

Minnesota Early Childhood Longitudinal Data System (ECLDS)



Data Guide

*Approved by the ECLDS Governing Body
January 13, 2015*

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Purpose and Overview

The purpose of this guide is to promote understanding of the integrated data contained in the Early Childhood Longitudinal Data System (ECLDS) by describing how data are to be used, accessed, kept secure, and to define important terms used in the system.

Important Note: Content in this guide is similar to content presented in the *Data Access & Management Policy* guide for the Statewide Longitudinal Education Data System (SLEDS) due to the technical structures that are shared between these two projects. Although funded under different sources over different time periods and while containing different data, ECLDS and SLEDS share IT resources. This requires a set of agreed upon standards to promote efficiency. Where content is shared with SLEDS, sections are indicated with “[Aligns with SLEDS].”

The ECLDS integrates existing data on young children and families participating in publicly funded programs from the Minnesota departments of Education, Health, and Human Services. Data are reported publicly at an aggregated (grouped) level and individual children are not identified. These data are integrated so that Minnesota can have a better understanding of children’s growth, achievement, and well-being in relation to their participation in a variety of educational and social programs over time. The ECLDS was built with federal Race to The Top Early Learning Challenge grant funds.

The ECLDS is helpful to Minnesotans in a variety of ways. Research shows that the early years of life are very important and it is vital to know whether the programs that we invest in are effective, both individually and collectively. ECLDS data is available to the public while protecting privacy.

P20W and Statewide Longitudinal Education Data System (SLEDS) Tools

The ECLDS is part of larger work related to integrating data to study a variety of outcomes for publicly-funded programs in Minnesota. This larger work is referred to as P20W, or systems that integrate data across the lifespan: “P” refers to early childhood and pre-kindergarten; “20” represents K-12 education and higher education; and “W” for wages and workforce. Minnesota’s first integrated data system was the Statewide Longitudinal Data System, or SLEDS. SLEDS allows for the matching of student data through completion of postsecondary education. The Minnesota Statewide Longitudinal Education Data System brings together data from education and workforce to: 1. Identify the most viable pathways for individuals in achieving successful outcomes in education and work; 2. Inform decisions to support and improve

education and workforce policy and practice, and 3. Assist in creating a more seamless education and workforce system for all Minnesotans.

Authority

State agencies are able to integrate existing data through allowable use articulated under the following authorities:

- 34 C.F.R. Chapter 303 for early intervention program for infants and toddlers with disabilities,
- FERPA, the Family Education Rights and Privacy Act, 20 U.S.C. 1232g,
- Minnesota Statutes (M.S.) 125B.07, requirement to maintain data on students
- Minnesota Data Practices Act, Minnesota Statutes (M.S.) 13.3805 and 13.3806
- Minnesota Statutes (M.S.) 13.46, on welfare system data

There are also additional federal authorities around the construction of longitudinal data systems that support this project.

Recommended Citation for Use

Users of ECLDS data products are encouraged to use the following citation:

[Chart Title], [Year] by [Geographic Level]. Minnesota Early Childhood Longitudinal Data System [Date Printed].

For more information email ECLDS.Support@state.mn.us

Governance of the ECLDS

Decisions about the ECLDS are made through a two-part governance structure. The two bodies are comprised of individuals representing the state agencies contributing data to the ECLDS as well as from professional associations from education, health, and human services practice communities. The following is a brief description of how the governance process works.

ECLDS Governing Body

The purpose of the Governing Body is to articulate the specific parameters for the Minnesota ECLDS. Specific duties include:

1. Approve requests for new data elements to be included in the system,
2. Approve data security protocols,
3. Appoint Research & Data members,
4. Approve requests for accessing data,
5. Ensure data access within data privacy laws, and
6. Approve designs for analytics and portal access.

ECLDS Research and Data Committee

The Research and Data Committee is comprised of program experts, research experts, and data experts knowledgeable about each of the interagency data sets included in ECLDS. The ECLDS Research and Data Committee reports to the ECLDS Governing Body. Duties of the committee include:

1. Advise in the development and recommend protocols for access to the data system adhering to state and federal laws,
2. Develop, review and approve proposals for research and/or evaluation questions,
3. Provide technical expertise and consultation on research methodologies,
4. Develop protocols for maximizing validity and reliability of ECLDS data, and
5. Provide technical expertise and consultation on data structure and data linkages for existing and new data.

Members serve three-year terms and decisions are made using consensus methods. A full description of the entire governance process, members and its decision-making history is maintained in the ECLDS Governance Document, available upon request.

ECLDS Contact Information

The Minnesota Department of Education (MDE) has administrative oversight of the ECLDS.

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Using the ECLDS

Children’s early environments, their families, and communities are complex. Even among children who participate in early care and education programs, their experiences can be widely divergent. The ECLDS has begun to integrate existing information about publicly funded programs that support children and families. We are working towards inclusion of additional data sources in the ECLDS that will help to build a more comprehensive view of children’s developmental experiences. When evaluating information from the ECLDS, it is important to acknowledge the limitations of the data available.

Considerations and Cautions

The early education and development environment in Minnesota is multi-faceted. Families can use many types of care for their infants and preschoolers and sometimes use more than one form of care simultaneously and over time.

Before the ECLDS was built, understanding of children’s participation in and use of early care and development programs was limited to specific programs that were studied through research projects or time-intensive, small-scale studies. This left many gaps in our knowledge about pre-kindergarten experiences.

