The Information Context

Organizational Background:
The Road Map Project (RMP) is a community-wide effort aimed at improving education to drive dramatic improvement in student achievement from cradle to college and beyond in South King County. The project is staffed by the Community Center for Education Results (CCER).

The RMP builds off of the belief that collective effort is necessary to make large-scale change. A common goal and shared vision are essential in facilitating coordinated action, both inside and outside of schools.

The RMP Region includes K12 and community colleges in Auburn, Federal Way, Highline, Kent, Renton, Tukwila and South Seattle.

History of the Data System:
Data plays a critical role in guiding the RMP by establishing a shared set of performance indicators to align action between partners. RMP data analysts must aggregate, validate and clean large amounts of education data from a wide variety of sources to provide these indicators.

In June 2013 CCER began the process of building a comprehensive data system for tracking student achievement and to improve data management, for which this project represents the second phase: create an enterprise data warehouse. See timeline below.

Expected Outcomes:
Automate Data Management and Reporting:
Over 80% of data staff time is spent on repetitive data management tasks and regular reporting. The system will free up time for analysts to engage in more impactful activities including predictive modeling, exploratory data analysis, and engaging the community with data and findings.

Public Data Use:
The long-term goal of this project is to provide an accessible and understandable interface for the public to explore and analyze education data. As a result there will be enhanced alignment around goals and greater accountability in the region.

Data System Development Timeline

Phase 1: Develop and populate operational data store.
Phase 2: Create dimensional data warehouse to enable efficient reporting.
Phase 3: Implement applications for public data exploration.

Data Warehouse
Operational Data Store
Reporting and Visualizations

Source Files
CSV
CSV
XLSX

Spotlight on Phase 2: Building the Data Warehouse

Inventory
- Identify core processes
- Gather business requirements
- Document existing data

Design
- Model data warehouse and data marts
- Model dimensions and facts
- Map source to target

Develop
- Iterative development
- Extract, transform and load
- Test and validate load

Analyze
- Automated indicator reporting
- Data dashboard and visualizations

Road Map Data Partners:
- Partner School Districts
- Puget Sound Education Service District
- WA Office of Superintendent of Public Instruction (OSPI) Report Card
- OSPI Comprehensive Education Data and Research System
- Washington Department of Early Learning
- WA Education Research and Data Center
- WA State Board for Community and Technical Colleges
- US Department of Education
- Washington Student Achievement Council
- National Student Clearinghouse
- BERC Group