



**A Study of Research
Expenditure Definitions and
Terms for use
by Research University
Development Fund**
(Mandated by HB 51, 81st Texas Legislature)

October 2010



Texas Higher Education Coordinating Board

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Mission of the Coordinating Board

The Texas Higher Education Coordinating Board's mission is to work with the Legislature, Governor, governing boards, higher education institutions and other entities to help Texas meet the goals of the state's higher education plan, Closing the Gaps by 2015, and thereby provide the people of Texas the widest access to higher education of the highest quality in the most efficient manner.

Philosophy of the Coordinating Board

The Texas Higher Education Coordinating Board will promote access to quality higher education across the state with the conviction that access without quality is mediocrity and that quality without access is unacceptable. The Board will be open, ethical, responsive, and committed to public service. The Board will approach its work with a sense of purpose and responsibility to the people of Texas and is committed to the best use of public monies. The Coordinating Board will engage in actions that add value to Texas and to higher education. The agency will avoid efforts that do not add value or that are duplicated by other entities.

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Executive Summary

In 2009, the 81st Texas Legislature, Regular Session, passed House Bill 51 (HB 51), to increase the state's support for and development of national research institutions in Texas. One section of the legislation directed the Texas Higher Education Coordinating Board (Coordinating Board) to conduct a study of the definitions to be used under the Research University Development Fund (RUDF), which was also established by the legislation.

Section 19 of HB 51 directs the Coordinating Board to study and make recommendations regarding the appropriate definitions and categories of research expenditures to be included and applied in determining an institution's eligibility to receive funds under the RUDF.

To develop the study and gather institutional input, the Coordinating Board staff invited representatives from each eligible institution to meet in Austin. On January 26, 2010, a meeting was held at the Coordinating Board offices with representatives from the two Texas public research universities and seven emerging research universities. The group reviewed existing definitions and categories and provided staff with input related to those definitions and their use under the RUDF. Institutional representatives were uniformly supportive of the use of existing definitions and categories used to collect data on research expenditures. The group proposed the following recommendations, pending future funding of the program.

Recommendations

Based on the input from each of the higher education institutions eligible for the RUDF, the Coordinating Board staff prepared rules for the implementation of the RUDF. However, no funds may be distributed until the Texas Legislature appropriates funds. Once that occurs, the following recommendations are presented:

1. The Coordinating Board in conjunction with institutional representatives recommend using the existing definitions of research, as currently described in the Research Expenditures Report. This will allow the Board to continue to collect data from institutions using a method that has been in place since 1971.
2. The institutions should continue to report their research expenditures to the Coordinating Board electronically.

Table of Contents

Introduction.....	1
Legislation – House Bill 51, Section 19	1
Methodology.....	2
Review of Existing Definitions and Categories	3
Summary of Research Expenditures by Institution.....	4
Research Universities	
Texas A&M University and Services	5
The University of Texas at Austin.....	6
Emerging Research Universities	
Texas Tech University	7
The University of Texas at Arlington.....	8
The University of Texas at Dallas	9
The University of Texas at El Paso	10
The University of Texas at San Antonio	11
University of Houston.....	12
University of North Texas	13
Recommendations.....	14
Appendices	
Appendix A – Texas Education Code, Research University Development Fund	15
Appendix B – Coordinating Board Rules, Chapter 15.20-15.22	16
Appendix C – Research Expenditures Definitions	17

Introduction

In 2009, the 81st Texas Legislature, Regular Session, passed House Bill 51 (HB 51), to increase the state's support for and development of national research institutions in Texas. One section of the legislation directed the Texas Higher Education Coordinating Board to conduct a study of the definitions to be used under the Research University Development Fund (RUDF), which was also established by the legislation.

The RUDF was established as a mechanism to provide additional funding to "an institution of higher education designated as a research university or emerging research university under the Coordinating Board's Accountability System." The higher education institutions would use the funds provided under the RUDF to support the recruitment and retention of highly qualified faculty and the enhancement of research productivity. The RUDF has the potential to help the public research and emerging research universities enhance their research efforts and increase the level and quality of research conducted. However, no funding was provided to support the RUDF during the 81st Legislative Session.