With the ECLDS we are starting to fill these gaps in knowledge by linking data on early care and development participation to kindergarten records and by linking data from these early care and development programs to one another at the child level. ***In spite of this, there will likely always be some gaps.*** In particular, the ECLDS does not contain data on children who:

- Participated in private-pay child care and preschool arrangements.
- Go on to attend private or parochial K-12 schools.
- Participated in programs for which data are not committed and integrated into the ECLDS (see [Sources](#), page 16).

The ECLDS has limited information on children who:

- Were not born in Minnesota.
- Were born in Minnesota but leave.

Local Contexts

1. Trends over single year/single site situations

Trends continuing over multiple years and/or multiple sites may reflect broader issues and influences than single year or single site findings. As a result, users are encouraged to interpret results within a single site or single year with caution. For example, a

federal grant beginning or ending that influences local services or participation might distort local trends.

2. Small Sample Size

When building charts and graphs on the ECLDS site, the number of selections used may create very small groupings at certain levels of geography. This is an important consideration when using results. While it is true that the smaller the population size the more useful the information may be locally for informing planning and program development, it may not be possible to release that information legally because it risks violating privacy. For example, the number of children in a racial or ethnic group may be reportable at the state level, but when examined by a lower level of geography with a smaller population, the counts will be too small to report.

Another important factor in small sample sizes is trends that are unique to that grouping may not be shared by other areas or the entire state. Small sample sizes may distort multi-year or population-wide trends (Similar to trends over single year/single site situations above). Users are recommended to seek out multiple people and local experts (e.g., human and health services providers, educators, program directors in school-based programs, etc.) to assist in interpreting results for small sample sizes.

3. Know Local Context

Many early learning programs and interventions are undertaken at the local level. These local initiatives likely impact local results and can drive trends that are different from regional or state level trends. Whenever possible, users of ECLDS data should have an understanding of the local early childhood context in a given community when querying and using data for that community. For example, if a region has access to a local funder that has provided significant planning or implementation support, their results may be affected by this investment. Some areas may also experience shifts in trends due to changing industry or employment patterns. A future goal of the system is to add contact information for individual local jurisdictions.

Understanding and Talking about ECLDS Data

ECLDS Glossary

Through the construction of the ECLDS it was necessary to define important terminology used throughout the site. Some terms are specific to only one system or program. Others are shared across systems and programs and in this instance, work groups and ECLDS governance came to agreement on these definitions. The following list will help ECLDS users understand terms when they encounter them on the site or in graphs or reports. While every effort was made to come to agreement on definitions, some definitions may vary by state agency and program.

Term	Narrative
Accredited	A setting is considered “accredited” if it has earned accreditation through a nationally recognized accrediting body and that accreditation is current. Accreditation has a start and end date. A list of approved accreditations can be found on the DHS Child Care website .
Capacity	The number of children a care setting is legally allowed to serve at one time. Capacity is an estimate of the size (number of children served) of each setting. DHS licensing determines the legal capacity for a licensed setting.
CCAP	<p>Minnesotas Child Care Assistance Programs (CCAP) provides financial assistance (subsidies) to help families who have low incomes and/or have recently received assistance through the Minnesota Family Investment Program (MFIP) pay for child care. Child care costs can be subsidized so that parents may pursue employment or education leading to employment, and so their children are well cared for and prepared to enter school ready to learn.</p> <p>Families may select any licensed or legally nonlicensed child care provider. A family and child remain eligible for assistance as long as they continue to meet program requirements. The length of eligibility periods vary. The program serves children 12 or younger or up to age 15 if the child has special needs. Most families pay a portion of their child care costs. In some counties there is a waiting list for child care assistance, for families who have not participated in MFIP in the past year.</p>
Children	Counts of children participating in public early care and education programs.
Child Count	See K-12 Child Count below.

Term	Narrative
Child Outcomes Survey	Survey administered by the Early Childhood Special Education program at MDE to understand the status of children at entry to and exit from ECSE. This survey meets federally required obligations through the Office of Special Education Programs.
CLASS	CLASS (the Classroom Assessment Scoring System) is an observational instrument designed to assess the quality of classroom interactions. The CLASS is scored as three dimension scores, each dimension receiving a score ranging from 1 to 7. More information can be found at http://teachstone.com/classroom-assessment-scoring-system/
Counts	Number of children.
County	County jurisdiction within the state of Minnesota. Often refers to county of residence of family or child. May refer to county of school of enrollment (see School County).
CTSTR	Counts Too Small To Report. Abbreviation used to prevent the disclosure of potentially identifying information when dealing with small cell sizes on charts, graphs or tables. CTSTR suppression rules are customized for each chart in the ECLDS. A full list of these rules is available on page 23.
Develop	A multipurpose data system operated by the Minnesota Department of Human Services (DHS). It contains data about the average education level of teaching staff in certain Early Learning Organizations and also data about Quality Ratings issued by Parent Aware (Minnesota's Quality Rating & Improvement System). More information can be found at http://www.developtoolmn.org/ .
District	School district in the state of Minnesota.
Disability Type	Disability type as identified within Minnesota's K-12 public school system. For kindergarten cohort analyses in the ECLDS disability type originates in MDE data.
Dosage	Related to program participation: Intensity X Duration = Dosage.
Duplicated	Duplicated refers to counts across programs in which a child participating in multiple programs is counted in each of those programs for reporting purposes.

