

Research Funding in Texas

Overview



October 2015

The importance of research at higher education

Scientific research conducted at higher education institutions is vital for identifying and developing new knowledge that leads to groundbreaking innovations. Innovation drives the state's economy and improves quality of life. High-quality, effective, and efficient research efforts require the appropriate level of funding, including from the federal government, the major source of research funds. Strong programs for all types of research – basic research, applied research, and technology transfer – build on one another, making them paramount to a strong economy. Strong research programs also provide state-of-the-art educational opportunities for students and attract the best faculty.

Research expenditures in Texas

Total research expenditures at Texas higher education institutions was \$4.52 billion for Fiscal Year (FY) 2014, based on institutions' annual financial reports. The share of funding by source was 45 percent from federal, 20 percent from private, 19 percent from state and local, and 16 percent from internal institutional sources.

At public universities and health-related institutions research expenditures reached \$3.86 billion in FY 2014, an increase of 2.0 percent over FY 2013. Research expenditures at independent universities and health-related institutions was \$0.66 billion in FY 2014, a 1.6 percent increase.

Texas' share in national research¹

Comparisons between states are based on data collected by the National Science Foundation's (NSF) Higher Education Research and Development Survey, which uses different reporting requirements to institution's annual financial reports. The federal calculation will be higher than state data. FY 2013 is the most recent year for which data are available. Texas was ranked third among the states, with \$4.8 billion in total research expenditures as reported by the NSF, behind California (\$8.4 billion) and New York (\$5.5 billion). Texas ranked sixth in federal research expenditures for FY 2013 (see table below).

Expenditures occur in one or more years after funds are obligated. Obligated funds are another measure of research activity. Texas institutions of higher education ranked sixth in federal obligations for FY 2012 (see table below). The total of federal obligations for FY 2012 was \$27.4 billion, a decrease of 2.0 percent from 2011. Over the same time, federal obligations for Texas decreased by 1.4 percent.

Federal Obligations for Research (FY12)

California	\$3.93 billion
New York	\$2.17 billion
Maryland	\$1.82 billion
Pennsylvania	\$1.71 billion
Massachusetts	\$1.63 billion
Texas	\$1.43 billion

Federal Research Expenditures (FY13)

California	\$4.89 billion
New York	\$3.13 billion
Maryland	\$2.72 billion
Pennsylvania	\$2.35 billion
Massachusetts	\$2.18 billion
Texas	\$2.17 billion

The National Institutes of Health (NIH) provided Texas higher education institutions with 67 percent of their federal obligations in FY 2012. The National Science Foundation (NSF) provided 11 percent, and the Department of Defense (DoD) provided 8.4 percent.

¹ All figures in this section are from the National Science Foundation WebCASPARD Database System, 2015.

The State of Texas research programs

The 84th Texas Legislature in 2015 restructured Texas' research programs to better align them with the different types of Texas institutions, as defined by the Coordinating Board's Accountability System (www.txhighereddata.org/Interactive/Accountability). The process eliminated the Texas Competitive Knowledge Fund, the Research Development Fund, the Norman Hackerman Advanced Research Program, and the Texas Emerging Technology Fund. It created the Texas Research University Fund, the Core Research Support Fund, the Texas Comprehensive Research Fund, and the Governor's University Research Initiative.

The table below lists state appropriations for research funds for the 2016 to 2017 biennium. Other state funding for research comes through special item funding and the retention of the overhead portion of research grants.

