

**The Economic and Fiscal Benefits of
The University of Texas Health Science Center at Tyler
and UT Health East Texas to the
Local Area, Surrounding Region, and Texas**

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Executive Summary

Through their joint mission of providing top-quality health care and training for medical professionals, The University of Texas Health Science Center at Tyler (UTHSCT) and UT Health East Texas (UTHET) generate a substantial increase in business activity and benefit the entire region in multiple ways.

- The total economic impact of UTHSCT including operations, student spending, and out-of-area patient spending is estimated to be
 - **\$264.2 million** in gross product each year and **3,050** jobs in the Tyler MSA,
 - **\$278.3 million** in annual gross product and **3,169** jobs in the East Texas Region, and
 - **\$303.6 million** in annual gross product and **3,381** jobs in Texas.
- Additional economic benefits associated with UTHSCT include the effects of graduates and residents who remain in the area, construction projects for medical education, and research activity.
- UT Health East Texas operates multiple hospitals and numerous clinics across the East Texas Region, and is a complete healthcare provider for East Texas. The Perryman Group estimates that total gains in business activity from UTHET operations, clinics, and out-of-area patient spending includes
 - **\$0.8 billion** in gross product and **10,579** jobs in the Tyler MSA,
 - **\$1.2 billion** in gross product and **15,239** jobs in East Texas, and
 - **\$1.4 billion** in gross product and **16,440** jobs in Texas (including multiplier effects).
- Combining the economic benefits of UTHSCT and UTHET illustrates the importance of the facilities to the economy. The total increase in business activity from operations and student and out-of-area patient spending (including multiplier effects) is estimated to include
 - **\$1.1 billion** in annual gross product and **13,628** jobs in the Tyler MSA,
 - **\$1.5 billion** in gross product each year and **18,408** jobs in the East Texas Region, and
 - **\$1.7 billion** in annual gross product and **19,820** jobs in Texas.

- The Perryman Group estimated the economic benefits associated with The University of Texas at Tyler (UT Tyler) based on publicly available information. Summing the economic benefits of UTHSCT, UTHET, and UT Tyler provides a perspective on the total impact of UT System facilities on the area. The Perryman Group estimates that when multiplier effects are considered, UT System facilities lead to gains in business activity including
 - **\$1.3 billion** in annual gross product and **16,587** jobs in the Tyler MSA,
 - **\$1.7 billion** in annual gross product and **21,529** jobs in the East Texas Region, and
 - **\$1.9 billion** in annual gross product and **23,120** jobs in Texas.
- The economic stimulus associated with UTHSCT and UTHET generates a notable increase in tax receipts to the State and local government entities including cities, counties, schools, and special districts. The Perryman Group estimates that annual fiscal benefits of operations, student spending, and out-of-area patient spending associated with UTHSCT and UTHET total
 - **\$82.9 million** to the State,
 - **\$58.2 million** to local governments in the Tyler area,
 - **\$80.1 million** to local governments in the East Texas Region, and
 - **\$86.6 million** to local governments across the state.
- Potential new initiatives, including an expanded residency program and establishing a graduate medical school, would lead to a significant additional economic stimulus and benefits including thousands of jobs in the region.
- The primary roles of UTHSCT and UTHET are providing lifechanging and lifegiving care to the people of East Texas and providing high-quality medical education and training. As they fulfill this mission, these educational facilities, hospitals, and clinics also generate a substantial economic impact. These institutions, along with UT Tyler, represent an economic force within the area.

Introduction

Through their joint mission of providing top-quality health care and training for medical professionals, The University of Texas Health Science Center at Tyler (UTHSCT) and UT Health East Texas (UTHET) generate a substantial increase in business activity and benefit the entire region in multiple ways. In addition to

Through their joint mission of providing top-quality health care and training for medical professionals, The University of Texas Health Science Center at Tyler (UTHSCT) and UT Health East Texas (UTHET) generate a substantial increase in business activity and benefit the entire region in many ways.

providing care for tens of thousands of patients each year, they provide jobs, procure needed goods and services, prepare health professionals (many of whom remain in the area), and conduct meaningful research, resulting in significant economic benefits.

The Perryman Group (TPG) was recently asked to assess the

economic benefits associated with The University of Texas Health Science Center at Tyler and UT Health East Texas. The major channels of ongoing economic benefits include educational and research activities, hospital and clinic operations, and the related spending by students and visitors. Planned construction projects also lead to a sizable, though transitory, stimulus. In addition, graduates who remain in the area to practice or work lead to further business activity. A high-level perspective on the economic benefits of The University of Texas at Tyler is also included to illustrate the total overall effects of University of Texas System institutions in the region.

The study areas for this analysis include

- the Tyler Metropolitan Statistical Area (MSA): Smith County;
- the East Texas Region:¹ Anderson, Camp, Cherokee, Gregg, Harrison, Henderson, Marion, Panola, Rains, Rusk, Smith, Upshur, Van Zandt, and Wood counties; and
- Texas.

This report and its Appendices present the results of TPG's analysis.

¹ Based on the widely used Council of Governments (COG) regional definitions.

UT Health Science Center at Tyler

The University of Texas Health Science Center at Tyler focuses on graduate medical education, graduate education, and biomedical and clinical research. It is

The Perryman Group estimates that current UTHSCT operations lead to an increase in business activity of \$249.1 million in annual gross product and 2,848 jobs in the Tyler MSA, \$262.3 million in gross product each year and 2,960 jobs in the East Texas Region, and \$286.0 million in annual gross product and 3,158 jobs in Texas.

home to some of the latest developments in patient care and community health, medical and health education, and biomedical and clinical research.

In addition, UTHSCT employs almost 1,200 people and is likely to continue to expand in the future with a planned Graduate Medical Education & Resident Teaching Facility which will allow

further growth in health care education and workforce preparation for the area. UT Health North Campus is also a member of MD Anderson Cancer Network, bringing access to the latest in cancer treatments to the people of East Texas.

The Perryman Group measured the economic impact of UTHSCT operations, student spending, out-of-area patient spending, graduates, residents, and planned construction. A brief overview of methods used and definitions of terms is located on the following page, with additional detail in Appendix A and results by industry in Appendix B.

Measuring Economic Impacts

Any economic stimulus, whether positive or negative, generates multiplier effects throughout the economy. The Perryman Group's input-output assessment system (the US Multi-Regional Impact Assessment System, which is described in further detail in the Appendices to this report) was developed by the firm about 40 years ago and has been consistently maintained and updated since that time. The model has been used in hundreds of analyses for clients ranging from major corporations to government agencies and has been peer reviewed on multiple occasions. The impact system uses a variety of data (from surveys, industry information, and other sources) to describe the various goods and services (known as resources or inputs) required to produce another good/service. This process allows for estimation of total economic impacts (including multiplier effects). The models used in the current analysis reflect the specific industrial composition and characteristics of each of the study areas.

Total economic effects are quantified for key measures of business activity:

Total expenditures (or total spending) measure the dollars changing hands as a result of the economic stimulus.

Gross product (or output) is production of goods and services that will come about in each area as a result of the activity. This measure is parallel to the gross domestic product numbers commonly reported by various media outlets and is a subset of total expenditures.

Personal income is dollars that end up in the hands of people in the area; the vast majority of this aggregate derives from the earnings of employees, but payments such as interest and rents are also included.

Job gains are expressed as (1) jobs for ongoing effects or (2) job-years of employment for temporary effects such as construction or cumulative measures. A job-year is one person working for one year, though it could be multiple persons working partial years.

Monetary values were quantified on a constant (2019) basis to eliminate the effects of inflation. See Appendix A for additional information regarding the methods and assumptions used in this analysis and Appendix B for results by industry.

Current UT Health Science Center at Tyler Operations

As noted, UTHSCT provides almost 1,200 well-paying jobs and generates a significant economic stimulus through its operational spending. When multiplier effects are considered, The Perryman Group estimates that current UTHSCT operations lead to an increase in business activity of **\$249.1 million** in annual gross product and **2,848** jobs in the Tyler MSA, **\$262.3 million** in gross product each year and **2,960** jobs in the East Texas Region (including effects within the Tyler MSA), and **\$286.0 million** in annual gross product and **3,158** jobs in Texas (including effects within the East Texas Region). Results for other measures of business activity are presented in the following table.

The Annual Impact of Current UT Health Science Center at Tyler Operations			
	Tyler MSA	East Texas Region	Texas
Total Expenditures (Millions of 2019 Dollars)	\$462.318 m	\$504.351 m	\$552.965 m
Gross Product (Millions of 2019 Dollars)	\$249.066 m	\$262.256 m	\$286.003 m
Personal Income (Millions of 2019 Dollars)	\$171.261 m	\$179.512 m	\$193.384 m
Employment (Jobs)	2,848	2,960	3,158

Note: Based on current operations data and The Perryman Group's estimates of related multiplier effects. Includes UTHSC Tyler North Campus hospital. The Tyler Metropolitan Statistical Area (MSA) is comprised of Smith County; the East Texas Region includes Anderson, Camp, Cherokee, Gregg, Harrison, Henderson, Marion, Panola, Rains, Rusk, Smith, Upshur, Van Zandt, and Wood counties. Additional explanation of methods and assumptions may be found elsewhere in this report and Appendix A. Results for each geographic area include effects within smaller study areas.
Source: US Multi-Regional Impact Assessment System, The Perryman Group

Student Spending

Spending by out-of-area students at UTHSCT also generates economic benefits. The Perryman Group estimates that student spending leads to gains in business activity including **\$8.5 million** in gross product and **111** jobs in the Tyler MSA, **\$9.0 million** in gross product and **115** jobs across the East Texas Region, and **\$9.9 million** in annual gross product and **123** jobs in Texas (including multiplier effects). Note that impacts for each geographic area include effects within smaller study areas.

The Annual Impact of Student Spending Associated with UTHSCT			
	Tyler MSA	East Texas Region	Texas
Total Expenditures (Millions of 2019 Dollars)	\$17.336 m	\$18.925 m	\$20.810 m
Gross Product (Millions of 2019 Dollars)	\$8.527 m	\$9.008 m	\$9.928 m
Personal Income (Millions of 2019 Dollars)	\$5.266 m	\$5.584 m	\$6.132 m
Employment (Jobs)	111	115	123
<p>Note: Based on The Perryman Group's estimates of student spending and related multiplier effects. Components may not sum to total due to rounding. The Tyler Metropolitan Statistical Area (MSA) is comprised of Smith County; the East Texas Region includes Anderson, Camp, Cherokee, Gregg, Harrison, Henderson, Marion, Panola, Rains, Rusk, Smith, Upshur, Van Zandt, and Wood counties. Additional explanation of methods and assumptions may be found elsewhere in this report and Appendix A. Results for each geographic area include effects within smaller study areas. Source: US Multi-Regional Impact Assessment System, The Perryman Group</p>			

Out-of-Area Patient Spending

Spending by patients coming to The University of Texas Health Science Center at Tyler from outside of the area also provide an economic stimulus. The Perryman Group estimates that out-of-area patient spending results in additional business activity including almost **\$6.7 million** in annual gross product and **91** jobs in the Tyler MSA, **\$7.0 million** in gross product and **94** jobs across the East Texas Region, and **\$7.7 million** in annual gross product and **100** jobs in Texas (including multiplier effects).

The Annual Impact of Out-of-Area Patient Spending Associated with UT Health Science Center at Tyler			
	Tyler MSA	East Texas Region	Texas
Total Expenditures (Millions of 2019 Dollars)	\$11.904 m	\$13.060 m	\$14.482 m
Gross Product (Millions of 2019 Dollars)	\$6.655 m	\$7.020 m	\$7.702 m
Personal Income (Millions of 2019 Dollars)	\$4.019 m	\$4.247 m	\$4.660 m
Employment (Jobs)	91	94	100
<p>Note: Based on The Perryman Group's estimates of out-of-area patient spending and related multiplier effects. Results are for the UT Health Science Center North Campus facilities; effects related to the UT Health East Texas Tyler Hospital are presented separately in a subsequent section. The Tyler Metropolitan Statistical Area (MSA) is comprised of Smith County; the East Texas Region includes Anderson, Camp, Cherokee, Gregg, Harrison, Henderson, Marion, Panola, Rains, Rusk, Smith, Upshur, Van Zandt, and Wood counties. Additional explanation of methods and assumptions may be found elsewhere in this report and Appendix A. Results for each geographic area include effects within smaller study areas. Source: US Multi-Regional Impact Assessment System, The Perryman Group</p>			

Total UTHSCT Operations, Student Spending, and Out-of-Area Visitor Spending

To determine the overall economic impact of UTHSCT, TPG combined the effects of operations, student spending, and out-of-area patient spending. The total impact of UTHSCT including student and out-of-area patient spending is estimated to be **\$264.2 million** in gross product each year and **3,050** jobs in the Tyler MSA, with higher results for the region and state (including effects within the Tyler area.) Additional results are presented in the following table.

The Total Annual Impact of Operations of UT Health Science Center at Tyler, Student Spending, and Out-of-Area Patient Spending

		Total Expenditures (Millions of 2019 Dollars)	Gross Product (Millions of 2019 Dollars)	Personal Income (Millions of 2019 Dollars)	Employment (Jobs)
Tyler MSA	UTHSCT Operations	\$462.318 m	\$249.066 m	\$171.261 m	2,848
	Student Spending	\$17.336 m	\$8.527 m	\$5.266 m	111
	Patient Spending	\$11.904 m	\$6.655 m	\$4.019 m	91
	TOTAL	\$491.558 m	\$264.248 m	\$180.546 m	3,050
East Texas Region	UTHSCT Operations	\$504.351 m	\$262.256 m	\$179.512 m	2,960
	Student Spending	\$18.925 m	\$9.008 m	\$5.584 m	115
	Patient Spending	\$13.060 m	\$7.020 m	\$4.247 m	94
	TOTAL	\$536.337 m	\$278.284 m	\$189.343 m	3,169
Texas	UTHSCT Operations	\$552.965 m	\$286.003 m	\$193.384 m	3,158
	Student Spending	\$20.810 m	\$9.928 m	\$6.132 m	123
	Patient Spending	\$14.482 m	\$7.702 m	\$4.660 m	100
	TOTAL	\$588.257 m	\$303.632 m	\$204.176 m	3,381

Note: Based on current operations data at UTHSCT (including the North Campus medical facilities) and The Perryman Group's estimates student spending, out-of-area patient spending, and related multiplier effects. Components may not sum to totals due to rounding. The Tyler Metropolitan Statistical Area (MSA) is comprised of Smith County. The East Texas Region includes Anderson, Camp, Cherokee, Gregg, Harrison, Henderson, Marion, Panola, Rains, Rusk, Smith, Upshur, Van Zandt, and Wood counties. Results for each geographic area include effects within smaller study areas. Additional explanation of methods and assumptions may be found elsewhere in this report and Appendix A.
Source: US Multi-Regional Impact Assessment System, The Perryman Group

Graduates and Residents

Graduates of and residents at The University of Texas Health Science Center at Tyler who remain in the area also contribute to the economy. The Perryman Group estimates that graduates and residents generate business activity including **\$17.5 million** in gross product and **189 jobs** in the Tyler MSA, **\$20.1 million** in gross product and **213 jobs** across the East Texas Region, and almost **\$39.6 million** in annual gross product and **392 jobs** in Texas (including multiplier effects; impacts for each smaller geographic area are included in the larger area).

The Annual Impact of Graduates and Residents of UT Health Science Center at Tyler

		Total Expenditures (Millions of 2019 Dollars)	Gross Product (Millions of 2019 Dollars)	Personal Income (Millions of 2019 Dollars)	Employment (Jobs)
Tyler MSA	Graduates	\$15.207 m	\$8.281 m	\$5.833 m	104
	Residents	\$16.347 m	\$9.229 m	\$6.770 m	86
	TOTAL	\$31.553 m	\$17.509 m	\$12.603 m	189
East Texas Region	Graduates	\$16.714 m	\$8.756 m	\$6.134 m	108
	Residents	\$20.874 m	\$11.388 m	\$8.304 m	105
	TOTAL	\$37.588 m	\$20.144 m	\$14.438 m	213
Texas	Graduates	\$20.627 m	\$10.717 m	\$7.414 m	128
	Residents	\$53.239 m	\$28.867 m	\$20.833 m	265
	TOTAL	\$73.866 m	\$39.583 m	\$28.247 m	392

Note: Based on The Perryman Group's estimates of graduates and residents who remain in the area and related multiplier effects. Results for clinics include other offsite activity. Components may not sum to total due to rounding. The Tyler Metropolitan Statistical Area (MSA) is comprised of Smith County. The East Texas Region includes Anderson, Camp, Cherokee, Gregg, Harrison, Henderson, Marion, Panola, Rains, Rusk, Smith, Upshur, Van Zandt, and Wood counties. Results for each geographic area include effects within smaller study areas. Additional explanation of methods and assumptions may be found elsewhere in this report and Appendix A.

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Planned Construction

The University of Texas System has recently approved construction projects for medical education planned for the Tyler area, including a Graduate Medical Education & Resident Teaching Facility at the UT Health Science Center at Tyler and an Advanced Nursing & Health Sciences Complex at UT Tyler. The Perryman Group measured the effects of these construction projects and found that for the Tyler MSA, these projects are expected to generate **\$86.2 million** in annual gross product and **994** job years of employment. (A job year is equivalent to one person working for one year, but it could be multiple people working partial years.) For the East Texas Region, the effects include **\$102.9 million** in annual gross product and **1,169** job years, and for Texas **\$142.1 million** in gross product and **1,570** job years. All impacts include multiplier effects and the smaller geographic areas are included in the larger areas.

The Impact of Planned Construction Projects at Health Education Facilities at University of Texas System Institutions in Tyler

	Tyler MSA	East Texas Region	Texas
Total Expenditures (Millions of 2019 Dollars)	\$180.441 m	\$220.837 m	\$302.287 m
Gross Product (Millions of 2019 Dollars)	\$86.168 m	\$102.884 m	\$142.074 m
Personal Income (Millions of 2019 Dollars)	\$58.990 m	\$70.062 m	\$95.906 m
Employment (Job-Years)	994	1,169	1,570

Note: Based on planned construction projects of a Graduate Medical Education & Resident Teaching Facility at the UT Health Science Center at Tyler and an Advanced Nursing & Health Sciences Complex at UT Tyler and The Perryman Group's estimates of related multiplier effects. Components may not sum to total due to rounding. The Tyler Metropolitan Statistical Area (MSA) is comprised of Smith County; the East Texas Region includes Anderson, Camp, Cherokee, Gregg, Harrison, Henderson, Marion, Panola, Rains, Rusk, Smith, Upshur, Van Zandt, and Wood counties. Additional explanation of methods and assumptions may be found elsewhere in this report and Appendix A. Results for each geographic area include effects within smaller study areas. A job-year is one person working for a year, though it could be multiple people working partial years.

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Research

Research activity generates economic benefits on several levels. First, conducting research involves jobs for researchers and others as well as various operational expenses. These research operations are a subset of the operations benefits previously described, and are estimated to include **\$19.8 million** in gross product each year and **227 jobs** in the Tyler MSA (including multiplier effects), with larger effects for the region and state as described in Appendix B.

In addition, research activity results in spinoff benefits such as commercialization of discoveries and royalties. The Perryman Group estimated the spinoff and societal benefits of research activity based on historical research funding (converted to 2019 dollars) and using typical patterns and empirical studies; these methods are described in more detail in the Appendices to this report.

Including multiplier effects, spinoff gains from research funding can be expected to generate **\$56.7 million** in gross product per year and **502 jobs** in the Tyler MSA (including multiplier effects and based on typical patterns). For the East Texas Region, spinoff activity from research leads to potential benefits of **\$61.6 million** in gross product per year and **540 jobs** (including effects within the Tyler MSA), with higher results for the state and nation. Note that these benefits in essence constitute an ongoing annuity to the economy that will increase each year.

The Annual Impact of Spinoff Activity from Research Conducted at the UTHSCT

	Tyler MSA	East Texas Region	Texas	US
Total Expenditures (Millions of 2019 Dollars)	\$120.761 m	\$133.504 m	\$149.272 m	\$170.194 m
Gross Product (Millions of 2019 Dollars)	\$56.738m	\$61.616 m	\$69.446 m	\$76.703 m
Personal Income (Millions of 2019 Dollars)	\$32.981 m	\$35.875 m	\$40.647 m	\$44.587 m
Employment (Job-Years)	502	540	605	661

Note: Based on historical research spending and typical patterns and The Perryman Group's estimates of related multiplier effects. Components may not sum to total due to rounding. Additional explanation of methods and assumptions may be found elsewhere in this report and Appendix A. Results for each geographic area include effects within smaller study areas. Source: US Multi-Regional Impact Assessment System, The Perryman Group

Even beyond these effects are societal benefits of which involve economic benefits. Once discoveries have been widely disseminated and deployed, they have the potential to generate benefits beyond those that are economic in nature. The annual economic and social returns which could be anticipated as a result of research conducted over time at UTHSCT include **\$54.4 million** in annual gross product and **425 jobs** in the US and **\$68.6 million** in gross product and **536 jobs** globally.

Annual Social Returns on Cumulative Research Conducted at the UTHSCT		
	US	Global
Total Expenditures (Millions of 2019 Dollars)	\$117.742 m	\$148.374 m
Gross Product (Millions of 2019 Dollars)	\$54.442 m	\$68.605 m
Personal Income (Millions of 2019 Dollars)	\$36.644 m	\$46.177 m
Employment (Job-Years)	425	536
Note: Based on historical research spending, typical patterns, and The Perryman Group's estimates of related multiplier effects. Additional explanation of methods and assumptions may be found elsewhere in this report and Appendix A. Results for each geographic area include effects within smaller study areas. Source: US Multi-Regional Impact Assessment System, The Perryman Group		

UT Health East Texas

UT Health East Texas (UTHET) operates multiple hospitals and numerous clinics across the East Texas Region, and is a complete health care provider for East

The Perryman Group estimates that current UTHET hospital operations lead to gains in business activity of \$1.1 billion in gross product and 13,858 jobs across the East Texas Region and almost \$1.3 billion in annual gross product and 14,977 jobs in Texas (including multiplier effects). Clinics and out-of-area patient spending further increase economic benefits of UTHET.

