and their peers appear as early as the first year of life, and research has shown that high quality early childhood programs can narrow the “school readiness gap.”

Data are a vital resource in state efforts to reduce the school readiness gap and bolster educational achievement for all children. From the classroom to the legislature, stakeholders can use data about young children, early childhood programs and the workforce to improve the effectiveness of early care and education.

Stakeholders, however, often struggle to obtain data that will answer even basic questions about their state’s public early care and education (ECE) system. Current ECE data systems were created to satisfy reporting requirements for a variety of state and federal agencies. Therefore, the information housed in these systems usually is uncoordinated, dated and focused on program compliance. To support state reform efforts, ECE data systems need to be coordinated, longitudinal and linked to education and workforce information (P-20/W data systems). Such changes to ECE systems can promote data-driven decision making to improve the quality of programs and the workforce, increase access to services and, ultimately, help children develop to their fullest potential. To help states with this transformation, The Early Childhood Data Collaborative recently released specific guidance about the systems, including child, workforce and program site information (see *page 3*).

Evolution of Statewide Longitudinal Data Systems Grant Program

States have already begun to make progress in transforming state early childhood data systems, and federal funding is available to support these efforts. The Statewide Longitudinal Data Systems (SLDS) grant program provides a significant funding opportunity to states that choose to focus on linking early care and education with K-12. SLDS grants, funded by the Institute of

Educational Sciences in the U.S. Department of Education, initially focused on elementary and secondary education data; but they now include links to preschool, postsecondary and workforce data. The American Recovery and Reinvestment Act (ARRA) provided \$250 million in new money for SLDS grants that were awarded in 2010, and there is an additional FY 2010 appropriation of \$58 million.

The 2010 round of SLDS grants provided an opportunity for states to fund improvements to their early care and education data systems and to link these to K-12 longitudinal data systems and beyond (Appendix A provides links to grantee proposals). Early childhood is only one area of focus for these grants, which emphasize linking across the full P-20/W data system, but several states propose major enhancements to the collection and use of early childhood data as part of a comprehensive data system. Highlighted below are state SLDS grant winners’ plans for early care and education data systems, including a comparison to the ECDC recommendations for coordinated state early care and education data systems. The ECDC identified 10 Fundamentals of coordinated state early care and education data systems (Appendix B) that are based on the Data Quality Campaign’s 10 Essential Elements of statewide longitudinal data systems, with consideration of the informational needs of the early childhood field. Although these recommendations were published well after the recent round of SLDS grants were submitted and awarded, state grantees have taken a similar approach to the early childhood portion of their system, building on the major elements of state K-12 data systems and also reflecting the unique state early childhood context.

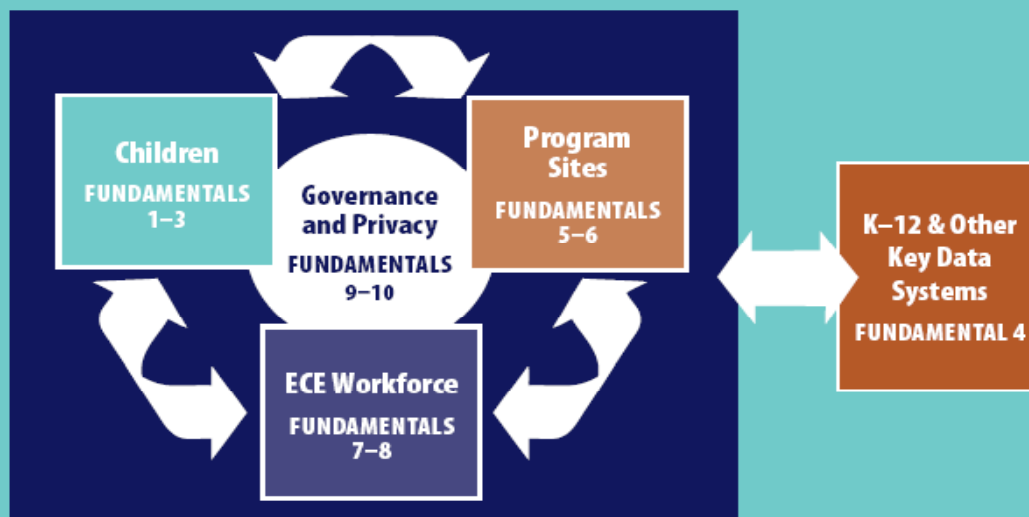
10 FUNDAMENTALS OF COORDINATED STATE ECE DATA SYSTEMS

Building and using ECE data systems that support these efforts require states to lead a threefold transformation:

- 1 From compliance-driven data efforts to improvement-driven systems;
- 2 From fragmented and incomplete data efforts to coordinated systems; and
- 3 From “snapshot” or point-in-time data to data systems that track information longitudinally.

