

P-20 Council Data Workgroup Update December 14, 2009

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Background

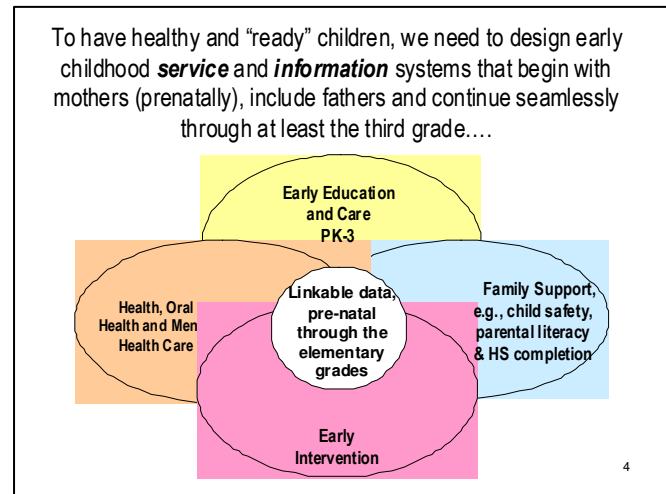
Through the Early Childhood Investment Initiative (2005-2009) and the work of the Early Childhood Education Cabinet, substantial effort has been underway to design a statewide, comprehensive B-9 system of early childhood services that can support families, communities, organizations and the State of Connecticut to accomplish three results for young children:

1. Reaching age-appropriate developmental milestones each year, birth through five
2. Entering kindergarten healthy and with the knowledge, skills and behaviors necessary for early school success, and
3. Demonstrating reading mastery by the fourth grade.²

A key part of this systems-building effort is an Early Childhood Information System (ECIS) that will enable organizations, practitioners and parents/families to obtain and use information related to young children's health, safety and learning, the workforce that serves them, and the programs in which they are enrolled.³

The collection, analysis and reporting of this information – to various audiences – has several purposes, including to:

1. Allow the earliest possible identification of children who may be experiencing risk conditions or vulnerabilities shown by research to impede age-appropriate development, health, safety and learning^{4 5}
2. Provide descriptive population, system and program information⁶ to advance statewide *and local* accountability for child outcomes⁷
3. Link child (student), workforce and program data and provide information on the effectiveness of various services, programs and interventions as related to desired child outcomes across service sectors⁸
4. Anchor fiscal, workforce and programmatic strategic planning and analysis in a common core of broadly available data related to the early childhood years (B-9) and available at the community level and state level^{9 10}



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² These are the specific goals of the Early Childhood Education Cabinet, adopted in July 2006, and published within “Ready by Five, Fine by Nine” (2006). They serve as the basis for the “Early Childhood Investment Plan” (2006 and 2009) and systems frameworks adopted to guide service delivery in the B-3 and K-3 years of children’s development as well.

³ See PA 09-06 which authorizes an Early Childhood Information System, assigned its development to the Office of Early Childhood Planning, Outreach and Coordination within the State Department of Education, and specifies the assignment of unique identifiers for children, the workforce and programs.

⁴ See the Early Warning Indicator System proposed by Massachusetts Governor Deval Patrick’s Child and Youth Cabinet for one example of such a system.

⁵ Such data is already a core component of some types of early childhood programs, including Early Head Start, Head Start, the Connecticut Birth to Three System and Connecticut’s Child FIRST early intervention model.

⁶ Using child information from unique student IDs and unique workforce IDs, the Cabinet was recently able to provide to the Connecticut General Assembly unduplicated counts of government supported preschool enrollment and of the associated early education workforce.

⁷ This purpose is linked to adoption by the State of Connecticut and the Cabinet of a Results-Based Accountability framework.

⁸ The national Early Childhood Data Collaborative has recently identified Connecticut’s ECIS along with similar work in PA, MD and ME as national leaders in integrated data development efforts.

