Kansas State Department of Education

Data Governance Program

Data Governance Program Handbook

Prepared by
KSDE
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1 Introduction

1.1 Purpose

The Data Governance Handbook is designed as a reference guide to help Kansas State Department of Education (KSDE) employees become familiar with Data Governance as implemented by KSDE and to inform them of associated responsibilities and processes. This includes the Data Governance Board, the Data Request Review Board, and Data Steward Workgroup.

This document outlines the structure of the Data Governance Program including critical roles and responsibilities. In addition to an overview of the KSDE Data Governance Program, this document includes handbooks for each of the major roles: Data Governance Board member; Data Request Review Board member; Data Steward.

1.2 Overview

Organizations have long had processes in place for managing financial and physical assets including equipment, money, land, personnel, etc. However, more and more organizations are recognizing the importance of managing data and information as an asset. KSDE has implemented this Data Governance Program in recognition of the critical nature that data plays in the "business" of education.

2 Relationship and Roles of Data Governance

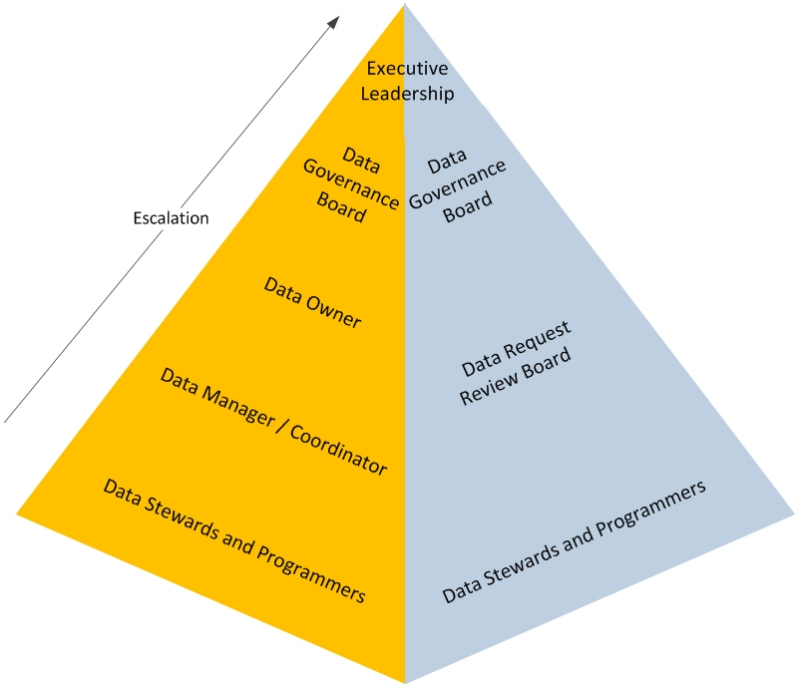
KSDE's Data Governance Program includes specific relationships among the components of the program, and requires that Data Governance participants follow the defined escalation process for effective communication.

2.1 Escalation

Data Stewards and Programmers have day-to-day responsibilities regarding data. Issues that may arise related to these responsibilities are escalated to the Data Manager or Data Coordinator. If this individual cannot resolve the issue, then it is escalated to the appropriate Data Owner. If the Data Owner is unable to resolve the issue, it is escalated to the Data Governance Board. The Data Governance Board may escalate issues to Executive Leadership which has ultimate responsibility for resolution.

Alternatively, for issues that may arise regarding a data request, escalation is to the Data Request Review Board, then the Data Governance Board, and finally, to Executive Leadership, if necessary.

The Commissioner has full authority over all actions, decisions, and processes.



2.2 Area of Responsibility

The Commissioner has overall responsibility for all areas, subjects, and requests for data at KSDE. For postsecondary data this includes upholding the terms of the Memorandum of Understanding (MOU) established between KSDE and the Kansas Board of Regents (KBOR). This responsibility is delegated to the Data Governance Board for action, execution, and management. The Data Governance Board is made up of Data Owners each with responsibility for the data within his/her area of

responsibility at KSDE. The Data Owner's responsibility may be delegated to Data Stewards and Programmers, with assistance from the Data Manager or Data Coordinator for action, execution, and management.

3 Data Governance Board

3.1 Mission

The mission of the KSDE Data Governance Board (DGB) is to establish and enforce policies related to agency data management.