Term	Narrative
Duration	Period of time over which services were received or a child or family participated according to program definitions (e.g., end date minus start date.)
E12 Child Count (ECSE data is included in this as well.)	The child count report is collected each year and represents a count of Minnesota children and youth, ages birth through 21, who are eligible for and receiving special education and related services.
EK12 Enrollment	Data source containing information on students enrolled in public education programming under MDE oversight.
Early Education and Care (EEC)	Publicly-funded program or service for young children and their families.
ECFE	Early Childhood Family Education. The family provides a child's first and most significant learning environment and parents are a child's first and most important teachers. ECFE works to strengthen families and its goal is to enhance the ability of all parents and other family members to provide the best possible environment for their child's learning and growth.
ECLDS	Early Childhood Longitudinal Data System. An information tool that links existing data to create a broader picture of children than is possible using just one data source.
ECSE	Early Childhood Special Education. Also referred to as Part B or Part C, as part of IDEA. This program provides supports and services to infants, toddlers and preschool children with disabilities and their families.
EE Student	Early Education Student system. A mechanism to identify children participating in Early Childhood Family Education, Early Head Start, Head Start, and School Readiness to better understand experiences prior to kindergarten across multiple public funding streams. Children entered into this system are assigned a unique identification number through the Minnesota Department of Education. Data submissions happen annually from public school districts and Head Start agencies.
English Learner	Child or student who is learning English and for whom English is not their first language. This designation begins at kindergarten in K-12 data systems.
Family Outcomes Survey	Survey administered by the Early Childhood Special Education program to understand child outcomes in the family context.

Term	Narrative
	The goal of the program is that families know their rights, they can effectively communicate their children’s needs, and can help their child develop and learn.
Fiscal School Year, State Fiscal Year, or State School Year	Time period that runs from July 1 of a given year through June 30 of the following year. The exact time frame may vary by program. For instance, in ECFE and SR reporting years are the same but in other programs this may not be the case.
Food Assistance	Program providing supplemental food and/or nutrition. In ECLDS charts, food assistance pertains to SNAP, the Supplemental Nutrition Program or the Free or Reduced Price Lunch program.
Free Lunch	Food program offered through public schools for low-income children. Family income must be at 130% of Federal Poverty Guidelines or lower. This program begins in pre-K for ECSE students.
Gender	Sex: male, female. For kindergarten cohort analytics, gender comes from K-12 enrollment data source (MDE).
Head Start	Head Start supports the comprehensive development of children from birth to age 5 to promote school readiness for young children from low-income families. Head Start services include early learning, health, and family well-being.
High Quality	The Race to the Top grant defines high quality as programs with 3 or 4 stars in Parent Aware.
Highest Education Level	For teachers: the average Career Lattice level of the teachers who lead groups or classrooms within a setting. The Minnesota Center for Professional Development has defined a Career Lattice that puts professional development for early educators on a scale from 0 to 12. Using that scale, it is possible to mathematically average Career Lattice levels. Additional information about the Career Lattice can be found at http://www.mncpd.org/Resource/Practitioner/Career_Lattice.pdf .
Home Language	Home language types as defined in the MDE K12 enrollment record. ECLDS provides the home language types containing 10 or more children.

Term	Narrative
IDEA	Individuals with Disabilities Education Act. This federal law ensures services for children with disabilities throughout the nation.
Intensity	Amount of service received over a defined period of time. Definition of “amount” may be different for different programs (hours, MTSS, dollars, etc.).
K12 Assessment	General term referring to any number of a variety of assessments of learning in the public school system in Minnesota.
Kindergarten Cohort	A group of children who participated in public kindergarten in a given school year.
Licensed Child Care Center	Licensed child care centers care for infants, toddlers, preschoolers and school-age children in a care center, community centers or place of worship. State law regulates the number of children who may attend based on the number of staff working at the center. Children are typically cared for in groups divided by age.
Licensed Family Child Care	Licensed family child care providers may care for infants, toddlers, preschoolers and school-age children in their homes. State law limits the number of children a care provider may look after.
Low Birth Weight	An infant that is born weighing less than 2,500g. Data comes from the child’s birth record.
MARSS	Minnesota’s Automated Reporting Student System, the unique number assigned to student records in Minnesota’s education system.
MAXIS	MAXIS is a computer system designed to help county income maintenance staff determine eligibility and benefit levels for public assistance clients throughout the state of Minnesota. It is an automated public assistance eligibility and issuance system. The MAXIS data system is the source of information on the Minnesota Family Investment (MFIP) and Supplemental Nutrition and Assistance Programs (SNAP).
MCCC	The Minnesota Common Course Catalogue (MCCC) is a course classification and data collection system intended to provide

Term	Narrative
	uniform information about courses that are taught in Minnesota schools.
MEC ²	Minnesota Electronic Child Care System is a web-based system used by county staff to determine Child Care Assistance Program (CCAP) eligibility and make payments to Child Care providers. The MEC2 data system is the source of information on CCAP.
MFIP	The Minnesota Family Investment Program (MFIP) is the state's Temporary Assistance to Needy Families (TANF) program. It helps families and pregnant women who have low incomes go to work and move toward financial stability. The program provides employment services and income assistance.
Minnesota Department of Education (MDE)	State department responsible for education in Minnesota.
Minnesota Department of Health (MDH)	State department responsible for health programs in Minnesota.
Minnesota Department of Human Services (DHS)	State department responsible for human services programs in Minnesota.
MN District Preschool	Districts provide preschool services in a number of formats for children ages three to five year olds. School Readiness is one major funding source for these services.
MN.IT	State department responsible for information technology services to state agencies in Minnesota.
No ECE Data Available	Data are not available for a specific category or attribute of a chart, graph, or report for the early care and education experiences of a group of children. This may be due to the fact that a data source is not committed to the ECLDS or the data do not exist.
Outcomes	Later status of children along a variety of measures over time. Can vary by data source.
Participation	Child meets program-specific requirements to be considered engaged or participating in the target public early care and education program.
Percentage	Number of children in relation to a denominator. Some denominators will vary and some will be universal.
Premature	An infant that is born before 37 weeks gestational age as calculated from the imputed gestational age based on last menstrual period from the child's birth record.

