

Illinois State Board of Education

Illinois Longitudinal Data System Data Advisory Committee

January 2010

ILDS Data Advisory Committee

Agenda

Welcome and Introductions

Housekeeping

- **Review of Previous Meeting Minutes**

Committee Administration and Status

- **Meeting Schedule for 2010**
- **Status**

Data Governance

Project Evaluation Criteria

Data Architecture and Data Warehouse Requirements

Wrap Up and Adjournment

ILDS Data Advisory Committee

Housekeeping

- **Expense reporting**
- **12/9/2009 Meeting Minutes**

Committee Administration and Status

■ Meeting Schedule for 2010

- **Tuesday, January 12, 2010**
- **February 10, 2010**
- **March 10, 2010**
- **April 14, 2010**
- **May 12, 2010**
- **June 9, 2010**
- **July 14, 2010**
- **August 11, 2010**
- **September 8, 2010**
- **October 13, 2010**
- **November 10, 2010**
- **December 8, 2010**

Committee Administration and Status

- **Project**
 - December status call with U.S. Dept of Education cancelled
 - Initial PMO components constructed
- **Data Advisory Committee**
 - Kickoff meeting held
 - 2010 Meeting schedule published
 - DAC Project role introduced
- **Enterprise-wide Data Architecture**
 - RFSP under construction
 - Requirements identification a key input
- **Data Stewardship**
 - One position filled
 - Analysis underway
 - Communications mechanisms under construction

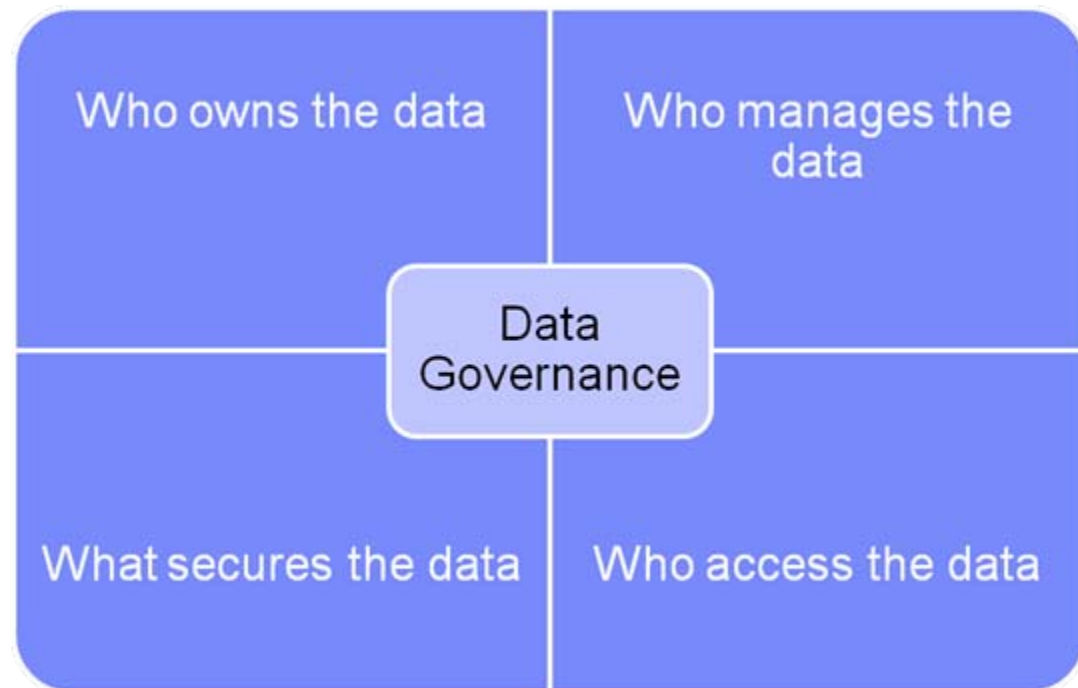
Committee Administration and Status

- **Education Enterprise Data Warehouse**
 - No activity to report
- **Linking of ISBE data with Postsecondary and Employment Data, and use this data for Research and Analysis**
 - Agreement in place, signed by participating parties