Guiding Principles:
- ethics and security will be a part of every decision the group makes.
- members have the authority and commitment to make policy recommendations and decisions.
- legal considerations including Family Educational Rights and Privacy Act (FERPA).
- data quality considerations.

3.2 Scope

The scope for the Data Governance Board considerations includes all data across the agency. This includes:
- source data collections;
- KSDE Enterprise Data Warehouse;
- reporting access including federal and legislative, local, and research requests;
- security of data;
- data verification;
- deadlines;
- communication regarding data and policy;
- establishing certification requirements, and
- master data management.

3.3 Data Owners

KSDE's Data Governance Board is made up of Data Owners as well as others at KSDE with a high level of responsibility regarding data. Data Owners have specific responsibility regarding data as outlined in the KSDE IT Security Policies Handbook.

Data owners are directors of teams which are responsible for applications and their associated data. They are the individuals responsible for ensuring protection of, and authorizing access to, applications and their associated data.

The Data Owner is responsible for and authorized to:
- define and approve all access to information and computing assets under his or her responsibility;
- judge the value of the data assets and identify the data classification;
- regularly review each application's data access and classification;
- communicate each application's data access requirements and data classification to the custodian; and

- safeguard the confidentiality, privacy, and security of any information that has been entrusted to his/her team for business purposes.

3.4 Members Responsibilities

All members* of the Data Governance Board are responsible to:

- attend and participate in scheduled Data Governance Board meetings. If the individual is unable to attend it is his/her responsibility to send a representative so that the program area is represented.
- report to the DGB regarding data issues, new data regulations, and new policies affecting data;
- communicate with their program area teams regarding activities and decisions of the DGB; and
- support and advocate data management and governance practices to agency staff.

**The postsecondary Data Governance Board member has these responsibilities only when postsecondary data are involved.*

3.5 Goals and Objectives

The Goals of the Data Governance Board are to:

- achieve consistency in collecting and reporting data across various Agency teams and source systems;
- achieve high quality data in our collection, analysis, and reporting; and
- respond in a timely manner to data issues that are escalated to the DGB.

3.6 Voting Process

Data Owners each have one vote on the Data Governance Board (see Appendix 6.4 for a list of DGB Participants). The teams with Data Owners (see Section 3.3) are:

- Career, Standards and Assessment Services
- Child Nutrition and Wellness
- Information Technology
- Research and Evaluation
- School Finance
- Special Education Services
- Teacher Education and Licensure
- Title Programs and Services

In addition, the Directors of the following teams with specific data responsibilities also are voting members on the Data Governance Board:

- Fiscal Auditing
- Office of General Counsel

The Kansas Board of Regents (KBOR) has a standing member of the Data Governance Board who has one vote for issues and policies which impact postsecondary data. In addition, the KBOR vote also carries full veto power on any issue involving the use of postsecondary data. For example, if the majority of KSDE DGB members vote to approve a motion but the KBOR member voted against it, the motion would fail.

Should any voting member request additional information regarding an issue that is being voted on, that additional information will be provided before the vote is finalized.

3.6.1 Proxy

Should any voting member of the Board not be able to attend and/or participate in a vote, that member can appoint a proxy to vote in his/her stead as long as the Board recorder or facilitator has been notified of the proxy designation before the vote takes place. Each voting member may designate a standing proxy by notifying the Board recorder or facilitator by email.

4 Data Request Review Board

4.1 Mission

The mission of the Data Request Review Board (DRRB) is to implement processes for the provision of accurate, timely data and information to our internal and external customers while protecting personally identifiable student information and other confidential information.

