



Economic Impacts in 2015

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Table of Contents

Executive Summary	5
Chapter I. Introduction and Goals	6
Background	6
Project Goals	7
Data Requirements	7
Methodology In Detail	8
Chapter II. Economic Impacts Statewide	11
Employment, Employee Income, and Economic Impacts-Statewide	11
Fiscal Impacts-Statewide	13
Chapter III. Economic Impacts by Counties	16
Anderson – Brazos	18
Brewster – Dallam	19
Dallas – Gonzales	20
Gray – Jefferson	21
Jim Hogg – Mason	22
Matagorda – Randall	23
Reagan – Throckmorton	24
Titus – Zavala	25
Chapter IV. Economic Impacts by Texas Senate and Texas House Districts	26
Employment, Employee Income, and Spending--Texas Senate Districts	27
Employment, Employee Income, and Spending--Texas House Districts	29
Districts 1-32	29
Districts 33-64	30
Districts 65-96	31
Districts 97-131	32
Districts 132-150	33

Tables

TABLE 1.1. DEFINITIONS OF TERMS, METHODOLOGY SECTION 9

TABLE 2.1. STATEWIDE DIRECT EMPLOYMENT, BY FUNDING SOURCE, FY2015 11

TABLE 2.2. STATEWIDE DIRECT EMPLOYEE INCOME, BY FUNDING SOURCE, FY2015 12

TABLE 2.3. STATEWIDE DIRECT EXPENDITURES, BY FUNDING SOURCE, FY2015 12

TABLE 2.4. STATEWIDE DIRECT EXPENDITURES BY OBJECT/CATEGORY, FY2015 12

TABLE 2.5. STATEWIDE IMPACTS, EMPLOYMENT, EMPLOYEE INCOME, OUTPUT, FY2015 ... 13

TABLE 2.6. TOTAL FISCAL IMPACTS, FY2015 14

TABLE 2.7. TOTAL FISCAL IMPACTS, BY SOURCE OF FUNDING, FY2015 14

TABLE 2.8. FISCAL IMPACTS, BY OBJECT/CATEGORY, FY2015 15

TABLE 3.1. COMPARISON OF STATEWIDE AND COUNTY ECONOMIC IMPACT
TOTALS, FY2015 17

TABLE 3.2. DIRECT AND TOTAL IMPACTS, TEXAS COUNTIES, FY2015 18

TABLE 4.1. TOTAL IMPACTS, TEXAS SENATE DISTRICTS, FY2015 27

TABLE 4.2. TOTAL IMPACTS, TEXAS HOUSE DISTRICTS, FY2015 29

Appendix A 34

TABLE A.1. TEXAS COUNTIES WITH TOTAL EXPENDITURES/IMPACTS ABOVE \$5 MILLION,
FY2015 34

TABLE A.2. TEXAS SENATE DISTRICTS WITH TOTAL ECONOMIC IMPACT ABOVE
\$25 MILLION AND TOTAL EMPLOYMENT ABOVE 1,000, FY2015 35

TABLE A.3. TEXAS HOUSE DISTRICTS WITH TOTAL ECONOMIC IMPACT ABOVE
\$5 MILLION, FY2015 36

Appendix B 38

Overview and Example of Economic Impact Analysis 38

Appendix C 40

Performing Organization 40

Project Staff 40

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The research team wishes to thank Texas Military Department (TMD) staff for their assistance in completing the project. Staff fielded our many information requests and always responded promptly and with grace under considerable time constraints. Data collection efforts were a major task because of multiple administrative and reporting systems within the department. TMD's financial, human resource, and administrative staffs overcame various data challenges, and we are especially indebted to these individuals. This report could not have been completed without their expertise and cooperation. We wish also to thank the senior TMD leadership, both military and civilian, for supporting this initiative.

Executive Summary

This study analyzes the economic and fiscal impacts of expenditures by the Texas Military Department for federal FY2015, October 1, 2014 through September 2015. These impacts are analyzed and reported for Texas statewide, for different categories of expenditures, and for local Texas communities where the Texas Military Forces (Texas Army and Air National Guards, and Texas State Guard) have operating units and conduct state and federal mobilizations.

