

IT Academy Provides State IT Employees with the Skills to Maximize Their Use of Tableau Software for Data Visualizations

CHALLENGE

A growing challenge across all sectors of business and government is maximizing the use of data for improved results. The State of Tennessee faces this same challenge and is taking action to better meet the demands of its citizens by making data more accessible and increasing transparency into the decision-making process. The state's mission is to establish a "Culture of Data" to strengthen the utilization of data throughout the state.

There are many challenges associated with this culture change, including:

- Inconsistent approaches to agency data architecture and reporting systems
- Lack of transparency for existing data
- Insufficient technology and tools for sharing data dynamically in real time



SOLUTION

One of the first steps toward a culture change was the establishment of an Enterprise Data Services Center for Excellence. The State of Tennessee, in its striving efforts for collaboration, sought to bring together collective wisdom from public, private, and educational sectors, and transform how the Tennessee state government utilizes systems and data to drive citizen engagement. The Enterprise Data Services Center for Excellence is focused

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on intersecting policy, procedure, and technology with culture, practice, and structure to deliver citizen-centric data services.

The next and equally important step toward culture change – the state purchased Tableau, a software tool known for depicting data in easy to use visualizations. This software helps employees develop graphics, charts, and other depictions from data models that use real-time data, so the visualizations remain up to date as the data collection grows. Employees can access a broad range of data sources, including big data frameworks, and develop dashboards and stories while leveraging Tableau's rapid report development capabilities. IT Academy partnered with these data-focused stakeholders to provide Tableau Software training to give the state's IT employees with the skills to maximize the investment in this new technology.

The state's goals in the application of this software include:

- Transforming the state's output-driven Key Performance Indicator (KPI) data into valuable insights through the use of interactive visualizations
- Evolving the culture and subsequent service delivery through evidence-based, outcome-driven metrics
- Identifying patterns in programs and communities, uncovering trends in how services are used, and discovering insights to better serve citizens

DELIVERABLE

As part of their statewide IT workforce development program, Learning Tree delivered instructor-led training to 70 IT employees, specifically to leverage this new Tableau software and provide state employees with the skills and abilities to utilize existing data in new ways. As a result of this training, IT employees gained a strong set of new skills, including creating and publishing interactive dashboards built on real-time data, depicting data in new ways to communicate with decision makers and end users, and maximizing statistical analysis to apply data in new ways.

ON A 4.0 SCALE...



Average score
of **COURSE CONTENT**



Average score
of **COURSE INSTRUCTORS**

RESULT

The state's central IT organization, Strategic Technology Solutions (STS), has established a Tableau team dedicated to supporting their customers within and outside of STS. This team helps their customers with a variety of technical support activities. State employees now have the skills and abilities to evolve the way they leverage data, and are poised to improve customer access to data and strengthen decision-making processes. The data-driven culture change will enhance the services provided to State of Tennessee residents.



45 POINTS
AVERAGE KNOWLEDGE GAINED
IN CLASS

*When comparing average pre-course exam scores with post-course exam scores



20%
AVERAGE PERFORMANCE
IMPROVEMENT FROM SKILLS LEARNED
IN THE CLASSROOM

*Results are an average of reported performance by attendees

POST-COURSE ACCOMPLISHMENTS

“ I have been able to apply my Tableau expertise to multiple reporting projects. Specifically, I have used Tableau to build several reports, which will be released to the General Assembly in February, as well as visualizations for the individual Agency’s Executive Summaries. I have also been able to share some of my new knowledge and skills with my coworkers and teammates.”

— G. Peeler, Business Solutions Architect
Finance and Administration

“ We implemented a dashboard to our Tableau development server and have worked with my manager to implement our existing development and production DB2 tables as a data source for Tableau. We added IMS data growth projection cross table worksheet to our dashboard workbook to replace an existing spreadsheet with SQL Server data connection.”

— R. Raines, Database Administrator
Department of Human Services

“ I am developing a Tableau dashboard to monitor SQL Server. We are also converting all of our Crystal Reports to the Tableau platform.”

— F. Donyina, Database Administrator
Department of Human Services