The legislation related to the RUDF also defines the methodology to be used to provide funding to eligible institutions if funding becomes available. Specifically, for each state fiscal year, the Coordinating Board is directed to distribute any funds appropriated by the Legislature to eligible institutions, "based on the average amount of total research funds expended by each institution annually during the three most recent state fiscal years, according to the following rates:

1. at least \$1 million for every \$10 million of the average annual amount of those research funds expended by the institution, if that average amount for the institution is \$50 million or more; and
2. at least \$500,000 for every \$10 million of the average annual amount of those research funds expended by the institution, if that average amount for the institution is less than \$50 million." (Texas Education Code, Sec. 62.053)

Legislation — House Bill 51, Section 19

Section 19 of HB 51 directs the Coordinating Board to study and make recommendations regarding the appropriate definitions and categories of research expenditures to be included and applied in determining an institution's eligibility to receive funds under the RUDF. Section 19 is provided below:

"SECTION 19. (a) The Texas Higher Education Coordinating Board, in consultation with institutions of higher education that are eligible institutions under Subchapter C, Chapter 62, Education Code, as added by this Act, shall study and make recommendations regarding the appropriate definitions and categories of research expenditures to be included and applied in determining an institution's eligibility for and distributions from the Research University Development Fund.

(b) Not later than December 1, 2010, the coordinating board shall report its study and deliver its recommendations to the:

- (1) governor;
- (2) lieutenant governor;
- (3) speaker of the house of representatives;
- (4) chair of the Senate Committee on Finance;
- (5) chair of the Senate Committee on Higher Education;
- (6) chair of the House Committee on Appropriations; and
- (7) chair of the House Committee on Higher Education.

(c) At the request of an institution of higher education that consults with the coordinating board under this section, the coordinating board shall include with its recommendations the written response of the institution to those recommendations.”

Methodology

To develop the study and gather institutional input, the Coordinating Board staff invited representatives from each eligible institution to meet in Austin. On January 26, 2010, a meeting was held at the Coordinating Board offices with representatives from the two Texas public research universities—Texas A&M University and The University of Texas at Austin—and the seven emerging research universities—Texas Tech University, University of North Texas, University of Houston, The University of Texas at Arlington, The University of Texas at Dallas, The University of Texas at El Paso, and The University of Texas at San Antonio. The group reviewed existing definitions and categories and provided staff with input related to those definitions and their use under the RUDF. Institutional representatives were uniformly supportive of the use of existing definitions and categories used to collect data on research expenditures.

The group also reviewed and provided input on the development of the rules that would apply to the RUDF. Rules were drafted, posted for public comment, presented to the Board’s Strategic Policy and Planning Committee in June 2010, and considered and adopted by the Coordinating Board in July 2010.

Review of Existing Definitions and Categories

Institutional representatives from the RUDF eligible institutions reviewed the existing definitions and categories currently used by the Coordinating Board in its annual Research Expenditures Report. The group was unanimous in its agreement that the following definitions and categories be used for the purposes of the RUDF:

"Research is systematic study directed toward fuller scientific knowledge or understanding of the subject studied (reference OMB Circular A-110, subpart A, definition A.2dd).

OMB Circular: **Research and development** means all research activities, both basic and applied, and all development activities that are supported at universities, colleges, and other non-profit institutions. **"Research" is defined as a systematic study directed toward fuller scientific knowledge or understanding of the subject studied. "Development" is the systematic use of knowledge and understanding gained from research directed toward the production of useful materials, devices, systems, or methods, including design and development of prototypes and processes.** The term research also includes activities involving the training of individuals in research techniques where such activities utilize the same facilities as other research and development activities and where such activities are not included in the instruction function.

Development is systematic use of knowledge and understanding gained from research directed toward the production of useful materials, devices, systems, or methods, including design and development of prototypes and processes (reference OMB Circular A-110, subpart A, definition A.2dd). (See definition above).

Research and Development (R&D) also includes activities involving the training of individuals in research techniques where such activities utilize the same facilities as other research and development activities and where such activities are not included in the instruction function (reference OMB Circular A-21, B.1.b).

Exclusions from research and development:

- Training of scientific manpower (except as noted directly above)
- Mapping and surveys
- Routine product testing
- Quality Control
- Experimental production
- Collection of general purpose statistics (statistics not collected as part of a specific R&D project)

NOTE: Certain activities may or may not be classified as research and development depending upon circumstances. Examples of such activities are given below in Section B, Reporting Guidelines for R&D versus Non-R&D Activities."

Source: THECB, Survey of Research Expenditures, Universities and Health-Related Institutions Instructions and Definitions for Survey

Summary of Research Expenditures by Institution

The following tables present aggregate and institution-specific summary information related to the total research expenditures of the higher education institutions eligible to receive funding under the RUDF. Data for the last three years are provided.

Total research expenditures for Fiscal Years 2007, 2008, and 2009 for the institutions are presented in Table 1. Combined, these institutions expended \$1.5 billion in total research expenditures in Fiscal Year 2009.