Texas Military Department officials requested that an objective and independent assessment determine the economic impacts of its normal operations, deployments related to emergencies, disasters, and other needs, as well as its facilities. Economic impacts also were determined by sources of funding and for different geographic and governmental entities. Significant data was required to achieve these objectives and for inputting into IMPLAN, a recognized economic modelling program. The analyses were performed with IMPLAN data files that are unique to the State of Texas, both for the state as a whole and for individual counties. This software model estimates economic impacts for direct, indirect (inter-industry), and induced (household) impacts of employment, wages, and output for selected geographical areas.

TMD's employment, employee income, and spending/expenditures were overwhelmingly (approximately 85%) due to federal sources of funding, and economic impacts were substantial. Statewide in FY2015, full- and part-time employment due to Texas Military Department operations was 33,995, with the large majority (30,446) involving TMD employees. Total statewide salaries and wages were \$740 million, with more than \$570 million from TMD employee salaries and wages. Because TMD's salaries and wages and other spending sets off additional economic activities by rippling through the state, the total economic impact of TMD's FY2015 operations exceeded \$850 million.

Purchases by the Texas Military Department are exempt from direct taxation, although taxes for indirect and induced economic activities could be computed. According to IMPLAN, for FY2015, approximately \$29 million in state and sub-state tax revenue was generated by the indirect and induced spending associated with TMD operations.

In addition to determining statewide economic impacts and fiscal/tax revenues, economic impacts for each county in Texas were computed and are listed in the report, as are impacts for each Texas Senate district and each Texas House district.

Besides accomplishing their primary security missions in foreign deployments, as well as conducting deployments within the State of Texas, the Texas Military Department generates significant economic benefits as an enterprise.

Chapter I. Introduction and Goals

Background

This study analyzes the economic and fiscal impacts of expenditures by the Texas Military Department for the time period of October 1, 2014 through September 2015. These impacts are analyzed and reported for Texas statewide, for different categories of expenditures, and for local Texas communities where the Texas Military Forces (Texas Army and Air National Guards, and Texas State Guard) have operating units and conduct deployments.

The Texas Military Department (TMD) is a unique state agency in which civilian and military personnel work closely together in service to the governor and Texans. TMD features multiple staff directorates and components led by the Adjutant General of Texas. Agency personnel, including service members in the Texas Military Forces (TXMF), work under the TMD banner to respond to the governor's call for assistance related to emergencies, disasters and other needs in Texas.

There are more than 23,000 members of the TXMF, which is comprised of the Texas Army National Guard (TXARNG), the Texas Air National Guard (TXANG) and the Texas State Guard (TXSG), making it the largest state military force in the country. Traditional guard members account for much of the agency's workforce. These service members work regular civilian jobs and fulfill their military obligations one weekend every month in addition to two weeks a year. Because traditional guard members also serve when called, the TMD workforce is immediately scalable to meet the demands of the state and country.

TMD is a large organization comprised of more than 50 readiness centers (maintenance facilities, aviation support facilities), approximately 20 reserve centers, a number of major training centers, and multiple air wings and other units. These assets are distributed geographically throughout Texas, along with the large number of personnel, both full-time and part-time.¹

¹ Major active duty Army and Air Force bases in Texas such as Fort Hood, Fort Bliss, and Dyess Air Force Base, to name only a few, are not part of Texas Military Forces and not included in the economic analysis. For a much fuller description of Texas Military Forces, please see the latest Texas Military Biennial Report.

Besides accomplishing its primary security missions in domestic and foreign deployments, the Texas Military Department generates significant economic benefits as an enterprise. The remainder of this report will describe these impacts in terms of economic benefits, employment, and fiscal/tax contributions.

Project Goals

Texas Military Department officials identified a series of goals to be achieved:

1. Determine the economic impacts of TMD normal operations ("steady state").
2. Determine the economic impacts of TMD deployments that occur periodically and intermittently such as border patrol, flood relief, and wildfires, in the aggregate.
3. Determine the economic impacts of TMD facilities statewide.
4. Identify total economic impacts by source of funds, that is statewide economic impacts of federally appropriated funds and statewide economic impacts of state appropriated funds.
5. Identify state and local taxes for each of the above items.
6. Determine total economic impacts and employment impacts in each of the 31 Texas Senate Districts and 150 Texas State Representative Districts.

Data Requirements

A significant amount of data was required to estimate the economic, employment, and fiscal impacts of a large and diverse set of entities that comprise the Texas Military Department. TMD provided all data. No primary or secondary data collection occurred by the performing organization.

