

Economic Impact Study

A Study of the Economic Impact of
The University of Texas System

Institute for



Economic Development

The University of Texas at San Antonio

Table of Contents

Introduction	4	Conclusion	29
Current Findings	6	UT System Benefits to Texas	
The University of Texas System		Leverage of the State's Direct Investment	
Aggregate Impacts		Leverage Through Multipliers of Resources in Regional Economies	
Operational Expenditures		Leverage Through Multipliers of Jobs in Regional Economies	
Capital Expenditures		Leverage Through Export Sales to External Customers	
Faculty/Staff Spending		Leverage Through Future Productivity Gains of Graduates	
Student Expenditures			
Health Centers' Impacts			
Economic Impacts by Region	15	Scope and Limitations/ Future Study Topics	33
Arlington-Fort Worth			
The University of Texas at Arlington			
Austin-Round Rock			
The University of Texas at Austin			
Brownsville-Harlingen-San Benito			
The University of Texas at Brownsville/Texas Southmost College			
Dallas-Plano-Irving			
The University of Texas at Dallas			
The University of Texas Southwestern Medical Center at Dallas			
El Paso			
The University of Texas at El Paso			
Houston-Galveston			
The University of Texas Medical Branch at Galveston			
The University of Texas Health Science Center at Houston			
The University of Texas M. D. Anderson Cancer Center			
McAllen-Edinburg-Pharr			
The University of Texas - Pan American			
Midland-Odessa			
The University of Texas of the Permian Basin			
San Antonio			
The University of Texas at San Antonio			
The University of Texas Health Science Center at San Antonio			
Tyler-Longview-Marshall			
The University of Texas at Tyler			
The University of Texas Health Center at Tyler			
		Appendix 1	34
		Methodology	
		Educational Institutions	
		Operational Expenditures	
		Capital Expenditures	
		Faculty and Staff Spending	
		Student Expenditures	
		Appendix 2	36
		Educational Attainment and Work-Life Earnings	
		Assumptions and Limitations	
		Appendix 3	37
		Regions Used in Study	
		Appendix 4	38
		Total Economic Impacts of UT System Institutions on Regional Economies	
		Acknowledgments	42

Introduction

UT System Strengthens the Texas Economy of Today and Tomorrow

The State of Texas invests in higher education in order to develop the human capital of the state. These investments result in long-term economic benefits including: productivity and earnings gains of an educated workforce, new knowledge creation, market entry of products and services as a by-product of research and development, a supply of skilled professionals to meet labor market demands, and an improvement in the general quality of life, among other things. Within each region served by a University of Texas System institution local businesses benefit from easy access to a large pool of part-time and full-time workers. These benefits are particularly important when unemployment rates are low and labor markets tight. Companies and agencies that depend on highly specialized skills often cluster around universities, and this may be particularly true of high-tech and information-based companies. **There is a consistent positive correlation between the percentage of college graduates within a state and the per capita income for that state.**¹

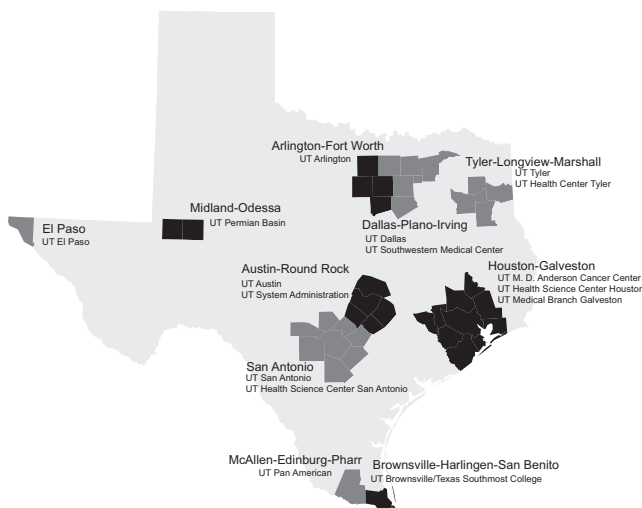
The university outreach and service units provide valuable services to local businesses, government and households. Cultural and educational programs and facilities often are available to the general public and provide intangible benefits to the host region by improving local residents' quality of life. These economic gains impact the state as well as the local areas served by University of Texas System institutions and are multifaceted. Quantifying these long-term impacts is beyond the scope of this study.

Regions receive multiple benefits, including short-run economic benefits, on a yearly basis from having a university in their back yard. Universities purchase goods and services from businesses, who in turn, employ more citizens and purchase goods and services from other local businesses. These expenditures represent the multiplier effect of the university's expenditures. This same multiplier effect is also reflected in the university's expenditures on construction and capital improvements and in the expenditures of faculty, staff and students on local goods and services. While not all of these expenditures will be spent locally, the intent of this study is to measure the direct expenditures of each University of Texas System institution and estimate the additional economic impacts upon their local regions.²

The UT System includes 9 academic and 6 health institutions, as well as its administrative offices. The academic institutions span Texas from El Paso in the West to Tyler in the East, and from Arlington in the North to Brownsville in the South. The health institutions are concentrated in the population centers of Dallas, Houston/Galveston and San Antonio. In FY2004, **UT System expenditures totaled \$7.8 billion from all sources to meet instruction, research, patient care and public service needs.** At the beginning of FY2004 **UT System institutions enrolled 177,676 students and employed 88,035 faculty and staff.**

In addition to the main campuses and these central locations, a number of institutions have off-campus facilities for research and specialized programs. These include The University of Texas M. D. Anderson Cancer Center's Science Park in Bastrop County, The University of Texas at San Antonio's Institute of Texan Cultures in downtown San Antonio, The University of Texas at Arlington's Robotics Institute in Fort Worth, The University of Texas at Brownsville/Texas Southmost College's South Padre Island Center, The University of Texas at Austin's McDonald Observatory in the Davis Mountains and several others. The 15 institutions and their respective regions are listed in Table 1.

The University of Texas System by Region



¹ US Census Bureau. *Statistical Abstract of the United States, 2003.*

² Traditionally, economic impact studies measure three types of impacts: direct, indirect and induced. Direct impacts include first round expenditures of the university. Indirect and induced expenditures result from the initial direct expenditures. Indirect expenditures are made when businesses purchase goods and services from other businesses to serve the needs of the university. Induced expenditures are made by employees of these businesses who use their earnings to make additional purchases in the community. This study uses metropolitan statistical areas (MSAs) as defined in 2003 with two exceptions: Tyler-Longview-Marshall and Midland-Odessa. Counties included are outlined in Appendix 3.

Introduction

UT System Strengthens the Texas Economy of Today and Tomorrow

Table 1
The University of Texas System Institutions

Academic Institutions	Health Institutions
The University of Texas at Arlington Region: Arlington-Fort Worth Abbreviation: UTA	The University of Texas Southwestern Medical Center at Dallas Region: Dallas-Plano-Irving Abbreviations: Southwestern, UTSWMC
The University of Texas at Austin Region: Austin-Round Rock Abbreviation: UT Austin	The University of Texas Medical Branch at Galveston Region: Houston-Galveston Abbreviation: UTMB - Galveston
The University of Texas at Brownsville/ Texas Southmost College Region: Brownsville-Harlingen-San Benito Abbreviation: UTB/TSC	The University of Texas Health Science Center at Houston Region: Houston-Galveston Abbreviation: UTHSC-H
The University of Texas at Dallas Region: Dallas-Plano-Irving Abbreviation: UTD	The University of Texas at San Antonio Region: San Antonio Abbreviation: UTHSC - SA
The University of Texas at El Paso Region: El Paso Abbreviation: UTEP	The University of Texas M. D. Anderson Cancer Center Region: Houston-Galveston Abbreviation: UTMACC
The University of Texas-Pan American Region: McAllen-Edinburg-Pharr Abbreviation: UTPA	The University of Texas Health Center at Tyler Region: Tyler-Longview-Marshall Abbreviation: UTHC-T
The University of Texas of the Permian Basin Region: Midland-Odessa Abbreviation: UTPB	
The University of Texas at San Antonio Region: San Antonio Abbreviation: UTSA	
The University of Texas at Tyler Region: Tyler-Longview-Marshall Abbreviation: UTT	

Current Findings

The University of Texas System Aggregate Impacts

Table 2
Total Economic Impact of The University of Texas System on Regional Economies FY2004

Region	Initial Direct Spending	Output Impact (Initial + Recirculated)	Personal Income Impact*	Employment Impact*
Arlington-Fort Worth	\$402,122,707	\$616,820,092	\$197,600,558	10,797
Austin-Round Rock	1,830,017,594	2,515,218,138	731,083,756	51,287
Brownsville-Harlingen-San Benito	109,797,458	148,297,156	44,084,169	3,937
Dallas-Plano-Irving	1,066,582,048	1,598,219,989	515,287,735	23,004
El Paso	323,960,651	463,002,277	140,191,363	9,886
Houston-Galveston	3,687,691,398	5,565,724,782	1,804,991,444	79,587
McAllen-Edinburg-Pharr	187,555,647	250,788,908	72,154,543	6,581
Midland-Odessa	51,414,276	71,945,468	21,648,298	1,551
San Antonio	838,632,167	1,279,620,972	397,420,753	23,199
Tyler-Longview-Marshall	207,155,839	298,669,446	87,928,539	5,886
Aggregate	\$8,704,929,784	\$12,808,307,228	\$4,012,391,158	215,715

*Employment includes full and part-time jobs. Personal income impact is included in the output impact.

The total economic impact of the 15 institutions and administration on the respective host economies was \$12.8 billion during FY2004.³ Of the total economic impact, \$8.7 billion, or 68 percent was the initial direct spending of the institutions (\$7.8 billion) and nonresident students (\$975 million).⁴ An additional \$4.1 billion was spent in host regions as dollars re-circulated.⁵ For every dollar in initial spending, an average of 44 additional cents was spent within host regions.

The benefits derived from the UT System were estimated for four important categories of spending: spending on goods and services for each institution (operations); capital purchases and construction; faculty and staff expenditures and the spending of students who moved to the area to attend school. The goal of this research was to provide a reasonable, conservative estimate of the economic impacts of UT System institutions upon their host regions. Various financial, employee, and student data were provided by the UT System administration and utilized to estimate direct expenditures (see Appendix 1 for a full discussion of methodology). Moreover, these estimates

do not account for the additional spending of visitors or of students who remain in the host regions during the summer. Conservative assumptions were made when necessary. These direct expenditures were then modeled within a regional input/output model for each region.⁶ The economic impact estimates are based upon input-output models for each institution's regional economy. These estimates show the economic impact upon each regional economy and are not intended to show the overall impact to the state. However, these effects do have an aggregate impact in Texas.

The UT System adds \$4 billion in personal income (an element of the output impact) in its host regions as a result of the initial spending of the institution, faculty/staff and nonresident students. Personal income includes salary, wage and proprietor income, which directly impact people's pocketbooks.

These output and income impacts are better understood when translated to the number of jobs added or supported in a region as a result of the presence of a UT System institution.

Current Findings

The University of Texas System Aggregate Impacts

Table 3
Jobs that Exist Due to Institution-Related Spending FY2004

Institution/Region	On-Campus Jobs	Off-Campus Jobs	Total Employment*
UT Arlington	4,537	6,260	10,797
Total Impact, Arlington-Fort Worth	4,537	6,260	10,797
UT Austin	21,673	27,450	49,123
System Administration	546	1,618	2,164
Total Impact, Austin- Round Rock	22,219	29,068	51,287
UT Brownsville/Texas Southmost College	1,758	2,179	3,937
Total Impact, Brownsville-Harlingen-San Benito	1,758	2,179	3,937
UT Dallas	3,126	3,148	6,274
UT Southwestern Medical Center - Dallas	5,784	10,946	16,730
Total Impact, Dallas-Plano-Irving	8,910	14,094	23,004
UT El Paso	4,003	5,883	9,886
Total Impact, El Paso	4,003	5,883	9,886
UT Medical Branch - Galveston	13,340	14,332	27,672
UT Health Science Center-Houston	5,528	6,273	11,801
UT M. D. Anderson Cancer Center	13,292	26,822	40,114
Total Impact, Houston-Galveston	32,160	47,427	79,587
UT Pan American	3,025	3,556	6,581
Total Impact, McAllen-Edinburg-Pharr	3,025	3,556	6,581
UT Permian Basin	600	951	1,551
Total Impact, Midland-Odessa	600	951	1,551
UT San Antonio	3,752	7,110	10,862
UT Health Science Center - San Antonio	4,979	7,358	12,337
Total Impact, San Antonio	8,731	14,468	23,199
UT Tyler	829	1,540	2,369
UT Health Center - Tyler	1,263	2,254	3,517
Total Impact, Tyler-Longview-Marshall	2,092	3,794	5,886
Total Impact on Regional Economies	88,035	127,680	215,715

*Employment includes full and part-time jobs.

The combined employment impact of all 15 institutions on their host regions was 215,715 jobs. This includes the on-campus employment of 88,035 jobs (including student workers) and the 127,680 jobs in the local region supported by the additional economic impact. **On average, for every on-campus job, an additional 1.5 jobs are added because of institution-related spending.**

³ Considered the greatest measure of economic impact, output measures all transactions including the cost of labor and supplies needed in order to support a level of economic activity.

