

Illinois State Board of Education

Illinois Longitudinal Data System Data Advisory Committee

June 29, 2010

ILDS Data Advisory Committee

Agenda

Welcome and Introductions

Committee Administration and Status

- **Review of Previous Meeting Minutes**
- **Review of Action Items**
- **ILDS Project Status**
- **Other ISBE Initiatives**

HEC Data Consortium ILDS Status

Early Learning Council – Early Childhood Data Work Group

Data Governance

Data Architecture and Data Warehouse Requirements

Wrap Up and Adjournment

Committee Administration and Status

- **Meeting Minutes**
 - **3/10/20120 Meeting Minutes**

- **Action Items**
 - **Data Governance**

Committee Administration and Status

- **Project**

- Monthly status calls with U.S. Dept of Education
- Submitted Annual report for U.S. Department of Education

- **Data Advisory Committee**

- March, 2010 Meeting held
- Two Focus Groups Formed
 - Teachers (IEA, IFT)
 - Principals and Administrators (IPA)

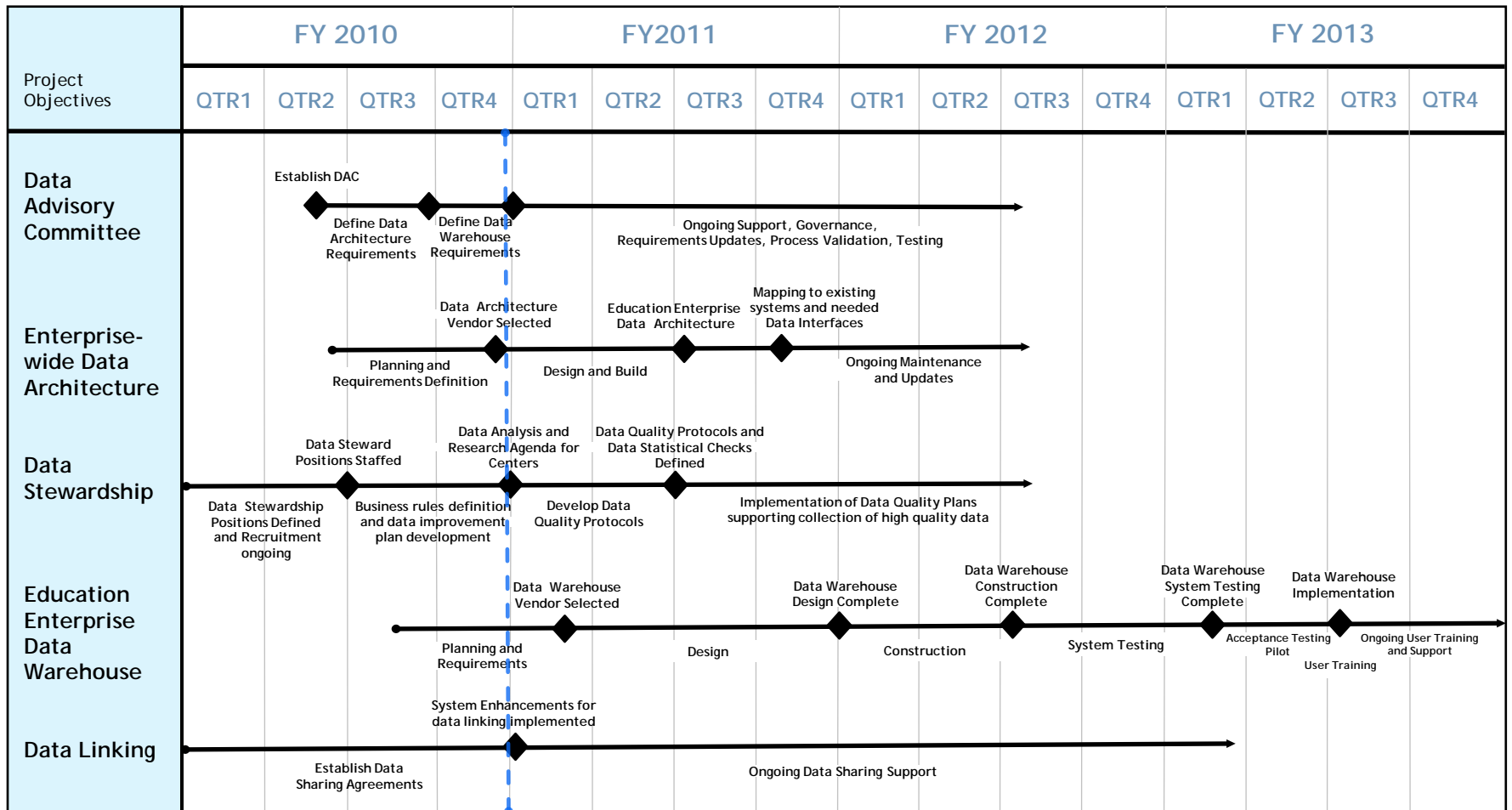
- **Enterprise-wide Data Architecture**

- Procurement cycle complete, PCG, Inc. selected
- Requirements a key input
- Focus groups providing additional requirements

Committee Administration and Status

- **Data Stewardship**
 - Two position filled
 - Analysis underway
- **Education Enterprise Data Warehouse**
 - RFSP for Data Warehouse vendor under construction
- **Linking of ISBE data with Postsecondary and Employment Data, and use this data for Research and Analysis**
 - Agreement in place
 - High School Feedback Report Data Sharing activities
 - Illinois Collaborative for Education Policy Research (ICEPR)
 - University of Illinois - Growth model assessments
- **Overall**
 - On schedule
 - Slightly behind original spend plan

ILDS Project Timeline



ILDS and Other Initiatives

- ISBE Initiatives

▪ Additional \$11.9M SLDS funding awarded:

- Statewide Course Classification System
- Student course data collection
- Statewide transcript system
- Student Growth Data
- Collection (*ePlans*) and posting of school performance data
- Teacher Certification Information System (TCIS)/Educator Certification System (ECS), and Teacher Service Record redesign
- Matching teachers to students
- Teacher impact on student achievement
- High School Feedback Report enhancements

ILDS and Other Initiatives

- **Race to the Top**
 - **Round 2 application submitted June 1**
 - **Targets Learning and Performance Management System**

- **Education Partners**
 - **Higher Education Data Consortium Status**

- **Early Learning Council – Early Childhood Data Work Group**

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

Data Advisory Committee Data Governance Vision (proposed)

- To help establish the technical, management and communications systems necessary for ISBE and its education partners to manage, link, and analyze P-20 education, workforce, and employment data, thus helping every Illinois student reach their potential.

Data Governance

Data Advisory Committee Data Governance Mission Statement (proposed)

- **Develop a common understanding of data ownership, data quality, data management, data confidentiality and access and appropriate usage of data.**