Table 1. Total Research Expenditures, Research and Development

<i>Research Universities</i>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>Total</u>
1. Texas A&M and Services	\$492,686,224	\$539,426,088	\$580,576,549	\$1,612,688,861
2. The University of Texas at Austin	\$476,282,230	\$527,141,322	\$534,815,160	\$1,538,238,712
<i>Emerging Research Universities</i>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>Total</u>
1. Texas Tech University	\$52,198,186	\$52,839,081	\$88,496,290	\$193,533,557
2. The University of Texas at Arlington*	\$39,624,428	\$50,338,292	\$55,621,050	\$145,583,770
3. The University of Texas at Dallas	\$46,477,208	\$59,300,868	\$65,804,534	\$171,582,610
4. The University of Texas at El Paso	\$42,046,816	\$47,907,759	\$56,020,039	\$145,974,614
5. The University of Texas at San Antonio	\$32,320,711	\$34,601,445	\$46,521,487	\$113,443,643
6. University of Houston	\$78,126,101	\$84,852,078	\$87,401,266	\$250,379,445
7. University of North Texas	\$14,489,684	\$16,798,880	\$22,557,512	\$53,846,076
Total	\$1,274,251,588	\$1,413,205,813	\$1,537,813,887	\$4,225,271,288

*Errata number used for 2008 UT Arlington

Source: THECB, Academic Affairs and Research Division

The nine eligible institutions expended varying amounts of funding on research efforts. The sources of research expenditures are categorized as follows: federal, state and local-appropriated, state and local-contracts and grants, institution, private-for profit, and private-not for profit. The following tables present summary information by institution of total research expenditures by source for Fiscal Years 2007, 2008, and 2009.

Texas A&M University

Texas A&M University's total research expenditures include funds expended at the university and at Texas A&M Services: Texas A&M AgriLife, Texas Transportation Institute, and Texas Engineering Experiment Station. Texas A&M University and Services expended more than \$580 million in Fiscal Year 2009. The largest category of expenditures, federal sources, totaled \$269 million. Total research expenditures for Fiscal Years 2007, 2008, and 2009 are presented in Table 2.

Table 2. Texas A&M and Services, Total Research Expenditures

Source of Funds	2007	2008	2009
Federal	\$232,645,104	\$252,796,385	\$269,255,379
State and Local Appropriated	\$90,155,611	\$109,837,370	\$108,547,054
State and Local Contracts and Grants	\$40,854,916	\$40,438,603	\$46,088,721
Institution	\$78,483,317	\$81,774,869	\$89,286,713
Private, Profit	\$24,973,269	\$38,202,156	\$41,227,635
Private, Non-Profit	\$25,574,007	\$16,376,705	\$26,171,047
Total	\$492,686,224	\$539,426,088	\$580,576,549

Source: THECB , Academic Affairs and Research Division

In the last three fiscal years, Texas A&M and Services expended \$1.6 billion in research-related activities. The largest category of expenditures, federal sources, totaled \$755 million. Table 3 indicates the percent change by source of funding during the last three fiscal years.

Table 3. Percent Change from 2007-2009 in Total Research Expenditures

Source of Funds	2007-2009	Percent Change
Federal	\$754,696,868	15.7%
State and Local Appropriated	\$308,540,035	20.4%
State and Local Contracts and Grants	\$127,382,240	12.8%
Institution	\$249,544,899	13.8%
Private, Profit	\$104,403,060	65.1%
Private, Non-Profit	\$68,121,759	2.3%
Total	\$1,612,688,861	17.8%

The University of Texas at Austin

The University of Texas at Austin expended \$535 million on research in Fiscal Year 2009. The majority these expenditures, \$335 million, were from federal sources. Total research expenditures for Fiscal Years 2007, 2008, and 2009 are presented in Table 4.

Table 4. The University of Texas at Austin, Total Research Expenditures

Source of Funds	2007	2008	2009
Federal	\$314,130,646	\$351,536,801	\$335,519,734
State and Local Appropriated	\$26,111,019	\$29,453,345	\$31,196,949
State and Local Contracts and Grants	\$29,300,284	\$25,207,042	\$25,687,789
Institution	\$37,793,878	\$42,627,210	\$51,300,141
Private, Profit	\$43,390,765	\$52,743,151	\$61,937,357
Private, Non-Profit	\$25,555,638	\$25,573,773	\$29,173,190
Total	\$476,282,230	\$527,141,322	\$534,815,160

Source: THECB, Academic Affairs and Research Division

In the last three fiscal years, The University of Texas at Austin expended \$1.5 billion on research-related activities. The most substantial increase (43 percent) in expenditures during the three-year period was in the category of private, profit funds. There was a noticeable decrease (12 percent) in expenditures for state and local contracts and grants. The majority of funding expended from 2007 to 2009 was from federal sources, totaling \$1 billion.