Texas. With numerous locations in Tyler, Athens, Carthage, Henderson, Jacksonville, Pittsburg, Quitman, Lindale, Mineola, and many other communities in East Texas, UTHET is an important provider of health care to the people of East Texas.

With over 6,000 employees, UT Health East Texas is also a major employer in the area. (Note that the UT Health Science Center /

UT Health East Texas North Campus facility in Tyler is included with the UT Health Science Center impacts.)

UT Health East Texas Hospital Operations

Hospitals and clinics operated by UT Health East Texas generate substantial economic benefits. The Perryman Group estimates that current UTHET hospital operations lead to gains in business activity of **\$1.1 billion** in gross product and **13,858** jobs across the East Texas Region and almost **\$1.3 billion** in annual gross product and **14,977** jobs in Texas (including multiplier effects). Results for individual facilities in the counties where they are located and other measures of business activity are presented in the following table.

The Annual Impact of Operations of UT Health East Texas Hospitals on Business Activity in Counties Where They are Located, the East Texas Region, and Texas

	Total Expenditures (Millions of 2019 Dollars)	Gross Product (Millions of 2019 Dollars)	Personal Income (Millions of 2019 Dollars)	Employment (Jobs)
UT Health Tyler (Smith County)	\$1,444.119 m	\$762.733 m	\$534.004 m	9,478
UT Health Athens (Henderson County)	\$194.653 m	\$102.997 m	\$72.724 m	1,295
UT Health Pittsburg (Camp County)	\$80.738 m	\$43.153 m	\$31.252 m	551
UT Health Quitman (Wood County)	\$80.426 m	\$42.511 m	\$30.174 m	538
UT Health Jacksonville (Cherokee County)	\$72.132 m	\$39.352 m	\$28.588 m	509
UT Health Henderson (Rusk County)	\$68.013 m	\$35.829 m	\$25.892 m	457
UT Health Carthage (Panola County)	\$49.526 m	\$26.621 m	\$19.334 m	341
Total: East Texas Region	\$2,237.783 m	\$1,132.554 m	\$789.140 m	13,858
Total: Texas	\$2,508.180 m	\$1,268.279 m	\$871.758 m	14,977

Note: Based on current operations data and The Perryman Group's estimates of related multiplier effects. Components may not sum to total due to rounding. For each hospital, results are effects on business activity in the county where the hospital is located. Regional and state results include effects within those counties as well as spillover to other areas. The sum of the counties is less than the region due to spillover effects for each hospital to other parts of East Texas. The East Texas Region includes Anderson, Camp, Cherokee, Gregg, Harrison, Henderson, Marion, Panola, Rains, Rusk, Smith, Upshur, Van Zandt, and Wood counties. Additional explanation of methods and assumptions may be found elsewhere in this report and Appendix A.
Source: US Multi-Regional Impact Assessment System, The Perryman Group

UT Health East Texas Clinic Operations

Clinic operations generate significant additional business activity of **\$73.5 million** in gross product each year and **931** jobs in the Tyler MSA, **\$96.5 million** in annual gross product and **1,205** jobs across the East Texas Region, and **\$104.9 million** in yearly gross product and **1,277** jobs in Texas (including multiplier effects).

The Annual Impact of Operations of UT Health East Texas Hospitals and Clinics

		Total Expenditures (Millions of 2019 Dollars)	Gross Product (Millions of 2019 Dollars)	Personal Income Millions of 2019 Dollars)	Employment (Jobs)
Tyler MSA	Clinics	\$126.129 m	\$73.455 m	\$52.419 m	931
	Hospital	\$1,444.119 m	\$762.733 m	\$534.004 m	9,478
	TOTAL	\$1,570.248 m	\$836.188 m	\$586.422 m	10,409
East Texas Region	Clinics	\$172.107 m	\$96.514 m	\$68.569 m	1,205
	Hospitals	\$2,237.783 m	\$1,132.554 m	\$789.140 m	13,858
	TOTAL	\$2,409.890 m	\$1,229.068 m	\$857.709 m	15,063
Texas	Clinics	\$189.467 m	\$104.923 m	\$73.665 m	1,277
	Hospitals	\$2,508.180 m	\$1,268.279 m	\$871.758 m	14,977
	TOTAL	\$2,697.648 m	\$1,373.202 m	\$945.423 m	16,253

Note: Based on current operations data and The Perryman Group's estimates of related multiplier effects. Results for clinics include other offsite activity. Components may not sum to total due to rounding. The Tyler Metropolitan Statistical Area (MSA) is comprised of Smith County. Tyler MSA hospital results reflect the UT Health East Texas Tyler Hospital; actual total impacts could be higher due to spillover from operations of other UT Health hospitals across East Texas. The East Texas Region includes Anderson, Camp, Cherokee, Gregg, Harrison, Henderson, Marion, Panola, Rains, Rusk, Smith, Upshur, Van Zandt, and Wood counties. Results for each geographic area include effects within smaller study areas. Additional explanation of methods and assumptions may be found elsewhere in this report and Appendix A.

Source: US Multi-Regional Impact Assessment System, The Perryman Group

UT Health East Texas Out-of-Area Patient Spending

Out-of-area patients generate spending in the local areas, further increasing the economic benefits of the medical facilities. The Perryman Group estimates that out-of-area patients at UT Health East Texas Tyler Hospital lead to an increase in business activity in the Tyler area of an estimated **\$12.5 million** in annual gross product and **170 jobs** when multiplier effects are considered. While out-of-area patients also generate increased business activity for the other UT Health East Texas facilities, The Perryman Group did not attempt to quantify these benefits due to a lack of available data and because these hospitals tend to serve a higher proportion of local residents.

The Annual Impact of Out-of-Area Patient Spending Associated with UT Health East Texas Tyler Hospital

	Tyler MSA	East Texas Region	Texas
Total Expenditures (Millions of 2019 Dollars)	\$22.300 m	\$24.467 m	\$27.131 m
Gross Product (Millions of 2019 Dollars)	\$12.468 m	\$13.152 m	\$14.428 m
Personal Income (Millions of 2019 Dollars)	\$7.528 m	\$7.956 m	\$8.730 m
Employment (Jobs)	170	176	186

Note: Based on The Perryman Group's estimates of out-of-area patient spending and related multiplier effects. Components may not sum to total due to rounding. The Tyler Metropolitan Statistical Area (MSA) is comprised of Smith County; the East Texas Region includes Anderson, Camp, Cherokee, Gregg, Harrison, Henderson, Marion, Panola, Rains, Rusk, Smith, Upshur, Van Zandt, and Wood counties. Additional explanation of methods and assumptions may be found elsewhere in this report and Appendix A. Results for each geographic area include effects within smaller study areas. Source: US Multi-Regional Impact Assessment System, The Perryman Group

Total UT Health East Texas Impact

Summing the impacts of hospital operations, clinic operations, and out-of-area patient spending yields an estimate of the economic benefits of UTHET. The Perryman Group estimates that total gains in business activity from UTHET East Texas operations, clinics, and out-of-area patient spending includes almost **\$848.7 million** in gross product and **10,579** jobs in the Tyler MSA, **\$1.2 billion** in gross product and **15,239** jobs in East Texas, and **\$1.4 billion** in gross product and **16,440** jobs in Texas (including multiplier effects).

The Total Annual Impact of UTHET Hospitals, Clinics, and Out-of-Area Patient Spending			
	Tyler MSA	East Texas Region	Texas
Total Expenditures (Millions of 2019 Dollars)	\$1,592.549 m	\$2,434.357 m	\$2,724.778 m
Gross Product (Millions of 2019 Dollars)	\$848.656 m	\$1,242.220 m	\$1,387.630 m
Personal Income (Millions of 2019 Dollars)	\$593.951 m	\$865.665 m	\$954.153 m
Employment (Jobs)	10,579	15,239	16,440
<p>Note: Based on hospital and clinic operations and The Perryman Group's estimates of out-of-area patient spending and related multiplier effects. Components may not sum to total due to rounding. The Tyler Metropolitan Statistical Area (MSA) is comprised of Smith County; the East Texas Region includes Anderson, Camp, Cherokee, Gregg, Harrison, Henderson, Marion, Panola, Rains, Rusk, Smith, Upshur, Van Zandt, and Wood counties. Additional explanation of methods and assumptions may be found elsewhere in this report and Appendix A. Results for each geographic area include effects within smaller study areas.</p> <p>Source: US Multi-Regional Impact Assessment System, The Perryman Group</p>			

Total Impacts of UTHSCT and UTHET

Summing the total economic benefits of UTHSCT and UTHET provides an estimate of the overall increase in business activity associated with the entities.

UTHSCT and UTHET Operations

The total annual impact of ongoing operations the UTHSCT and all hospitals and clinics associated with UTHET is substantial. When multiplier effects are considered, The Perryman Group estimates that these combined operations lead to an increase in business activity of almost **\$1.1 billion** in annual gross product and **13,257** jobs in the Tyler MSA, nearly **\$1.5 billion** in gross product each year and **18,023** jobs in the East Texas Region (including effects within the Tyler MSA), and almost **\$1.7 billion** in annual gross product and **19,411** jobs in Texas (including effects within the East Texas Region).

The Total Annual Impact of Operations of UTHSCT and UT Health East Texas Hospital and Clinics

	Tyler MSA	East Texas Region	Texas
Total Expenditures (Millions of 2019 Dollars)	\$2,032.567 m	\$2,914.241 m	\$3,250.613 m
Gross Product (Millions of 2019 Dollars)	\$1,085.254 m	\$1,491.324 m	\$1,659.205 m
Personal Income (Millions of 2019 Dollars)	\$757.684 m	\$1,037.221 m	\$1,138.807 m
Employment (Jobs)	13,257	18,023	19,411

Note: The Tyler Metropolitan Statistical Area (MSA) is comprised of Smith County; the East Texas Region includes Anderson, Camp, Cherokee, Gregg, Harrison, Henderson, Marion, Panola, Rains, Rusk, Smith, Upshur, Van Zandt, and Wood counties. Additional explanation of methods and assumptions may be found elsewhere in this report and Appendix A. Results for each geographic area include effects within smaller study areas.

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Total UTHSCT and UTHET Impacts

When student spending and out-of-area patient spending are included, benefits are even larger. The Perryman Group estimates that the total increase in business activity from operations and student and out-of-area patient spending (including multiplier effects) is more than **\$1.1 billion** in annual gross product and **13,628** jobs in the Tyler MSA, over **\$1.5 billion** in gross product each year and **18,408** jobs in the East Texas Region (including effects within the Tyler MSA), and almost **\$1.7 billion** in annual gross product and **19,820** jobs in Texas (including effects within the East Texas Region).

The Total Annual Impact of Operations, Student Spending, and Out-of-Area Patient Spending Associated with UTHSCT and UTHET Hospital and Clinics

	Tyler MSA	East Texas Region	Texas
Total Expenditures (Millions of 2019 Dollars)	\$2,084.106 m	\$2,970.693 m	\$3,313.035 m
Gross Product (Millions of 2019 Dollars)	\$1,112.904 m	\$1,520.504 m	\$1,691.263 m
Personal Income (Millions of 2019 Dollars)	\$774.497 m	\$1,055.008 m	\$1,158.329 m
Employment (Jobs)	13,628	18,408	19,820

Note: The Tyler Metropolitan Statistical Area (MSA) is comprised of Smith County; the East Texas Region includes Anderson, Camp, Cherokee, Gregg, Harrison, Henderson, Marion, Panola, Rains, Rusk, Smith, Upshur, Van Zandt, and Wood counties. Additional explanation of methods and assumptions may be found elsewhere in this report and Appendix A. Results for each geographic area include effects within smaller study areas.
Source: US Multi-Regional Impact Assessment System, The Perryman Group

Overall Impact of UT System Entities

In order to provide a perspective on the overall total impact of UT System

The Perryman Group estimates that for the Tyler area, UT System facilities lead to gains in business activity including \$1.3 billion in gross product and 16,587 jobs when multiplier effects are considered, with larger impacts across the region and state (including benefits within Tyler).

facilities, The Perryman Group estimated the economic benefits associated with The University of Texas at Tyler (UT Tyler) based on publicly available information. The University provides quality education across a spectrum of majors as well as hundreds of well-paying jobs, and through its ongoing operations generates a

sizable stimulus to the local, regional, and state economies.

The University of Texas at Tyler

The Perryman Group estimates that the total economic benefits (including multiplier effects) of UT Tyler operations include **\$145.4 million** in gross product and **2,161** jobs in the Tyler MSA, with even larger effects on a regional and state basis. In addition, spending by out-of-area students and visitors generates notable gains as indicated in the following table.

The Annual Impact of the University of Texas at Tyler					
		Total Expenditures (Millions of 2019 Dollars)	Gross Product (Millions of 2019 Dollars)	Personal Income (Millions of 2019 Dollars)	Employment (Jobs)
Tyler MSA	Operations	\$268.736 m	\$145.377 m	\$102.669 m	2,161
	Student Spending	\$69.756 m	\$34.311 m	\$21.191 m	447
	Visitor Spending	\$45.959 m	\$25.695 m	\$15.515 m	350
	TOTAL	\$384.451 m	\$205.383 m	\$139.376 m	2,958
East Texas Region	Operations	\$302.467 m	\$157.666 m	\$110.938 m	2,294
	Student Spending	\$76.152 m	\$36.245 m	\$22.470 m	465
	Visitor Spending	\$50.423 m	\$27.105 m	\$16.397 m	362
	TOTAL	\$429.042 m	\$221.015 m	\$149.805 m	3,121
Texas	Operations	\$334.719 m	\$173.277 m	\$120.254 m	2,421
	Student Spending	\$83.735 m	\$39.948 m	\$24.674 m	495
	Visitor Spending	\$55.913 m	\$29.735 m	\$17.991 m	384
	TOTAL	\$474.367 m	\$242.960 m	\$162.919 m	3,300

Note: Based on available data and The Perryman Group's estimates of student and visitor spending and related multiplier effects. Components may not sum to totals due to rounding. The Tyler Metropolitan Statistical Area (MSA) is comprised of Smith County. The East Texas Region includes Anderson, Camp, Cherokee, Gregg, Harrison, Henderson, Marion, Panola, Rains, Rusk, Smith, Upshur, Van Zandt, and Wood counties. Results for each geographic area include effects within smaller study areas. Additional explanation of methods and assumptions may be found elsewhere in this report and Appendix A.
Source: US Multi-Regional Impact Assessment System, The Perryman Group

Even beyond these sizable effects is the ongoing impact of graduates of the University which are employed in the area.

Total Impact of UT System Facilities in East Texas

Summing the economic benefits of UTHSCT, UTHET, and UT Tyler provides a perspective on the total impact of UT System facilities on the area. The Perryman Group estimates that for the Tyler area, UT System facilities lead to gains in business activity including **\$1.3 billion** in gross product and **16,587** jobs when multiplier effects are considered, with larger impacts across the region and state (including benefits within Tyler).

The Total Annual Impact of UT System Facilities in East Texas (Operations, Student Spending, Visitor Spending, and Out-of-Area Patient Spending)					
		Total Expenditures (Billions of 2019 Dollars)	Gross Product (Billions of 2019 Dollars)	Personal Income (Billions of 2019 Dollars)	Employment (Jobs)
Tyler MSA	UTHSCT	\$0.492 b	\$0.264 b	\$0.181 b	3,050
	UTHET	\$1.593 b	\$0.849 b	\$0.594 b	10,579
	UT Tyler	\$0.384 b	\$0.205 b	\$0.139 b	2,958
	TOTAL	\$2.469 b	\$1.318 b	\$0.914 b	16,587
East Texas Region	UTHSCT	\$0.536 b	\$0.278 b	\$0.189 b	3,169
	UTHET	\$2.434 b	\$1.242 b	\$0.866 b	15,239
	UT Tyler	\$0.429 b	\$0.221 b	\$0.150 b	3,121
	TOTAL	\$3.400 b	\$1.742 b	\$1.205 b	21,529
Texas	UTHSCT	\$0.588 b	\$0.304 b	\$0.204 b	3,381
	UTHET	\$2.725 b	\$1.388 b	\$0.954 b	16,440
	UT Tyler	\$0.474 b	\$0.243 b	\$0.163 b	3,300
	TOTAL	\$3.787 b	\$1.934 b	\$1.321 b	23,120

Note: Based on operations of UTHSCT, UTHET, and UT Tyler and The Perryman Group's estimates of student and out-of-area patient spending and related multiplier effects. Components may not sum to total due to rounding. The Tyler Metropolitan Statistical Area (MSA) is comprised of Smith County. The East Texas Region includes Anderson, Camp, Cherokee, Gregg, Harrison, Henderson, Marion, Panola, Rains, Rusk, Smith, Upshur, Van Zandt, and Wood counties. Results for each geographic area include effects within smaller study areas. Additional explanation of methods and assumptions may be found elsewhere in this report and Appendix A.
Source: US Multi-Regional Impact Assessment System, The Perryman Group

These facilities comprise a significant component of the area economy. The Perryman Group estimates that when multiplier effects are considered, UT System Facilities contribute 9.8% of Tyler-area gross product. 9.6% of local income and 14.7% of area jobs.

Fiscal Effects

Business activity generates tax revenue. The economic stimulus associated with UTHSCT and UTHET leads to a notable increase in tax receipts to the State and local government entities including cities, counties, schools, and special districts. Taxes are generated based on the increase in economic activity as described in the preceding sections.

For example, the increase in retail sales associated with the economic stimulus measured in this study was quantified (results appear in Appendix B), and a portion of these retail sales are taxable and lead to increased receipts to local

Business activity generates tax revenue. The economic stimulus associated with UTHSCT and UTHET leads to a notable increase in tax receipts to the State and local government entities including cities, counties, schools, and special districts.

taxing entities. Similarly, visitor outlays can lead to gains in occupancy tax revenues. Economic benefits also affect demand for housing and, hence, property tax values. When the total economic effects are considered (such as those measured in this study), the gains in taxes from these

sources are significant. The Perryman Group estimated the fiscal benefits to the State of Texas and local taxing entities in the study areas.

The Perryman Group estimates that fiscal benefits of operations, student spending, and out-of-area patient spending associated with the **UT Health Science Center at Tyler** total **\$15.0 million** to the State, **\$12.1 million** to local governments in the Tyler area, **\$12.6 million** to local governments East Texas Region, and **\$13.6 million** to local governments across the state.

For **UT Health East Texas**, operations and out-of-area patient spending lead to gains of **\$67.9 million** to the State, **\$46.1 million** to local entities in the Tyler area, **\$67.4 million** to local government entities in the East Texas Region, and **\$73.1 million** to local entities across the state.

Planned **construction** projects generate another **\$7.9 million** to the State, **\$4.1 million** to local entities in the Tyler area, **\$4.8 million** to local government entities in the East Texas Region, and **\$6.5 million** to local entities across the state over the construction period.

Fiscal Benefits of the UT Health Science Center at Tyler and UT Health East Texas

	State of Texas (Millions of 2019 Dollars)	Local Entities in the Tyler Area (Millions of 2019 Dollars)	Local Entities in the East Texas Region (Millions of 2019 Dollars)	Local Entities Across Texas (Millions of 2019 Dollars)
UTHSCT Operations, Student Spending, and Out-of-Area Patient Spending (per year)	\$15.003 m	\$12.109 m	12.629 m	\$13.569 m
UTHET Operations and Out-of-Area Patient Spending (per year)	\$67.924 m	\$46.058 m	67.421 m	\$73.055 m
TOTAL Ongoing Fiscal Benefits of UTHSCT and UTHET (per year)	\$82.927 m	\$58.167 m	80.050 m	\$86.623 m
Construction (during the construction phase)	\$7.861 m	\$4.097 m	4.823 m	\$6.549 m
Note: Increased tax receipts are associated with the total economic benefits measured in this study. Source: The Perryman Group				

Potential Future Initiatives

Given the significant presence of UT System health and educational institutions, other major health care facilities in the region, the recent approval of new medical education facilities, and a growing concentration of biomedical enterprises, there is potential for substantial benefit to be achieved from potential expansion of the residency program and the location of a graduate medical school in the area.

While construction and operations of these expanded programs involves notable economic benefits, even larger effects can be expected from medical professionals who are residents and medical students and then remain in the area.

Expanded Residency Program

An important addition to medical education in East Texas is the potential expansion of the residency program associated with UTHSCT by adding more than 200 new positions, a significant gain from current levels. The increase would also lead to incremental employment and operational activity at UTHSCT to support the higher numbers of residents. The Perryman Group estimates that when multiplier effects are considered, operations and student spending associated with the expansion would generate **\$82.2 million** in annual gross product and **975 jobs** in the Tyler MSA, over **\$170.7 million** in gross product each year and **1,013 jobs** in the East Texas Region (including effects within the Tyler MSA), and almost **\$94.8 million** in annual gross product and **1,081 jobs** in Texas (including effects within the East Texas Region).