To illustrate the data challenges, TMD personnel were required to provide expenditure data such as:

Normal Operations

Major categories of expenditures (amounts by industry) for each county;
Personnel expenditures for each zip code and each county;

Deployments

Major categories of expenditures (amounts by industry) for each county;
Personnel expenditures for each zip code and each county;

Facilities

Major categories of expenditures (amounts by industry) for each county;
Personnel expenditures, if any, for each zip code and each county.

In addition, different categories of personnel expenditures and number of personnel (both full-time and part-time) were needed for each zip code and each county in the State of Texas. And statewide totals for personnel (number of full-time and part-time, total earnings, total fringe benefits etc.) were required by source of funds: federally appropriated funds/state appropriated funds. Likewise, statewide totals for non-personnel expenditures were necessary by source of funds. All of these data were then manipulated for inputting into an economic model.

Methodology in Detail

IMPLAN, a recognized economic impact methodology, served as the primary model. The analyses were performed with 2014 IMPLAN data files that are unique to the State of Texas, both for the state as a whole and for individual counties. This software, as well as the accompanying annual multipliers, social accounting matrices, and trade flows, allow for economic analysis of military operations and related industries. Results are described in terms of direct, indirect, and induced impacts on employment, wages, and output.² IMPLAN utilizes a 500+ industry matrix, allowing for detailed industry analysis.³ In addition, IMPLAN calculates fiscal impacts (taxes) for state and local areas.

² Please see Table 1.1. for definitions. A longer, less technical description of economic impact analysis, with Camp Mabry as an example, appears in Appendix B. Induced refers to the impacts from households. For this study, indirect and induced will be combined and these combined calculations will be referred to as “indirect.”

³ IMPLAN incorporates data compiled from the Bureau of Economic Analysis National Income and Product Accounts (NIPA) and Regional Economic Information System (REIS), and the Bureau of Labor Statistics (BLS) Consumer Expenditure Survey (CES), and the Census Bureau Annual Survey of State and Local Government Finances (SLGF).

TABLE 1.1. DEFINITIONS OF TERMS, METHODOLOGY SECTION

Direct: Spending directly undertaken by the organization or business being studied (i.e., funds expended on TMD facilities). This is usually defined in terms of employment such as the number of jobs, or expenditures, for instance dollars spent on salaries or purchases of goods and services.

Local purchases by the organization or business being studied and the expenditures on salaries for employees or for purchases at TMD facilities set off rounds of additional economic activity, known as indirect impact.

Indirect Impact (Inter-Industry): That portion of direct spending for local purchases in the geographical area being studied will result in additional economic activity by other organizations or businesses (inter-industry purchases). The indirect impact captures the rippling impacts of spending throughout a geographical area's supply chain for the business or organization being studied.

Induced Impact (Household): Spending by households, not the main business or organization being studied or the inter-industry businesses in its supply chain, occurs through the income of employees in the geographic area. This is also known as labor income spending or salaries and wages.

Total Economic Impact: The sum of direct, indirect (inter-industry), and induced (household spending/labor income) effects is also known as Total Output. Total economic impacts (total outputs) can be estimated separately in geographical areas for employment, salaries and wages, and spending/expenditures.

Geographical Area: Could be a zip code, city, county, metro area, state, or nation.

Leakage: That portion of expenditures that occurs outside the geographical area being studied is known as leakage and does not generate further economic activity in the particular geographic area being studied. There is usually more leakage in smaller geographical units, that is, there would be greater leakage from a city than from the metropolitan area of that city, and more leakage from a county within a state than from all counties in that state. And there is usually greater leakage from a state or sub-national area, for example a county or metropolitan area, than from a national geographic area.

Employment: The number of employees, usually full- and part-time rather than full-time equivalent.

Savings: If an organization or business saves money, no or minimal additional economic activity occurs in the particular geographic area. This reduces direct spending, indirect spending, induced spending, and total output.

Multipliers: IMPLAN uses several multipliers to indicate the ratio of direct impacts to indirect and induced impacts. If the multiplier of direct spending is 0.25, then \$100 dollars of direct spending would generate an additional \$25 in the total of indirect and induced impacts, resulting in \$125 of overall spending or total output. Similarly, if the multiplier of direct employment is 0.75, then one direct employee would generate an additional part-time (three-quarters) employee, for a total employment impact of 1.75 employees.