Term	Narrative
Program	The programmatic funding stream or “umbrella” program under which a service is administered and paid, typically a public funding source with eligibility criteria, targeted to young children -distinct from setting.
Publicly funded	Program or service funded all, or in part, by tax dollars.
Public Schools	Schools in Minnesota that are funded with public dollars. This includes charter schools.
Quality	The extent to which the setting has demonstrated use of kindergarten-readiness best practices, as defined by Parent Aware (Minnesota’s Quality Rating and Improvement System).
Quality Rating	Designation given to programs through Parent Aware. Programs that participate in Parent Aware submit evidence of their use of kindergarten-readiness best practices. Evidence is reviewed and programs earn a Star Rating of One, Two, Three, or Four Stars. For more information, go to www.parentaware.org .
Race/Ethnicity	Race or ethnic identification present in a given data source.
Reduced Price Lunch	Food program offered through public schools for moderately low-income children. Family income must be between 131% and 185% Federal Poverty Guidelines. Eligibility can begin before kindergarten.
Resiliency Factors	Protective factors noted by research that, prior to grade three, are associated with positive outcomes for children with high needs.
Risk Factors	Factors noted by research that, prior to grade three, are associated with negative outcomes.
School County	County of the location of public school of enrollment.
School-based Pre K	See MN District Preschool.
School Year	Period of time that covers July 1 of one year through June 30 of the following year.

Term	Narrative
Setting or Site	Location (physical address) where early learning is provided (or smaller unit when multiple programs operate at one location).
Small cell size	Refers to a very small count of children in a given table or graph. Small cell sizes are usually suppressed in some way to prevent the identity of an individual to be discernable. See rules on Counts Too Small To Report (CTSTR) on page 23.
SNAP	(Supplemental Nutrition Assistance Program) formerly known as Food Stamps, helps Minnesotans with low incomes get the food they need for nutritious and well-balanced meals. The program provides a financial assistance to purchase food as a supplement to a household food budget for families with incomes up to 165% of FPG.
Staff	Individuals working in programs to provide early care and education to children.

ECLDS Data Sources (as of January, 2016)

The following information provides details on which data sources are included in the ECLDS and over which time periods.

Data Source Matrix of Available Year of Data

Data Sources / Years Avail.	Agency	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Access Assessment Testing	MDE																X
BirthRecords	MDH	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Child Care Assistance Program	DHS											X	X	X	X	X	X
Child Outcomes	MDE													X	X	X	X
Develop - Parent Aware	DHS														X	X	X
Early Education Student	MDE																X
Economic Assistance Programs - MAXIS	DHS				X	X	X	X	X	X	X	X	X	X	X	X	X
Family Outcomes	MDE														X	X	
K-12 Assessment	MDE								X	X	X	X	X	X	X	X	X
K-12 Child Count	MDE							X	X	X	X	X	X	X	X	X	X
K-12 Enrollment	MDE							X	X	X	X	X	X	X	X	X	X
Kindergarten Readiness	MDE								X	X	X	X	X	X	X		
Teacher Licensing Data	MDE												X	X	X	X	X

Updated 10/01/2015

Birth Records.

Description: Birth certificate data.

Data System: Minnesota Center for Health Statistics (MCHS) maintains a research file of birth records for all births occurring in Minnesota as well as births occurring out-of-state to Minnesota residents. Computerized records available from 1980 to present and paper records are available back to 1900. The birth record includes information on the mother and father (e.g. age, race and education), medical information on the mother prenatally and at delivery (e.g. risk factors, prenatal care usage, characteristics of labor) and medical description of the infant (e.g. gestational age, birth weight, congenital anomalies). In March of 2011, the birth record went through a significant overhaul including expanding race categories, changing education, adding mother's height and weight pre pregnancy and at delivery). Previous year's birth data are available about 9 months after the beginning of the next year (e.g. 2013 birth data will be ready in September 2014).

Provided By: MDH

Beginning Year: 1999

Information: Updated annually

Child Care Assistance Program (CCAP).

Description: Program providing financial assistance (subsidies) to help families who have low incomes and/or have recently received assistance through the Minnesota Family Investment Program (MFIP) pay for child care.

Data System: MEC²

Provided By: DHS

Beginning Year: 2009

Information: Daily information is aggregated at the monthly level and submitted to ECLDS semi-annually.

Child Outcomes.

Description: The ECSE Child Outcomes data source collects survey data from the childcare professionals who serve children with special needs. Data is collected at the starting and ending periods of the child's involvement in the early childhood special education program where they enrolled.

Data System: Collected throughout the ECSE Outcomes portal on the MDE website.

Provided By: MDE

Beginning Year: 2011

Information: Updated annually

Develop – Parent Aware.