⁴ Nonresident students include out-of-state, foreign and students who permanently reside in a county outside the host region.

⁵ The indirect and induced economic impacts.

⁶ The 2002 IMPLAN I/O Model was used for this study. IMPLAN is a widely used I/O model and provides reasonable, conservative estimates of economic impacts when compared to other I/O models. See "Evaluating Alternative Regional Planning Models," by John B. Cribfield in *Growth & Change*, Spring 1991. Vol. 22 Issue 2.

Current Findings

The University of Texas System Aggregate Impacts

Table 4
Impact of Operational Expenditures on Regional Economies FY2004

Region	Initial Direct Spending	Output Impact (Initial + Recirculated)	Personal Income Impact*	Employment Impact*
Arlington-Fort Worth	\$69,556,004	\$112,259,554	\$41,789,450	5,928
Austin-Round Rock	415,968,832	613,842,785	233,315,880	35,193
Brownsville-Harlingen-San Benito	41,958,039	62,294,934	24,961,604	3,040
Dallas-Plano-Irving	274,380,165	434,465,804	161,937,504	13,146
El Paso	82,454,454	124,962,864	47,040,218	6,265
Houston-Galveston	1,142,419,220	1,844,526,466	715,980,331	51,384
McAllen-Edinburg-Pharr	58,856,507	86,298,729	32,311,502	4,811
Midland-Odessa	13,357,953	18,850,629	6,079,814	967
San Antonio	178,194,524	288,127,650	107,746,604	13,083
Tyler-Longview-Marshall	56,869,298	84,763,570	28,752,518	3,605
Aggregate	\$2,334,014,996	\$3,670,392,985	\$1,399,915,425	137,422

**Employment includes full and part-time jobs. Personal income impact is included in the output impact. Direct employment is included in operations impact.*

OPERATIONAL EXPENDITURES

During the FY2004 school year, **UT System institutions spent \$2.3 billion on goods and services**, with many of these expenditures occurring in their host regions. In order to provide the goods and services necessary to support the needs of an institution, businesses in the respective regions pay employees and purchase additional goods and services – the multiplier effect. These multiplier effects are estimated to be \$1.3 billion, for a total combined impact of \$3.7 billion.

Operational expenditures support \$1.4 billion in personal income and approximately 137,422 jobs.

Current Findings

The University of Texas System Aggregate Impacts

Table 5
Impact of Capital Expenditures on Regional Economies

Region	Initial Direct Spending	Output Impact (Initial + Recirculated)	Personal Income Impact*	Employment Impact*
Arlington-Fort Worth	\$49,367,016	\$84,817,485	\$31,964,486	910
Austin-Round Rock	181,573,900	235,780,354	56,111,388	1,644
Brownsville-Harlingen-San Benito	14,407,181	19,161,194	4,269,026	226
Dallas-Plano-Irving	154,472,418	264,312,965	109,256,306	3,360
El Paso	33,618,070	51,639,382	16,940,001	671
Houston-Galveston	558,652,239	954,155,223	391,127,269	9,085
McAllen-Edinburg-Pharr	21,448,885	28,732,209	7,082,533	360
Midland-Odessa	12,940,158	20,467,170	7,519,456	261
San Antonio	147,351,757	248,715,292	91,405,202	3,186
Tyler-Longview-Marshall	37,814,987	61,041,609	20,884,462	879
Aggregate	\$1,211,646,611	\$1,968,822,882	\$736,560,130	20,582

*Employment includes full and part-time jobs. Personal income impact is included in the output impact.

CAPITAL EXPENDITURES

During FY2004 UT System institutions spent approximately \$1.2 billion on capital items including construction of facilities, equipment, vehicles, books and art. After considering the additional spending caused by these purchases, these capital expenditures contributed to an estimated total aggregate **economic impact of \$2 billion** upon the regions where UT System institutions are located (\$757 million beyond the initial expenditures). Capital expenditures support \$736.6 million in personal income and approximately **20,582 jobs**.

This analysis shows the economic impact for one year of capital spending. The need for capital construction is driven by the growth in health services (hospital and clinic space), research (laboratory space) enrollment (classroom space, housing and parking). It is also driven by the need to renew and upgrade aging infrastructure (the average age of UT System campus buildings is 30 years). During the next six years, UT System institutions are projected to spend an estimated **\$5 billion on construction projects**. Additional expenditures as a result of these purchases will add \$2.7 billion for a combined impact of **\$7.7 billion over the next six years**.

Of the projected \$5 billion in capital construction, \$3.2 billion will be at the health institutions to support the growing demand for services and health-related research. Patient care and research revenues from activities in these buildings

finance debt that supports most of this construction. Another substantial portion of capital construction builds auxiliary facilities such as housing, parking and recreation, typically financed by debt retired from revenues generated by facility use.

The state supports capital construction primarily through authorization of tuition revenue bonds (TRB). **Overall TRB funding comprises 10 percent of the UT System capital construction program, yet TRB funding plays an essential role in providing educational space in academic institutions.** While space utilized for research, patient-care and auxiliary services can often be self-funded through related revenues to support the debt, that is not the case for academic educational space.

Table 6
Projected Capital Improvement Spending by Institution

Academic	2004-2009	Health	2004-2009
UTA	\$153,924,426	UTSWMC	\$445,600,000
UT Austin	688,320,000	UTMB	348,330,254
UTB/TSC	41,110,000	UTHSC-H	442,550,000
UTD	135,643,750	UTHSC-SA	124,700,000
UTEP	103,100,000	UTMDACC	1,876,030,000
UTPA	66,181,000	UTHC-T	17,513,250
UTPB	26,380,000		
UTSA	447,426,654	Combined	
UTT	65,834,000	Total	\$4,982,643,334

Current Findings

The University of Texas System Aggregate Impacts

Table 7
Impact of Faculty/Staff Spending on Regional Economies FY2004

Region	Initial Direct Spending	Output Impact (Initial + Recirculated)	Personal Income Impact*	Employment Impact*
Arlington-Fort Worth	\$138,025,486	\$193,017,834	\$48,693,669	1,424
Austin-Round Rock	792,305,843	1,025,862,013	236,338,326	7,084
Brownsville-Harlingen-San Benito	44,478,185	54,371,719	10,966,512	484
Dallas-Plano-Irving	564,250,563	785,562,889	205,801,308	5,325
El Paso	106,002,804	136,596,593	29,795,637	1,089
Houston-Galveston	1,956,571,511	2,718,270,121	682,407,887	18,609
McAllen-Edinburg-Pharr	76,978,970	93,735,046	19,028,770	765
Midland-Odessa	14,557,196	18,096,262	3,731,089	138
San Antonio	402,960,416	560,388,108	137,054,954	4,613
Tyler-Longview-Marshall	88,282,423	116,612,354	26,302,133	952
Aggregate	\$4,184,413,396	\$5,702,512,939	\$4,400,120,315	40,483

*Employment includes full and part-time jobs. Personal income impact is included in the output impact.

FACULTY/STAFF SPENDING

In the FY2004 school year, **\$4.9 billion was spent on wages and benefits** for UT System institution faculty and staff. There were 88,035 employees of the UT System at the beginning of FY2004. These include 15,036 faculty and 72,999 staff.⁷ Without the presence of these institutions, many of these professionals would not be present within the local region. These employees spend money in their local regions for housing, food, services, and other items. The total disposable income circulating in each of these regions was estimated to be approximately \$4.2 billion.⁸ Based on this amount, the total economic impact to local regions from faculty and staff spending was \$5.7 billion in 2003/2004.

These expenditures provided \$4.4 billion in personal income and supported 40,483 jobs.

⁷ UT System Fast Facts 2005. The University of Texas System Pamphlets. Austin: February 2005; The University of Texas System Office of the Chancellor. The University of Texas System Accountability and Performance Report, 2004-2005. Austin: February 2004. These figures include full and part-time employees.

⁸ The direct \$4.9 billion for salaries and wages was discounted by 15 percent to account for taxes.

Current Findings

The University of Texas System Aggregate Impacts

Table 8
Nonresident Student Expenditures FY2004

	Students	Percent	Direct Spending
Total	177,676	100%	\$1,877,502,292
Nonresident	92,255	52%	\$974,854,781
Out-of-State	8,284	5%	\$87,537,028
Foreign	15,786	9%	\$166,810,662

STUDENT EXPENDITURES

Universities can be considered an “export” industry, similar to other businesses within a region and can serve the needs of local people, as well as attract individuals from other locations within Texas, the United States or the world. During the years that these individuals attend college, they contribute to the economy by spending on goods and services, circulating “new money” into the local economy.

In Fall 2003, a total of 177,676 students were enrolled at UT System institutions. These students spent over \$1.9 billion dollars in their local economies for goods and services.⁹ Not all student spending can be considered “new money.” Many students remain in their local regions to attend college and their money would have circulated throughout the local economy even without the presence of the University. Of the total \$1.9 billion dollars, \$974.9 million can be considered “new money” – money spent by residents of other areas, including foreign and out-of-state students.¹⁰

These direct expenditures impact local businesses through additional purchases by the impacted local businesses and their employees. **Considering the direct expenditures from new money alone (purchases by students from outside of the region), an additional \$491.7 million is spent in local regions as a result of the presence of a UT System institution for a total of \$1.5 billion dollars, which supports 17,228 jobs.**

Of course, what one region gains in student spending, another loses. If a student leaves Brownsville to attend school in Dallas, Dallas receives additional spending while Brownsville loses. Overall, the state of Texas neither gains nor loses as the

spending remains within the confines of the state. However, the UT System attracts students from abroad and from other states. Some of these students remain in Texas and contribute in many different ways to the state’s economic well-being. In the short-term, these students bring in new dollars not only to their local regions, but to the state in general. **Spending by these foreign and out-of-state students was estimated to be \$256.3 million.** This does not include the additional impacts due to the second round effects of businesses and employees.

Table 9
Nonresident Student Expenditure Impact on Local Regions
FY2004

Total Nonresident Students	92,255
Total Direct Spending	\$974,854,781
Additional Spending*	\$491,723,641
Employment Impact	17,228

* The indirect and induced impact as a result of direct expenditures.

⁹ Students were estimated to spend a total of \$10,587 each per nine-month school year. This figure is an average of student budgets supplied by the financial aid offices of each institution. Impacts are probably greater, as this does not account for students who remain in the community during the summer months, and student budgets from financial aid offices are considered conservative in nature.

¹⁰ In the Fall of 2004, 52 percent of UT System students had permanent residences outside of their institution’s home region (including foreign and out-of-state students).

Current Findings

The University of Texas System Aggregate Impacts

Table 10
Impact of Student Spending on Regional Economies FY2004

Region	Nonresident Students*	Initial Direct Spending	Output Impact (Initial + Recirculated)	Personal Income Impact*	Employment Impact*
Arlington-Fort Worth	13,738	\$145,174,201	\$226,725,219	\$75,152,923	2,535
Austin-Round Rock	41,655	440,169,019	639,732,986	205,318,162	7,366
Brownsville-Harlingen-San Benito	847	8,954,053	12,469,309	3,887,027	187
Dallas-Plano-Irving	6,953	73,478,902	113,878,331	38,292,617	1,173
El Paso	9,642	101,885,323	149,803,438	46,415,507	1,861
Houston-Galveston	2,844	30,048,428	48,772,972	15,475,957	509
McAllen-Edinburg-Pharr	2,865	30,271,285	42,022,924	13,731,738	645
Midland-Odessa	965	10,558,969	14,531,408	4,317,939	185
San Antonio	10,421	110,125,470	182,389,922	61,213,993	2,317
Tyler-Longview-Marshall	2,276	24,189,131	36,251,913	11,989,426	450
Aggregate	92,255	\$974,854,781	\$1,466,578,422	\$475,795,289	17,228

*Nonresident students include out-of-state, foreign and students who permanently reside in a county outside the host region. Employment includes full and part-time jobs. Personal income impact is included in the output impact.

Current Findings

The University of Texas System Aggregate Impacts

Table 11
Impact of The University of Texas System Health Institutions on Regional Economies FY2004

Health Institution	Initial Direct Spending	Output Impact (Initial + Recirculated)	Personal Income Impact*	Employment Impact*
UTMDACC	\$1,936,397,455	\$2,969,900,423	\$1,004,858,050	40,114
UTMB Galveston	1,205,094,634	1,786,422,917	551,032,439	27,672
UTHSC-H	546,199,309	809,401,442	249,100,955	11,801
UTHC-T	126,848,375	179,954,448	51,444,332	3,517
UTHSC-SA	458,100,969	679,922,073	201,861,094	12,337
UTSWMC	834,055,306	1,249,974,844	404,592,062	16,730
Aggregate	\$5,106,696,048	\$7,675,576,147	\$2,462,888,932	112,171

*Employment includes full and part-time jobs. Personal income impact is included in the output impact.