Potential Annual Impact at Maturity of Expanding the Residency Program at UTHSCT

		Total Expenditures (Millions of 2019 Dollars)	Gross Product (Millions of 2019 Dollars)	Personal Income (Millions of 2019 Dollars)	Employment (Jobs)
Tyler MSA	Operations	\$112.299 m	\$60.499 m	\$41.600 m	692
	Student Spending	\$44.185 m	\$21.734 m	\$13.423 m	283
	TOTAL	\$156.484 m	\$82.233 m	\$55.023 m	975
East Texas Region	Operations	\$122.509 m	\$63.703 m	\$43.604 m	719
	Student Spending	\$48.236 m	\$22.958 m	\$14.233 m	294
	TOTAL	\$170.746 m	\$86.662 m	\$57.837 m	1,013
Texas	Operations	\$134.318 m	\$69.471 m	\$46.974 m	767
	Student Spending	\$53.039 m	\$25.304 m	\$15.629 m	313
	TOTAL	\$187.357 m	\$94.775 m	\$62.603 m	1,081

Note: Based reaching a level of 202 residents at maturity, planned employment expansion at UTHSCT to support the additional residents, and estimated student spending. Components may not sum to total due to rounding. The Tyler Metropolitan Statistical Area (MSA) is comprised of Smith County. The East Texas Region includes Anderson, Camp, Cherokee, Gregg, Harrison, Henderson, Marion, Panola, Rains, Rusk, Smith, Upshur, Van Zandt, and Wood counties. Results for each geographic area include effects within smaller study areas. Additional explanation of methods and assumptions may be found elsewhere in this report and Appendix A.

Source: US Multi-Regional Impact Assessment System, The Perryman Group

There is a demonstrated tendency for doctors to remain in areas where they complete residencies. The Perryman Group estimates that expanding the residency program will lead to gains in business activity in the East Texas Region of **\$441.1 million** in gross product and **4,081** jobs (including multiplier effects), with the impact concentrated in the Tyler area.

The Annual Impact of Doctors who Complete Residencies at UTHSCT and Remain in the Area

	Tyler MSA	East Texas Region	Texas
Total Expenditures (Millions of 2019 Dollars)	\$506.703 m	\$808.588 m	\$1,565.606 m
Gross Product (Millions of 2019 Dollars)	\$286.062 m	\$441.133 m	\$848.889 m
Personal Income (Millions of 2019 Dollars)	\$209.846 m	\$321.665 m	\$612.632 m
Employment (Jobs)	2,657	4,081	7,778

Note: Based on the number of new residency slots available in the proposed expanded residency program in the years prior to the creation of the proposed graduate medical school. The number remaining in the relevant area is estimated using a comprehensive gravity model. The Tyler Metropolitan Statistical Area (MSA) is comprised of Smith County; the East Texas Region includes Anderson, Camp, Cherokee, Gregg, Harrison, Henderson, Marion, Panola, Rains, Rusk, Smith, Upshur, Van Zandt, and Wood counties. Additional explanation of methods and assumptions may be found elsewhere in this report and Appendix A. Results for each geographic area include effects within smaller study areas. Source: US Multi-Regional Impact Assessment System, The Perryman Group

Medical School

Although still in the planning stages, The Perryman Group estimated the potential benefits of a medical school based on current plans and a review of existing medical schools. For the Tyler MSA, operations of a medical school (at maturity) could generate **\$183.3 million** in annual gross product and **2,118** jobs through operations and student spending (including multiplier effects), with larger effects on the region and state.

Potential Annual Impact of Operations and Student Spending Associated with a Medical School at UTHSCT

		Total Expenditures (Millions of 2019 Dollars)	Gross Product (Millions of 2019 Dollars)	Personal Income (Millions of 2019 Dollars)	Employment (Jobs)
Tyler MSA	Operations	\$314.502 m	\$169.432 m	\$116.504 m	1,937
	Student Spending	\$28.188 m	\$13.865 m	\$8.563 m	181
	TOTAL	\$342.690 m	\$183.297 m	\$125.068 m	2,118
East Texas Region	Operations	\$343.096 m	\$178.406 m	\$122.117 m	2,013
	Student Spending	\$30.773 m	\$14.646 m	\$9.080 m	188
	TOTAL	\$373.869 m	\$193.052 m	\$131.197 m	2,201
Texas	Operations	\$376.167 m	\$194.560 m	\$131.554 m	2,148
	Student Spending	\$33.837 m	\$16.143 m	\$9.971 m	200
	TOTAL	\$410.004 m	\$210.703 m	\$141.525 m	2,348

Note: Based on an operating pro forma at maturity for a medical school admitting 50 students per year created from a comprehensive review of several proposed and existing medical schools, adjusted for enrollment and converted to constant (2019) dollars using a medical education deflator derived from the Texas submodel of the US Multi-Regional Econometric Model. Components may not sum to total due to rounding. The Tyler Metropolitan Statistical Area (MSA) is comprised of Smith County. The East Texas Region includes Anderson, Camp, Cherokee, Gregg, Harrison, Henderson, Marion, Panola, Rains, Rusk, Smith, Upshur, Van Zandt, and Wood counties. Results for each geographic area include effects within smaller study areas. Additional explanation of methods and assumptions may be found elsewhere in this report and Appendix A.

Source: US Multi-Regional Impact Assessment System, The Perryman Group

The addition of a medical school also leads to economic benefits as graduates remain in the area. The Perryman Group estimated potential impacts based on the number of graduates projected to be working in the area after the graduation of the first 10 classes derived from a comprehensive gravity model and converted to constant (2019) dollars using a medical operations deflator derived from the Texas submodel of the US Multi-Regional Econometric Model. The economic benefits of the first 10 classes of graduates who would likely be working in the area include **\$760.400 million** in annual gross product and **7,064** jobs in the Tyler MSA, almost **\$1.2 billion** in annual gross product and **10,849** jobs in the East Texas Region, and nearly **\$2.3 billion** in annual gross product and **20,676** jobs in Texas (including multiplier effects).

The Annual Impact of Doctors who Graduate from Medical School and Remain in the Area

	Tyler MSA	East Texas Region	Texas
Total Expenditures (Millions of 2019 Dollars)	\$1,346.897 m	\$2,149.357 m	\$4,161.632 m
Gross Product (Millions of 2019 Dollars)	\$760.400 m	\$1,172.601 m	\$2,256.483 m
Personal Income (Millions of 2019 Dollars)	\$557.806 m	\$855.036 m	\$1628.474 m
Employment (Jobs)	7,064	10,849	20,676

Note: Based on the number of graduates projected to be working in the area after the graduation of the first 10 classes derived from a comprehensive gravity model and converted to constant (2019) dollars using a medical operations deflator derived from the Texas submodel of the US Multi-Regional Econometric Model. The Tyler Metropolitan Statistical Area (MSA) is comprised of Smith County; the East Texas Region includes Anderson, Camp, Cherokee, Gregg, Harrison, Henderson, Marion, Panola, Rains, Rusk, Smith, Upshur, Van Zandt, and Wood counties. Additional explanation of methods and assumptions may be found elsewhere in this report and Appendix A. Results for each geographic area include effects within smaller study areas.

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Note that these doctors working in the area reflect the residents from the expanded residency programs in the initial years and then 10 years of graduates from the medical school (who are expected to take residency slots once they start graduating).

A medical school would also involve a notable initial construction investment and significant, though transitory, economic benefits. The Perryman Group estimates that when multiplier effects are considered, construction of a medical school would lead to **\$103.2 million** in gross product and **1,190** job-years of employment in the Tyler MSA, **\$123.2 million** in gross product and **1,400** job-years in East Texas, and **\$170.1 million** in gross product and **1,880** job-years in Texas. (A job-year is one person working for one year, though it could be multiple people working partial years.) These results are based on estimated facility costs derived from other medical schools, fully adjusted for the proposed enrollment and leakage from the area and expressed in constant 2019 dollars.

Total Benefits of Potential Expansion

Summing the economic benefits of the expanded residency program and medical school provide an indication of the total impact on the economy if both initiatives

are completed. The Perryman Group estimates that when multiplier effects are considered, the overall total gains from operations and student spending associated with expanded residencies and a medical school include **\$265.5 million** in annual gross product and **3,093** jobs in the Tyler MSA, over **\$279.7 million** in gross product each year and **3,214** jobs in the East Texas Region (including effects within the Tyler MSA), and almost **\$305.5 million** in annual gross product and **3,429** jobs in Texas (including effects within the East Texas Region).

The Total Annual Impact of an Expanded Residency Program and Medical School at UTHSCT: Operations and Student Spending

	Tyler MSA	East Texas Region	Texas
Total Expenditures (Millions of 2019 Dollars)	\$499.174 m	\$544.615 m	\$597.361 m
Gross Product (Millions of 2019 Dollars)	\$265.530 m	\$279.714 m	\$305.478 m
Personal Income (Millions of 2019 Dollars)	\$180.091 m	\$189.034 m	\$204.128 m
Employment (Jobs)	3,093	3,214	3,429

Note: Includes effects of operations and student spending. The Tyler Metropolitan Statistical Area (MSA) is comprised of Smith County; the East Texas Region includes Anderson, Camp, Cherokee, Gregg, Harrison, Henderson, Marion, Panola, Rains, Rusk, Smith, Upshur, Van Zandt, and Wood counties. Additional explanation of methods and assumptions may be found elsewhere in this report and Appendix A. Results for each geographic area include effects within smaller study areas.

Source: US Multi-Regional Impact Assessment System, The Perryman Group

The effects of doctors completing residency programs (the first few years) and medical school (who then take residency slots) over the first 10 years and remain in the area to practice can be summed to yield an estimate of total effects. The Perryman Group estimates that doctors completed a residency or medical school at UTHSCT and remaining in the area to practice lead to an increase in business activity including **\$1.0 billion** in annual gross product and **9,721** jobs in the Tyler MSA, **\$1.6 billion** in annual gross product and **14,931** jobs in the East Texas Region, and **\$3.1 billion** in annual gross product and **28,455** jobs in Texas (including multiplier effects).

The Total Annual Impact of an Expanded Residency Program and Medical School at UTHSCT: Residents and Graduates Remaining in the Area

	Tyler MSA	East Texas Region	Texas
Total Expenditures (Millions of 2019 Dollars)	\$1,853.600	\$2,957.945	\$5,727.238
Gross Product (Millions of 2019 Dollars)	\$1,046.462	\$1,613.734	\$3,105.372
Personal Income (Millions of 2019 Dollars)	\$767.652	\$1,176.701	\$2,241.106
Employment (Jobs)	9,721	14,931	28,455

Note: Based on The Perryman Group's estimates of numbers of residents and graduates remaining in the area. The Tyler Metropolitan Statistical Area (MSA) is comprised of Smith County; the East Texas Region includes Anderson, Camp, Cherokee, Gregg, Harrison, Henderson, Marion, Panola, Rains, Rusk, Smith, Upshur, Van Zandt, and Wood counties. Additional explanation of methods and assumptions may be found elsewhere in this report and Appendix A. Results for each geographic area include effects within smaller study areas.

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Cumulative Results First 10 Years

Cumulative benefits over the first 10 years can be found by summing (1) the economic benefits of operations of the expanded residency program and medical school over the next 10 years (including related student spending) and (2) total effects for doctors completing residency programs (the first few years) and medical school (who then take residency slots) over the next 10 years who remain in the area to practice. These estimates account for the effects of the expected timing of beginning operations, ramping up of the numbers of students, and time required to complete programs.

The Perryman Group estimates that when multiplier effects are considered, the overall total cumulative gains from operations and student spending and doctors completing residencies and/or medical school and remaining in the area include more than **\$2.3 billion** in total gross product and **25,182** job-years in the Tyler MSA, **\$2.8 billion** in gross product and **29,930** job-years in the East Texas Region (including effects within the Tyler MSA), and nearly **\$4.2 billion** in total gross product and **41,682** job-years in Texas (including effects within the East Texas Region). A job-year is equivalent to one person working for one year, though it could be multiple persons working partial years.

The Cumulative Impact of an Expanded Residency Program and Medical School at UTHSCT Over the Next 10 Years:

Operations and Student Spending and Doctors Remaining in the Area to Practice

		Total Expenditures (Millions of 2019 Dollars)	Gross Product (Millions of 2019 Dollars)	Personal Income (Millions of 2019 Dollars)	Employment (Job-Years)
Tyler MSA	Residency Operations and Student Spending	\$1,296.796	\$681.470	\$455.981	8,080
	Residency Completers Practicing in the Area	\$1,039.506	\$586.860	\$430.502	5,452
	Medical School Operations and Student Spending	\$1,542.106	\$824.838	\$562.804	9,531
	Medical School Completers Practicing in the Area	\$404.069	\$228.120	\$167.342	2,119
	TOTAL	\$4,282.478	\$2,321.288	\$1,616.628	25,182
East Texas Region	Residency Operations and Student Spending	\$1,414.984	\$718.172	\$479.301	8,396
	Residency Completers Practicing in the Area	\$1,658.826	\$904.988	\$659.898	8,373
	Medical School Operations and Student Spending	\$1,682.410	\$868.734	\$590.385	9,905
	Medical School Completers Practicing in the Area	\$644.807	\$351.780	\$256.511	3,255
	TOTAL	\$5,401.027	\$2,843.675	\$1,986.096	29,930
Texas	Residency Operations and Student Spending	\$1,552.644	\$785.410	\$518.798	8,955
	Residency Completers Practicing in the Area	\$3,211.856	\$1,741.504	\$1,256.820	15,957
	Medical School Operations and Student Spending	\$1,845.016	\$948.162	\$636.861	10,567
	Medical School Completers Practicing in the Area	\$1,248.490	\$676.945	\$488.542	6,203
	TOTAL	\$7,858.006	\$4,152.021	\$2,901.021	41,682

Note: Includes effects of operations and student spending as well as economic benefits associated with estimated numbers of doctors who remain in the area to practice over the next 10 years. Components may not sum to total due to rounding. The Tyler Metropolitan Statistical Area (MSA) is comprised of Smith County. The East Texas Region includes Anderson, Camp, Cherokee, Gregg, Harrison, Henderson, Marion, Panola, Rains, Rusk, Smith, Upshur, Van Zandt, and Wood counties. Results for each geographic area include effects within smaller study areas. A job-year is equivalent to one person working for one year, though it could be multiple individuals working partial years. Additional explanation of methods and assumptions may be found in Appendix A.

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Conclusion

The health care and medical education provided by the UT Health Science Center at Tyler and UT Health East Texas improve the lives of tens of thousands of individuals. Through fulfilling their primary purpose of enhancing the health and wellbeing of East Texans, these facilities also generate substantial economic benefits.

*The Perryman Group estimates that the total increase in business activity from operations and student and out-of-area patient spending associated with UTHSCT and UTHET (including multiplier effects) is more than **\$1.1 billion** in annual gross product and **13,628 jobs** in the Tyler MSA, over **\$1.5 billion** in gross product each year and **18,408 jobs** in the East Texas Region, and almost **\$1.7 billion** in annual gross product and **19,820 jobs** in Texas.*

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jobs in Texas (including effects within the East Texas Region). Graduates and residents and research-related benefits further enhance the economic impact of these facilities, and potentially expanding the residency program and adding a graduate medical school involve additional notable positive effects for the economy.

The primary roles of UTHSCT and UTHET are providing lifechanging and lifegiving care to the people of East Texas and providing high-quality medical education and training. As they fulfill this mission, these educational facilities, hospitals, and clinics also generate a substantial economic impact. These institutions, along with UT Tyler, represent an economic force within the area.

Appendices



Appendix A: Methods Used

US Multi-Regional Impact Assessment System

The basic modeling technique employed in this study is known as dynamic input-output analysis, which essentially uses extensive survey data, industry information, and a variety of corroborative source materials to create a matrix describing the various goods and services (known as resources or inputs) required to produce one unit (a dollar's worth) of output for a given sector. Once the base information is compiled, it can be mathematically simulated to generate evaluations of the magnitude of successive rounds of activity involved in the overall production process.

There are two essential steps in conducting an input-output analysis once the system is operational. The first major endeavor is to accurately define the levels of direct activity to be evaluated. In this instance, input data related to employment, students, patient volumes, estimated construction costs, and other needed input data was provided by UT Health Science Center at Tyler, with supplemental research as needed by The Perryman Group. Commercialization of research estimates were based on typical patterns from funded basic research as provided by the Association of University Technology Managers² localized to the relevant geographic area and adjusted for the specifics of UTHSCT research programs. Societal and economic benefits were estimated on a global and national scale and were determined based on detailed academic studies related to the relevant returns to investments in basic medical research.³ The methodology used to estimate the potential benefits of a medical school in the area are described with the report.

The second major phase of the analysis is the simulation of the input-output system to measure overall economic effects of the direct excess costs of the

² Association of University Technology Managers®, *AUTM U.S. Licensing Activity Survey: FY2016*, editors Shawn Hawkins, Yiorgos Kostoulas, Alice Li, Nichole R. Mercier, Matthew A. Mroz, Olivia Novac, Ragan Robertson, Nate Ruey, Ashley J. Stevens, April Turley and Karen White, with research assistance by Chrys Gwellem.

³ See, in particular, Hall Bronwyn, Jacques Mairesse, and Pierre Mohnen; *Measuring the Returns to R&D*; chapter prepared for the *Handbook of the Economics of Innovation*, editors B.H.Hall and N. Rosenberg. December 2009. Frontier Economics, Rates of return to investment in science and innovation, report prepared for the Department for Business Innovation and Skills, July 2014.

current situation. The present study was conducted within the context of the US Multi-Regional Impact Assessment System (USMRIAS) which was developed and is maintained by The Perryman Group. This model has been used in hundreds of diverse applications across the country and has an excellent reputation for accuracy and credibility; it has also been peer reviewed on multiple occasions. The systems used in the current simulations reflect the unique industrial structure of the Tyler Metropolitan Statistical Area (Smith County), East Texas COG Region, and Texas.

The USMRIAS is somewhat similar in format to the Input-Output Model of the United States which is maintained by the US Department of Commerce. The model developed by TPG, however, incorporates several important enhancements and refinements. Specifically, the expanded system includes (1) comprehensive 500-sector coverage for any county, multi-county, or urban region; (2) calculation of both total expenditures and value-added by industry and region; (3) direct estimation of expenditures for multiple basic input choices (expenditures, output, income, or employment); (4) extensive parameter localization; (5) price adjustments for real and nominal assessments by sectors and areas; (6) measurement of the induced impacts associated with payrolls and consumer spending; (7) embedded modules to estimate multi-sectoral direct spending effects; (8) estimation of retail spending activity by consumers; and (9) comprehensive linkage and integration capabilities with a wide variety of econometric, real estate, occupational, and fiscal impact models.

The impact assessment (input-output) process essentially estimates the amounts of all types of goods and services required to produce one unit (a dollar's worth) of a specific type of output. For purposes of illustrating the nature of the system, it is useful to think of inputs and outputs in dollar (rather than physical) terms. As an example, the construction of a new building will require specific dollar amounts of lumber, glass, concrete, hand tools, architectural services, interior design services, paint, plumbing, and numerous other elements. Each of these suppliers must, in turn, purchase additional dollar amounts of inputs. This process continues through multiple rounds of production, thus generating subsequent increments to business activity. The initial process of building the facility is known as the *direct effect*. The ensuing transactions in the output chain constitute the *indirect effect*.

Another pattern that arises in response to any direct economic activity comes from the payroll dollars received by employees at each stage of the production cycle. As workers are compensated, they use some of their income for taxes, savings, and purchases from external markets. A substantial portion, however, is spent locally on food, clothing, health care services, utilities, housing, recreation,

and other items. Typical purchasing patterns in the relevant areas are obtained from the Center for Community and Economic Research *Cost of Living Index*, a privately compiled inter-regional measure which has been widely used for several decades, and the *Consumer Expenditure Survey* of the US Department of Labor. These initial outlays by area residents generate further secondary activity as local providers acquire inputs to meet this consumer demand. These consumer spending impacts are known as the *induced effect*. The USMRIAS is designed to provide realistic, yet conservative, estimates of these phenomena.

Sources for information used in this process include the Bureau of the Census, the Bureau of Labor Statistics, the Regional Economic Information System of the US Department of Commerce, and other public and private sources. The pricing data are compiled from the US Department of Labor and the US Department of Commerce. The verification and testing procedures make use of extensive public and private sources.

Impacts were measured in constant 2019 dollars to eliminate the effects of inflation.

The USMRIAS generates estimates of the effect on several measures of business activity. The most comprehensive measure of economic activity used in this study is **Total Expenditures**. This measure incorporates every dollar that changes hands in any transaction. For example, suppose a farmer sells wheat to a miller for \$0.50; the miller then sells flour to a baker for \$0.75; the baker, in turn, sells bread to a customer for \$1.25. The Total Expenditures recorded in this instance would be \$2.50, that is, $\$0.50 + \$0.75 + \$1.25$. This measure is quite broad but is useful in that (1) it reflects the overall interplay of all industries in the economy, and (2) some key fiscal variables such as sales taxes are linked to aggregate spending.

A second measure of business activity frequently employed in this analysis is that of **Gross Product**. This indicator represents the regional equivalent of Gross Domestic Product, the most commonly reported statistic regarding national economic performance. In other words, the Gross Product of Texas is the amount of US output that is produced in that state; it is defined as the value of all final goods produced in a given region for a specific period of time. Stated differently, it captures the amount of value-added (gross area product) over intermediate goods and services at each stage of the production process, that is, it eliminates the double counting in the Total Expenditures concept. Using the example above, the Gross Product is \$1.25 (the value of the bread) rather than \$2.50.

Alternatively, it may be viewed as the sum of the value-added by the farmer,

\$0.50; the miller, \$0.25 (\$0.75 - \$0.50); and the baker, \$0.50 (\$1.25 - \$0.75). The total value-added is, therefore, \$1.25, which is equivalent to the final value of the bread. In many industries, the primary component of value-added is the wage and salary payments to employees.