- **Advise ISBE and its education partners on data use, data management and communications with the education stakeholder community.**
- **Provide committed institutional support for advising on data coordination across education partner organizations.**
- **Provide a continuous focus on and support the continuous improvement of data quality so that data are accurate, reliable, secure, timely, reported equitably and useful to improving programs and practices.**
- **Prevent and resolve differences among education partners seeking to access education, workforce and employment data.**
- **Identify and assist in the implementation of joint data activities.**
- **Reduce the data collection burden.**

Data Governance

Goals (proposed)

- **Meet on a regular basis to help define project success criteria and review ILDS project status against these criteria.**
- **Help determine requirements for the ILDS project that support the definition of an Enterprise-wide Data Architecture and the Education Enterprise Data Warehouse.**
- **Identify process changes that support submission and integration of data, including establishing data sharing agreements amongst education partners.**
- **Advise and assist with implementation and change management in support of the ILDS Project.**
- **Help determine a communication process for all education partners and stakeholders that explains data access, data quality, security, and appropriate use of education data to improve Illinois education.**
- **Implement strategy to reduce the burden of data collection.**

Data Architecture RFSP and Requirements

Data Architecture

Enterprise-wide Data Architecture will result in:

- 1. The construction of an Enterprise-wide Data Model and Data Dictionary, including Metadata**
- 2. Logical model of LDS Data Warehouse**
- 3. Display tool for public access to the data model**
- 4. A Gap Analysis that identifies differences between the National Education Data Model and the ISBE data collection systems**
- 5. Identification of linking data to college and career planning portals, facilitate the submission of transcripts**
- 6. Establish a system to match students to teachers**
- 7. Establish a system to evaluate teacher and administrator preparation programs**

Data Architecture Requirements

Enterprise-wide Data Architecture will result in (cont):

- 8. Streamlined Education Data Exchange Network (EDEN) and Federal Reporting with an EDEN data mart**
- 9. Mapping of subset of ISBE reports to LDS repository**
- 10. Data Architecture that meets confidentiality requirements of FERPA and Illinois Student Records Act (ISSRA) and ensures the security of education data**

Data Architecture Requirements

- **Additional initiatives to support (per P-20):**
 - **Providing student level transcript information from middle and high schools**
 - **Establishing a statewide course classification system**
 - **Linking integration of data with postsecondary and employment data, other agencies and organizations**
 - **Establish a State data audit system**
 - **Planning for Learning and Performance Management System data structures**

Data Architecture

Vendor selection complete – Public Consulting Group, Inc.

