

 education analytics

How Community-Honed Code Led to Success in Tennessee



Tennessee transformed the way it connects and uses education data by implementing [Enable Data Union](#) (EDU), an open framework built on the Ed-Fi Data Standard. Within hours, the state implemented a modern, flexible data warehouse, proving how shared, community-driven tools can deliver immediate and lasting value.

The result: faster insights, reduced costs, and a statewide system that can grow with Tennessee's needs while benefiting the national education data community.

Introduction

The [Tennessee Department of Education](#) (TDOE) faced a familiar challenge: siloed systems and delayed insights made it difficult to access and act on critical data. Leaders wanted a solution that could deliver value quickly, scale sustainably, and avoid long-term vendor lock-in.

Tennessee turned to Enable Data Union (EDU), a publicly available code framework developed by Education Analytics (EA). EDU [extracts data](#) from Ed-Fi, loads it into a modern cloud warehouse, and transforms it into an [analytics-ready model](#). Tennessee implemented EDU in just hours — giving state leaders rapid access to the information they needed.

Challenges

Before EDU, Tennessee's data challenges included:

- **Slow, manual processes:** Organizing data across databases and differing file systems took weeks or months.
- **Limited flexibility:** Vendor-driven solutions risked high costs and limited adaptability.
- **Fragmented infrastructure:** Different platforms created barriers to consistent, secure reporting.

These challenges made it more difficult for TDOE to deliver timely insights to educators and administrators.

Goals

Tennessee set out to:

- **Implement quickly:** Stand up a functional data warehouse in days, not months.
- **Ensure flexibility:** Support multiple platforms (Databricks and beyond).
- **Give back:** Strengthen the national education data ecosystem by sharing improvements.
- **Build sustainability:** Reduce long-term costs through a community-driven, open framework.

Implementation Process

Rapid Setup

TDOE's technology team launched EDU in mere hours. As Steven McKee of the Tennessee Department of Education explained:

“We were able to get EDU stood up and running in just a matter of hours. That speed to implementation gave our team immediate visibility into data that had previously taken weeks or months to organize.”

Community Contribution

During implementation, Tennessee extended EDU to work in Databricks and contributed that code back to the community.

As **Rob Little**, Technical Lead Manager at EA noted:

“Steven’s Databricks contribution represented two significant milestones for the EDU community: a state agency contributing directly to the codebase, and the enablement of the stack across multiple platforms: Snowflake and Databricks. These early ambitions for EDU have now been realized, thanks to TDOE’s leadership.”

Technology Partnership

EDU's flexibility to run in multiple platforms ensures alignment with Tennessee's IT environment. Additionally, the trust and partnership between EA and TDOE allowed the skilled staff to implement a novel technical challenge.

As Vijay Gollapudi, Chief Information Officer at TDOE observed:

“By enabling Tennessee to quickly operationalize EDU on Databricks, we’ve seen how publicly available, scalable technology supports states in turning education data into the information we need.”

Results

- **Faster insights:** Tennessee moved from delayed reporting to near real-time visibility.
- **Lower costs:** Shared, publicly-available code reduced reliance on expensive proprietary tools.
- **Flexibility:** EDU now runs on Databricks, with room to expand further.

- **Community growth:** Tennessee’s contributions improved EDU for other states nationwide.

Success Factors

- **Open and community-driven:** Publicly available code encourages contributions and improvements.
- **Rapid deployment:** Functional within hours, not months.
- **Vendor flexibility:** Works across multiple platforms to avoid being tied to proprietary products.
- **Shared investment:** Improvements made in one state benefit all.

Use Cases

- **Local use:** Infrastructure being utilized in a pilot effort in Tennessee to enable dual enrollment between high school and community college
- **Statewide data integration:** Securely connecting assessment, enrollment, and program data.
- **Research-ready warehouse:** Analysts and researchers query clean, organized datasets.
- **Cross-state collaboration:** Contributions from Tennessee strengthen EDU for other states.

Lessons Learned

- **Start with speed:** Early wins build momentum and trust.
- **Contribute back:** Community contributions accelerate improvement for everyone.
- **Design for flexibility:** Supporting multiple platforms future-proofs investments.
- **Leverage partners:** Working with Databricks and Snowflake ensured scalability and performance.

Conclusion

Tennessee’s EDU implementation demonstrates how publicly available, community-driven tools can deliver rapid, sustainable solutions. By deploying a modern warehouse in hours and contributing back to the EDU codebase, Tennessee not only solved its own challenges but also strengthened the national education data ecosystem.

Today, Tennessee leaders and educators have faster insights, lower costs, and greater flexibility — proof that when states collaborate, education wins.