The third gauge of economic activity used in this evaluation is **Personal Income**. As the name implies, Personal Income is simply the income received by individuals, whether in the form of wages, salaries, interest, dividends, proprietors' profits, or other sources. It may thus be viewed as the segment of overall impacts which flows directly to the citizenry.

The fourth measure, **Retail Sales**, represents the component of Total Expenditures which occurs in retail outlets (general merchandise stores, automobile dealers and service stations, building materials stores, food stores, drugstores, restaurants, and so forth). Retail Sales is a commonly used measure of consumer activity.

The final aggregates used are **Jobs and Job-Years**, which reflect the full-time equivalent jobs generated by an activity. For an economic stimulus expected to endure (such as the ongoing operations of a facility), the Jobs measure is used. It should be noted that, unlike the dollar values described above, Jobs is a "stock" rather than a "flow." In other words, if an area produces \$1 million in output in 2018 and \$1 million in 2019, it is appropriate to say that \$2 million was achieved in the 2018-19 period. If the same area has 100 people working in 2018 and 100 in 2019, it only has 100 Jobs. When a flow of jobs is measured, such as in a construction project or a cumulative assessment over multiple years, it is appropriate to measure employment in Job-Years (a person working for a year, though it could be multiple people working for partial years). This concept is distinct from Jobs, which anticipates that the relevant positions will be maintained on a continuing basis.

US Multi-Regional Econometric Model

Overview

The US Multi-Regional Econometric Model was developed by Dr. M. Ray Perryman, President and CEO of The Perryman Group (TPG), about 40 years ago and has been consistently maintained, expanded, and updated since that time. It is formulated in an internally consistent manner and is designed to permit the integration of relevant global, national, state, and local factors into the projection process. It is the result of four decades of continuing research in econometrics, economic theory, statistical methods, and key policy issues and behavioral patterns, as well as intensive, ongoing study of all aspects of the global, US, Texas, and Texas metropolitan area economies. It is extensively used by scores of federal and State governmental entities on an ongoing basis, as well as hundreds of major corporations. The Model was used in this analysis to generate the economic and inflation projections used in the assessment of potential benefits of a medical school and, in particular the potential benefits of graduates who remain in the area.

This section describes the forecasting process in a comprehensive manner, focusing on both the modeling and the supplemental analysis. The overall methodology, while certainly not ensuring perfect foresight, permits an enormous body of relevant information to impact the economic outlook in a systematic manner.

Model Logic and Structure

The Model revolves around a core system which projects output (real and nominal), income (real and nominal), and employment by industry in a simultaneous manner. For purposes of illustration, it is useful to initially consider the employment functions. Essentially, employment within the system is a derived demand relationship obtained from a neo-Classical production function. The expressions are augmented to include dynamic temporal adjustments to changes in relative factor input costs, output and (implicitly) productivity, and technological progress over time. Thus, the typical equation includes output, the relative real cost of labor and capital, dynamic lag structures, and a technological adjustment parameter. The functional form is logarithmic, thus preserving the theoretical consistency with the neo-Classical formulation.

The income segment of the model is divided into wage and non-wage components. The wage equations, like their employment counterparts, are

individually estimated at the 3-digit North American Industry Classification System (NAICS) level of aggregation. Hence, income by place of work is measured for approximately 90 production categories. The wage equations measure real compensation, with the form of the variable structure differing between “basic” and “non-basic.”

The basic industries, comprised primarily of the various components of Mining, Agriculture, and Manufacturing, are export-oriented, i.e., they bring external dollars into the area and form the core of the economy. The production of these sectors typically flows into national and international markets; hence, the labor markets are influenced by conditions in areas beyond the borders of the particular region. Thus, real (inflation-adjusted) wages in the basic industry are expressed as a function of the corresponding national rates, as well as measures of local labor market conditions (the reciprocal of the unemployment rate), dynamic adjustment parameters, and ongoing trends.

The “non-basic” sectors are somewhat different in nature, as the strength of their labor markets is linked to the health of the local export sectors. Consequently, wages in these industries are related to those in the basic segment of the economy. The relationship also includes the local labor market measures contained in the basic wage equations.

Note that compensation rates in the export or “basic” sectors provide a key element of the interaction of the regional economies with national and international market phenomena, while the “non-basic” or local industries are strongly impacted by area production levels. Given the wage and employment equations, multiplicative identities in each industry provide expressions for total compensation; these totals may then be aggregated to determine aggregate wage and salary income. Simple linkage equations are then estimated for the calculation of personal income by place of work.

The non-labor aspects of personal income are modeled at the regional level using straightforward empirical expressions relating to national performance, dynamic responses, and evolving temporal patterns. In some instances (such as dividends, rents, and others) national variables (for example, interest rates) directly enter the forecasting system. These factors have numerous other implicit linkages into the system resulting from their simultaneous interaction with other phenomena in national and international markets which are explicitly included in various expressions.

The output or gross area product expressions are also developed at the 3-digit NAICS level. Regional output for basic industries is linked to national performance in the relevant industries, local and national production in key related sectors, relative area and national labor costs in the industry, dynamic adjustment parameters, and ongoing changes in industrial interrelationships (driven by technological changes in production processes).

Output in the non-basic sectors is modeled as a function of basic production levels, output in related local support industries (if applicable), dynamic temporal adjustments, and ongoing patterns. The inter-industry linkages are obtained from the input-output (impact assessment) system which is part of the overall integrated modeling structure maintained by The Perryman Group. Note that the dominant component of the econometric system involves the simultaneous estimation and projection of output (real and nominal), income (real and nominal), and employment at a disaggregated industrial level. This process, of necessity, also produces projections of regional price deflators by industry. These values are affected by both national pricing patterns and local cost variations and permit changes in prices to impact other aspects of economic behavior. Income is converted from real to nominal terms using Texas Consumer Price Index, which fluctuates in response to national pricing patterns and unique local phenomena.

Several other components of the model are critical to the forecasting process. The demographic module includes (1) a linkage equation between wage and salary (establishment) employment and household employment, (2) a labor force participation rate function, and (3) a complete population system with endogenous migration. Given household employment, labor force participation (which is a function of economic conditions and evolving patterns of worker preferences), and the working age population, the unemployment rate and level become identities.

The population system uses Census information, fertility rates, and life tables to determine the “natural” changes in population by age group. Migration, the most difficult segment of population dynamics to track, is estimated in relation to relative regional and extra-regional economic conditions over time. Because evolving economic conditions determine migration in the system, population changes are allowed to interact simultaneously with overall economic conditions. Through this process, migration is treated as endogenous to the system, thus allowing population to vary in accordance with relative business performance (particularly employment).

Real retail sales is related to income, interest rates, dynamic adjustments, and patterns in consumer behavior on a store group basis. It is expressed on an inflation-adjusted basis. Inflation at the state level relates to national patterns, indicators of relative economic conditions, and ongoing trends. As noted earlier, prices are endogenous to the system.

A final significant segment of the forecasting system relates to real estate absorption and activity. The short-term demand for various types of property is determined by underlying economic and demographic factors, with short-term adjustments to reflect the current status of the pertinent building cycle. In some instances, this portion of the forecast requires integration with the Multi-Regional Industry-Occupation System which is maintained by The Perryman Group. This system also allows any employment simulation or forecast from the econometric model to be translated into a highly detailed occupational profile.

The overall US Multi-Regional Econometric Model contains numerous additional specifications, and individual expressions are modified to reflect alternative lag structures, empirical properties of the estimates, simulation requirements, and similar phenomena. Moreover, it is updated on an ongoing basis as new data releases become available. Nonetheless, the above synopsis offers a basic understanding of the overall structure and underlying logic of the system.

Model Simulation and Multi-Regional Structure

The initial phase of the simulation process is the execution of a standard non-linear algorithm for the state system and that of each of the individual sub-areas. The external assumptions are derived from scenarios developed through national and international models and extensive analysis by The Perryman Group. The US model, which follows the basic structure outlined above, was used to some extent in the current analysis to define the demand for domestically produced goods on a per capita basis.

Once the initial simulations are completed, they are merged into a single system with additive constraints and interregional flows. Using information on minimum regional requirements, import needs, export potential, and locations, it becomes possible to balance the various forecasts into a mathematically consistent set of results. This process is, in effect, a disciplining exercise with regard to the individual regional (including metropolitan and rural) systems. By compelling equilibrium across all regions and sectors, the algorithm ensures that the patterns in state activity are reasonable in light of smaller area dynamics and, conversely,

that the regional outlooks are within plausible performance levels for the state as a whole.

The iterative simulation process has the additional property of imposing a global convergence criterion across the entire multi-regional system, with balance being achieved simultaneously on both a sectoral and a geographic basis. This approach is particularly critical on non-linear dynamic systems, as independent simulations of individual systems often yield unstable, non-convergent outcomes.

It should be noted that the underlying data for the modeling and simulation process are frequently updated and revised by the various public and private entities compiling them. Whenever those modifications to the database occur, they bring corresponding changes to the structural parameter estimates of the various systems and the solutions to the simulation and forecasting system. The multi-regional version of the Texas Econometric Model is re-estimated and simulated with each such data release, thus providing a constantly evolving and current assessment of state and local business activity.

The Final Forecast

The process described above is followed to produce an initial set of projections. Through the comprehensive multi-regional modeling and simulation process, a systematic analysis is generated which accounts for both historical patterns in economic performance and inter-relationships and best available information on the future course of pertinent external factors. While the best available techniques and data are employed in this effort, they are not capable of directly capturing “street sense,” i.e., the contemporaneous and often non-quantifiable information that can materially affect economic outcomes. In order to provide a comprehensive approach to the prediction of business conditions, it is necessary to compile and assimilate extensive material regarding current events and factors both across the state of Texas and elsewhere.

This critical aspect of the forecasting methodology includes activities such as (1) daily review of hundreds of financial and business publications and electronic information sites; (2) review of major newspapers and online news sources in the state on a daily basis; (3) dozens of hours of direct telephone interviews with key business and political leaders in all parts of the state; (4) face-to-face discussions with representatives of major industry groups; and (5) frequent site visits to the various regions of the state. The insights arising from this “fact finding” are analyzed and evaluated for their effects on the likely course of the future activity.

Another vital information resource stems from the firm's ongoing interaction with key players in the international, domestic, and state economic scenes. Such activities include visiting with corporate groups on a regular basis and being regularly involved in the policy process at all levels. The firm is also an active participant in many major corporate relocations, economic development initiatives, and regulatory proceedings.

Once organized, this information is carefully assessed and, when appropriate, independently verified. The impact on specific communities and sectors that is distinct from what is captured by the econometric system is then factored into the forecast analysis. For example, the opening or closing of a major facility, particularly in a relatively small area, can cause a sudden change in business performance that will not be accounted for by either a modeling system based on historical relationships or expected (primarily national and international) factors.

The final step in the forecasting process is the integration of this material into the results in a logical and mathematically consistent manner. In some instances, this task is accomplished through "constant adjustment factors" which augment relevant equations. In other cases, anticipated changes in industrial structure or regulatory parameters are initially simulated within the context of the Multi-Regional Impact Assessment System to estimate their ultimate effects by sector. Those findings are then factored into the simulation as constant adjustments on a distributed temporal basis. Once this scenario is formulated, the extended system is again balanced across regions and sectors through an iterative simulation algorithm analogous to that described in the preceding section.

Appendix B: Detailed Impact Results



UT Health Science Center at Tyler

Operations

The Annual Impact of Ongoing Operations of the University of Texas Health Science Center at Tyler on Business Activity in the Tyler Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$8,334,147	\$2,231,532	\$1,518,643	23
Mining	\$5,879,119	\$1,313,480	\$661,023	3
Utilities	\$10,485,999	\$2,364,795	\$1,031,933	4
Construction	\$7,736,258	\$4,139,200	\$3,410,957	45
Manufacturing	\$35,619,707	\$12,134,422	\$6,726,758	108
Wholesale Trade	\$10,173,375	\$6,880,496	\$3,967,355	43
Retail Trade*	\$65,673,747	\$49,120,227	\$28,531,447	836
Transportation & Warehousing	\$6,821,589	\$4,608,215	\$3,047,707	40
Information	\$10,074,772	\$6,215,874	\$2,653,758	23
Financial Activities*	\$67,299,809	\$17,181,539	\$6,132,050	61
Business Services	\$11,179,609	\$6,639,654	\$5,416,257	62
Health Services	\$140,512,693	\$87,260,812	\$68,634,393	860
Other Services	\$82,527,535	\$48,975,253	\$39,529,072	741
Total, All Industries	\$462,318,359	\$249,065,500	\$171,261,354	2,848

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

The Annual Impact of Ongoing Operations of the University of Texas Health Science Center at Tyler on Business Activity in the East Texas Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$8,573,423	\$2,393,976	\$1,585,007	24
Mining	\$6,614,067	\$1,538,618	\$858,753	4
Utilities	\$19,309,718	\$4,374,832	\$1,909,063	8
Construction	\$10,893,193	\$5,826,203	\$4,801,156	64
Manufacturing	\$57,348,217	\$17,902,870	\$9,912,638	149
Wholesale Trade	\$10,167,406	\$6,876,494	\$3,965,046	43
Retail Trade*	\$66,877,561	\$49,996,514	\$29,036,183	852
Transportation & Warehousing	\$11,542,480	\$7,762,270	\$5,133,687	66
Information	\$10,189,216	\$6,292,636	\$2,686,529	23
Financial Activities*	\$68,027,495	\$16,096,203	\$5,954,755	58
Business Services	\$11,187,548	\$6,619,355	\$5,399,700	63
Health Services	\$140,713,935	\$87,403,453	\$68,634,393	862
Other Services	\$82,906,906	\$49,172,848	\$39,634,731	744
Total, All Industries	\$504,351,164	\$262,256,272	\$179,511,640	2,960

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate. The East Texas Area consists of the following counties: Anderson, Camp, Cherokee, Gregg, Harrison, Henderson, Marion, Panola, Rains, Smith, Upshur, Van Zandt, and Wood.

The Annual Impact of Ongoing Operations of the University of Texas Health Science Center at Tyler on Business Activity in Texas

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$8,788,867	\$2,456,511	\$1,625,946	24
Mining	\$6,786,886	\$1,579,191	\$882,669	5
Utilities	\$25,341,124	\$5,746,248	\$2,507,510	10
Construction	\$11,335,031	\$6,056,486	\$4,990,920	67
Manufacturing	\$69,003,304	\$21,517,144	\$11,914,527	175
Wholesale Trade	\$16,438,441	\$11,117,893	\$6,410,677	69
Retail Trade*	\$69,855,394	\$52,236,679	\$30,339,614	890
Transportation & Warehousing	\$13,906,743	\$9,347,143	\$6,181,867	80
Information	\$10,521,710	\$6,492,025	\$2,771,653	24
Financial Activities*	\$74,424,700	\$19,140,076	\$6,891,035	69
Business Services	\$19,925,858	\$12,065,600	\$9,842,441	114
Health Services	\$141,296,699	\$87,816,502	\$68,634,393	867
Other Services	\$85,340,138	\$50,431,436	\$40,390,972	764
Total, All Industries	\$552,964,896	\$286,002,934	\$193,384,226	3,158

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

Student Spending

The Annual Impact of Student Spending Associated with the University of Texas Health Science Center at Tyler on Business Activity in the Tyler Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$375,023	\$102,148	\$69,492	1
Mining	\$271,132	\$61,011	\$31,654	0
Utilities	\$996,556	\$223,622	\$97,583	0
Construction	\$338,705	\$173,573	\$143,035	2
Manufacturing	\$1,384,448	\$464,919	\$259,046	4
Wholesale Trade	\$400,878	\$271,275	\$156,419	2
Retail Trade*	\$5,299,597	\$3,987,744	\$2,320,411	67
Transportation & Warehousing	\$313,758	\$218,095	\$144,240	2
Information	\$591,885	\$365,712	\$156,134	1
Financial Activities*	\$3,912,922	\$645,105	\$245,565	2
Business Services	\$527,564	\$295,734	\$241,243	3
Health Services	\$1,038,273	\$735,906	\$622,215	10
Other Services	\$1,884,895	\$982,199	\$779,340	16
Total, All Industries	\$17,335,637	\$8,527,042	\$5,266,378	111

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

The Annual Impact of Student Spending Associated with the University of Texas Health Science Center at Tyler on Business Activity in the East Texas Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$386,904	\$112,284	\$73,504	1
Mining	\$310,359	\$72,877	\$42,940	0
Utilities	\$1,367,259	\$306,889	\$133,918	1
Construction	\$476,681	\$244,280	\$201,302	3
Manufacturing	\$2,170,999	\$664,620	\$369,406	6
Wholesale Trade	\$400,878	\$271,275	\$156,419	2
Retail Trade*	\$5,347,763	\$4,023,008	\$2,340,759	68
Transportation & Warehousing	\$485,031	\$334,167	\$221,006	3
Information	\$591,885	\$366,248	\$156,363	1
Financial Activities*	\$3,912,922	\$586,136	\$236,063	2
Business Services	\$527,564	\$293,707	\$239,590	3
Health Services	\$1,046,560	\$741,779	\$627,181	10
Other Services	\$1,900,477	\$990,315	\$785,742	16
Total, All Industries	\$18,925,283	\$9,007,585	\$5,584,194	115

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate. The East Texas Area consists of the following counties: Anderson, Camp, Cherokee, Gregg, Harrison, Henderson, Marion, Panola, Rains, Smith, Upshur, Van Zandt, and Wood.

The Annual Impact of Student Spending Associated with the University of Texas Health Science Center at Tyler on Business Activity in Texas

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$395,667	\$114,827	\$75,169	1
Mining	\$317,388	\$74,527	\$43,913	0
Utilities	\$1,619,565	\$363,558	\$158,647	1
Construction	\$495,183	\$253,762	\$209,115	3
Manufacturing	\$2,595,727	\$790,641	\$439,108	7
Wholesale Trade	\$648,414	\$438,783	\$253,006	3
Retail Trade*	\$5,468,874	\$4,114,117	\$2,393,771	70
Transportation & Warehousing	\$572,042	\$393,238	\$260,074	3
Information	\$610,120	\$376,979	\$160,944	1
Financial Activities*	\$4,188,163	\$719,107	\$276,019	3
Business Services	\$832,050	\$489,790	\$399,544	5
Health Services	\$1,070,262	\$758,578	\$641,385	10
Other Services	\$1,996,248	\$1,039,891	\$821,347	17
Total, All Industries	\$20,809,702	\$9,927,799	\$6,132,040	123

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

Out-of-Area Patient Spending

The Annual Impact of Out-of-Area Patient Spending Associated with the University of Texas Health Science Center at Tyler on Business Activity in the Tyler Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$334,868	\$82,549	\$56,140	1
Mining	\$165,430	\$37,033	\$18,563	0
Utilities	\$256,708	\$58,476	\$25,517	0
Construction	\$176,628	\$94,191	\$77,620	1
Manufacturing	\$1,122,448	\$369,841	\$204,344	3
Wholesale Trade	\$317,339	\$214,726	\$123,813	1
Retail Trade*	\$4,545,436	\$3,318,946	\$1,913,508	58
Transportation & Warehousing	\$916,244	\$666,282	\$440,655	6
Information	\$290,618	\$178,603	\$76,252	1
Financial Activities*	\$1,717,725	\$458,272	\$175,185	2
Business Services	\$284,546	\$174,841	\$142,625	2
Health Services	\$386,252	\$270,198	\$228,455	4
Other Services	\$1,389,527	\$731,195	\$535,951	12
Total, All Industries	\$11,903,768	\$6,655,154	\$4,018,628	91

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

The Annual Impact of Out-of-Area Patient Spending Associated with the University of Texas Health Science Center at Tyler on Business Activity in the East Texas Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$345,758	\$92,878	\$60,138	1
Mining	\$183,521	\$42,543	\$23,596	0
Utilities	\$505,262	\$116,434	\$50,809	0
Construction	\$249,109	\$132,792	\$109,429	1
Manufacturing	\$1,750,289	\$527,306	\$290,783	5
Wholesale Trade	\$317,339	\$214,726	\$123,813	1
Retail Trade*	\$4,577,845	\$3,342,597	\$1,927,141	59
Transportation & Warehousing	\$1,046,507	\$756,154	\$500,093	6
Information	\$290,618	\$178,815	\$76,342	1
Financial Activities*	\$1,717,725	\$431,308	\$170,849	2
Business Services	\$284,546	\$174,139	\$142,053	2
Health Services	\$391,736	\$274,085	\$231,742	4
Other Services	\$1,399,898	\$736,597	\$540,208	12
Total, All Industries	\$13,060,153	\$7,020,374	\$4,246,995	94

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate. The East Texas Area consists of the following counties: Anderson, Camp, Cherokee, Gregg, Harrison, Henderson, Marion, Panola, Rains, Smith, Upshur, Van Zandt, and Wood.