5. Enable a seamless flow of information on children's growth within a PreK-3rd grade framework¹¹
6. Support parents in making service choices based on the quality of programs for their children¹²
7. Support the early childhood workforce and programs in improving their quality and effectiveness¹³
8. Provide data to researchers to promote the development of new knowledge related to service effectiveness for children with special needs.¹⁴

The Connecticut Early Childhood Information System is anchored in three core components and a common core of data elements carried by or related to each type of identifier:

1. A unique child identifier, assigned at the earliest point in the B-5 period but no later than entry to kindergarten. Use of the K-12 State Department of Education SASIDs is now authorized for use earlier in children's development.¹⁵
2. A unique workforce identifiers (through the EC Professional Registry)
3. A unique program identifier (developer to be determined).

Development of the ECIS is also linked to other work now in progress to develop (a) cross-agency open source data extraction and analysis methodologies and (b) open source data reporting tools. Our partners in this work are the CT Health Information Network, being developed and managed by the University of Connecticut Health Policy Center, and the Open Indicators Initiative, being developed and managed by the University of Massachusetts (Lowell) through the Open Indicators Consortium.

Work on early childhood data systems is now being tracked and guided by the National Early Childhood Data Collaborative. Connecticut participates with a small number of other states, including Pennsylvania and Maryland, as a member of the Early Childhood Data Collaborative Advisory Group. The Collaborative consists of seven national organizations¹⁶ and has identified a set of early childhood data system characteristics:

- Ability to track children across ages and over time, encompassing data on home and community environments
- Includes special populations (e.g., ELL, special needs) and children not in service systems
- Encompasses child outputs in at least four developmental domains and data on children can be linked across sectors (e.g., ECE, health)
- Includes children's demographic data (such as birth date, gender, race, ethnicity, language)
- Includes program and fiscal data (e.g., teacher/workforce characteristics, program quality, and service costs)
- Allows for analysis by geography.

⁹ The Early Childhood Investment Initiative's Community Co-Investment Partnership has documented the need for this type of data through B-9 strategic planning efforts in 23 Connecticut communities with significant numbers of young children at risk of school un-readiness and K-12 academic challenge.

¹⁰ See a series of cross-agency "data flow analyses" conducted by the Public Consulting Group on behalf of the Early Childhood Education Cabinet in 2008.

¹¹ See emerging national work on PreK-3 frameworks from such organizations as the Foundation for Child Development and the W.K. Kellogg Foundation.

¹² This work will support a broad range of parent education, engagement and leadership efforts at the state and community levels, including the Parent Leadership Training Institute, HELP ME GROW, the 211 Child Development Infoline, and the Parent Information Resource Center.

¹³ This is a specific requirement of the FFY 10 Early Learning Challenge Grants.

¹⁴ This is a specific requirement of the federal ARRA Race to the Top assurance on Statewide Longitudinal Data Systems (SLDS).

¹⁵ Secretary Arne Duncan's has called for unique child identifiers to be assigned at birth (June 2009) and CT PA 09-06.

¹⁶ These organizations are: the National Governors Association, National Conference of State Legislatures, Data Quality Campaign, Council of Chief State School Officers, National Center on Children in Poverty, PreK NOW/Pew Center on the States, and the Center on the Study of the Child Care Workforce.

This national work has thus far focused on a data system for the early education and care sector that can answer the following types of policy questions:

Defining Success:

- Are children entering kindergarten prepared for success?
- How to minimize or prevent achievement gap prior to kindergarten?
- How do we define and measure quality & what policy levers are critical to improving it?

Effectiveness, Evaluation, and “What Works”

- Which programs increase kindergarten readiness for at-risk children?
- Do the programs lead to K-12 success (e.g., 3rd grade reading scores)?

Ensuring Equitable Access

- Which children are served by which programs, providers, and teachers?
- Are programs reaching and serving the children they are intended to reach?