HEALTH CENTERS' IMPACTS

UT System health institutions have unique impacts beyond education. These facilities attract outside funding and highly skilled professionals, educators and researchers who contribute financially and culturally to their regions. In addition, these health institutions serve Texas and their region by providing health care services, including uncompensated health care. Collectively, these institutions add **\$7.7 billion and 112,171 jobs** into their local regions. **This is approximately 60 percent of the total UT System economic impact and slightly more than half of the overall job impacts.**

Beyond the direct and secondary economic benefits outlined, the UT System provides numerous additional benefits to the citizens of Texas. A report on the impact of higher education from the Texas Comptroller's Office identifies medical services performed by the UT System in fiscal year 2001 valued at \$3.7 billion. **This care included hospital inpatient and outpatient services as well as physician services.¹¹ By fiscal year 2004, the service levels had increased to more than \$5.8 billion.** The UT System provided nearly \$1.3 billion in uncompensated health care in the six health institutions in FY2004. An additional \$195 million in medical services was provided for which payments were not collectible.

Many studies show that higher education is positively correlated with individual and social health. On the most recent census, 11.3 percent of high school graduates were below the poverty line, compared with 4.2 percent of baccalaureate degree recipients. 18.8 percent of high school graduates lacked health insurance, compared with 8.4 percent of college graduates. **Within every income group, the percentage perceiving themselves as very healthy increases with higher levels of education.¹²** For example, 73 percent of college graduates with incomes between \$35,000 and \$55,000 report being in excellent or very good health, compared to 62 percent of high school graduates in the same income bracket.

¹¹ Carole Keeton Strayhorn, Texas Comptroller of Public Accounts. Special Report: The Impact of the State Higher Education System on the Texas Economy. Austin: Texas Comptroller, 2003. <<http://www.window.state.tx.us/specialrpt/highered03/highered03.pdf>>.

¹² US Census Bureau. *Population Survey, March 2004 Supplement*.

Current Findings

The University of Texas System Aggregate Impacts

Table 12
Services Rendered by The University of Texas System Health Institutions FY2004

UT System Health Institution	Gross Patient Charges	Uncompensated Health Care	Bad Debt/ Uncollectible Debt
UTMDACC	\$2,587,365,092	\$236,187,350	\$39,236,038
UTMB Galveston	1,577,098,753	476,335,941	90,995,321
UTHSC-H	451,063,196	163,780,256	26,223,151
UTHC-T	207,108,069	36,758,695	15,830,425
UTHSC-SA	213,397,590	85,647,220	3,990,966
UTSWMC	750,551,041	312,465,011	18,464,295
Aggregate	\$5,786,583,741	\$1,311,194,473	\$194,740,196

Source: The UT System FY2004 Financial Report (Schedules C-1A and D-6)

HEALTH CENTERS' IMPACTS

Other results from UT System health institutions in FY2003:¹³

- Patient care included 66,291 hospital admissions, 5,318,945 clinic visits and 1,274,113 hospital days.
- Medical research alone expended \$1.0 billion in FY2004, up 7.8 percent from FY2003.
- The UT System, with 99 patents, is ranked fifth in the nation in terms of patents granted to universities. Of the 99 patents, 63 were from the medical institutions.
- Nearly 800 graduates of medical schools.
- 150 graduates of dental schools and 100 dental assistants graduates.
- Over 150 Ph.D. medical scientists.
- Nearly 700 nurses, including 240 master's and doctoral degree recipients.
- Over 500 allied health professionals.
- Over 150 public health scientists, including 125 master's and 37 doctoral degree recipients.
- Over 800 Board qualified graduates of medical residency programs entering medical practice.
- Top-tier faculty members, including 5 Nobel laureates.
- Provide comprehensive health care for approximately 108,000 correctional patients in the Texas Department of Criminal Justice through the UTMB Galveston Correctional Managed Care Program.
- Texas tax support for the UT System health institutions was \$842 million in 2003, which was effectively leveraged 4-1 to secure other funds from alternate sources, and benefit the state with their overall direct expenditure budget of \$4.5 billion.
- Additional economic impacts to Texas communities through research and health centers in Bastrop, Brownsville, Edinburg, Harlingen, Laredo and Smithville.

¹³ UT System Fast Facts 2005. The University of Texas System Pamphlets. Austin: February 2005; The University of Texas System Office of the Chancellor. The University of Texas System Accountability and Performance Report, 2004-2005. Austin: February 2004; UT System Fast Facts. UT System Office of Public Affairs and Communications. May 2003. <<http://www.utsystem.edu/News/FastFacts.htm>>.

Economic Impacts by Region

Arlington-Fort Worth

Table 13
Total Impact of The University of Texas System on the Arlington-Fort Worth Region FY2004

Institution	Initial Direct Spending	Output Impact (Initial + Recirculated)	Personal Income Impact*	Employment Impact*
The University of Texas at Arlington	\$402,122,707	\$616,820,092	\$197,600,558	10,797

*Employment includes full and part-time jobs. Personal income impact is included in the output impact.

In FY2004, The University of Texas at Arlington directly employed 4,537 people, slightly more than the employment of RadioShack Corporation in the region. As a result of the expenditures of the University and its faculty, staff and students, UT Arlington adds \$616.8 million to the regional economy and supports approximately 10,797 jobs.

The Arlington-Fort Worth Region is part of the overall DFW Metroplex. The Texas State Data Center estimated the population of this four county area to be 1.9 million people in 2003. Primary industries in this region include business services, high technology, oil and gas, aviation and electronics. According to analysis by the Comptroller's Office, key industry clusters poised for growth in the Arlington-Fort Worth area include investment related services, aviation, high tech, health care, transportation, logistics and warehousing. Many of these industries will require a highly skilled and educated workforce. According to the 2000 US Census, 25 percent of people 25 years and older living in the Arlington-Fort Worth Region have attained at least a bachelor's degree.

THE UNIVERSITY OF TEXAS AT ARLINGTON AT A GLANCE

- Founded in 1895, became part of UT System in 1965.
- Employed 1,135 faculty in fall of 2003.
- Enrolled 25,297 students in fall of 2004.
- UTA graduated 5,151 people in the 2003/2004 school year, including 3,280 bachelor's degrees, 1,796 master's and 75 doctoral degree recipients.
- UTA School of Nursing has the largest graduate nursing program in Texas and is the 2nd largest producer of nursing undergraduates. UTA nursing students serving in community placements contributed approximately 52,000 hours of service each semester at an estimated value of \$832,000.
- In 2001-2002, 479 UTA School of Social Work students provided 155,058 hours of service in 293 social service agencies, hospitals, and governmental agencies. The value of these services is estimated at \$2.9 million.
- The School of Urban and Public Affairs is the state's only legislatively-mandated and funded academic program devoted to conducting of research into urban problems and public policy, to assisting local jurisdictions in resolving urban problems, and to educating students for careers in urban public service.
- Nanotechnology Research and Teaching Facility is one of 20 on university campuses in the US.
- In the top 10 percent nationally in granting electrical engineering and computer science engineering degrees (American Association of Engineering Societies, 2002).
- Online CSE/EE M.A. degree among the best in the nation (*US News & World Report*, 2002).
- 21 fellows of national engineering professional societies (2003).
- According to UTA, the Automation & Robotics Research Institute located at the university has created over 2,000 jobs, worked with industry to increase sales by \$215 million, increased investment in production facilities by \$52 million and worked to reduce manufacturing costs by \$28 million.
- A recent analysis of the Center for Economic Development Research and Service (CEDRAS), located in the School of Urban and Public Affairs, estimated that CEDRAS projects resulted in the creation/retention of 280 jobs, \$6.3 million in public sector investment, \$310 million in private sector investment and \$225,000 in increased tax revenues.

Economic Impacts by Region

Austin-Round Rock

Table 14
Total Impact of The University of Texas System on the Austin-Round Rock Region FY2004

Institution	Initial Direct Spending	Output Impact (Initial + Recirculated)	Personal Income Impact*	Employment Impact*
The University of Texas at Austin	\$1,774,833,463	\$2,436,290,297	\$704,168,283	49,123
System Administration	55,184,131	78,927,841	26,915,473	2,164
Total Impact	\$1,830,017,594	\$2,515,218,138	\$731,083,756	51,287

*Employment includes full and part-time jobs. Personal income impact is included in the output impact.

The University of Texas System's largest university is located in the Austin-Round Rock Region. The University of Texas at Austin directly employed 21,673 people in FY2004. Combined with the 546 people employed at the UT System Administration in FY2004, the University of Texas System employs more than Dell Computer Corporation in the region. In FY2004, these institutions contributed to a combined impact of \$2.5 billion and 51,287 total jobs as a result of operational and capital expenditures and the expenditures of faculty/staff and nonresident students.

The Texas State Data Center estimated the population of this five county area to be 1.4 million people in 2003. Austin's economic base includes state government, high tech, communications and business services. In 2002, the Texas State Comptroller's Office prepared a series of regional outlooks. As part of these outlooks, competitive clusters were identified for different regions in Texas. The Austin-Round Rock Region is part of the Capital Region analyzed for the outlook. According to the Comptroller, clusters poised for growth include: high tech, health care, business management services, public relations, legal services, accounting, personnel and insurance.¹⁴ Many of these industries will require a highly skilled and educated workforce. According to the 2000 US Census, 37 percent of people 25 years and older living in the Austin-Round Rock Region have attained at least a bachelor's degree, which is the highest in the state.

THE UNIVERSITY OF TEXAS AT AUSTIN AT A GLANCE

- Founded and became part of the UT System in 1883.
- Employed 2,901 faculty in fall 2003.
- Enrolled 50,377 students in fall of 2004.
- UT Austin graduated 13,065 people in the 2003/2004 school year, including 8,959 bachelor's, 2,835 master's, 683 doctoral and 588 professional degree recipients.
- Ranked 15th among top world universities (*The Times Higher Education Supplement*, 2004).
- One of the top 25 "hottest schools" (*Kaplan/Newsweek*, 2005 edition).
- Ranked number 4 as best graduate business program for Hispanics (*Hispanic Business*, 2004).
- Ranked number 1 as best law program for Hispanics (*Hispanic Business*, 2004).
- 2nd highest level of federal research expenditure in Texas.
- Ranked 5th in baccalaureates awarded to minority students (*Black Issues in Higher Education*, 2004).
- Highest number of National Academies of Science and Engineering members of any institution in Texas (66 in 2004).
- The university has the 2nd largest single-campus enrollment in the nation, including students from all 254 counties in Texas, all 50 states and more than 100 foreign countries.
- Since 1989, The Austin Technology Incubator's (ATI) graduate companies have created more than 3,000 jobs and generated \$1.5 billion in revenue.
- The Red McCombs School of Business executive education program has trained more than 11,000 business managers in the past five years.

¹⁴ Economic Trends and Outlook. Carole Keeton Strayhorn, Texas Comptroller of Public Accounts. Aug. 2002. <<http://www.window.state.tx.us/ecodata/regional/capital/outlook.html>>.

Economic Impacts by Region

Brownsville-Harlingen-San Benito

Table 15
Total Impact of The University of Texas System on the Brownsville-Harlingen-San Benito Region FY2004

Institution	Initial Direct Spending	Output Impact (Initial + Recirculated)	Personal Income Impact*	Employment Impact*
The University of Texas at Brownsville/ Texas Southmost College	\$109,797,458	\$148,297,156	\$44,084,169	3,937

*Employment includes full and part-time jobs. Personal income impact is included in the output impact.

The University of Texas at Brownsville/Texas Southmost College is located in Brownsville. UT Brownsville/Texas Southmost College directly employs 1,758 people, the second largest employer in Cameron County. In FY2004, this institution contributed to a total impact of \$148.3 million and 3,937 total jobs as a result of operational and capital expenditures and the expenditures of faculty/staff and nonresident students flowing through the region’s economy.

The Texas State Data Center estimated the population of the Brownsville-Harlingen-San Benito Region (Cameron County) to be 365,095 people in 2003, 85 percent of whom are Hispanic. Primary industries in Brownsville include apparel production, health care, agriculture, oil and gas, and international trade related businesses. Some of these industries will require a highly skilled and educated workforce. According to the 2000 US Census, only 13 percent of people 25 years and older living in the Brownsville-Harlingen-San Benito Region have attained at least a bachelor’s degree.

THE UNIVERSITY OF TEXAS AT BROWNSVILLE/TEXAS SOUTHMOST COLLEGE AT A GLANCE

- Founded in 1973, became a part of the UT System in 1989.
- Employed 540 faculty in fall of 2003.
- Enrolled 11,546 students in fall of 2004.
- UT Brownsville/Texas Southmost College graduated 850 people in the 2003/2004 school year, including 684 bachelor’s and 166 master’s degree recipients.
- Ranked number 1 nationally in number of mathematics baccalaureate degrees awarded to Hispanic students (*Black Issues in Higher Education*, 2004).
- Ranked number 25 nationally in number of baccalaureate degrees awarded to Hispanic students (*Black Issues in Higher Education*, 2004).
- Ranks 26th in the nation and 7th in Texas as a producer of Hispanics with graduate degrees.
- Almost 92 percent of the University’s student population is Hispanic and 61 percent are women.
- Approximately 94 percent of UTB/TSC students in the Associate Degree Nursing program are passing the National Council Licensing Exam – RN.
- UTB/TSC serves nearly 10,000 students in degree and certificate programs and some 3,000 individuals in continuing education courses.
- Center for Biomedical Studies recognized for number of publications in internationally peer-reviewed journals.