Description: A multipurpose data system that contains data about the average education level of teaching staff in certain Early Learning Organizations and also data about Quality Ratings issued by Parent Aware (Minnesota's Quality Rating & Improvement System).

Data System: Develop

Provided By: DHS

Beginning Year: 2012

Information: Updated annually

Early Education Student.

Description: Early Education Student records information on children and families registering for classes set to meet six or more times during the school year for either Early Childhood Family Education and/or School Readiness. This information allows us to understand more about program participation prior to the kindergarten year.

Data System: EE Student

Provided By: MDE

Beginning Year: 2014

Information: Updated throughout the year, summarized annually.

Family Outcomes.

Description: The ECSE Family Outcomes data source collects survey data from families who have a child with special needs, were served in a program at a district, and the child has now turned three. The district gives the family a survey to fill out about send in to MDE. The survey is two pages long. Side A covers how the family supports the child and side B program level question. Side B deals with helpfulness of the program school readiness.

Data System: Survey responses from families are either emailed or US mailed back to MDE. Results are entered into a centralized data base.

Provided By: MDE

Beginning Year: 2011

Information: Updated annually

Head Start/Early Head Start.

Description: Head Start/Early Head Start supports the comprehensive development of children from birth to age 5 to promote school readiness for young children from low-income families. Head Start services include early learning, health, and family well-being.

Data System: Locally determined

Provided By: Individual Head Start agencies

Beginning Year: Yet to be Determined, in planning.

Information: Data loaded into ECLDS annually.

K-12 Assessment.

Description: Standardized assessment data from students attending publicly-funded schools. Includes ACCESS for English Learners, MCA, and spans grades P-12.

Data System: Data source includes multiple tables

Provided By: MDE

Beginning Year: 2006

Information: Updated annually

K-12 Child Count.

Description: Special Education children are reported to the federal government once each year. MARSS data changes during the school year as children go on and off of special education services after the Dec 2nd reporting date. The Child Count accounts for all students officially reported to the federal government as participating.

Data System: MARSS
Provided By: MDE
Beginning Year: 2005
Information: Updated annually

K-12 Enrollment.

Description: Enrollment records of students attending publicly-funded schools in grades kindergarten through 12th grade. (MDE) Spans grades P-12. Includes charter schools.

Data System: MARSS
Provided By: MDE
Beginning Year: 2005
Information: Updated annually

Kindergarten Entry Assessment.

Description: State sample (10%) of students at the start of kindergarten to better understand what they bring with them into school. This is a precursor to the Kindergarten Entry Profile.

Data System: Program files
Provided By: MDE
Beginning Year: 2005 – 2012
Information: Replaced by Kindergarten Entry Profile in 2015.

Kindergarten Entry Profile.

Description: Results of status of children at kindergarten entry of a sample of children in the state. Results will be from multiple types of assessments aligned to learning domains and state standards. Replaces the Kindergarten Entry Assessment.

Data System: Program files
Provided By: MDE
Beginning Year: Yet to be determined, in planning
Information: Updated annually

MFIP.

Description: Minnesota Family Investment Program data, the state's public assistance program for families.

Data System: MAXIS
Provided By: DHS
Beginning Year: 2002
Information: Daily information is aggregated at the monthly level and submitted to ECLDS.

MDE ORG.

Description: MDE Org is a data source that tracks the organizations used to educate children in Minnesota and accept payments from MDE. This collection tracks changes over time for some data in this collection versus the old OrgUnit which created yearly records for each organization and school. It is the Client Relationship Management Tool for MDE to track its districts, schools and other related organizations.

Data System: ORG

Provided By: MDE

Beginning Year: 2005

Information: Updated annually

SNAP.

Description: Data on families receiving Supplemental Nutrition Assistance Program benefits.

Data System: MAXIS

Provided By: DHS

Beginning Year: 2002

Information: Daily information is aggregated at the monthly level and submitted to ECLDS.

STAR.

Description: STAR (STaff Automated Reporting) is a web-based system used by school districts to report employment and assignment information to the Minnesota Department of Education. This system is also used by districts to access the licensure/assignment discrepancy report and to complete "highly qualified" reporting.

Data System: STAR

Provided By: MDE

Beginning Year: 2010

Information: Updated annually

Definitions

The following definitions are used commonly throughout the ECLDS site and its documentation. Definitions that are shared with SLEDS are notated with “[Aligns with SLEDS]”. Shared definitions on some terminology are an efficiency intended to support technical staff as the projects share infrastructure.

Analytics: The charts, graphs, and reports that come from data in the ECLDS.

Contributing state agencies: Refers to the agencies contributing data to the ECLDS. [Similar to “Partner Data Providers” in SLEDS.]

Counts Too Small To Report (CTSTR) Rules (see also Suppression Rules)

The following rules are employed on the ECLDS site to prevent the disclosure of identity on interactive charts. Rules are applied to specific chart groups displayed on the ECLDS site. Application of specific rules in relation to specific charts available upon request.

CTS1. When counts range from 0-9.

CTS2. Do not show CTSTR in percent area.

CTS3. Small counts okay to show and not use CTSTR.

CTS4. If CTSTR appears in a row, the row total must change to CTSTR.

CTS5. If one cell in a chart is CTSTR, mask the next smallest cell also as CTSTR to avoid calculating the number (pie charts see CTS8).

CTS6. If everything in the chart is under 10, do not use CTSTR, use message: “The selected criteria results in counts too small to report.”