Texas State Research Funding 84th Texas Legislature, 2015		Biennium	
		FY 2016	FY 2017
Texas Research Incentive Program (TRIP)	Emerging Research Institutions	\$102,784,574	\$35,312,500
Texas Research University Fund (TRUF)	Research Institutions	\$77,537,897	\$69,537,897
Core Research Support (CRS)	Emerging Research Institutions	\$58,555,705	\$58,555,705
Texas Comprehensive Research Fund (TCRF)	Other (non-Research & non-Emerging Research Institutions)	\$7,136,194	\$7,136,194
National Research University Fund (NRUF)	Selected Emerging Research institutions	\$18,908,644	\$18,908,644
Autism Program	Autism Research Centers	\$4,050,000	\$4,050,000
Cancer Prevention and Research Institute of Texas (CPRIT)		\$300,055,000	\$300,055,000
Governor's University Research Initiative		\$40,000,000	UB ²

Source: http://www.lbb.state.tx.us/Documents/Budget/Session_Code_84/HB1-Conference_Committee_Report_84.pdf

The Texas Research Incentive Program (TRIP)

In 2009, the Texas Legislature created TRIP to provide matching funds to assist emerging research universities in leveraging private gifts for the enhancement of research productivity and faculty recruitment (Texas Education Code Chapter 62, Subchapter F). Matching funds are awarded based on how much an institution raises in private gifts and endowments to enhance research activities. From FY 2010 through 2017, \$291.2 million in matching funds were provided to eligible Texas public institutions.

The Texas Research University Fund (TRUF)

In 2015, the Texas Legislature created TRUF to provide funds to Texas' research universities with total research expenditures above \$450 million (Texas Education Code Chapter 62, Subchapter C). TRUF supports faculty, to ensure excellence in instruction and research. The distribution of funds is based on a three-year average of total research expenditures. For the 2016-17 biennium, The University of Texas at Austin received \$67.9 million, and Texas A&M University received \$79.2 million in funds.

Historical note: The TRUF replaced the Texas Competitive Knowledge Fund (TCKF), established in 2007. The TCKF supported research universities and also emerging research universities, if the emerging

² "UB" means an unexpended balance from the first year of the biennium may be expended during the second year.

research university's average total research expenditure was above \$50 million. The state appropriation for TCKF was \$93.2 million for the 2008-2009 biennium, \$126.2 million for the 2010-11 biennium, \$93.5 million for the 2012-13 biennium, and \$159.2 million for the 2014-15 biennium.

The Core Research Support Fund (CRSF)

In 2015, the Texas Legislature created CRSF to provide funds to Texas' emerging research institutions (Texas Education Code Chapter 62, Subchapter F-1). The CRSF supports increased research capacity at eligible public universities and distributes funds by a set formula allocation to support faculty including individual projects, such as laboratory and equipment upgrades and graduate student tuition. The distribution formula is based on both total and restricted research expenditures. The Coordinating Board created Standards and Accounting Methods (SAMs) for reporting restricted research expenditures and holds annual meetings of the Restricted Research Committee for a transparency review of restricted research awards. Fund recipients report annually how they utilized the money.

The Texas Comprehensive Research Fund (TCRF)

In 2015, the Texas Legislature created TCRF to provide funds to all Texas' public universities that are neither research nor emerging research institutions (Texas Education Code Chapter 62, Subchapter E). The TCRF supports increased research capacity at eligible public universities, distributing funds by a set formula allocation to support faculty including individual projects, such as laboratory and equipment upgrades and graduate student tuition. The distribution formula is based on restricted research expenditures. The Coordinating Board created Standards and Accounting Methods (SAMs) for reporting restricted research expenditures and holds annual meetings of the Restricted Research Committee for a transparency review of restricted research awards. Fund recipients report annually how they utilized the money.

Historical note: The TCRF replaced the Research Development Fund (RDF), established in 2003 and first funded in Fiscal Year 2006. The RDF originally replaced the University Research Fund and the Texas Excellence Fund, both established in 2001. Using a formula based on restricted research expenditures, the RDF supported all public universities, except The University of Texas at Austin and Texas A&M University. The state appropriation for institutions receiving RDF was \$42.8 million for the 2006-07 biennium, \$80.9 million for the 2008-09 and the 2010-11 biennia, \$65.3 million for the 2012-13 biennium, and \$73.1 million for the 2014-15 biennium.

