



Business School
UNIVERSITY OF COLORADO DENVER

Information Systems Program

Module 1

DBMS Extensions and Example Data Warehouses

Lesson 5: Colorado Education Data Warehouse

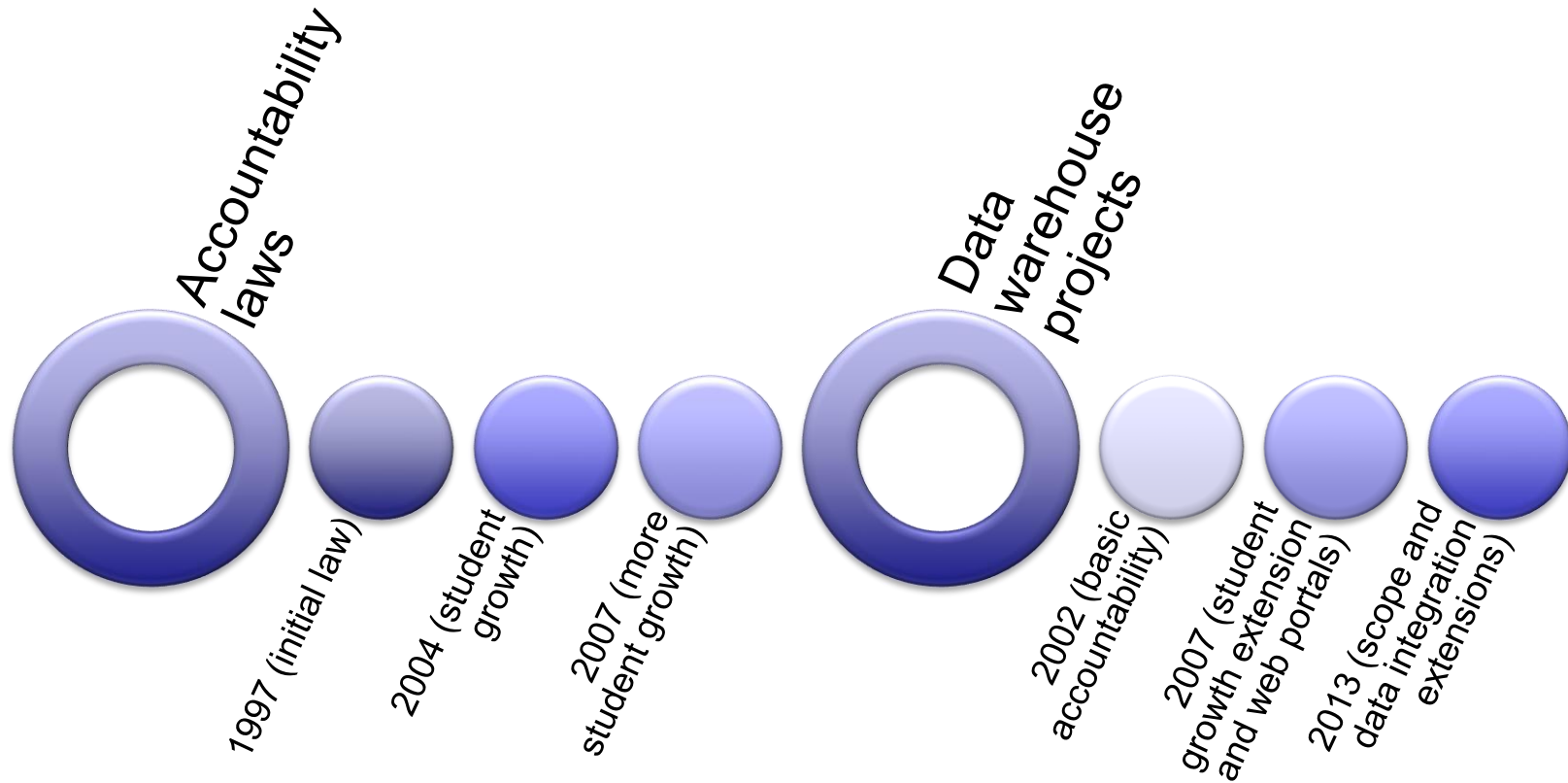