The Early Childhood Data Collaborative (ECDC) identified 10 Fundamentals of coordinated state early care and education (ECE) data systems (below and Appendix B) that will allow stakeholders to better understand the long-term relationships among children, program sites and ECE workforce characteristics. (For information see, *Building and Using Coordinated Early Care and Education Data Systems*, <http://www.dataqualitycampaign.org/resources/details/1015>).

Coordinated state early care and education data systems



1. Unique statewide child identifier
2. Child-level demographic and program participation information
3. Child-level data on child development
4. Ability to link child-level data with K-12 and other key data systems
5. Unique program site identifier with the ability to link with children and the ECE workforce
6. Program site data on structure, quality and work environment
7. Unique ECE workforce identifier with ability to link with program sites and children
8. Individual ECE workforce demographics, including education, and professional development information
9. State governance body to manage data collection and use
10. Transparent privacy protection and security practices and policies

COMPARING SLDS PROPOSED WORK TO THE ECDC 10 FUNDAMENTALS: WHAT WE FOUND

States submitted their grant applications to the U.S. Department of Education in fall 2009 for ARRA-funded SLDS grants.

State plans to further develop ECE data within the full P-20 data system emphasize work that complements the recently released ECDC 10 Fundamentals. Although several states are in the initial planning phase of this work, more than half of the state SLDS winners propose enhancements that reflect at least one of the 10 Fundamentals. Although many states indicate the desire for comprehensive data links between a variety of early childhood services, state plans focus primarily on one major piece of state early childhood supports and services—prekindergarten. States plan to enhance prekindergarten data systems by implementing child-level identifiers (Fundamental 1), expanding collection of data from additional programs (Fundamental 2) and linking identifiers to K-12 systems (Fundamental 4). States have also proposed increased data collection on child development (Fundamental 3), links to other data systems (fundamental 4), and links between student and workforce information (fundamental 7). These state plans indicate promising steps toward data systems that will enable data-driven decision-making on how to improve the quality of ECE programs and the workforce, increase access to high-quality programs and, ultimately, help children develop to their full potential.

Examples of planned state work that reflects the ECDC 10 Fundamentals follow.

1 Unique Statewide Child Identifier

In addition to children in prekindergarten and special education early childhood programs, Illinois plans to expand the number of young children issued a unique identifier to infants and toddlers participating in programs funded by the state's Early Childhood Block Grant.

2 Child-level Demographic and Program Participation Information

Minnesota plans to add enrollment and demographic data from early childhood public school programs, including Early Childhood and Family Education, School Readiness and Head Start to better understand the effects of early childhood services on elementary education.

3 Child-level Data on Child Development

The Kansas State Department of Education plans to collect assessment data for state-funded pre-schools and integrate it with other information on children. These data will provide policymakers' with more information about early childhood program effectiveness and lead to earlier individual student intervention.

4 Ability to Link Child-level Data with K-12 and Other Key Data Systems

Maine plans to add additional early childhood program linkages to the state's longitudinal data system through a pilot program that will create a data repository for Early Head Start, Head Start and Educare and allow linkages to the departments of education and health and human services.

This summary may not represent all the work in early childhood data systems that has or will be accomplished in these states. In some instances, states did not define the data systems or ECE programs to be included in the "P," or early childhood, side of their P-20 data system, so we were unable to fully summarize their plans. In other cases, states indicated they were building

STATE PROFILES

on existing components of their early childhood data system such as unique child identifiers or links between prekindergarten and K-12 data. Appendix C captures only the planned work detailed in the state's longitudinal data systems grant application.

The following summaries of planned work give a fuller picture of activity on state early childhood data systems. The state plans below represent a sample of work that reflects the varying stages of system development. The ECDC will continue to track progress on the building and use of comprehensive early childhood state data systems and highlight state work, including conducting a 50-state survey of the 10 Fundamentals of Coordinated State Early Care and Education Data Systems. (For more information, please visit <http://dataqualitycampaign.org/resources/topics/7>.)

Arkansas

Linking with K-12 and Assigning Unique Student IDs to Better Understand Long-term Progress

Arkansas plans to increase the number of prekindergarten students included in the Department of Education's longitudinal data system to better understand the long-term educational progress of these children. The state education data system currently contains information only for prekindergarten students attending programs in public schools. Students in non-public schools are counted and tracked in a separate data system.