The National Research University Fund (NRUF)

In 2009, the Texas Legislature established NRUF "to provide a dedicated, independent, and equitable source of funding to enable emerging research universities in this state to achieve national prominence as major research universities" (Texas Education Code Chapter 62, Subchapter G). An institution must meet legislatively specified benchmarks to be eligible for funds. All eligible institutions must be emerging research universities, according to the Coordinating Board's Accountability System, and must have expended more than \$45 million on restricted research for two years in a row.

Two institutions, Texas Tech University and University of Houston, achieved eligibility for NRUF funding in 2012. NRUF provided \$32.7 million for the 2012-13 biennium, \$35.9 million for the 2014-15 biennium, and \$37.8 million for the 2016-17 biennium. The two institutions received equal amounts of funding.

Autism Program

In 2015, the Texas Legislature funded the Coordinating Board to provide grant support for autism research centers at institutions of higher education, which currently provide evidence-based behavioral services and training (Rider 68, Appropriations Act, Strategy D.1.11). The funding will support parent-directed treatment; board-certified behavioral analyst (BCBA) training; and research, development, and evaluation of innovative autism treatment models. The Coordinating Board will report to the Legislature about the effectiveness of each funded program.

The Cancer Prevention and Research Institute of Texas (CPRIT)

In November 2007, Texas voters passed an amendment to the Texas State Constitution creating the Cancer Prevention and Research Institute of Texas (Texas Health and Safety Code Chapter 102). The amendment sets the total bond amount at \$3 billion, with a \$300 million limitation each year for 10 years. CPRIT is tasked with implementing the Texas Cancer Plan, aimed at finding a cure for cancer. Grants are distributed to institutions and advanced medical research facilities to research the causes of, and cures for cancer; to research therapies, protocols, and treatments for the cure, or substantial mitigation of cancer; and to develop cancer-prevention and control programs. Recipients of CPRIT awards must have funds already equal to one-half the amount of the grant and those funds must be dedicated to research on the subject of the requested grant. The first grants became available in 2010, and funding is eligible to continue until August 31, 2020. CPRIT projects are operating in virtually all regions of the state. Website: www.cprit.state.tx.us.

The Governor's University Research Initiative (GURI)

In 2015, the Texas Legislature created the Governor's University Research Initiative (Texas Education Code Chapter 62, Subchapter H). The fund awards matching grants to public universities and health-related institutions to assist them in recruiting distinguished researchers, such as Nobel Laureates and National Academy members, from institutions outside of Texas. The purpose is to enhance Texas' national and global economic competitiveness. The Texas Economic Development and Tourism Office, within the Office of the Governor, administers this fund.

Historical note: At the same time the 84th Texas Legislature created GURI, it abolished the Texas Emerging Technology Fund (TETF, HB 1765, 79th Legislature, Regular Session, 2005). Appropriations for the 2006-07, 2008-09, 2010-11, 2012-13, and 2014-15 biennia were \$200 million, \$117 million, \$203 million, \$141 million, and \$57 million, respectively. TETF supported emerging technology activities that created high-quality new jobs or had the potential to result in medical or scientific breakthroughs.

Special item appropriations

The Texas Legislature may authorize direct appropriations to a specific institution for special items, which are funds to support specific programs or activities, and centers or institutes. For the 2016-17 biennium, appropriations for special items related to research activities totaled approximately \$170 million for general academic research institutions and health-related institutions (excluding research funds or research enhancement for health-related institutions). The University of Texas at Austin's McDonald Observatory and the Energy Research Cluster at the University of Houston are examples of such items.

The Academy of Medicine, Engineering and Science of Texas (TAMEST)

The TAMEST was created to improve the state's position as a research leader, to develop the next generation of scientists, and to increase awareness and communication among the state's scientific researchers. The TAMEST includes 10 Texas Nobel Laureates and 270+ Texas members of the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine. Website: www.tamest.org.

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