4.2 Scope and Responsibility

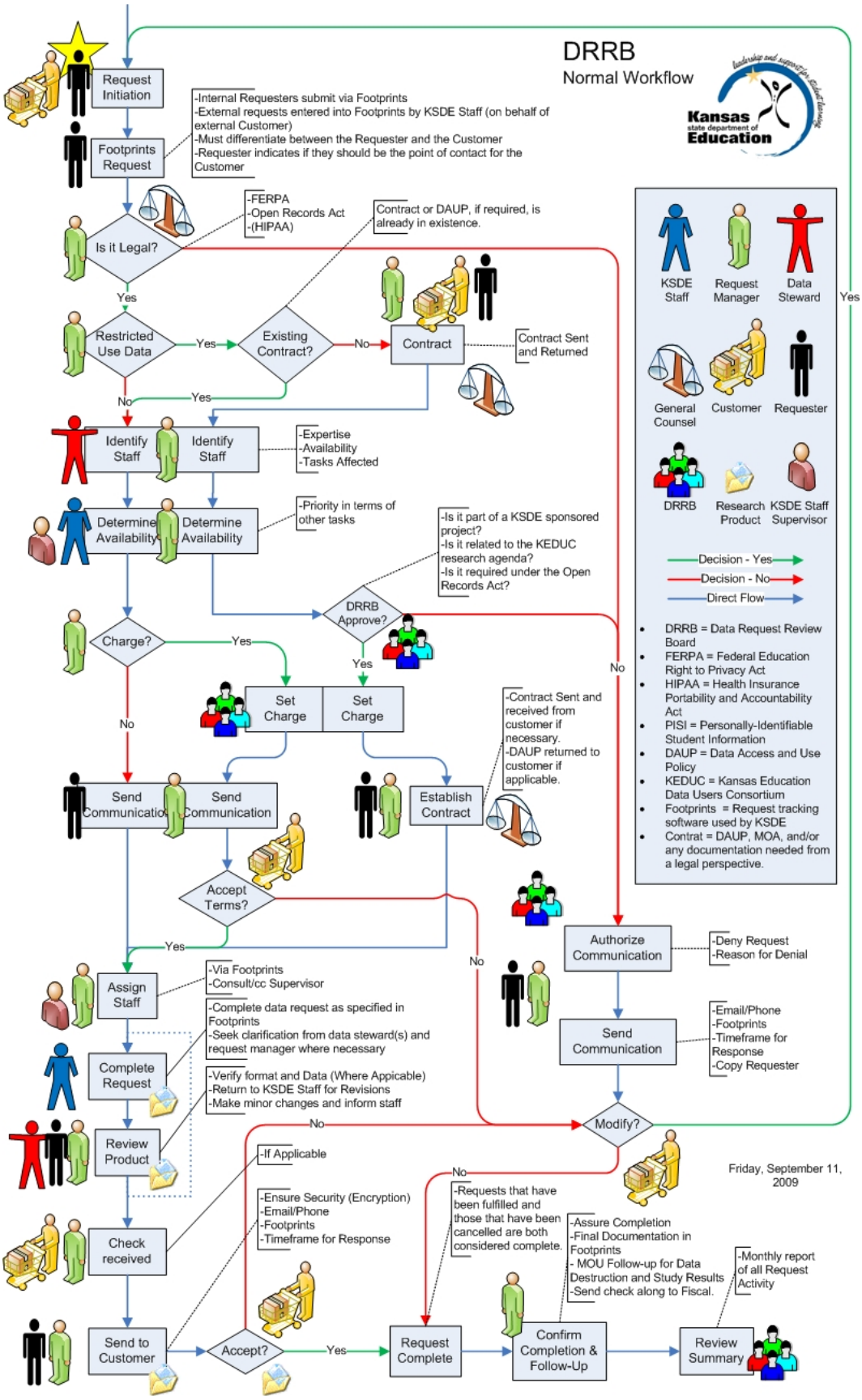
The DRRB was established to support the flow of data and information requests for all data which has been collected or calculated by KSDE. Data Request Review Board member responsibilities* include:

- establishing, encouraging, and enforcing policies and procedures for responding to data and information requests;
- providing and continually improving standard procedures for entering, prioritizing, and responding to data and information requests;
- providing for training of KSDE staff to initiate and manage data requests;
- prioritizing requests as needed;
- assigning requests as needed;
- reviewing and determining the legality of responding to the request as needed;
- reporting and escalating issues to the Data Governance Board as needed;
- reporting denials by the DRRB to fulfill requests to the Data Governance Board; and
- reviewing the flow and completion of requests.

**The postsecondary Data Request Review Board member will be included only when postsecondary data are involved.*

4.3 Data Request Process

The following diagram illustrates the operational flow for processing data requests.