Lesson Objectives

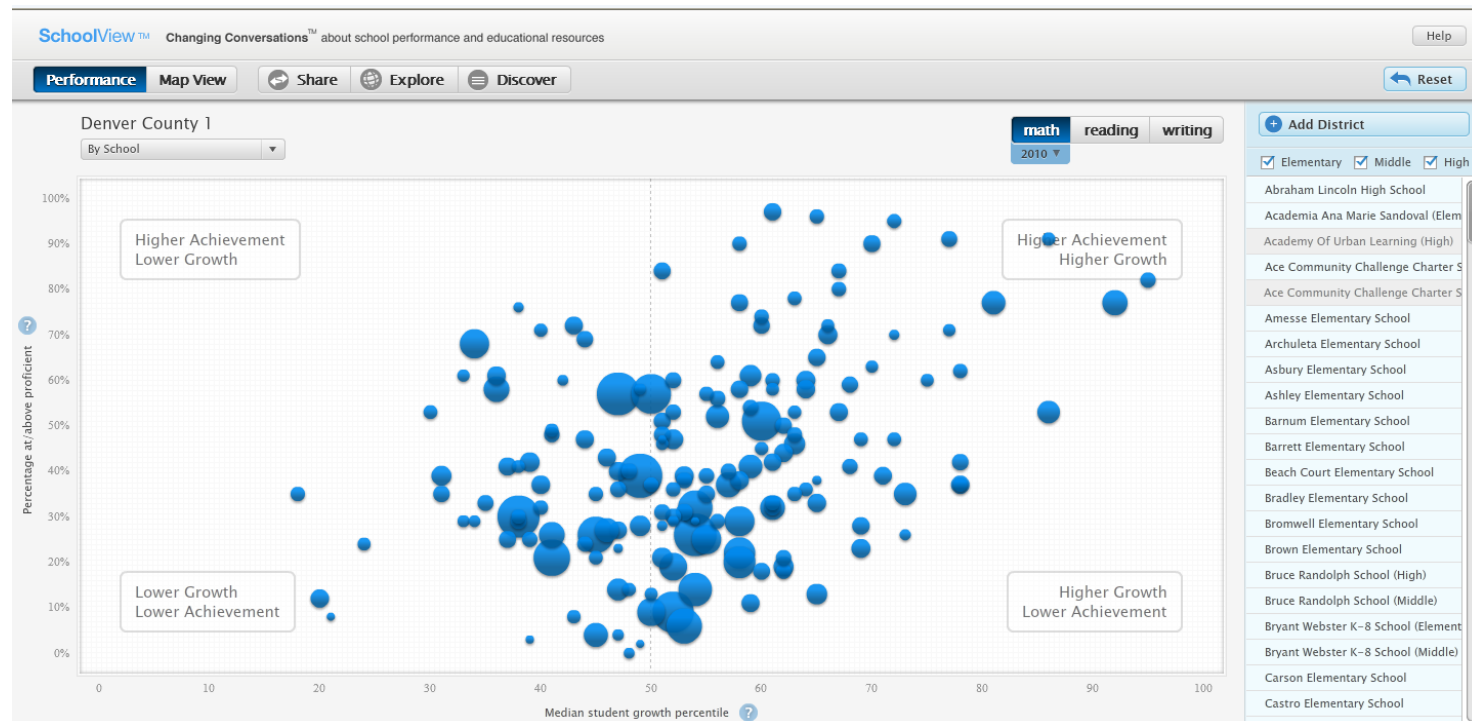
- Understand the scope of moderate size data warehouses
- Grasp development difficulties
- Reflect about mandatory participation by data providers and wide usage by stakeholders