Table 5. Percent Change from 2007-2009 in Total Research Expenditures

Source of Funds	2007-2009	Percent Change
Federal	\$1,001,187,181	6.8%
State and Local Appropriated	\$86,761,313	19.5%
State and Local Contracts and Grants	\$80,195,115	-12.3%
Institution	\$131,721,229	35.7%
Private, Profit	\$158,071,273	42.7%
Private, Non-Profit	\$80,302,601	14.2%
Total	\$1,538,238,712	12.3%

Texas Tech University

Texas Tech University expended \$88 million in research funds in Fiscal Year 2009. The largest category of expenditures, state and local appropriations, totaled \$31 million. Total research expenditures for Fiscal Years 2007, 2008, and 2009 are presented in Table 6.

Table 6. Texas Tech University, Total Research Expenditures

Source of Funds	2007	2008	2009
Federal	\$24,435,210	\$21,416,823	\$25,645,008
State and Local Appropriated	\$13,834,493	\$12,113,923	\$30,954,146
State and Local Contracts and Grants	\$4,038,669	\$4,522,967	\$6,735,257
Institution	\$1,888,838	\$7,012,487	\$14,665,182
Private, Profit	\$2,877,079	\$3,150,662	\$4,202,989
Private, Non-Profit	\$5,123,897	\$4,622,219	\$6,293,708
Total	\$52,198,186	\$52,839,081	\$88,496,290

Source: THECB, Academic Affairs and Research Division

In the last three fiscal years, Texas Tech University expended \$194 million on research-related activities. The largest category of expenditures, federal sources, totaled \$71 million. The most significant increase in research expenditures for the three-year period was in the category of institutional funds, which increased by 676 percent.

Table 7. Percent Change from 2007-2009 in Total Research Expenditures

Source of Funds	2007-2009	Percent Change
Federal	\$71,497,041	5.0%
State and Local Appropriated	\$56,902,562	123.7%
State and Local Contracts and Grants	\$15,296,893	66.8%
Institution	\$23,566,507	676.4%
Private, Profit	\$10,230,730	46.1%
Private, Non-Profit	\$16,039,824	22.8%
Total	\$193,533,557	69.5%

The University of Texas at Arlington

The University of Texas Arlington expended \$56 million on research in Fiscal Year 2009. Funds from federal sources (\$25 million) represent the largest category of expenditures. Research expenditures for Fiscal Years 2007, 2008, and 2009 are presented in Table 8.

Table 8. The University of Texas at Arlington, Total Research Expenditures

Source of Funds	2007	2008	2009
Federal	\$20,259,415	\$20,979,533	\$25,144,203
State and Local Appropriated	\$11,221,903	\$8,483,578	\$6,416,742
State and Local Contracts and Grants	\$2,084,180	\$2,025,823	\$2,729,354
Institution	\$106,178	\$10,254,492	\$13,022,579
Private, Profit	\$4,638,117	\$6,082,359	\$6,006,518
Private, Non-Profit	\$1,314,635	\$2,512,507	\$2,301,654
Total	\$39,624,428	\$50,338,292	\$55,621,050

Source: THECB, Academic Affairs and Research Division

In the last three fiscal years, The University of Texas at Arlington expended \$146 million on research-related activities. The largest category of funds expended was federal sources, which totaled \$66 million. From 2007 to 2009, the most visible increase of funds expended was institutional funding (12,165 percent); however, there was a noteworthy decrease (42 percent) in state and local appropriated expenditures during the same period.

Table 9. Percent Change from 2007-2009 in Total Research Expenditures

Source of Funds	2007-2009	Percent Change
Federal	\$66,383,151	24.1%
State and Local Appropriated	\$26,122,223	-42.8%
State and Local Contracts and Grants	\$6,839,357	31.0%
Institution	\$23,383,249	12,164.9%
Private, Profit	\$16,726,994	29.5%
Private, Non-Profit	\$6,128,796	75.1%
Total	\$145,583,770	40.4%

The University of Texas at Dallas

The University of Texas at Dallas expended \$66 million on research in Fiscal Year 2009. The largest category of expenditures was federal sources (\$26 million). Total research expenditures for Fiscal Years 2007, 2008, and 2009 are presented in Table 10.