DRRB
Normal Workflow
Kansas state department of Education
Request Initiation
Footprints Request
-Internal Requesters submit via Footprints
-External requests entered into Footprints by KSDE Staff (on behalf of external Customer)
-Must differentiate between the Requester and the Customer
-Requester indicates if they should be the point of contact for the Customer
Is it Legal?
-FERPA
-Open Records Act
-(HIPAA)
Contract or DAUP, if required, is already in existence.
Yes
Restricted Use Data
Yes
Existing Contract?
No
Contract
Contract Sent and Returned
No
Yes
Identify Staff
Identify Staff
-Expertise
-Availability
-Tasks Affected
Determine Availability
Determine Availability
-Priority in terms of other tasks
-Is it part of a KSDE sponsored project?
-Is it related to the KEDUC research agenda?
-Is it required under the Open Records Act?
DRRB Approve?
Yes
No
Charge?
Yes
No
Set Charge
Set Charge
-Contract Sent and received from customer if necessary.
-DAUP returned to customer if applicable.
Send Communication
Send Communication
Establish Contract
Accept Terms?
Yes
No
Authorize Communication
-Deny Request
-Reason for Denial
Assign Staff
-Via Footprints
-Consult/cc Supervisor
-Complete data request as specified in Footprints
-Seek clarification from data steward(s) and request manager where necessary
Send Communication
-Email/Phone
-Footprints
-Timeframe for Response
-Copy Requester
Complete Request
-Verify format and Data (Where Appicable)
-Return to KSDE Staff for Revisions
-Make minor changes and inform staff
Review Product
No
Modify?
Yes
-If Applicable
-Ensure Security (Encryption)
-Email/Phone
-Footprints
-Timeframe for Response
Check received
No
-Requests that have been fulfilled and those that have been cancelled are both considered complete.
-Assure Completion
-Final Documentation in Footprints
- MOU Follow-up for Data Destruction and Study Results
-Send check along to Fiscal.
-Monthly report of all Request Activity
Send to Customer
Accept?
Yes
Request Complete
Confirm Completion & Follow-Up
Review Summary
Friday, September 11, 2009
KSDE Staff
Request Manager
Data Steward
General Counsel
Customer
Requester
DRRB
Research Product
KSDE Staff Supervisor
Decision - Yes
Decision - No
Direct Flow
DRRB = Data Request Review Board
FERPA = Federal Education Right to Privacy Act
HIPAA = Health Insurance Portability and Accountability Act
PISI = Personally-Identifiable Student Information
DAUP = Data Access and Use Policy
KEDUC = Kansas Education Data Users Consortium
Footprints = Request tracking software used by KSDE
Contrat = DAUP, MOA, and/or any documentation needed from a legal perspective.

4.4 Voting Process

The DRRB is a subgroup of the Data Governance Board. The voting members of the DRRB represent KSDE's three Divisions: Office of the Commissioner, Fiscal and Administrative Services, and Learning Services.

The Commissioner will appoint one voting member, the Deputy Commissioner of Fiscal and Administrative Services will appoint two voting members, and the Deputy Commissioner of Learning Services will appoint two voting members. Therefore, a total of five voting members are on the DRRB. Other non-voting members of the DRRB may include Data Request Administrators and Data Managers and are included at the request of appointed voting members.

The Kansas Board of Regents (KBOR) has a standing member of the Data Request Review Board who has one vote for issues which impact postsecondary data. In addition, the KBOR vote carries full veto power on any issue involving the use of postsecondary data. For example, if the majority of KSDE DRRB members vote to approve a motion but the KBOR member voted against it, the motion would fail.

Should any voting member request additional information regarding an issue that is being voted on, that additional information will be provided before the vote is finalized.

4.4.1 Proxy

Should any voting member of the Board not be able to attend and/or participate in a vote, that member can appoint a proxy to vote in his/her stead as long as the Board recorder or facilitator has been notified of the proxy designation before the vote takes place. Each voting member may designate a standing proxy by notifying the Board recorder or facilitator by email.

5 Data Steward Workgroup

5.1 Mission

The mission of the Data Steward Workgroup is to support data stewards within KSDE by:

- acting as a source of knowledge and advocacy for data initiatives;
- ensuring data projects maintain focus and meet deadlines;
- escalating issues, as necessary, to the appropriate entity;
- ensuring data quality and data timeliness through collaboration with the workgroup and others throughout the Agency; and
- fostering an environment of learning and sharing expertise in relation to data stewardship, as well as tools and resources.