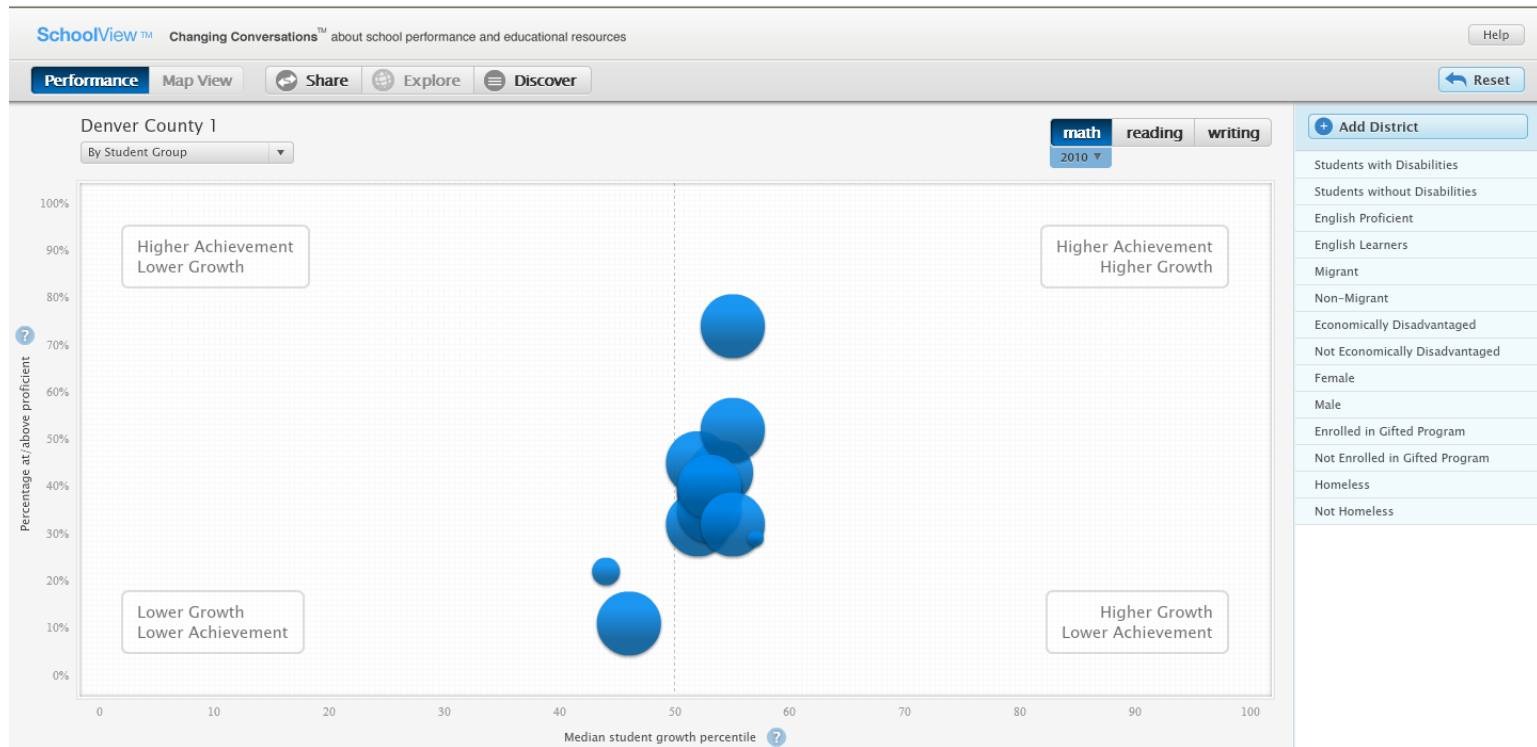
Development Timeline



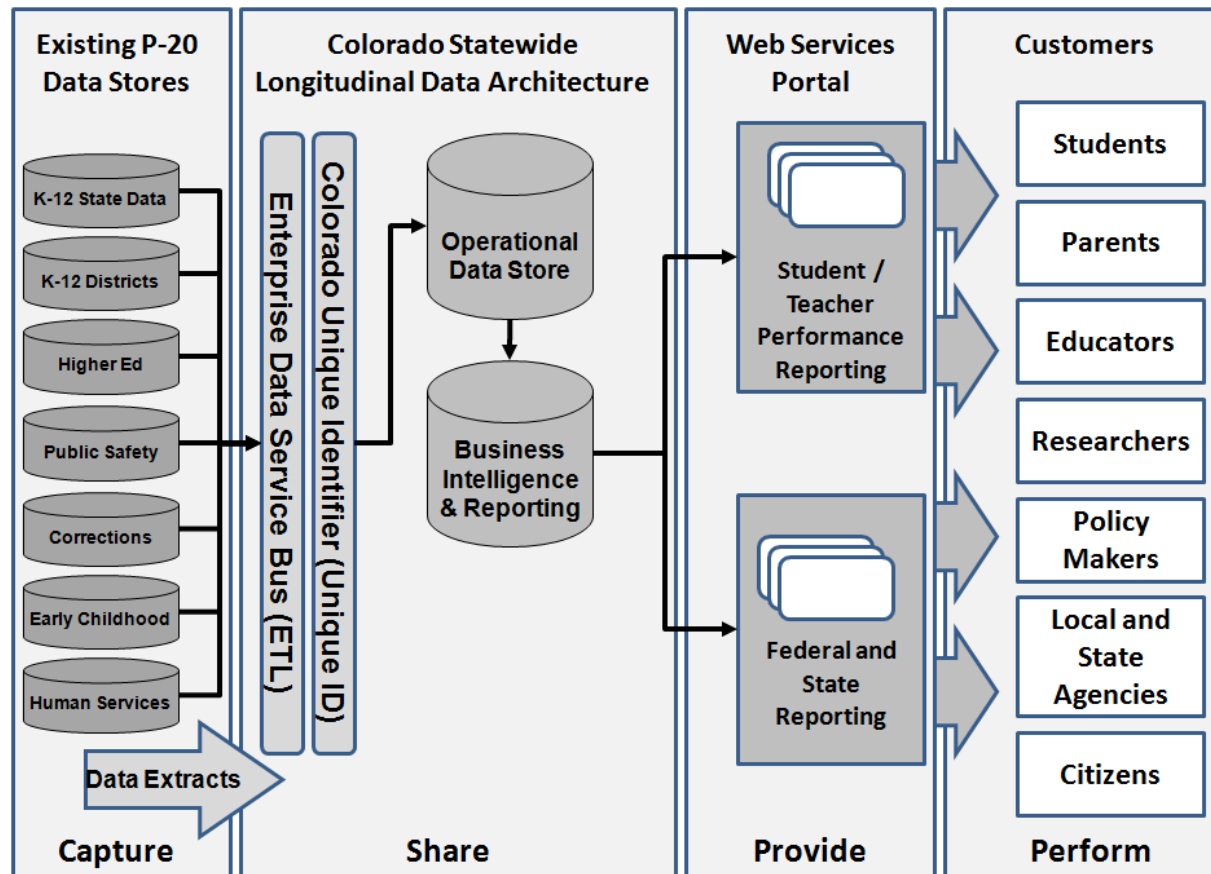
SchoolView Public Portal



SchoolView Drill-Down Display



Federated Architecture

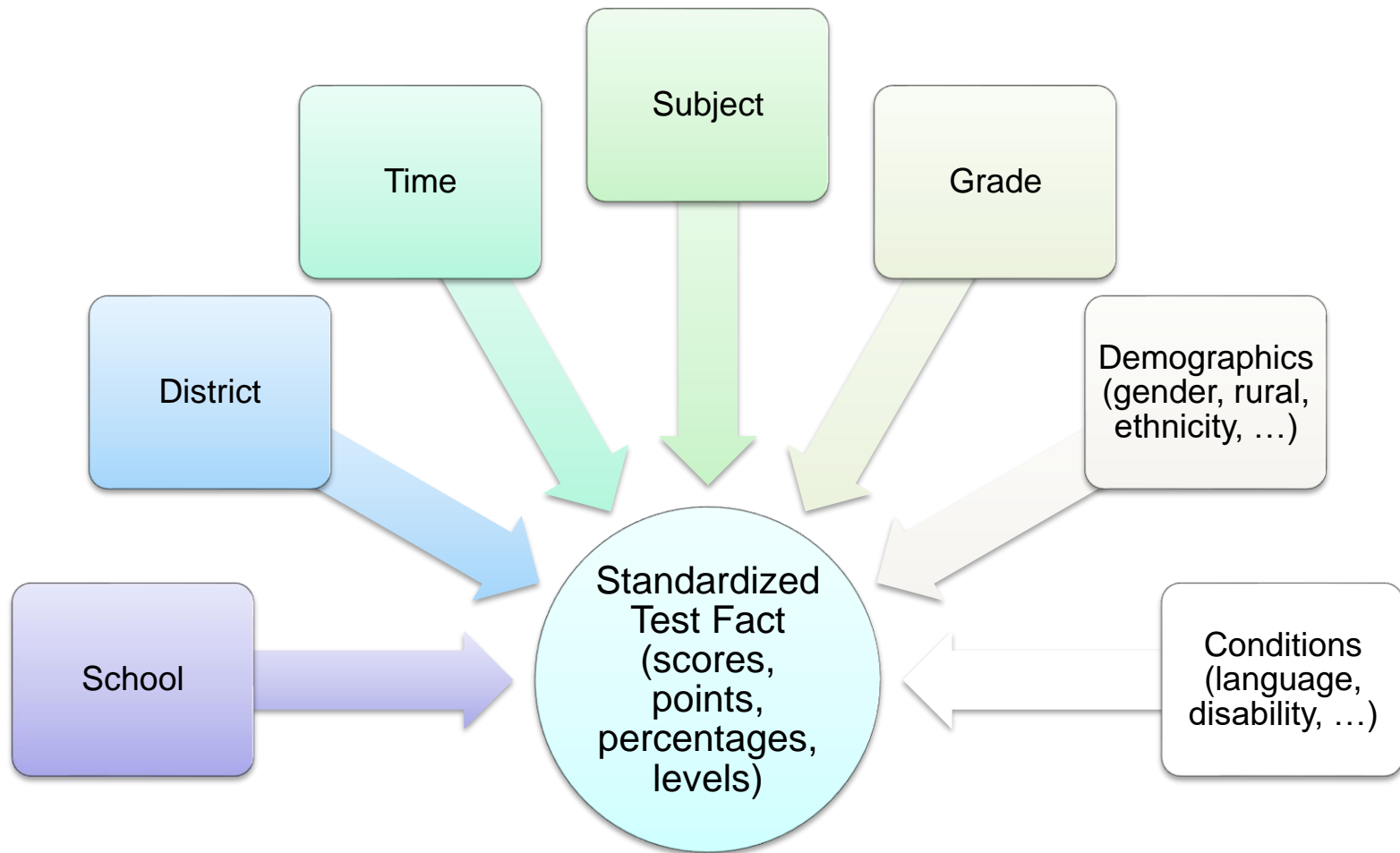


Education Data Warehouse Design

- Complex collection of 9 constellation schemas
 - 32 fact tables
 - 94 dimension tables
- Modest size
 - 270 GB
 - 200 million rows
 - 1.6 million rows per year in major fact table