Table 10. The University of Texas at Dallas, Total Research Expenditures

Source of Funds	2007	2008	2009
Federal	\$17,782,702	\$21,383,917	\$26,243,798
State and Local Appropriated	\$5,156,420	\$8,338,111	\$8,916,417
State and Local Contracts and Grants	\$12,205,181	\$9,702,098	\$7,391,590
Institution	\$2,297,388	\$6,666,871	\$10,880,433
Private, Profit	\$3,002,316	\$5,969,090	\$4,393,874
Private, Non-Profit	\$6,033,201	\$7,240,781	\$7,978,422
Total	\$46,477,208	\$59,300,868	\$65,804,534

Source: THECB, Academic Affairs and Research Division

In the last three fiscal years, The University of Texas at Dallas expended \$172 million on research-related activities. The largest category of funding expended was federal sources. For the same period, there was a 374 percent increase in institutional expenditures. State and local contracts and grants expenditures decreased by 39 percent.

Table 11. Percent Change from 2007-2009 in Total Research Expenditures

Source of Funds	2007-2009	Percent Change
Federal	\$65,410,417	47.6%
State and Local Appropriated	\$22,410,948	72.9%
State and Local Contracts and Grants	\$29,298,869	-39.4%
Institution	\$19,844,692	373.6%
Private, Profit	\$13,365,280	46.3%
Private, Non-Profit	\$21,252,404	32.2%
Total	\$171,582,610	41.6%

The University of Texas at El Paso

The University of Texas El Paso expended \$56 million on research in Fiscal Year 2009. The majority of these expenditures, \$29 million, were from federal sources. Total research expenditures for Fiscal Years 2007, 2008, and 2009 are presented in Table 12.

Table 12. The University of Texas at El Paso, Total Research Expenditures

Source of Funds	2007	2008	2009
Federal	\$27,094,552	\$26,995,790	\$29,401,496
State and Local Appropriated	\$7,130,688	\$7,339,249	\$10,711,598
State and Local Contracts and Grants	\$1,101,003	\$912,892	\$2,296,577
Institution	\$2,583,513	\$7,236,479	\$6,600,863
Private, Profit	\$378,635	\$447,506	\$397,713
Private, Non-Profit	\$3,758,425	\$4,975,843	\$6,611,792
Total	\$42,046,816	\$47,907,759	\$56,020,039

Source: THECB, Academic Affairs and Research Division

In the last three fiscal years, The University of Texas El Paso expended \$146 million on research-related activities. The largest portion of research expenditures was from federal sources, totaling \$83 million. The most noticeable increase in research expenditures for the three-year period was in the category of institutional funds, which increased by 156 percent.

Table 13. Percent Change from 2007-2009 in Total Research Expenditures

Source of Funds	2007-2009	Percent Change
Federal	\$83,491,838	8.5%
State and Local Appropriated	\$25,181,535	50.2%
State and Local Contracts and Grants	\$4,310,472	108.6%
Institution	\$16,420,855	155.5%
Private, Profit	\$1,223,854	5.0%
Private, Non-Profit	\$15,346,060	75.9%
Total	\$145,974,614	33.2%

The University of Texas at San Antonio

The University of Texas San Antonio expended \$47 million on research in Fiscal Year 2009. The majority of expenditures, \$27 million, were from federal sources. Total research expenditures for Fiscal Years 2007, 2008, and 2009 are presented in Table 14.

Table 14. The University of Texas at San Antonio, Total Research Expenditures

Source of Funds	2007	2008	2009
Federal	\$21,669,297	\$22,574,016	\$26,966,123
State and Local Appropriated	\$5,444,164	\$5,159,454	\$10,757,935
State and Local Contracts and Grants	\$1,437,449	\$1,897,160	\$2,693,973
Institution	\$1,619,482	\$2,344,581	\$2,618,437
Private, Profit	\$668,672	\$563,264	\$1,077,192
Private, Non-Profit	\$1,481,647	\$2,062,970	\$2,407,827
Total	\$32,320,711	\$34,601,445	\$46,521,487

Source: THECB, Academic Affairs and Research Division

In the last three fiscal years, The University of Texas at San Antonio expended \$113 million on research-related activities. The majority of funding expended was from federal sources, totaling \$71 million. The most substantial increase in expenditures was in state and local appropriated funds.