5.2 Scope and Responsibility

The Data Steward Workgroup is made up of staff throughout the agency who have been designated by a Data Owner as a Data Steward to carry out day-to-day responsibilities, actions, and management regarding the data within his/her area of responsibility. The Data Steward Workgroup is a collaboration of all KSDE Data Stewards and is managed and coordinated by representatives from the Information Technology (IT) team.

The Data Steward Workgroup has four main areas of focus:

- EDEN (Education Data Exchange Network) –submitting data to the U.S. Department of Education (ED) in an electronic format.
- Data Requests – internal and external.
- Enterprise Data System – i.e. data warehouse, data marts, metadata documentation.
- Source Collection Systems.

5.2.1 Characteristics

The Data Steward role at KSDE has the following expectations and attributes:

- A data steward is an employee that, as part of his/her every day job, is accountable for managing the definition, production, accountability, and usage of data.
- The time commitment of data stewards may vary depending on the maturity of the data domains and projects, the number of data management activities in which they are involved, and the reporting cycle for the data.
- Being a data steward will require a commitment to focus on maximizing data quality and efficiently managing the data.
- Data stewardship will become a part of everyday work processes.

5.2.2 Responsibilities

Specific Data Steward responsibilities include*:

- bringing issues to the Data Steward Workgroup that need to be addressed and help propose resolutions.
- providing data analysis related to the individual's specific program area.
- regularly evaluating the quality of the data.
- identifying opportunities to share and re-use data.
- enforcing data quality standards.

- identifying and resolving data quality issues such as integrity, timeliness, accuracy, and completeness.
- communicating data quality issues and problems to individuals that can influence change, if necessary.
- communicating new and changed data requirements to necessary individuals.
- communicating business needs for data security.
- communicating criteria for archiving data.
- tracking federal and state legislation involving data elements and translate the impact for the agency.
- receiving and reviewing emails related to Federal Register Notices and acting upon the Notices as necessary.
- attending monthly Data Steward Workgroup* meetings.

The Data Steward responsibilities related to the federal EDFacts System (a component of the Education Data Exchange Network – EDEN) initiative include the following*:

- identify & record EDEN metadata documentation such as business rules, transformations, and source information.
- confirm that source data is ready for extract to EDEN repository.
- spot check data transformations in EDEN repository.
- verify data accuracy of EDEN files.
- work with EDEN Coordinator and programmer to resolve any data quality issues.
- give approval to submit data to EDEN.

The Data Steward responsibilities related to Data Requests (internal and external) include the following*:

- act as a resource for the Data Request Review Board (DRRB).
- assist in determining the best source to fulfill data requests.
- assist in determining if data/report already exists and can be utilized.
- refer DRRB to already existing published data whenever possible.
- determine if data are ready for public consumption. Review data before it goes out to public to assure accuracy and consistency in reporting.
- if a request goes directly to the steward, then the steward enters the data request into Footprints and either fulfills the request himself/herself (if appropriate) or collaborates with the DRRB administrator to assign the request to the appropriate staff.
- the data steward should use his/her discretion to ensure that the Data Owner is aware of data that are being sent outside of the Agency, as necessary (depending on customer and data).

The Data Steward responsibilities related to the Enterprise Data System may include the following*:

- identifying and recording Enterprise metadata such as business rules, transformations, and source information.
- confirming that source data is ready for ETL (extract, transform, & load) to the data warehouse.
- participating in the Quality Validation of transformations to the data warehouse for historical and ongoing data loads.
- participating in the establishment and validation of quality metrics for warehouse data.
- providing input for the development and use of data marts.
- being aware of any data marts utilizing the specific program area data.

The data steward responsibilities related to Source Collection Systems include the following*:

- assist in evaluation of source system enhancements based on data quality issues.
- monitor functionality of system to ensure needs of team are being met.
- escalate issues to owner when necessary.
- act as subject matter expert for enhancement and development projects.