Standardized Test Schema



Dimension Tables

DIM_504_PLAN	DIM_ESL	DIM_IEP
DIM_ACCOMMODATION	DIM_ETHNICITY	DIM_LANGUAGE_BACKGROUND
DIM_BILINGUAL	DIM_FARM	DIM_MIGRANT_STATUS
DIM_CBLA_STATUS_CODE	DIM_GENDER	DIM_SCHOOL_EMH
DIM_CSAP_CONTENT_PROFICIENCY	DIM_GIFTED_TALENTED	DIM_SCHOOL_YEAR
DIM_CSAP_SUBJECT	DIM_GRAD_CLASS	DIM_SCHOOL
DIM_DID_NOT_TEST	DIM_GRADE_CALC_EXEMPTION	DIM_TIME_IN_DISTRICT
DIM_DISABLING_CONDITION	DIM_GRADE	DIM_TIME_IN_SCHOOL
DIM_DISTRICT	DIM_HOMELESS	DIM_TITLE_1



Measures in Fact Tables

- Standardized test results
 - Additive measures
 - Show as central tendencies
- Summary fact tables with event counts
- Finance fact table
 - Semi-additive measures
 - Bonded debt level



Summary

- Modest size data warehouse
- 10+ year development history under legislative mandates
- Coordination among many areas of state and local government
- New policies for data quality
- Brief review of SchoolView and data warehouse design