The Annual Impact of Out-of-Area Patient Spending Associated with the University of Texas Health Science Center at Tyler on Business Activity in Texas

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$352,404	\$94,806	\$61,401	1
Mining	\$188,852	\$43,795	\$24,334	0
Utilities	\$677,627	\$156,418	\$68,257	0
Construction	\$261,364	\$139,154	\$114,671	2
Manufacturing	\$2,087,257	\$624,759	\$344,408	5
Wholesale Trade	\$512,163	\$346,553	\$199,826	2
Retail Trade*	\$4,669,701	\$3,411,699	\$1,967,347	60
Transportation & Warehousing	\$1,112,767	\$801,841	\$530,309	7
Information	\$303,992	\$186,867	\$79,780	1
Financial Activities*	\$1,919,321	\$513,129	\$197,429	2
Business Services	\$513,826	\$321,231	\$262,042	3
Health Services	\$409,712	\$286,827	\$242,515	4
Other Services	\$1,473,196	\$774,574	\$567,459	13
Total, All Industries	\$14,482,183	\$7,701,653	\$4,659,777	100

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

Graduates

The Annual Impact of Graduates from the University of Texas Health Science Center at Tyler on Business Activity in the Tyler Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$321,005	\$83,442	\$56,786	1
Mining	\$211,552	\$47,328	\$23,792	0
Utilities	\$356,242	\$80,368	\$35,070	0
Construction	\$247,918	\$131,943	\$108,729	1
Manufacturing	\$1,330,089	\$449,934	\$248,534	4
Wholesale Trade	\$383,751	\$259,509	\$149,635	2
Retail Trade*	\$2,315,262	\$1,731,835	\$1,005,947	29
Transportation & Warehousing	\$237,532	\$161,080	\$106,533	1
Information	\$360,215	\$222,318	\$94,915	1
Financial Activities*	\$2,396,225	\$620,821	\$229,098	2
Business Services	\$405,430	\$241,786	\$197,235	2
Health Services	\$5,692,069	\$3,757,975	\$3,177,403	50
Other Services	\$949,577	\$492,574	\$399,494	9
Total, All Industries	\$15,206,867	\$8,280,913	\$5,833,172	104

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

The Annual Impact of Graduates from the University of Texas Health Science Center at Tyler on Business Activity in the East Texas Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$329,737	\$89,312	\$59,185	1
Mining	\$237,520	\$55,436	\$30,878	0
Utilities	\$677,050	\$153,445	\$66,959	0
Construction	\$349,459	\$185,918	\$153,208	2
Manufacturing	\$2,149,604	\$667,875	\$368,947	6
Wholesale Trade	\$383,751	\$259,510	\$149,636	2
Retail Trade*	\$2,358,991	\$1,763,630	\$1,024,254	30
Transportation & Warehousing	\$403,259	\$272,363	\$180,131	2
Information	\$360,215	\$222,512	\$94,998	1
Financial Activities*	\$2,396,225	\$582,000	\$222,839	2
Business Services	\$405,430	\$240,933	\$196,540	2
Health Services	\$5,699,336	\$3,763,126	\$3,181,758	50
Other Services	\$963,295	\$499,719	\$405,126	9
Total, All Industries	\$16,713,871	\$8,755,778	\$6,134,458	108

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate. The East Texas Area consists of the following counties: Anderson, Camp, Cherokee, Gregg, Harrison, Henderson, Marion, Panola, Rains, Smith, Upshur, Van Zandt, and Wood.

The Annual Impact of Graduates from the University of Texas Health Science Center at Tyler on Business Activity in Texas

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$375,717	\$101,946	\$67,536	1
Mining	\$271,405	\$63,355	\$35,346	0
Utilities	\$998,578	\$226,489	\$98,834	0
Construction	\$406,118	\$215,833	\$177,860	2
Manufacturing	\$2,875,798	\$892,473	\$493,088	7
Wholesale Trade	\$689,268	\$466,122	\$268,770	3
Retail Trade*	\$2,750,234	\$2,056,732	\$1,194,582	35
Transportation & Warehousing	\$541,613	\$365,631	\$241,815	3
Information	\$419,248	\$258,766	\$110,476	1
Financial Activities*	\$2,958,232	\$770,048	\$286,295	3
Business Services	\$809,709	\$491,367	\$400,830	5
Health Services	\$6,357,867	\$4,199,163	\$3,550,431	56
Other Services	\$1,173,454	\$608,668	\$488,474	11
Total, All Industries	\$20,627,239	\$10,716,594	\$7,414,335	128

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

Residents

The Annual Impact of Residents from the University of Texas Health Science Center at Tyler on Business Activity in the Tyler Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$268,672	\$70,283	\$47,829	1
Mining	\$179,349	\$40,157	\$20,281	0
Utilities	\$353,479	\$79,630	\$34,748	0
Construction	\$212,177	\$112,284	\$92,529	1
Manufacturing	\$1,097,095	\$370,794	\$205,031	3
Wholesale Trade	\$316,666	\$214,161	\$123,487	1
Retail Trade*	\$2,185,112	\$1,636,731	\$951,096	28
Transportation & Warehousing	\$202,263	\$137,670	\$91,050	1
Information	\$317,793	\$196,175	\$83,754	1
Financial Activities*	\$2,111,697	\$511,967	\$189,644	2
Business Services	\$344,471	\$203,632	\$166,111	2
Health Services	\$7,889,105	\$5,204,038	\$4,400,063	37
Other Services	\$868,684	\$451,037	\$364,161	8
Total, All Industries	\$16,346,564	\$9,228,560	\$6,769,785	86

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

The Annual Impact of Residents from the University of Texas Health Science Center at Tyler on Business Activity in the East Texas Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$326,905	\$89,403	\$59,141	1
Mining	\$239,106	\$55,857	\$31,381	0
Utilities	\$736,855	\$166,657	\$72,725	0
Construction	\$354,091	\$187,314	\$154,359	2
Manufacturing	\$2,090,899	\$648,501	\$358,503	5
Wholesale Trade	\$374,826	\$253,495	\$146,168	2
Retail Trade*	\$2,634,257	\$1,972,278	\$1,145,926	34
Transportation & Warehousing	\$401,154	\$271,694	\$179,689	2
Information	\$384,611	\$237,662	\$101,466	1
Financial Activities*	\$2,552,188	\$569,812	\$218,646	2
Business Services	\$408,963	\$240,723	\$196,369	2
Health Services	\$9,326,639	\$6,152,760	\$5,202,216	44
Other Services	\$1,043,248	\$541,702	\$437,202	10
Total, All Industries	\$20,873,740	\$11,387,859	\$8,303,790	105

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate. The East Texas Area consists of the following counties: Anderson, Camp, Cherokee, Gregg, Harrison, Henderson, Marion, Panola, Rains, Smith, Upshur, Van Zandt, and Wood.

The Annual Impact of Residents from the University of Texas Health Science Center at Tyler on Business Activity in Texas

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$786,281	\$215,163	\$142,319	2
Mining	\$575,659	\$134,485	\$75,596	0
Utilities	\$2,227,850	\$504,383	\$220,099	1
Construction	\$866,313	\$458,119	\$377,519	5
Manufacturing	\$5,913,115	\$1,831,447	\$1,012,420	15
Wholesale Trade	\$1,423,636	\$962,813	\$555,167	6
Retail Trade*	\$6,380,968	\$4,777,840	\$2,776,072	81
Transportation & Warehousing	\$1,133,866	\$767,165	\$507,376	7
Information	\$918,371	\$566,930	\$242,041	2
Financial Activities*	\$6,451,656	\$1,589,194	\$592,949	6
Business Services	\$1,689,497	\$1,021,582	\$833,349	10
Health Services	\$22,231,224	\$14,666,918	\$12,401,016	105
Other Services	\$2,640,624	\$1,370,766	\$1,096,872	25
Total, All Industries	\$53,239,059	\$28,866,806	\$20,832,795	265

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

Construction

The Projected Economic Impact of Planned New Construction of Health Education Facilities at University of Texas System Institutions in Tyler on Business Activity in the Tyler Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Job Years*
Agriculture	\$2,856,789	\$803,053	\$546,444	8.3
Mining	\$2,475,115	\$574,735	\$292,114	1.6
Utilities	\$3,235,026	\$727,854	\$317,616	1.3
Construction	\$63,230,717	\$28,601,537	\$23,569,448	315.2
Manufacturing	\$26,336,672	\$9,719,077	\$5,759,157	89.3
Wholesale Trade	\$5,478,866	\$3,706,611	\$2,137,265	23.1
Retail Trade*	\$25,488,051	\$19,303,873	\$11,254,756	323.7
Transportation & Warehousing	\$3,079,193	\$2,062,925	\$1,364,345	17.8
Information	\$3,746,010	\$2,310,583	\$986,462	8.4
Financial Activities*	\$22,915,589	\$5,597,303	\$2,251,681	22.6
Business Services	\$5,920,149	\$3,672,554	\$2,995,864	34.6
Health Services	\$5,765,176	\$4,029,875	\$3,407,297	53.6
Other Services	\$9,914,141	\$5,058,227	\$4,108,025	94.8
Total, All Industries	\$180,441,494	\$86,168,207	\$58,990,474	994.1

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars. A job-year is equivalent to one person working for one year.

Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

The Projected Economic Impact of Planned New Construction of Health Education Facilities at University of Texas System Institutions in Tyler on Business Activity in the East Texas Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Job Years*
Agriculture	\$3,296,079	\$970,930	\$640,261	10
Mining	\$3,331,260	\$864,180	\$485,673	3
Utilities	\$6,787,379	\$1,530,774	\$667,990	2.7
Construction	\$71,232,283	\$32,300,205	\$26,617,380	356
Manufacturing	\$41,167,045	\$14,353,886	\$8,464,705	129
Wholesale Trade	\$6,083,921	\$4,115,957	\$2,373,297	26
Retail Trade*	\$29,082,153	\$22,012,285	\$12,831,466	369
Transportation & Warehousing	\$5,879,450	\$3,925,292	\$2,596,047	33.7
Information	\$4,159,698	\$2,568,142	\$1,096,423	9
Financial Activities*	\$25,446,257	\$5,858,327	\$2,442,647	25
Business Services	\$6,573,936	\$4,064,967	\$3,315,971	38
Health Services	\$6,538,869	\$4,572,029	\$3,865,693	61
Other Services	\$11,258,809	\$5,747,067	\$4,664,526	108
Total, All Industries	\$220,837,140	\$102,884,042	\$70,062,078	1,169

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars. A job-year is equivalent to one person working for one year.

Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

The East Texas Area consists of the following counties: Anderson, Camp, Cherokee, Gregg, Harrison, Henderson, Marion, Panola, Rains, Smith, Upshur, Van Zandt, and Wood.

The Projected Economic Impact of Planned New Construction of Health Education Facilities at University of Texas System Institutions in Tyler on Business Activity in Texas

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Job Years*
Agriculture	\$4,194,658	\$1,235,027	\$814,126	12
Mining	\$4,213,041	\$1,089,184	\$612,699	4
Utilities	\$11,171,185	\$2,520,304	\$1,099,793	4.5
Construction	\$87,282,228	\$39,595,889	\$32,629,478	436
Manufacturing	\$57,235,033	\$19,911,043	\$11,682,486	173
Wholesale Trade	\$12,027,897	\$8,137,284	\$4,692,030	51
Retail Trade*	\$37,923,314	\$28,699,856	\$16,729,037	482
Transportation & Warehousing	\$8,734,037	\$5,831,183	\$3,856,538	50.1
Information	\$5,438,131	\$3,354,684	\$1,432,223	12
Financial Activities*	\$35,479,650	\$8,662,262	\$3,494,726	35
Business Services	\$14,745,934	\$9,251,591	\$7,546,926	87
Health Services	\$8,450,698	\$5,913,238	\$4,999,697	79
Other Services	\$15,391,093	\$7,872,468	\$6,315,770	145
Total, All Industries	\$302,286,901	\$142,074,012	\$95,905,528	1,570

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars. A job-year is equivalent to one person working for one year.

Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

Research Spinoff

The Annual Impact of Spinoff Activity from Research Conducted at the University of Texas Health Science Center at Tyler on Business Activity in the Tyler Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$2,212,205	\$595,131	\$404,945	6
Mining	\$1,592,197	\$359,750	\$180,736	1
Utilities	\$2,107,034	\$475,424	\$207,462	1
Construction	\$1,432,826	\$766,847	\$631,929	8
Manufacturing	\$64,285,223	\$27,564,772	\$15,051,681	153
Wholesale Trade	\$3,566,722	\$2,411,794	\$1,390,662	15
Retail Trade*	\$14,077,415	\$10,411,979	\$6,027,183	180
Transportation & Warehousing	\$1,871,091	\$1,256,940	\$831,295	11
Information	\$2,851,014	\$1,736,120	\$741,205	6
Financial Activities*	\$14,200,230	\$3,812,583	\$1,459,909	14
Business Services	\$3,308,399	\$1,970,899	\$1,607,748	19
Health Services	\$3,231,183	\$2,256,770	\$1,908,120	30
Other Services	\$6,025,390	\$3,118,820	\$2,537,680	58
Total, All Industries	\$120,760,930	\$56,737,827	\$32,980,556	502

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

The Annual Impact of Spinoff Activity from Research Conducted at the University of Texas Health Science Center at Tyler on Business Activity in the East Texas Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$2,297,443	\$649,996	\$428,038	6
Mining	\$1,834,255	\$438,502	\$243,483	1
Utilities	\$4,242,641	\$961,286	\$419,480	2
Construction	\$2,041,596	\$1,091,726	\$899,650	12
Manufacturing	\$71,822,591	\$30,294,540	\$16,478,057	169
Wholesale Trade	\$3,566,722	\$2,411,811	\$1,390,672	15
Retail Trade*	\$14,588,336	\$10,787,948	\$6,244,470	186
Transportation & Warehousing	\$3,236,926	\$2,168,083	\$1,433,893	19
Information	\$2,851,014	\$1,739,448	\$742,626	6
Financial Activities*	\$14,200,230	\$3,581,045	\$1,422,482	14
Business Services	\$3,308,399	\$1,965,164	\$1,603,070	19
Health Services	\$3,321,320	\$2,320,656	\$1,962,137	31
Other Services	\$6,192,812	\$3,206,007	\$2,606,596	60
Total, All Industries	\$133,504,284	\$61,616,214	\$35,874,653	540

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate. The East Texas Area consists of the following counties: Anderson, Camp, Cherokee, Gregg, Harrison, Henderson, Marion, Panola, Rains, Smith, Upshur, Van Zandt, and Wood.

The Annual Impact of Spinoff Activity from Research Conducted at the University of Texas Health Science Center at Tyler on Business Activity in Texas

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$2,376,863	\$673,045	\$443,126	7
Mining	\$1,897,962	\$453,461	\$252,297	1
Utilities	\$5,790,346	\$1,312,574	\$572,772	2
Construction	\$2,173,267	\$1,159,921	\$955,847	13
Manufacturing	\$75,676,072	\$31,731,794	\$17,243,825	178
Wholesale Trade	\$5,781,450	\$3,909,472	\$2,254,236	24
Retail Trade*	\$15,686,073	\$11,613,753	\$6,724,959	200
Transportation & Warehousing	\$3,941,408	\$2,640,038	\$1,746,027	23
Information	\$3,024,865	\$1,843,537	\$787,065	7
Financial Activities*	\$16,318,787	\$4,353,703	\$1,679,827	17
Business Services	\$6,111,878	\$3,682,972	\$3,004,362	35
Health Services	\$3,536,148	\$2,472,922	\$2,090,878	33
Other Services	\$6,956,929	\$3,598,819	\$2,892,224	66
Total, All Industries	\$149,272,047	\$69,446,010	\$40,647,446	605

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

The Annual Impact of Spinoff Activity from Research Conducted at the University of Texas Health Science Center at Tyler on Business Activity in the United States

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$2,744,777	\$793,143	\$515,446	8
Mining	\$1,966,322	\$474,426	\$272,131	2
Utilities	\$7,563,131	\$1,714,435	\$748,133	3
Construction	\$2,287,728	\$1,221,011	\$1,006,190	13
Manufacturing	\$91,837,550	\$36,869,804	\$19,872,499	213
Wholesale Trade	\$5,954,368	\$4,026,401	\$2,321,658	25
Retail Trade*	\$16,258,288	\$12,024,955	\$6,960,850	208
Transportation & Warehousing	\$4,399,535	\$2,946,902	\$1,948,976	25
Information	\$3,173,029	\$1,933,838	\$825,617	7
Financial Activities*	\$16,639,584	\$4,534,658	\$1,786,323	18
Business Services	\$6,331,807	\$3,815,500	\$3,112,471	36
Health Services	\$3,602,075	\$2,519,027	\$2,129,860	33
Other Services	\$7,436,272	\$3,828,433	\$3,086,589	70
Total, All Industries	\$170,194,468	\$76,702,532	\$44,586,743	661

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

UT Health East Texas

UT Health Athens Hospital

The Annual Impact of Ongoing Operations of UT Health Athens Hospital on Business Activity in Henderson County

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$4,188,844	\$1,100,597	\$742,529	11
Mining	\$1,395,876	\$352,112	\$231,244	1
Utilities	\$10,970,326	\$2,497,442	\$1,089,817	4
Construction	\$5,038,205	\$2,704,136	\$2,228,376	30
Manufacturing	\$9,372,502	\$3,925,562	\$2,299,818	42
Wholesale Trade	\$2,882,482	\$1,948,882	\$1,123,743	12
Retail Trade*	\$29,547,465	\$22,055,267	\$12,803,584	377
Transportation & Warehousing	\$3,169,524	\$2,152,414	\$1,423,528	19
Information	\$3,851,370	\$2,377,626	\$1,015,084	8
Financial Activities*	\$30,659,323	\$7,530,693	\$2,496,689	24
Business Services	\$6,700,804	\$4,006,544	\$3,268,312	38
Health Services	\$74,510,345	\$45,929,273	\$38,833,626	611
Other Services	\$12,365,723	\$6,416,869	\$5,167,204	119
Total, All Industries	\$194,652,787	\$102,997,418	\$72,723,553	1,295

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

UT Health Carthage Hospital

The Annual Impact of Ongoing Operations of UT Health Carthage Hospital on Business Activity in Panola County

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$1,173,225	\$316,303	\$209,680	3
Mining	\$879,688	\$204,367	\$113,160	1
Utilities	\$2,653,356	\$603,816	\$263,489	1
Construction	\$1,391,787	\$747,494	\$615,982	8
Manufacturing	\$3,867,623	\$1,157,737	\$641,888	11
Wholesale Trade	\$1,006,061	\$680,205	\$392,212	4
Retail Trade*	\$7,406,655	\$5,626,964	\$3,283,838	94
Transportation & Warehousing	\$1,773,541	\$1,198,378	\$792,565	10
Information	\$586,653	\$362,958	\$154,959	1
Financial Activities*	\$4,041,129	\$820,906	\$334,262	3
Business Services	\$1,101,451	\$645,042	\$526,188	6
Health Services	\$20,478,940	\$12,614,052	\$10,665,298	168
Other Services	\$3,165,735	\$1,643,008	\$1,340,187	31
Total, All Industries	\$49,525,842	\$26,621,229	\$19,333,708	341

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

UT Health Henderson Hospital

The Annual Impact of Ongoing Operations of UT Health Henderson Hospital on Business Activity in Rusk County

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$1,554,522	\$419,215	\$277,889	4
Mining	\$1,032,924	\$242,039	\$136,726	1
Utilities	\$3,994,930	\$909,665	\$396,953	2
Construction	\$1,844,477	\$990,452	\$816,194	11
Manufacturing	\$6,632,596	\$2,032,861	\$1,150,431	18
Wholesale Trade	\$702,791	\$475,162	\$273,983	3
Retail Trade*	\$9,958,917	\$7,490,033	\$4,358,011	127
Transportation & Warehousing	\$2,053,885	\$1,388,806	\$918,506	12
Information	\$1,004,997	\$621,100	\$265,167	2
Financial Activities*	\$5,974,643	\$1,226,130	\$460,099	4
Business Services	\$1,961,891	\$1,164,358	\$949,818	11
Health Services	\$27,125,909	\$16,710,748	\$14,129,093	222
Other Services	\$4,170,448	\$2,158,497	\$1,758,714	41
Total, All Industries	\$68,012,930	\$35,829,066	\$25,891,585	457

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

UT Health Jacksonville Hospital

The Annual Impact of Ongoing Operations of UT Health Jacksonville Hospital on Business Activity in Cherokee County

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$1,776,425	\$478,716	\$317,371	5
Mining	\$105,812	\$25,978	\$12,860	0
Utilities	\$3,960,244	\$901,286	\$393,296	2
Construction	\$1,205,463	\$647,605	\$533,667	7
Manufacturing	\$5,681,047	\$2,211,754	\$1,296,930	21
Wholesale Trade	\$1,173,925	\$793,694	\$457,651	5
Retail Trade*	\$11,090,530	\$8,443,707	\$4,930,773	141
Transportation & Warehousing	\$1,859,637	\$1,258,943	\$832,619	11
Information	\$834,895	\$516,676	\$220,586	2
Financial Activities*	\$6,948,996	\$1,470,314	\$557,783	5
Business Services	\$1,453,074	\$844,844	\$689,176	8
Health Services	\$31,702,923	\$19,533,502	\$16,515,757	260
Other Services	\$4,338,873	\$2,224,648	\$1,829,060	43
Total, All Industries	\$72,131,843	\$39,351,666	\$28,587,529	509

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

UT Health Pittsburg Hospital

The Annual Impact of Ongoing Operations of UT Health Pittsburg Hospital on Business Activity in Camp County

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$1,925,850	\$498,280	\$339,357	5
Mining	\$254,591	\$55,192	\$25,454	0
Utilities	\$5,002,999	\$1,139,592	\$497,287	2
Construction	\$2,263,906	\$1,216,545	\$1,002,510	13
Manufacturing	\$6,416,439	\$1,993,789	\$1,064,677	20
Wholesale Trade	\$2,473,868	\$1,672,584	\$964,427	10
Retail Trade*	\$11,504,510	\$8,795,475	\$5,142,469	146
Transportation & Warehousing	\$1,208,307	\$821,582	\$543,364	7
Information	\$496,137	\$308,376	\$131,655	1
Financial Activities*	\$8,683,695	\$2,175,503	\$926,522	9
Business Services	\$883,438	\$488,777	\$398,716	5
Health Services	\$35,211,907	\$21,692,877	\$18,341,528	288
Other Services	\$4,411,907	\$2,294,671	\$1,874,010	45
Total, All Industries	\$80,737,554	\$43,153,244	\$31,251,976	551