**The postsecondary Data Steward is an ad hoc member of the Data Steward Workgroup and will be invited to appropriate meetings. Responsibilities of the postsecondary Data Steward are defined by the KBOR Data Governance Program and are not included here.*

5.3 Goals and Objectives

The goals and objectives of the Data Steward Workgroup are listed below:

- assist in identifying and providing the knowledge, tools, forums, and processes to become effective and efficient in this role.
- improve accountability for data accuracy.
- improve productivity by reducing duplication of effort.
- improve reusability of data.
- improve understanding of data.
- improve reporting capability and timeliness of reporting.
- improve data quality and reducing the cost of work efforts in relation to data clean-up and analysis.
- understand and communicate with necessary staff any federal or state legislation that will impact KSDE data.
- facilitate a connection between the stewards in the agency, help stewards to build capacity, and have the opportunity to discuss current issues.

5.4 Voting Process

The Data Steward Workgroup is not a formal committee or board, and as such has no formal voting procedures.

6 Appendix

6.1 Revision History*

Name	Date	Reason For Changes	Version
Charlotte Bogner	1/28/08	Initial draft version 2.0 (Version 1.0 only consisted of data steward group info. Version 2.0 expands on the first document to include data governance and data requests.)	2.0 pending
Charlotte Bogner	2/23/08	Changes made based on feedback from Kathy Gosa.	
Kathy Gosa	3/5/08	Updates based on review.	
Kathy Gosa	4/8/08	Updates to Data Governance Handbook section based on input from DGB.	2.0
Charlotte Bogner	3/18/09	Updated KSDE Data Governance Participants page including adding a column for the Data Request Review Board participants, indicating voting members, and updating to version 2.1.	2.1
Kathy Gosa	3/29/09	Updated to include governance of postsecondary data.	2.2
Kathy Gosa	4/25/11	Reformatted and clarified information related to KBOR	3.0
Charlotte Zeller	4/5/12	Annual Review and Updates	4.0

*Updates to the Appendices are not reflected in this revision history.

6.2 Related Documentation

Name	Date	Document Title	Comments
Connie Torres		IT Security Policies	Latest Version as of November 7, 2011
ED		FERPA Regulations	Latest Version as of December, 2011

6.3 Important Terms

Term	Definition
Business Rule	A statement expressing a policy or condition that governs business actions and establishes data integrity guidelines. Example: Grade level Business Rule – To be considered eligible for Kindergarten the student must be five years old by a specific date that is determined by the state.
Data Definition	The description or meaning for a data field. Example: Grade level Definition – A level of academic development to which a particular student is assigned.
Data Element Name	Name of a distinct piece of data. Example: Grade level data Element name = GradeLevel.
Data Governance Program	The individuals and process with responsibility for establishing, implementing, and enforcing policies and guidance involving data.
Data Management	Data management comprises all the disciplines related to managing data as a valuable resource.
Data Owner	The KSDE director of the team that has requested collection of a particular set of data or is assigned responsibility for a particular set of data. Responsibilities of the Data Owner are set forth in the IT Security Handbook.
Data Request	A request from an internal or external customer for data to be supplied in a specified format for a specific reason such as a report, analysis, comparison, research, etc.

Term	Definition
Data Steward	The KSDE employee, assigned by the Data Owner, to be responsible for the data related to a specific program area. A business subject matter expert designated and accountable for assisting with analysis, quality, and use of the data as well as documentation of appropriate metadata.
Data Steward Program	The formalizing of accountability for the stewardship of data.
ESEA	Elementary and Secondary Education Act
EDEN	Education Data Exchange Network. The online portal used to submit data files for the ED*Facts* initiative.
EDFacts	ED*Facts* is a U.S. Department of Education initiative to put performance data at the center of policy, management and budget decisions for all K-12 educational programs. ED*Facts* centralizes performance data supplied by K-12 state education agencies (SEAs) with other data assets, such as financial grant information, within the Department to enable better analysis and use in policy development, planning and management.
Enterprise Data System	System for effective capture, cleansing, transformation, storage, definition, and use of data.
Higher Ed	Education beyond the secondary level. This includes community colleges, technical schools, colleges and universities.
Information	When data are summarized or brought together to give context or meaning to individual data elements.