Table 15. Percent Change from 2007-2009 in Total Research Expenditures

Source of Funds	2007-2009	Percent Change
Federal	\$71,209,436	24.4%
State and Local Appropriated	\$21,361,553	97.6%
State and Local Contracts and Grants	\$6,028,582	87.4%
Institution	\$6,582,500	61.7%
Private, Profit	\$2,309,128	61.1%
Private, Non-Profit	\$5,952,444	62.5%
Total	\$113,443,643	43.9%

University of Houston

The University of Houston expended \$87 million in research funds in Fiscal Year 2009. The largest category of expenditures, federal sources, totaled \$35 million. Total research expenditures for Fiscal Years 2007, 2008, and 2009 are presented in Table 16.

Table 16. University of Houston, Total Research Expenditures

Source of Funds	2007	2008	2009
Federal	\$40,554,549	\$44,341,436	\$35,349,458
State and Local Appropriated	\$14,044,284	\$15,958,676	\$19,397,296
State and Local Contracts and Grants	\$8,021,778	\$11,856,418	\$16,071,704
Institution	\$7,214,459	\$3,551,512	\$4,764,238
Private, Profit	\$3,169,469	\$3,813,181	\$4,749,570
Private, Non-Profit	\$5,121,562	\$5,330,855	\$7,069,000
Total	\$78,126,101	\$84,852,078	\$87,401,266

Source: THECB, Academic Affairs and Research Division

In the last three fiscal years, the University of Houston expended \$250 million in research related activities. The largest category of funding expended for the three-year period was federal sources (\$120 million). The greatest increase (100 percent) in total research expenditures was in state and local contracts and grants. However, there was a notable decrease of 34 percent in the category of institutional funds.

Table 17. Percent Change from 2007-2009 in Total Research Expenditures

Source of Funds	2007-2009	Percent Change
Federal	\$120,245,443	-12.8%
State and Local Appropriated	\$49,400,256	38.1%
State and Local Contracts and Grants	\$35,949,900	100.4%
Institution	\$15,530,209	-34.0%
Private, Profit	\$11,732,220	49.9%
Private, Non-Profit	\$17,521,417	38.0%
Total	\$250,379,445	11.9%

University of North Texas

The University of North Texas expended \$23 million in research funds in Fiscal Year 2009. The largest category of expenditures, federal sources, totaled \$10 million. Total research expenditures for Fiscal Years 2007, 2008, and 2009 are presented in Table 18.

Table 18. University of North Texas, Total Research Expenditures

Source of Funds	2007	2008	2009
Federal	\$7,816,160	\$9,037,592	\$10,869,686
State and Local Appropriated	\$474,200	\$488,226	\$3,445,249
State and Local Contracts and Grants	\$902,196	\$1,436,207	\$2,166,429
Institution	\$3,273,775	\$3,562,077	\$3,317,129
Private, Profit	\$830,746	\$1,362,278	\$1,672,478
Private, Non-Profit	\$1,192,607	\$912,500	\$1,086,541
Total	\$14,489,684	\$16,798,880	\$22,557,512

In the last three fiscal years, the University of North Texas expended \$54 million in research related activities. The majority of funding expended for the three-year period was from federal sources (\$28 million). The greatest increase (627 percent) in total research expenditures was in state and local appropriations. However, there was a 9 percent decrease in the category of private/non-profit funds.

Table 19. Percent Change from 2007-2009 in Total Research Expenditures

Source of Funds	2007-2009	Percent Change
Federal	\$27,723,438	39.1%
State and Local Appropriated	\$4,407,675	626.5%
State and Local Contracts and Grants	\$4,504,832	140.1%
Institution	\$10,152,981	1.3%
Private, Profit	\$3,865,502	101.3%
Private, Non-Profit	\$3,191,648	-8.9%
Total	\$53,846,076	55.7%

Recommendations

Based on the input from each of the higher education institutions eligible for the RUDF, the Coordinating Board staff prepared rules for the implementation of the RUDF. However, no funds may be distributed until the Texas Legislature appropriates funds. Once that occurs, the following recommendations are presented:

1. The Coordinating Board in conjunction with institutional representatives recommend using the existing definitions of research, as currently described in the Research Expenditures Report. This will allow the Board to continue to collect data from institutions using a method that has been in place since 1971.
2. The institutions should continue to report their research expenditures to the Coordinating Board electronically.

Appendix A
Original Legislation Passed by the 81st Texas Legislature

SUBCHAPTER C. RESEARCH UNIVERSITY DEVELOPMENT FUND

Sec. 62.051. DEFINITIONS. In this subchapter:

(1) "Eligible institution" means an institution of higher education designated as a research university or emerging research university under the coordinating board's accountability system.

