DOCUMENT RESUME

ED 465 318 HE 034 954

TITLE	Research Expenditures, September 1, 2000-August 31, 2001: Texas Public Universities and Health-Related Institutions.
INSTITUTION	Texas State Higher Education Coordinating Board, Austin. Div. of Research, Campus Planning and Finance.
PUB DATE	2002-05-00
NOTE	61p.
AVAILABLE FROM	For full text: http://www.thecb.state.tx.us.
PUB TYPE	Numerical/Quantitative Data (110) -- Reports - Descriptive (141) -- Tests/Questionnaires (160)
EDRS PRICE	MF01/PC03 Plus Postage.
DESCRIPTORS	Colleges; Educational Finance; *Expenditures; *Federal Aid; *Financial Support; *Higher Education; *Research; State Aid
IDENTIFIERS	*Texas

ABSTRACT

The first six sections of this report are based on data provided by each Texas public university and health-related institution for Fiscal Year (FY) 2001, September 1, 2000 through August 31, 2001. Data in these sections, which include an overview, a summary of major findings, summary data, and institutional and historical data, show that total reported research expenditures increased 10.4% over FY 2000. Research expenditures in FY 2001 were $1,769,660,434. Total research expenditures have increased by 84.5% since FY 1991. Royalties, licensing fees, or other transactions involving intellectual property produced through research generated $30,102,288, a 7% increase over the total received in FY 2000. The federal government provided 55.4% of the research funds expended, equal to the government's share in FY 2000. Scientific disciplines benefiting from the largest research expenditures include medical sciences, biological and other life sciences, engineering, and environmental sciences. Funding for medical sciences rose by 14.1% in FY 2001 over the previous year's total. The seventh section of the report is based on data from the National Science Foundation for FY 1999. These data show that Texas institutions ranked sixth in federal obligations for science and engineering, and that the National Institutes of Health provides 60% of the federal research support for science and engineering to Texas higher education institutions. Texas institutions ranked third in total research expenditures for FY 1999, and eight Texas institutions accounted for 78.9% of the federal obligations for science and engineering to Texas higher education institutions in FY 1999. Appendix A contains the research expenditures survey, and Appendix B lists institutional contacts. (Contains 12 figures and 23 tables.) (SLD)

RESEARCH EXPENDITURES

September 1, 2000 – August 31, 2001

Texas Public Universities and Health-Related Institutions

Texas Higher Education Coordinating Board
Division of Finance, Campus Planning, and Research
P.O. Box 12788
Austin, TX 78711-2788

May 2002

Texas Higher Education Coordinating Board

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Coordinating Board Mission

The mission of the Texas Higher Education Coordinating Board is to provide the Legislature advice and comprehensive planning capability for higher education, to coordinate the effective delivery of higher education, to administer programs efficiently and to improve higher education for the people of Texas.

Coordinating Board Philosophy

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.

Created by the Texas Legislature in 1965, the Texas Higher Education Coordinating Board works with institutions of higher education, other state agencies, the Legislature and the Governor to ensure that Texans seeking higher education have access to high quality programs. The Board's overall responsibilities include assessing the state of higher education in Texas, making recommendations to the Governor, Legislature and institutions for its enhancement, and establishing policies for the efficient and effective use of the state's higher education resources.

EXECUTIVE SUMMARY

The first six sections of this report are based on data provided by each Texas public university and health-related institution for Fiscal Year 2001 – September 1, 2000 through August 31, 2001. Highlights include:

- Total reported research expenditures increased 10.4 percent over Fiscal Year 2000. Research expenditures in Fiscal Year 2001 were $1,769,660,434. In Fiscal Year 2000, the total was $1,602,554,938. Total research expenditures increased by 84.5 percent since Fiscal Year 1991.
- Royalties, licensing fees, or other transactions involving intellectual property produced through research generated $30,102,288 – a 7 percent increase over the $28,184,125 received in Fiscal Year 2000. In Fiscal Year 2001, 167 new intellectual properties were produced, compared to 182 in Fiscal Year 2001.
- The federal government provided 55.4 percent of the research funds expended, equal to 55.4 percent in Fiscal Year 2000.
- Scientific discipline categories benefitting from the largest research expenditures include medical sciences – $585,836,750; biological and other life sciences – $383,040,726; engineering – $263,951,136; and environmental sciences – $122,959,281. Funding for medical sciences rose by 14.1 percent in Fiscal Year 2001 compared to the previous year.

The seventh section of this report is based on data provided by the National Science Foundation for Fiscal Year 1999, the most recent year for which this data is available. Highlights include:

- Texas institutions of higher education ranked sixth in federal obligations for science and engineering after California, New York, Maryland, Pennsylvania, and Massachusetts.
- The National Institutes of Health provides 60 percent of the federal research support for science and engineering to Texas higher education institutions.
- Texas institutions ranked third in total research expenditures for Fiscal Year 1999. Life sciences accounted for 63 percent of the research expenditures, followed by engineering (15 percent) and physical sciences (8 percent).
- Eight institutions – Baylor College of Medicine, The University of Texas at Austin, The University of Texas Southwestern Medical Center, The University of Texas Health Science Center at Houston, The University of Texas M. D. Anderson Cancer Center, Texas A&M University (including Texas A&M Service agencies), The University of Texas Health Science Center at San Antonio, and The University of Texas Medical Branch at Galveston – accounted for 78.9 percent of the federal obligations for science and engineering to Texas higher education institutions in Fiscal Year 1999.

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OVERVIEW

The Texas Higher Education Coordinating Board's annual research expenditures report summarizes data submitted to the Board as required by Section 61.051(h) of the Texas Education Code, which states:

> "Once a year, on dates prescribed by the board, each institution of higher education shall report to the board all research conducted at that institution during the last preceding year."

The Coordinating Board's summary report is based on expenditures rather than awards because expenditures more accurately reflect the level of current research activity. Awards tend to fluctuate from year to year, making them a much less stable indicator for year-to-year comparisons.

The Coordinating Board is only able to verify the accuracy of the research expenditures data by comparing them with data provided by the institutions in their Annual Financial Reports. Institutions are asked to ensure that the data reported are consistent with data in their Annual Financial Reports, and a set of definitions is provided to help ensure consistency from institution to institution. Even with these safeguards, institutions have some latitude in determining how they report data.

Data elements and definitions used in this year's report are comparable to similar research expenditure data elements used by the National Science Foundation (NSF). The two sets of elements differ to some degree because the NSF focuses on science and technology alone, while the Coordinating Board's report includes research in all disciplines.

Collection of research expenditure data is a challenging task for institutions. Administrators face many difficulties as they sort out research expenditures at their institutions. For that reason, information they have submitted and the Coordinating Board's research expenditures report should be considered indicative rather than definitive.

Appendix A includes a copy of the survey form completed by each institution. Appendix B includes a list of the institutional contacts who collected the data on their campuses.

This report also contains a section, beginning on page 32, that compares research funding in Texas with that of other states. This data is drawn from three National Science Foundation reports on research obligations and research expenditures.

MAJOR FINDINGS

Total research expenditures at Texas public institutions of higher education increased by 10.4 percent during Fiscal Year 2001, continuing a long-term growth trend. Research expenditures increased by 7.6 percent at public universities and by 13.9 percent at public health-related institutions.

As in most states, Texas' higher education research expenditures were concentrated in a relatively small number of institutions. Collectively, the top five institutions in research spending accounted for 69 percent of total research expenditures. The top 10 institutions accounted for 88 percent of the total.

The top seven institutions in Table 1 also appear in the National Science Foundation's list of top 100 institutions in federal research and development expenditures for 1999.

Texas health-related institutions have very strong research programs. Six of them ranked among the top 10 Texas public institutions in research expenditures.

Table 1

Research and Development Expenditure Rankings, FY 2001					
Institution	1997	1998	1999	2000	2001
Texas A&M University (including Texas A&M Services)	1	1	1	1	1
The University of Texas at Austin	2	2	2	2	2
The University of Texas Southwestern Medical Center at Dallas	3	3	3	3	3
The University of Texas M.D. Anderson Cancer Center	4	4	4	4	4
The University of Texas Health Science Center at Houston	5	5	5	5	5
The University of Texas Health Science Center at San Antonio	6	6	7	7	6
The University of Texas Medical Branch at Galveston	7	7	6	6	7
University of Houston	8	8	8	8	8
Texas Tech University	9	9	9	9	9
Texas A&M University System Health Sciences Center*	-	-	-	-	10

*TAMU College of Medicine combined with TAMUS Baylor College of Dentistry to form Texas A&M HSC in FY2000.

The federal government funded 55.4 percent of all research expenditures by Texas public institutions of higher education, making it the source of most research funds – as it is in other states. At academic institutions[1] nationwide, the National Science Foundation/SRS, *Academic*

[1]For this purpose, academic institutions are generally defined as institutions of higher education that grant doctorates in science or engineering and/or spend at least $50,000 for separately budgeted research and development.

Research and Development Expenditures: Fiscal Year 2000, Table B-29 shows that 58.2 percent[2] of the academic research was funded by the federal government. State government in Texas provided 19.4 percent of the funds for all research expenditures in the state's public higher education institutions. Institutional and private funding accounted for the remaining 25.2 percent.

The ratio of federal funds to state-appropriated funds for each of the 10 Texas institutions reporting the greatest research expenditures is provided in Table 2.

Table 2

Federal/State Research and Development Expenditure Ratio Rankings, FY 2001

Institution	R&D Rank	Fed/State Ratio	Ratio Rank
The University of Texas Southwestern Medical Center at Dallas	3	13.85	1
The University of Texas Health Science Center at San Antonio	6	10.38	2
The University of Texas Health Science Center at Houston	5	8.46	3
The University of Texas Medical Branch at Galveston	7	5.87	4
The University of Texas at Austin	2	4.28	5
Texas A&M University System Health Sciences Center	10	2.34	6
The University of Texas M.D. Anderson Cancer Center	4	1.56	7
Texas A&M University (including Texas A&M Services)	1	1.46	8
Texas Tech University	9	1.08	9
University of Houston	8	1.08	10

Medical sciences, accounting for 33 percent of the total, led all other disciplines in expenditures. The top five disciplines – medical sciences, engineering, biological and other life sciences, physical sciences, and environmental sciences – collectively accounted for 83.2 percent of all reported research expenditures.

Institutions earned $30,102,288 from royalties, licenses, and other transactions involving 718 different intellectual properties produced through research.

California ($2.50 billion), New York ($1.45 billion), Maryland ($1.12 billion), Pennsylvania ($1.10 billion), Massachusetts ($1.05 billion), and Texas ($ 0.97 billion) were the top six states in federal obligations for science and engineering for Fiscal Year 1999.

The National Institutes of Health, the National Science Foundation, and the Department of Defense provided 60.1 percent, 11.4 percent, and 10.6 percent, respectively, of the Fiscal Year 1999 federal obligations for science and engineering to Texas higher education institutions.

[2]This percentage was reported incorrectly in the FY 1999 and FY 2000 issues of *Research Expenditures*. The correct values are 58.6 percent for FY 1999 and 58.4 percent for FY 2000.

STATEWIDE SUMMARY DATA

Expenditures related to research are divided into two categories: (1) expenditures for the conduct of research and development, and (2) other sponsored activities. "Other sponsored activities" refers to support received from external sources to fund activities that cannot be considered strictly research. Examples include grants for equipment or facilities, contracts to perform studies, and training. Definitions for both categories are included in the survey form that is Appendix A.

Tables 3 and 4 and Figures 1 - 4 provide information on expenditures and sources of funds for research and development and for other sponsored activities related to research at public universities and health-related institutions. Some institutions do not report funds used for other sponsored activities related to research.

Table 3

Sources of Funds for Research and Other Research-Related Sponsored Programs, FY 2001

	Federal	State		Institution
		Appropriated	Contracts and Grants	
Public Universities				
Research and Development	$501,648,859	$154,226,713	$80,609,493	$77,158,322
Other	$8,370,596	$4,071,673	$176,767	$3,159,600
Total	$510,019,455	$158,298,386	$80,786,260	$80,317,922
Public Health-Related Institutions				
Research and Development	$479,224,320	$94,141,323	$13,790,135	$38,792,662
Other	$1,468,272	$9,622,391	$0	$10,295,195
Total	$480,692,592	$103,763,714	$13,790,135	$49,087,857
All Public Institutions				
Research and Development	$980,873,179	$248,368,036	$94,399,628	$115,950,984
Other	$9,838,868	$13,694,064	$176,767	$13,454,795
Totals	**$990,712,047**	**$262,062,100**	**$94,576,395**	**$129,405,779**

(table continued on next page)

Table 3 - continued

Sources of Funds for Research and Other Research-Related Sponsored Programs, FY 2001			
	Private		Total
	Profit	Non-Profit	
Public Universities			
Research and Development	$63,346,610	$71,233,319	$948,223,316
Other	$83,943	$534,354	$16,396,933
Total	$63,430,553	$71,767,673	$964,620,249
Public Health-Related Institutions			
Research and Development	$63,031,923	$132,456,755	$821,437,118
Other	$21,091	$1,903,222	$23,310,171
Total	$63,053,014	$134,359,977	$844,747,289
All Public Institutions			
Research and Development	$126,378,533	$203,690,074	$1,769,660,434
Other	$105,034	$2,437,576	$39,707,104
Totals	**$126,483,567**	**$206,127,650**	**$1,809,367,538**

Figure 1

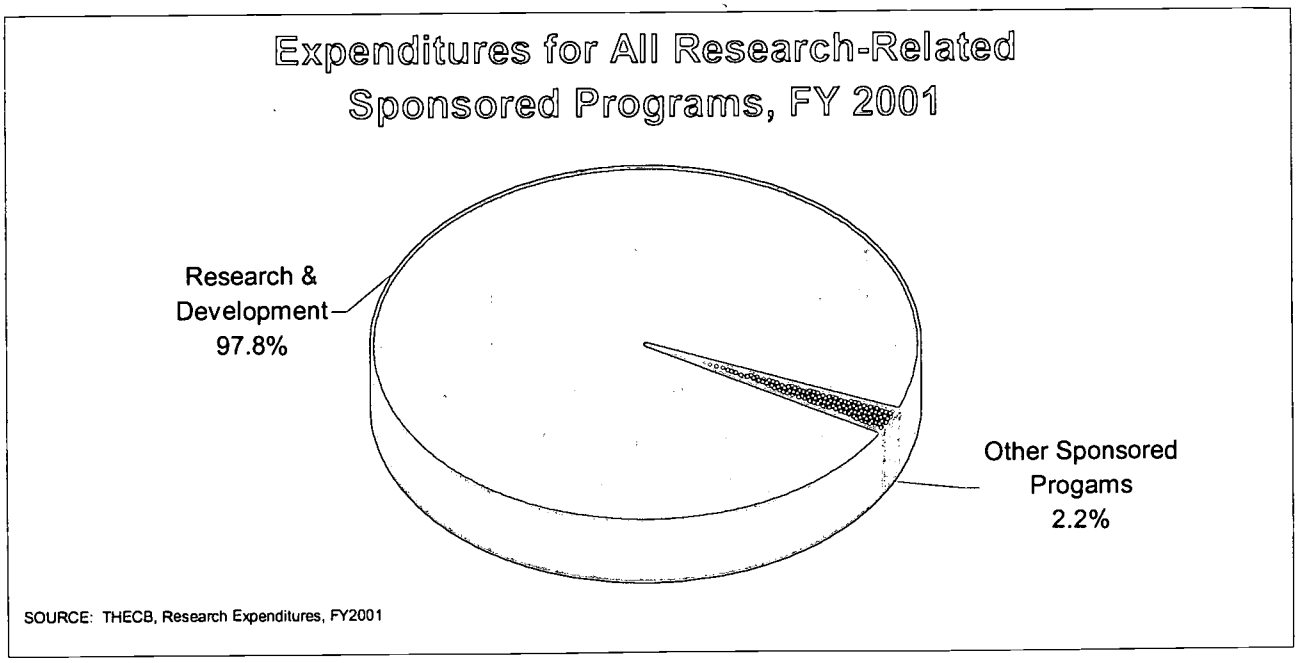
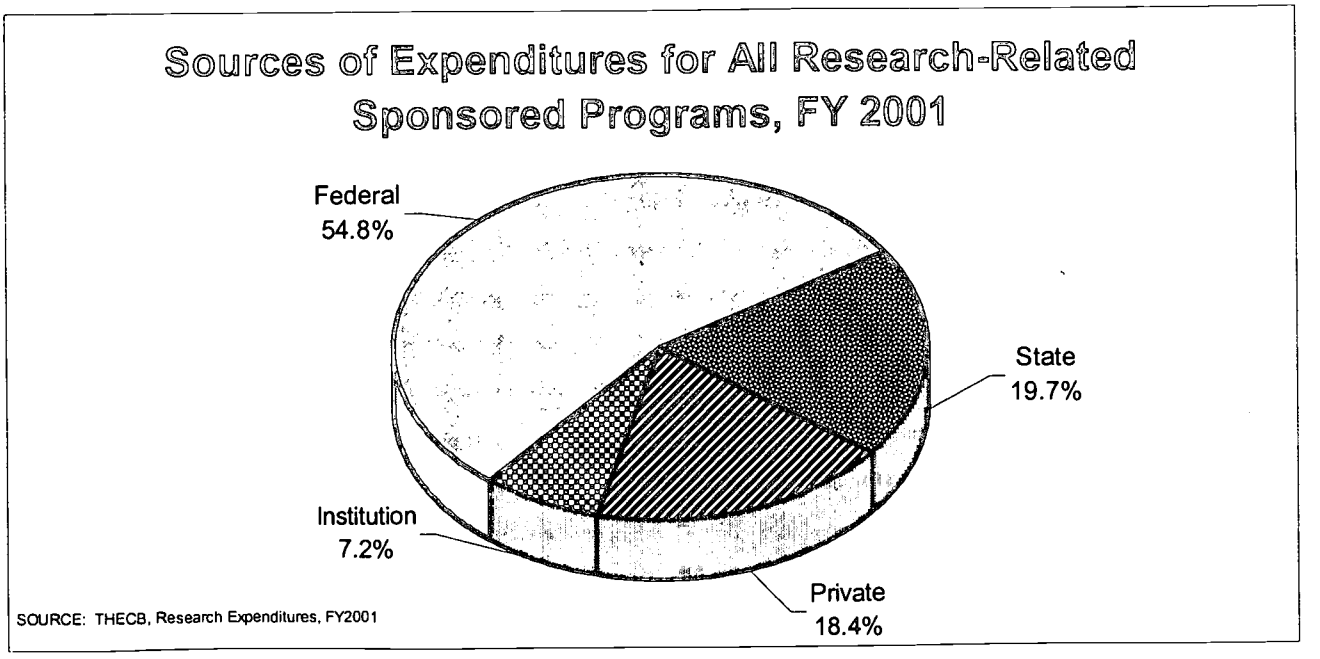