Data Governance

Data Advisory Committee – Assists in establishing and in supporting enforcement of policies and guidance involving data

**Determine
and
Document**



Data Governance

- **Commonly limited to the most important types of data – Master Data**
 - **Master Data - Common, core business data entities such as student, teacher, courses and their associated attributes and values**
 - **Is a critical and central component to an organizations data governance efforts**
- **Data Governance is the overall management of the Master Data entities**
 - **Consists of the policies, processes, controls, and audit functions required to manage and safe-guard these critical data assets**
 - **Includes data availability, usability, integrity and security**

Data Governance

- **We Need:**

- **Vision statement - An image of the desired future**
- **Mission statement - a specific task with which a person or a group is charged; a pre-established and often self-imposed objective or purpose. Mission statements frequently make the companion vision statement operative**
- **Goals – specifics**

Mission and vision statements form the foundation of communication concerning the data governance initiatives.

Data Governance

- **Several approaches can be useful to defining a mission:**
 - **Targeting:** set a clear, definable target and aim for it (for data, what is the target the organization wishes to reach?)
 - **Common Enemy:** create a goal focused on defeating a common enemy (for data, the “enemy” may be poor data quality)
 - **Role Model:** select a well-known success and emulate it (for data, are there organizations that manage / govern data well?)

- **Data Governance Vision and Mission Statements are:**
 - Directed at every person responsible for creating, managing or using any data
 - Serves to define an overall vision for the data governance programs
 - Assures greater unity of purpose and vision
 - May be incorporated into messaging and communications
 - Periodic refinement of the mission is an important step, making it possible for the enterprise to follow the best governance path for their future.

Data Governance

Data Advisory Committee Data Governance Vision (proposed)

- To help establish the technical and management systems necessary for ISBE and its education partners to manage, link, and analyze P-20 education data.

Data Advisory Committee Data Governance Mission Statement (proposed)

- Advise ISBE and its education partners on data use and data management
- Be committed institutional support for advising on data coordination across education partner organizations
- Develop a common understanding of data ownership, data management, and data confidentiality and access
- Help to resolve differences among education partners seeking to access education data
- Help to define and implement joint data activities

Data Governance

Goals (proposed)

- Meet on a regular basis to help define project success criteria and review ILDS project status against these criteria
- Help define requirements for the ILDS project that support the definition of an Enterprise-wide Data Architecture and the Education Enterprise Data Warehouse
- Help define process changes that support submission and integration of data, including establishing data sharing agreements amongst education partners
- Provide a continuous focus on and support the continuous improvement of data quality
- Coordinate with and assist the ISBE Project Management Office
- Provide assistance with implementation and change management in support of the ILDS Project

Project Evaluation Criteria

Define what success is

Measure to determine progress

Monitor and Report our progress

Celebrate our success!

Project Evaluation Criteria

- **Adherence to:**
 - **Schedule**
 - **Budget**
 - **Implementation Benchmarks**
- **Requirements**
- **Deliverables**