Cost and Resource Allocation

- Is there duplication of resources? Can programs be better coordinated?
- Where’s the biggest “bang for the buck” in early childhood?

Workforce Qualifications and Their Impact on Child Outcomes

- How are teacher/workforce education/training, compensation and benefits, and retention related to each other and to child outcomes?

What is the result being sought in connecting early childhood data systems to K-12?

Development of a robust early childhood information system *linked to the existing K-12 longitudinal data system* will have several positive outcomes.

Improving Children’s Early Learning. Both the K-12 and early learning data systems will be required to capture student growth as well as student benchmark information as part of both the federal Race to the Top initiative and the anticipated Early Learning Challenge Grants. Shared information on the nature of young children’s early health and learning experiences can improve the transition from PreK to early elementary school, enable more individualized student instruction and improve the likelihood of early language, literacy and math success in grades 1 through 3.

Empowering Parental Engagement. When assembling information about young children’s successes and challenges begins with parents through such tools as School Readiness Portfolios and Passports, parents assume a more equal role in the school-family partnership. We hypothesize (as have other states)¹⁷ that these tools – lodged with parents first – have the potential to empower and support early parental engagement with formal early education programs.

Unifying Information on a Mixed Delivery System. Unlike the public education system, Connecticut early care and education is provided through a “mixed service delivery model” with public and private providers and a broad variety of program characteristics. Some of this information is collected now by the Connecticut Statewide Longitudinal Data System (PKIS and PSIS) for those preschool programs operated as part of a PK-12 system. For those preschool and child care programs not operated within the public school system, data are beginning to be collected by the Early Childhood Information System. Without linked data systems, we cannot even provide unduplicated student and workforce information with which to describe the Connecticut preschool service system.

¹⁷ See the Massachusetts plan for Readiness Passports assembled by parents in the preschool years.

Improving Access to Cross-Agency Information on Children and Families. The K-12 SLDS is largely focused on the improvement of instruction to promote better academic outcomes for students. It has had few linkages to data systems operated by other agencies that include largely non-academic data on children and their life circumstances. Contrastively, the Early Childhood Information System as being conceptualized nationally and developed in Connecticut will be anchored in a broader base of information now resident in extant databases across agencies at the state and local levels. See two depictions of this situation below. Once “interoperability” protocols are established through the ECIS, this information will more readily be available to state and local educational purposes.

In the field of early childhood, it's an age old problem...
“Water, water, every where, Nor any drop to drink”***

- Agencies holding data on individual **children** and their **families**
 - Department of Education (Child ID, K-Inventory, Spec Ed)
 - Department of Public Health (Vital Records, WIC, other)
 - Department of Social Services (HUSKY)
 - Department of Developmental Services (B-3 Program)
 - Department of Children and Families (Child Welfare)
- Agencies holding data on individual **teachers and assistant teachers**
 - Department of Education (Staff File)
 - Workforce Registry (Qualifications, Experience, etc.)
- Agencies holding data on **early childhood programs**
 - Department of Education (Agency Location/ Vendor Info)
 - Department of Public Health (Licensing Info)
 - Department of Social Services (Vendor Info)
 - United Way of CT (211 Info)

***The Rhyme of the Ancient Mariner (1798) ¹⁵

The data we need to “look across” are resident within a wide variety of programs and services...

Department of Social Services	State Department of Education	Department of Public Health	Department of Children & Families
S-Chip Health	State preschool	WIC	Child Welfare
TANF	Preschool Spec Ed	Birth Registry	Children's MH
CCDBG/Child Care Subsidies	Family Res. Ctrs	Special HealthCare Needs	Parent Programs
Child Care Centers	Child Nutrition	Child Care Licensing	Home Visiting
Head Start	K-3 Curriculum & Instruction	Child Care Licensing	Foster Care
Collaboration Off.	HS Supplement \$	School-based Health Centers	
ECE Workforce Registry	Family Literacy		
	Even Start		
	Early Reading		
	GED		

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What is the process for making the connection between ECIS and the K-12 SLDS?