Arkansas' state-funded prekindergarten program, Arkansas Better Chance, serves approximately 25,000 3- to 5-year-old children in programs administered by school districts, private providers or the Home Instruction Program for Parents of Preschool Youngsters. The prekinde-

ergarten program collects extensive information about enrolled students, including demographic characteristics, body mass index information, results of annual health and developmental screenings, and additional information for children who require early intervention services. The program also collects information on child development through the Pearson Work Sampling System assessment, which is administered three times per year. The data system also includes workforce data, specifically information on teacher and paraprofessional education.

An agreement between the Arkansas Department of Human Services and the Arkansas Department of Education will allow twice-yearly data sharing between the state prekindergarten program and the ADE. ADE will also generate a unique student identifier so all children in the state's prekindergarten program will be included in the state's longitudinal data system. This data sharing and ID assignment will expand the state's ability to understand the longitudinal progress of children starting in prekindergarten. It will also help the state understand the effects of various prekindergarten program features, including workforce education and early childhood screening and interventions. Through these actions, and future plans to include additional information on young children, the state hopes to better understand the impact of early experiences on children's development and education.

Mississippi

Determining Data Needed to Answer Key Questions, Linking to Multiple Programs

At the governor's direction, Mississippi's State Early Childhood Advisory Committee conducted an analysis of all the data needed to evaluate

the state’s portfolio of early childhood programs and interventions. Priority was given to data that can help answer questions about how programs align and prepare children for academic success. The state plans to incorporate data from early childhood programs managed by the Mississippi Department of Health (MDH) and the Mississippi Department of Mental Health (MDMH) into the state’s longitudinal data system. These departments are responsible for several early childhood programs, including licensing of early care and education centers, services to children from birth to age 3 with developmental delays, services to children ages 2 to 4 with emotional delays, and services to babies at risk for delays due to a complicated pregnancy or delivery. The state also has piloted an identifier match program between early childhood and K-12 that was 90 percent successful in matching unique IDs assigned in early childhood programs with the state’s K-12 data system.

Oregon



Adding Child-Level Data, Including Developmental Data to Support Data-based Decision Making

Oregon currently houses its P-20 data in three separate data systems. The state will unify these into a single system, Advancing Longitudinal Data for Education Reform (ALDER), which will improve data collection and efficiency. The new system will allow policy-makers to understand students’ educational progression longitudinally and also will provide more student-level information about academic, cognitive, and other important areas of child development, such as fine and gross motor skills.

The state proposes to incorporate prekindergarten and additional kindergarten data—such as child-level demographic and participation information—into the state’s education data storage site and add more child-level information. The system will include attendance and

developmental information (from both summative and formative assessments) for preschoolers from both the Oregon Head Start Prekindergarten program and the Early Intervention/Early Childhood Special Education program. Providers will be able to use information for case management and to track the developmental progress of children receiving Early Intervention/Early Childhood Special Education services. Information will be incorporated into a new student transcript for students in prekindergarten that ultimately will be used to ease student transition into kindergarten and support data-based decision making for teachers and administrators.

The current system has many duplicate identifiers for children in Oregon Head Start Prekindergarten and Early Intervention/Special Education; currently, more than half the students receive a second ID. The enhanced system will improve the quality of data collected and reduce duplicate information. Other enhancements include use of a Web-based collection system for early childhood developmental assessments. By simplifying and automating the data collection process, more and higher quality data will flow to the longitudinal data system, allowing a more efficient tracking of longitudinal academic progress for a greater number of students.

Pennsylvania

Expanding to Other Programs and Including Additional Workforce Information

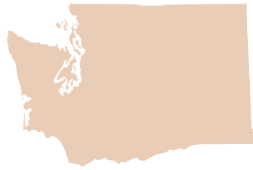


Pennsylvania intends to expand its already comprehensive early childhood data system to include new student and teacher information. The current system includes child, workforce and program information for a number of early childhood programs including state-funded prekindergarten, early intervention services for children with disabilities, and some center-based child care programs. The state proposes to add to the system child-level information from a kinder-

garten assessment and teacher-level information on preparations programs. Results from the kindergarten assessment will help the state evaluate the experiences of children enrolled in various state- and federally-funded early childhood education programs.

Pennsylvania also will add program site-level information on the approximately 35,000 children enrolled in federally funded Head Start and Early Head Start programs. In addition, the state will link these data and information on staff, children and families, into its data system (for more information, see *A Look at Pennsylvania's Early Childhood Data System*, <http://www.ncsl.org/default.aspx?tabid=20226>).

