OVERVIEW OF RESEARCH ACTIVITIES AT EDUCATION RESEARCH CENTERS

The K–12 educational system prepares young adults for the workplace and higher education. Understanding how effective these systems are requires the analysis of data from across the public education, higher education, and workforce systems. However, federal educational privacy laws restrict the exchange of data among state agencies and make these analyses difficult or impossible to achieve.

As a result, in 2007, the Texas Legislature established three Education Research Centers to function as federally approved central data repositories that allow researchers to examine education policy and program effectiveness. As required by statute, the Texas Higher Education Coordinating Board selected three universities—Texas A&M University, The University of Texas at Austin, and The University of Texas at Dallas—as Education Research Centers. In 2013, following changes to their authorizing statute, the centers at The University of Texas at Austin and The University of Texas at Dallas were granted continuation contracts for an additional 10 years. This report describes the legislative history that led to the establishment of these centers as well as provides a quantitative analysis of their research activities to date.

FACTS AND FINDINGS

- The Education Research Center structure appears to be an effective mechanism for dealing with data linkage limitations imposed by federal privacy laws.
- The three Education Research Centers initiated 107 projects from the time they were established in 2007 through August 2014.
- ♦ A majority of initiated projects (84.1 percent) used data from the Texas Education Agency. A majority of projects also used data from the Texas Higher Education Coordinating Board (57.9 percent). Use of other datasets, such as those from the Texas Workforce Commission, was less common. Almost half of projects that used data linked multiple data sources.
- Of initiated projects, 60 fit in one of the four areas of research included in the Request for Proposal (56.1 percent) for the Education Research Centers. All of the remaining projects fit within both the statutory authorization for the centers and the additional areas

of research detailed by the Texas Higher Education Coordinating Board in the Request for Proposal.

The University of Texas at Austin and The University of Texas at Dallas Education Research Centers reported publishing 22 book chapters, 11 dissertations, and 76 research reports tied to initiated projects, with several journal articles in pre-publication stages and expected to be published in the future.

DISCUSSION

Data needed to evaluate the effectiveness of education programs is collected by different state agencies, and federal privacy laws limit to whom data may be disclosed. The Texas Education Agency (TEA) maintains data on students in the K–12 system which may be linked through common student identifiers with student-level higher-education data collected by the Texas Higher Education Coordinating Board (THECB). These data can also be linked by Social Security numbers with unemployment insurance (UI) wage data collected by the Texas Workforce Commission (TWC). Because the K–12 educational system delivers young adults into the workplace and higher education, these linkages could help policymakers understand how this system affects both the success of students in future higher education as well as their ability to function in the labor market.

The separation of responsibility for maintaining studentlevel data records between TEA and THECB complicates the linking of datasets under the Federal Educational Rights and Privacy Act of 1974 (FERPA), as interpreted by the U.S. Department of Education (USDE). FERPA generally prohibits the release, without student consent, of data that may identify an individual student. Student-level data—even stripped of directly identifying information such as names and Social Security numbers—may nevertheless often be traced back to individuals when there are small numbers of persons in the group and several cross-linking categories, particularly across different databases.

In 2001, a letter from USDE gave state workforce agencies broad latitude under FERPA to link UI wage data to education records given their role as authorized representatives in statute to investigate the labor-market value of vocational education. In Texas, with the separation of education responsibilities between TEA and THECB, this latitude also provided support for the linkage of higher education and K–12 data. In 2003, however, a second USDE letter reversed the initial guidance and explicitly required that authorized officials be under the direct control of the educational agency holding the data. Because of this change in guidance, research activities linking education and workforce data in Texas were effectively halted.

CREATION OF EDUCATION RESEARCH CENTERS

To comply with FERPA requirements, in 2005 the Texas Legislature passed legislation (Seventy-Ninth Legislature, Third Called Session) that established research centers and a data warehouse to link key datasets under the joint control of TEA and THECB. Researchers at universities were then able to use these data, under controls which were FERPAcompliant, while maintaining the USDE-required protection of the linked data at all times.

The Texas Education Code, Section 1.005, authorizes THECB and TEA to create this data warehouse and to establish up to three Education Research Centers (ERCs) that could access it. Beyond a requirement that such research benefit the state, no limitations on research topics were established in the statute; however it did identify several research areas that were specifically authorized including educator preparation, public school finance, classroom instruction, bilingual education, special language programs, and business practices.

In December 2006, THECB (the implementing agency in the statute) issued a Request for Proposals (RFP) that condensed these topics into three areas of emphasis—(1) Educator Preparation; (2) School Finance, Facilities, and Organization; and (3) Curriculum and Teaching Methods. The agency also included language about the importance of research that addressed *Closing the Gaps*, the state's strategic plan on increasing enrollment in and completion of higher education.

