

What works in education?

Researchers seek answers in huge data sets

Austin – What happens when you lower tuition for community college? What are the long term effects of college application and admissions behavior? Answers may be provided by the Education Research Center at the University of Texas at Austin, which gives researchers access to millions of individual records on education and the workforce while maintaining the confidentiality and security required by law.

“There are a number of advantages to this data, particularly given that it is matched to labor market outcomes,” said Sandra Black, professor of Economics at UT Austin. “Texas is a big state with huge amounts of diversity. I think it’s going to let us answer questions that you couldn’t with any other data set.”

Reporting to the Office of the Vice President for Research, the center was established on campus in 2007 after legislative action to address a basic problem: the education system must be reviewed to understand whether it’s effective in preparing students for higher education and the workplace, but Federal privacy laws restrict the exchange of data among agencies making analysis difficult, if not impossible.

A protocol developed by the Office of the Vice President for Research provided the security solution: the digital equivalent of a rare books reading room. A computer terminal sits in isolation from the internet in a locked room with no devices allowed in or out. After a proposal is accepted, researchers are given a unique computer access code that gives them access to the specific data sets requested. They must be present to use the system, an essential element for confidentiality and compliance with the Family Educational Rights and Privacy Act, or FERPA. The model has been adopted by the University of Texas at Dallas, which hosts the other ERC in the state.

The security protocol allows the center to provide access to linked records from the Texas Education Agency, Texas Higher Education Coordinating Board and the Texas Workforce Commission. Since the state began collecting the data in the early 90s, researchers can follow the trajectory of students from pre-K into the work force. About 50 researchers from more than two dozen institutions and organizations are working on more than 70 projects.

“From an economics standpoint it’s been an incredible resource,” said Black, especially for graduate students, as scholars must be on campus to use the resource. Doctoral student Jeff Denning used the data to look at what happens to enrollment when the cost of community college goes down. He demonstrated that cutting tuition by \$1,000 boosted enrollment by about 20 percent. His work drew national attention when President Obama proposed tuition-free community college.

“The ERC provides researchers an incredible opportunity to understand how education is being provided

and the consequences of educational policy,” said Denning. With more than 20 years of information, it shows how education has changed and the consequences of that change. “The data allows a researcher to identify what is working and for whom it is working,” he said.

For graduate student Matt Farber, it means the freedom to work on his own data while also employed by other institutions as a research assistant. Currently he’s studying No Child Left Behind, student transfers in grades K-12 and how Title I funds are used in schools.

“The center allows researchers to study a variety of topics on an extremely wide scale,” said Farber. “Texas has been pretty central in the education realm over the years, and the ability to analyze the impacts of various policies with a sample size of millions of students over time should have influence, not only here in Texas, but beyond as well.”

For Black, access means the ability to look at questions she never would have considered tackling before, such as application and admissions behavior and the long term effects of those decisions.

“It’s certainly changed the trajectory of my research,” she said. “I’m answering important questions that I previously thought couldn’t be answered.”

Editor’s note: President Obama has nominated Sandra Black to the three-member White House Council of Economic Advisers since this article was published. [Read more](#)