Figure 2



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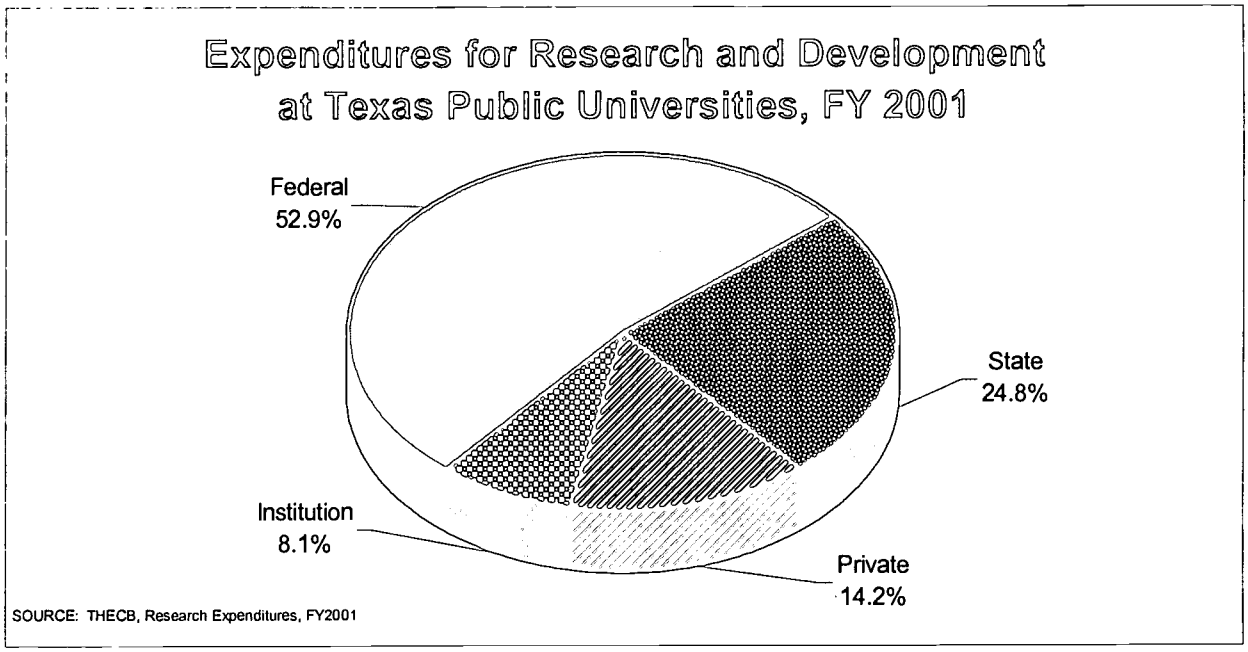


Figure 4

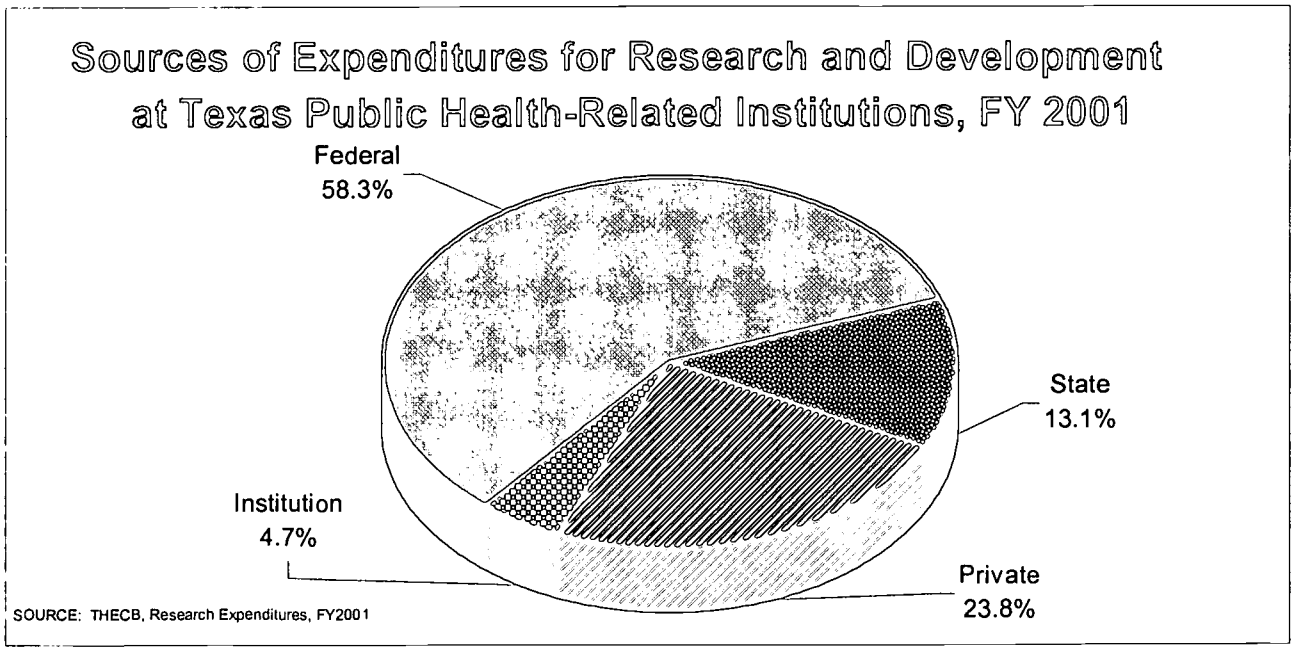


Table 4 indicates expenditures in the 16 different fields defined in Appendix A. The Coordinating Board's instructions directed institutions to assign project expenditures to only one field to avoid duplication.

For the most part, this table reflects expenditures in particular academic disciplines. Some inconsistency may result, however, as institutions strive to categorize a particular research project into only one field. For example, a college of agriculture could perform basic research in biological sciences and report expenditures in that field rather than in agricultural sciences.

Proportions of expenditures by discipline are shown in Figure 5. Medical and biological sciences account for slightly more than one-half of all research expenditures.

Table 4

Expenditures for Conduct of R&D by Field and Source of Funding, FY 2001
Texas Public Institutions of Higher Education

	Federal	State		Institution
		Appropriated	Contracts and Grants	
Agricultural Sciences	$22,801,462	$24,085,601	$3,573,992	$8,898,285
Biological and Other Life Sciences	$216,534,637	$64,406,072	$7,478,550	$28,447,221
Computer Science	$23,355,906	$4,387,030	$2,326,551	$2,089,110
Engineering	$136,704,012	$30,235,986	$37,123,579	$16,170,268
Environmental Sciences	$89,098,895	$12,729,183	$6,794,501	$4,214,385
Mathematical Sciences	$20,341,750	$6,481,883	$1,849,997	$1,055,516
Medical Sciences	$335,902,604	$60,758,827	$12,955,231	$31,374,670
Physical Sciences	$71,679,380	$18,455,786	$2,096,988	$5,061,987
Psychology	$9,003,214	$661,642	$1,714,761	$923,255
Social Sciences	$15,466,920	$9,138,965	$7,785,905	$3,977,695
Other Sciences	$5,614,753	$3,184,573	$1,537,627	$433,375
Arts and Humanities	$1,276,581	$878,173	$1,061,540	$2,824,384
Business Administration	$2,223,926	$1,608,058	$381,154	$1,430,068
Education	$25,176,460	$1,553,768	$5,068,725	$1,814,121
Law and Public Administration	$2,327,220	$830,029	$1,517,838	$45,071
Other Non-Science Activities	$3,365,459	$8,972,460	$1,132,689	$7,191,573
Totals	**$980,873,179**	**$248,368,036**	**$94,399,628**	**$115,950,984**

(table continued on next page)

Table 4 - continued

Expenditures for Conduct of R&D by Field and Source of Funding, FY 2001 Texas Public Institutions of Higher Education			
	Private		Total
	Profit	Non-Profit	
Agricultural Sciences	$6,082,603	$7,670,675	$73,112,618
Biological and Other Life Sciences	$17,609,322	$48,564,924	$383,040,726
Computer Science	$1,800,913	$1,042,555	$35,002,065
Engineering	$31,891,544	$11,825,747	$263,951,136
Environmental Sciences	$7,043,752	$3,078,565	$122,959,281
Mathematical Sciences	$1,285,356	$1,387,942	$32,402,444
Medical Sciences	$51,499,093	$93,346,325	$585,836,750
Physical Sciences	$3,164,020	$15,469,600	$115,927,761
Psychology	$500,744	$593,142	$13,396,758
Social Sciences	$1,986,556	$4,739,175	$43,095,216
Other Sciences	$486,917	$5,332,338	$16,589,583
Arts and Humanities	$481,408	$1,270,054	$7,792,140
Business Administration	$729,390	$2,798,154	$9,170,750
Education	$532,295	$3,836,534	$37,981,903
Law and Public Administration	$311,370	$1,673,438	$6,704,966
Other Non-Science Activities	$973,250	$1,060,906	$22,696,337
Totals	**$126,378,533**	**$203,690,074**	**$1,769,660,434**

Figure 5

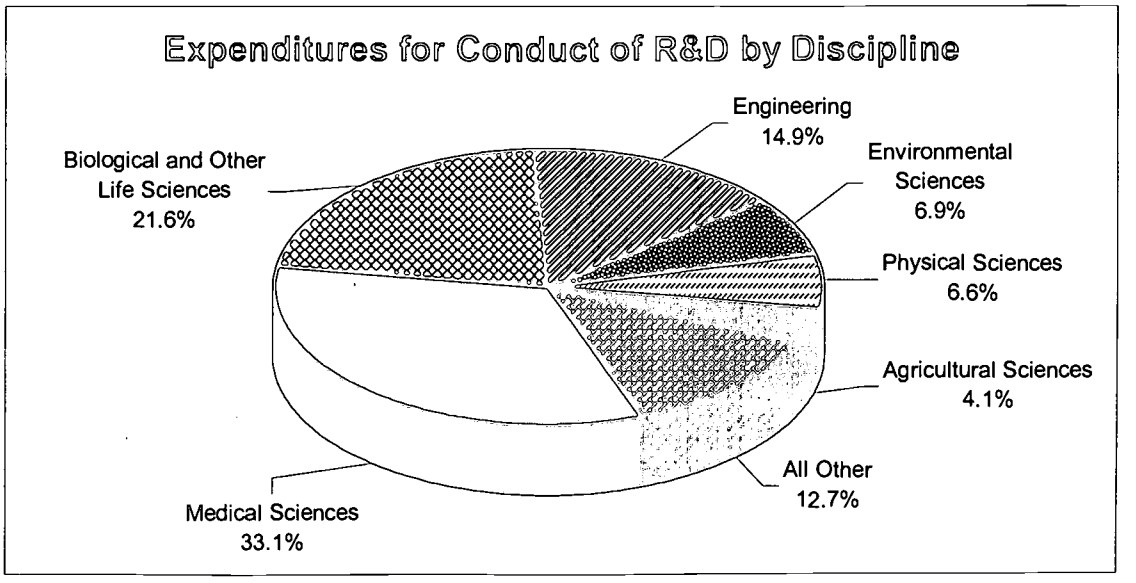


Table 5 shows research in nine different areas of special interest at public universities, and Table 6 shows research in six different areas of special interest at public health-related institutions. Double counting was allowed because many projects are relevant to two or more areas of research.

Table 5

Expenditures for Conduct of R&D in Areas of Special Interest, FY 2001 Texas Public Universities				
	Federal	State		Institution
		Appropriated	Contracts and Grants	
Aerospace Technology	$25,080,260	$1,813,916	$177,167	$763,606
Biotechnology	$30,013,792	$23,115,495	$1,389,249	$14,084,643
Energy	$26,872,255	$5,094,425	$1,056,515	$885,492
Environmental Science & Engineering	$47,916,210	$13,510,680	$3,626,800	$3,560,845
Food, Fiber, Agricultural Products	$15,915,391	$28,936,194	$2,731,569	$11,597,777
Manufacturing Technology	$3,320,390	$1,630,968	$1,486,024	$506,326
Materials Science	$20,084,150	$2,101,046	$4,513,289	$926,018
Microelectronics & Computer Technology	$33,175,524	$6,618,755	$1,335,863	$2,569,395
Water Resources	$4,704,218	$2,690,239	$1,000,679	$1,292,259
Totals	**$207,082,190**	**$85,511,718**	**$17,317,155**	**$36,186,361**

Table 5 - continued

Expenditures for Conduct of R&D in Areas of Special Interest, FY 2001 Texas Public Universities			
	Private		Total
	Profit	Non-Profit	
Aerospace Technology	$476,590	$863,001	$29,174,540
Biotechnology	$4,357,125	$5,471,287	$78,431,591
Energy	$1,875,980	$4,711,757	$40,496,424
Environmental Science & Engineering	$1,649,191	$6,557,343	$76,821,069
Food, Fiber, Agricultural Products	$5,434,720	$8,136,909	$72,752,560
Manufacturing Technology	$1,118,108	$863,084	$8,924,900
Materials Science	$3,697,993	$4,039,860	$35,362,356
Microelectronics & Computer Technology	$3,349,317	$6,084,272	$53,133,126
Water Resources	$719,363	$2,121,180	$12,527,938
Totals	**$22,678,387**	**$38,848,693**	**$407,624,504**

Table 6

Expenditures for Conduct of R&D in Areas of Special Interest, FY 2001 Texas Public Health-Related Institutions				
	Federal	State		Institution
		Appropriated	Contracts and Grants	
Aging	$21,217,418	$1,695,421	$196,868	$199,942
Cancer Research	$129,056,250	$63,500,669	$3,523,716	$14,984,456
Cardiovascular Research	$43,186,151	$4,111,516	$454,164	$957,537
Child Health and Human Development	$20,646,052	$328,008	$1,284,846	$3,635,845
Mental Health	$15,418,746	$1,259,414	$272,888	$339,107
Substance Abuse	$21,941,954	$474,743	$416,227	$342,497
Totals	**$251,466,571**	**$71,369,771**	**$6,148,709**	**$20,459,384**

Table 6 - continued

Expenditures for Conduct of R&D in Areas of Special Interest, FY 2001 Texas Public Health-Related Institutions			
	Private		Total
	Profit	Non-Profit	
Aging	$820,792	$2,372,422	$26,502,863
Cancer Research	$29,882,115	$28,870,127	$269,817,333
Cardiovascular Research	$2,891,207	$20,017,521	$71,618,096
Child Health and Human Development	$1,099,869	$4,778,848	$31,773,468
Mental Health	$2,417,121	$2,958,259	$22,665,535
Substance Abuse	$15,192	$251,245	$23,441,858
Totals	**$37,126,296**	**$59,248,422**	**$445,819,153**

INSTITUTIONAL DATA – UNIVERSITIES

This section of the report contains detailed information on research expenditures reported by individual institutions. Statements related to data quality and applicability found on page 1 of this report also apply to the data shown in this section of the report.

