
Teradata in Michigan: Data Standards Bring Savings

No other state government in the nation has achieved such tangible and impressive results with Teradata than Michigan. Previously, the state's IT team and users were trying to manage and use data stored in hundreds of separate locations, with no data standards or integration to deliver a centralized view across agencies —resulting in limited visibility, misinformed decisions, and costly missed opportunities. Everything quickly changed when Michigan applied consistent data standards and integrated and centralized its vast data volumes on Teradata. The same efficiencies and savings are within reach on the federal level – *if* the federal government follows Michigan's lead in adopting consistent data standards.

Teradata's Enterprise Data Warehouse ties Michigan's big data together. Today, over 10,000 users in 21 Michigan agencies are more efficiently and effectively managing state money by drawing new insights from the Teradata Enterprise Data Warehouse (EDW). The EDW informs better decisions in the treasury office, the court system, and health and human services. Michigan users can collaboratively detect Medicaid fraud as it is happening, stop fraud before payments are made, improve thousands of personal healthcare outcomes, match convicted criminals' records across jurisdictions previously unconnected, match foster children with the 'best fit' families, allocate food and family benefits with more accuracy, and much more. **The result: Teradata's EDW is saving the State of Michigan 1 million dollars a day, \$41,667 dollars an hour, \$700 a minute.**

Data standards make it possible. Michigan's impressive results are made possible by statewide data governance and standardization, particularly the linking of multiple sources via a Unique Client Identifier (UCI). The UCI, assigned by the state and used in all databases, connects person and organization-level records from one database to another. For example, the UCI allows the Michigan Department of Community Health to match Medicaid beneficiaries to individuals in the Childhood Lead Poisoning Prevention database even though the Medicaid ID does not exist in the lead database. Similarly, individuals and corporations can be tracked across multiple data sources and agencies to identify redundancies and detect fraud.

From fraud detection to predictive policy modeling. Michigan's data standards and Teradata's EDW also enable the state to perform predictive modeling to inform policy decisions. The EDW delivers data showing the importance and relationships of variables associated with program outcomes. Patterns and key risk indicators drawn from these relationships can predict the potential success or failure of a given initiative, allowing managers to determine the best use of taxpayers' money and make data-driven decisions. Likely, policy decisions could be enhanced as managers combine the results of predictive modeling with their own experience.

From Michigan to Washington: the DATA Act. The passage and implementation of the DATA Act will bring about data governance and standardization in federal spending. Under the DATA Act, the federal government can realize the same financial, service, and efficiency gains as the State of Michigan is experiencing. Teradata's existing technology, coupled with the DATA Act's federal data governance and standardization, could create savings throughout federal operations, including these:

- **Fraud detection.** Uncover patterns of illegal, fraudulent, or abusive behavior in federal assistance and procurement.
- **Demand forecasting.** Use spending patterns to accurately estimate citizen demand for services provided by government agencies to optimize federal facilities and staffing.
- **Risk assessment.** Use regulatory filings and spending data to analyze the risk of federal loans, loan guarantees, and other assistance.
- **Audit Selection.** Help federal inspectors general enhance audit selection towards recipients that will yield the greatest return from field audit staff.