Next steps include:

Securing Fiscal and Staffing Support. Continued work on the ECIS is required and now authorized by state statute (PA 09-06). State funds were allocated to support this work¹⁸ but may be eliminated as part of the December 2009 Proposed Deficit Mitigation Plan. Federal funds may be available through (a) Statewide Advisory Council on Early Education and Care (ARRA) noncompetitive grants to states and (b) FFY 10 competitive Early Learning Challenge Grants, but work on these has not yet begun in Connecticut. Inclusion of two ECIS-related projects within Connecticut’s application for a competitive Statewide Longitudinal Data System ARRA grant award will provide fiscal support for some of the next stage development. If awarded, these federal funds will become available in July 2010 and provide two years of funding with a total of \$482,800 allocated to the early childhood project.

Continued ECIS Implementation Linked to the SLDS. Once fiscal support is secured, a series of tasks will be required to examine and recommend a set of core data elements to be carried by or linked through the unique child, workforce and program identifiers. Much of this work is now specified within the SDE SLDS application, based on two objectives. These objectives and the specific tasks associated with each are summarized below:

Objective #1: Expand the assignment of state assigned student IDs (SASID) to preschool students beyond those only in programs that receive state and/or federal funds. Tasks:

1. Conduct a feasibility study to identify the structures that need to be in place to permit the assignment of SASIDs to students outside the CSDE

¹⁸ \$400,000 was appropriated to the SDE Office of Early Childhood Planning, Outreach and Coordination to fulfill a set of 7 statutory mandates including continued development of the ECIS. Under the Deficit Mitigation Plan now under consideration, the funds would be completely eliminated.

2. Establish interagency agreements or statutory authority to pilot the assignment of the SASID to children in non-state and non-federally funded preschool programs in a sample of 20 public school districts.
3. Establish interagency agreements or statutory authority to pilot the assignment of the SASID at first referral to any state or governmentally funded service or program

Objective #2: Support the evolving CT ECIS and its linkages with the SLDS. Tasks:

1. Develop Unique Program IDs
2. Expand Collection of Workforce Data Within the ECIS
3. Develop Common Data Dictionary
4. Simplify ECE Reporting Forms
5. Conduct Data Analyses
6. Seek FERPA Approval
7. Integrate ECIS Cohort Analyses into SDE data warehouse and create public reports.

HIPPA and FERPA Clarification. Real and perceived barriers to linking data for real time use exist as the result of federal HIPPA and FERPA statute and regulations. The Data Quality Campaign is now leading an effort to clarify privacy issues related to both early childhood and K-12 data system. In addition, the author has just been invited by the US DHHS and US DOE joint working committee on data systems to field a team of state representatives and meet in Washington in January or February 2010 to seek resolution of early childhood and early education (K-3) privacy issues. Participants in this meeting will include a team from Connecticut, Pennsylvania, Maryland and Massachusetts. Resolution of these issues is critical in order for a coordinated process of development for ECIS, SLDS and emerging e-health data systems within and across states.

What is the timeframe?

This work has begun and should continue throughout SFY 10 and SFY 11. Fiscal constraints may, however, negatively impact on that timing.

Appendix A: CT SLDS Early Childhood Data Projects

Project II. Continued development of Connecticut's Early Childhood Information System (ECIS) so that data can be linked into the PK – 20 state longitudinal data system (SLDS).

(a) Need for the Project

The Connecticut State Department of Education's (CSDE) SLDS system already includes child and teacher data related for preschool programs that are state — or federally-funded. The intent of this component of the Connecticut 2009 SLDS application is to expand the sources of functional and easily accessible information about young children prior to the time they enter the state's public school system and integrate reports of that information into the SLDS. The ECIS will serve as the link for data on these additional young children (and their families), the workforce serving them and the programs funded to meet their specific needs for health, safety, learning and early intervention. It is intended to facilitate the acquisition of data about young children who currently are not in the SLDS, the analysis of these data to produce useful information for a variety of stakeholders (including parents, providers, programs, policy makers and researchers), and the regular publication and dissemination of this information. This project is directly in line with requirements specified in the ARRA Race to the Top third assurance related to the establishment and purposes of a PK-20 statewide longitudinal data system.