(2) "Institution of higher education" has the meaning assigned by Section 61.003.

Added by Acts 2009, 81st Leg., R.S., Ch. [287](#), Sec. 12, eff. September 1, 2009.

Sec. 62.052. PURPOSE. The purpose of this subchapter is to provide funding to research universities and emerging research universities for the recruitment and retention of highly qualified faculty and the enhancement of research productivity at those universities.

Added by Acts 2009, 81st Leg., R.S., Ch. [287](#), Sec. 12, eff. September 1, 2009.

Sec. 62.053. FUNDING. (a) For each state fiscal year, the coordinating board shall distribute any funds appropriated by the legislature for the purposes of this subchapter, and any other funds made available for the purposes of this subchapter, to eligible institutions based on the average amount of total research funds expended by each institution annually during the three most recent state fiscal years, according to the following rates:

(1) at least \$1 million for every \$10 million of the average annual amount of those research funds expended by the institution, if that average amount for the institution is \$50 million or more; and

(2) at least \$500,000 for every \$10 million of the average annual amount of those research funds expended by the institution, if that average amount for the institution is less than \$50 million.

(b) For purposes of Subsection (a), the amount of total research funds expended by an eligible institution in a state fiscal year is the amount of those funds as reported to the coordinating board by the institution for that fiscal year, subject to any adjustment by the coordinating board in accordance with the standards and accounting methods the coordinating board prescribes for purposes of this section. If the funds available for distribution for a state fiscal year under Subsection (a) are not sufficient to provide the amount specified by Subsection (a) for each eligible institution or exceed the amount sufficient for that purpose, the available amount shall be distributed in proportion to the total amount to which each institution is otherwise entitled under Subsection (a).

Added by Acts 2009, 81st Leg., R.S., Ch. [287](#), Sec. 12, eff. September 1, 2009.

Sec. 62.054. RULES. The coordinating board shall adopt rules for the administration of this subchapter, including any rules the coordinating board considers necessary regarding the submission to the coordinating board by eligible institutions of any student data required for the coordinating board to carry out its duties under this subchapter.

Added by Acts 2009, 81st Leg., R.S., Ch. [287](#), Sec. 12, eff. September 1, 2009.

Appendix B
Coordinating Board Rules Adopted July 29, 2010

Chapter 15. National Research Universities
Subchapter B. Research University Development Fund

15.20 Purpose and Authority

(a) Purpose. The purpose of this subchapter is to provide funding to research and emerging research universities for the recruitment and retention of highly qualified faculty and the enhancement of research productivity.

(b) Authority. Texas Education Code, Section 62.054, authorizes the Board to adopt rules for the administration of the program.

15.21 Definitions

The following words and terms, when used in this subchapter, shall have the following meanings, unless the context clearly indicates otherwise:

(1) Coordinating Board or Board--The Texas Higher Education Coordinating Board.

(2) Eligible institution--An institution of higher education designated as a research university or emerging research university under the Coordinating Board's accountability system.

(3) Emerging research institution--A public institution of higher education designated as an emerging research university under the Board's accountability system.

(4) Institution of higher education or Institution--Any public technical institute, public junior college, public senior college or university, medical or dental unit, public state college, or other agency of higher education as defined in Texas Education Code, Section 61.003.

(5) Research university--A public institution of higher education designated as a research university under the Board's accountability system.

15.22 Distribution of Research University Development Fund (RUDF)

(a) For each state fiscal year, the Coordinating Board shall distribute any funds appropriated by the Legislature for the purposes of this subchapter, and any other funds made available for the purposes of this subchapter to eligible institutions based on the average amount of total research funds expended by each institution annually during the three most recent state fiscal years, according to the following rates:

(1) at least \$1 million for every \$10 million of the average annual amount of those research funds expended by the institution, if that average amount for the institution is \$50 million or more; and

(2) at least \$500,000 for every \$10 million of the average annual amount of those research funds expended by the institution, if that average amount for the institution is less than \$50 million.

(b) The amount of total research funds expended by an eligible institution in a state fiscal year is the amount of those funds as reported to the Coordinating Board by the institution for that fiscal year, subject to any adjustment by the Coordinating Board in accordance with the standards and accounting methods the Coordinating Board prescribes for purposes of this section.

(c) If the funds available for distribution for a state fiscal year under subsection (a) of this section are not sufficient to provide the amount specified by subsection (a) for each eligible institution or exceed the amount sufficient for that purpose, the available amount shall be distributed in proportion to the total amount to which each institution is otherwise entitled under subsection (a).