Chapter II. Economic Impacts Statewide

Employment, Employee Income, and Economic Impacts--Statewide

Based on data provided by the TMD, direct employment, direct income, and direct spending statewide in FY2015 are shown in Tables 2.1., 2.2., and 2.3. Definitions for the key terms in the tables are shown below.

Direct Employment is the number of employees who receive salary, wages, and other compensation from TMD.

Direct Income (TMD Employee Salaries and Wages) is the amount of salary, wages, and other compensation received by employees of TMD. It is a category of expenditures and NOT revenues coming into TMD.

Direct Spending/Expenditures is the amount of spending by TMD for salary, wages, other compensation, fringe benefits, and all other operational and capital projects.

TABLE 2.1. STATEWIDE DIRECT EMPLOYMENT, BY FUNDING SOURCE, FY2015

Employment—By Funding Source	
Direct Employment—State	4,845
Direct Employment—Federal	25,601
Direct Employment—Total	30,446

These are for full- and part-time employees, the large majority of whom are part-time. Direct employees-state are considered State of Texas employees while direct employees-federal are considered employees of a federal agency.

TABLE 2.2. STATEWIDE DIRECT EMPLOYEE INCOME, BY FUNDING SOURCE, FY2015

Income (Salaries and Wages)--By Funding Source	
Direct Income (TMD employee salaries and wages) from State sources	\$70,633,949
Direct Income (TMD employee salaries and wages) from Federal sources	\$499,535,990
Direct Income (TMD employee salaries and wages)—Total	\$570,169,939

Direct income is the amount of salary, wages, and other compensation received by employees of TMD, categorized by whether they are State of Texas employees or employees of a federal agency.

TABLE 2.3. STATEWIDE DIRECT EXPENDITURES, BY FUNDING SOURCE, FY2015

Expenditures--By Funding Source	
Direct Spending/Expenditures—State	\$99,719,394
Direct Spending/Expenditures—Federal	\$565,019,065
Direct Spending/Expenditures—Total	\$665,638,459

Direct spending/expenditures is the amount of all outlays and actual expenditures by TMD for salary, wages, other compensation, fringe benefits, and for all other operational and capital projects, categorized by original funding source.

Total direct spending/expenditures statewide by object/category, from all funding sources, are shown in Table 2.4. below.

TABLE 2.4. STATEWIDE DIRECT EXPENDITURES BY OBJECT/CATEGORY, FY2015

Direct Spending by Object/Category	
Normal Operations	\$497,834,535
Deployments	\$130,742,983
Facilities	\$37,060,941
Total	\$665,638,459

This direct spending in the State of Texas in FY2015 multiplies through other industries in the supply chain for military operations. These multiplier effects raise the total impacts and economic benefits to the following levels, as shown in Table 2.5. below.

TABLE 2.5. STATEWIDE IMPACTS, EMPLOYMENT, EMPLOYEE INCOME, OUTPUT, FY2015⁴

Impact Type	Employment (Total)	Employee Income (salaries & wages)	Spending/Output
Direct Effect	30,446	\$570,169,939	\$665,638,459
Indirect & Induced Effects	3,549	\$169,887,985	\$184,629,341
Total Effect	33,995	\$740,057,924	\$850,267,800

Please see for definitions of key terms in Table 1.1.

Fiscal Impacts--Statewide

Fiscal benefits associated with TMD economic output accrue from a variety of taxes. Given the natural stratified tax environment (federal, state, local, special districts, and school districts), the amounts vary by level of government. Because federal and state spending for the most part is exempt from taxation, only the taxes for indirect and induced economic activities could be estimated. All amounts were computed using IMPLAN.

For FY2015, an estimated \$28.98 million in state and sub-state tax revenue was generated by the indirect/induced spending associated with TMD personnel and operations. These fiscal impacts benefited the State of Texas, its cities, school districts, transit districts, community colleges, and special districts. Please see tables 2.6., 2.7., and 2.8. for more details about fiscal impacts.

⁴ These impacts are expressed in nominal terms and are not adjusted for inflation.