Data Architecture Deliverables

- Requirements
- System Design
- Detailed Design
- Display Tool
- Implementation
- Mapping between SIS Applications and the LDS
- Interface Definitions

- Will be looking to review deliverables with DAC

Data Architecture - ISBE systems

System	Description	Technical Information
Student Information System (SIS)	SIS is the primary data collection system for student information	400 data elements Web application SQL Server 2005 Db
Illinois Student Information System (ISIS)	Maintains data on students taking Career and Technical Education curriculum courses. Produces program accountability for the Carl D. Perkins Vocation and Technical Education Act	250 data elements Standalone app Access 2003 Db
Special Education Systems, Approval and Reimbursement System (SEARS) The Funding and Child Tracking System (FACTS)	RS collects individual student data on students with individualized education programs (IEPs) and personnel data on all full and part-time special education staff, and produces required program information for the Individuals with Disabilities Education Act and state-mandated special education programs FACTS collects LEA special education funding and approval tracking information	1300 data elements LAN App SQL Server 2000 Db
Special Education Data System (SEDS)	Collects special education due process, mediation requests, and proceedings data	500 data elements Web app SQL Server 2000 Db

Data Architecture - ISBE systems

System	Description	Technical Information
Child Nutrition System (CNS) Application and Claim Entry System (ACES)	Collects application, claim, and monitoring data for sponsors and sites in the National School Lunch Program, Child and Adult Care Homes Program, Child and Adult Care Day Care Centers Program, and the Summer Food Service Program	1235 data elements Web apps SQL Server 2005 Db
Educator Certification System (ECS) Teacher Certification Information System (TCIS)	Collects and manages data and processes that support teacher certifications, teacher placement, professional development, and teacher demographic information	1500 data elements Web and LAN apps SQL Server 2000 Db
Teacher Service Record System (TSR)	Contains individual salary and demographic data for teachers and administrators employed in Illinois LEAs, and produces information for school and LEA report cards, annual statistical reports, and federal reports	Included with ECS / TCIS
Electronic Grants Management System (eGMS)	Collects application and budget data from LEAs for the No Child Left Behind (NCLB) consolidated applications and a variety of state entitlement and discretionary grant programs	150 data elements Web app SQL Server 2005 Db

Data Architecture - ISBE systems

System	Description	Technical Information
Annual Financial Report (AFR)	Collects LEA-level financial information and produces information for the Fiscal Common Core of Data (CCD), State Report Card, and other state-mandated financial reports	3000 data elements LAN App SQL Server 2000 Db
Financial Reimbursement Information System (FRIS)	Collects financial information including allotments, reimbursable program budgets, reimbursement claims, and payments	800 data elements LAN App SQL Server 2000 Db
Management Information Database Accounting System (MIDAS)	Collects agency accounting data including vendor payments, appropriations, grants, cash management, requests, obligations, and vouchers	120 data elements LAN App SQL Server 2000 Db
Non-Public Registration, Enrollment and Staff Report (Non-Public Fall Housing)	Aggregates annual non-public student data, student events and activities, and provider information	300 data elements Web app SQL Server 2000 Db
Facilities and Inventory	Collects data on buildings and properties maintained by LEAs	250 data elements Web app SQL Server 2000 Db

Data Architecture - ISBE Reports

Annual Report Card	Child Nutrition Services	Educator Supply and Demand	Annual Statistical Report
Federal Career and Technical Education	Federal Special Education – Annual Performance Report, Part B	Pre K At Risk	Education Data Exchange Network ()
Bilingual Education Reports	Biennial EEO-5 (a report containing race/ethnicity and gender information about certified and non-certified staff)	Annual Report of the Budget	Consolidated State Performance Report (CSPR)
Regional and Truants Alternative & Optional Education Program reporting	District Special Education Profile	General State Aid	