Economic Impacts by Region

Dallas-Plano-Irving

Table 16
Total Impact of The University of Texas System on the Dallas-Plano-Irving Region FY2004

Institution	Initial Direct Spending	Output Impact (Initial + Recirculated)	Personal Income Impact*	Employment Impact*
The University of Texas at Dallas	\$232,526,742	\$348,245,145	\$110,695,673	6,274
The University of Texas Southwestern Medical Center at Dallas	834,055,306	1,249,974,844	404,592,062	16,730
Total Impact	\$1,066,582,048	\$1,598,219,989	\$515,287,735	23,004

*Employment includes full and part-time jobs. Personal income impact is included in the output impact.

Two University of Texas System institutions are located within the eight-county Dallas-Plano-Irving Region: The University of Texas at Dallas and The University of Texas Southwestern Medical Center at Dallas. Together, these institutions directly employ 8,910 people, second only to Texas Instruments in the region. In FY2004, these institutions contributed to a combined impact of \$1.6 billion and 23,004 total jobs as a result of operational and capital expenditures and the expenditures of faculty/staff and nonresident students.

The Dallas-Plano-Irving Region is a major portion of the overall DFW Metroplex and has a highly diversified economy. The Texas State Data Center estimated the population of this 8-county area to be 3.7 million people in 2003. Key industries include high tech, communications, aviation, oil and gas, electronics, and financial-related services. UT Dallas was a key driver in the development of the telecom industry in Dallas and continues to support this important economic cluster.¹⁵ According to analysis by the Comptroller's Office, key industry clusters poised for growth in the Dallas-Plano-Irving area include investment related services, high technology, health care, transportation, logistics and warehousing. Many of these industries will require a highly skilled and educated workforce. According to the 2000 US Census, 30 percent of people 25 years and older living in the Dallas-Plano-Irving Region have attained at least a bachelor's degree.

THE UNIVERSITY OF TEXAS AT DALLAS AT A GLANCE

- Founded in 1961, became a part of the UT System in 1969.
- Employed 679 faculty in fall of 2003.
- Enrolled 14,092 students in fall of 2004.
- UTD graduated 3,240 people in the 2003/2004 school year, including 1,823 bachelor's, 1,363 master's, 50 doctoral and 4 professional degree recipients.
- Ranked among top 100 best values in public colleges (*Kiplinger's*, 2002 and 2003).
- Ranked 5th in the THECB Report on Expenditures for Research and Development at Texas Public Universities.
- Audiology program ranked 5th among top programs in the US (*US News & World Report*, 2001).
- Ranked 5th among Texas universities in number of National Merit Scholars (Lombardi Program on Measuring University Performance, 2004).
- 3rd place, "Best of the Web," Higher Education Category (Center for Digital Education, 2004).
- More than 45 percent of UTD's undergraduate diplomas are awarded to first-generation college graduates.
- The Jonsson School is one of the fastest-growing engineering schools in the US and ranks 2nd nationally in the number of graduates with degrees in computer science each year.

¹⁵ Federal Reserve Bank of Dallas. *Talking Tech in Texas*. Dallas: 2000.

Economic Impacts by Region

Dallas-Plano-Irving

THE UNIVERSITY OF TEXAS SOUTHWESTERN MEDICAL CENTER AT DALLAS AT A GLANCE

- Founded as part of the UT System in 1972.
- Employed 1,588 faculty in fall of 2003.
- Enrolled 2,273 students in fall of 2004.
- UTSWMC graduated 408 people in the 2003/2004 school year, including 61 bachelor's, 84 master's, 59 doctoral and 204 professional degree recipients.
- Received 1,959,288 clinic visits in FY2003.
- Totaled 407,991 patient bed days in FY2003.
- The three schools train more than 3,520 medical, graduate and allied health students, residents and postdoctoral fellows each year.
- Annually, UTSWMC doctors provide inpatient hospital care to more than 86,700 people, oversee 2 million out-patient visits and deliver more than 18,800 babies.
- Ongoing support from the National Institutes of Health, foundations, individuals and corporations provide more than \$298 million per year to fund more than 2,000 research projects annually.
- Since 1984, more than 520 UTSWMC researchers have been named as inventors on more than 1,000 invention disclosures, yielding a total of more than 300 issued US patents.
- The University's distinguished faculty includes four active Nobel laureates, more than any other medical school in the world.
- Ranked among the top 20 American institutions for the amount of total NIH grants (2002).
- In the top 20 for royalty income (\$10.6 million; *Chronicle of Higher Education*, 2001).
- Ranked number 1 in pharmacology graduate studies (*US News and World Report*, 2002).
- Ranked number 2 in citations for impact in biology and biochemistry; and molecular biology and genetics (*Science Watch*, 2002).

Economic Impacts by Region

El Paso

Table 17
Total Impact of The University of Texas System on the El Paso Region FY2004

Institution	Initial Direct Spending	Output Impact (Initial + Recirculated)	Personal Income Impact*	Employment Impact*
The University of Texas at El Paso	\$323,960,651	\$463,002,277	\$140,191,363	9,886

*Employment includes full and part-time jobs. Personal income impact is included in the output impact.

The University of Texas at El Paso directly employs 4,003 people, one of the top ten employers in the El Paso Region. In FY2004, this institution contributed to a total impact of \$463 million and 9,886 total jobs as a result of operational and capital expenditures and the expenditures of faculty/staff and nonresident students.

The El Paso Region is located in far west Texas. The Texas State Data Center estimated the population of El Paso County to be 707,385 people in 2003, 80 percent of whom are Hispanic. Primary industries in El Paso include business services, transportation and trade related services, health care and tourism. The 2002 Economic Outlook prepared by the Texas Comptroller's Office identified several key industry clusters that show competitive advantage and growth potential for the Upper Rio Grande region, of which El Paso is a part. These clusters include health care, business services, and international trade related industries. Many of these industries will require a highly skilled and educated workforce. According to the 2000 US Census, 17 percent of people 25 years and older living in the El Paso Region have attained at least a bachelor's degree.

THE UNIVERSITY OF TEXAS AT EL PASO AT A GLANCE

- Founded in 1914 and became part of the UT System in 1919.
- Employed 883 faculty in fall of 2003.
- Enrolled 18,918 students in fall of 2004.
- UTEP graduated 2,437 people in the 2003/2004 school year, including 1,754 bachelor's, 659 master's and 24 doctoral degree recipients.
- Ranked number 2 in the US in number of B.S. engineering degrees awarded to Hispanics (*Black Issues in Higher Education*, 2004).
- Ranked number 2 nationally in number of bachelor's degrees and number seven in master's degrees awarded to Hispanic students (*Black Issues in Higher Education*, 2004).
- Ranked number 1 nationally in number of B.S. graduates in science and engineering who earn Ph.D.s (IPEDS Completions, 00-01).
- Ranked number 2 in enrollments of Hispanic women students (*Hispanic Outlook*, 2004).
- Ranked number 3 among universities granting baccalaureate degrees to Hispanic students in elementary education (IPEDS Completions, 01-02).
- The National Institutes of Health awarded UTEP and the UT Houston Health Science Center more than \$4 million to establish the Hispanic Health Disparities Research Center at UTEP.

Economic Impacts by Region

Houston-Galveston

Table 18
Total Impact of The University of Texas System on the Houston-Galveston Region FY2004

Institution	Initial Direct Spending	Output Impact (Initial + Recirculated)	Personal Income Impact*	Employment Impact*
The University of Texas Medical Branch at Galveston	\$1,205,094,634	\$1,786,422,917	\$551,032,439	27,672
The University of Texas Health Science Center at Houston	546,199,309	809,401,442	249,100,955	11,801
The University of Texas M. D. Anderson Cancer Center	1,936,397,455	2,969,900,423	1,004,858,050	40,114
Total Impact	\$3,687,691,398	\$5,565,724,782	\$1,804,991,444	79,587

*Employment includes full and part-time jobs. Personal income impact is included in the output impact.

Three University of Texas System health institutions are located within the ten-county Houston-Galveston Region. These include the world-renowned The University of Texas M. D. Anderson Cancer Center, The University of Texas Health Science Center at Houston and The University of Texas Medical Branch at Galveston. Together, these institutions directly employ 32,160 people, more than the regional employment of Continental Airlines & Halliburton combined. In FY2004, these institutions contributed to a combined impact of \$5.6 billion and 79,587 total jobs as a result of operational and capital expenditures and the expenditures of faculty/staff and nonresident students.

The Texas State Data Center estimated the population of this ten county area to be 5.1 million people in 2003. The oil and gas and petrochemical industries have traditionally dominated the economy of Houston-Galveston. Other key industries include business services, communications, aviation, electronics and transportation-related industries. The 2002 Economic Outlook prepared by the Texas Comptroller's Office identified several key industry clusters that show competitive advantage and growth potential for the Gulf Coast region, of which Houston-Galveston is a part. This list includes several industries serving the business community such as management and public relations, miscellaneous business services, legal services, accounting, auditing and other services, and personnel services in addition to health care services. Many of these industries will require a highly skilled and educated workforce. According to the 2000 US Census, 26 percent of people 25 years and older living in the Houston-Galveston Region have attained at least a bachelor's degree.

THE UNIVERSITY OF TEXAS MEDICAL BRANCH AT GALVESTON AT A GLANCE

- First classes began in 1891.
- Employed 1,258 faculty in fall of 2003.
- Enrolled 2,121 students in fall of 2004.
- UTMB Galveston graduated 582 people in the 2003/2004 school year, including 240 bachelor's, 114 master's, 38 doctoral and 190 professional degree recipients.
- Received 843,405 clinic visits in FY2003.
- Totaled 194,642 patient bed days in FY2003.
- Received 37,190 inpatient admissions in FY2003.
- Top in awarding medical degrees for Hispanic Americans (*Black Issues in Higher Education*, 2003).
- Ranked 7th in granting medical degrees for Blacks – only Texas university in top 10 (*Black Issues in Higher Education*, 2003).
- Acute Care for Elders (ACE) named UTMB Galveston number 1 in patient satisfaction (Press Ganey Associates, 2002).
- Obstetrics program unit given best rating (HealthGrade, 2003).
- Correctional managed care ranked number 1 in quality; top honors in 5 categories (American Correctional Association; National Commission on Correctional Health Care, 1999).
- Seven UTMB doctors were selected by 52,000 of their peers to be among the 2004 "Texas Super Doctors," a project of *Texas Monthly* magazine.

Economic Impacts by Region

Houston-Galveston

THE UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT HOUSTON AT A GLANCE

- Founded in 1972 to administer several Houston biomedical and health-related units.
- Employed 1,261 faculty in fall of 2003.
- Enrolled 3,399 students in fall of 2004.
- UTHSC-H graduated 844 people in the 2003/2004 school year, including 145 bachelor's, 344 master's, 105 doctoral and 250 professional degree recipients.
- Received 748,486 clinic visits in FY2003.
- Totaled 5,906 patient bed days in FY2003.
- Received 273,499 inpatient admissions in FY2003.
- UTHSC-H is number 1 in child health and human development research among public health universities in Texas.
- Ranked 5th in numbers of medical degrees awarded to Hispanic students (*Black Issues in Higher Education*, 2004).
- School of Public Health in top 12 in nation (*US News and World Report*, 2002).
- In 2003, UTHSC-H clinicians trained 745 medical and dental residents as they delivered care in more than 50 outpatient and inpatient sites, reflecting more than 748,000 encounters with patients.
- In 2004, UTHSC-H provided \$133.9 million in non-reimbursed patient care to citizens of Harris County.
- The Dental Branch is one of the primary sources of charity care in the Greater Houston Area – providing over \$971,000 of free dental care in FY2003.
- The UTHSC-H School of Public Health has four regional campuses in Brownsville, Dallas, El Paso and San Antonio.

THE UNIVERSITY OF TEXAS M. D. ANDERSON CANCER CENTER AT A GLANCE

- Founded in 1941.
- Employed 1,133 faculty in fall of 2003.
- Enrolled 70 students in fall of 2004.
- UTMDACC graduated 30 people in the 2003/2004 school year, including 30 bachelor's degree recipients.
- Received 537,822 clinic visits in FY2003.
- Totaled 146,673 patient bed days in FY2003.
- Received 19,430 inpatient admissions in FY2003.
- Ranked number 1 in the number of grants awarded and total amount of grants given by the National Cancer Institute.
- Ranked number 4 in US in gynecology (*US News and World Report*, 2003).
- Ranked number 10 in ear, nose and throat in US (*US News and World Report*, 2003).
- 130 faculty physicians honored as leading specialists (*Best Doctors in America*, 2002).
- UTMDACC ranked among the nation's top 2 cancer hospitals in *US News and World Report's* "America's Best Hospitals" survey since its inception 14 years ago, has been ranked number 1 in 2000, 2002, 2003 and 2004.
- Since 1944, nearly 600,000 patients have turned to UTMDACC for cancer care in the form of surgery, chemotherapy, radiation therapy, immunotherapy or combinations of these and other treatments.
- More than 900 clinical residents and fellows come to UTMDACC each year to receive specialized training in the investigation and treatment of cancer.
- One of 3 facilities nationwide to offer proton therapy in 2006.