CTS7. If counts are too large to report (total percent more than 95%), use CTLTR and display the percent as “>95%.” [This rule is not applied in the current release and is withheld until further notice.]

CTS8. Pie chart: If one section is CTSTR, apply CTSTR to the next smallest section and display message CTSTR for each section keeping sections visible. Hover over pie slices displays label only and no counts or percentages. Table sections will show CTSTR.

CTS9. If chart results in no data at all, display “no data available.”

CTS10. If one section is CTSTR include the Unknown category (age/education) as CTSTR and display message CTSTR for each section keeping sections visible. Hover over pie slices displays label only and no counts or percentages. Table sections will show CTSTR.

Data: Categories of ECLDS data are listed here from most, to least sensitive.

Individual-Level Data: Data on unique individuals. [Aligns with SLEDS.]

Identifiable Linked data: Original data from the contributing state agencies or partner data providers which are linked using personally identifiable information. [Aligns with SLEDS.]

Personally Identifiable Information (PII): Data that identifies the individual. For the purpose of education records, PII is defined by federal law as information that includes, but is not limited to a student's name; the name of the student's parent or other family members; the address of the student or student's family; a personal identifier, such as the student's Social Security Number, student number, or biometric record; other indirect identifiers, such as the student's date of birth, place of birth, and mother's maiden name; other information that, alone or in combination, is linked or linkable to a specific student that would allow a reasonable person in the community, who does not have personal knowledge of the relevant circumstances, to identify the student with reasonable certainty; and information requested by a person who the educational agency or institution reasonably believes knows the identity of the student to whom the education record relates. [Aligns with SLEDS.]

De-identified Data: Individual-level data that have enough personally identifiable information removed or obscured so that the remaining information does not identify an individual and there is no reasonable basis to believe that the information can be used to identify the individual. [Aligns with SLEDS.]

Anonymized Data: Anonymized data are individual-level data that have been de-identified and cannot be linked back to the original record system or other data. [Aligns with SLEDS.]

Summary Data: Statistical records and reports aggregated from data on individuals in a way that individuals are not identified and from which neither their identities nor any other characteristic that could uniquely identify an individual is ascertainable. [Aligns with SLEDS.]

Data Mart: Prepackaged data sets and reports that are more efficient than working directly with the entire warehouse for running analytics (charts and graphs). [Aligns with SLEDS.]

Data Sharing Agreement: Statement signed by the contributing state agencies seeking to share data that outlines the purposes of the data sharing, legal restrictions, and violations. [Aligns with SLEDS.]

Data Usage Agreement: Statement outlining the appropriate uses of the data, which requires each user with access to the ECLDS data to accept the conditions of use before being granted access. [Aligns with SLEDS.]

Directory Information: For the purposes of education records, federal law defines directory information as information contained in an education record of a student that would not generally be considered harmful or an invasion of privacy if disclosed. Directory information includes, but is not limited to, the student's name; address; telephone listing; electronic mail address; photograph; date and place of birth; major field of study; grade level; enrollment status (e.g. undergraduate or graduate, full-time or part-time); dates of attendance; participation in officially recognized activities and sports; weight and height of members of athletic teams; degrees; honors and awards received; and the most recent educational agency or institution attended. [Aligns with SLEDS.]

Education Records: Records that are (1) directly related to a student and (2) maintained by an educational agency or institution or by a party acting for the agency or institution. [Aligns with SLEDS.]

MARSS number: Minnesota Automated Reporting Student System, the unique K-12 identification number assigned by MDE to each K-12 student. [Aligns with SLEDS.]

MN.IT Services: The state agency responsible for setting information technology (IT) direction, standards and policies for the State of Minnesota, managing oversight and compliance of those standards, and providing IT services to all Minnesota state agencies. [Aligns with SLEDS.]

P20W: Refers to the overarching IT system of linked data serving Minnesota's three data initiatives including Early Childhood Longitudinal Data System (ECLDS), Statewide Longitudinal Education Data System (SLEDS), and Workforce Data Quality Initiative (WDQI). [Aligns with SLEDS.]

SLEDS: Statewide Longitudinal Education Data System, the data system specifically using linked data from P20W about pre-kindergarten (limited to kindergarten entry profile, or KEA) to K-12 education to higher education to workforce for informing education and workforce policy. [Aligns with SLEDS.]

Source System ID: Refers to the ID used on individual person records by the data provider, contributing state agency, or state agency when submitting data to P20 systems.

Suppression Rules: Analytic techniques used for appropriately protecting private or confidential data. Methods involve removing data (e.g., from a cell or row in a table) to prevent the identification of individuals in small groups or those with unique characteristics. This method may result in very little data being produced for small populations, and it usually requires additional suppression of non-sensitive data to ensure adequate protection of personally identifiable information. Suppression rules may apply to all summary reports or may apply to specific reports based on the combination of data elements included. The ECLDS Data &

Research and SLEDS Research and Data Advisory Committees have agreed that suppression of cell sizes less than 10 individuals be used for public reporting. Best practices for data suppression for the purposes of appropriately protecting private or confidential data were issues by the U.S. Department of Education in 2011 (NCES 2011-603) and are referred to in reporting work. [Aligns with SLEDS due to shared analytic tools and rules.]

Maintaining Privacy

There are multiple methods to ensuring the privacy of individual-level data in ECLDS.