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

UT Health Quitman Hospital

The Annual Impact of Ongoing Operations of UT Health Quitman Hospital on Business Activity in Wood County

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$1,761,853	\$475,436	\$315,119	5
Mining	\$782,545	\$181,427	\$90,471	0
Utilities	\$4,550,501	\$1,035,974	\$452,071	2
Construction	\$2,091,451	\$1,122,613	\$925,104	12
Manufacturing	\$6,836,958	\$2,139,779	\$1,157,901	20
Wholesale Trade	\$1,286,669	\$869,933	\$501,612	5
Retail Trade*	\$12,224,611	\$9,128,646	\$5,300,049	156
Transportation & Warehousing	\$2,661,960	\$1,799,040	\$1,189,820	15
Information	\$1,720,371	\$1,061,845	\$453,334	4
Financial Activities*	\$8,724,680	\$1,954,048	\$692,827	6
Business Services	\$1,767,254	\$1,037,350	\$846,212	10
Health Services	\$30,970,857	\$19,090,256	\$16,140,988	254
Other Services	\$5,046,195	\$2,614,688	\$2,108,702	49
Total, All Industries	\$80,425,904	\$42,511,035	\$30,174,212	538

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

UT Health Tyler Hospital

The Annual Impact of Ongoing Operations of UT Health Tyler Hospital on Business Activity in the Tyler Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$30,282,116	\$7,854,253	\$5,345,241	80
Mining	\$20,764,888	\$4,620,985	\$2,318,086	11
Utilities	\$32,970,371	\$7,449,917	\$3,250,944	13
Construction	\$25,843,127	\$13,869,072	\$11,428,989	154
Manufacturing	\$132,547,931	\$45,141,646	\$24,923,646	403
Wholesale Trade	\$37,614,652	\$25,431,815	\$14,664,205	158
Retail Trade*	\$214,813,243	\$160,452,328	\$93,165,162	2,736
Transportation & Warehousing	\$23,397,015	\$15,887,681	\$10,507,552	136
Information	\$34,268,584	\$21,144,713	\$9,027,354	77
Financial Activities*	\$223,467,180	\$58,343,660	\$21,284,819	212
Business Services	\$40,675,924	\$24,162,662	\$19,710,542	228
Health Services	\$540,880,491	\$333,425,431	\$281,914,306	4,433
Other Services	\$86,593,910	\$44,949,310	\$36,462,794	835
Total, All Industries	\$1,444,119,431	\$762,733,474	\$534,003,641	9,478

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

UT Health East Texas Hospitals

The Annual Impact of Ongoing Operations of UT Health East Texas Hospitals on Business Activity in the East Texas Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$43,912,473	\$11,861,709	\$7,860,575	118
Mining	\$32,983,792	\$7,664,917	\$4,251,618	22
Utilities	\$89,355,704	\$20,307,171	\$8,861,503	36
Construction	\$51,353,446	\$27,547,028	\$22,700,470	304
Manufacturing	\$301,860,612	\$94,277,815	\$52,099,198	780
Wholesale Trade	\$50,602,883	\$34,213,572	\$19,727,849	213
Retail Trade*	\$309,338,356	\$230,943,445	\$134,075,169	3,941
Transportation & Warehousing	\$56,216,589	\$38,034,286	\$25,154,507	327
Information	\$42,596,143	\$26,306,048	\$11,230,885	96
Financial Activities*	\$317,731,308	\$74,112,984	\$26,730,112	263
Business Services	\$54,527,809	\$32,285,068	\$26,336,334	306
Health Services	\$763,173,368	\$470,562,551	\$397,864,995	6,256
Other Services	\$124,130,279	\$64,437,645	\$52,247,146	1,196
Total, All Industries	\$2,237,782,762	\$1,132,554,238	\$789,140,359	13,858

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate. The East Texas Area consists of the following counties: Anderson, Camp, Cherokee, Gregg, Harrison, Henderson, Marion, Panola, Rains, Smith, Upshur, Van Zandt, and Wood.

The Annual Impact of Ongoing Operations of UT Health East Texas Hospitals on Business Activity in Texas

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$45,113,247	\$12,210,202	\$8,088,753	121
Mining	\$33,947,032	\$7,891,121	\$4,384,901	23
Utilities	\$119,220,084	\$27,118,518	\$11,833,805	49
Construction	\$53,668,099	\$28,752,633	\$23,693,960	318
Manufacturing	\$367,182,096	\$115,075,220	\$63,498,785	928
Wholesale Trade	\$85,811,747	\$58,020,118	\$33,454,923	362
Retail Trade*	\$325,935,549	\$243,429,167	\$141,339,881	4,151
Transportation & Warehousing	\$68,044,561	\$46,016,720	\$30,433,853	395
Information	\$50,779,265	\$31,334,402	\$13,377,649	113
Financial Activities*	\$351,609,454	\$92,017,998	\$33,837,910	338
Business Services	\$103,692,845	\$62,571,696	\$51,042,461	592
Health Services	\$766,421,454	\$472,864,722	\$399,811,510	6,286
Other Services	\$136,754,986	\$70,976,897	\$56,959,494	1,301
Total, All Industries	\$2,508,180,418	\$1,268,279,414	\$871,757,885	14,977

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

UT Health East Texas Clinics

The Annual Impact of Ongoing Operations of UT Health Offsite and Clinic Facilities on Business Activity in the Tyler Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$2,390,451	\$636,876	\$433,391	6
Mining	\$1,562,373	\$353,943	\$179,610	1
Utilities	\$3,049,318	\$688,839	\$300,591	1
Construction	\$1,683,311	\$879,522	\$724,782	10
Manufacturing	\$9,646,230	\$3,273,478	\$1,813,241	30
Wholesale Trade	\$2,923,492	\$1,978,848	\$1,141,021	12
Retail Trade*	\$20,329,679	\$15,243,418	\$8,859,386	259
Transportation & Warehousing	\$1,826,133	\$1,236,580	\$817,830	11
Information	\$3,115,904	\$1,923,768	\$821,319	7
Financial Activities*	\$20,564,997	\$5,232,781	\$2,014,181	20
Business Services	\$3,169,378	\$1,895,972	\$1,546,628	18
Health Services	\$47,481,636	\$35,770,510	\$30,244,296	475
Other Services	\$8,385,995	\$4,340,485	\$3,522,560	81
Total, All Industries	\$126,128,898	\$73,455,019	\$52,418,836	931

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

The Annual Impact of Ongoing Operations of UT Health Offsite and Clinic Facilities on Business Activity in the East Texas Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$3,085,400	\$860,640	\$568,688	8
Mining	\$2,200,522	\$520,873	\$295,219	1
Utilities	\$6,937,971	\$1,577,235	\$688,264	3
Construction	\$2,978,036	\$1,555,795	\$1,282,072	17
Manufacturing	\$19,291,016	\$5,983,018	\$3,321,899	51
Wholesale Trade	\$3,677,710	\$2,489,357	\$1,435,386	16
Retail Trade*	\$25,883,739	\$19,397,244	\$11,271,698	330
Transportation & Warehousing	\$3,856,687	\$2,598,732	\$1,718,709	22
Information	\$3,919,761	\$2,422,134	\$1,034,087	9
Financial Activities*	\$25,870,463	\$6,193,032	\$2,470,981	25
Business Services	\$3,987,031	\$2,376,024	\$1,938,228	22
Health Services	\$59,778,243	\$45,032,118	\$38,075,071	599
Other Services	\$10,640,623	\$5,507,743	\$4,468,597	102
Total, All Industries	\$172,107,203	\$96,513,945	\$68,568,897	1,205

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate. The East Texas Area consists of the following counties: Anderson, Camp, Cherokee, Gregg, Harrison, Henderson, Marion, Panola, Rains, Smith, Upshur, Van Zandt, and Wood.

The Annual Impact of Ongoing Operations of UT Health Offsite and Clinic Facilities on Business Activity in Texas

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$3,163,337	\$883,258	\$583,491	9
Mining	\$2,263,044	\$535,555	\$303,871	1
Utilities	\$9,080,871	\$2,066,841	\$901,913	4
Construction	\$3,122,651	\$1,630,374	\$1,343,530	18
Manufacturing	\$23,121,206	\$7,138,811	\$3,962,410	60
Wholesale Trade	\$5,927,067	\$4,011,873	\$2,313,281	25
Retail Trade*	\$26,960,953	\$20,207,608	\$11,743,202	343
Transportation & Warehousing	\$4,650,045	\$3,131,346	\$2,070,960	27
Information	\$4,066,754	\$2,510,895	\$1,071,981	9
Financial Activities*	\$28,466,972	\$7,310,375	\$2,830,503	28
Business Services	\$7,068,964	\$4,316,185	\$3,520,903	41
Health Services	\$59,989,053	\$45,181,536	\$38,201,408	601
Other Services	\$11,586,482	\$5,998,295	\$4,817,818	110
Total, All Industries	\$189,467,398	\$104,922,951	\$73,665,270	1,277

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

Out-of-Area Patient Spending: UT Health East Texas Tyler Hospital

The Annual Impact of Out-of-Area Patient Spending Associated with UT Health East Texas Tyler Hospital on Business Activity in the Tyler Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$627,332	\$154,645	\$105,172	2
Mining	\$309,912	\$69,377	\$34,776	0
Utilities	\$480,910	\$109,547	\$47,803	0
Construction	\$330,889	\$176,456	\$145,410	2
Manufacturing	\$2,102,764	\$692,849	\$382,813	6
Wholesale Trade	\$594,494	\$402,261	\$231,948	3
Retail Trade*	\$8,515,298	\$6,217,625	\$3,584,714	109
Transportation & Warehousing	\$1,716,467	\$1,248,195	\$825,511	11
Information	\$544,437	\$334,591	\$142,848	1
Financial Activities*	\$3,217,940	\$858,515	\$328,186	3
Business Services	\$533,060	\$327,542	\$267,190	3
Health Services	\$723,594	\$506,182	\$427,982	7
Other Services	\$2,603,103	\$1,369,802	\$1,004,037	23
Total, All Industries	\$22,300,200	\$12,467,587	\$7,528,390	170

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

The Annual Impact of Out-of-Area Patient Spending Associated with UT Health East Texas Tyler Hospital on Business Activity in the East Texas Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$647,734	\$173,995	\$112,661	2
Mining	\$343,803	\$79,699	\$44,205	0
Utilities	\$946,544	\$218,125	\$95,184	0
Construction	\$466,674	\$248,769	\$205,001	3
Manufacturing	\$3,278,945	\$987,841	\$544,745	9
Wholesale Trade	\$594,494	\$402,262	\$231,948	3
Retail Trade*	\$8,576,011	\$6,261,932	\$3,610,254	110
Transportation & Warehousing	\$1,960,499	\$1,416,559	\$936,861	12
Information	\$544,437	\$334,987	\$143,017	1
Financial Activities*	\$3,217,940	\$808,001	\$320,064	3
Business Services	\$533,060	\$326,227	\$266,118	3
Health Services	\$733,868	\$513,464	\$434,139	7
Other Services	\$2,622,531	\$1,379,922	\$1,012,011	23
Total, All Industries	\$24,466,540	\$13,151,781	\$7,956,206	176

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate. The East Texas Area consists of the following counties: Anderson, Camp, Cherokee, Gregg, Harrison, Henderson, Marion, Panola, Rains, Smith, Upshur, Van Zandt, and Wood.

The Annual Impact of Out-of-Area Patient Spending Associated with UT Health East Texas Tyler Hospital on Business Activity in Texas

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$660,184	\$177,608	\$115,026	2
Mining	\$353,790	\$82,044	\$45,586	0
Utilities	\$1,269,449	\$293,029	\$127,870	1
Construction	\$489,633	\$260,687	\$214,822	3
Manufacturing	\$3,910,211	\$1,170,407	\$645,205	10
Wholesale Trade	\$959,472	\$649,223	\$374,348	4
Retail Trade*	\$8,748,093	\$6,391,385	\$3,685,575	112
Transportation & Warehousing	\$2,084,628	\$1,502,147	\$993,466	13
Information	\$569,491	\$350,072	\$149,457	1
Financial Activities*	\$3,595,605	\$961,282	\$369,859	4
Business Services	\$962,588	\$601,786	\$490,903	6
Health Services	\$767,544	\$537,333	\$454,320	7
Other Services	\$2,759,845	\$1,451,067	\$1,063,063	24
Total, All Industries	\$27,130,534	\$14,428,070	\$8,729,501	186

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

Total Annual Impact: Operations of UT Health East Texas Hospitals and Clinics

The Annual Impact of Ongoing Operations of UT Health Tyler Hospital and UT Health Offsite and Clinic Facilities on Business Activity in the Tyler Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$32,672,567	\$8,491,129	\$5,778,632	87
Mining	\$22,327,261	\$4,974,928	\$2,497,697	12
Utilities	\$36,019,689	\$8,138,756	\$3,551,535	14
Construction	\$27,526,438	\$14,748,593	\$12,153,770	163
Manufacturing	\$142,194,161	\$48,415,123	\$26,736,887	433
Wholesale Trade	\$40,538,145	\$27,410,662	\$15,805,226	171
Retail Trade*	\$235,142,921	\$175,695,746	\$102,024,548	2,995
Transportation & Warehousing	\$25,223,148	\$17,124,261	\$11,325,382	147
Information	\$37,384,487	\$23,068,481	\$9,848,673	84
Financial Activities*	\$244,032,178	\$63,576,441	\$23,299,000	232
Business Services	\$43,845,302	\$26,058,633	\$21,257,170	246
Health Services	\$588,362,127	\$369,195,942	\$312,158,603	4,909
Other Services	\$94,979,905	\$49,289,795	\$39,985,353	916
Total, All Industries	\$1,570,248,330	\$836,188,492	\$586,422,478	10,409

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

The Annual Impact of Ongoing Operations of UT Health East Texas Hospitals and UT Health Offsite and Clinic Facilities on Business Activity in the East Texas Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$46,997,873	\$12,722,349	\$8,429,263	127
Mining	\$35,184,314	\$8,185,790	\$4,546,837	24
Utilities	\$96,293,675	\$21,884,406	\$9,549,766	38
Construction	\$54,331,482	\$29,102,822	\$23,982,542	321
Manufacturing	\$321,151,628	\$100,260,834	\$55,421,097	831
Wholesale Trade	\$54,280,594	\$36,702,929	\$21,163,234	229
Retail Trade*	\$335,222,095	\$250,340,689	\$145,346,867	4,271
Transportation & Warehousing	\$60,073,277	\$40,633,019	\$26,873,216	349
Information	\$46,515,904	\$28,728,182	\$12,264,972	104
Financial Activities*	\$343,601,772	\$80,306,016	\$29,201,093	288
Business Services	\$58,514,841	\$34,661,092	\$28,274,562	328
Health Services	\$822,951,611	\$515,594,669	\$435,940,066	6,854
Other Services	\$134,770,901	\$69,945,388	\$56,715,743	1,299
Total, All Industries	\$2,409,889,965	\$1,229,068,183	\$857,709,257	15,063

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate. The East Texas Area consists of the following counties: Anderson, Camp, Cherokee, Gregg, Harrison, Henderson, Marion, Panola, Rains, Smith, Upshur, Van Zandt, and Wood.

The Annual Impact of Ongoing Operations of UT Health East Texas Hospitals and UT Health Offsite and Clinic Facilities on Business Activity in Texas

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$48,276,584	\$13,093,460	\$8,672,244	130
Mining	\$36,210,076	\$8,426,676	\$4,688,772	25
Utilities	\$128,300,955	\$29,185,358	\$12,735,718	52
Construction	\$56,790,750	\$30,383,006	\$25,037,491	336
Manufacturing	\$390,303,302	\$122,214,032	\$67,461,194	988
Wholesale Trade	\$91,738,814	\$62,031,990	\$35,768,204	387
Retail Trade*	\$352,896,502	\$263,636,775	\$153,083,083	4,495
Transportation & Warehousing	\$72,694,606	\$49,148,065	\$32,504,813	422
Information	\$54,846,019	\$33,845,297	\$14,449,630	122
Financial Activities*	\$380,076,426	\$99,328,373	\$36,668,412	366
Business Services	\$110,761,809	\$66,887,881	\$54,563,364	633
Health Services	\$826,410,507	\$518,046,258	\$438,012,918	6,886
Other Services	\$148,341,467	\$76,975,193	\$61,777,312	1,411
Total, All Industries	\$2,697,647,816	\$1,373,202,365	\$945,423,155	16,253

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

Total Impact of Operations of UTHSCT, UT Health East Texas Hospitals, and Clinics

The Annual Impact of Ongoing Operations of the University of Texas Health Science Center at Tyler, UT Health Tyler Hospital and UT Health Offsite and Clinic Facilities on Business Activity in the Tyler Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$41,006,714	\$10,722,661	\$7,297,275	109
Mining	\$28,206,380	\$6,288,408	\$3,158,720	15
Utilities	\$46,505,687	\$10,503,551	\$4,583,468	18
Construction	\$35,262,696	\$18,887,793	\$15,564,728	209
Manufacturing	\$177,813,868	\$60,549,546	\$33,463,646	541
Wholesale Trade	\$50,711,520	\$34,291,159	\$19,772,582	214
Retail Trade*	\$300,816,669	\$224,815,973	\$130,555,995	3,831
Transportation & Warehousing	\$32,044,737	\$21,732,476	\$14,373,089	187
Information	\$47,459,260	\$29,284,356	\$12,502,431	107
Financial Activities*	\$311,331,987	\$80,757,980	\$29,431,051	292
Business Services	\$55,024,911	\$32,698,287	\$26,673,427	309
Health Services	\$728,874,820	\$456,456,754	\$380,792,996	5,769
Other Services	\$177,507,440	\$98,265,048	\$79,514,425	1,657
Total, All Industries	\$2,032,566,689	\$1,085,253,992	\$757,683,832	13,257

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

The Annual Impact of Ongoing Operations of the University of Texas Health Science Center at Tyler, UT Health East Texas Hospitals and UT Health Offsite and Clinic Facilities on Business Activity in the East Texas Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$55,571,296	\$15,116,325	\$10,014,269	151
Mining	\$41,798,381	\$9,724,408	\$5,405,590	28
Utilities	\$115,603,393	\$26,259,238	\$11,458,830	46
Construction	\$65,224,675	\$34,929,025	\$28,783,698	385
Manufacturing	\$378,499,844	\$118,163,703	\$65,333,735	981
Wholesale Trade	\$64,447,999	\$43,579,423	\$25,128,280	272
Retail Trade*	\$402,099,656	\$300,337,203	\$174,383,050	5,123
Transportation & Warehousing	\$71,615,757	\$48,395,289	\$32,006,903	415
Information	\$56,705,120	\$35,020,818	\$14,951,501	127
Financial Activities*	\$411,629,266	\$96,402,219	\$35,155,847	346
Business Services	\$69,702,389	\$41,280,447	\$33,674,261	391
Health Services	\$963,665,546	\$602,998,121	\$504,574,459	7,716
Other Services	\$217,677,807	\$119,118,236	\$96,350,473	2,043
Total, All Industries	\$2,914,241,129	\$1,491,324,455	\$1,037,220,897	18,023

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate. The East Texas Area consists of the following counties: Anderson, Camp, Cherokee, Gregg, Harrison, Henderson, Marion, Panola, Rains, Smith, Upshur, Van Zandt, and Wood.

The Annual Impact of Ongoing Operations of the University of Texas Health Science Center at Tyler, UT Health East Texas Hospitals and UT Health Offsite and Clinic Facilities on Business Activity in Texas

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$57,065,451	\$15,549,971	\$10,298,190	154
Mining	\$42,996,961	\$10,005,867	\$5,571,441	30
Utilities	\$153,642,079	\$34,931,607	\$15,243,228	62
Construction	\$68,125,781	\$36,439,493	\$30,028,411	402
Manufacturing	\$459,306,605	\$143,731,176	\$79,375,721	1,164
Wholesale Trade	\$108,177,255	\$73,149,884	\$42,178,881	456
Retail Trade*	\$422,751,897	\$315,873,454	\$183,422,697	5,385
Transportation & Warehousing	\$86,601,349	\$58,495,208	\$38,686,680	502
Information	\$65,367,728	\$40,337,322	\$17,221,283	146
Financial Activities*	\$454,501,126	\$118,468,448	\$43,559,447	435
Business Services	\$130,687,667	\$78,953,481	\$64,405,805	747
Health Services	\$967,707,207	\$605,862,760	\$506,647,312	7,754
Other Services	\$233,681,605	\$127,406,629	\$102,168,284	2,175
Total, All Industries	\$3,250,612,712	\$1,659,205,299	\$1,138,807,380	19,411

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

University of Texas at Tyler

UT Tyler Operations

The Annual Impact of Ongoing Operations of the University of Texas at Tyler on Business Activity in the Tyler Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$5,049,888	\$1,451,211	\$987,633	15
Mining	\$3,785,216	\$851,535	\$427,897	2
Utilities	\$6,427,588	\$1,447,937	\$631,841	2
Construction	\$5,669,432	\$3,045,944	\$2,510,044	34
Manufacturing	\$21,140,209	\$7,233,548	\$4,046,808	65
Wholesale Trade	\$6,117,440	\$4,140,060	\$2,387,199	26
Retail Trade*	\$40,494,036	\$30,282,945	\$17,587,493	516
Transportation & Warehousing	\$4,685,694	\$3,106,927	\$2,054,810	27
Information	\$6,534,015	\$4,028,441	\$1,719,872	15
Financial Activities*	\$46,079,320	\$12,617,507	\$4,250,244	42
Business Services	\$6,654,782	\$4,019,490	\$3,278,870	38
Health Services	\$9,624,274	\$6,731,441	\$5,691,495	90
Other Services	\$106,474,413	\$66,419,821	\$57,095,213	1,291
Total, All Industries	\$268,736,309	\$145,376,808	\$102,669,420	2,161

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

The Annual Impact of Ongoing Operations of the University of Texas at Tyler on Business Activity in the East Texas Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$5,337,974	\$1,595,104	\$1,057,272	16
Mining	\$4,341,834	\$1,009,751	\$562,539	3
Utilities	\$12,936,824	\$2,923,493	\$1,275,737	5
Construction	\$8,191,676	\$4,399,543	\$3,625,497	49
Manufacturing	\$34,241,193	\$10,641,849	\$5,947,455	91
Wholesale Trade	\$6,284,131	\$4,252,869	\$2,452,242	26
Retail Trade*	\$42,392,929	\$31,686,573	\$18,399,796	540
Transportation & Warehousing	\$8,212,619	\$5,421,392	\$3,585,519	46
Information	\$6,712,057	\$4,142,157	\$1,768,420	15
Financial Activities*	\$47,334,911	\$12,111,733	\$4,228,953	42
Business Services	\$6,836,115	\$4,112,664	\$3,354,878	39
Health Services	\$10,018,711	\$7,008,557	\$5,925,797	93
Other Services	\$109,625,822	\$68,359,902	\$58,753,614	1,328
Total, All Industries	\$302,466,796	\$157,665,587	\$110,937,719	2,294

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate. The East Texas Area consists of the following counties: Anderson, Camp, Cherokee, Gregg, Harrison, Henderson, Marion, Panola, Rains, Smith, Upshur, Van Zandt, and Wood.