Washington



Connecting Program, Workforce and Child Data

Washington intends to expand its current P-20 data system by developing an early learning data system that would include all children who receive state-funded early learning services and also include children receiving social services. The new system will allow tracking of children's longitudinal progress from early childhood, through their education experiences, and into the workforce. The proposed system



will link data about programs, teachers and children to enable the state to answer questions about elements of program effectiveness and to enable improvements to all facets of the system. The new system will reduce redundancies that result from the current multiple data systems, by aligning data standards and definitions and reducing data entry. Washington also aims to improve the quality of information collected by the Department of Early Learning and the timeliness of reporting by implementing an online data collection program; these improvements will support better use of data for early childhood stakeholders.

Wisconsin

Preparing for a State Early Childhood Data System



Wisconsin's plans include an increased emphasis on tracking and viewing student progress throughout their educational development, beginning with their participation in early childhood programs. This work will begin with an inventory of all early childhood data systems, including information collected and data sharing capabilities, and an analysis of how to best share data across systems, including data from the Wisconsin Head Start state supplement program, the Individuals with Disabilities Education Act (IDEA) Part C and the child care food program.

Wisconsin will establish a new approach to sharing data between early childhood programs and the Department of Public Instruction. The state's ultimate goal is to consolidate various data warehouses into a single longitudinal data system. This will allow the state to better assess various early childhood programs and their effects on student readiness for kindergarten and further educational achievement.

APPENDIX A. 2010 STATE SLDS GRANTEE PROPOSALS

Arkansas

<http://nces.ed.gov/programs/slds/pdf/Arkansas2009-ARRA.pdf>

Colorado

<http://nces.ed.gov/programs/slds/pdf/Colorado2009-ARRA.pdf>

Florida

<http://nces.ed.gov/programs/slds/pdf/Florida2009-ARRA.pdf>

Illinois

<http://nces.ed.gov/programs/slds/pdf/Illinois2009-ARRA.pdf>

Kansas

<http://nces.ed.gov/programs/slds/pdf/Kansas2009-ARRA.pdf>

Maine

<http://nces.ed.gov/programs/slds/pdf/Maine2009-ARRA.pdf>

Massachusetts

<http://nces.ed.gov/programs/slds/pdf/Massachusetts2009-ARRA.pdf>

Michigan

<http://nces.ed.gov/programs/slds/pdf/Michigan2009-ARRA.pdf>

Minnesota

<http://nces.ed.gov/programs/slds/pdf/Minnesota2009-ARRA.pdf>

Mississippi

<http://nces.ed.gov/programs/slds/pdf/Mississippi2009-ARRA.pdf>

New York

<http://nces.ed.gov/programs/slds/pdf/NewYork2009-ARRA.pdf>

Ohio

<http://nces.ed.gov/programs/slds/pdf/Ohio2009-ARRA.pdf>

Oregon

<http://nces.ed.gov/programs/slds/pdf/Oregon2009-ARRA.pdf>

Pennsylvania

<http://nces.ed.gov/programs/slds/pdf/Pennsylvania2009-ARRA.pdf>

South Carolina

<http://nces.ed.gov/programs/slds/pdf/SouthCarolina2009-ARRA.pdf>

Texas

<http://nces.ed.gov/programs/slds/pdf/Texas2009-ARRA.pdf>

Utah

<http://nces.ed.gov/programs/slds/pdf/Utah2009-ARRA.pdf>

Virginia

<http://nces.ed.gov/programs/slds/pdf/Virginia2009-ARRA.pdf>

Washington

<http://nces.ed.gov/programs/slds/pdf/Washington2009-ARRA.pdf>

Wisconsin

<http://nces.ed.gov/programs/slds/pdf/Wisconsin2009-ARRA.pdf>

APPENDIX B. 10 FUNDAMENTALS OF COORDINATED STATE EARLY CARE AND EDUCATION DATA SYSTEMS

Transforming data systems so that they are improvement-driven, coordinated and longitudinal lays the groundwork for coordinated state ECE data systems. The 10 ECE Fundamentals provide the foundation for answering critical questions policymakers seek to answer. Of the four domains of services and supports that are fundamental to early child growth and development—health, early intervention programs, family supports and services, and early care and education—this framework focuses on the early care and education domain. (For more information, see *Building and Using Coordinated State Care and Early Education Data Systems: A Framework for State Policymakers*, www.DataQualityCampaign.org.)

1. Unique Statewide Child Identifier. A single, nonduplicated number that remains with a child throughout participation in ECE programs and services. The child identifier remains consistent even if the child moves or enrolls in different services within a state. State policies would ensure the unique identifiers are secure and protected.