TABLE 2.6. TOTAL FISCAL IMPACTS, FY2015

Tax Type	Total Amount (\$)
Dividends	67,285
Social Ins Tax- Employee Contribution	79,537
Social Ins Tax- Employer Contribution	155,344
Tax on Production and Imports: Sales Tax	13,443,859
Tax on Production and Imports: Property Tax	11,053,075
Tax on Production and Imports: Motor Vehicle	232,883
Tax on Production and Imports: Severance Tax	917,782
Tax on Production and Imports: Other Taxes	1,706,858
Tax on Production and Imports: S/L NonTaxes	72,679
Personal Tax: NonTaxes (Fines- Fees	926,164
Personal Tax: Motor Vehicle License	179,583
Personal Tax: Property Taxes	81,639
Personal Tax: Other Tax (Fish/Hunt)	63,443
Total State and Local Tax	28,980,130

TABLE 2.7. TOTAL FISCAL IMPACTS, BY SOURCE OF FUNDING, FY2015

Tax Type	State Funding	Federal Funding	Total Amount (\$)
Dividends	8,838	58,447	67,285
Social Ins Tax- Employee Contribution	10,486	69,050	79,537
Social Ins Tax- Employer Contribution	20,480	134,864	155,344
Tax on Production and Imports: Sales Tax	1,756,425	11,687,433	13,443,859
Tax on Production and Imports: Property Tax	1,444,073	9,609,002	11,053,075
Tax on Production and Imports: Motor Vehicle	30,426	202,457	232,883
Tax on Production and Imports: Severance Tax	119,907	797,875	917,782
Tax on Production and Imports: Other Taxes	222,999	1,483,859	1,706,858
Tax on Production and Imports: S/L NonTaxes	9,496	63,183	72,679
Personal Tax: NonTaxes (Fines- Fees	122,295	803,869	926,164
Personal Tax: Motor Vehicle License	23,713	155,870	179,583
Personal Tax: Property Taxes	10,780	70,859	81,639
Personal Tax: Other Tax (Fish/Hunt)	8,377	55,065	63,443
Total State and Local Tax	3,788,295	25,191,835	28,980,130

TABLE 2.8. FISCAL IMPACTS, BY OBJECT/CATEGORY, FY2015

	Normal Operations	Deployments	Facilities	Total Amount (\$)
Dividends	52,752	13,453	1,080	67,285
Social Ins Tax- Employee Contribution	62,282	15,895	1,358	79,537
Social Ins Tax- Employer Contribution	121,645	31,046	2,653	155,344
Tax on Production and Imports: Sales Tax	10,558,627	2,689,884	195,348	13,443,859
Tax on Production and Imports: Property Tax	8,680,937	2,211,530	160,609	11,053,075
Tax on Production and Imports: Motor Vehicle	182,903	46,596	3,384	232,883
Tax on Production and Imports: Severance Tax	720,813	183,632	13,336	917,782
Tax on Production and Imports: Other Taxes	1,340,543	341,512	24,801	1,706,858
Tax on Production and Imports: S/L NonTaxes	57,081	14,541	1,057	72,679
Personal Tax: NonTaxes (Fines- Fees	724,868	185,062	16,234	926,164
Personal Tax: Motor Vehicle License	140,551	35,883	3,148	179,583
Personal Tax: Property Taxes	63,895	16,313	1,431	81,639
Personal Tax: Other Tax (Fish/Hunt)	49,654	12,677	1,112	63,443
Total State and Local Tax	22,756,555	5,798,026	425,550	28,980,130

Chapter III. Economic Impacts by Counties

In the previous chapter, the direct employment, direct income (TMD employee salaries and wages), and direct expenditures as well as the total expenditures/impacts due to TMD were calculated for the State of Texas. Calculations for direct employment/total employment, direct income/total income, and direct expenditures/total expenditures/impact were determined for each of the 254 counties in Texas. And then the totals for each county were summed. There are differences in the indirect/induced amounts and the total amounts based on the statewide calculations and the sum of county calculations. These differences between the statewide calculations and sum of the county calculations are shown in Table 3.1. on the next page.

The differences are due to leakage, which is greater for smaller geographical areas such as counties, than for the state. The larger statewide amounts should be used to describe impacts at that geographical area and the county amounts should be used when describing impacts at that level.