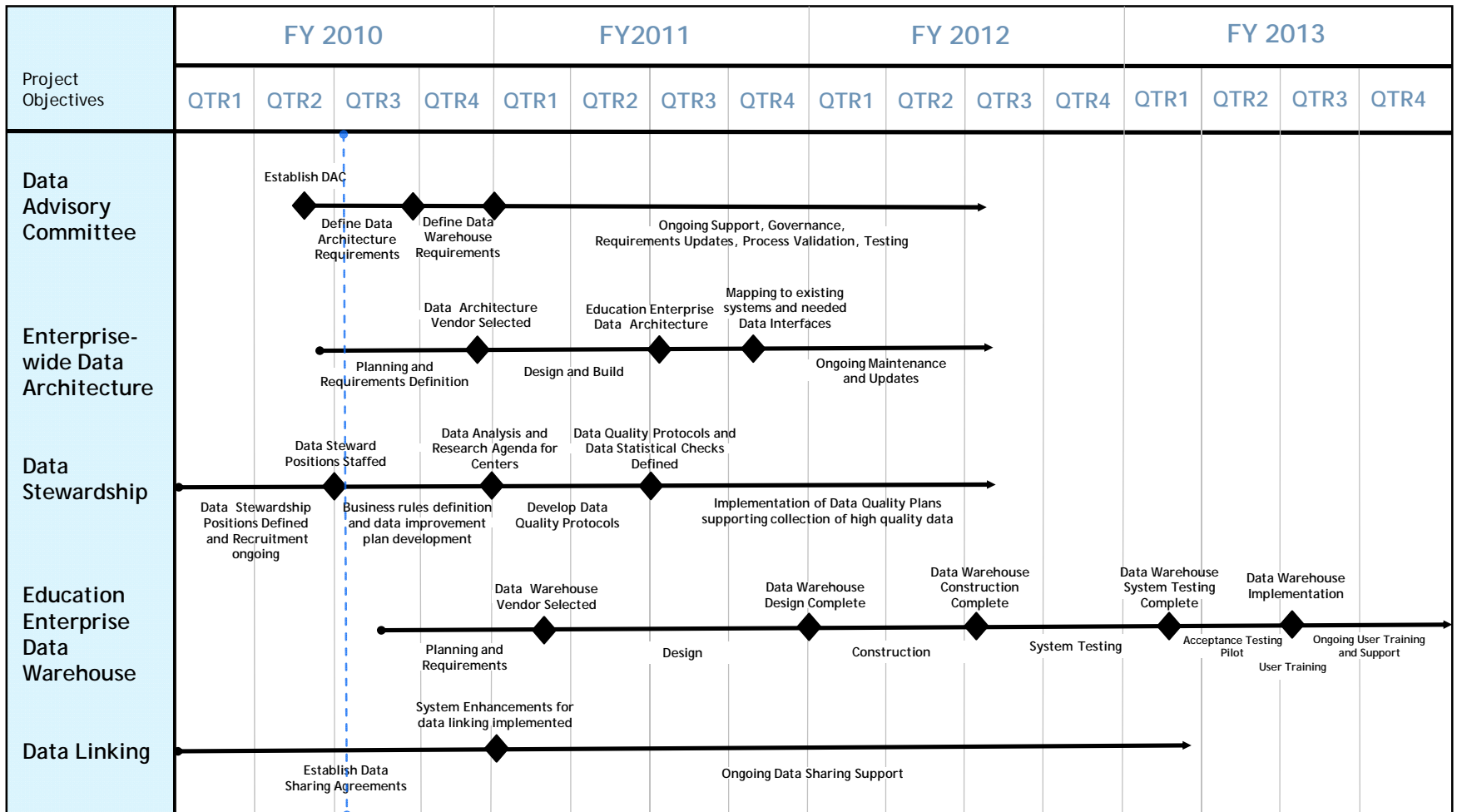
Project Evaluation Criteria

- **Portal feedback**
 - **Technical Performance**
 - **Data Availability**
 - **Data Quality**
 - **Report Availability and Results Quality**
 - **Utilization Statistics**
- **Training**
 - **How many users trained**
 - **Satisfaction with training delivery and materials**

Project Evaluation Criteria

- **Data sharing between parties is implemented**
- **Use of education technology standards**
 - **School Interoperability Framework Association (SIFA)**
 - **Postsecondary Electronic Standards Council (PESC).**
- **User enrichment**
 - **How organizations are using the data system**
 - **How it has changed the State's need for manual processes**
 - **Data requests, reporting, and analysis capabilities**

ILDS Project Timeline



Data Architecture and Data Warehouse Requirements

Requirements

**Where do our
Requirements
come from?**



Requirements

- **Different types**
 - **Project – overarching, typically high level**
 - **Specific to project component – Data Architecture, Data Stewardship, Data Advisory Committee**
 - **Specific to deliverables – typically part of negotiated agreements, contracts**
- **Project operates to meet them**
 - **Define, categorize**
 - **Track – source, what satisfies them**
 - **Validate they are met**