Economic Impacts by Region

McAllen-Edinburg-Pharr

Table 19
Total Impact of The University of Texas System on the McAllen-Edinburg-Pharr Region FY2004

Institution	Initial Direct Spending	Output Impact (Initial + Recirculated)	Personal Income Impact*	Employment Impact*
The University of Texas-Pan American	\$187,555,647	\$250,788,908	\$72,154,543	6,581

*Employment includes full and part-time jobs. Personal income impact is included in the output impact.

The University of Texas - Pan American directly employs 3,025 people, one of the five largest employers in the metropolitan area. In FY2004, this institution contributed to a total impact of \$250.8 million and 6,581 total jobs as a result of operational and capital expenditures and the expenditures of faculty/staff and nonresident students.

The McAllen-Edinburg-Pharr Region is located in South Texas. The Texas State Data Center estimated the population of this metropolitan area (Hidalgo County) to be 635,851 people in 2003, 90 percent of whom are Hispanic. Key industries in McAllen-Edinburg-Pharr include retail, health care, agriculture, oil and gas, and international trade-related businesses. Some of these industries will require a highly skilled and educated workforce. According to the 2000 US Census, only 13 percent of people 25 years and older living in the McAllen-Edinburg-Pharr Region have attained at least a bachelor's degree.

THE UNIVERSITY OF TEXAS - PAN AMERICAN AT A GLANCE

- Founded in 1927 and became a part of the UT System in 1989.
- Employed 697 faculty in fall of 2003.
- Enrolled 17,030 students in fall of 2004.
- UTPA graduated 2,394 people in the 2003/2004 school year, including 1,894 bachelor's, 489 master's and 11 doctoral degree recipients.
- 1st in nation in number of English language/literature and health profession baccalaureate degrees awarded to Hispanic students (*Black Issues in Higher Education*, 2004).
- 2nd in the nation in the number of bachelor's degrees and fourth in the number of master's degrees awarded to Hispanics, (*Black Issues in Higher Education*, 2004).
- Ranked 4th in education and 5th in health master's degrees awarded to Hispanic students (*Black Issues in Higher Education*, 2004).
- 2nd in the nation in *Hispanic Outlook's* selection of the 100 best US colleges for Hispanic students (2003).
- Ranked in the top 10 in bachelor's degrees awarded to Hispanic students in many academic programs (*Black Issues in Higher Education*, 2004): 2nd in Biological Sciences; 10th in Business and Marketing; 4th in mathematics and statistics.
- 68 percent of UTPA students who apply to medical schools are admitted compared to the state average of 38 percent.
- According to the State Board for Educator Certification, UTPA ranks 1st in the nation in the number of bilingual education graduates.
- On average, every year the Center for Entrepreneur and Economic Development (CEED) assists 50 South Texas businesses to acquire more than \$8 million in resources for start-up and expansion.
- It is the only university in the US to serve as a satellite office of INEGI, the Mexican equivalent of the US Census Bureau.

Economic Impacts by Region

Midland-Odessa

Table 20
Total Impact of The University of Texas System on the Midland-Odessa Region FY2004

Institution	Initial Direct Spending	Output Impact (Initial + Recirculated)	Personal Income Impact*	Employment Impact*
The University of Texas of the Permian Basin	\$51,414,276	\$71,945,468	\$21,648,298	1,551

*Employment includes full and part-time jobs. Personal income impact is included in the output impact.

The University of Texas of the Permian Basin is located in Midland-Odessa Region. UT Permian Basin directly employs 600 people, approximately the same amount as the Huntsman Corporation in the region. In FY2004, UT Permian Basin contributed to the regional economy by adding \$71.9 million and 1,551 total jobs as a result of operational and capital expenditures and the expenditures of faculty/staff and nonresident students.

The Midland-Odessa Region is located in west Texas. The Texas State Data Center estimated the population of this area to be 242,291 people in 2003. Energy dominates Midland-Odessa's economy, though some diversification has taken place over the years. The 2002 Economic Outlook prepared by the Texas Comptroller's Office identified several key industry clusters that show competitive advantage and growth potential for the West Texas region, of which Midland-Odessa is a part. This list includes agriculture and agricultural processing, high tech, communications, and oil and gas. Some of these industries will require a highly skilled and educated workforce. According to the 2000 US Census, only 18 percent of people 25 years and older living in the Midland-Odessa Region have attained at least a bachelor's degree.

THE UNIVERSITY OF TEXAS OF THE PERMIAN BASIN AT A GLANCE

- Founded in 1969 as part of the UT System.
- Employed 186 faculty in fall of 2003.
- Enrolled 3,291 students in fall of 2004.
- UTPB graduated 552 people in the 2003/2004 school year, including 443 bachelor's and 109 master's degree recipients.
- National excellence award for online Master's in Kinesiology (US Distance Learning Association, 2002).
- National excellence award for online business administration program (UT TeleCampus partnership) (US Distance Learning Association, 2001).
- Exemplary bilingual education teacher training program (US Department of Education, 2002).
- Over 90 percent of faculty hold doctorates in their teaching fields.
- More than 40 percent of students are from groups underrepresented in higher education.
- Over 50 percent of UTPB's undergraduates are first generation college students.
- UTPB Center for Energy and Economic Diversification has recently received Congressional funding to study the geothermal energy potential of existing West Texas wells.

Economic Impacts by Region

San Antonio

Table 21
Total Impact of The University of Texas System on the San Antonio Region FY2004

Institution	Initial Direct Spending	Output Impact (Initial + Recirculated)	Personal Income Impact*	Employment Impact*
The University of Texas at San Antonio	\$380,531,198	\$599,698,899	\$195,559,659	10,862
The University of Texas Health Science Center at San Antonio	458,100,969	679,922,073	201,861,094	12,337
Total Impact	\$838,632,167	\$1,279,620,972	\$397,420,753	23,199

*Employment includes full and part-time jobs. Personal income impact is included in the output impact.

Two University of Texas System institutions are located in the eight-county San Antonio Region: The University of Texas at San Antonio and The University of Texas Health Science Center at San Antonio. Together, these institutions directly employ 8,731 people, more than the employment of SBC Communications in the region. In FY2004, these institutions contributed to a combined impact of \$1.3 billion and 23,199 total jobs as a result of operational and capital expenditures and the expenditures of faculty/staff and nonresident students.

The San Antonio Region is made up of eight counties in south central Texas, centering on Bexar County. According to the Texas State Data Center 2003 population estimates, of the 1.8 million people living in the San Antonio Region, 52 percent are Hispanic. The UT System institutions support the economic strengths of San Antonio by contributing to the advancement of key industries within the region, including biomedical, military, tourism, and the financial service industries. Many of these industries will require a highly skilled and educated workforce. According to the 2000 US Census, 22 percent of people 25 years and older living in the San Antonio Region have attained at least a bachelor's degree.

THE UNIVERSITY OF TEXAS AT SAN ANTONIO AT A GLANCE

- Founded in 1969 as a part of the UT System.
- Employed 969 faculty in fall of 2003.
- Enrolled 26,175 students in fall of 2004.
- UTSA graduated 3,686 people in the 2003/2004 school year, including 2,912 bachelor's, 769 master's and 5 doctoral degree recipients.
- Ranked 1st in number of biological sciences degrees awarded to Hispanic students (*Black Issues in Higher Education*, 2004).
- Ranked 2nd in number of business and education degrees awarded to Hispanic students; 6th in mathematics and in psychology (*Black Issues in Higher Education*, 2004).
- Ranked 4th in number of undergraduate degrees awarded to Hispanic students (*Black Issues in Higher Education*, 2004).
- Over 56 percent of UTSA's students come from groups underrepresented in higher education.
- UTSA's Institute for Economic Development was a top performer in creating economic impact. (US Department of Commerce, Economic Development Administration, 2002).
- Over the past five years, research funding at UTSA increased to more than \$34 million ranking UTSA among the top 3rd of domestic institutions of higher education receiving research funding.
- UTSA is the 1st Texas university and one of 50 in the nation with the "Center for Academic Excellence in Information Assurance Education" designation by the National Security Agency.

Economic Impacts by Region

San Antonio

THE UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT SAN ANTONIO AT A GLANCE

- Founded in 1959 as a part of the UT System.
- Employed 1,405 faculty in fall 2003.
- Enrolled 2,837 students in fall of 2004.
- UTHSC-SA graduated 742 people in the 2003/2004 school year, including 323 bachelor's, 10 master's, 34 doctoral and 279 professional degree recipients.
- Received 1,110,429 clinic visits in FY2003.
- Totaled 224,366 patient bed days in FY2003.
- Designated a Hispanic Student Serving Institution.
- Top 10 Liver Transplant program in the nation.
- Only Tier One research Institution in the South Texas region, with more than \$175 million in annual research awards.
- Home of Palmaz Stent (designated "One of Ten Patents that Changed the World" and used in more than 2 million procedures each year); home of expandable Titanium Rib, first new spine treatment to receive FDA approval in 40 years.
- Ranked in the top 15 percent of all research universities in the nation.
- One of the top 50 hospitals in the country in five clinical specialties by *US News and World Report*.
- The Health Science Center Dental School has been ranked number 1 among the nation's dental schools by *US News and World Report* each year the magazine ranked dental schools since 1990.
- The School of Allied Health added a campus extension in Laredo in 2001.
- UTHSC-SA programs span South Texas, and with new buildings and programs in Harlingen, Laredo, and Edinburg.

Economic Impacts by Region

Tyler-Longview-Marshall

Table 22
Total Impact of The University of Texas System on the Tyler-Longview-Marshall Region FY2004

Institution	Initial Direct Spending	Output Impact (Initial + Recirculated)	Personal Income Impact*	Employment Impact*
The University of Texas at Tyler	\$80,307,464	\$118,714,998	\$36,484,207	2,369
The University of Texas Health Center at Tyler	126,848,375	179,954,448	51,444,332	3,517
Total Impact	\$207,155,839	\$298,669,446	\$87,928,539	5,886

*Employment includes full and part-time jobs. Personal income impact is included in the output impact.

Two University of Texas System institutions are located within the Tyler-Longview-Marshall Region: The University of Texas at Tyler and The University of Texas Health Center at Tyler. Together, these institutions employ 2,092 people, more than the employment of The Trane Company in the region. In FY2004, these institutions contributed to a combined impact of \$298.7 million and 5,886 total jobs as a result of operational and capital expenditures and the expenditures of faculty/staff and nonresident students.

The Texas State Data Center estimated the population of this region to be 444,105 people in 2003. Key sectors in the Tyler-Longview-Marshall area include health care, government and business services. The 2002 Economic Outlook prepared by the Texas Comptroller's Office identified several key industry clusters that show competitive advantage and growth potential for the Upper East Texas region, of which this region is a part. This list includes miscellaneous health services (such as audiologists, nurses, paramedics, physician assistants, psychologists), general health practitioners, nursing and personal care facilities and, somewhat further down the list, residential care and hospitals. Some of these industries will require a highly skilled and educated workforce. According to the 2000 US Census, 19 percent of people 25 years and older living in the Tyler-Longview-Marshall area have attained at least a bachelor's degree.

THE UNIVERSITY OF TEXAS AT TYLER AT A GLANCE

- Founded in 1971, became a part of the UT System in 1979.
- Employed 291 faculty in fall of 2003.
- Enrolled 5,326 students in fall of 2004.
- UTT graduated 916 people in the 2003/2004 school year, including 720 bachelor's and 196 master's degree recipients.
- MBA Online/UT TeleCampus named best in the nation (US Distance Learning Association, 2001).
- M.S. Kinesiology Online/UT TeleCampus named best in the nation (US Distance Learning Association, 2002).
- Tier 2 of Master's level universities in the West (US News & World Reports, 2003 and 2004 editions).
- According to the State Board of Educator Certification, UTT is a leader in the state for producing teachers who remain in teaching after five years.
- UTT engineering seniors had the highest pass-rate percentage (95%) among Texas universities that had more than one student taking the National Council of Examiners for Engineering and Surveying Fundamentals Examination (one requirement for licensure as a Professional Engineer).

Economic Impacts by Region

Tyler-Longview-Marshall

THE UNIVERSITY OF TEXAS HEALTH CENTER AT TYLER AT A GLANCE

- Became a part of the UT System in 1977.
- Employed 110 faculty in fall of 2003.
- Saw 119,515 clinic visits in FY2003.
- Provided 26,942 patient bed days in FY2003.
- Totaled 3,765 inpatient admissions in FY2003.
- In 2003, three NIH grants totaling more than \$2.5 million were awarded to UTHC-T researchers to fund studies into lung injury, tuberculosis, and the transport and synthesis of cell proteins.
- Occupational Medicine Training Program is only one of three civilian occupational medicine programs in Texas and approximately 40 in the nation.
- Received approval from the Texas Legislature to establish the East Texas Center for Rural Geriatric Studies. The senior population in the East Texas community is growing faster than in other parts of the state.
- Home to two medical residency programs in Family Practice and Occupational Medicine, and recently began a new Pharmacy Residency Program.