2. Child-Level Demographic and Program Participation Information. This information includes age, ethnicity, socioeconomic status and program participation, including early intervention services for children with special needs.

3. Child-Level Data on Development. Developmental data collected from various sources (e.g., child observations, parent questionnaires) and assessment of skills—including social-emotional, physical, cognitive and linguistic development, and approaches to learning. Data collection methods must be appropriate, valid and reliable, and use scientifically sound instruments.

4. Ability to link child-level data with K-12 and other key data systems. Linkages that allow policymakers to track the progress of children over time, as well as better understand relationships among ECE programs and other programs that influence child development.

5. Unique program site identifier with the ability to link with children and the ECE workforce. A single, nonduplicated number assigned to a school, center or home-based ECE provider. States also may assign unique classroom identifiers to identify individual classrooms within a site.

6. Program site data on structure, quality and the work environment.

- **Structural data** such as location; length and duration of the program(s) offered; and funding sources.
- **Program quality data** such as national accreditation information, child-adult classroom ratios, curriculum and staff-child interaction measures.
- **Work environment data** such as the availability of professional development opportunities for staff, wages and benefits, and turnover.



7. Unique ECE workforce identifier with the ability to link with program sites and children. A single, nonduplicated number assigned to individual members of the ECE workforce, including teachers, assistant teachers, aides, master teachers, educational coordinators and directors, and other individuals who care for and educate young children.

8. Individual ECE workforce demographics, education and professional development information. Demographic data such as race/ethnicity, gender, age, educational attainment, experience in the field, retention and compensation. Professional development and training program data, such as the focus of the program content and delivery, funding sources, financial aid, and monetary rewards for educational attainment.

9. State governance body to manage data collection and use. Body that establishes the vision, goals and strategic plan for building, linking and using data and sets policies to guide the collection of, access to and use of the data. This includes setting policies to ensure common data definitions and standards and data audits to ensure the validity of the data.

10. Transparent privacy protection and security practices and policies. Transparent, publicly available policies and statements that articulate how states ensure the security of the data and the privacy and confidentiality of personally identifiable information. These policies and statements should address important issues including who has access to what data, especially identifiable data; how the information will be used and linked; the justification for the collection of specific data elements; and for how long states will retain the information.



APPENDIX C. 2010 STATE SLDS GRANTEE FOR E.C. CHILD, PROGRAM AND WORKFORCE DATA

The 2010 SLDS grantees include many plans that correspond to the ECDC 10 Fundamental of coordinated state early care and education data systems. Highlighted below are planned actions related to children, program and the workforce and data links. States have also planned progress around governance and privacy protection that will incorporate the full P-20/W system, including early childhood. That information is not detailed below.

ECDC Fundamentals	#1 Unique Child ID	#2 Child-Level Demographic and Program Participation Information	#3 Child-Level Data on Development	#4 Ability to Link Child-Level Data with K-12 and Other Key Data Systems	#5 Unique Program Site Identifier that Can Link with Children and the ECE Workforce	#6 Program Site Data on Structure, Quality and the Work Environment	#7 Unique ECE Workforce Identifier with the Ability to Link with Program Sites and Children	#8 Individual ECE Workforce Demographics, Education and Professional Development Information
Arkansas	X	X	X	X	*	*	*	*
Colorado	X	X	X	X				
Florida			*	*				
Illinois	X	X		X		*	*	*
Kansas			X					
Maine	X	X		X	*			
Massachusetts	*	*		X				X
Michigan								
Minnesota	X	X	X		*	X	*	*
Mississippi	*	X		X				
New York								
Ohio	X			X				
Oregon	X	X	X	X				
Pennsylvania	*	X		X	*	*		
South Carolina								
Texas		X		X				
Utah	X	*		X				
Virginia								
Washington	*			X		*	*	
Wisconsin	*			*				

Key:

X = State propose some progress related to this Fundamental.

* = States propose to advance this Fundamental, but are not explicit about the outcome.

The Early Childhood **D A T A** Collaborative

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National Governors Association
Center for Best Practices

Pre-K Now, a campaign of the
Pew Center on the States

The Early Childhood Data Collaborative (ECDC) supports state policymakers' development and use of coordinated state early care and education (ECE) data systems to improve the quality of ECE programs and the workforce, increase access to high-quality ECE programs, and ultimately improve child outcomes. The ECDC provides tools and resources to encourage state policy change and provide a national forum to support the development and use of coordinated state ECE data systems.

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