The Annual Impact of Ongoing Operations of the University of Texas at Tyler on Business Activity in the Texas

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$5,484,107	\$1,637,517	\$1,085,040	16
Mining	\$4,459,056	\$1,037,284	\$578,762	3
Utilities	\$17,238,617	\$3,897,654	\$1,700,835	7
Construction	\$8,504,067	\$4,562,820	\$3,760,049	50
Manufacturing	\$41,108,082	\$12,716,556	\$7,103,434	107
Wholesale Trade	\$10,180,254	\$6,889,604	\$3,972,605	43
Retail Trade*	\$44,412,800	\$33,206,066	\$19,283,905	566
Transportation & Warehousing	\$9,903,684	\$6,536,644	\$4,323,103	56
Information	\$7,012,754	\$4,324,005	\$1,846,052	15
Financial Activities*	\$52,405,271	\$14,393,689	\$4,899,898	48
Business Services	\$12,258,157	\$7,543,444	\$6,153,519	71
Health Services	\$10,413,997	\$7,288,733	\$6,162,689	97
Other Services	\$111,338,151	\$69,243,346	\$59,384,570	1,342
Total, All Industries	\$334,718,997	\$173,277,362	\$120,254,461	2,421

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

UT Tyler Out-of-Area Student Spending

The Annual Impact of Out-of-Area Student Spending Associated with the University of Texas at Tyler on Business Activity in the Tyler Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$1,509,030	\$411,026	\$279,626	4
Mining	\$1,090,990	\$245,497	\$127,372	1
Utilities	\$4,009,971	\$899,816	\$392,656	2
Construction	\$1,362,892	\$698,428	\$575,548	8
Manufacturing	\$5,570,786	\$1,870,755	\$1,042,357	17
Wholesale Trade	\$1,613,064	\$1,091,563	\$629,405	7
Retail Trade*	\$21,324,682	\$16,046,005	\$9,336,940	271
Transportation & Warehousing	\$1,262,510	\$877,578	\$580,399	8
Information	\$2,381,645	\$1,471,562	\$628,257	5
Financial Activities*	\$15,744,937	\$2,595,795	\$988,111	10
Business Services	\$2,122,830	\$1,189,984	\$970,722	11
Health Services	\$4,177,836	\$2,961,159	\$2,503,688	39
Other Services	\$7,584,498	\$3,952,204	\$3,135,932	65
Total, All Industries	\$69,755,670	\$34,311,372	\$21,191,012	447

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

The Annual Impact of Out-of-Area Student Spending Associated with the University of Texas at Tyler on Business Activity in the East Texas Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$1,556,838	\$451,811	\$295,767	4
Mining	\$1,248,832	\$293,244	\$172,785	1
Utilities	\$5,501,620	\$1,234,870	\$538,864	2
Construction	\$1,918,085	\$982,942	\$810,006	11
Manufacturing	\$8,735,732	\$2,674,320	\$1,486,425	23
Wholesale Trade	\$1,613,064	\$1,091,564	\$629,405	7
Retail Trade*	\$21,518,494	\$16,187,905	\$9,418,820	274
Transportation & Warehousing	\$1,951,682	\$1,344,630	\$889,290	12
Information	\$2,381,645	\$1,473,718	\$629,178	5
Financial Activities*	\$15,744,937	\$2,358,511	\$949,880	10
Business Services	\$2,122,830	\$1,181,828	\$964,069	11
Health Services	\$4,211,181	\$2,984,794	\$2,523,671	40
Other Services	\$7,647,196	\$3,984,862	\$3,161,692	65
Total, All Industries	\$76,152,136	\$36,244,998	\$22,469,851	465

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate. The East Texas Area consists of the following counties: Anderson, Camp, Cherokee, Gregg, Harrison, Henderson, Marion, Panola, Rains, Smith, Upshur, Van Zandt, and Wood.

The Annual Impact of Out-of-Area Student Spending Associated with the University of Texas at Tyler on Business Activity in Texas

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$1,592,095	\$462,043	\$302,466	5
Mining	\$1,277,115	\$299,885	\$176,698	1
Utilities	\$6,516,854	\$1,462,895	\$638,369	3
Construction	\$1,992,533	\$1,021,094	\$841,445	11
Manufacturing	\$10,444,765	\$3,181,406	\$1,766,895	27
Wholesale Trade	\$2,609,107	\$1,765,587	\$1,018,053	11
Retail Trade*	\$22,005,823	\$16,554,512	\$9,632,128	280
Transportation & Warehousing	\$2,301,801	\$1,582,324	\$1,046,493	14
Information	\$2,455,021	\$1,516,900	\$647,613	6
Financial Activities*	\$16,852,459	\$2,893,565	\$1,110,653	11
Business Services	\$3,348,030	\$1,970,834	\$1,607,696	19
Health Services	\$4,306,552	\$3,052,390	\$2,580,824	41
Other Services	\$8,032,562	\$4,184,347	\$3,304,960	68
Total, All Industries	\$83,734,717	\$39,947,784	\$24,674,292	495

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

UT Tyler Visitor Spending

The Annual Impact of Visitor Spending Associated with the University of Texas at Tyler on Business Activity in the Tyler Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$1,292,873	\$318,709	\$216,749	3
Mining	\$638,700	\$142,980	\$71,670	0
Utilities	\$991,110	\$225,765	\$98,518	0
Construction	\$681,932	\$363,658	\$299,677	4
Manufacturing	\$4,333,600	\$1,427,898	\$788,942	13
Wholesale Trade	\$1,225,197	\$829,023	\$478,022	5
Retail Trade*	\$17,549,231	\$12,813,942	\$7,387,759	225
Transportation & Warehousing	\$3,537,477	\$2,572,412	\$1,701,302	22
Information	\$1,122,033	\$689,560	\$294,396	3
Financial Activities*	\$6,631,873	\$1,769,318	\$676,361	7
Business Services	\$1,098,588	\$675,033	\$550,654	6
Health Services	\$1,491,258	\$1,043,194	\$882,030	14
Other Services	\$5,364,751	\$2,823,033	\$2,069,225	48
Total, All Industries	\$45,958,621	\$25,694,527	\$15,515,306	350

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

The Annual Impact of Visitor Spending Associated with the University of Texas at Tyler on Business Activity in the East Texas Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$1,334,919	\$358,587	\$232,184	3
Mining	\$708,546	\$164,252	\$91,101	1
Utilities	\$1,950,739	\$449,535	\$196,165	1
Construction	\$961,772	\$512,689	\$422,488	6
Manufacturing	\$6,757,597	\$2,035,848	\$1,122,667	18
Wholesale Trade	\$1,225,197	\$829,023	\$478,022	5
Retail Trade*	\$17,674,355	\$12,905,254	\$7,440,394	226
Transportation & Warehousing	\$4,040,404	\$2,919,395	\$1,930,784	25
Information	\$1,122,033	\$690,376	\$294,744	3
Financial Activities*	\$6,631,873	\$1,665,214	\$659,622	7
Business Services	\$1,098,588	\$672,324	\$548,444	6
Health Services	\$1,512,432	\$1,058,202	\$894,719	14
Other Services	\$5,404,790	\$2,843,889	\$2,085,660	48
Total, All Industries	\$50,423,243	\$27,104,588	\$16,396,994	362

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate. The East Texas Area consists of the following counties: Anderson, Camp, Cherokee, Gregg, Harrison, Henderson, Marion, Panola, Rains, Smith, Upshur, Van Zandt, and Wood.

The Annual Impact of Visitor Spending Associated with the University of Texas at Tyler on Business Activity in Texas

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$1,360,577	\$366,033	\$237,058	4
Mining	\$729,128	\$169,085	\$93,949	1
Utilities	\$2,616,214	\$603,905	\$263,528	1
Construction	\$1,009,088	\$537,251	\$442,728	6
Manufacturing	\$8,058,579	\$2,412,099	\$1,329,707	21
Wholesale Trade	\$1,977,383	\$1,337,989	\$771,496	8
Retail Trade*	\$18,029,000	\$13,172,045	\$7,595,625	231
Transportation & Warehousing	\$4,296,223	\$3,095,784	\$2,047,441	27
Information	\$1,173,668	\$721,465	\$308,016	3
Financial Activities*	\$7,410,204	\$1,981,112	\$762,244	8
Business Services	\$1,983,803	\$1,240,224	\$1,011,705	12
Health Services	\$1,581,836	\$1,107,394	\$936,312	15
Other Services	\$5,687,783	\$2,990,513	\$2,190,874	50
Total, All Industries	\$55,913,484	\$29,734,898	\$17,990,683	384

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

Total All UT System Facilities

Operations

The Annual Impact of Ongoing Operations of All University of Texas System Facilities in East Texas on Business Activity in the Tyler Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$46,056,602	\$12,173,872	\$8,284,908	124
Mining	\$31,991,596	\$7,139,944	\$3,586,618	17
Utilities	\$52,933,276	\$11,951,488	\$5,215,309	21
Construction	\$40,932,128	\$21,933,737	\$18,074,771	243
Manufacturing	\$198,954,077	\$67,783,094	\$37,510,454	605
Wholesale Trade	\$56,828,960	\$38,431,219	\$22,159,781	239
Retail Trade*	\$341,310,704	\$255,098,918	\$148,143,488	4,347
Transportation & Warehousing	\$36,730,432	\$24,839,403	\$16,427,899	213
Information	\$53,993,275	\$33,312,796	\$14,222,303	121
Financial Activities*	\$357,411,307	\$93,375,487	\$33,681,295	334
Business Services	\$61,679,693	\$36,717,778	\$29,952,297	347
Health Services	\$738,499,094	\$463,188,195	\$386,484,491	5,858
Other Services	\$283,981,854	\$164,684,869	\$136,609,639	2,948
Total, All Industries	\$2,301,302,998	\$1,230,630,800	\$860,353,252	15,418

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate. University of Texas System Facilities in East Texas include the University of Texas Health Science Center at Tyler, UT Health East Texas, and the University of Texas at Tyler.

The Annual Impact of Ongoing Operations of All University of Texas System Facilities in East Texas on Business Activity in the East Texas Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$60,909,270	\$16,711,429	\$11,071,541	166
Mining	\$46,140,214	\$10,734,159	\$5,968,129	31
Utilities	\$128,540,217	\$29,182,731	\$12,734,567	51
Construction	\$73,416,351	\$39,328,568	\$32,409,195	434
Manufacturing	\$412,741,038	\$128,805,552	\$71,281,190	1,072
Wholesale Trade	\$70,732,130	\$47,832,292	\$27,580,523	298
Retail Trade*	\$444,492,586	\$332,023,777	\$192,782,846	5,663
Transportation & Warehousing	\$79,828,376	\$53,816,681	\$35,592,422	462
Information	\$63,417,177	\$39,162,975	\$16,719,921	142
Financial Activities*	\$458,964,177	\$108,513,952	\$39,384,800	388
Business Services	\$76,538,504	\$45,393,110	\$37,029,139	430
Health Services	\$973,684,257	\$610,006,678	\$510,500,256	7,809
Other Services	\$327,303,629	\$187,478,138	\$155,104,087	3,371
Total, All Industries	\$3,216,707,925	\$1,648,990,042	\$1,148,158,616	20,317

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate. The East Texas Area consists of the following counties: Anderson, Camp, Cherokee, Gregg, Harrison, Henderson, Marion, Panola, Rains, Smith, Upshur, Van Zandt, and Wood. University of Texas System Facilities in East Texas include the University of Texas Health Science Center at Tyler, UT Health East Texas, and the University of Texas at Tyler.

The Annual Impact of Ongoing Operations of All University of Texas System Facilities in East Texas on Business Activity in Texas

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$62,549,558	\$17,187,488	\$11,383,230	170
Mining	\$47,456,017	\$11,043,151	\$6,150,203	32
Utilities	\$170,880,696	\$38,829,261	\$16,944,064	69
Construction	\$76,629,849	\$41,002,312	\$33,788,460	453
Manufacturing	\$500,414,687	\$156,447,731	\$86,479,155	1,271
Wholesale Trade	\$118,357,509	\$80,039,487	\$46,151,487	499
Retail Trade*	\$467,164,697	\$349,079,520	\$202,706,601	5,950
Transportation & Warehousing	\$96,505,033	\$65,031,852	\$43,009,783	558
Information	\$72,380,482	\$44,661,327	\$19,067,335	161
Financial Activities*	\$506,906,398	\$132,862,137	\$48,459,346	483
Business Services	\$142,945,824	\$86,496,925	\$70,559,324	818
Health Services	\$978,121,204	\$613,151,493	\$512,810,000	7,851
Other Services	\$345,019,756	\$196,649,976	\$161,552,854	3,516
Total, All Industries	\$3,585,331,709	\$1,832,482,660	\$1,259,061,841	21,832

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate. University of Texas System Facilities in East Texas include the University of Texas Health Science Center at Tyler, UT Health East Texas, and the University of Texas at Tyler.

Expansion of Residency Program

Operations

The Projected Annual Impact of Ongoing Operations of the Proposed Graduate Medical Education Expanded Residency Program (at Maturity) at The University of Texas Health Science Center at Tyler on Business Activity in the Tyler Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$2,024,405	\$542,050	\$368,886	6
Mining	\$1,428,066	\$319,051	\$160,566	1
Utilities	\$2,547,100	\$574,420	\$250,661	1
Construction	\$1,879,174	\$1,005,432	\$828,538	11
Manufacturing	\$8,652,199	\$2,947,510	\$1,633,962	26
Wholesale Trade	\$2,471,162	\$1,671,306	\$963,690	10
Retail Trade*	\$15,952,471	\$11,931,541	\$6,930,427	203
Transportation & Warehousing	\$1,656,997	\$1,119,358	\$740,303	10
Information	\$2,447,211	\$1,509,866	\$644,611	6
Financial Activities*	\$16,347,449	\$4,173,479	\$1,489,505	15
Business Services	\$2,715,581	\$1,612,804	\$1,315,635	15
Health Services	\$34,131,213	\$21,196,074	\$16,671,626	209
Other Services	\$20,046,338	\$11,896,326	\$9,601,803	180
Total, All Industries	\$112,299,368	\$60,499,216	\$41,600,212	692

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

The Projected Annual Impact of Ongoing Operations of the Proposed Graduate Medical Education Expanded Residency Program (at Maturity) at The University of Texas Health Science Center at Tyler on Business Activity in the East Texas Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$2,082,526	\$581,508	\$385,006	6
Mining	\$1,606,589	\$373,738	\$208,595	1
Utilities	\$4,690,424	\$1,062,668	\$463,721	2
Construction	\$2,646,009	\$1,415,213	\$1,166,224	16
Manufacturing	\$13,930,160	\$4,348,694	\$2,407,828	36
Wholesale Trade	\$2,469,712	\$1,670,334	\$963,129	10
Retail Trade*	\$16,244,883	\$12,144,395	\$7,053,029	207
Transportation & Warehousing	\$2,803,724	\$1,885,493	\$1,246,997	16
Information	\$2,475,010	\$1,528,512	\$652,571	6
Financial Activities*	\$16,524,208	\$3,909,846	\$1,446,439	14
Business Services	\$2,717,510	\$1,607,873	\$1,311,613	15
Health Services	\$34,180,096	\$21,230,722	\$16,671,626	209
Other Services	\$20,138,489	\$11,944,323	\$9,627,468	181
Total, All Industries	\$122,509,339	\$63,703,318	\$43,604,246	719

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

The Projected Annual Impact of Ongoing Operations of the Proposed Graduate Medical Education Expanded Residency Program (at Maturity) at The University of Texas Health Science Center at Tyler on Business Activity in Texas

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$2,134,858	\$596,698	\$394,950	6
Mining	\$1,648,567	\$383,593	\$214,405	1
Utilities	\$6,155,482	\$1,395,792	\$609,086	2
Construction	\$2,753,334	\$1,471,150	\$1,212,319	16
Manufacturing	\$16,761,237	\$5,226,618	\$2,894,096	43
Wholesale Trade	\$3,992,977	\$2,700,590	\$1,557,185	17
Retail Trade*	\$16,968,214	\$12,688,542	\$7,369,639	216
Transportation & Warehousing	\$3,378,015	\$2,270,466	\$1,501,605	19
Information	\$2,555,774	\$1,576,944	\$673,248	6
Financial Activities*	\$18,078,120	\$4,649,217	\$1,673,866	17
Business Services	\$4,840,087	\$2,930,793	\$2,390,777	28
Health Services	\$34,321,652	\$21,331,054	\$16,671,626	211
Other Services	\$20,729,533	\$12,250,040	\$9,811,163	186
Total, All Industries	\$134,317,850	\$69,471,497	\$46,973,965	767

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

Spending by Residents

The Projected Annual Impact of Resident Spending Associated with the Proposed Graduate Medical Education Expanded Residency Program at The University of Texas Health Science Center at Tyler on Business Activity in the Tyler Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$955,852	\$260,353	\$177,121	3
Mining	\$691,057	\$155,503	\$80,680	0
Utilities	\$2,540,001	\$569,963	\$248,716	1
Construction	\$863,285	\$442,399	\$364,564	5
Manufacturing	\$3,528,655	\$1,184,976	\$660,252	11
Wholesale Trade	\$1,021,750	\$691,420	\$398,679	4
Retail Trade*	\$13,507,510	\$10,163,883	\$5,914,217	172
Transportation & Warehousing	\$799,701	\$555,877	\$367,637	5
Information	\$1,508,585	\$932,119	\$397,951	3
Financial Activities*	\$9,973,180	\$1,644,232	\$625,891	6
Business Services	\$1,344,646	\$753,762	\$614,876	7
Health Services	\$2,646,331	\$1,875,662	\$1,585,889	25
Other Services	\$4,804,183	\$2,503,410	\$1,986,367	41
Total, All Industries	\$44,184,734	\$21,733,557	\$13,422,841	283

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

The Projected Resident Impact of Student Spending Associated with the Proposed Graduate Medical Education Expanded Residency Program at The University of Texas Health Science Center at Tyler on Business Activity in the East Texas Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$986,134	\$286,187	\$187,345	3
Mining	\$791,037	\$185,747	\$109,446	1
Utilities	\$3,484,844	\$782,193	\$341,328	1
Construction	\$1,214,956	\$622,617	\$513,075	7
Manufacturing	\$5,533,399	\$1,693,971	\$941,534	15
Wholesale Trade	\$1,021,750	\$691,420	\$398,679	4
Retail Trade*	\$13,630,275	\$10,253,766	\$5,966,082	173
Transportation & Warehousing	\$1,236,237	\$851,717	\$563,295	7
Information	\$1,508,585	\$933,485	\$398,535	3
Financial Activities*	\$9,973,180	\$1,493,931	\$601,674	6
Business Services	\$1,344,646	\$748,595	\$610,662	7
Health Services	\$2,667,452	\$1,890,632	\$1,598,547	25
Other Services	\$4,843,898	\$2,524,097	\$2,002,683	41
Total, All Industries	\$48,236,392	\$22,958,357	\$14,232,885	294

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

The Projected Annual Impact of Resident Spending Associated with the Proposed Graduate Medical Education Expanded Residency Program at The University of Texas Health Science Center at Tyler on Business Activity in Texas

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$1,008,467	\$292,668	\$191,588	3
Mining	\$808,952	\$189,953	\$111,924	1
Utilities	\$4,127,914	\$926,629	\$404,356	2
Construction	\$1,262,113	\$646,783	\$532,989	7
Manufacturing	\$6,615,938	\$2,015,170	\$1,119,189	17
Wholesale Trade	\$1,652,664	\$1,118,361	\$644,857	7
Retail Trade*	\$13,938,959	\$10,485,982	\$6,101,196	177
Transportation & Warehousing	\$1,458,010	\$1,002,278	\$662,871	9
Information	\$1,555,063	\$960,837	\$410,212	3
Financial Activities*	\$10,674,708	\$1,832,846	\$703,512	7
Business Services	\$2,120,714	\$1,248,368	\$1,018,349	12
Health Services	\$2,727,862	\$1,933,449	\$1,634,749	26
Other Services	\$5,087,997	\$2,650,455	\$2,093,433	43
Total, All Industries	\$53,039,361	\$25,303,781	\$15,629,225	313

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

Residents Remaining in the Area

The Potential Annual Impact of Residents Remaining in the Area from the Proposed Graduate Medical Education Expanded Residency Program at the University of Texas Health Science Center at Tyler on Business Activity in the Tyler Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$8,328,168	\$2,178,598	\$1,482,570	22
Mining	\$5,559,359	\$1,244,769	\$628,663	3
Utilities	\$10,956,983	\$2,468,335	\$1,077,116	4
Construction	\$6,576,968	\$3,480,539	\$2,868,173	39
Manufacturing	\$34,007,228	\$11,493,686	\$6,355,462	103
Wholesale Trade	\$9,815,867	\$6,638,450	\$3,827,789	42
Retail Trade*	\$67,733,027	\$50,734,596	\$29,481,619	862
Transportation & Warehousing	\$6,269,661	\$4,267,433	\$2,822,327	37
Information	\$9,850,781	\$6,080,944	\$2,596,154	22
Financial Activities*	\$65,457,350	\$15,869,713	\$5,878,493	58
Business Services	\$10,677,759	\$6,312,085	\$5,149,042	60
Health Services	\$244,542,621	\$161,312,243	\$136,390,997	1,153
Other Services	\$26,927,051	\$13,981,015	\$11,288,084	253
Total, All Industries	\$506,702,822	\$286,062,405	\$209,846,489	2,657

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate. This estimate is based on the number of new residency slots available in the proposed expanded residency program in the years prior to the creation of the proposed graduate medical school. The number remaining in the relevant area is estimated using a comprehensive gravity model and converted to constant (2019) dollars using a medical operations deflator derived from the Texas sub-model of the US Multi-Regional Econometric Model.