Conclusion

UT System Benefits to Texas

Table 23
Total Economic Impact of The University of Texas System on Regional Economies FY2004

Region	Initial Direct Spending	Output Impact (Initial + Recirculated)	Personal Income Impact*	Employment Impact*
Arlington-Fort Worth	\$402,122,707	\$616,820,092	\$197,600,558	10,797
Austin-Round Rock	1,830,017,594	2,515,218,138	731,083,756	51,287
Brownsville-Harlingen-San Benito	109,797,458	148,297,156	44,084,169	3,937
Dallas-Plano-Irving	1,066,582,048	1,598,219,989	515,287,735	23,004
El Paso	323,960,651	463,002,277	140,191,363	9,886
Houston-Galveston	3,687,691,398	5,565,724,782	1,804,991,444	79,587
McAllen-Edinburg-Pharr	187,555,647	250,788,908	72,154,543	6,581
Midland-Odessa	51,414,276	71,945,468	21,648,298	1,551
San Antonio	838,632,167	1,279,620,972	397,420,753	23,199
Tyler-Longview-Marshall	207,155,839	298,669,446	87,928,539	5,886
Aggregate	\$8,704,929,784	\$12,808,307,228	\$4,012,391,158	215,715

*Employment includes full and part-time jobs. Personal income impact is included in the output impact.

This study utilizes conservative assumptions to estimate the short-term economic impacts of UT System institutions on their host regions. Short-term economic impacts are significant even before considering the long-term economic impacts that result from improving the human capital of Texas. State appropriations that contribute to short-term impacts are leveraged within local communities through: the various stakeholders of each institution, expenditures made by businesses serving UT System institutions, funds from outside resources and through the future earnings of UT System graduates.

LEVERAGE OF THE STATE'S DIRECT INVESTMENT

The UT System expenditures for FY2004 totaled \$7.8 billion from all sources. **State appropriations represented \$1.6 billion or about 20 percent of this total and play a critical role in funding the core educational mission of the UT System institutions.**¹⁶

The balance of the FY2004 expenditures include a vast array of contracted services affecting all Texans. These services including patient care through UT System affiliated hospitals and clinics; contracts and research grants with the Federal government, businesses and nonprofits; services to students such as housing and food, parking, recreation in addition to education. The balance of FY2004 expenditures also includes gifts received from individual donors, often conditioned to the area of philanthropic interest by the donor. While state appropriations constitute only 20 percent of the total expenditures, their role is vital to supporting the educational

mission and enabling the UT System to engage in the many other public services benefiting all of Texas.¹⁷

LEVERAGE THROUGH MULTIPLIERS OF RESOURCES IN REGIONAL ECONOMIES

As reported above, considering the additional indirect and induced effects of the \$7.8 billion institutional budgets and \$974.9 million from non-resident student direct spending, the total economic impact of the 15 institutions and administration on the respective host economies was **\$12.8 billion** in additional economic output during FY2004. Of the total economic impact, **\$8.7 billion, or 68 percent** was the initial direct spending of the institutions, faculty/staff, and nonresident students. An additional \$4.1 billion was spent in host regions as dollars re-circulated. **For every dollar in initial spending, an average of 44 additional cents was spent within host regions.**

Personal income includes salary, wage and proprietor income, which are direct money impacts to people's pocketbooks. In its host regions, **The University of Texas adds \$4 billion in personal income** as a result of the initial spending of the institution, faculty, staff and nonresident students.

¹⁶ Fast Facts 2004. The University of Texas System Pamphlets. Austin: 2004.

¹⁷ The University of Texas System Office of the Chancellor. The University of Texas System Accountability and Performance Report, 2004-2005. Austin: 2004, Section IV Organizational Efficiency and Productivity, p 3, Table IV-1.

Conclusion

UT System Benefits to Texas

Table 24
On-Campus and Off-Campus Jobs that Exist Due to Institution-Related Spending FY2004

Institution/Region	On-Campus Jobs	Off-Campus Jobs	Total Employment*
UT Arlington	4,537	6,260	10,797
Total Impact, Arlington-Fort Worth	4,537	6,260	10,797
UT Austin	21,673	27,450	49,123
System Administration	546	1,618	2,164
Total Impact, Austin- Round Rock	22,219	29,068	51,287
UT Brownsville/Texas Southmost College	1,758	2,179	3,937
Total Impact, Brownsville-Harlingen-San Benito	1,758	2,179	3,937
UT Dallas	3,126	3,148	6,274
UT Southwest Medical Center - Dallas	5,784	10,946	16,730
Total Impact, Dallas-Plano-Irving	8,910	14,094	23,004
UT El Paso	4,003	5,883	9,886
Total Impact, El Paso	4,003	5,883	9,886
UT Medical Branch - Galveston	13,340	14,332	27,672
UT Health Science Center-Houston	5,528	6,273	11,801
UT M. D. Anderson Cancer Center	13,292	26,822	40,114
Total Impact, Houston-Galveston	32,160	47,427	79,587
UT Pan American	3,025	3,556	6,581
Total Impact, McAllen-Edinburg-Pharr	3,025	3,556	6,581
UT Permian Basin	600	951	1,551
Total Impact, Midland-Odessa	600	951	1,551
UT San Antonio	3,752	7,110	10,862
UT Health Science Center - San Antonio	4,979	7,358	12,337
Total Impact, San Antonio	8,731	14,468	23,199
UT Tyler	829	1,540	2,369
UT Health Center - Tyler	1,263	2,254	3,517
Total Impact, Tyler-Longview-Marshall	2,092	3,794	5,886
Total Impact on Regional Economies	88,035	127,680	215,715

*Employment includes full and part-time jobs.

LEVERAGE THROUGH MULTIPLIERS OF JOBS IN REGIONAL ECONOMIES

These output and income impacts are better understood when translated to the number of jobs added or supported in a region as a result of the presence of a University of Texas institution. **The combined employment impact of all 15 institutions on their host regions was 215,715.** This includes the on-campus employment of 88,035 and the off-campus employment of 127,680 supported by the additional rounds of economic impact.

On average, for every on-campus job, an additional 1.5 jobs are added because of institution-related spending.

Conclusion

UT System Benefits to Texas

Table 25
Total Economic Impact from UT Export Sales FY2004

	Direct Expenditures (\$millions)	Average Multiplier	Total Estimated Impact
R&D Federal Funds	\$975.8	1.53	\$1,493.0
Non-resident students spending			
8,284 out-of-state students	87.5		
15,786 foreign students	166.8		
Out-of-state/foreign tuition	303.0		
Sub-total	\$557.3	1.5	835.5
Total Impact			\$2,328.0

LEVERAGE THROUGH EXPORT SALES TO EXTERNAL CUSTOMERS

Another viewpoint on the state's investment is to look at the resultant "exports" of educational and research services to out-of-state customers. This brings in outside new resources, which, absent UT System activities, could very well go to non-Texas universities. **Consequently, the state's \$1.6 billion direct investment brings in a total economic impact of \$2.3 billion from out-of-state resources alone.**

LEVERAGE THROUGH FUTURE PRODUCTIVITY GAINS OF GRADUATES

Finally, perhaps the most compelling demonstration of the cost-benefit ratio of the state's return on its UT System investment for one year is an estimate of the Net Present Value (NPV) of the future additional earnings by graduates as a measure of future increased productivity to the Texas economy.

Other university impact studies have used variations of this theme and even calculated the indirect and induced impacts of these future work-life earnings. We have chosen a more conservative approach and are reporting the present value of the estimated future, work-life (over 40 years) earnings as reported by the US Census Bureau in July 2002, and are comparing this present value to the amount appropriated for the UT System for FY2004. Although students' future earnings

are influenced by more than one year in the UT System, it is also true that the state's appropriations for any given year benefits all the students regardless of their classification.

In addition to the UT System institutional Direct Spending and resultant Output, Personal Income, and Employment multipliers in the respective host economies, as well as the exported educational and research services to customers out-of-state, we should not ignore the effect of additional work-life earnings of college graduates on the state's economy.

The state is like any organization with limited resources and ceaseless demands against those resources. They make investment decisions using a variety of criteria, some of which they borrow from the corporate world. A decision tool widely used in private industry is the Net Present Value (NPV) model, which compares the cost of an investment to the resulting future cash benefits resulting from the investment. A positive NPV (the present value of the future benefits exceeds the cost of the investment) indicates that the project is financially sound.

If the state's appropriations to higher education are viewed as an investment and the incremental work-life earnings of its graduates as the resulting benefits (those future earnings result in additional indirect and induced spending as well as produce indirect and induced employment), we can determine the financial soundness of the state's investment. **An estimate of the UT System's aggregate incremental earnings impact from its 34,897 degrees awarded in FY2004 alone**

Conclusion

UT System Benefits to Texas

Table 26
UT System's Aggregate Incremental Earnings FY2004

Educational Attainment	UT System Graduates 2004	Incremental Earnings per Graduate*	Total Work-Life Incremental Earnings
Bachelor's	23,268	\$1,039,490	\$24,186,853,320
Master's	9,030	1,405,806	12,694,428,180
Professional	1,084	3,621,110	3,925,283,240
Doctoral	1,515	2,516,528	3,812,539,920
Total	34,897	\$8,582,934	44,619,104,660
x 86% of graduates working in Texas			38,372,430,007
Total UT System State Appropriations FY2004			\$1,588,000,000

*Incremental earnings are additive to a typical high school graduate lifetime earnings of \$1,364,326 in present terms.

would be \$44.6 billion for all graduates. Assuming that 86 percent of graduates remain in Texas, a total incremental earnings impact of \$38.4 billion would result.

Comparing the total work-life incremental earnings with the state's FY2004 appropriations, we see that this public version of NPV would exceed \$43 billion for all UT System graduates in FY2004. **The ratio of the state's investment of \$1.6 billion to the \$38.4 billion of incremental earnings is 1 to 24.** In other words, every \$1 the state invests in UT higher education acts as a catalyst for, and ultimately results in, an additional \$24 of gross, work-life incremental earnings that go into the Texas economy.

Looking at this investment from an individual standpoint,

the incremental lifetime earnings for a bachelor's degree recipient would typically add over \$1 million beyond the baseline average for a high school degree only. The College Board estimates that on average, total expenses (tuition, fees, etc.) per year at a public four-year institution were \$14,600 for resident students in FY2004. If taken as an approximation of a family's investment in a bachelor's degree, the investment would be \$58,600 for a degree completed in four years, \$73,200 for completion in five years, and \$87,800 for completion in six years. While these figures would vary, depending on types of financial aid, region, opportunity cost, and many other individual factors, **the total investment is still comparatively small compared with a college graduate's estimated lifetime benefit in earnings.**

Scope and Limitations/ Future Study Topics

Only centralized financial and enrollment reports aggregating data from all institutions have been used so far, and the institutions have not yet had the opportunity to contribute their individual “rest of the story” items to share, broaden and exemplify the numerous and unique ways in which they impact their region’s as well as the state’s economy. When these additional impacts are more fully explored, surely a significant increase in the total economic, employment and quality-of-life impacts will be revealed.

Additional categories of economic impact to be considered in the future include:

- Visitor spending evidenced by an inventory of institution visitors and typical expenditures, such as non-credit students and attendees to conferences, museums, festivals, athletics, arts and culture events held of all types, with total attendance, costs and duration, surveys of students and parents regarding pre-college and on-going visits of family and friends, and identifying the out-of-town proportions of all visiting activities.
- Research and development additional impacts, such as industry productivity gains due to innovations, technology transfer and commercialization, spin-off industry, intellectual property interests and revenues to universities, and industry attraction benefits; (thus far R&D has been assessed as expenditure effects only).
- Workforce and industry implications to meet the employment demand levels for Texas, with graduates educated to fill the knowledge economy jobs supporting economic diversification, also continuing education to re-tool workers’ skills, and scenarios of university-level services versus growth consequences to produce an adequate future workforce.
- Public services benefits via outreach and extension programs, the multitude of health interventions, teacher preparation and partnerships with schools, volunteerism by faculty and staff, service-learning roles of students, facilities use, and state and local tax benefits, as well as cost avoidance due to lower incidences of unemployment, illness and crime associated with higher education.
- Quality of life enhancements due to university arts, culture, athletics and recreational activities, access to expertise, free publicity and prestige for communities.

Appendix 1

Methodology

EDUCATIONAL INSTITUTIONS

Caffrey and Isaacs (1971) provide the basic primer for evaluating the regional economic impacts of an educational institution.¹⁸ They estimate the direct expenditures in several broad categories including: 1) expenditures for operations and maintenance; 2) capital expenditures; 3) faculty and staff spending; 4) student spending; and 5) expenditures of visitors. Data are collected from various surveys, interviews, and financial reports. Most other reliable studies of university impacts follow along these same lines with modifications.¹⁹ In this analysis, we separated the expenditures of each university into four classes: 1) expenditures for operations and maintenance; 2) capital expenditures; 3) faculty and staff spending; and 4) student spending. Because of time limitations and the vast differences in the types of visitors (a visitor to a UT Austin football game versus a physician attending a conference at UTMB Galveston), we did not attempt to estimate the impact of visitor spending on the local region.