The Legislature appropriated \$3 million in General Revenue Funds to THECB for the first year of operations of the centers with the expectation that they become self-sufficient through gifts, grants, and contracts for independent research. THECB also received a Bill and Melinda Gates grant to provide funding for TEA and THECB staff support and data storage for the first four years of the grant and that allowed SAT and ACT test data to be linked for several years. In addition to appropriated start-up funding, the chosen ERCs would have the data warehouse made available to them at no cost for the first year (with the possibility of it operating on a cost-recovery basis in future years). Applicants were expected to demonstrate both research expertise in pre-kindergarten through higher education (P–16) as well as resources to run the research center for a minimum of five years. The RFP required descriptions of specific projects that would be undertaken, including objectives, methodologies, staff member biographies, budget justifications, and literature references.

Direct supervision over the ERCs was provided by a joint advisory board co-chaired by the Commissioner of Education and the Commissioner of Higher Education. Among other responsibilities, the joint advisory board was responsible for developing minimum privacy standards (with procedures submitted to the USDE for comment on their compliance with FERPA) and for approving or rejecting any proposed new research topics beyond those specified in the initial response to the RFP. THECB sought guidance from the Family Policy Compliance Office of USDE on how well the structure of the ERCs met FERPA requirements. That office stated that TEA and THECB had developed a model approach that would become the preferred method for longitudinal student research. Thus, Texas' ERC structure appears to be an effective mechanism for dealing with data linkage limitations imposed by federal privacy laws.

The initial RFP closed in January 2007. In April 2007, THECB received eight applications and selected three institutions for ERC contracts: Texas A&M University, The University of Texas at Austin (UT Austin), and The University of Texas at Dallas (UT Dallas). Each of the selected universities also had another university as partner for specific research topics (Texas A&M International University for Texas A&M, Texas State University for UT Austin, and Stephen F. Austin University for UT Dallas). Interagency contracts for the ERCs were signed in July and August 2007 and contained provisions that the selected institutions comply with the interagency contract between THECB and TEA on the sharing of educational data.

As the initial contracts were for a five-year period, in May 2012 THECB issued a Request for Qualifications (RFQ) to continue the ERCs. UT Austin and UT Dallas elected to seek additional years of access, and by May 2012, draft continuation agreements were in place. The Texas A&M ERC contract ended on August 31, 2012. The ERC was granted an extension through November 30, 2012 to

complete all ERC research activities involving access to the data warehouse. These renewal contracts, however, were rendered moot by the passage of House Bill 2103 (Eightythird Legislature, Regular Session) which amended the provisions of Section 1.005. The primary change made by this legislation was the removal of TEA as a joint partner with THECB in the administration of the ERCs. The former Joint Advisory Board, co-chaired by TEA and THECB, was turned into an advisory board chaired by the Commissioner of THECB (and with another formal THECB representative). TEA and TWC, in contrast, were granted a single representative on the advisory board. The advisory board also contains a representative from K-12 education-selected by the THECB Commissioner-as well as any other members the THECB Commissioner elects to appoint. In addition, each ERC has a member on the advisory board.

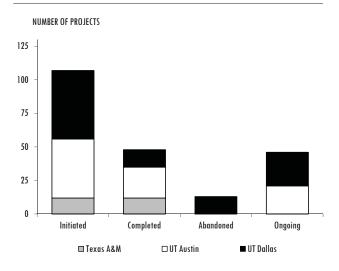
Concurrent with the progress of House Bill 2013 through the Legislature, THECB began the process for awarding contracts for a second round of ERC activity. Three proposals for this second round of contracts were received by May 15, 2013—Texas A&M not among them—and the THECB selected UT Austin and UT Dallas from these applicants. The two universities signed ten-year contracts for the continuation of ERC activities on September 26, 2013 and May 17, 2013 respectively. Pursuant to House Bill 2103, THECB retains authority to choose a third ERC in the future.

QUANTITATIVE ANALYSIS OF ERC ACTIVITY

Since the three ERCs were established, each has conducted research to fulfill the requirements of their contract. **Figure 1** shows projects by ERC. Research activities can be measured in terms of productivity—how many studies were initiated, completed, abandoned, or are ongoing. Initiated studies are those for which data was obtained. Studies which were proposed but not accepted or which were withdrawn prior to data being generated are not included in the following analysis.

The three ERCs initiated 107 research projects over both contract periods. UT Dallas initiated 51 of these projects (47.7 percent), UT Austin initiated 44 (41.1 percent), and (over the first contract period) Texas A&M initiated 12 (11.2 percent). Neither Texas A&M nor UT Austin reported any projects that were initiated and then abandoned, although both did have projects that were proposed but not initiated. Of the 13 projects UT Dallas reported as abandoned, eight were as a result of a policy change regarding the use of

FIGURE 1 QUANTITY OF ERC PROJECTS INITIATED, COMPLETED, ATTEMPTED, AND ONGOING AUGUST 2007 TO AUGUST 2014



NOTE: ERC = Education Research Centers. SOURCES: Texas A&M University; The University of Texas at Austin; The University of Texas at Dallas.

external data. This policy change was required after TEA objected to linking secondary sources of education data required for the research through the data warehouse.