Figure 6

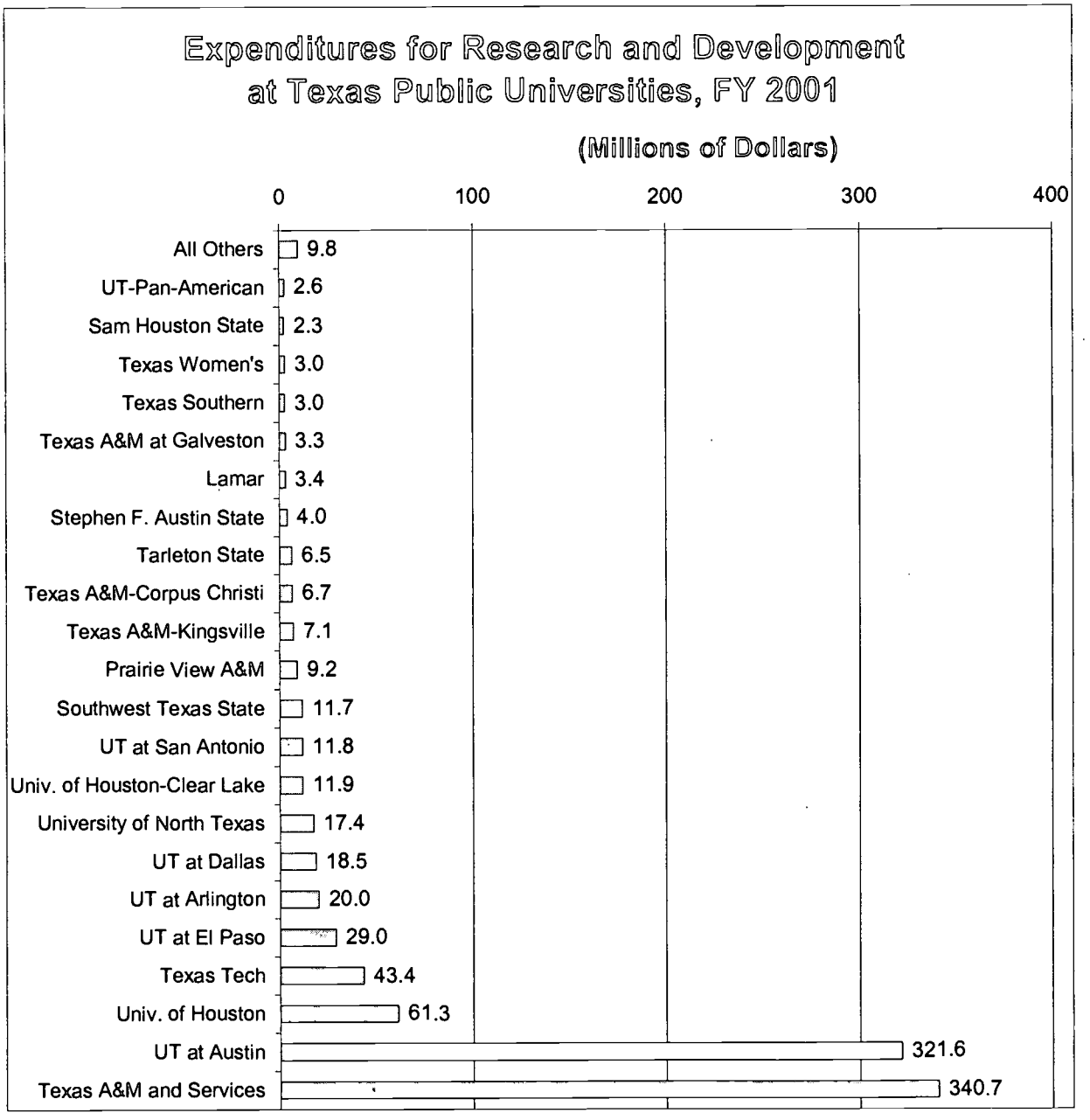


Table 7

Total Expenditures for Research and Other Research-Related Sponsored Programs by Source of Funds, FY 2001

Institution	Federal		State			
			Appropriated		Contracts and Grants	
	R&D	Other	R&D	Other	R&D	Other
Midwestern State	$25,500	$0	$22,830	$0	$0	$0
Stephen F. Austin State	$959,198	$0	$0	$0	$362,185	$0
Texas A&M University System						
Prairie View A&M	$7,247,020	$307,203	$1,558,800	$342,236	$213,885	$39,960
Tarleton State	$4,321,656	$0	$1,879,318	$0	$70,258	$0
Texas A&M and Services	$152,196,825	$225,162	$73,744,910	$1,174,325	$30,660,588	$127,849
Texas A&M-Commerce	$114,497	$0	$64,572	$0	$0	$0
Texas A&M-Corpus Christi	$2,805,448	$0	$1,085,788	$0	$2,105,779	$0
Texas A&M at Galveston	$1,567,592	$0	$455,196	$278,152	$575,327	$0
Texas A&M International	$376,032	$0	$21,582	$0	$25,254	$0
Texas A&M-Kingsville	$1,818,310	$0	$2,395,412	$0	$522,703	$0
Texas A&M-Texarkana	$0	$0	$0	$2,564	$0	$0
West Texas A&M	$2,900,437	$0	$1,581,672	$979,031	$41,824	$0
Texas Southern	$2,051,797	$0	$0	$0	$699,682	$0
Texas State University System						
Angelo State	$111,424	$0	$420,160	$0	$45,658	$0
Lamar	$2,216,829	$117,613	$689,661	$190,855	$203,294	$0
Sam Houston State	$1,802,777	$7,618,727	$33,473	$0	$117,122	$8,958
Southwest Texas State	$4,961,466	$0	$1,351,222	$0	$3,082,525	$0
Sul Ross State	$95,043	$0	$385,130	$0	$199,785	$0
Sul Ross - Rio Grande	$0	$0	$6,277	$0	$0	$0
Texas Tech	$17,394,677	$0	$11,057,800	$0	$4,995,520	$0
Texas Woman's	$1,185,256	$0	$1,176,011	$624,460	$381,516	$0
University of Texas System						
UT at Arlington	$9,224,210	$0	$4,805,543	$0	$930,231	$0
UT at Austin	$202,440,085	$0	$22,751,342	$0	$24,557,890	$0
UT at Brownsville	$602,856	$101,891	$0	$0	$32,509	$0
UT at Dallas	$8,781,295	$0	$3,816,884	$0	$293,648	$0
UT at El Paso	$22,872,682	$0	$2,399,226	$0	$878,681	$0
UT-Pan American	$1,324,426	$0	$950,548	$0	$42,138	$0
UT of the Permian Basin	$147,629	$0	$302,171	$0	$136,913	$0
UT at San Antonio	$8,032,790	$0	$1,497,824	$480,050	$1,082,919	$0
UT at Tyler	$66,827	$0	$0	$0	$208,786	$0
University of Houston System						
Univ. of Houston	$24,227,166	$0	$16,944,404	$0	$5,449,117	$0
Univ. of Houston-Clear Lake	$10,843,892	$0	$395,336	$0	$154,671	$0
Univ. of Houston-Downtown	$649,135	$0	$311,783	$0	$0	$0
Univ. of Houston-Victoria	$0	$0	$0	$0	$0	$0
University of North Texas	$8,284,082	$0	$2,121,838	$0	$2,539,085	$0
Totals	**$501,648,859**	**$8,370,596**	**$154,226,713**	**$4,071,673**	**$80,609,493**	**$176,767**

Shading indicates the five highest in each category.

(table continued on next page)

Table 7 - continued

Total Expenditures for Research and Other Research-Related Sponsored Programs by Source of Funds, FY 2001

Institution	Institution		Private, Profit		Private, Non-Profit	
	R&D	Other	R&D	Other	R&D	Other
Midwestern State	$0	$0	$0	$0	$44,755	$0
Stephen F. Austin State	$624,248	$0	$0	$0	$2,017,250	$0
Texas A&M University System						
Prairie View A&M	$54,324	$81,908	$33,193	$0	$94,085	$0
Tarleton State	$44,786	$0	$166,309	$0	$13,629	$0
Texas A&M and Services	$40,077,832	$776,665	$21,863,822	$57,230	$22,116,637	$176,741
Texas A&M-Commerce	$17,385	$0	$0	$0	$140,349	$0
Texas A&M-Corpus Christi	$101,897	$0	$495,936	$0	$116,082	$0
Texas A&M at Galveston	$209,918	$9,021	$66,556	$0	$377,493	$3,521
Texas A&M International	$61,548	$0	$0	$0	$23,390	$0
Texas A&M-Kingsville	$846	$0	$1,873,457	$0	$533,987	$0
Texas A&M-Texarkana	$0	$0	$0	$0	$0	$0
West Texas A&M	$0	$0	$45	$0	$220,779	$0
Texas Southern	$12,128	$0	$30,616	$0	$254,298	$0
Texas State University System						
Angelo State	$0	$0	$48,533	$0	$17,685	$0
Lamar	$5,366	$105,039	$187,837	$0	$138,478	$94,012
Sam Houston State	$0	$0	$19,858	$26,713	$308,205	$250,432
Southwest Texas State	$363,542	$0	$32,723	$0	$1,861,035	$0
Sul Ross State	$0	$0	$0	$0	$93,063	$0
Sul Ross - Rio Grande	$0	$0	$0	$0	$0	$0
Texas Tech	$1,839,961	$141,785	$3,830,766	$0	$4,254,713	$0
Texas Woman's	$0	$0	$69,362	$0	$211,294	$0
University of Texas System						
UT at Arlington	$167,784	$0	$767,744	$0	$4,070,522	$0
UT at Austin	$24,621,435	$0	$26,753,583	$0	$20,456,401	$0
UT at Brownsville	$0	$122,958	$0	$0	$0	$9,648
UT at Dallas	$502,971	$1,343,478	$2,392,477	$0	$2,744,307	$0
UT at El Paso	$1,528,308	$569,854	$212,682	$0	$1,112,029	$0
UT-Pan American	$121,850	$0	$31,517	$0	$131,119	$0
UT of the Permian Basin	$114,309	$0	$0	$0	$36,831	$0
UT at San Antonio	$303,049	$3,799	$27,664	$0	$807,077	$0
UT at Tyler	$11,274	$5,093	$0	$0	$55,319	$0
University of Houston System						
Univ. of Houston	$4,073,666	$0	$3,550,879	$0	$7,087,021	$0
Univ. of Houston-Clear Lake	$377,972	$0	$112,060	$0	$44,290	$0
Univ. of Houston-Downtown	$47,856	$0	$2,312	$0	$5,266	$0
Univ. of Houston-Victoria	$0	$0	$0	$0	$0	$0
University of North Texas	$1,874,067	$0	$776,679	$0	$1,845,930	$0
Totals	**$77,158,322**	**$3,159,600**	**$63,346,610**	**$83,943**	**$71,233,319**	**$534,354**

Shading indicates the five highest in each category.

(table continued on next page)

Table 7 - continued

Total Expenditures for Research and Other Research-Related Sponsored Programs by Source of Funds, FY 2001

Institution	Total		
	R&D	Other	R&D and Other
Midwestern State	$93,085	$0	$93,085
Stephen F. Austin State	$3,962,881	$0	$3,962,881
Texas A&M University System			
Prairie View A&M	$9,201,307	$771,307	$9,972,614
Tarleton State	$6,495,956	$0	$6,495,956
Texas A&M and Services	$340,660,614	$2,537,972	$343,198,586
Texas A&M-Commerce	$336,803	$0	$336,803
Texas A&M-Corpus Christi	$6,710,930	$0	$6,710,930
Texas A&M at Galveston	$3,252,082	$290,694	$3,542,776
Texas A&M International	$507,806	$0	$507,806
Texas A&M-Kingsville	$7,144,715	$0	$7,144,715
Texas A&M-Texarkana	$0	$2,564	$2,564
West Texas A&M	$4,744,757	$979,031	$5,723,788
Texas Southern	$3,048,521	$0	$3,048,521
Texas State University System			
Angelo State	$643,460	$0	$643,460
Lamar	$3,441,465	$507,519	$3,948,984
Sam Houston State	$2,281,435	$7,904,830	$10,186,265
Southwest Texas State	$11,652,513	$0	$11,652,513
Sul Ross State	$773,021	$0	$773,021
Sul Ross - Rio Grande	$6,277	$0	$6,277
Texas Tech	$43,373,437	$141,785	$43,515,222
Texas Woman's	$3,023,439	$624,460	$3,647,899
University of Texas System			
UT at Arlington	$19,966,034	$0	$19,966,034
UT at Austin	$321,580,736	$0	$321,580,736
UT at Brownsville	$635,365	$234,497	$869,862
UT at Dallas	$18,531,582	$1,343,478	$19,875,060
UT at El Paso	$29,003,608	$569,854	$29,573,462
UT-Pan American	$2,601,598	$0	$2,601,598
UT of the Permian Basin	$737,853	$0	$737,853
UT at San Antonio	$11,751,323	$483,849	$12,235,172
UT at Tyler	$342,206	$5,093	$347,299
University of Houston System			
Univ. of Houston	$61,332,253	$0	$61,332,253
Univ. of Houston-Clear Lake	$11,928,221	$0	$11,928,221
Univ. of Houston-Downtown	$1,016,352	$0	$1,016,352
Univ. of Houston-Victoria	$0	$0	$0
University of North Texas	$17,441,681	$0	$17,441,681
Totals	**$948,223,316**	**$16,396,933**	**$964,620,249**

Shading indicates the five highest in each category.

Table 8

Federal R&D Expenditures/FTE Faculty Ratio, FY 2001 Texas Public Universities			
Institution	Federal R&D Expenditures	FTE Faculty*	Federal R&D Expenditures/FTE
Midwestern State	$25,500	145.74	$174.97
Stephen F. Austin State	$959,198	326.18	$2,940.70
Texas A&M University System			
Prairie View A&M	$7,247,020	148.92	$48,663.85
Tarleton State	$4,321,656	180.26	$23,974.57
Texas A&M and Services**	$152,196,825	1,483.36	$102,602.76
Texas A&M-Commerce	$114,497	169.59	$675.14
Texas A&M-Corpus Christi	$2,805,448	161.33	$17,389.50
Texas A&M at Galveston	$1,567,592	28.18	$55,627.82
Texas A&M International	$376,032	105.75	$3,555.86
Texas A&M-Kingsville	$1,818,310	213.52	$8,515.88
Texas A&M-Texarkana	$0	30.15	$0.00
West Texas A&M	$2,900,437	147.72	$19,634.69
Texas Southern	$2,051,797	202.51	$10,131.83
Texas State University System			
Angelo State	$111,424	151.52	$735.37
Lamar	$2,216,829	227.70	$9,735.74
Sam Houston State	$1,802,777	296.17	$6,086.97
Southwest Texas State	$4,961,466	501.63	$9,890.69
Sul Ross State	$95,043	68.92	$1,379.03
Sul Ross - Rio Grande	$0	19.00	$0.00
Texas Tech	$17,394,677	772.69	$22,511.84
Texas Woman's	$1,185,256	272.19	$4,354.52
University of Texas System			
UT at Arlington	$9,224,210	462.73	$19,934.32
UT at Austin	$202,440,085	1,505.83	$134,437.54
UT at Brownsville	$602,856	107.00	$5,634.17
UT at Dallas	$8,781,295	250.35	$35,076.07
UT at El Paso	$22,872,682	378.26	$60,468.15
UT-Pan American	$1,324,426	282.46	$4,688.90
UT of the Permian Basin	$147,629	67.00	$2,203.42
UT at San Antonio	$8,032,790	281.14	$28,572.21
UT at Tyler	$66,827	125.50	$532.49
University of Houston System			
Univ. of Houston	$24,227,166	773.46	$31,323.10
Univ. of Houston-Clear Lake	$10,843,892	156.58	$69,254.64
Univ. of Houston-Downtown	$649,135	163.74	$3,964.43
Univ. of Houston-Victoria	$0	37.25	$0.00
University of North Texas	$8,284,082	638.62	$12,971.85
Totals	**$501,648,859**	**10,679.75**	**$46,971.97**

* FTE Faculty indicates number of full-time equivalents for tenured and tenure-track faculty for fall of 2000.

** FTE faculty for Texas A&M is based on their Legislative Appropriations Report for FY 2000 and includes 186 FTEs from Texas Agricultural Experiment Station and 17.2 from Texas Engineering Experiment Station.

Table 9

Expenditures for Conduct of R&D by Field, FY 2001
Texas Public Universities

Institution	Agricultural Sciences	Biological and Other Life Sciences	Computer Science	Engineering	Environmental Sciences	Mathematical Sciences
Midwestern State	$0	$6,809	$25,500	$0	$0	$0
Stephen F. Austin State	$2,489,428	$476,896	$319,844	$0	$0	$123,624
Texas A&M University System						
Prairie View A&M	$4,342,017	$0	$514,355	$2,828,303	$956	$194,033
Tarleton State	$2,473,220	$102,255	$0	$4,173	$3,609,508	$10,695
Texas A&M and Services	$45,184,124	$63,134,795	$6,340,084	$95,585,832	$60,763,404	$5,082,115
Texas A&M-Commerce	$173,072	$12,885	$0	$2,049	$0	$873
Texas A&M-Corpus Christi	$48,730	$1,138,718	$1,793	$695,239	$1,689,326	$200
Texas A&M at Galveston	$0	$196,541	$0	$90,659	$2,804,332	$0
Texas A&M International	$0	$1,326	$0	$64,011	$169,908	$0
Texas A&M-Kingsville	$4,358,213	$1,349,064	$0	$571,550	$408,560	$0
Texas A&M-Texarkana	$0	$0	$0	$0	$0	$0
West Texas A&M	$1,282,451	$81,921	$6	$2,911,369	$120,280	$5,341
Texas Southern	$0	$1,935,616	$27,884	$8,893	$23,187	$0
Texas State University System						
Angelo State	$367,344	$150,393	$0	$0	$0	$8,930
Lamar	$0	$31,188	$1,678	$671,166	$2,111,160	$6,755
Sam Houston State	$10,717	$233,223	$212,757	$0	$328,040	$140,077
Southwest Texas State	$33,194	$1,731,963	$31,604	$12,475	$911,874	$509,668
Sul Ross State	$200,997	$181,507	$0	$0	$0	$0
Sul Ross - Rio Grande	$0	$0	$0	$0	$0	$0
Texas Tech	$11,280,835	$3,068,891	$867,794	$11,490,544	$8,619,126	$649,510
Texas Woman's	$0	$1,321,867	$0	$0	$0	$6,654
University of Texas System						
UT at Arlington	$0	$797,111	$1,638,113	$8,445,751	$431,850	$279,324
UT at Austin	$104,206	$28,616,163	$17,005,497	$111,562,088	$30,704,963	$16,291,548
UT at Brownsville	$32,509	$129,188	$0	$0	$34,751	$0
UT at Dallas	$0	$3,072,178	$1,781,533	$3,074,136	$1,066,354	$124,242
UT at El Paso	$0	$2,271,189	$1,146,142	$3,438,346	$5,923,427	$273,311
UT-Pan American	$51,725	$212,730	$6,438	$769,136	$51,484	$4,235
UT of the Permian Basin	$0	$0	$92,022	$7,620	$17,321	$0
UT at San Antonio	$0	$6,194,923	$590,200	$351,969	$18,569	$96,627
UT at Tyler	$0	$72,889	$0	$73,672	$0	$6,179
University of Houston System						
Univ. of Houston	$0	$5,667,334	$3,170,172	$9,388,533	$1,413,835	$660,535
Univ. of Houston-Clear Lake	$0	$287,770	$411,523	$10,214,493	$222,514	$115,183
Univ. of Houston-Downtown	$0	$0	$556,369	$0	$15,443	$19,407
Univ. of Houston-Victoria	$0	$0	$0	$0	$0	$0
University of North Texas	$0	$2,401,822	$260,757	$73,747	$1,454,335	$451,955
Totals	**$72,432,782**	**$124,879,155**	**$35,002,065**	**$262,335,754**	**$122,914,507**	**$25,061,022**

Shading indicates the five highest in each category.