MN.IT Services uses various procedures and security measures to ensure the confidentiality of an individual's records collected and maintained by ECLDS, including but not limited to:

- Assigning a unique ECLDS identification number to each individual,
- Managing Levels of Access that limit who may have access to data and for what purposes,
- Masking data to ensure that the confidentiality of personally identifiable information (PII) from individual records is maintained in all public reporting,
- Developing and maintaining a list of personnel who have access to personally identifiable child and student information through authentication and internal links,
- Implementing and maintaining appropriate administrative, technical, and physical safeguards that prevent any collection, use or disclosure of, or access to electronically maintained or transmitted individual records in SLEDS, and
- Ensuring that all staff with access to ECLDS data understand the sensitivity and classification of the data and follow all requirements to protect the data from unwanted disclosure. [Aligns with SLEDS.]

Contributing state agencies use various procedures and security measures to ensure the confidentiality of an individual's records collected and maintained by ECLDS including but not limited to:

- Training of any state agency and affiliated MN.IT personnel collecting and/or using personally identifiable information about the proper use of that information in accordance with this policy, Minnesota Government Data Practices Act (MGDPA), Family Educational Rights and Protection Act (FERPA), and all applicable state and federal laws and policies,
- Enforcing a code of conduct for state employees, and
- Overseeing and managing all ECLDS-related work, policies and procedures to ensure compliance with data security standards, best practices, and federal and state laws. [Aligns with SLEDS.]

Levels of Access

ECLDS data must be consistently protected in a manner commensurate with its sensitivity and critical nature. The following levels of access describe the data available and have been developed to protect the privacy of individuals. A complete list of individuals with access to ECLDS data by level will be maintained by MN.IT services and the contributing state agencies. Access is approved by appropriate leadership as defined for each access level. For each access level, approved staff must fulfill training requirements established by MN.IT and the ECLDS

Governing Body. The access levels listed below are in the order of the most restrictive to the least restrictive. Note that some access levels do not pertain to the ECLDS: Levels 1B, 3, and 4.

Level 1A - allows specific MN.IT staff, including those housed at contributing state agencies, to read and write to all records and fields in the P20W database. This access level is only permitted to a minimal number of authorized staff members who operate or manage the ECLDS data system or are responsible for maintaining the accuracy and security of the data in the performance of their duties. Approval of access is granted by the appropriate contributing state agency commissioner or his/her designee and the MDE Chief Information Officer upon signing the appropriate data sharing agreements. [Aligns with SLEDS.]

Level 1B – [DOES NOT APPLY TO THE ECLDS] allows one agency staff person (non MN.IT) access to all records and fields within the identifiable linked data in order to manage the P20W data system, manage reporting from the data system or maintain the accuracy and security of the data in the performance of their duties. The agency agency’s commissioner or designee approves access for the designated individual and signs the appropriate data sharing agreements before access is granted. Approval by the MDE Chief Information Officer is also required. [Aligns with SLEDS.]

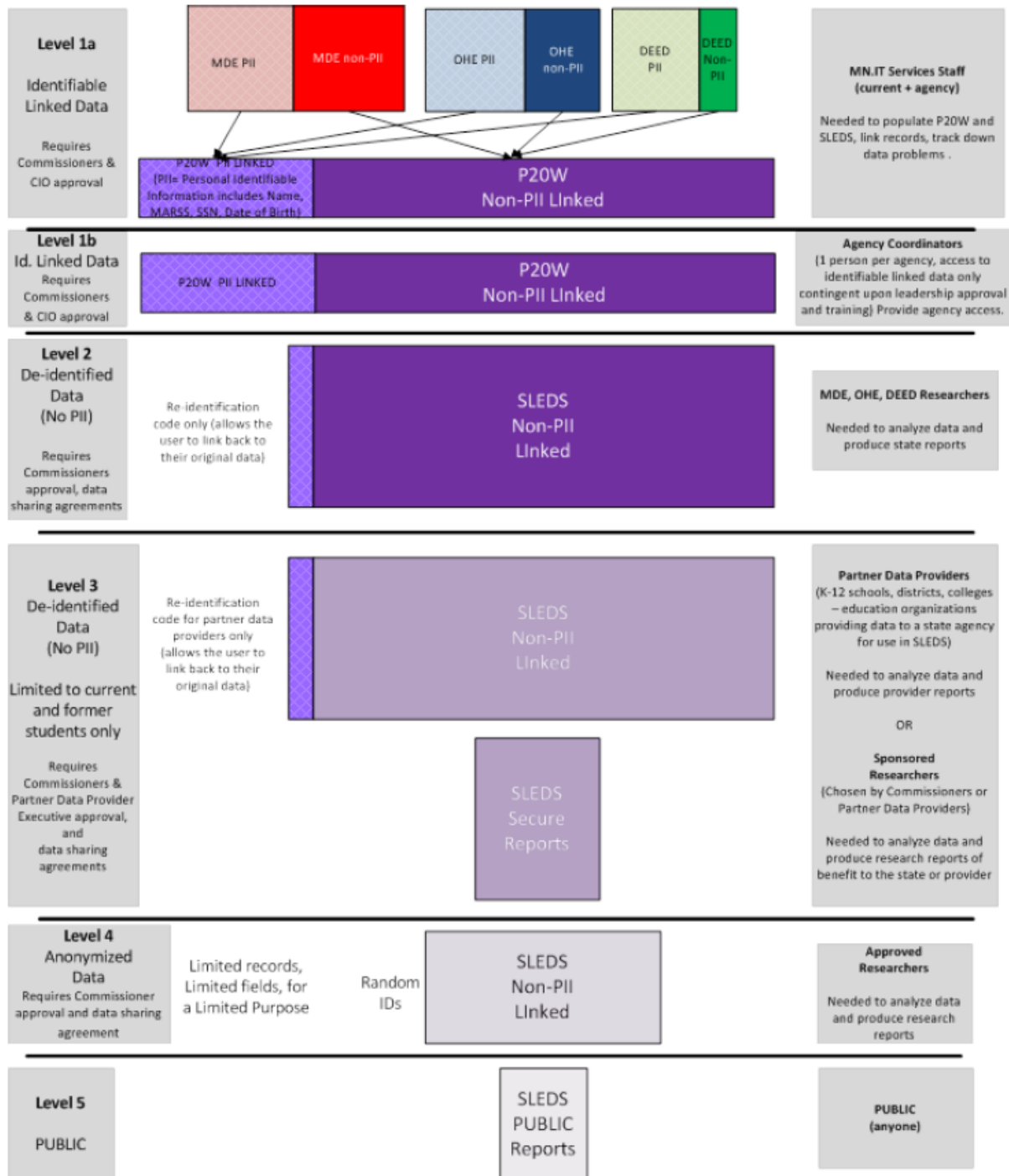
Level 2 – allows a minimal number of authorized contributing state agency staff to access all records and fields of the ECLDS de-identified data. The requesting agency’s commissioner or designee approves access for designated individuals and signs the appropriate data sharing agreements before access is granted. [Aligns with SLEDS.]