The purpose of the ERCs was to enable researchers to access and use large student-level databases and to match these on student identifiers. Accordingly, Legislative Budget Board (LBB) staff requested the ERCs to identify which databases were used for each project. **Figure 2** shows these responses for the all ERCs. A large majority of projects used data from TEA—90 of 107 initiated projects (84.1 percent). Many projects also used data from THECB—62 of 107 initiated projects (57.9 percent). Use of other datasets was less common, and the relatively low usage of TWC data suggests

FIGURE 2 DATA SOURCES USED BY ERC PROJECTS AUGUST 2007 TO AUGUST 2014

DATA SOURCE	PROJECTS
Texas Education Agency	90
Texas Higher Education Coordinating Board	62
Texas Workforce Commission	17
State Board for Educator Certification	10
National Student Clearinghouse	9
Other	14
NOTE: ERC=Education Research Centers.	

SOURCES: Texas A&M University; The University of Texas at Austin; The University of Texas at Dallas.

that educational linkages with the workforce have not been one of the primary research activities of the ERCs to date. Ten of the 107 projects (9.3 percent) reported using no student-level data from any of these sources. Of the 97 projects that reported some data use, 47 of 97 (48.5 percent) linked multiple data sources. The ERC initiated-project list supports the need for centers that are able to access and integrate these disparate data sources.

While the statute authorizing the ERCs was not proscriptive in establishing the research that they were authorized to perform, in the initial RFP THECB established four areas of emphasis for research—educator preparation; school finance, facilities, and organization; curriculum and teaching methods; and access to and success in higher education. Using the title of each project and the project description where available, LBB staff assigned each project to one of these four groupings. Of the 107 initiated projects, 60 fit in one of the four areas of emphasis (56.1 percent).

The remaining projects were grouped into four additional project types. Other Policy Research includes policies above the school district level that did not involve school finance. An example of this research was the project entitled Assessing the Role of School Discipline in Disproportionate Minority Contact with the Juvenile Justice System. The second LBB-assigned project type was Other Program Evaluations. This category includes evaluation projects that did not examine a pedagogical or school-level policy. An example of this type was the Evaluation of the 2009–2010 Regional P–16 Council Enhancement Grants. The third LBB-assigned project type was Other Student Level Research, for research into specific student populations that did not fit into another category. An example of this research was Determinants of

Heterogeneity in Math Skill Development. Finally, LBB staff identified a group of projects that were technical and/or methodological in nature. An example of this type of research was On-track for High School Graduation Indicator for Texas School Districts.

While projects in these additional groupings were not in the areas of emphasis identified by THECB in the RFP, all were within both the statutory authorization as well as RFP guidelines for research by the ERCs. Since the start of the second contract period, the number of projects that focused on both other student-level research and technical and/or methodological research has decreased. **Figure 3** shows all categories by project count.

Finally, LBB staff requested each ERC to provide the number of publications that each research project generated. While UT Austin and UT Dallas provided these data, Texas A&M did not report any publication activity, and any publications by this ERC are not included in Figure 4. These counts are presented in four categories: (1) chapters in academic books, (2) dissertations, (3) non-peer reviewed policy research published externally to the ERC, and non-peer reviewed policy research published internally by the ERC. (LBB staff also requested peer-reviewed journal articles that had been accepted for publication; the ERCs did not report any instances of this research product. This is not unexpected, however, given the long lag times involved in completion of research through final publication in an academic journal.) Collectively, the 22 book chapters, 11 dissertations, and 76 research reports represent a substantial level of research publication.

ERC-INITIATED PROJECTS BY LBB-ASSIGNED PROJECT TYPE, AUGUST 2007 TO AUGUST 2014				
PROJECT TYPE	INITIAL CONTRACT	SECOND CONTRACT	TOTAL	
Educator Preparation	9	6	15	
School Finance, Facilities, and Organization	8	2	10	
Curriculum and Teaching Methods	14	5	19	
Access to and Success in Higher Education	10	6	16	
Other Policy Research	7	4	11	
Other Program Evaluations	3	8	11	
Other Student Level Research	11	1	12	
Technical and/or Methodological	11	2	13	

FIGURE 3

NOTES:

(1) Categories assigned by Legislative Budget Board.

(2) ERC = Education Research Centers; LBB = Legislative Budget Board.

SOURCES: Texas A&M University; The University of Texas at Austin; The University of Texas at Dallas.

FIGURE 4 PUBLICATIONS BY UT AUSTIN AND UT DALLAS EDUCATION RESEARCH CENTERS AUGUST 2007 TO AUGUST 2014

PUBLICATION TYPE	COUNT	
Book Chapters	22	
Dissertations	11	
Non-Peer Reviewed External Research Reports	29	
Non-Peer Reviewed Internal Research Reports	47	
SOURCES: The University of Texas at Austin; The University of Texas at Dallas.		

The future 5 to 10 years should see significant levels of journal and other publications as both universities identified articles in pre-publication stages. Finally, both UT Austin and UT Dallas reported large counts of public and professional engagement activities (such as community presentations) related to their research that were not included in the counts in **Figure 4**.