Project Requirements

Cooperative Agreement

- **Data Advisory Committee**
- **Data Architecture and Data Warehouse**
- **Institutional Support and Sustainability**
- **Federal Reporting**
- **Adherence to privacy regulations**
- **Data Quality Improvements**
- **Interoperability**

P-20 Longitudinal Education Data System Act

- **Reduce data collection burden**
- **Provide access to student level data**
- **Establish a statewide course classification system**

Specific Project Component Requirements

P-20 Longitudinal Education Data System Act

- **Data Warehouse (4th project component)**
 - **Public Internet Web interface**
 - **Provide research and reports to legislature**
- **Data Linking (5th project component)**
 - **Data sharing agreements with health and human services agencies, and with employment and workforce development agencies**

Deliverables Requirements

Enterprise-wide Data Architecture will result in:

1.The construction of a Data Dictionary with the following information:

- Field definitions**
- Field attributes**
- Domain values**
- Constraints**

2.A Gap Analysis that identifies differences between the National Education Data Model and the ISBE data collection systems.

Data Architecture and Data Warehouse Requirements

- **Data Advisory Committee is charged with assisting in the:**
 - **Development of requirements for the Data Architecture**
 - **Development of requirements for the Data Warehouse**

Today's focus – Data Architecture

Data Architecture Requirements – Cooperative Agreement



- **Institutional Support and Sustainability**
- **Federal Reporting**
- **Adherence to privacy regulations**
- **Data Quality Improvements**
- **Interoperability**

Data Architecture Requirements – P-20



- **Reduce data collection burden**
- **Provide access to student level data**
- **Link data to college and career planning portals, facilitate the submission of transcripts**
- **Provide research and reports to legislature**
- **Meet federal reporting requirements**
- **Establish a system to evaluate teacher and administrator preparation programs**
- **Data sharing agreements with health and human services agencies, and with employment and workforce development agencies**

Data Architecture Requirements – P-20 (cont)



- **Provide unique statewide ID to institutions of higher learning**
- **Provide the ability to match elementary and secondary test records from year to year**
- **Provide untested student information**
- **Match students to teachers**
- **Provide student level transcript information from middle and high schools**
- **Establish a statewide course classification system**
- **Establish a State data audit system**

Data Architecture Requirements – Data Quality Campaign, America Competes



Complete work to fully address elements:

- 5. Statewide Teacher Identifier with a Teacher-Student Match**
- 6. Student-Level Course Completion (Transcript) Data**
- 9. Ability to Match Student-Level P-12 and Higher Education Data**
- 10. A State Data Audit System**

Transition to higher education

Requirements Workshop – Data Architecture Requirements

- **Linking integration of data with postsecondary and employment data, other agencies and organizations**
- **Should take into account national models (NEDM) and other State data models**
- **Should take into account 10 elements from Data Quality Campaign and 12 elements from the America Competes Act**
- **Support Federal Electronic Data Exchange Network EDEN/EDFacts**
- **Meet data confidentiality requirements of FERPA and Illinois Student Records Act (ISSRA)**
- **Include ISBE data...**
- **The Data Architecture Data Dictionary should include:**
 - **Field definitions, Field edits, Domain values, Field constraints, Field attributes**
- **...**

Data Architecture Requirements

- **Creation and generation of recurring reports required by the state and federal government. Reports may include**
 - Annual School Report Card
 - Federal Career and Technical Education
 - Bilingual Reports
 - Regional Safe Schools and Truants Alternative & Optional Education reporting
 - Child Nutrition Services
 - Federal Special Education
 - Non-Fiscal Common Core of Data Report (CCD)
 - Biennial EEO-5 (a report containing race/ethnicity and gender information about certified and non-certified staff)
 - Education Data Exchange Network (EDEN)
 - Consolidated State Performance Report (CSPR)

Data Architecture Requirements

■ EDEN

- Approximately 100 data groups
- Consolidated State Performance Report (CSPR)
- Common Core of Data
- Special Education Data