Term	Definition
KBOR	KBOR is the Kansas Board of Regents that governs KBOR postsecondary institutions in Kansas.
KHEDS	The Kansas Higher Education Database System that the Kansas Board of Regents uses to collect data from Higher Education institutions in Kansas.
KSDE	Kansas State Department of Education
Master Data Management	Master data management comprises a set of processes and tools that consistently defines and manages the master data (i.e. non-transactional data entities) of an organization (which may include reference data). MDM has the objective of providing processes for collecting, aggregating, matching, consolidating, quality-assuring, persisting and distributing such data throughout an organization to ensure consistency and control in the ongoing maintenance and application use of this information.
Metadata	A term used for data that describes a specific element or set of data. The term refers to all of the characteristics that need to be known about data in order to build databases and applications, and to effectively use data for policy and decision making.
MOU	A memorandum of understanding is an agreement between two parties in written form that outlines each party's responsibility when sharing data.

Term	Definition
NCLB	The current version of the Elementary and Secondary Education Act is the No Child Left Behind federal legislation signed into law on January 8, 2002.
Permitted Value	Specific values that may be contained in a field. Example: Grade Level Permitted Values - K, 01, 02, 04, 05, 06, 07, 08, 09, 10, 11, 12.
Postsecondary	A term used to describe or that relates to education in Kansas taking place after leaving high school enrollment and entering a program that is overseen by the Kansas Board of Regents (KBOR).
Subject Matter Expert	A business person who has significant experience, responsibility, and knowledge of a given business subject or function.
Transformation	The process for changing data values from one form on the source system to another form in the target systems. Example KIDS Permitted Value for Kindergarten grade level = K EDEN Permitted Value for Kindergarten grade level = 00 Transformation – K 00
ED	United States Department of Education

6.4 KSDE Data Governance Participants

KSDE Team	Data Owners (Directors)	Data Governance Board	Data Request Review Board	Data Steward	Data Steward Backup
Information Technology	Kathy Gosa	Kathy Gosa * Charlotte Bogner Charlotte Zeller	Kathy Gosa* Linda Smith	Julie Cook (KIDS)	TBD (KIDS)
Special Education Services	Colleen Riley	Colleen Riley* Mason Vosburgh		Mason Vosburgh Gayle Stuber (4-year Old At-Risk) Janet Newton (Parents as Teachers)	Colleen Riley
Career Standards & Assessment	Tom Foster	Tom Foster* Scott Smith Jeannette Nobo Melissa Tillman	Tom Foster* Melissa Tillman	Melissa Tillman	Tony Moss (Assessment) Kelly Spurgeon (AYP) Kelsie Keleher (CATE) Beth Fultz (all)
Teacher Education & Licensure	Pam Coleman	Pam Coleman*		Lori Adams	Susan Helbert
Research & Evaluation	Tom Foster	Tom Foster* James Daugherty Michael Wallis	Tom Foster Michael Wallis		
School Finance	Craig Neuenswander	Craig Neuenswander* Sara Barnes	Craig Neuenswander*	Kevin Mercer (CCD & ORG)	Sara Barnes (CCD & ORG)
Child Nutrition and Wellness	Cheryl Johnson	Cheryl Johnson*		Michelle Pyle	Tammy McFadden
Legal Services		Cheryl Whelan*	Cheryl Whelan*		
Title Programs & Services	Howard Shuler	Howard Shuler* Judi Miller Norma Cregan		Melissa Tillman	Judi Miller and see list below:***
Postsecondary (KBOR)	Dawn Ressel	Dawn Ressel**	Dawn Ressel**	Cindy Farrier**	Deb Warren**