TABLE 3.1. COMPARISON OF STATEWIDE AND COUNTY ECONOMIC IMPACT TOTALS, FY2015

<u>Employment</u>			
	TMD Employment	Indirect/Induced	Total
Statewide	30,446	3,549	33,995
All Counties	30,446	2,577	33,023
Absolute Difference			972
Percent Difference			3%
<u>Income (Employee Salaries and Wages)</u>			
	TMD Salaries & Wages	Indirect/Induced	Total
Statewide	\$570,169,939	\$169,887,985	\$740,057,924
All Counties	\$570,169,939	\$110,381,134	\$680,551,073
Absolute Difference			\$59,506,851
Percent Difference			8%
<u>Spending/Output/ Economic Impact</u>			
	TMD Spending	Indirect/Induced	Total
Statewide	\$665,638,459	\$184,629,341	\$850,267,800
All Counties	\$665,638,459	\$117,401,783	\$783,040,242
Absolute Difference			\$67,227,558
Percent Difference			8%

The direct and total impacts for each county are shown in Table 3.2., beginning on page 18.

A group of counties with the largest economic direct and total impacts are shown, rank ordered, in Table A.1. in appendix A.

TABLE 3.2 DIRECT AND TOTAL IMPACTS, TEXAS COUNTIES, FY2015

	<i>TMD Employees</i>	<i>Total Employment</i>	<i>TMD Salaries & Wages</i>	<i>Total Salaries and Wages</i>	<i>TMD Spending/ Expenditures</i>	<i>All Spending/ Expenditures</i>
<u>County</u>						
Anderson	30	32	\$560,418	\$648,120	\$601,985	\$691,231
Andrews	2	2	\$40,973	\$44,100	\$40,973	\$44,100
Angelina	29	31	\$539,450	\$641,126	\$564,749	\$667,562
Aransas	5	5	\$89,791	\$98,244	\$91,174	\$99,674
Archer	2	2	\$28,839	\$30,331	\$29,028	\$30,522
Armstrong	0	0	\$5,192	\$5,364	\$5,192	\$5,364
Atascosa	45	48	\$838,986	\$924,771	\$842,846	\$929,206
Austin	10	11	\$196,451	\$219,511	\$200,595	\$224,430
Bailey	0	0	\$8,094	\$8,603	\$8,094	\$8,603
Bandera	19	20	\$348,005	\$374,238	\$348,866	\$375,124
Bastrop	374	399	\$7,000,277	\$7,700,690	\$9,155,011	\$9,902,000
Baylor	0	0	\$1,874	\$2,050	\$1,874	\$2,050
Bee	3	3	\$47,319	\$53,286	\$58,895	\$65,118
Bell	900	963	\$16,860,680	\$19,264,615	\$18,171,778	\$20,601,961
Bexar	3891	4319	\$72,865,366	\$91,764,014	\$81,633,056	\$101,332,912
Blanco	22	23	\$403,027	\$433,781	\$408,453	\$439,402
Borden	0	0	\$0	\$0	\$0	\$0
Bosque	13	14	\$242,196	\$260,671	\$245,216	\$263,749
Bowie	18	20	\$340,556	\$403,687	\$466,442	\$533,427
Brazoria	689	732	\$12,907,110	\$14,289,041	\$13,056,941	\$14,438,872
Brazos	457	499	\$8,552,882	\$10,106,624	\$8,927,084	\$10,505,548

Note 1:

TMD Employees (Direct Employment) is the number of employees who receive salary, wages, and other compensation from TMD.

Total Employment is the number of TMD employees and those in other businesses and organizations dependent upon TMD who receive salary, wages, and other compensation. These are the numbers **after** IMPLAN calculations.

TMD Salaries & Wages (Direct Income) is the amount of salary, wages, and other compensation received by employees of TMD.

Total Salaries & Wages (Total Income) is the amount of salary, wages, and other compensation received by TMD employees and the amount of salary, wages, and other compensation in other businesses and organizations dependent upon TMD. This is the amount **after** IMPLAN calculations.

TMD Spending/Expenditures (Direct Spending/Expenditures) is the amount of spending by TMD for salary, wages, other compensation, fringe benefits, and for all other operational and capital projects.

All Spending/Expenditures (Total Expenditures) is the amount of all spending by TMD and the spending by other businesses and organizations that is due to TMD. This is the amount **after** IMPLAN calculations.

Note 2: Only whole numbers appear in this table. Many counties have fractional employees.