(table continued on next page)

Table 9 - continued

Expenditures for Conduct of R&D by Field, FY 2001
Texas Public Universities

Institution	Medical Sciences	Physical Sciences	Psychology	Social Sciences	Other Sciences
Midwestern State	$0	$41,768	$0	$0	$0
Stephen F. Austin State	$0	$64,107	$0	$109,096	$0
Texas A&M University System					
Prairie View A&M	$407,710	$614,655	$0	$114,069	$0
Tarleton State	$0	$0	$0	$11,863	$0
Texas A&M and Services	$20,158,034	$18,056,969	$2,614,631	$13,640,369	$1,591,568
Texas A&M-Commerce	$0	$6,655	$3,800	$1,290	$62,279
Texas A&M-Corpus Christi	$221,391	$13,066	$0	$120,801	$7,393
Texas A&M at Galveston	$0	$160,012	$0	$0	$0
Texas A&M International	$0	$0	$0	$0	$2,052
Texas A&M-Kingsville	$0	$79,672	$0	$5,106	$146,704
Texas A&M-Texarkana	$0	$0	$0	$0	$0
West Texas A&M	$17,813	$117,962	$0	$4,359	$3,766
Texas Southern	$0	$305,724	$0	$0	$165,930
Texas State University System					
Angelo State	$0	$48,519	$16,071	$5,066	$0
Lamar	$0	$181,859	$4,494	$6,483	$0
Sam Houston State	$0	$93,660	$0	$53,902	$0
Southwest Texas State	$897,321	$3,808,188	$11,503	$934,317	$0
Sul Ross State	$0	$0	$0	$390,517	$0
Sul Ross - Rio Grande	$0	$0	$0	$6,277	$0
Texas Tech	$0	$5,089,242	$103,670	$1,773,715	$0
Texas Woman's	$1,383,782	$71,282	$4,529	$28,797	$102,588
University of Texas System					
UT at Arlington	$448,789	$3,270,827	$156,005	$1,800,623	$0
UT at Austin	$12,028,185	$53,639,227	$4,336,394	$15,908,054	$2,685,732
UT at Brownsville	$36,369	$0	$0	$7,958	$0
UT at Dallas	$1,079,457	$4,447,607	$1,087,204	$1,942,520	$0
UT at El Paso	$904,992	$1,010,130	$812,542	$331,038	$4,496,260
UT-Pan American	$913,827	$155,146	$17,854	$95,966	$0
UT of the Permian Basin	$2,611	$24,738	$0	$0	$21,390
UT at San Antonio	$0	$284,570	$80,884	$1,647,586	$0
UT at Tyler	$53,799	$0	$24,914	$11,935	$11,529
University of Houston System					
Univ. of Houston	$4,175,694	$18,136,843	$3,185,453	$948,272	$1,105,994
Univ. of Houston-Clear Lake	$0	$79,021	$51,966	$2,357	$88,538
Univ. of Houston-Downtown	$0	$18,285	$0	$0	$0
Univ. of Houston-Victoria	$0	$0	$0	$0	$0
University of North Texas	$62,532	$1,699,545	$884,844	$3,192,880	$0
Totals	**$42,792,306**	**$111,519,279**	**$13,396,758**	**$43,095,216**	**$10,491,723**

Shading indicates the five highest in each category.

(table continued on next page)

Table 9 - continued

Expenditures for Conduct of R&D by Field, FY 2001
Texas Public Universities

Institution	Arts and Humanities	Business Administration	Education	Law and Public Administration	Other Non-Sciences	Total
Midwestern State	$10,848	$3,480	$4,680	$0	$0	$93,085
Stephen F. Austin State	$41,785	$11,141	$11,928	$315,032	$0	$3,962,881
Texas A&M University System						
Prairie View A&M	$0	$13,926	$171,283	$0	$0	$9,201,307
Tarleton State	$8,963	$168	$269,682	$0	$5,429	$6,495,956
Texas A&M and Services	$639,854	$2,527,699	$4,591,969	$708,874	$40,293	$340,660,614
Texas A&M-Commerce	$15,329	$6,286	$14,576	$0	$37,709	$336,803
Texas A&M-Corpus Christi	$23,181	$0	$1,139,343	$0	$1,611,749	$6,710,930
Texas A&M at Galveston	$0	$0	$0	$538	$0	$3,252,082
Texas A&M International	$14,512	$65,837	$182,251	$0	$7,909	$507,806
Texas A&M-Kingsville	$2,766	$0	$16,371	$0	$206,709	$7,144,715
Texas A&M-Texarkana	$0	$0	$0	$0	$0	$0
West Texas A&M	$41,589	$7,410	$150,445	$0	$45	$4,744,757
Texas Southern	$0	$0	$0	$0	$581,287	$3,048,521
Texas State University System						
Angelo State	$37,737	$9,400	$0	$0	$0	$643,460
Lamar	$0	$0	$0	$0	$426,682	$3,441,465
Sam Houston State	$0	$0	$6,442	$1,202,617	$0	$2,281,435
Southwest Texas State	$280,574	$192,456	$2,040,992	$368	$256,016	$11,652,513
Sul Ross State	$0	$0	$0	$0	$0	$773,021
Sul Ross - Rio Grande	$0	$0	$0	$0	$0	$6,277
Texas Tech	$15,154	$138,527	$245,387	$31,042	$0	$43,373,437
Texas Woman's	$19,017	$602	$83,852	$0	$469	$3,023,439
University of Texas System						
UT at Arlington	$30,312	$99,212	$299,843	$281,775	$1,986,499	$19,966,034
UT at Austin	$2,904,465	$2,429,819	$10,097,260	$1,893,372	$11,373,762	$321,580,736
UT at Brownsville	$0	$0	$394,590	$0	$0	$635,365
UT at Dallas	$246,715	$271,668	$337,968	$0	$0	$18,531,582
UT at El Paso	$9,181	$327,161	$7,381,981	$138,887	$539,021	$29,003,608
UT-Pan American	$61,019	$17,262	$242,297	$2,479	$0	$2,601,598
UT of the Permian Basin	$0	$384,546	$52,078	$15,506	$120,021	$737,853
UT at San Antonio	$1,665,229	$506,741	$311,258	$2,767	$0	$11,751,323
UT at Tyler	$28,935	$52,010	$0	$0	$6,344	$342,206
University of Houston System						
Univ. of Houston	$1,217,707	$1,314,924	$4,852,328	$963,605	$5,131,024	$61,332,253
Univ. of Houston-Clear Lake	$9,757	$163,848	$8,061	$0	$273,190	$11,928,221
Univ. of Houston-Downtown	$0	$1,112	$313,557	$0	$92,179	$1,016,352
Univ. of Houston-Victoria	$0	$0	$0	$0	$0	$0
University of North Texas	$424,164	$625,515	$4,761,481	$1,148,104	$0	$17,441,681
Totals	**$7,748,793**	**$9,170,750**	**$37,981,903**	**$6,704,966**	**$22,696,337**	**$948,223,316**

Shading indicates the five highest in each category.

Table 10

Expenditures for Conduct of R&D by Area of Special Interest, FY 2001
Texas Public Universities

Institution	Aerospace Technology	Biotechnology	Energy	Environmental Sciences	Food, Fiber, Agricultural Products
Midwestern State	$0	$0	$0	$0	$0
Stephen F. Austin State	$122,068	$168,485	$0	$3,043,160	$2,574,184
Texas A&M University System					
Prairie View A&M	$225,550	$0	$79,623	$7,871	$258,228
Tarleton State	$0	$0	$3,395	$3,148,155	$0
Texas A&M and Services	$1,988,652	$52,965,523	$4,957,213	$8,210,519	$49,867,413
Texas A&M-Commerce	$0	$0	$0	$0	$45,208
Texas A&M-Corpus Christi	$0	$3,427	$0	$1,307,084	$91,238
Texas A&M at Galveston	$0	$0	$0	$358,557	$0
Texas A&M International	$0	$0	$0	$0	$0
Texas A&M-Kingsville	$195,361	$1,319,711	$38,768	$730,172	$4,218,488
Texas A&M-Texarkana	$0	$0	$0	$0	$0
West Texas A&M	$0	$0	$239,593	$306,302	$1,034,454
Texas Southern	$0	$0	$314,617	$23,187	$0
Texas State University System					
Angelo State	$0	$0	$0	$0	$367,944
Lamar	$15,042	$0	$17,892	$2,549,300	$0
Sam Houston State	$0	$0	$0	$251,616	$10,717
Southwest Texas State	$36,581	$0	$0	$0	$156,063
Sul Ross State	$0	$0	$0	$38,514	$0
Sul Ross - Rio Grande	$0	$0	$0	$0	$0
Texas Tech	$2,741,141	$4,655,829	$4,759,863	$14,076,761	$12,855,702
Texas Woman's	$0	$0	$0	$0	$309,858
University of Texas System					
UT at Arlington	$835,179	$0	$954,892	$367,529	$0
UT at Austin	$8,966,899	$16,523,111	$24,743,420	$32,869,839	$446,825
UT at Brownsville	$0	$0	$0	$0	$0
UT at Dallas	$1,297,639	$603,514	$424,275	$152,757	$60,153
UT at El Paso	$550,688	$95,174	$209,875	$5,505,447	$0
UT-Pan American	$0	$70,849	$0	$47,458	$31,661
UT of the Permian Basin	$0	$0	$8,824	$12,298	$24,368
UT at San Antonio	$47,988	$0	$0	$0	$0
UT at Tyler	$0	$0	$0	$0	$0
University of Houston System					
Univ. of Houston	$1,311,319	$1,386,498	$3,717,364	$2,707,066	$64,033
Univ. of Houston-Clear Lake	$10,566,037	$0	$0	$222,514	$0
Univ. of Houston-Downtown	$244,458	$0	$0	$15,443	$152,843
Univ. of Houston-Victoria	$0	$0	$0	$0	$0
University of North Texas	$29,938	$639,470	$26,810	$869,520	$183,180
Totals	**$29,174,540**	**$78,431,591**	**$40,496,424**	**$76,821,069**	**$72,752,560**

Shading indicates the five highest in each category.

(table continued on next page)

Table 10 - continued

Expenditures for Conduct of R&D by Area of Special Interest, FY 2001
Texas Public Universities

Institution	Manufacturing Technology	Materials Science	Microelectronics and Computer Technology	Water Resources	Total
Midwestern State	$0	$0	$0	$0	$0
Stephen F. Austin State	$17,929	$0	$1,532,442	$1,999,331	$9,457,599
Texas A&M University System					
Prairie View A&M	$0	$125,485	$30,498	$0	$727,255
Tarleton State	$0	$0	$0	$0	$3,151,550
Texas A&M and Services	$2,460,956	$3,384,214	$8,817,640	$4,846,704	$137,498,834
Texas A&M-Commerce	$0	$6,655	$0	$53,576	$105,439
Texas A&M-Corpus Christi	$0	$23,658	$0	$95,025	$1,520,432
Texas A&M at Galveston	$0	$0	$0	$0	$358,557
Texas A&M International	$0	$0	$0	$0	$0
Texas A&M-Kingsville	$26,000	$118,715	$5,000	$116,737	$6,768,952
Texas A&M-Texarkana	$0	$0	$0	$0	$0
West Texas A&M	$0	$87,645	$0	$25,409	$1,693,403
Texas Southern	$0	$0	$27,884	$0	$365,688
Texas State University System					
Angelo State	$0	$36,614	$0	$0	$404,558
Lamar	$45,737	$72,356	$136,930	$18,030	$2,855,287
Sam Houston State	$16,320	$0	$0	$76,424	$355,077
Southwest Texas State	$0	$391,925	$0	$57,686	$642,255
Sul Ross State	$0	$0	$0	$0	$38,514
Sul Ross - Rio Grande	$0	$0	$0	$0	$0
Texas Tech	$3,054,614	$6,137,029	$2,740,616	$2,561,706	$53,583,261
Texas Woman's	$0	$0	$0	$0	$309,858
University of Texas System					
UT at Arlington	$302,996	$77,907	$1,877,687	$178,187	$4,594,377
UT at Austin	$830,116	$18,176,406	$28,175,118	$1,802,593	$132,534,327
UT at Brownsville	$0	$0	$0	$32,509	$32,509
UT at Dallas	$0	$95,896	$1,058,622	$0	$3,692,856
UT at El Paso	$278,161	$1,304,695	$1,070,901	$151,232	$9,166,173
UT-Pan American	$535,187	$0	$0	$4,025	$689,180
UT of the Permian Basin	$0	$0	$92,022	$0	$137,512
UT at San Antonio	$0	$0	$590,200	$18,569	$656,757
UT at Tyler	$0	$0	$0	$0	$0
University of Houston System					
Univ. of Houston	$652,848	$3,978,280	$5,767,704	$56,007	$19,641,119
Univ. of Houston-Clear Lake	$0	$0	$410,983	$0	$11,199,534
Univ. of Houston-Downtown	$244,458	$0	$210,887	$0	$868,089
Univ. of Houston-Victoria	$0	$0	$0	$0	$0
University of North Texas	$459,578	$1,344,876	$587,992	$434,188	$4,575,552
Totals	**$8,924,900**	**$35,362,356**	**$53,133,126**	**$12,527,938**	**$407,624,504**

Shading indicates the five highest in each category.

INSTITUTIONAL DATA – HEALTH-RELATED INSTITUTIONS

This section of the report contains detailed information on research expenditures reported by individual health-related institutions. Statements related to data quality and applicability found on page 1 of this report also apply to the data shown in this section of the report.

Figure 7

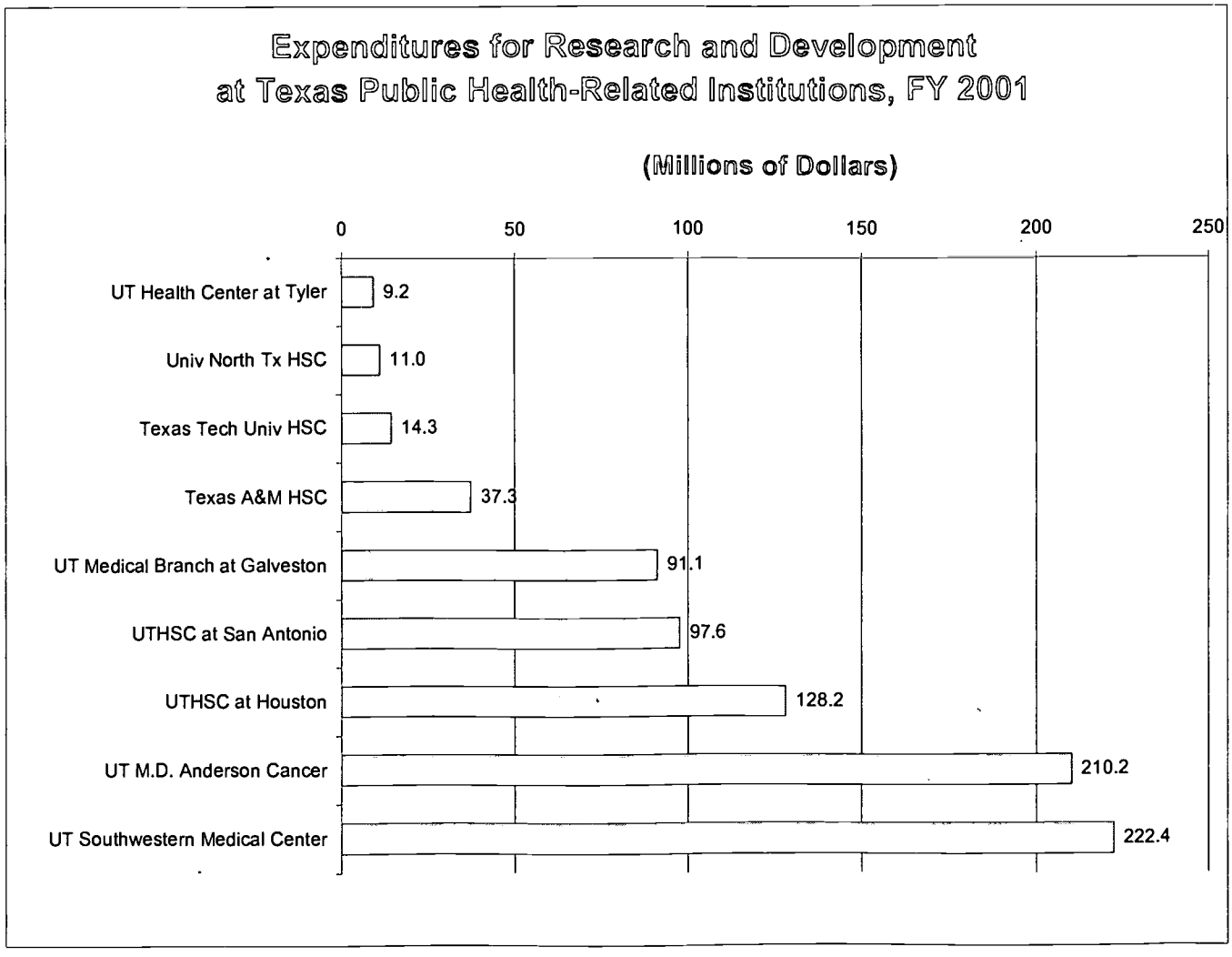


Table 11

Total Expenditures for Sponsored Programs by Source of Funds, FY 2001						
Institution	Federal		State			
			Appropriated		Contracts and Grants	
	R&D	Other	R&D	Other	R&D	Other
Texas A&M HSC	$18,384,358	$0	$6,772,439	$0	$1,072,405	$0
Texas Tech Univ HSC	$6,457,506	$0	$2,408,881	$0	$236,419	$0
Univ North Tx HSC	$6,562,238	$20,233	$0	$0	$179,633	$0
UT M.D. Anderson Cancer	$91,543,036	$0	$57,857,088	$0	$996,410	$0
UTMB at Galveston	$63,274,494	$1,448,039	$7,646,349	$4,514,703	$3,129,089	$0
UTHSC at Houston	$91,267,003	$0	$6,737,133	$0	$4,049,960	$0
UT Health Center at Tyler	$3,063,099	$0	$888,084	$0	$0	$0
UTHSC at San Antonio	$66,852,477	$0	$5,345,613	$5,107,688	$1,095,685	$0
UT Southwestern Medical Center	$131,820,109	$0	$6,485,736	$0	$3,030,534	$0
Totals	**$479,224,320**	**$1,468,272**	**$94,141,323**	**$9,622,391**	**$13,790,135**	**$0**

Shading indicates the five highest in each category.