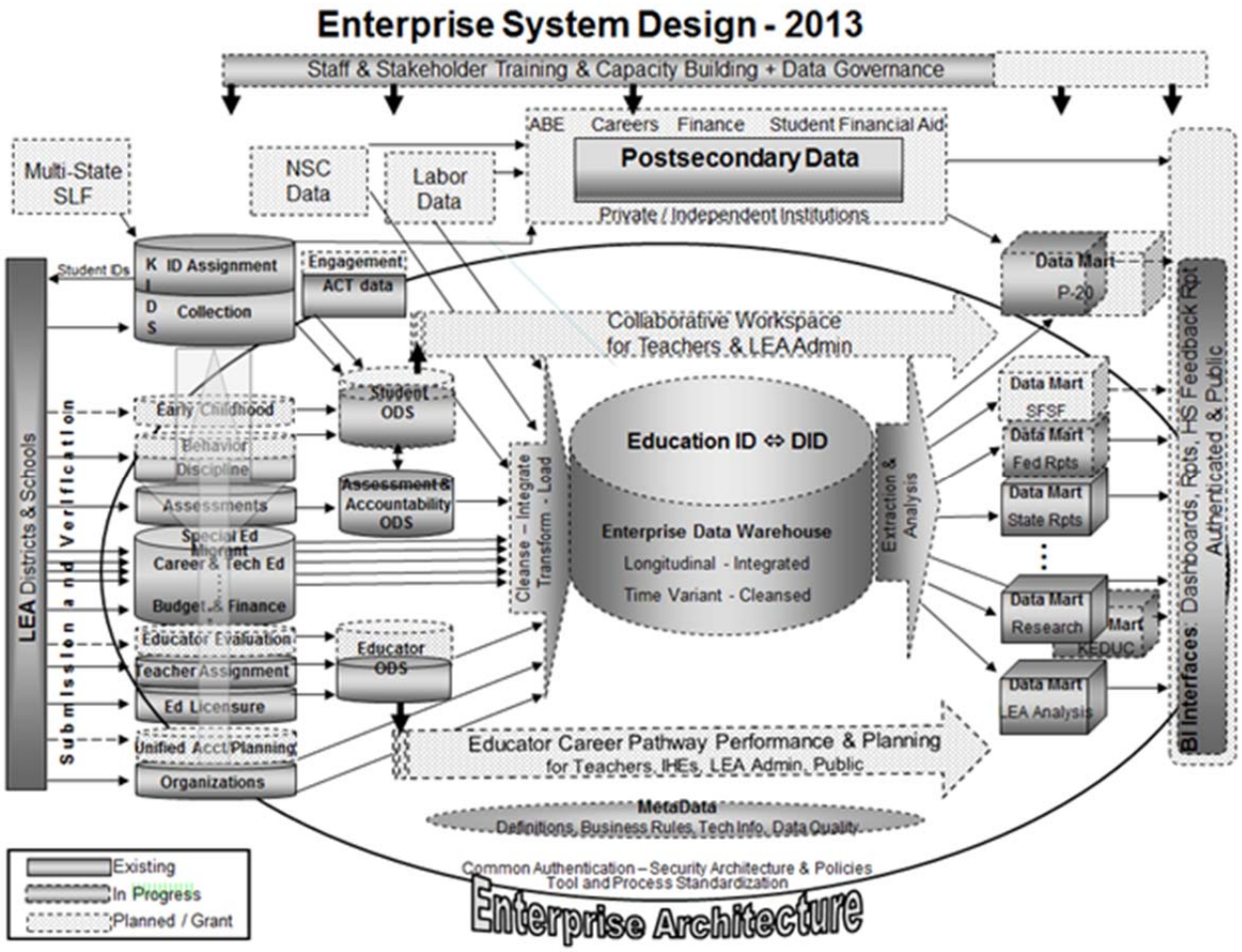
***Title Programs & Services Data Steward Back-ups
Tate Toedman (Homeless)
Melanie Manares (English Language Learners)
Patty Carter (Migrant)
LaNetra Guess (Neglected & Delinquent)
Norma Cregan (Migrant, Homeless, English Language Learners)
Teresa White (primary QPA & Discipline)
Pat Hill (backup QPA)
Jessica Noble (Dropout/Graduation Summary Report)
Chris Macy (21st Century, Choice)
Cherie Nicholson (Charter/Virtual)

** Indicates voting member*
***Ad hoc member with participation, voting rights, and veto power when postsecondary data are involved.*

6.5 KSDE Enterprise Data System (EDS)

KSDE has implemented a system for data collection and management which includes data collection in source systems, integration and loading into the Enterprise Data Warehouse for historical archiving, and extraction into data marts for use by various stakeholders. Master Data Management for source data and centralized metadata management are also key components of the KSDE EDS.

The following diagram illustrates key components and processes of KSDE's EDS:



6.6 References

Source for some of the term definitions: *Improving Data Warehouse and Business Information Quality – Larry P. English* (modified for KSDE use)

Source for some of the concepts used in this document from: *How to Build and Implement Data Governance & Data Stewardship Programs – Public 2-day course by Robert S. Seiner of KIK Consulting & Educational Services, Pittsburgh, Pennsylvania.*