The Potential Annual Impact of Residents Remaining in the Area from the Proposed Graduate Medical Education Expanded Residency Program at the University of Texas Health Science Center at Tyler on Business Activity in the East Texas Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$12,663,342	\$3,463,198	\$2,290,968	34
Mining	\$9,262,290	\$2,163,723	\$1,215,626	6
Utilities	\$28,543,629	\$6,455,828	\$2,817,149	11
Construction	\$13,716,443	\$7,256,015	\$5,979,401	80
Manufacturing	\$80,995,344	\$25,121,035	\$13,887,350	209
Wholesale Trade	\$14,519,660	\$9,819,669	\$5,662,106	62
Retail Trade*	\$102,043,483	\$76,400,335	\$44,389,866	1,299
Transportation & Warehousing	\$15,539,528	\$10,524,630	\$6,960,624	90
Information	\$14,898,702	\$9,206,343	\$3,930,490	33
Financial Activities*	\$98,864,341	\$22,072,866	\$8,469,719	85
Business Services	\$15,842,034	\$9,324,928	\$7,606,748	88
Health Services	\$361,286,943	\$238,340,083	\$201,518,747	1,705
Other Services	\$40,412,400	\$20,983,976	\$16,935,930	379
Total, All Industries	\$808,588,139	\$441,132,629	\$321,664,724	4,081

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate. This estimate is based on the number of new residency slots available in the proposed expanded residency program in the years prior to the creation of the proposed graduate medical school. The number remaining in the relevant area is estimated using a comprehensive gravity model and converted to constant (2019) dollars using a medical operations deflator derived from the Texas sub-model of the US Multi-Regional Econometric Model.

The Potential Annual Impact of Residents Remaining in the Area from the Proposed Graduate Medical Education Expanded Residency Program at the University of Texas Health Science Center at Tyler on Business Activity in Texas

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$23,122,243	\$6,327,324	\$4,185,194	62
Mining	\$16,928,451	\$3,954,803	\$2,223,062	11
Utilities	\$65,514,577	\$14,832,448	\$6,472,481	27
Construction	\$25,475,761	\$13,471,953	\$11,101,738	149
Manufacturing	\$173,887,525	\$53,857,523	\$29,772,343	441
Wholesale Trade	\$41,864,989	\$28,313,536	\$16,325,838	177
Retail Trade*	\$187,645,727	\$140,502,373	\$81,636,194	2,389
Transportation & Warehousing	\$33,343,701	\$22,560,097	\$14,920,442	194
Information	\$27,006,612	\$16,671,757	\$7,117,724	61
Financial Activities*	\$189,724,439	\$46,733,579	\$17,436,916	174
Business Services	\$49,683,181	\$30,041,762	\$24,506,378	283
Health Services	\$653,755,644	\$431,311,420	\$364,677,809	3,088
Other Services	\$77,653,069	\$40,310,247	\$32,255,802	722
Total, All Industries	\$1,565,605,920	\$848,888,821	\$612,631,922	7,778

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate. This estimate is based on the number of new residency slots available in the proposed expanded residency program in the years prior to the creation of the proposed graduate medical school. The number remaining in the relevant area is estimated using a comprehensive gravity model and converted to constant (2019) dollars using a medical operations deflator derived from the Texas sub-model of the US Multi-Regional Econometric Model.

Medical School

Medical School Operations

The Potential Annual Impact of Ongoing Operations of a Proposed Graduate Medical School at the University of Texas Health Science Center at Tyler on Business Activity in the Tyler Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$5,669,488	\$1,518,049	\$1,033,090	15
Mining	\$3,999,401	\$893,524	\$449,676	2
Utilities	\$7,133,332	\$1,608,704	\$701,995	3
Construction	\$5,262,760	\$2,815,782	\$2,320,379	31
Manufacturing	\$24,231,093	\$8,254,709	\$4,576,026	73
Wholesale Trade	\$6,920,663	\$4,680,610	\$2,698,881	29
Retail Trade*	\$44,676,019	\$33,415,121	\$19,409,148	569
Transportation & Warehousing	\$4,640,537	\$3,134,840	\$2,073,270	27
Information	\$6,853,586	\$4,228,486	\$1,805,278	15
Financial Activities*	\$45,782,183	\$11,688,122	\$4,171,463	41
Business Services	\$7,605,176	\$4,516,771	\$3,684,529	42
Health Services	\$95,586,866	\$59,361,097	\$46,690,064	585
Other Services	\$56,141,181	\$33,316,499	\$26,890,525	504
Total, All Industries	\$314,502,285	\$169,432,313	\$116,504,322	1,937

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate. Based on an operating pro forma at maturity for a medical school admitting 50 students per year created from comprehensive review of several proposed and existing medical schools, adjusted to the for enrollment and converted to constant (2019) dollars using a medical education deflator derived from the Texas sub-model of the US Multi-Regional Econometric Model.

The Potential Annual Impact of Ongoing Operations of a Proposed Graduate Medical School at the University of Texas Health Science Center at Tyler on Business Activity in the East Texas Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$5,832,261	\$1,628,555	\$1,078,236	16
Mining	\$4,499,365	\$1,046,679	\$584,186	3
Utilities	\$13,135,863	\$2,976,076	\$1,298,683	5
Construction	\$7,410,335	\$3,963,403	\$3,266,092	44
Manufacturing	\$39,012,392	\$12,178,823	\$6,743,291	102
Wholesale Trade	\$6,916,603	\$4,677,887	\$2,697,310	29
Retail Trade*	\$45,494,940	\$34,011,234	\$19,752,506	579
Transportation & Warehousing	\$7,852,027	\$5,280,456	\$3,492,304	45
Information	\$6,931,439	\$4,280,705	\$1,827,571	15
Financial Activities*	\$46,277,207	\$10,949,798	\$4,050,853	40
Business Services	\$7,610,577	\$4,502,963	\$3,673,265	43
Health Services	\$95,723,765	\$59,458,131	\$46,690,064	586
Other Services	\$56,399,256	\$33,450,917	\$26,962,402	506
Total, All Industries	\$343,096,030	\$178,405,627	\$122,116,762	2,013

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate. Based on an operating pro forma at maturity for a medical school admitting 50 students per year created from comprehensive review of several proposed and existing medical schools, adjusted to the for enrollment and converted to constant (2019) dollars using a medical education deflator derived from the Texas sub-model of the US Multi-Regional Econometric Model.

The Potential Annual Impact of Ongoing Operations of a Proposed Graduate Medical School at the University of Texas Health Science Center at Tyler on Business Activity in Texas

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$5,978,821	\$1,671,096	\$1,106,086	16
Mining	\$4,616,929	\$1,074,280	\$600,455	3
Utilities	\$17,238,860	\$3,909,012	\$1,705,789	7
Construction	\$7,710,906	\$4,120,059	\$3,395,184	45
Manufacturing	\$46,941,023	\$14,637,513	\$8,105,120	119
Wholesale Trade	\$11,182,613	\$7,563,193	\$4,361,005	47
Retail Trade*	\$47,520,677	\$35,535,156	\$20,639,193	605
Transportation & Warehousing	\$9,460,370	\$6,358,601	\$4,205,352	55
Information	\$7,157,626	\$4,416,344	\$1,885,478	16
Financial Activities*	\$50,629,048	\$13,020,460	\$4,687,779	47
Business Services	\$13,555,005	\$8,207,891	\$6,695,538	78
Health Services	\$96,120,204	\$59,739,117	\$46,690,064	590
Other Services	\$58,054,516	\$34,307,100	\$27,476,852	520
Total, All Industries	\$376,166,596	\$194,559,819	\$131,553,895	2,148

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate. Based on an operating pro forma at maturity for a medical school admitting 50 students per year created from comprehensive review of several proposed and existing medical schools, adjusted to the for enrollment and converted to constant (2019) dollars using a medical education deflator derived from the Texas sub-model of the US Multi-Regional Econometric Model.

Medical School Student Spending

The Potential Annual Impact (at Maturity) of Student Spending Associated with the Proposed Graduate Medical School at the University of Texas Health Science Center at Tyler on Business Activity in the Tyler Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$609,794	\$166,094	\$112,996	2
Mining	\$440,865	\$99,205	\$51,470	0
Utilities	\$1,620,416	\$363,612	\$158,671	1
Construction	\$550,740	\$282,232	\$232,577	3
Manufacturing	\$2,251,135	\$755,966	\$421,213	7
Wholesale Trade	\$651,834	\$441,097	\$254,340	3
Retail Trade*	\$8,617,231	\$6,484,136	\$3,773,025	110
Transportation & Warehousing	\$510,176	\$354,626	\$234,537	3
Information	\$962,415	\$594,653	\$253,876	2
Financial Activities*	\$6,362,475	\$1,048,952	\$399,292	4
Business Services	\$857,828	\$480,869	\$392,266	5
Health Services	\$1,688,249	\$1,196,594	\$1,011,732	16
Other Services	\$3,064,870	\$1,597,072	\$1,267,220	26
Total, All Industries	\$28,188,028	\$13,865,108	\$8,563,216	181

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

The Potential Annual Impact (at Maturity) of Student Spending Associated with the Proposed Graduate Medical School at the University of Texas Health Science Center at Tyler on Business Activity in the East Texas Area
Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$629,113	\$182,575	\$119,519	2
Mining	\$504,649	\$118,499	\$69,822	0
Utilities	\$2,223,186	\$499,007	\$217,753	1
Construction	\$775,092	\$397,204	\$327,321	4
Manufacturing	\$3,530,079	\$1,080,683	\$600,659	9
Wholesale Trade	\$651,834	\$441,097	\$254,341	3
Retail Trade*	\$8,695,550	\$6,541,477	\$3,806,113	111
Transportation & Warehousing	\$788,668	\$543,360	\$359,359	5
Information	\$962,415	\$595,524	\$254,249	2
Financial Activities*	\$6,362,475	\$953,066	\$383,843	4
Business Services	\$857,828	\$477,573	\$389,577	5
Health Services	\$1,701,724	\$1,206,145	\$1,019,807	16
Other Services	\$3,090,206	\$1,610,269	\$1,277,629	26
Total, All Industries	\$30,772,818	\$14,646,480	\$9,079,990	188

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

The Potential Annual Impact (at Maturity) of Student Spending Associated with the Proposed Graduate Medical School at the University of Texas Health Science Center at Tyler on Business Activity in Texas

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$643,360	\$186,710	\$122,225	2
Mining	\$516,078	\$121,182	\$71,403	0
Utilities	\$2,633,438	\$591,151	\$257,963	1
Construction	\$805,176	\$412,621	\$340,025	5
Manufacturing	\$4,220,694	\$1,285,595	\$713,996	11
Wholesale Trade	\$1,054,331	\$713,468	\$411,392	4
Retail Trade*	\$8,892,478	\$6,689,622	\$3,892,310	113
Transportation & Warehousing	\$930,150	\$639,412	\$422,884	5
Information	\$992,066	\$612,974	\$261,698	2
Financial Activities*	\$6,810,021	\$1,169,280	\$448,811	4
Business Services	\$1,352,927	\$796,407	\$649,664	8
Health Services	\$1,740,263	\$1,233,461	\$1,042,902	16
Other Services	\$3,245,931	\$1,690,880	\$1,335,523	28
Total, All Industries	\$33,836,913	\$16,142,763	\$9,970,797	200

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

Graduates Remaining in the Area

The Potential Annual Impact of Graduates (after 10 years) from the Proposed Graduate Medical School at the University of Texas Health Science Center at Tyler on Business Activity in the Tyler Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$22,137,607	\$5,791,062	\$3,940,910	59
Mining	\$14,777,668	\$3,308,797	\$1,671,087	9
Utilities	\$29,125,419	\$6,561,232	\$2,863,146	11
Construction	\$17,482,638	\$9,251,831	\$7,624,064	103
Manufacturing	\$90,396,671	\$30,552,063	\$16,893,839	273
Wholesale Trade	\$26,092,150	\$17,646,065	\$10,174,879	110
Retail Trade*	\$180,045,260	\$134,860,701	\$78,366,878	2,292
Transportation & Warehousing	\$16,665,766	\$11,343,523	\$7,502,198	97
Information	\$26,184,956	\$16,164,126	\$6,900,994	59
Financial Activities*	\$173,996,147	\$42,184,244	\$15,625,977	155
Business Services	\$28,383,198	\$16,778,535	\$13,686,981	159
Health Services	\$650,033,549	\$428,793,840	\$362,549,168	3,066
Other Services	\$71,576,424	\$37,163,782	\$30,005,539	672
Total, All Industries	\$1,346,897,453	\$760,399,802	\$557,805,658	7,064

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate. This estimate is based on the number of graduates projected to be working in the area after the graduation of the first ten classes derived from a comprehensive gravity model and converted to constant (2019) dollars using a medical operations deflator derived from the Texas sub-model

The Potential Annual Impact of Graduates (after 10 years) from the Proposed Graduate Medical School at the University of Texas Health Science Center at Tyler on Business Activity in the East Texas Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$33,661,195	\$9,205,737	\$6,089,760	91
Mining	\$24,620,654	\$5,751,523	\$3,231,329	17
Utilities	\$75,873,548	\$17,160,627	\$7,488,434	30
Construction	\$36,460,508	\$19,287,652	\$15,894,207	213
Manufacturing	\$215,298,628	\$66,775,745	\$36,914,806	556
Wholesale Trade	\$38,595,587	\$26,102,256	\$15,050,788	164
Retail Trade*	\$271,247,962	\$203,084,357	\$117,995,391	3,454
Transportation & Warehousing	\$41,306,560	\$27,976,157	\$18,502,456	238
Information	\$39,603,142	\$24,471,939	\$10,447,874	88
Financial Activities*	\$262,797,292	\$58,673,222	\$22,513,872	225
Business Services	\$42,110,671	\$24,787,157	\$20,219,957	234
Health Services	\$960,358,701	\$633,546,207	\$535,669,184	4,532
Other Services	\$107,422,646	\$55,778,776	\$45,018,422	1,006
Total, All Industries	\$2,149,357,095	\$1,172,601,354	\$855,036,480	10,849

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate. This estimate is based on the number of graduates projected to be working in the area after the graduation of the first ten classes derived from a comprehensive gravity model and converted to constant (2019) dollars using a medical operations deflator derived from the Texas sub-model of the US Multi-Regional Econometric Model.

The Potential Annual Impact of Graduates (after 10 years) from the Proposed Graduate Medical School at the University of Texas Health Science Center at Tyler on Business Activity in Texas

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	\$61,462,634	\$16,819,044	\$11,124,919	166
Mining	\$44,998,541	\$10,512,500	\$5,909,257	30
Utilities	\$174,148,265	\$39,427,027	\$17,204,895	71
Construction	\$67,718,662	\$35,810,615	\$29,510,203	396
Manufacturing	\$462,220,961	\$143,161,943	\$79,139,666	1,172
Wholesale Trade	\$111,283,861	\$75,261,924	\$43,396,698	470
Retail Trade*	\$498,792,469	\$373,477,866	\$217,002,110	6,351
Transportation & Warehousing	\$88,632,912	\$59,968,360	\$39,660,931	515
Information	\$71,787,912	\$44,316,207	\$18,920,052	161
Financial Activities*	\$504,318,020	\$124,225,356	\$46,350,123	463
Business Services	\$132,065,872	\$79,855,826	\$65,141,888	753
Health Services	\$1,737,787,465	\$1,146,495,002	\$969,372,166	8,208
Other Services	\$206,414,324	\$107,151,109	\$85,741,101	1,920
Total, All Industries	\$4,161,631,897	\$2,256,482,779	\$1,628,474,009	20,676

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars per year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate. This estimate is based on the number of graduates projected to be working in the area after the graduation of the first ten classes derived from a comprehensive gravity model and converted to constant (2019) dollars using a medical operations deflator derived from the Texas sub-model

Medical School Construction

The Projected Economic Impact of New Construction of Facilities Associated with a Proposed Graduate Medical School at the UT Health - East Texas on Business Activity in the Tyler Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Job Years*
Agriculture	\$3,420,630	\$961,551	\$654,295	10
Mining	\$2,963,624	\$688,170	\$349,767	2
Utilities	\$3,873,518	\$871,509	\$380,304	1.6
Construction	\$75,710,464	\$34,246,577	\$28,221,312	377
Manufacturing	\$31,534,700	\$11,637,315	\$6,895,833	107
Wholesale Trade	\$6,560,221	\$4,438,179	\$2,559,094	28
Retail Trade*	\$30,518,588	\$23,113,848	\$13,476,090	388
Transportation & Warehousing	\$3,686,928	\$2,470,082	\$1,633,623	21.3
Information	\$4,485,354	\$2,766,619	\$1,181,158	10
Financial Activities*	\$27,438,403	\$6,702,034	\$2,696,091	27
Business Services	\$7,088,599	\$4,397,400	\$3,587,153	41
Health Services	\$6,903,039	\$4,825,245	\$4,079,790	64
Other Services	\$11,870,879	\$6,056,561	\$4,918,819	113
Total, All Industries	\$216,054,946	\$103,175,090	\$70,633,331	1,190

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars. A job-year is equivalent to one person working for one year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate. Based on estimated facility cost derived from other medical schools, fully adjusted for the proposed enrollment and leakage from the area.

The Projected Economic Impact of New Construction of Facilities Associated with a Proposed Graduate Medical School at the UT Health - East Texas on Business Activity in the East Texas Area

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Job Years*
Agriculture	\$3,946,621	\$1,162,561	\$766,629	12
Mining	\$3,988,746	\$1,034,742	\$581,529	4
Utilities	\$8,126,994	\$1,832,901	\$799,830	3.2
Construction	\$85,291,286	\$38,675,246	\$31,870,811	426
Manufacturing	\$49,292,120	\$17,186,890	\$10,135,370	154
Wholesale Trade	\$7,284,695	\$4,928,317	\$2,841,710	31
Retail Trade*	\$34,822,051	\$26,356,815	\$15,363,992	442
Transportation & Warehousing	\$7,039,868	\$4,700,021	\$3,108,425	40.3
Information	\$4,980,691	\$3,075,012	\$1,312,822	11
Financial Activities*	\$30,468,544	\$7,014,576	\$2,924,749	30
Business Services	\$7,871,424	\$4,867,263	\$3,970,438	46
Health Services	\$7,829,436	\$5,474,403	\$4,628,659	73
Other Services	\$13,480,943	\$6,881,356	\$5,585,156	129
Total, All Industries	\$264,423,418	\$123,190,102	\$83,890,120	1,400

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars. A job-year is equivalent to one person working for one year.

Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

Based on estimated facility cost derived from other medical schools, fully adjusted for the proposed enrollment and leakage from the area.

The Projected Economic Impact of New Construction of Facilities Associated with a Proposed Graduate Medical School at the UT Health - East Texas on Business Activity in Texas

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Job Years*
Agriculture	\$5,022,551	\$1,478,782	\$974,809	15
Mining	\$5,044,562	\$1,304,155	\$733,626	5
Utilities	\$13,376,025	\$3,017,733	\$1,316,857	5.4
Construction	\$104,508,984	\$47,410,867	\$39,069,507	522
Manufacturing	\$68,531,421	\$23,840,854	\$13,988,240	207
Wholesale Trade	\$14,401,824	\$9,743,326	\$5,618,088	60
Retail Trade*	\$45,408,178	\$34,364,302	\$20,030,820	577
Transportation & Warehousing	\$10,457,860	\$6,982,074	\$4,617,697	60.0
Information	\$6,511,447	\$4,016,792	\$1,714,898	15
Financial Activities*	\$42,482,213	\$10,371,919	\$4,184,474	42
Business Services	\$17,656,316	\$11,077,563	\$9,036,451	105
Health Services	\$10,118,599	\$7,080,325	\$5,986,480	94
Other Services	\$18,428,809	\$9,426,245	\$7,562,304	174
Total, All Industries	\$361,948,789	\$170,114,936	\$114,834,251	1,880

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in 2019 US dollars. A job-year is equivalent to one person working for one year.

Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate.

Based on estimated facility cost derived from other medical schools, fully adjusted for the proposed enrollment and leakage from the area.