Table 11 - continued

Total Expenditures for Sponsored Programs by Source of Funds, FY 2001						
Institution	Institution		Private, Profit		Private, Non-Profit	
	R&D	Other	R&D	Other	R&D	Other
Texas A&M HSC	$5,185,836	$0	$1,050,278	$0	$4,863,149	$0
Texas Tech Univ HSC	$2,486,690	$0	$898,280	$0	$1,855,411	$5,916
Univ North Tx HSC	$2,401,652	$0	$1,092,131	$21,091	$798,900	$1,891
UT M.D. Anderson Cancer	$11,723,296	$870,347	$26,716,915	$0	$21,399,844	$0
UTMB at Galveston	$380,700	$3,444,648	$6,020,381	$0	$10,637,006	$1,895,415
UTHSC at Houston	$895,920	$0	$10,944,701	$0	$14,266,531	$0
UT Health Center at Tyler	$4,119,146	$0	$373,387	$0	$784,852	$0
UTHSC at San Antonio	$5,655,189	$0	$2,622,721	$0	$16,066,568	$0
UT Southwestern Medical Center	$5,944,233	$5,980,200	$13,313,129	$0	$61,784,494	$0
Totals	**$38,792,662**	**$10,295,195**	**$63,031,923**	**$21,091**	**$132,456,755**	**$1,903,222**

Shading indicates the five highest in each category.

Table 11 - continued

Total Expenditures for Sponsored Programs by Source of Funds, FY 2001			
Institution	Total		
	R&D	Other	Total
Texas A&M HSC	$37,328,465	$0	$37,328,465
Texas Tech Univ HSC	$14,343,187	$5,916	$14,349,103
Univ North Tx HSC	$11,034,554	$43,215	$11,077,769
UT M.D. Anderson Cancer	$210,236,589	$870,347	$211,106,936
UTMB at Galveston	$91,088,019	$11,302,805	$102,390,824
UTHSC at Houston	$128,161,248	$0	$128,161,248
UT Health Center at Tyler	$9,228,568	$0	$9,228,568
UTHSC at San Antonio	$97,638,253	$5,107,688	$102,745,941
UT Southwestern Medical Center	$222,378,235	$5,980,200	$228,358,435
Totals	**$821,437,118**	**$23,310,171**	**$844,747,289**

Shading indicates the five highest in each category.

Table 12

Expenditures for Conduct of R&D by Field, FY 2001
Texas Public Health-Related Institutions

Institution	Agricultural Sciences	Biological and Other Life Sciences	Engineering	Environmental Sciences	Mathematical Sciences
Texas A&M HSC	$0	$0	$0	$0	$0
Texas Tech Univ HSC	$0	$4,604,791	$0	$0	$0
Univ North Tx HSC	$0	$8,793,693	$0	$0	$0
UT M.D. Anderson Cancer	$0	$82,239,711	$0	$0	$7,341,422
UTMB at Galveston	$0	$43,808,509	$1,615,382	$0	$0
UTHSC at Houston	$0	$22,175,676	$0	$0	$0
UT Health Center at Tyler	$679,836	$0	$0	$44,774	$0
UTHSC at San Antonio	$0	$0	$0	$0	$0
UT Southwestern Medical Center	$0	$96,539,191	$0	$0	$0
Totals	**$679,836**	**$258,161,571**	**$1,615,382**	**$44,774**	**$7,341,422**

Shading indicates the five highest in each category.

Table 12 - continued

Expenditures for Conduct of R&D by Field, FY 2001
Texas Public Health-Related Institutions

Institution	Medical Sciences	Physical Sciences	Other Sciences	Arts and Humanities	Total
Texas A&M HSC	$37,328,465	$0	$0	$0	$37,328,465
Texas Tech Univ HSC	$9,738,396	$0	$0	$0	$14,343,187
Univ North Tx HSC	$2,240,861	$0	$0	$0	$11,034,554
UT M.D. Anderson Cancer	$116,246,974	$4,408,482	$0	$0	$210,236,589
UTMB at Galveston	$45,620,781	$0	$0	$43,347	$91,088,019
UTHSC at Houston	$105,985,572	$0	$0	$0	$128,161,248
UT Health Center at Tyler	$8,503,958	$0	$0	$0	$9,228,568
UTHSC at San Antonio	$97,638,253	$0	$0	$0	$97,638,253
UT Southwestern Medical Center	$119,741,184	$0	$6,097,860	$0	$222,378,235
Totals	**$543,044,444**	**$4,408,482**	**$6,097,860**	**$43,347**	**$821,437,118**

Shading indicates the five highest in each category.

Table 13

Expenditures for Research and Development by Area of Special Interest, FY 2001
Texas Public Health-Related Institutions

Institution	Aging	Cancer Research	Cardiovascular Research	Child Health and Human Development
Texas A&M HSC	$673,824	$2,847,971	$5,259,915	$3,346,245
Texas Tech Univ HSC	$1,259,414	$1,465,000	$81,677	$0
Univ North Tx HSC	$801,897	$159,245	$2,055,933	$0
UT M.D. Anderson Cancer	$0	$210,236,589	$0	$0
UTMB at Galveston	$9,956,655	$14,787,045	$5,516,385	$6,029,280
UTHSC at Houston	$3,677,034	$2,844,201	$9,828,697	$13,644,688
UT Health Center at Tyler	$0	$179,987	$0	$0
UTHSC at San Antonio	$5,931,569	$12,667,820	$5,986,200	$3,066,883
UT Southwestern Medical Center	$4,202,470	$24,629,475	$42,889,289	$5,686,372
Totals	**$26,502,863**	**$269,817,333**	**$71,618,096**	**$31,773,468**

Shading indicates the five highest in each category.

Table 13 - continued

Expenditures for Research and Development by Area of Special Interest, FY 2001
Texas Public Health-Related Institutions

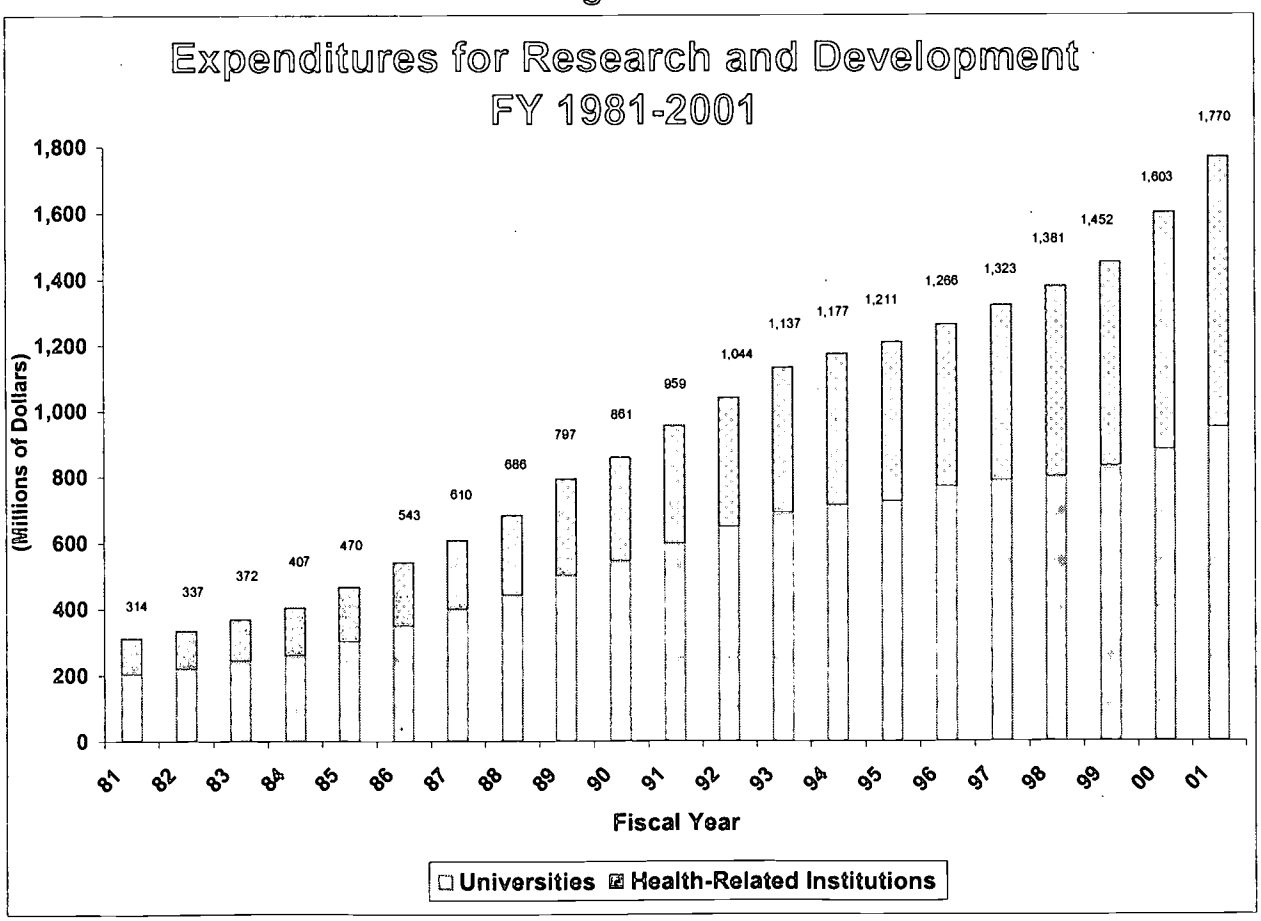
Institution	Mental Health	Substance Abuse	Total
Texas A&M HSC	$429,228	$1,600,892	$14,158,075
Texas Tech Univ HSC	$1,259,414	$517,158	$4,582,663
Univ North Tx HSC	$0	$1,036,153	$4,053,228
UT M.D. Anderson Cancer	$0	$0	$210,236,589
UTMB at Galveston	$5,618,278	$2,231,898	$44,139,541
UTHSC at Houston	$3,074,333	$3,288,016	$36,356,969
UT Health Center at Tyler	$0	$0	$179,987
UTHSC at San Antonio	$2,389,733	$12,083,224	$42,125,429
UT Southwestern Medical Center	$9,894,549	$2,684,517	$89,986,672
Totals	**$22,665,535**	**$23,441,858**	**$445,819,153**

Shading indicates the five highest in each category.

Much of the data in this report will not allow accurate comparisons with data contained in reports prior to 1990. Since then, many individual data items have been more rigorously defined.

Total research expenditures is the statistic allowing the most accurate long-term comparison. However, because a more precise and more conservative definition of research activity was adopted, research expenditures for Fiscal Years 1990 through 2001 are probably understated when compared to expenditures reported in previous years. Figure 8 graphs total research and development expenditures since 1981.

Figure 8



Sixteen institutions reported $30,102,288 in income from research-related intellectual property, representing a 7 percent increase over the $28,184,125 earned in Fiscal Year 2000 and a 77 percent increase since 1998. Table 14 shows the income received at each institution and the number of intellectual properties producing income. In Fiscal Year 2001, 167 new patents or copyrights were issued to Texas public higher education institutions.

Table 14

Intellectual Property Income
Texas Public Universities and Health-Related Institutions

Institution	FY 1998		FY 1999		FY 2000		FY 2001	
	Income	N*	Income	N*	Income	N*	Income	N*
Texas A&M and Services	$4,466,679	131	$5,262,289	152	$6,008,531	129	$6,735,312	194
Sam Houston State	$1,500	1	$1,500	1	$1,500	1	$0	0
Texas Tech University	$77,782	6	$175,000	91	$475,000	41	$268,000	26
UT at Arlington	$97,189	2	$89,254	2	$73,017	2	$92,074	1
UT at Austin	$2,027,908	163	$1,929,390	165	$1,919,356	180	$2,609,609	47
UT at Dallas	$94,007	6	$48,725	4	$39,169	17	$243,035	117
UT at El Paso	$19,854	1	$42,470	19	$21,354	1	$750	11
University of Houston	$80,178	9	$120,831	40	$1,900,000	21	$240,000	32
University of North Texas	$0	0	$0	0	$0	0	$44	1
Subtotals	**$6,865,097**	**319**	**$7,669,459**	**474**	**$10,437,927**	**392**	**$10,188,824**	**430**
Texas A&M HSC**	$0	0	$0	0	$39,162	2	$38,814	3
Texas Tech Univ HSC	$0	0	$0	0	$30,000	1	$15,000	1
Univ North Tx HSC	$0	0	$381,242	1	$1,200,000	7	$885,000	9
UT M.D. Anderson	$3,416,603	119	$3,169,420	60	$4,001,093	43	$4,491,390	37
UTMB at Galveston	$139,294	22	$406,939	22	$955,744	42	$1,066,639	52
UTHSC at Houston	$341,959	9	$343,050	7	$725,413	16	$857,051	17
UT Health Ctr at Tyler	$0	0	$600	5	$0	0	$0	0
UTHSC at San Antonio	$2,360,481	23	$3,863,467	28	$2,162,647	125	$2,220,191	28
UT Southwestern Med Ctr	$3,904,254	130	$4,862,549	109	$8,632,139	134	$10,339,379	141
Subtotals	**$10,162,591**	**303**	**$13,027,267**	**232**	**$17,746,198**	**370**	**$19,913,464**	**288**
Totals	**$17,027,668**	**622**	**$20,696,725**	**706**	**$28,184,125**	**762**	**$30,102,288**	**718**

*N=number of intellectual properties (patents, copyrights, and licensing agreements) producing income.
**TAMU College of Medicine combined with TAMUS Baylor College of Dentistry to form Texas A&M HSC in FY 2000.

Table 15 on the following page shows total research and development expenditures at Texas public universities over the past four years. Table 16 shows federal research and development expenditures and the ratio of federal-to-state research and development expenditures over the past four years. Tables 17 and 18 show similar data for health-related institutions. One-year and five-year changes in federal expenditures for research and development for the different disciplines are shown in Table 19.

Table 15

Expenditures for Research and Development Texas Public Universities					
Institution	FY 1998	FY 1999	FY 2000	FY 2001	Percent Change*
Midwestern State	$163,939	$106,729	$101,935	$93,085	-43.22%
Stephen F. Austin State	$4,081,908	$4,790,743	$5,174,108	$3,962,881	-2.92%
Texas A&M University System					
Prairie View A&M	$9,952,339	$9,218,584	$8,795,343	$9,201,307	-7.55%
Tarleton State	$3,414,779	$3,464,450	$3,504,054	$6,495,956	90.23%
Texas A&M and Services	$335,200,654	$334,890,628	$331,027,971	$340,660,614	1.63%
Texas A&M-Commerce	$519,102	$490,899	$414,154	$336,803	-35.12%
Texas A&M-Corpus Christi	$991,483	$838,596	$3,517,134	$6,710,930	576.86%
Texas A&M at Galveston	$3,048,955	$3,060,639	$2,948,270	$3,252,082	6.66%
Texas A&M International	$139,748	$418,575	$396,428	$507,806	263.37%
Texas A&M-Kingsville	$7,465,352	$6,618,986	$7,163,871	$7,144,715	-4.30%
Texas A&M-Texarkana	$0	$0	$0	$0	NA
West Texas A&M	$2,630,689	$1,492,382	$1,778,857	$4,744,757	80.36%
Texas Southern	$3,291,677	$2,954,923	$2,595,995	$3,048,521	-7.39%
Texas State University System					
Angelo State	$601,619	$510,809	$524,986	$643,460	6.95%
Lamar	$3,706,891	$3,740,574	$3,204,061	$3,441,465	-7.16%
Sam Houston State	$2,181,736	$4,550,751	$3,156,084	$2,281,435	4.57%
Southwest Texas State	$5,239,186	$5,661,303	$9,127,901	$11,652,513	122.41%
Sul Ross State	$603,936	$620,550	$796,408	$773,021	28.00%
Sul Ross - Rio Grande	$7,500	$9,058	$0	$6,277	-16.31%
Texas Tech	$39,400,079	$40,104,672	$44,110,624	$43,373,437	10.08%
Texas Woman's	$2,423,907	$2,258,921	$3,143,775	$3,023,439	24.73%
University of Texas System					
UT at Arlington	$20,294,157	$13,589,868	$14,552,315	$19,966,034	-1.62%
UT at Austin	$249,812,376	$265,121,990	$295,901,287	$321,580,736	28.73%
UT at Brownsville	$73,874	$56,104	$299,359	$635,365	760.07%
UT at Dallas	$13,589,349	$13,676,687	$15,923,269	$18,531,582	36.37%
UT at El Paso	$14,789,490	$27,754,725	$27,784,046	$29,003,608	96.11%
UT-Pan American	$1,986,602	$2,296,623	$2,175,562	$2,601,598	30.96%
UT of the Permian Basin	$875,818	$752,051	$811,973	$737,853	-15.75%
UT at San Antonio	$7,669,758	$7,914,116	$10,613,082	$11,751,323	53.22%
UT at Tyler	$677,505	$88,010	$210,747	$342,206	-49.49%
University of Houston System					
Univ. of Houston	$48,331,934	$52,200,984	$58,729,892	$61,332,253	26.90%
Univ. of Houston-Clear Lake	$2,065,679	$6,347,244	$7,597,590	$11,928,221	477.45%
Univ. of Houston-Downtown	$1,212,506	$701,508	$588,328	$1,016,352	-16.18%
Univ. of Houston-Victoria	$18,537	$0	$0	$0	-100.00%
University of North Texas	$10,744,671	$12,891,033	$14,601,146	$17,441,681	62.33%
Totals	**$797,207,735**	**$829,193,715**	**$881,270,555**	**$948,223,316**	**18.94%**

