FOCUS AREA: Returns on Investments in Higher Education

Jobs today require more education and training. Indeed, a greater percentage of new hires have at least some college education than ever before. However, matching the education and training that workers receive with the demand for their skills across the economy requires a new data infrastructure. Despite investing over $80 billion in higher education, states do not have access to timely information about the employment outcomes of those who attended their post-secondary institutions to guide their investments and policies toward higher returns.

Capturing timely and truly representative information on post-secondary employment outcomes has been an elusive goal for state policymakers because of two critical needs. First, states need to link education data with workforce data. Second, since many post-secondary graduates move or work out-of-state after graduating, states need to link their data to the education and workforce data of other states, not just their own.

Thanks to the Applied Data Analytics training program, several states are demonstrating their ability to respond to these critical information needs. As the Multi-State Postsecondary Partnership, they have created a powerful and visually engaging Multi-State Post-Secondary Feedback Report. The Report provides information to state education leaders and policymakers on critical outcomes information. The report allows them to trace the pathways of their graduates and answer key questions:

- What are the employment and earnings patterns of our graduates, based on major, credential level, institution, and origin (in-state, out-of-state)?
- What do employment patterns suggest about industries or occupations in the highest demand?
- How many graduates are working out-of-state and how do out-of-state wages compare to in-state wages? How do these post-secondary outcomes differ by major and credential level?
- How many graduates who accept jobs in other states are from certain high-demand or essential fields? How does this impact our state workforce and economic development plans?

THE FUTURE IS NOW for states to generate ideas and products focused on the returns on investment in higher education. Consider the opportunities provided by the Coleridge Initiative’s Applied Data Analytics program.

FOR MORE INFORMATION: coleridgeinitiative.org/training/
How did the Applied Data Analytics training program help?

1. **Trained State Agency Staff**
   The Coleridge Initiative’s Applied Data Analytics program provided participants with hands-on training in modern data analytics. The curriculum covered data management, data analysis, machine learning, inference, privacy protection, and the ethical use of data. Participants used real-world data focused on a just-in-time policy concern: post-secondary outcomes. State teams included both technical and program staff, which helped bridge knowledge gaps across disciplines and strengthened relationships.

2. **Enabled States to Create New Products**
   The Applied Data Analytics classes are an “innovation sandbox.” Participants explored ideas and analytical techniques with colleagues from within their state as well as colleagues from across the country. This rich network of individuals and teams generated new research ideas with a common research focus. The result is the **Multi-State Post-Secondary Feedback Report**, an innovative, multi-state data product.

3. **Provided a Secure Place for States to Share Data**
   The Coleridge Initiative’s Administrative Data Research Facility (ADRF) enabled state agencies to share real-world data securely and safely. During training, state agency staff learned how this federally-certified, secure platform applies a “five safes” framework – safe project, safe people, safe settings, safe data and safe output – to ensure data are protected.

> Cross state administrative data from the Coleridge training provided timely and relevant information for employers in the Midwest, allowing us to make a case for recruiting new firms to hire in the state.”

- State Economic Development Official, November 2020

> Over 500 people from more than 100 state agencies successfully completed an Applied Data Analytics program over the past three years. Together they initiated over 100 exploratory research projects focusing on critical policy concerns.

> “Our data is the greatest untapped resource for improving public policy outcomes.”

- State Workforce Director, August 2020

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