(b) Objectives for the Proposed Work

There are two objectives for this project:

1. Expand the assignment of state assigned student IDs (SASID) to preschool students beyond those only in programs that receive state and/or federal funds; and
2. Support the evolving CT ECIS and its linkages with the SLDS.

Project Design

Objective 1 Outcomes: Expansion of the CT Unique Student Identifier

It is Connecticut's goal that the records of all young children in Connecticut carry a unique child/student identifier assigned as early as possible, prior to their entry into the public school system, to facilitate real time service coordination for children and families. In addition, it will be possible to provide aggregate and disaggregated student-caregiver-program analysis, data reporting and use. The activities under Objective 1 will facilitate the continuing expansion of the assigning SASIDs to the state's young children prior to kindergarten enrollment.

Specific activities and expected outcomes for Objective 1 are:

1. Conduct a feasibility study to identify the structures that need to be in place to permit the assignment of SASIDs to students outside the CSDE; determine the necessary agreements and/or statutory requirements that need to be implemented among the public health, social service, community service and education agencies to facilitate expanding the assignment of the SASID beyond only those students in state and federally funded programs; identify the points of entry that will be targeted annually to expand the assignment of SASIDs over a four-year period; determine the software and hardware requirements of the units outside PR/Award # R384A100038 e7 of the CSDE to be able to transfer files to the CSDE and retrieve files from the CSDE; and establish file transfer protocols, including responsibilities of the sending and receiving agencies. Create policy and procedure documents regarding the sharing and use of the data collected for the ECIS project.
2. Establish interagency agreements or statutory authority to pilot the assignment of the SASID to children in non-state and non-federally funded preschool programs in a sample of 20 public school districts.
3. Establish interagency agreements or statutory authority to pilot the assignment of the SASID at first referral to any state or governmentally funded service or program.

4. Provide an allocation of SLDS funding to support changes to state agency forms and extant databases that will enable them to carry the SASID as a data field.
5. Develop applications to integrate student-level ECIS data into the state data warehouse and create reports for the public about the early childhood programs in Connecticut.

Objective 2 Outcomes: Support ECIS Development and Linkages with the CT SLDS

The ECIS is designed around three core information modules: (a) child and family data elements, accessed through use of the SASIDs; (b) early childhood workforce data now housed in the CSDE databases and in the CT Charts A Course Workforce Registry; and (c) program data now housed with a broad set of un-linkable state and local agency databases. The CT SLDS includes the same three components as the ECIS, but the two systems do not include identical data elements, nor do they share a common data dictionary. Data collection, access and reporting issues remain to be resolved not only for the CSDE, but also for other agencies serving young children.

Objective 2 will support work to develop missing core elements (such as a unique program identifier at the B-5 level), improve the degree of common data definitions across agencies, test “match and linking methodologies” related to child, program and workforce data, and begin to provide cross-agency cohort data for state and local purposes. Specific activities and expected outcomes for Objective 2 are:

1. Develop Unique Program IDs. Work with non-profit organizations such as the United Way of Connecticut to facilitate the development and assignment of unique program identifier for all early care and B-5 education programs, including center- and family- based services. For center-based programs, the unique identifier would be specific to the classroom level. Secure agreements with the organizations across agencies to carry the unique program identifier as a field on state agency forms and within agency databases.
2. Expand Collection of Workforce Data Within the ECIS. Provide fiscal support to CT Charts A Course to continue to collect and enter early education and care workforce data as newly required by P.A. 09-06. Coordinate this support with possible funding from other state agencies (specifically the Department of Social Services) and potential federal funding resources (including the expected FFY 10 Early Learning Challenge Grants).
3. Develop Common Data Dictionary. Develop, to the greatest extent possible, a common data dictionary for child, family, workforce and programs’ data elements now in use across state agencies serving children B-5, and cross-link with data definitions in use PR/Award # R384A100038 e8 within the CT SLDS. Expand the core data elements to enable alignment at the preschool level with the 10 Essential Elements tracked by the Data Quality Campaign and the SLDS features tracked by the National Center for Education Statistics.
4. Simplify ECE Reporting Forms. Complete all actions required by P.A. 09-03 requiring the Departments of Social Services, Education and Public Health to develop a “single form to report certain information to receive state funding” and by P.A. 09-10 requiring the departments to report on strategies that could be implemented to “simplify” the “requirements and procedures faced by early care and education providers.”
5. Conduct Data Analyses. Work with the CT Health Information Network (CHIN) to conduct an ongoing series of young child cohort data analyses utilizing its new cross-agency data matching algorithm. Data extraction, analysis and reporting will be based upon extant databases on young children and their families now in use by state agencies. CHIN holds statutory authority now (P.A. 09-05) to extract these data from specific agencies for analysis (Department of Developmental Service, neonatal intensive care hospitals, Department of Public Health and the Department of Children and Families). Initial analyses will focus on young multi-risk children whose needs cross agencies.

6. Seek FERPA Approval. Work with the State Department of Education and the federal DOE to achieve final approval of the CHIN methodology as satisfying FERPA privacy requirements. Then, add the CSDE education data for children to the analyses being conducted under #5 above.

7. Develop applications to integrate ECIS cohort analyses into the state data warehouse and create reports to inform the public about the status of the state's early childhood programs.

(c) Timeline for project:

The timelines for Connecticut to continue to develop its ECIS so that data can be linked into the PK – 20 SLDS are specified below by objective outcome/deliverable. Connecticut plans to complete the two objectives associated with this project during the first two years of the grant

(Approximately July 1, 2010 – June 30, 2012). For Objective 1, the two pilots will be completed by June 30, 2011, and recommendations will be made to create a plan for scaling up the assignment of SASIDs, with implementation beginning after July 1, 2011.

(d) Project Management

The ECIS project will be implemented by the Office of Early Childhood Outreach and Planning within the CSDE, with oversight from the Division of Assessment, Research and Technology, which includes the Bureau of Data Collection, Research and Evaluation, Bureau of Student Assessment and Bureau of Information Technology. The Associate Commissioner for the Division of Assessment, Research and Technology and the managers of the Bureau of Data Collection, Research and Evaluation, and Bureau of Information Technology will be responsible for the approval and oversight of the ECIS project activities.

The CSDE already has in place a SLDS Management Team, which includes the Associate Commissioner and managers of the three bureaus. The team meets weekly with project managers involved in the current SLDS projects to review the progress of each project, identify risks and determine how risks can be mitigated, and authorize expenditures. For the two-year span of the program, two professionals, Dr. Janice Gruendel and Ms. Joyce Staples will comprise the Implementation Team. They will allocate 50 percent of their time to ensure that the component activities of this project are completed to meet the timelines. The Implementation Team members for this project will attend monthly meetings of the Management Team to report on the progress of the ECIS projects and address any challenges they are encountering.

The Project Management team will coordinate staff and contractor assignments for developing the applications for this project with other projects that are currently taking place at the CSDE. In addition, the Division staff work closely with the state's Department of Information Technology Project Management Office to ensure that all components of its education technology projects meet rigorous standards for development and implementation. The Associate Commissioner and Dr. Janice Gruendel are also members of the state's PK – 20 Council Data Workgroup, which makes technical recommendations use of educational data as it relates to state policy development. The PK-20 Council also includes representation from the Department of Public Health and Department of Social Services, partners in this project.