Level 3 – [DOES NOT APPLY TO THE ECLDS] allows access for designated staff to de-identified data and secured reports consistent with best practices, state and federal law. For approved research projects (partner data provider and sponsored researchers) access to data will be provided by data marts. Approval of access is granted by the contributing state agencies upon recommendation of the governance research group. Staff from partner data providers must also have approval from their organization’s executive and sign the appropriate data sharing agreements before access is granted. Suppression rules must be utilized by the researcher in production of public reports. [Aligns with SLEDS.]

Level 4 – [DOES NOT APPLY TO THE ECLDS] allows for access to anonymized data in data marts to produce public reports. Suppression rules will be utilized with the use of data marts so that information is not revealed about individuals in a particular group. Approval of access is granted by the contributing state agencies upon recommendation of the governance research group. Users must be approved by the contributing state agencies and sign a data sharing agreement or data usage agreement before access is granted. Suppression rules must also be utilized by the researcher in production of summary level reports. [Aligns with SLEDS.]

Level 5 – allows access to the general public for viewing standard summary ECLDS data. Requests for new public reports move through the ECLDS governance process. [Aligns with SLEDS.]

Figure 1. Levels of Access Diagram



Record of Access

Data security standards and requirements of state and federal law mandate that contributing state agencies maintain a record of each request to and each disclosure of personally identifiable information from ECLDS. Such records must be maintained as long as the data are maintained, include the parties who have requested or received the information, and include the legitimate interests of the parties in receiving the information. [Aligns with SLEDS.]

Unauthorized Access

A state agency that collects, creates, receives, maintains, or disseminates private or confidential data on individuals must disclose any breach of the security of the data following discovery or notification of the breach.

A “Breach of the Security of the Data” means unauthorized acquisition of data maintained by ECLDS. Good faith acquisition of government data by an employee, contractor, or agent of a state agency for the purposes of the state agency is not a Breach of the Security of the Data, if the government data are not provided to an unauthorized person.

“Unauthorized acquisition” means that a person has obtained data without the informed consent of the individuals who are subjects of the data or statutory authority and with the intent to use the data for nongovernmental purposes.

In the event of a “Breach of the Security of the Data” or possible “Breach of the Security of the Data” involving individual records or aggregate and distributional reporting of individual records disclosed for purposes of ECLDS, contributing state agencies will notify MN.IT Services as described in the standard (Enterprise Information Security Incident Management Standard 2010-01); notify the duly authorized representative of state agencies; notify the ECLDS Governing Body; and notify any individual whose private or confidential information was, or is reasonably believed to have been, acquired by an unauthorized individual as required by Minn. Stat. §13.055. The contributing state agencies and MN.IT will work together to monitor and respond to privacy and security incidents that do not rise to the level of a breach of security, in order to improve systems and prevent breaches. [Aligns with SLEDS.]

Rights of Subjects of Data to Inspect and Review Data and Records

In compliance with state law, an individual who is the subject of stored private or public data on individuals may request to be shown the data without any charge and, if desired, be informed of the content and meaning of that data. In compliance with federal law, parents and eligible students have the rights to inspect and review education records. All records within ECLDS are managed by MDE, MDH, and DHS and as such those agencies are jointly responsible for

developing a policy for responding to all requests for access to data and records in accordance with federal and state law. [Aligns with SLEDS.]

Requesting Access to ECLDS Data

Current Data Share Agreements between the state agencies prohibit researcher or others access or access to individual student level records at this time.

References and Resources

Minnesota Departments of Education, Health and Human Services, (2012). Minnesota Race to the Top Early Learning Data Linkage Charter. Government document.

SLEDS Governance. (2014). Minnesota Statewide Longitudinal Education Data System (SLEDS) Data Access & Management Policy. Government document.

SLEDS. (2014). SLEDS Data Interpretation Guide. Available at <http://sleds.mn.gov/#research>.