The purpose of this study was to provide an estimate of the short run economic impacts on the regional economies of each institution of the UT System. For our analysis, we used the Metropolitan Statistical Areas as defined in December 2003 with two exceptions: Midland and Odessa were combined for our analysis and Tyler-Longview-Marshall were considered a region. The first part of our analysis required us to estimate the direct expenditures within the region. These direct impacts were measured for the 2004 fiscal-year comprising September 2003, through August 2004. The data for estimating the economic impacts of the UT System were derived from financial statements, budget data and other information provided by the business office of the UT System.

The multiplier effect was then measured for each one of these direct economic impacts through the IMPLAN Input/Output model.²⁰ A widely used I/O model first developed by the United States Forest Service in 1979, and now marketed by Minnesota IMPLAN Group (MiG, Inc.). The latest data (2002) were used for this report. The model utilizes benchmark tables provided by the Bureau of Economic Analysis as well as other statistical data to model transactions occurring within a region, state or the nation. IMPLAN is, in a sense, a general accounting system of the economic transactions taking place between industries, businesses (universities), and consumers in an economy and estimates the impacts on total output (sales), personal income, taxes, and employment. By expanding their analysis beyond the direct impacts, IMPLAN provides a more complete picture of the economic effects of transactions. The latest available economic data from IMPLAN (2002) were used to estimate the indirect and induced impacts of the UT System institutions on their regions.

OPERATIONAL EXPENDITURES

Operational expenditures were derived from the FY2004 financial reports provided by the UT System for each institution.²¹ All categories were allocated to single or aggregated IMPLAN sectors except for salaries and related costs, bad debt

and federal pass-throughs. Salary and wage-related costs were analyzed separately under faculty and staff spending. Federal pass-throughs included expenditures for programs at other institutions (between other universities or state agencies). While these are important programs, many times they occur outside of the local region. In order to remain conservative, we did not include these expenditures within the analysis. Model local purchase coefficients were utilized for each sector or aggregated sector with the exception of the sectors allocated to travel expenditures.²² For travel expenditures, an aggregated sector that includes 391 (air transportation), 395 (transit and ground transportation) and 456 (travel arrangement services) was utilized with a local purchase coefficient of 25 percent. Other categories of expense and the related IMPLAN sector include: Professional Fees and Services (aggregate of sectors 423-424 and 437-460 – various professional services); Materials and Supplies (aggregate of sectors 403-406, 408-412 – various retailers); Utilities (sector 498-State and Local Government Utilities); Telecom (sector 422-telecommunications); Repairs and Maintenance (aggregate of sectors 453, 458, 460, 484-486 – various repair services); Rentals and Leases (aggregate of sectors 432, 434, and 435 – various rental services); Printing (sector 139 – commercial printing); and Other and Scholarships and Fellowships (sector 462 – colleges and universities).

CAPITAL EXPENDITURES

Capital expenditure data were derived from the FY2004 financial report provided by the UT System for each institution.²³ Data included expenditures on construction, equipment, vehicles and books/art. Construction expenditures were taken only from data for “construction in-progress” during the year. These expenditures were allocated to IMPLAN sector 38 (Commercial and Institutional Buildings). Other capital expenditures were allocated to IMPLAN sectors in the following ways: equipment to sector 412 (non-store retailers); vehicles to 401 (motor vehicle and parts dealers); and books/art to 415 (book publishers). Ideally, an analysis of purchases would provide a more detailed allocation of expenditures to sectors as well as provide an overall estimate of local versus non-local expenditures. The IMPLAN model estimates local and non-local expenditures based on the underlying industry makeup of each region and the propensity to buy across industries (local purchase coefficients). The model local purchase coefficients were applied to each sector in the analysis. The direct expenditures for capital were then modeled in IMPLAN to estimate the additional impacts to the regional economy.

FACULTY AND STAFF SPENDING

In order to estimate the economic impacts of faculty and staff spending, the direct salary and wage expenditures were first extracted from the FY2004 financial reports. These total expenditures were then discounted by 15 percent to account for disposable income. The remaining amount was then applied to the median household range for the selected MSA. IMPLAN models households as institutions (basically like an

Appendix 1

Methodology

industry) based upon benchmarks of consumer expenditures provided by the Bureau of Labor Statistics. Indirect and induced expenditures were derived from the model results.

STUDENT EXPENDITURES

Student spending was estimated in the following manner. First, the number of students for Fall 2003 was obtained from the UT System office. Students were classified as originating from within the host region of the institution or from outside of the region. While an argument can be made that had the institution not been located within the region, prospective students would have been forced to move elsewhere to attend school, we assumed that only the students who moved into the local region to attend school would have an impact on the local economy since they are bringing new money into the region to spend on local goods and services. By multiplying the number of out-of-region students by average expenditures, we were able to estimate the total expenditures spent within the region.

The financial aid office of each institution is required by the US Department of Education to estimate student costs based upon a nine-month school year. While these statistics give reasonable estimates of cost, there is a degree of inconsistency in how each campus derives its estimates, so this study balanced these with statistics on consumer expenditures provided by the Bureau of Labor Statistics.²⁴ First, the average estimated expenditures for students at all UT System institutions were determined to be \$10,568 per academic year (\$1,174 per month), which represent only personal expenses above and beyond those paid to the university for tuition, fees, books, etc. These estimates were then compared to the consumer expenditure data for the lowest income individual for the southern region in the Bureau of Labor Statistics' estimates. Spending in specific categories was adjusted up or down. For instance, expenditures for books were adjusted upward to reflect student costs while expenditures for education (tuition and fees) were changed to zero since these expenditures are already reflected in the operational expenditures of the University. Allocation of expenditures into specific expense categories were estimated based upon the proportional representation of expenditures in the Bureau of Labor Statistics' data (after the aforementioned adjustments were made). These expenditure estimates are considered conservative not only because of the methods by which they are derived, but because of the fact that students may attend college year round and/or remain in the region during the summer, thus impacting the regional economy.²⁵ By multiplying the number of out-of-region students by the estimated expenditures, we have a total estimated direct

expenditure of goods and services by students originating from outside the institution's home region. This represents new money coming into the region.

These direct expenditures were then allocated to IMPLAN sectors for estimating the indirect and induced impacts of student expenditures. The resulting figures give an estimate of the impact of student spending on the regional economy from students originating from elsewhere. These expenditures represent new resources coming into the local economies.

¹⁸ Caffrey, John, Herbert H. Isaacs. Estimating the Impact of a College or University on the Local Economy. Washington, D.C.: American Council on Education, 1971.

¹⁹ Studies that have used similar methodologies with the IMPLAN Input/Output Model have included: Engines of Economic Growth: The Economic Impact of Boston's Eight Research Universities on the Metropolitan Boston Area, Appleseed, 2003; The Economic Impact of the University of South Carolina System, Division of Research, The Darla Moore School of Business at the University of South Carolina, June 2000; The Economic Impact of University System of Georgia Institutions on their Regional Economies, March 2002, by Sharon Duhart of the Board of Regents Office of Economic Development; and The Economic Impact of Tarleton State University by S. Hussain Ali Jafri, Jay Dudley and David Buland, May 9, 2000.

²⁰ Minnesota IMPLAN Group, Inc., IMPLAN System (data and software), 1725 Tower Drive West, Suite 140, Stillwater, MN 55082 www.implan.com. The 2002 Data was used for this analysis (the most current available).

²¹ Expenditures are detailed on schedule C-2 of these reports.

²² Local Purchase Coefficients estimate the amount of an industry's needs that can be supplied by local industries based upon the makeup of the regional economy. Higher local purchase coefficients indicate that more items are purchased from local suppliers.

²³ Expenditures are detailed on schedule B-11 of these reports.

²⁴ Bureau of Labor Statistics, Consumer Expenditure data for 2000-2003.

²⁵ Similar methods were used for economic impact studies for the University of Georgia and University of Wisconsin Systems (The Economic Impact of University System of Georgia Institutions on Their Regional Economies, March 2002 by Sharon Duhart; and University of Wisconsin System's Economic Contribution to Wisconsin by Dennis K. Winters and William A. Strang, Sept 2002).

Appendix 2

Educational Attainment and Work-Life Earnings

Census data show a positive correlation between higher earnings and educational attainment. This report uses data compiled and reported in *The Big Payoff: Educational Attainment and Synthetic Estimates of Work-Life Earnings* by Jennifer Cheesman Day and Eric C. Newburger for the US Department of Commerce, Economics and Statistics Administration, US Census Bureau in July 2002.

They determined “synthetic” estimates of work-life earnings from the working population’s 1-year annual earnings and summing their age-specific average earnings for people ages 25 to 64 years.

The resulting totals represent what individuals with the same educational level could expect to earn, on average, in 1999 dollars (we used a CPI adjustment factor of 2.6 percent per year to adjust their figures to 2004), during a hypothetical 40-year working life.” They defined a typical work-life as the period from age 25 through age 64. The authors acknowledge that some people stop working at ages other than 64, or start working before age 25, but believe that this range of 40 years provides a reasonable benchmark for many people.

ASSUMPTIONS AND LIMITATIONS

As with any national-level survey and accompanying statistical analysis, *The Big Payoff: Educational Attainment and Synthetic Estimates of Work-Life Earnings* uses a number of assumptions and is subject to limitations.

Assumptions

- The estimates assume current cross-sectional earnings are representative of the patterns in future earnings.
- The average earnings of individuals in each age group have been based on all members within an age group without regard to work history, past performance, or other factors which may affect pay.
- The estimates do not account for any future productivity gains in the economy, and therefore, the estimates may be low.
- Their report assumes uninterrupted labor force participation from age 25 to 64.
- The earnings are based on currently surviving workers. Past research indicates that due to a differential mortality by education, these work-life estimates may be inflated differentially by education level.

Limitations

- Selecting only resident, noninstitutional population with earnings excludes a segment of adults with less education. This results in a higher estimate of the earnings of people with less education, and consequently, may understate the difference in work-life earnings between workers with less education and workers with more.
- Their report does not cover many other factors which affect earnings:
 - College major
 - Continuity of occupation
 - Motivation and effort of individuals
 - Occupation
 - Gender
 - Marital status
 - Family responsibilities
 - Income requirements
 - Area of residence
 - Local job markets
- Statistics from sample surveys are subject to sampling and non-sampling error.

An estimate of the UT System’s aggregate incremental earnings impact from its 34,897 degrees awarded in FY2004 alone would be \$44.6 billion overall, and considering the 86 percent of graduates staying to work in Texas would be \$38.4 billion (Table 26). In contrast to the total UT System State appropriations for FY2004 of \$1.6 billion, this gain in productivity for the graduating class’s lifetime represents a return to Texas exceeding 24 to 1.

Figures are averages, and represent incremental earnings potential over and above a typical high-school degree recipient with a typical lifespan and career, which by comparison would earn \$1,364,326 in 2004 dollars. As an example, a 2004 graduate with a master’s degree would earn \$1,405,806 above the \$1,364,326 that he or she would have earned with just a high school diploma. The total earnings over his or her forty-year work-life would be \$2,770,132, or about \$69,253 per year.

This analysis does not differentiate among specific degree fields of study or granting institutions. For example, future surveying of UT graduates could better determine differences between careers (Finance, English, Science) and among institutions.

