



MONTANA OFFICE OF PUBLIC INSTRUCTION

MONTANA DATA WAREHOUSE: FOUNDATION FOR A LONGITUDINAL DATA SYSTEM

Project Start Date: 7/1/2009

Project End Date: 6/20/2013

Amount Awarded: \$5,798,457

Project Description:

The Montana Office of Public Instruction (OPI) seeks a \$5,798,457 grant from IES to establish a data warehouse. This four year grant will lay the foundation for a longitudinal data system by accomplishing five objectives related to the data warehouse, each with its own benefits to Montana.

In this project, OPI will: (1) create an enterprise-wide data architecture to map the future for Montana's educational data system, (2) create a data governance structure, (3) establish a data warehouse, (4) migrate data from numerous legacy data systems to the data warehouse, and (5) implement business intelligence tools to make the data accessible for many different users.

Expected Outcomes:

The establishment of a data warehouse and the accomplishment of the related objectives will lay the foundation for a longitudinal data system with long-lasting benefits for public education in Montana. The creation of an enterprise-wide architecture will provide a blueprint for the data warehouse and for the consolidation, coordination and expanded use of the entire K12 educational data system. It will also chart the way to facilitate interoperability with pre-Kindergarten and post-secondary data systems.

As data is migrated to the data warehouse from 17 different major databases currently in use, this coordination will allow greater security of all the data. More important, it will allow the data to be combined and queried in ways that are now extremely labor intensive and therefore infrequently used.

Timely and accurate data and the powerful analyses made possible by the business intelligence tools will be invaluable for the State Superintendent and OPI, the Governor and the legislature, the Montana Board of Public Education (K12), boards of trustees, administrators and teachers. It will assist in policy and resource allocation decisions.

The data warehouse is the backbone of a longitudinal data system. Such a system makes it possible to use growth models both for school accountability and for improving instruction of individual students. It will facilitate federal and state reporting, and it will allow more individualized tracking, instruction and intervention with students by teachers and administrators.

In the future, this foundation will make possible parental tracking of student progress and greater public transparency of what is happening in schools. The foundation of all these beneficial outcomes for the Montana educational system is a data warehouse that makes possible a longitudinal data system.