* Percent change for 2001, relative to 1998; NA indicates not applicable

Table 16

Federal Expenditures for Research and Development
Texas Public Universities

Institution	FY 1998		FY 1999		FY 2000		FY 2001	
	Federal R&D Dollars	Fed/ State Ratio	Federal R&D Dollars	Fed/ State Ratio	Federal R&D Dollars	Fed/ State Ratio	Federal R&D Dollars	Fed/ State Ratio
Midwestern State	$103,994	7.01	$42,359	4.91	$37,293	1.64	$25,500	1.12
Stephen F. Austin State	$1,125,175	7.65	$775,560	5.00	$521,123	0.93	$959,198	2.65
Texas A&M University System								
Prairie View A&M	$9,609,905	48.74	$8,773,141	37.20	$7,812,509	9.87	$7,247,020	4.09
Tarleton State	$1,374,861	0.77	$1,531,022	0.84	$1,425,780	0.74	$4,321,656	2.22
Texas A&M and Services	$140,487,243	1.56	$145,366,594	1.52	$150,341,703	1.56	$152,196,825	1.46
Texas A&M-Commerce	$133,728	0.95	$118,668	1.07	$175,163	2.23	$114,497	1.77
Texas A&M-Corpus Christi	$498,475	2.78	$383,507	2.24	$922,819	0.42	$2,805,448	0.88
Texas A&M at Galveston	$1,354,356	1.96	$1,384,321	1.77	$1,340,939	1.56	$1,567,592	1.52
Texas A&M International	$44,932	0.86	$101,124	0.35	$232,757	4.42	$376,032	8.03
Texas A&M-Kingsville	$1,873,600	0.51	$1,770,786	0.59	$2,050,146	0.67	$1,818,310	0.62
Texas A&M-Texarkana	$0	NA	$0	NA	$0	NA	$0	NA
West Texas A&M	$118,864	0.05	$99,996	0.08	$147,735	0.10	$2,900,437	1.79
Texas Southern	$2,879,874	14.61	$2,431,236	6.67	$2,002,349	4.71	$2,051,797	2.93
Texas State University System								
Angelo State	$80,922	0.19	$10,583	0.02	$37,445	0.08	$111,424	0.24
Lamar	$2,844,284	3.69	$2,914,687	3.96	$2,329,531	3.25	$2,216,829	2.48
Sam Houston State	$1,537,418	3.23	$3,557,061	5.73	$2,132,294	14.81	$1,802,777	11.97
Southwest Texas State	$1,587,078	0.72	$3,444,132	2.67	$6,460,981	4.54	$4,961,466	1.12
Sul Ross State	$144,983	0.38	$74,277	0.17	$228,234	0.47	$95,043	0.16
Sul Ross - Rio Grande	$0	0.00	$0	0.00	$0	NA	$0	0.00
Texas Tech	$16,153,476	1.13	$17,219,633	1.25	$17,860,045	1.13	$17,394,677	1.08
Texas Woman's	$1,497,582	2.35	$1,306,319	1.63	$1,440,415	1.27	$1,185,256	0.76
University of Texas System								
UT at Arlington	$12,016,400	2.26	$6,289,004	1.34	$5,242,897	0.84	$9,224,210	1.61
UT at Austin	$1,496,569,122	4.09	$159,245,662	4.10	$185,190,446	3.69	$202,440,085	4.28
UT at Brownsville	$0	0.00	$21,857	0.64	$241,980	4.22	$602,856	18.54
UT at Dallas	$7,729,020	3.66	$7,192,600	3.96	$7,049,617	2.25	$8,781,295	2.14
UT at El Paso	$11,009,110	5.90	$23,871,116	7.54	$22,972,030	7.17	$22,872,682	6.98
UT-Pan American	$1,234,879	2.08	$1,077,255	1.11	$1,149,325	1.38	$1,324,426	1.33
UT of the Permian Basin	$321,389	0.82	$155,219	0.39	$233,075	0.54	$147,629	0.34
UT at San Antonio	$5,195,954	2.98	$5,480,519	3.25	$7,421,650	3.31	$8,032,790	3.11
UT at Tyler	$425,552	28.85	$22,519	1.82	$63,307	0.67	$66,827	0.32
University of Houston System								
Univ. of Houston	$23,708,230	1.68	$23,479,128	1.39	$24,887,466	1.31	$24,227,166	1.08
Univ. of Houston-Clear Lake	$1,435,583	21.80	$5,565,256	11.18	$6,647,437	12.17	$10,843,892	19.72
Univ. of Houston-Downtown	$1,048,769	NA	$563,024	4.11	$441,926	3.02	$649,135	2.08
Univ. of Houston-Victoria	$0	0.00	$0	NA	$0	NA	$0	NA
University of North Texas	$4,319,951	3.03	$5,200,725	2.59	$7,301,680	2.98	$8,284,082	1.78
Totals	**$401,552,499**	**2.20**	**$429,468,890**	**2.22**	**$466,342,097**	**2.15**	**$501,648,859**	**2.14**

NA indicates not applicable (no state research and development funds expended).

Table 17

Expenditures for Research and Development
Texas Public Health-Related Institutions

Institution	FY 1998	FY 1999	FY 2000	FY 2001	Percent Change*
TAMU College of Medicine	$5,234,246	$6,957,100	NA	NA	NA
TAMUS Baylor College of Dentistry	$2,358,952	$2,848,344	NA	NA	NA
Texas A&M HSC**	NA	NA	$24,335,023	$37,328,465	NA
Texas Tech Univ HSC	$8,126,026	$8,945,802	$10,868,500	$14,343,187	76.51%
Univ North Tx HSC	$8,741,658	$9,688,816	$10,130,753	$11,034,554	26.23%
UT M.D. Anderson Cancer	$141,260,451	$155,126,397	$182,196,490	$210,236,589	48.83%
UTMB at Galveston	$76,604,190	$83,236,093	$87,146,267	$91,088,019	18.91%
UTHSC at Houston	$102,443,780	$106,703,163	$122,914,171	$128,161,248	25.10%
UT Health Center at Tyler	$7,588,544	$8,256,219	$8,402,408	$9,228,568	21.61%
UTHSC at San Antonio	$78,146,072	$77,247,996	$86,074,434	$97,638,253	24.94%
UT Southwestern Medical Center	$153,711,130	$163,518,455	$189,216,337	$222,378,235	44.67%
Totals	**$584,215,049**	**$622,528,385**	**$721,284,383**	**$821,437,118**	**40.61%**

NA indicates not applicable

* Percent change for 2001, relative to 1998

**TAMU College of Medicine combined with TAMUS Baylor College of Dentistry to form Texas A&M HSC in FY2000.

Table 18

Federal Expenditures for Research and Development
Texas Public Health-Related Institutions

Institution	FY 1998		FY 1999		FY 2000		FY 2001	
	Federal R&D Dollars	Fed/ State Ratio	Federal R&D Dollars	Fed/ State Ratio	Federal R&D Dollars	Fed/ State Ratio	Federal R&D Dollars	Fed/ State Ratio
TAMU College of Medicine	$3,334,453	4.26	$3,385,338	2.50	NA	NA	NA	NA
TAMUS Baylor College of Dentistry	$1,336,823	5.57	$1,480,612	4.54	NA	NA	NA	NA
Texas A&M HSC*	NA	NA	NA	NA	$14,320,534	2.24	$18,384,358	2.34
Texas Tech Univ HSC	$3,079,069	1.13	$3,360,508	1.30	$4,178,058	1.47	$6,457,506	2.44
Univ North Tx HSC	$5,644,989	14.58	$5,370,431	9.15	$5,798,287	4.60	$6,562,238	36.53
UT M.D. Anderson Cancer	$63,073,959	1.31	$69,412,772	1.37	$81,871,561	1.62	$91,543,036	1.56
UTMB at Galveston	$48,588,233	4.22	$55,061,209	5.68	$61,356,467	7.14	$63,274,494	5.87
UTHSC at Houston	$70,895,807	10.93	$72,684,140	10.61	$82,991,431	8.49	$91,267,003	8.46
UT Health Center at Tyler	$1,799,884	0.87	$2,297,638	0.61	$2,807,980	1.36	$3,063,099	3.45
UTHSC at San Antonio	$55,843,751	8.54	$54,128,757	8.06	$58,600,224	10.08	$66,852,477	10.38
UT Southwestern Medical Center	$97,199,674	17.35	$99,994,840	18.23	$109,165,343	9.64	$131,820,109	13.85
Totals	**$350,796,642**	**4.15**	**$367,176,245**	**4.18**	**$421,089,885**	**4.26**	**$479,224,320**	**4.44**

NA indicates not applicable

*TAMU College of Medicine combined with TAMUS Baylor College of Dentistry to form Texas A&M HSC in FY2000.

Table 19

Federal Expenditures for Research and Development by Field Texas Public Universities and Health-Related Institutions					
Field	FY 1996	FY 2000	FY 2001	One-Year Change	Five-Year Change
Agricultural Sciences	$24,038,069	$18,961,362	$22,801,462	20.25%	-5.14%
Biological and Other Life Sciences	$72,602,301	$198,458,882	$216,534,637	9.11%	198.25%
Computer Science	$21,617,057	$22,830,123	$23,355,906	2.30%	8.04%
Engineering	$118,399,087	$126,003,441	$136,704,012	8.49%	15.46%
Environmental Sciences	$76,150,760	$88,462,057	$89,098,895	0.72%	17.00%
Mathematical Sciences	$5,341,552	$16,026,249	$20,341,750	26.93%	280.82%
Medical Sciences	$262,899,285	$289,567,494	$335,902,604	16.00%	27.77%
Physical Sciences	$74,713,237	$69,189,774	$71,679,380	3.60%	-4.06%
Psychology	$6,543,472	$8,174,898	$9,003,214	10.13%	37.59%
Social Sciences	$12,766,149	$14,598,924	$15,466,920	5.95%	21.16%
Other Sciences	$166,458	$5,702,280	$5,614,753	-1.53%	3,273.07%
Arts and Humanities	$1,526,759	$1,161,447	$1,276,581	9.91%	-16.39%
Business Administration	$6,786,388	$1,774,871	$2,223,926	25.30%	-67.23%
Education	$11,893,683	$21,045,789	$25,176,460	19.63%	111.68%
Law and Public Administration	$1,007,692	$2,820,499	$2,327,220	-17.49%	130.95%
Other Non-Science Activities	$1,288,247	$2,653,892	$3,365,459	26.81%	161.24%
Totals	**$697,740,196**	**$887,431,982**	**$980,873,179**	**10.53%**	**40.58%**

NATIONAL COMPARISONS

This section of the report is based on data provided by the National Science Foundation. It is not entirely consistent with data provided in earlier sections of the report because it is based on an earlier year, because reporting requirements are somewhat different, and because the federal reports do not differentiate between state-funded and independent institutions.

The National Science Foundation makes three reports available, and each provides somewhat different information:

- *Federal Obligations for Science and Engineering* shows federal obligations for grants and contracts awarded to higher education science and engineering programs by federal agencies during the fiscal year. Funds obligated in any given year may be expended over a number of years, so obligations will be somewhat different from expenditures. This report includes support for a number of programs that are not necessarily research and development programs, such as science education programs and assistantship support for engineering students. The amount of support is reported by the agencies. This report is being used in *Closing the Gaps* to measure progress toward the research goal.

- *Federal Obligations for Research and Development in Science and Engineering* includes only federal funds obligated during the year to support, directly or indirectly, basic and applied research and development in science and engineering disciplines at higher education institutions. The amount of support is again reported by the agencies.

- *Federally Financed Research and Development Expenditures* summarizes federal funds expenditures by higher education institutions to support research and development in any given year. This report is based on data reported by institutions and summarized by the National Science Foundation.

Some of the highlights of the 1999 survey of federal research and development expenditures include the following:

- The top five states in federal research and development expenditures were:
  California – $2.2 billion
  New York – $1.3 billion
  Maryland – $1.1 billion
  Massachusetts – $1 billion
  Texas – $976 million

- Texas ranked second (behind California) in state- and local government-funded expenditures.

- Texas ranked third in total R&D expenditures.

- For other sources of R&D expenditures, Texas ranked third in institutional (behind California and New York), third in industrial (behind California and North Carolina), and third in all other sources (behind California and New York).

- Texas was among the top five states for all of the different types of sources.
- In Texas, life sciences accounted for 63 percent of the R&D expenditures, followed by engineering (15 percent) and physical sciences (8 percent).

Table 20

Top Five States in Federal R&D Expenditures
Selected Science and Engineering Fields, FY 1999

Rank	Life Sciences	$	Engineering	$	Physical Sciences	$	Environmental Sciences	$
1	California	1.1B	California	350M	California	334M	California	151M
2	New York	864M	Maryland	270M	Massachusetts	164M	Massachusetts	94M
3	Texas	598M	Massachusetts	168M	Maryland	156M	Texas	78M
4	Pennsylvania	558M	Pennsylvania	142M	New York	153M	Colorado	74M
5	Massachusetts	462M	New York	136M	Texas	89M	Maryland	67M

Source: National Science Foundation, WebCASPAR Database System, 02/08/2002

Table 21 shows the ranking of all states in federal R&D obligations and federally financed R&D expenditures for 1999. Texas ranks sixth in federal obligations for science and engineering and for research and development in science and engineering. Texas ranks fifth in research and development expenditures from federal sources. Patterns in R&D support over time for the top six states are shown in Figures 9 and 10. California and New York are the uncontested leaders in federal research support to the states.

Table 21

State Rank in Federal Obligations and Federally Financed R&D
(Dollars in Thousands)

	Federal Obligations for Science and Engineering to Colleges and Universities		Federal Obligations for R&D in Science and Engineering to Colleges and Universities		Federally Financed R&D Expenditures at Colleges and Universities	
State	FY 1999	Rank	FY 1999	Rank	FY 1999	Rank
California	$2,500,871	1	$2,247,783	1	$2,179,077	1
New York	$1,450,921	2	$1,269,773	2	$1,334,210	2
Maryland	$1,120,503	3	$1,004,165	3	$1,058,128	3
Pennsylvania	$1,098,534	4	$990,736	4	$905,775	6
Massachusetts	$1,047,036	5	$937,608	5	$1,018,574	4
Texas	$972,851	6	$834,557	6	$975,753	5
Illinois	$676,939	7	$587,218	7	$626,648	7
North Carolina	$662,013	8	$573,092	8	$538,102	8
Michigan	$562,483	9	$488,770	9	$508,080	9
Colorado	$504,673	10	$413,899	12	$361,598	14
Washington	$498,367	11	$432,507	11	$417,330	11
Ohio	$492,676	12	$436,880	10	$475,054	10

(table continued on next page)

Table 21 - continued

State Rank in Federal Obligations and Federally Financed R&D
(Dollars in Thousands)

	Federal Obligations for Science and Engineering to Colleges and Universities		Federal Obligations for R&D in Science and Engineering to Colleges and Universities		Federally Financed R&D Expenditures at Colleges and Universities	
State	FY 1999	Rank	FY 1999	Rank	FY 1999	Rank
Missouri	$399,909	13	$354,892	13	$321,115	15
Florida	$394,086	14	$332,846	14	$396,395	12
Georgia	$386,797	15	$310,361	15	$380,202	13
Wisconsin	$354,820	16	$310,333	16	$313,140	16
Connecticut	$334,784	17	$303,805	17	$273,787	18
Virginia	$311,110	18	$260,894	18	$303,018	17
Alabama	$297,999	19	$254,544	19	$261,752	19
New Jersey	$272,009	20	$236,553	20	$239,880	20
Minnesota	$267,724	21	$231,338	21	$210,235	25
Tennessee	$258,662	22	$207,549	23	$217,970	23
Indiana	$245,967	23	$208,598	22	$224,035	22
Arizona	$233,332	24	$201,404	24	$239,142	21
Oregon	$227,420	25	$194,776	25	$210,667	24
Iowa	$214,975	26	$181,286	26	$177,847	26
Louisiana	$193,566	27	$149,680	29	$154,341	30
District of Columbia	$184,265	28	$163,324	28	$173,466	28
Utah	$182,410	29	$165,430	27	$177,563	27
South Carolina	$140,886	30	$112,155	30	$111,092	31
New Mexico	$139,445	31	$91,410	34	$155,218	29
Mississippi	$136,787	32	$102,662	31	$85,128	36
Kentucky	$117,801	33	$91,678	33	$92,572	33
Kansas	$109,403	34	$85,444	35	$88,728	34
New Hampshire	$104,233	35	$92,162	32	$77,327	38
Oklahoma	$99,634	36	$67,914	38	$88,507	35
Hawaii	$95,456	37	$78,534	36	$93,418	32
Rhode Island	$80,778	38	$69,106	37	$81,512	37
Nebraska	$79,037	39	$58,787	39	$61,226	39
Arkansas	$72,055	40	$54,085	40	$45,587	41
Montana	$62,880	41	$48,443	41	$43,872	42
Alaska	$54,316	42	$43,031	43	$37,241	43
Vermont	$54,024	43	$45,781	42	$36,773	44
Delaware	$50,166	44	$40,511	45	$36,683	45
Nevada	$47,780	45	$40,708	44	$51,387	40
West Virginia	$46,444	46	$25,080	47	$26,589	47
North Dakota	$43,901	47	$29,335	46	$25,923	48
Idaho	$30,008	48	$20,658	48	$28,116	46
Maine	$26,306	49	$18,411	49	$20,137	49
South Dakota	$19,955	50	$10,095	51	$12,759	51
Wyoming	$15,789	51	$12,606	50	$19,109	50