Appendix 3

Regions Used in Study

Table 27
Component Counties of Local Regions

Region	Component Counties	Institution County
Arlington-Fort Worth	Johnson, Parker, Tarrant, Wise	Tarrant
Austin-Round Rock	Bastrop, Caldwell, Hays, Travis, Williamson	Travis
Brownsville-Harlingen-San Benito	Cameron	Cameron
Dallas-Plano-Irving	Collin, Dallas, Delta, Denton, Ellis, Hunt, Kaufman, Rockwall	Dallas
El Paso	El Paso	El Paso
Houston-Galveston	Austin, Brazoria, Chambers, Ft. Bend, Galveston, Harris, Liberty, Montgomery, San Jacinto, Waller	Harris
McAllen-Edinburg-Pharr	Hidalgo	Hidalgo
Midland-Odessa	Ector, Midland	Ector
San Antonio	Atascosa, Bandera, Bexar, Comal, Guadalupe, Kendall, Medina, Wilson	Bexar
Tyler-Longview-Marshall	Gregg, Harrison, Rusk, Smith, Upshur	Smith

Appendix 4

Total Economic Impacts of UT System Institutions on Regional Economies

Table 28
Total Economic Impacts of The University of Texas System Institutions on their Regional Economies FY2004

Region/Institutions	Initial Direct Spending	Output Impact (Initial+Recirculated)	Personal Income Impact*	Employment Impact*
UT Arlington				
Operations	\$69,556,004	\$112,259,554	\$41,789,450	5,928
Capital	\$49,367,016	\$84,817,485	\$31,964,486	910
Faculty/Staff Expenditures	\$138,025,486	\$193,017,834	\$48,693,699	1,424
Student Expenditures	\$145,174,201	\$226,725,219	\$75,152,923	2,535
Subtotal	\$402,122,707	\$616,820,092	\$197,600,558	10,797
Total Impact, Arlington-Fort Worth				
Operations	\$69,556,004	\$112,259,554	\$41,789,450	5,928
Capital	\$49,367,016	\$84,817,485	\$31,964,486	910
Faculty/Staff Expenditures	\$138,025,486	\$193,017,834	\$48,693,699	1,424
Student Expenditures	\$145,174,201	\$226,725,219	\$75,152,923	2,535
Total	\$402,122,707	\$616,820,092	\$197,600,558	10,797
UT Austin				
Operations	\$385,012,413	\$566,774,370	\$214,439,165	33,258
Capital	\$178,115,157	\$230,792,812	\$54,278,563	1,601
Faculty/Staff Expenditures	\$771,536,874	\$998,990,129	\$230,132,393	6,898
Out-of-Region Student Expenditures	\$440,169,019	\$639,732,986	\$205,318,162	7,366
Subtotal	\$1,774,833,463	\$2,436,290,297	\$704,168,283	49,123
System Administration				
Operations	\$30,956,419	\$47,068,415	\$18,876,715	1,935
Capital	\$3,458,743	\$4,987,542	\$1,832,825	43
Faculty/Staff Expenditures	\$20,768,969	\$26,871,884	\$6,205,933	186
Student Expenditures	\$0	\$0	\$0	0
Subtotal	\$55,184,131	\$78,927,841	\$26,915,473	2,164
Total Impact, Austin-Round Rock				
Operations	\$415,968,832	\$613,842,785	\$233,315,880	35,193
Capital	\$181,573,900	\$235,780,354	\$56,111,388	1,644
Faculty/Staff Expenditures	\$792,305,843	\$1,025,862,013	\$236,338,326	7,084
Student Expenditures	\$440,169,019	\$639,732,986	\$205,318,162	7,366
Total	\$1,830,017,594	\$2,515,218,138	\$731,083,756	51,287

*Direct employment by the UT System institutions included in the operations impact. Employment includes full and part-time jobs. Personal income impact is included in the output impact.

Appendix 4

Total Economic Impacts of UT System Institutions on Regional Economies

Region/Institutions	Initial Direct Spending	Output Impact (Initial+Recirculated)	Personal Income Impact*	Employment Impact*
UT Brownsville/Texas Southmost College				
Operations	\$41,958,039	\$62,294,934	\$24,961,604	3,040
Capital	\$14,407,181	\$19,161,194	\$4,269,026	226
Faculty/Staff Expenditures	\$44,478,185	\$54,371,719	\$10,966,512	484
Student Expenditures	\$8,954,053	\$12,469,309	\$3,887,027	187
Subtotal	\$109,797,458	\$148,297,156	\$44,084,169	3,937
Total Impact, Brownsville-Harlingen-San Benito				
Operations	\$41,958,039	\$62,294,934	\$24,961,604	3,040
Capital	\$14,407,181	\$19,161,194	\$4,269,026	226
Faculty/Staff Expenditures	\$44,478,185	\$54,371,719	\$10,966,512	484
Student Expenditures	\$8,954,053	\$12,469,309	\$3,887,027	187
Total	\$109,797,458	\$148,297,156	\$44,084,169	3,937
UT Dallas				
Operations	\$49,521,367	\$78,608,269	\$28,936,420	3,870
Capital	\$21,104,802	\$34,869,292	\$13,413,115	488
Faculty/Staff Expenditures	\$102,467,750	\$142,658,007	\$37,373,461	967
Student Expenditures	\$59,432,823	\$92,109,577	\$30,972,677	949
Subtotal	\$232,526,742	\$348,245,145	\$110,695,673	6,274
UT Southwestern Medical Center - Dallas				
Operations	\$224,858,798	\$355,857,535	\$133,001,084	9,276
Capital	\$133,367,616	\$229,443,673	\$95,843,191	2,872
Faculty/Staff Expenditures	\$461,782,813	\$642,904,882	\$168,427,847	4,358
Student Expenditures	\$14,046,079	\$21,768,754	\$7,319,940	224
Subtotal	\$834,055,306	\$1,249,974,844	\$404,592,062	16,730
Total Impact, Dallas-Plano-Irving				
Operations	\$274,380,165	\$434,465,804	\$161,937,504	13,146
Capital	\$154,472,418	\$264,312,965	\$109,256,306	3,360
Faculty/Staff Expenditures	\$564,250,563	\$785,562,889	\$205,801,308	5,325
Student Expenditures	\$73,478,902	\$113,878,331	\$38,292,617	1,173
Total	\$1,066,582,048	\$1,598,219,989	\$515,287,735	23,004
UT El Paso				
Operations	\$82,454,454	\$124,962,864	\$47,040,218	6,265
Capital	\$33,618,070	\$51,639,382	\$16,940,001	671
Faculty/Staff Expenditures	\$106,002,804	\$136,596,593	\$29,795,637	1,089
Student Expenditures	\$101,885,323	\$149,803,438	\$46,415,507	1,861
Subtotal	\$323,960,651	\$463,002,277	\$140,191,363	9,886
Total Impact, El Paso				
Operations	\$82,454,454	\$124,962,864	\$47,040,218	6,265
Capital	\$33,618,070	\$51,639,382	\$16,940,001	671
Faculty/Staff Expenditures	\$106,002,804	\$136,596,593	\$29,795,637	1,089
Student Expenditures	\$101,885,323	\$149,803,438	\$46,415,507	1,861
Total	\$323,960,651	\$463,002,277	\$140,191,363	9,886

*Direct employment by the UT System institutions included in the operations impact. Employment includes full and part-time jobs. Personal income impact is included in the output impact.

Appendix 4

Total Economic Impacts of UT System Institutions on Regional Economies

Region/Institutions	Initial Direct Spending	Output Impact (Initial+Recirculated)	Personal Income Impact*	Employment Impact*
UT Medical Branch - Galveston				
Operations	\$405,433,520	\$658,614,196	\$255,936,118	19,653
Capital	\$64,215,615	\$101,810,193	\$36,412,991	924
Faculty/Staff Expenditures	\$723,696,474	\$1,005,433,452	\$252,408,957	6,883
Student Expenditures	\$11,749,025	\$20,565,076	\$6,274,373	212
Subtotal	\$1,205,094,634	\$1,786,422,917	\$551,032,439	27,672
UT Health Science Center - Houston				
Operations	\$167,793,160	\$273,005,111	\$105,535,696	7,899
Capital	\$32,772,213	\$53,470,339	\$20,244,273	494
Faculty/Staff Expenditures	\$327,643,618	\$455,196,174	\$114,274,685	3,116
Student Expenditures	\$17,990,318	\$27,729,818	\$9,046,301	292
Subtotal	\$546,199,309	\$809,401,442	\$249,100,955	11,801
UT M. D. Anderson Cancer Center				
Operations	\$569,192,540	\$912,907,159	\$354,508,517	23,832
Capital	\$461,664,411	\$798,874,691	\$334,470,005	7,667
Faculty/Staff Expenditures	\$905,231,419	\$1,257,640,495	\$315,724,245	8,610
Student Expenditures	\$309,085	\$478,078	\$155,283	5
Subtotal	\$1,936,397,455	\$2,969,900,423	\$1,004,858,050	40,114
Total Impact, Houston-Galveston				
Operations	\$1,142,419,220	\$1,844,526,466	\$715,980,331	51,384
Capital	\$558,652,239	\$954,155,223	\$391,127,269	9,085
Faculty/Staff Expenditures	\$1,956,571,511	\$2,718,270,121	\$682,407,887	18,609
Student Expenditures	\$30,048,428	\$48,772,972	\$15,475,957	509
Total	\$3,687,691,398	\$5,565,724,782	\$1,804,991,444	79,587
UT Pan American				
Operations	\$58,856,507	\$86,298,729	\$32,311,502	4,811
Capital	\$21,448,885	\$28,732,209	\$7,082,533	360
Faculty/Staff Expenditures	\$76,978,970	\$93,735,046	\$19,028,770	765
Student Expenditures	\$30,271,285	\$42,022,924	\$13,731,738	645
Subtotal	\$187,555,647	\$250,788,908	\$72,154,543	6,581
Total Impact, McAllen-Edinburg-Pharr				
Operations	\$58,856,507	\$86,298,729	\$32,311,502	4,811
Capital	\$21,448,885	\$28,732,209	\$7,082,533	360
Faculty/Staff Expenditures	\$76,978,970	\$93,735,046	\$19,028,770	765
Student Expenditures	\$30,271,285	\$42,022,924	\$13,731,738	645
Total	\$187,555,647	\$250,788,908	\$72,154,543	6,581
UT Permian Basin				
Operations	\$13,357,953	\$18,850,629	\$6,079,814	967
Capital	\$12,940,158	\$20,467,170	\$7,519,456	261
Faculty/Staff Expenditures	\$14,557,196	\$18,096,262	\$3,731,089	138
Student Expenditures	\$10,558,969	\$14,531,408	\$4,317,939	185
Subtotal	\$51,414,276	\$71,945,468	\$21,648,298	1,551
Total Impact, Midland-Odessa				
Operations	\$13,357,953	\$18,850,629	\$6,079,814	967
Capital	\$12,940,158	\$20,467,170	\$7,519,456	261
Faculty/Staff Expenditures	\$14,557,196	\$18,096,262	\$3,731,089	138
Student Expenditures	\$10,558,969	\$14,531,408	\$4,317,939	185
Total	\$51,414,276	\$71,945,468	\$21,648,298	1,551

*Direct employment by the UT System institutions included in the operations impact. Employment includes full and part-time jobs. Personal income impact is included in the output impact.

Appendix 4

Total Economic Impacts of UT System Institutions on Regional Economies

Region/Institutions	Initial Direct Spending	Output Impact (Initial+Recirculated)	Personal Income Impact*	Employment Impact*
UT San Antonio				
Operations	\$70,159,177	\$113,949,681	\$42,289,054	5,547
Capital	\$96,086,636	\$162,120,301	\$59,670,958	1,924
Faculty/Staff Expenditures	\$120,456,765	\$167,516,557	\$40,969,773	1,379
Student Expenditures	\$93,828,620	\$156,112,360	\$52,629,874	2,012
Subtotal	\$380,531,198	\$599,698,899	\$195,559,659	10,862
UT Health Science Center - San Antonio				
Operations	\$108,035,347	\$174,177,969	\$65,457,550	7,536
Capital	\$51,265,121	\$86,594,991	\$31,734,244	1,262
Faculty/Staff Expenditures	\$282,503,651	\$392,871,551	\$96,085,181	3,234
Student Expenditures	\$16,296,850	\$26,277,562	\$8,584,119	305
Subtotal	\$458,100,969	\$679,922,073	\$201,861,094	12,337
Total Impact, San Antonio				
Operations	\$178,194,524	\$288,127,650	\$107,746,604	13,083
Capital	\$147,351,757	\$248,715,292	\$91,405,202	3,186
Faculty/Staff Expenditures	\$402,960,416	\$560,388,108	\$137,054,954	4,613
Student Expenditures	\$110,125,470	\$182,389,922	\$61,213,993	2,317
Total	\$838,632,167	\$1,279,620,972	\$397,420,753	23,199
UT Tyler				
Operations	\$17,252,541	\$25,886,264	\$8,407,325	1,361
Capital	\$14,942,242	\$24,976,176	\$8,959,872	300
Faculty/Staff Expenditures	\$23,923,550	\$31,600,645	\$7,127,584	258
Student Expenditures	\$24,189,131	\$36,251,913	\$11,989,426	450
Subtotal	\$80,307,464	\$118,714,998	\$36,484,207	2,369
UT Health Center - Tyler				
Operations	\$39,616,757	\$58,877,306	\$20,345,193	2,244
Capital	\$22,872,745	\$36,065,433	\$11,924,590	579
Faculty/Staff Expenditures	\$64,358,873	\$85,011,709	\$19,174,549	694
Student Expenditures	\$0	\$0	\$0	0
Subtotal	\$126,848,375	\$179,954,448	\$51,444,332	3,517
Total Impact, Tyler-Longview-Marshall				
Operations	\$56,869,298	\$84,763,570	\$28,752,518	3,605
Capital	\$37,814,987	\$61,041,609	\$20,884,462	879
Faculty/Staff Expenditures	\$88,282,423	\$116,612,354	\$26,302,133	952
Student Expenditures	\$24,189,131	\$36,251,913	\$11,989,426	450
Total	\$207,155,839	\$298,669,446	\$87,928,539	5,886
Total Impact on Regional Economies				
Operations	\$2,333,014,996	\$3,670,392,985	\$1,399,915,425	137,422
Capital	\$1,211,646,611	\$1,968,822,882	\$736,560,130	20,582
Faculty/Staff Expenditures	\$4,184,413,396	\$5,702,512,939	\$1,400,120,315	40,483
Student Expenditures	\$974,854,781	\$1,466,578,422	\$475,795,289	17,228
Total	\$8,704,929,784	\$12,808,307,228	\$4,012,391,158	215,715

*Direct employment by the UT System institutions included in the operations impact. Employment includes full and part-time jobs. Personal income impact is included in the output impact.

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