TABLE 3.2.	<i>(continued)</i>					
	TMD Employees	Total Employment	TMD Salaries & Wages	Total Salaries and Wages	TMD Spending/ Expenditures	All Spending/ Expenditures
Brewster	1	1	\$20,357	\$23,315	\$25,218	\$28,381
Briscoe	0	0	\$0	\$0	\$0	\$0
Brooks	0	0	\$0	\$0	\$134	\$135
Brown	181	200	\$3,381,198	\$3,969,802	\$4,539,741	\$5,153,505
Burleson	11	12	\$205,838	\$223,324	\$208,674	\$226,208
Burnet	41	44	\$758,476	\$871,444	\$762,967	\$876,169
Caldwell	67	71	\$1,258,322	\$1,391,458	\$1,275,828	\$1,409,270
Calhoun	4	4	\$81,079	\$85,456	\$81,353	\$85,735
Callahan	7	8	\$138,450	\$145,581	\$140,061	\$147,219
Cameron	292	327	\$5,464,361	\$6,611,086	\$5,803,294	\$6,950,020
Camp	2	2	\$31,817	\$34,970	\$33,734	\$36,915
Carson	1	1	\$11,255	\$11,466	\$11,274	\$11,485
Cass	4	4	\$71,941	\$78,490	\$73,075	\$79,646
Castro	0	0	\$29	\$30	\$29	\$30
Chambers	12	13	\$229,048	\$238,799	\$230,079	\$239,839
Cherokee	11	12	\$201,418	\$227,920	\$204,820	\$231,428
Childress	7	8	\$135,706	\$146,821	\$135,971	\$147,091
Clay	2	2	\$40,222	\$43,189	\$40,653	\$43,623
Cochran	0	0	\$0	\$0	\$0	\$0
Coke	5	5	\$85,845	\$88,772	\$93,107	\$96,122
Coleman	2	2	\$30,125	\$33,008	\$31,807	\$34,728
Collin	378	411	\$7,077,593	\$8,604,113	\$7,456,306	\$9,012,050
Collingsworth	1	1	\$23,306	\$25,431	\$24,211	\$26,360
Colorado	12	14	\$225,890	\$294,741	\$4,466,204	\$4,645,771
Comal	241	265	\$4,520,050	\$5,355,727	\$6,301,331	\$7,235,250
Comanche	14	15	\$264,822	\$288,414	\$266,455	\$290,079
Concho	0	0	\$7,421	\$7,804	\$8,181	\$8,567
Cooke	3	3	\$56,099	\$60,248	\$56,794	\$60,958
Coryell	247	262	\$4,630,775	\$5,023,302	\$6,448,509	\$6,889,978
Cottle	1	1	\$21,805	\$23,086	\$21,805	\$23,086
Crane	0	0	\$3,437	\$3,625	\$3,437	\$3,625
Crockett	3	3	\$46,866	\$49,601	\$46,866	\$49,601
Crosby	3	4	\$64,899	\$69,465	\$64,899	\$69,465
Culberson	0	0	\$0	\$0	\$0	\$0
Dallam	0	0	\$4,017	\$4,277	\$4,017	\$4,278

Please see Note 1 on page 18 for more information about column definitions.