SOURCE: National Science Foundation, WebCASPAR Database System, 02/08/2002

Figure 9

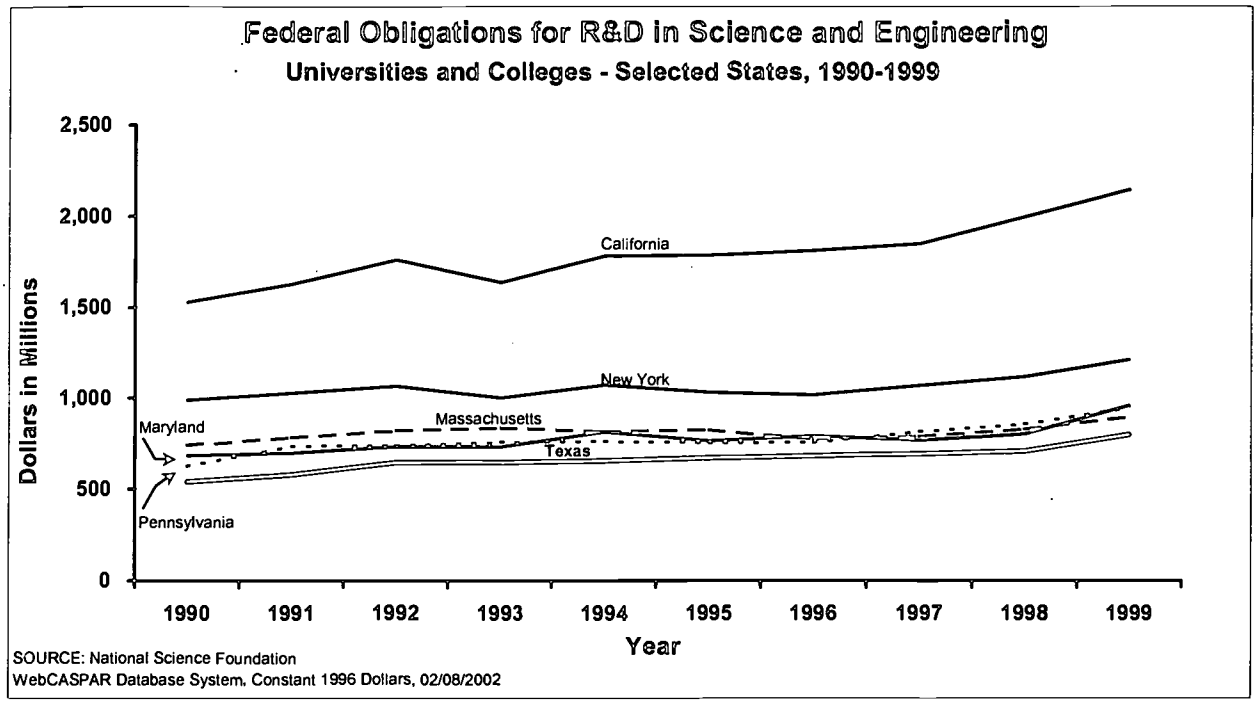


Figure 10

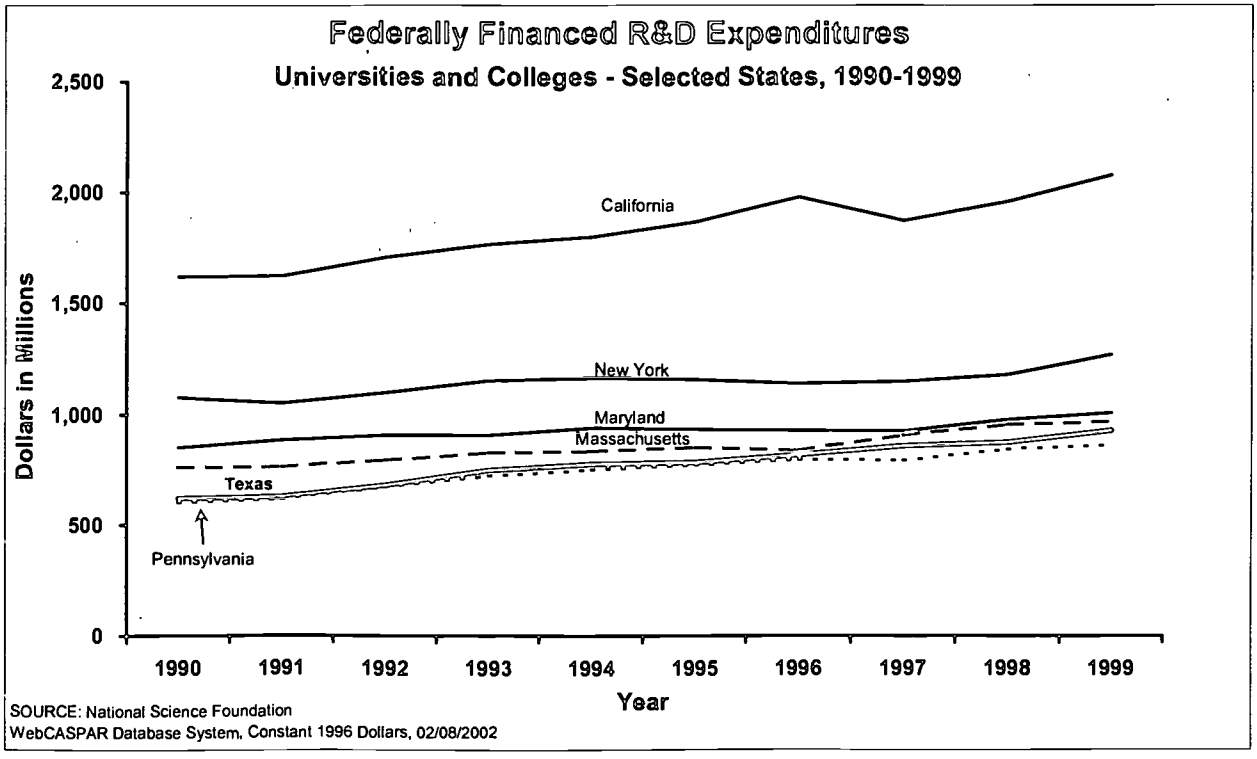


Table 22 shows federal obligations and federally financed R&D expenditures for Texas higher education institutions for FY 1999. The table includes public and independent institutions. In all cases, the top five institutions account for 60-65 percent of the total federal support.

Table 22

Federal Obligations and Federally Financed R&D by Texas Institutions, FY 1999 (Dollars in Thousands)

Institution	Federal Obligations for Science and Engineering	Federal Obligations for R&D in Science and Engineering	Federally Financed R&D Expenditures
Abilene Christian	$229	$229	$114
Alamo Community Coll. Dist.	$355	$164	---
Angelo State	$1,283	---	---
Austin Coll.	$28	---	---
Baylor-Dentistry	---	---	$1,481
Baylor- Coll. of Medicine	$167,954	$149,418	$141,111
Baylor Univ.	$1,272	$1,216	$522
Coll. of the Mainland	$393	---	---
Collin County Community Coll.	$350	---	---
El Paso Community Coll.	$32	$32	---
Houston Community Coll.	$299	$150	---
Jarvis Christian Coll.	$156	---	$56
Lamar	$2,972	$2,474	$2,914
Lubbock Christian	$3	$3	---
Midwestern State	$73	$73	---
North Harris Montgomery Cmty Coll. Dist.	$90	---	---
Our Lady of the Lake	$732	$404	---
Paul Quinn Coll.	$51	---	---
Prarie View A&M	$11,922	$7,763	$8,675
Rice	$30,292	$27,689	$35,012
Sam Houston State	$975	$975	$3,225
South Texas Community Coll.	$46	---	---
Southern Methodist	$4,725	$4,627	$6,387
Southwest Texas Junior Coll.	$189	---	---
Southwest Texas State	$3,681	$3,257	$1,871
St Mary's	$386	$244	---
Stephen F. Austin State	$890	$339	$776
Sul Ross State	$150	---	$74
Tarleton State	$400	$400	$1,623
Tarrant County Junior Coll.	$675	$675	---
Texas A&M and Services	$88,066	$57,695	$149,151
Texas A&M International	$5,624	$5,624	---

Shading indicates the five highest in each category.

Table 22 - continued

Federal Obligations and Federally Financed R&D by Texas Institutions, FY 1999
(Dollars in Thousands)

Institution	Federal Obligations for Science and Engineering	Federal Obligations for R&D in Science and Engineering	Federally Financed R&D Expenditures
Texas A&M System Office	$17,936	$16,879	---
Texas A&M-Commerce	---	---	$109
Texas A&M-Corpus Christi	$220	$130	---
Texas A&M-Kingsville	$1,465	$832	$1,771
Texas A&M-Texarkana	$156	---	---
Texas Christian	$2,661	$2,661	$3,257
Texas Southern	$2,544	$2,250	$2,292
Texas State Tech Coll., All Campuses	$1,625	---	---
Texas Tech	$15,564	$12,405	$20,242
Texas Wesleyan University	$105	---	---
Texas Woman's	$2,259	$1,299	$1,306
Trinity	$452	$405	$692
Trinity Valley Community Coll.	$220	$220	---
Univ. North Tx HSC	---	---	$5,370
Univ. of Dallas	$36	$36	$157
Univ. of Houston	$16,053	$15,634	$20,443
Univ. of Houston System Administration	$397	$197	---
Univ. of Houston-Clear Lake	$6,035	$5,811	$5,387
Univ. of Houston-Downtown	$331	$231	$838
Univ. of the Incarnate Word	$283	---	---
University of North Texas	$8,869	$5,603	$2,617
UT at Arlington	$3,548	$2,807	$6,089
UT at Austin	$135,170	$121,084	$164,913
UT at Dallas	$4,633	$4,333	$7,700
UT at El Paso	$24,303	$10,842	$18,292
UT at San Antonio	$13,915	$4,702	$5,463
UT at Tyler	$933	$933	---
UT M.D. Anderson Cancer	$85,167	$82,211	$69,413
UT of the Permian Basin	$183	$83	---
UT Southwestern Medical Center	$106,689	$101,675	$101,996
UT System Office	$8,591	$8,416	---
UTHSC at Houston	$73,986	$65,817	$71,288
UTHSC at San Antonio	$54,756	$50,091	$56,904
UTMB at Galveston	$55,880	$52,933	$55,061
UT-Pan American	$2,193	$448	$1,068
West Texas A&M	$175	$138	$93
Wharton County Junior Coll.	$940	---	---
Wiley Coll.	$285	---	---
Texas Total	**$972,851**	**$834,557**	**$975,753**

SOURCE: National Science Foundation, WebCASPAR Database System, 02/08/2002

Shading indicates the five highest in each category.

Figure 11 shows federal obligations to Texas higher education institutions for research and development in science and engineering by federal agency. The National Institutes of Health have a long history of providing most of the federal research support to Texas higher education institutions.

Figure 11

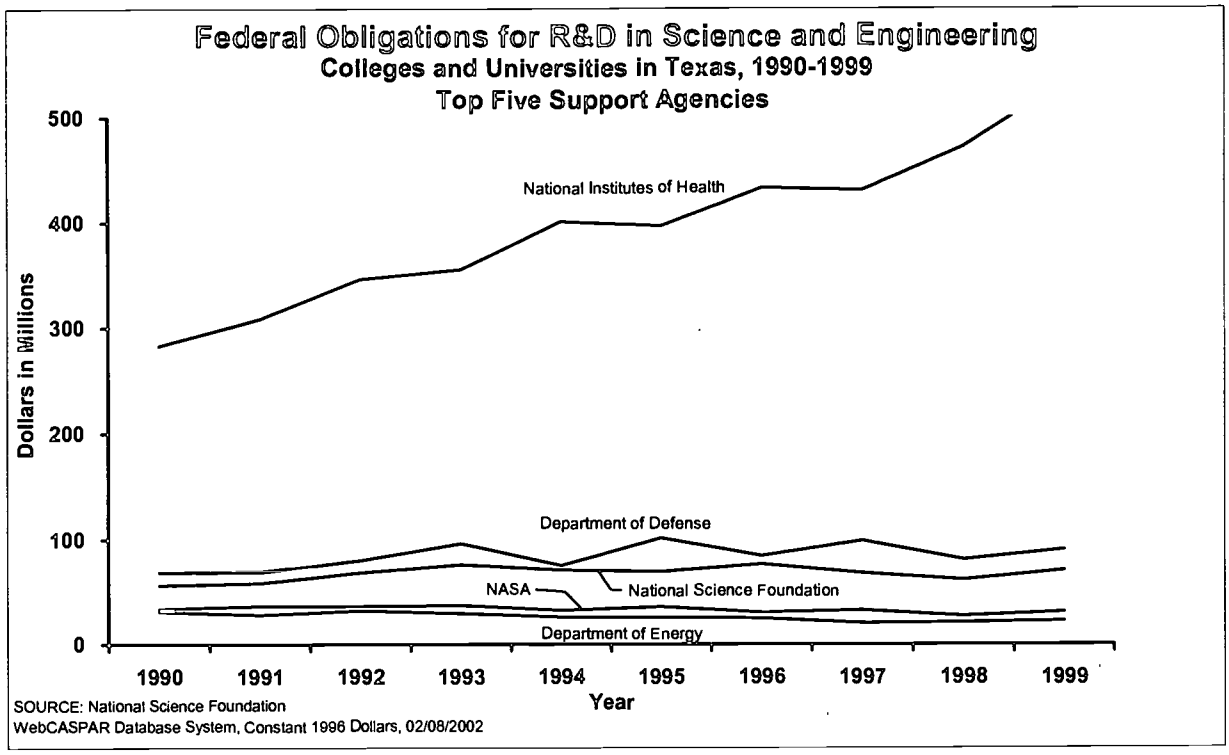


Table 23 shows federal obligations from federal agencies providing the most support to the most federal research-intensive Texas higher education institutions. The National Institutes of Health provide most of the federal support at health-related institutions. The Department of Defense, the National Institutes of Health, and the National Science Foundation provide most of the federal support for The University of Texas at Austin. The National Science Foundation, the Department of Agriculture, and the National Institutes of Health provide support for Texas A&M University. The National Science Foundation and the National Institutes of Health provide most of the federal support for Rice University. The University of Houston receives most of its federal support from the National Institutes of Health, the National Science Foundation, and NASA. Texas Tech University receives most of its support from the National Institutes of Health and the Department of Defense. The University of Texas at El Paso receives most of its support from the Environmental Protection Agency ($4,158,000; included under all other in Table 23), the National Science Foundation, and the National Institutes of Health.

Table 23

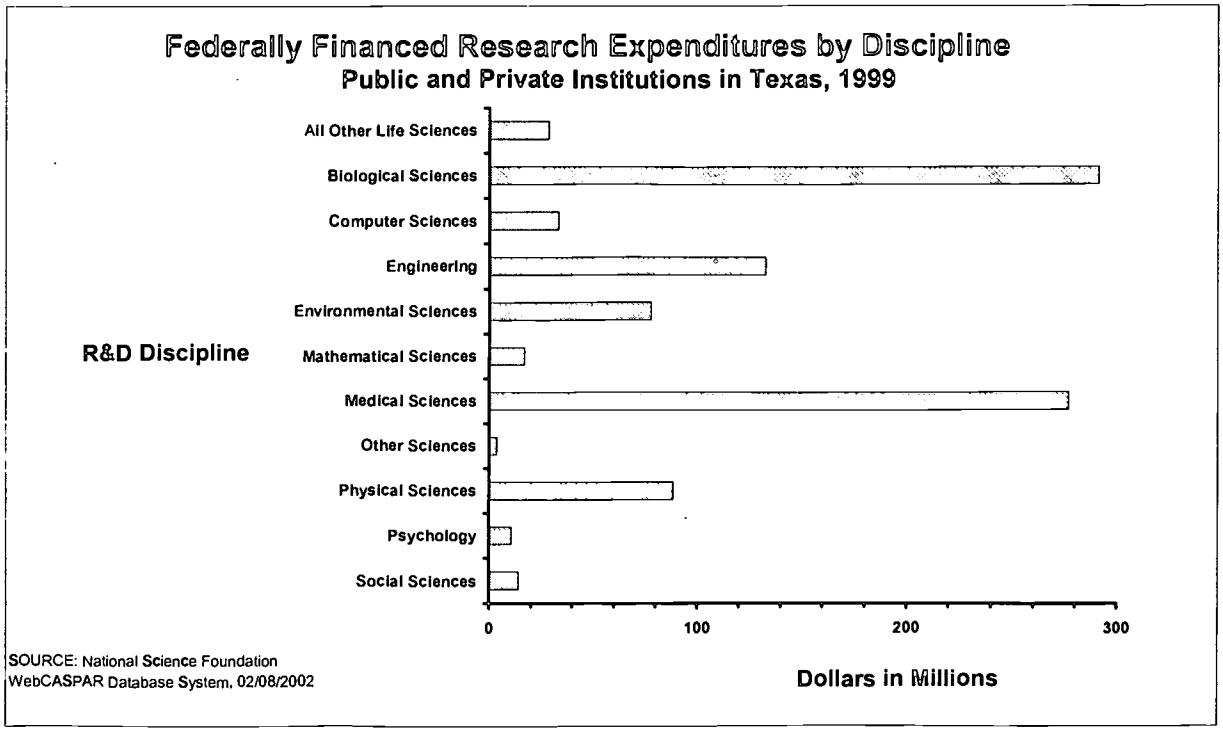
Texas Universities and Colleges with Federal Science and Engineering R&D Obligations of more than $10 Million By Support Agency (Dollars in Thousands), FY 1999

Institution	National Institutes of Health	Dept. of Defense	National Science Foundation	NASA	Dept. of Energy	Dept. of Agriculture	All Other Federal Agencies	Total of All Federal Agencies
Baylor-Coll. of Medicine	$144,156	$2,174	$0	$1,142	$296	$263	$1,387	$149,418
UT at Austin	$23,690	$52,591	$22,270	$8,156	$10,242	$470	$3,665	$121,084
UT Southwestern Med Center	$97,020	$3,317	$235	$520	$0	$0	$583	$101,675
UT M.D. Anderson Cancer	$74,600	$6,138	$303	$696	$0	$0	$474	$82,211
UTHSC at Houston	$60,247	$191	$861	$779	$0	$0	$3,739	$65,817
Texas A&M and Services	$10,648	$4,030	$19,628	$3,285	$3,221	$13,607	$2,600	$57,019
UTMB at Galveston	$47,915	$2,293	$468	$657	$675	$0	$925	$52,933
UTHSC at San Antonio	$46,584	$1,773	$636	$378	$0	$0	$720	$50,091
Rice	$4,954	$4,215	$13,277	$2,488	$2,331	$127	$297	$27,689
Texas A&M System Office	$14,190	$908	$0	$0	$1,731	$50	$0	$16,879
Univ. of Houston	$5,634	$1,171	$5,581	$2,118	$1,043	$0	$87	$15,634
Texas Tech	$4,316	$3,767	$1,647	$199	$967	$335	$1,174	$12,405
UT at El Paso	$1,675	$972	$2,134	$1,439	$0	$80	$4,542	$10,842

SOURCE: National Science Foundation, WebCASPAR Database System, 02/08/2002

Figure 12 shows federally financed research and development expenditures at Texas public and private higher education institutions by scientific discipline. Most of the expenditures are made in medical and biological sciences.