Data Architecture - ISBE Data

Entity	Category	Source System	Comments
Student	Demographics	SIS	
	Enrollment	SIS	
	Disabilities	SIS	
	Special Education	FACTS/SEARS, SEDS	Data collection targeted for rewrite
	IEP (indicator)	SIS	
	LEP (indicator)	SIS	
	Title 1	SIS	
	Career and Technical Education	ISIS	Transitioning to SIS
	Immigrant	SIS	
	Migrant	SIS	
	Homeless	SIS	
	Assessment (Annual statewide)	SIS	
	Discipline	SIS	
	Incident	Incidents	SIS
Staff	Demographics	TSR, TCIS	
	Experience	TCIS	
	Assignment	TSR	
	Credentials/Qualifications	TCIS	
	Illinois Education Identifier Number (IEIN)	ECS	
	Compensation		

Data Architecture - ISBE Data

Entity	Category	Source System	Comments
School	Directory	Facilities and Inventory	
	AYP		
	Type		
	Principal		
	Indicators, Assessment		
District	ID		
	Directory		
	Superintendent		
	AYP		
	Indicators		
State	ID		
	Directory		
	CCSSO		
Financial	Financial	AFR, FRIS, MIDAS	
Programs		CNS, ACES, eGMS, SIS	
Pre K, Early Learning		SIS	
Facility data			

Data Architecture – Data not Collected (NEDM, DQC, LDS)

Entity	Category	Source System	Comments
Student	Attendance (daily), truancy		Teachers and Principals want this data
	Parental Information		
	Health		
	Grades		Targeted for collection by 9/2011
	Neglected and Delinquent		
	Transportation data		
	Library records		
	Perceptions data (e.g., student-teacher relationships, school climate, etc.)		
Section/Course	Section		Targeted for collection by 9/2011
	Course (including dual credit)		Targeted for collection by 9/2011
	Staff, Student		Targeted for collection by 9/2011
	Grade, Credits		Targeted for collection by 9/2011
Non Publics			Procedures by 7/1/2010
AP exam results			
International Baccalaureate exam results			
Extracurricular			
Food Service		CNS	Collected but not tied directly to students
Assessments – formative and interim			

Data Architecture

WHAT ELSE?

ILDS Data Warehouse and Requirements

ILDS Data Warehouse

What we get from the Data Architecture:

- **Identifies the education enterprise information to be contained in the Warehouse**
- **Identifies and prioritizes subject areas to be included in the Data Warehouse**
- **Defines the level of summarization to support data driven decision making**
- **Facilitates the management of the scope of each subject area which will be implemented into the Warehouse on an iterative basis**
- **Develops a scalable architecture to serve as the Warehouse's technical and application foundation**

ILDS Data Warehouse

What we'll need to do for the Warehouse:

- **Identify and select the hardware/software/middleware components to implement it**
- **Select tools or approach for the extracting, cleansing, aggregating, transforming and validating the data to ensure accuracy and consistency**
- **Establish a refresh program that is consistent with business needs, timing and cycles**
- **Provide user-friendly, powerful tools at the desktop to access the data in the Warehouse**
- **Educate the stakeholder community about the realm of possibilities that are available to them through the Data Warehouse**
- **Establish a Data Warehouse Help Desk and train users to effectively utilize the desktop tools**
- **Establish the processes for maintaining, enhancing, and ensuring the ongoing success and applicability of the Warehouse**

ILDS Data Warehouse

User Portal:

- Public access to reports
- Web accessible
- Role Based
- Intuitive
- Parameter driven, Drill down, Graphics, Dashboards
- Analysis tools - Static, Ad Hoc, Advanced Analysis
- Data Upload/Download
- Output format – report, PDF, Excel, CSV, HTML, XML, etc.

Data Warehouse Requirements

- **Content – defined by Data Architecture**
- **Reports**
 - **Mapped as part of Data Architecture**
- **Information out of data**
- **Customers**

Wrap Up and Adjournment

- **Review takeaways**
 - **Data Governance**
 - **Data Architecture Requirements**
 - **Data Warehouse Requirements**

- **Next meeting dates – July 14, 2010, August 11, 2010**

- **Communications**
 - **Contact Information**
 - **Committee Email: ILDSDAC@isbe.net**
 - **Committee Web Site**