■ NEDM

- Provides content and structure of logical and physical data models
- Addresses:
 - Student Progress Over Time
 - Student Performance and Characteristics
 - Program/Plan Performance
 - Course of Study Effectiveness
 - Teacher Performance and Characteristics
 - School Performance and Characteristics
 - LEA Performance and Characteristics
 - State Performance and Characteristics
 - Parent/Community

Data Architecture Requirements

- **What data do we have?**

- **ISBE**
 - **Five years of student enrollment data and program information**
 - **Updated student demographic information**
 - **Four years of assessment results**
 - **Teacher demographic and certification information**
 - **LEA and school program participation**
 - **LEA financial information , including budgets and expenditures'**
 - **LEA facilities (buildings and equipment)**
 - **Specialized student programs, including technical education and special education information**
 - **LEA compliance and monitoring**
 - **LEA Child Nutrition services, including free and reduced price breakfasts and lunches (public, nonpublic, and ungraded entities)**
 - **State supported Pre-K programs**

Data Architecture Requirements

What data do we have (cont)?

Student Information System (ISBE SIS)

- a. Student demographics
- b. Program Participation
- c. Enrollment
- d. Discipline
- e. Program

Illinois Student Information System (ISIS)

- a. Programs approved by location
- b. Student demographics

Grants Management System (eGMS)

- a. Grant Programs
- b. Grant applications
- c. Grant approvals
- d. Spending by program/time/application

Special Education Data System (SEDS)

- a. Special education due process and mediation requests and proceedings

Data Architecture Requirements

What data do we have (cont)?

Educator Certification System (ECS Portal – TCIS, TSR)

- a. Teacher demographics
- b. Teacher certificates
- c. Professional Development Tracking
- d. Professional assessment data
- e. Professional development providers

Annual Financial Report (AFR)

- a. District financial data elements

Child Nutrition System (CNS)

- a. Meals provided aggregated by school and day
- b. Child nutrition budgets by school
- c. Site audits

Special Education Approval and Reimbursement System (SEARS)

- a. Special education student data
- b. Special education staff data
- c. Special education claim and payment data

Data Architecture Requirements

What data do we have (cont)?

Application and Claim Entry System

- a. Claims for nation school lunch programs
- b. Child and Adult Care Food Program
- c. Summer food service

Public Registration, Enrollment and Staff Report (Non Public Fall Housing)

- a. Annual aggregates of student data
- b. Annual aggregates of student events and activities
- c. Provider information

Migrant

- a. Migrant student information at the program level for achievement, participation, and programs offered

Facilities and Inventory

- a. Buildings and properties maintained at the school level

Financial Reimbursement Information System (FRIS)

- a. Reimbursable Program Budgets
- b. Reimbursement Claims
- c. Vouchers/payments

Data Architecture Requirements - Data Advisory Committee and Stakeholders



- **What do users want?**
- **What questions are you trying to answer?**

Data Architecture Requirements

Areas of interest and focus:

- **Linking data for college and career portals**
- **Postsecondary data**
- **Workforce data, workforce linkage**
- **Information in the classroom - Turning the data paradigm upside down**
- **Legislative Reporting**
- **IERC – Class of 2002 Study**

Data Architecture Requirements

Requirements spreadsheet

- Received input from
 - ISAC
 - IASB
 - LRU

Data Architecture Requirements

Information needed:

- **What question are we trying to answer?**
- **Specific data, with established definitions**
- **Source**
- **Ownership**
- **User Access**
- **Longitudinal Life**
- **Priority**

Data Advisory Committee – For next meeting

- **Agreed upon procedures to:**
 - **Document our work**
 - **Prioritize our needs and requests**
 - **Provide feedback**
 - **Perform Issue Resolution**
- **Data Architecture and Data Warehouse Requirements**

Wrap Up and Adjournment

- **Review takeaways**
 - Meeting Schedule and Project Status
 - Data Governance
 - Project Evaluation Criteria
 - Data Architecture Requirements
- **Next meeting date – February 10, 2010**
- **Communications**
 - Contact Information
 - Committee Email: ILDSDAC@isbe.net
 - Committee Web Site
 - Project Manager
 - Email: mmckindl@isbe.net
 - Phone: (217) 782-0329