Figure 12



APPENDIX A – RESEARCH EXPENDITURES SURVEYS

THECB - Survey of Research Expenditures, FY 2001
Public Universities and Health-Related Institutions
About the On-Line Form

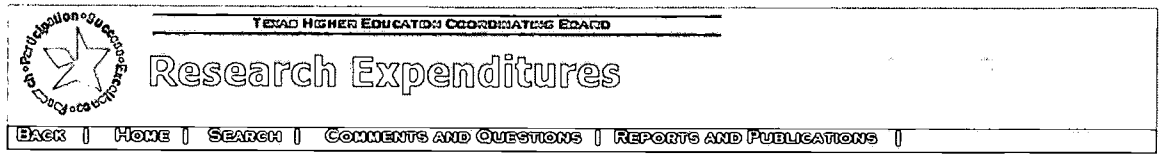
The survey should be completed by using the on-line form by December 1, 2001

The on-line form will be used to submit your institution's FY 2001 research expenditure data. The login page for the form has an instructions page and links to previous expenditures reports. Blank Lotus and Excel worksheets can be downloaded here, but the information still must be entered into the on-line form.

The on-line form consists of six parts, easily navigated with the buttons on the bottom of each web page. The whole form is saved when clicking on the "Total" buttons, going from page to page or clicking the "Save and Logoff" buttons. Using the "Reload Last Save" button will return information changed on a particular page before any other buttons are clicked on. Clicking underlined row or column labels will open a viewable definition for that item, and full instructions and definitions are accessible from the bottom of any page. Use whole dollar amounts, as the system will truncate decimals. The system will ignore any characters (dollar signs, commas, etc.) typed into entry blocks in parts 2-6. Click on any "Total" button to calculate column and row totals which are clearly marked in yellow.

The FICE code for your institution will be used to log in to the system, and please safeguard the provided password and authorization code. The password may be issued to individuals for completion of the form. When the form is ready for final submission, the final approval authority (usually the highest research executive at the institution) clicks the "Submit to THECB" button in part 6 and enters name, title and the authorization code.

Using the print button before final authorization will produce a draft printout of all forms. After final authorization, your data cannot be accessed or altered, but a printout of the final version can be produced. If you have questions or need assistance, contact information is located at the bottom of each web page or you may call Dale Cherry or Linda Domelsmith at 512-427-6150.



THECB Survey of Research Expenditures, FY 2001 (Sep. 1, 2000 - Aug. 31, 2001)
Public Universities and Health-Related Institutions

On-Line Electronic Submission System for Research Expenditures, FY 2001

To Access the On-line form, login below

FICE Code:
Password:
Login | Clear

Instructions and Definitions About the On-line Form

Downloadable Worksheets
- Excel
- Lotus

TEXAS HIGHER EDUCATION COORDINATING BOARD

Research Expenditures

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THECB Survey of Research Expenditures, FY 2001 (Sep. 1,2000 - Aug. 31, 2001)
Part 1 of 6 - Contact Information

First Name: Last Name:
Title:

Institution: ISA Texas University
Address:
University Ave.
College Town, TX 78727
Phone Number: E-mail:

Save and Logoff | Go to Part 2 | Print | Reload Last Save

TEXAS HIGHER EDUCATION COORDINATING BOARD

Research Expenditures

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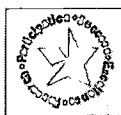
THECB Survey of Research Expenditures, FY 2001 (Sep. 1, 2000 - Aug. 31, 2001)
Part 2 of 6 - Expenditures for Conduct of R&D by Field
ISA Texas University

Sources of Funds(use whole dollar amounts)

	Federal	State		Institution Controlled	Private		Total
		Appropriated	Contract/Grants		Profit	Non-Profit	
1. Agricultural Sciences	0	0	0	0	0	0	$0
2. Biological and Other Life Sciences	0	0	0	0	0	0	$0
3. Computer Science	0	0	0	0	0	0	$0
4. Engineering	0	0	0	0	0	0	$0
5. Environmental Sciences	0	0	0	0	0	0	$0
6. Mathematical Sciences	0	0	0	0	0	0	$0
7. Medical Sciences	0	0	0	0	0	0	$0
8. Physical Sciences	0	0	0	0	0	0	$0
9. Psychology	0	0	0	0	0	0	$0
10. Social Sciences	0	0	0	0	0	0	$0
11. Other Sciences not classified above	0	0	0	0	0	0	$0
12. Arts and Humanities	0	0	0	0	0	0	$0
13. Business Administration	0	0	0	0	0	0	$0
14. Education	0	0	0	0	0	0	$0
15. Law and Public Administration	0	0	0	0	0	0	$0
16. Other Non-Science Activities not classified above	0	0	0	0	0	0	$0
Total Expenditures for Conduct of R&D (Total)	$0	$0	$0	$0	$0	$0	$0

Save and Logoff | Back to Part 1 | Go to Part 3 | Print | Reload Last Save



TEXAS HIGHER EDUCATION COORDINATING BOARD

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THECB Survey of Research Expenditures, FY 2001 (Sep. 1, 2000 - Aug. 31, 2001)
Part 3 of 6 - Details for Total Expenditures for Conduct of R&D
ISA Texas University

1. Expenditures for R&D, as defined in this report, that are reported on Annual Financial Report Exhibit C - Current Funds Expenditures, expenditure category Research	0
2. Indirect costs associated with figure reported in line 1	0
3. Expenditures for Conduct of R&D made by institution's research foundation or 501(C)3 corporation on behalf of the institution and not reported on institution's Annual Financial Report, including indirect costs not reported in line 2	0
4. Pass-throughs to other institutions of higher education for conduct of R&D	0
5. Pass-throughs from Texas Engineering Experiment Station for conduct of R&D not reported in Line 1	0
Sum of 1 through 5	$0
Sum of 1 through 5 MUST equal "Total Expenditures for Conduct of R&D" from Part 2	$0

Save and Logoff | Back to Part 2 | Go to Part 4 | Print | Reload Last Save

TEXAS HIGHER EDUCATION COORDINATING BOARD

Research Expenditures

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THECB Survey of Research Expenditures, FY 2001 (Sep. 1, 2000 - Aug. 31, 2001)
Part 4 of 6 - Total Expenditures for Research-Related Activities
ISA Texas University

Sources of Funds(use whole dollar amounts)

	Federal	State		Institution Controlled	Private		Total
		Appropriated	Contract/Grants		Profit	Non-Profit	
1. Expenditures for Activities Reported as Research on Exhibit C of Annual Financial Report, but not meeting the narrow definition of R&D used in this report.	0	0	0	0	0	0	$0
2. Other Research-related expenditures (noncurrent fund expenditures, etc.)	0	0	0	0	0	0	$0
3. Total Expenditures for Conduct of R&D (from Part 2)	$0	$0	$0	$0	$0	$0	$0
Total Expenditures for Research-Related Activities (Sum of 1-3) Total	$0	$0	$0	$0	$0	$0	$0

Save and Logoff | Back to Part 3 | Go to Part 5 | Print | Reload Last Save

Part 5 for Public Universities

TEXAS HIGHER EDUCATION COORDINATING BOARD

Research Expenditures

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THECB Survey of Research Expenditures, FY 2001 (Sep. 1, 2000 - Aug. 31, 2001)
Part 5 of 6 - Expenditures for Conduct of R&D in Areas of Special Interest
(funds may be reported in more than one area)
ISA Texas University

Sources of Funds(use whole dollar amounts)

	Federal	State		Institution Controlled	Private		Total
		Appropriated	Contract/Grants		Profit	Non-Profit	
1. Aerospace Technology	0	0	0	0	0	0	$0
2. Biotechnology	0	0	0	0	0	0	$0
3. Energy	0	0	0	0	0	0	$0
4. Environmental Sciences	0	0	0	0	0	0	$0
5. Food, Fiber, Agricultural Products	0	0	0	0	0	0	$0
6. Manufacturing Technology	0	0	0	0	0	0	$0
7. Materials Science	0	0	0	0	0	0	$0
8. Microelectronics and Computer Technology	0	0	0	0	0	0	$0
9. Water Resources	0	0	0	0	0	0	$0
Total Expenditures for Conduct of R&D in Areas of Special Interest (Sum of categories above) Total	$0	$0	$0	$0	$0	$0	$0

Save and Logoff | Back to Part 4 | Go to Part 6 | Print | Reload Last Save

Part 5 for Public Health Institutions

TEXAS HIGHER EDUCATION COORDINATING BOARD

Research Expenditures

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THECB Survey of Research Expenditures, FY 2001 (Sep. 1, 2000 - Aug. 31, 2001)
Part 5 of 6 - Expenditures for Conduct of R&D in Areas of Special Interest
(funds may be reported in more than one area)
ISA Texas Health Institution

Sources of Funds(use whole dollar amounts)

	Federal	State		Institution Controlled	Private		Total
		Appropriated	Contract/Grants		Profit	Non-Profit	
1. Aging	0	0	0	0	0	0	$0
2.Cancer Research	0	0	0	0	0	0	$0
3. Cardiovascular Research	0	0	0	0	0	0	$0
4. Child Health and Human Development	0	0	0	0	0	0	$0
5. Mental Health	0	0	0	0	0	0	$0
6. Substance Abuse	0	0	0	0	0	0	$0
Total Expenditures for Conduct of R&D in Areas of Special Interest (Sum of categories above) Total	$0	$0	$0	$0	$0	$0	$0

Save and Logoff | Back to Part 4 | Go to Part 6 | Print | Reload Last Save

THECB Survey of Research Expenditures, FY 2001 (Sep. 1, 2000 - Aug. 31, 2001)
Part 6 of 6 - Intellectual Property
ISA Texas University

1. Number of patents or copyrights obtained by the institution under terms of the institution's intellectual property policy during fiscal year 2001	0
2. Total revenue derived in fiscal year 2001 from royalties, licensing, or other transactions related to intellectual property resulting from research. Do not include revenue from licensing of logos, mascots, or other items not related to research.	0
3. Total number of different intellectual properties from which revenue was derived in fiscal year 2001.	0

Save and Logoff | Back to Part 5 | Submit to THECB | Print | Reload Last Save

THECB Survey of Research Expenditures, FY 2001
Public Universities and Health-Related Institutions
Instructions and Definitions for Survey

The survey should be completed by using the on-line form by December 1, 2001

About This Survey

This is an annual survey conducted by the Texas Higher Education Coordinating Board. It is mandated by the Texas Legislature, and it is the basis for an annual report of research expenditures at Texas institutions of higher education.

The report is widely used by institutions of higher education and other state agencies, and excerpts from the report are widely reported in the press. In addition, the data provides the basis for many far-reaching policy and management decisions. It is critical that the data be reported accurately and completely.

This report should be consistent with the Annual Financial Report (AFR) of the institution. Refer to College and University Business Administration, NACUBO.

The report includes only separately budgeted and accounted for expenditures and does not include research done by faculty members as a regular part of their academic duties.

The data collection form and definitions are modeled after similar forms used by the National Science Foundation in an effort to provide comparability of data with national data and to reduce the data collection efforts of the institutions.

Blank Lotus 1-2-3 and Excel worksheets can be downloaded here, but the information is required to be entered into the on-line form.

General Concepts and Definitions

A. Research and Development (R&D) activities are defined as follows:

1. Research is systematic study directed toward fuller scientific knowledge or understanding of the subject studies.

2. Development is systematic use of knowledge or understanding gained from research, directed toward the production of useful materials, devices, systems, or methods including design and development of prototypes and processes.

Exclusions from research and development:
- Training of scientific manpower
- 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.

B. Selected financial terms

Fiscal Year 2001 - The 12-month accounting period ending August 31, 2001.

Expenditures - All amounts of money paid out by your institution to support R&D activities. Include funds "passed through" to other institutions of higher education. Include earned indirect costs and fringe benefits. Do not include non-monetary awards.

Federal Funds - All Federal monies used in support of the R&D activities of your institution. These include reimbursements, contracts, grants, and any identifiable amounts spent from Federal programs including Federal monies passed through state agencies.

State Sources - Include all expenditures of funds appropriated by the State of Texas not included in institutionally controlled funds listed in paragraph 5 below. Included in this category are state appropriated "Special Items" and state contracts and grants such as ATP and ARP funds, interagency contracts, contracts with Texas local governments, etc.

Institutionally Controlled - Include expenditures of funds that are locally controlled. This would include PUF and AUF funds, other local funds, etc.

Private - Include expenditures of funds from both for-profit and not-for-profit corporations and individuals. Also, include in this category funds from agencies from other states.

Definitions for Specific Items

(Numbering corresponds to line number for on-line data collection form)

Expenditures for conduct of R&D - All expenditures except those for R&D plant. (Part 2, Total of 1-16)

Expenditures for other research-related activities - Reported as research on the AFR but not meeting the narrower definitions of R&D required in this 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. (Part 4, Line 1)

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.

Agricultural sciences deal with the production of food and fiber. They include work in plant sciences, animal sciences, aquaculture, agricultural economics, and other topics related to the agricultural enterprise. (Part 2, Line 1)

Biological sciences are those life sciences (apart from medical sciences and agricultural sciences described above) that deal with the origin, development, structure, function, and interaction of living things. Examples of biological sciences are as follows: anatomy; animal sciences; bacteriology;

biochemistry; biogeography; biophysics; ecology; embryology; entomology; evolutionary biology; genetics; immunology; microbiology; molecular biology; nutrition and metabolism; parasitology; pathology; pharmacology; physical anthropology; physiology; plant sciences; radiobiology; systematics. (Part 2, Line 2)

Computer science is concerned with the application of mathematical methods to automated information systems, the development of computer technology, and advanced applications of computers. (Part 2, Line 3)

Engineering is concerned with studies directed toward developing engineering principles or toward making specific principles usable in engineering practice. Engineering fields include aeronautical, astronautical, chemical, civil, electrical, mechanical, metallurgy and materials, and engineering not elsewhere classified, such as agricultural, bioengineering, biomedical, industrial, nuclear, ocean and systems. (Part 2, Line 4)

Environmental sciences (terrestrial and extraterrestrial) are concerned with the gross, non-biological properties (with one exception) of the areas of the solar system that directly or indirectly affect man's survival and welfare. They comprise the fields of atmospheric sciences, geological sciences, and oceanography. The one exception is that expenditures for studies pertaining to life in the sea or other bodies of water are to be reported as support of oceanography and not biology. (Part 2, Line 5)

Mathematical sciences employ logical reasoning with the aid of symbols and are concerned with the development of methods of operation employing such symbols. (Part 2, Line 6)

Medical sciences are concerned with the causes, effects, prevention, or control of abnormal conditions in man or his environment as they relate to health. Included are the clinical medical sciences, which are concerned with the study of the origins, diagnosis, or treatment of a particular disease in living human subjects under controlled conditions, and other medical sciences. Examples of the medical sciences are as follows: internal medicine; neurology; ophthalmology; preventive medicine and public health; psychiatry; radiology; surgery; veterinary medicine; dentistry; physical medicine and rehabilitation; podiatry. (Part 2, Line 7)

Physical sciences are concerned with the understanding of the material universe and its phenomena. They comprise the fields of astronomy, chemistry; physics, and physical sciences not elsewhere classified. (Part 2, Line 8)

Psychology deals with behavior, mental processes, and individual and group characteristics and abilities. Examples of disciplines within psychology are as follows: experimental psychology; animal behavior; clinical psychology; comparative psychology; ethnology; social psychology; educational personnel, vocational psychology and testing; industrial and engineering psychology; development and personality. (Part 2, Line 9)

Social sciences are directed toward an understanding of the behavior of social institutions and groups and of individuals as members of a group. These include anthropology, economics, history, linguistics, political sciences, and sociology. (Part 2, Line 10)

Other sciences not elsewhere classified is a category to be used for multidisciplinary and interdisciplinary projects and cannot be classified within one of the broad fields of science listed above. (Part 2, Line 11)

Arts and humanities include topics such as art, music, history, languages, religion, and other aspects of man's culture and heritage. (Part 2, Line 12)

Business administration deals with the management and operation of business enterprises. It includes work in management, marketing, accounting, and related topics. (Part 2, Line 13)

Education includes research related to any aspect of education. This includes elementary, secondary, and higher education; educational policy; education administration; etc. (Part 2, Line 14)

Law and public administration includes research related to legal systems and to public policy at the federal, state, or local levels. (Part 2, Line 15)

Other non-science activities should include all non-science disciplines not appropriately categorized above. (Part 2, Line 16)

Areas of Special Interest - This section is intended to provide information on expenditures in areas of special interest to the public. The list is not all-inclusive. The totals in Part 5 will not normally be equal to the "Total Expenditures for Conduct of R&D" found in Part 2. Further, expenditures may overlap two or more categories (e.g., a given project may be reported both as materials science and microelectronics or as mental health and substance abuse). Institutions may need to use ad hoc estimators to come up with these numbers. (Part 5)

Intellectual property includes patents, copyrights, and licensing agreements. (Part 6)

APPENDIX B – INSTITUTIONAL CONTACTS

The following list contains the institutional representatives who submitted the data for this report. They may be contacted directly for additional information regarding research activities on individual campuses.

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