Appendix C

Research Expenditures Definitions

Research is systematic study directed toward fuller scientific knowledge or understanding of the subject studied (reference OMB Circular A-110, subpart A, definition A.2dd).

OMB Circular: **Research and development** means all research activities, both basic and applied, and all development activities that are supported at universities, colleges, and other non-profit institutions. **"Research" is defined as a systematic study directed toward fuller scientific knowledge or understanding of the subject studied. "Development" is the systematic use of knowledge and understanding gained from research directed toward the production of useful materials, devices, systems, or methods, including design and development of prototypes and processes.** The term research also includes activities involving the training of individuals in research techniques where such activities utilize the same facilities as other research and development activities and where such activities are not included in the instruction function.

Development is systematic use of knowledge and understanding gained from research directed toward the production of useful materials, devices, systems, or methods including design and development of prototypes and processes (reference OMB Circular A-110, subpart A, definition A.2dd). (See definition above).

Research and Development (R&D) also includes activities involving the training of individuals in research techniques where such activities utilize the same facilities as other research and development activities and where such activities are not included in the instruction function (reference OMB Circular A-21, B.1.b).

Exclusions from research and development:

- Training of scientific manpower (except as noted directly above)
- Mapping and surveys
- Routine product testing
- Quality Control
- Experimental production
- Collection of general purpose statistics (statistics not collected as part of a specific R&D project)

NOTE: Certain activities may or may not be classified as research and development depending upon circumstances. Examples of such activities are given below in Section B, Reporting Guidelines for R&D versus Non-R&D Activities.

Selected financial terms

Definitions for Specific Items

Expenditures for conduct of R&D - All expenditures, except those for R&D plant and construction.

Expenses for other research-related activities - Reported as research on the institution's Annual Financial Report, but not meeting the narrower definitions of R&D required in the Research Expenditures report. Externally-funded activities that cannot be classified as R&D using the definitions appearing in A, above, are included. Do not include projects funded with "development" funds unless they are related to research activities.

Notes: Reporting Guidelines for R&D versus Non-R&D Activities:

Economic studies - To be classified as research, the activities under this heading should be systematic and intensive. They should not include program planning, implementation, and evaluation unless these activities are designed as a fairly rigorous research effort. For example, a study to determine the impact of proposed tax changes on State revenues, or on statewide employment, consumption, or industrial output could be reported as economic research. But the collection of economic data on tax revenues, personal income, or industrial output would be reported as economic research only if collected as part of the research project.

Evaluation - Evaluation qualifies as research when it is part of a specific research undertaking. Evaluation conducted separately from a research project is considered research when it involves scientific method and hypothesis testing procedures with fairly rigorous standards. Evaluation activities that do not involve systematic design and testing should not be included.

Demonstration - Demonstration activities that are part of research or development (i.e., that are intended to prove or to test whether a technology or method does, in fact, work) should be included. Demonstration intended to make available information about new technologies or methods should not be included. For example, an educational demonstration on new teaching methods should be reported as an R&D activity if the demonstration is established as an experiment to produce new information, is accomplished within a definite time period, and is accompanied by a thorough evaluation. An educational demonstration to apply or exhibit new teaching methods, or a demonstration without a scheduled termination or a thorough evaluation, should not be reported as an R&D activity.

Collection of statistical data - The collection of statistics is an R&D activity only if conducted as part of a specific research or development program. For example, the regular collection and publication of statistics on the incidence of various diseases within a State by a State health department is general purpose data collection and not research or development. The data gathering is not part of a research program and is designed for use by a range of persons, such as practicing physicians, public health officials, and school officials. If the data on incidence of diseases are gathered as part of a project on the origin and nature of particular diseases, however, or to establish generalizations on why certain individuals or groups contract certain diseases, this would be research.

Satellite information - Photographs and tapes purchased from Federal agencies (or others) sponsoring satellite operations are not considered research and development unless they are used primarily in support of a research or development program. Tapes and photographs that are stored in documentation centers or used primarily for the formulation of regulations are excluded from this survey.

Technology transfer - Technology transfer involves the adoption, and perhaps adaptation, of new techniques or products that have already been brought to a usable condition. The adoption and use of a technology is not research and development, but the adaptation of a technology to meet unique regional or local needs could involve R&D activities. For example, a new method of treating water to make it potable is developed in one State. If another State adopts the same treatment process, the adoption costs for facilities, equipment, personnel, etc., are not R&D expenditures. However, if further systematic, intensive study is required by the second State to modify the treatment process to adapt it to unique local conditions, the costs of modification and adaptation could be R&D expenditures.