



# Designing and Managing High-Performing Education Data Warehouses

WHEN EDUCATION has big questions, AEM's data warehouse experts empower stakeholders with answers.

- We invest substantial efforts upfront to understand the specific business objectives and unique data needs of each engagement.
- We ensure that the design is cost-effective, efficient and geared to meet the unique requirements of all our customers.
- We deliver world-class management that ensures ongoing availability, routine backups, robust security, and high performance.

## WE RIGHT SIZE DATA WAREHOUSE APPROACHES TO CUSTOMER NEEDS.

AEM works with each customer to make sure that the approach is a good fit for their needs. We evaluate factors such as cost, value of information, scope and nature of data, desired availability level, desired analytic outcomes, customer data culture and capabilities, statutory regulations, and even mobility into data warehouse solutioning. Our method is not to push a preferred or canned solution, but to deeply understand the specific needs of all our clients and tailor an implementation that will ensure their success. We recognize that there are pros and cons to every approach: we explore these in a way that provides our clients with a deeper understanding of the options and an informed set of inputs from which to collaboratively develop the appropriate data warehouse solution.

Our experts have applied this right size approach in various environments. We have developed a data warehouse solution built on a national education data standard and are deploying as a complimentary solution to existing data warehouses in 13 states. We optimized a large federal education data warehouse to improve critical data use needs for key stakeholders, and developed program-specific data marts enabling automation that resulted in more timely reporting and higher data quality. And we recognized that a data warehouse might not be the best solution to layer geotagged information and data from social media to inform sophisticated modeling and prediction, so we proposed a non-data warehouse data lake as a solution. From traditional data warehouses to data lakes to data marts, we provide significant value to our customers through our right size approach.

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## **OUR DOMAIN EXPERTISE ADDS HIGH VALUE IN WAREHOUSE SETUP AND ONGOING USE.**

We know education data management processes and best practices better than anyone. AEM experts have supported every state education agency with the design and management of statewide data warehousing solutions and have led the design, implementation, management and use of the U.S. Department of Education's largest federal K12 data warehouses. This broad exposure provides our customers with key insights not available from standard data warehouse companies. We bring these lessons learned to every engagement and provide true thought-partnership and collaboration to all our customers. Our thorough knowledge of more than 70 education data warehouses enables our experts to suggest new and innovative data use opportunities by identifying areas where leveraging existing data sets might be possible.