TABLE 3.2.	<i>(continued)</i>					
	<i>TMD Employees</i>	<i>Total Employment</i>	<i>TMD Salaries & Wages</i>	<i>Total Salaries and Wages</i>	<i>TMD Spending/ Expenditures</i>	<i>All Spending/ Expenditures</i>
Dallas	1202	1284	\$22,517,207	\$27,407,601	\$40,407,699	\$46,859,395
Dawson	0	1	\$9,205	\$10,075	\$9,297	\$10,169
DeWitt	6	7	\$116,041	\$127,460	\$120,158	\$131,662
Deaf Smith	7	8	\$139,328	\$150,611	\$140,033	\$151,324
Delta	5	6	\$101,340	\$105,579	\$101,370	\$105,610
Denton	458	492	\$8,568,314	\$9,944,456	\$9,432,360	\$10,858,390
Dickens	1	1	\$19,752	\$20,278	\$19,752	\$20,278
Dimmit	2	2	\$37,048	\$39,284	\$37,048	\$39,284
Donley	0	0	\$4	\$5	\$4	\$5
Duval	0	0	\$6,704	\$7,020	\$6,711	\$7,027
Eastland	3	3	\$63,527	\$67,129	\$69,193	\$72,946
Ector	15	16	\$286,186	\$324,686	\$312,727	\$352,092
Edwards	0	0	\$146	\$153	\$148	\$155
El Paso	721	793	\$13,502,200	\$16,033,852	\$14,263,872	\$16,930,927
Ellis	145	154	\$2,723,287	\$3,004,865	\$2,794,587	\$3,077,401
Erath	28	31	\$527,171	\$601,850	\$575,514	\$651,432
Falls	8	8	\$143,678	\$157,551	\$144,334	\$158,216
Fannin	10	10	\$185,210	\$203,346	\$191,373	\$209,508
Fayette	4	4	\$74,461	\$83,741	\$77,768	\$87,127
Fisher	0	0	\$6,268	\$6,604	\$10,856	\$11,245
Floyd	0	0	\$1,215	\$1,291	\$1,215	\$1,291
Foard	0	0	\$0	\$0	\$0	\$0
Fort Bend	607	653	\$11,376,780	\$12,884,626	\$11,524,632	\$13,040,410
Franklin	0	0	\$7,214	\$7,852	\$7,321	\$7,964
Freestone	2	2	\$31,643	\$34,349	\$32,014	\$34,724
Frio	1	1	\$26,608	\$28,276	\$28,315	\$30,006
Gaines	1	1	\$23,037	\$24,926	\$23,037	\$24,926
Galveston	728	785	\$13,630,951	\$15,513,974	\$13,995,812	\$15,896,131
Garza	0	0	\$0	\$8	\$719	\$742
Gillespie	39	43	\$730,940	\$841,657	\$800,377	\$913,677
Glasscock	0	0	\$307	\$312	\$317	\$321
Goliad	3	3	\$61,627	\$65,333	\$62,853	\$66,579
Gonzales	8	8	\$149,988	\$163,824	\$151,637	\$165,504

TABLE 3.2.	(continued)					
	TMD Employees	Total Employment	TMD Salaries & Wages	Total Salaries and Wages	TMD Spending/ Expenditures	All Spending/ Expenditures
Gray	1	1	\$22,040	\$24,436	\$22,040	\$24,436
Grayson	35	39	\$662,804	\$786,407	\$1,299,641	\$1,436,742
Gregg	47	50	\$874,013	\$1,000,353	\$987,311	\$1,118,809
Grimes	3	3	\$51,695	\$55,818	\$55,816	\$60,012
Guadalupe	419	439	\$7,852,362	\$8,492,794	\$8,625,252	\$9,279,279
Hale	5	6	\$98,121	\$111,000	\$100,886	\$113,838
Hall	0	0	\$1,706	\$1,807	\$1,706	\$1,807
Hamilton	3	3	\$53,326	\$58,477	\$55,388	\$60,575
Hansford	3	3	\$57,646	\$60,528	\$57,646	\$60,528
Hardeman	0	0	\$8,536	\$9,063	\$8,536	\$9,063
Hardin	15	16	\$288,942	\$315,594	\$292,308	\$319,080
Harris	3694	3928	\$69,174,364	\$82,000,762	\$73,238,445	\$86,429,119
Harrison	49	51	\$911,984	\$995,665	\$1,063,136	\$1,149,887
Hartley	0	0	\$1,875	\$1,954	\$1,875	\$1,954
Haskell	0	0	\$955	\$1,043	\$955	\$1,043
Hays	449	492	\$8,410,347	\$9,742,669	\$9,046,695	\$10,417,071
Hemphill	0	0	\$0	\$0	\$0	\$0
Henderson	17	19	\$326,525	\$363,899	\$365,704	\$404,074
Hidalgo	565	634	\$10,575,792	\$12,925,083	\$11,804,923	\$14,210,546
Hill	12	12	\$216,020	\$239,660	\$227,219	\$251,020
Hockley	9	9	\$167,449	\$179,945	\$180,854	\$193,580
Hood	57	61	\$1,067,894	\$1,188,887	\$1,093,731	\$1,215,522
Hopkins	13	14	\$237,082	\$264,743	\$254,386	\$282,407
Houston	6	6	\$109,109	\$122,129	\$110,280	\$123,349
Howard	7	8	\$132,946	\$148,698	\$137,019	\$152,840
Hudspeth	0	0	\$8,009	\$8,193	\$8,113	\$8,298
Hunt	67	71	\$1,250,869	\$1,383,284	\$1,329,595	\$1,463,138
Hutchinson	3	3	\$51,912	\$55,721	\$58,599	\$62,591
Irion	1	1	\$9,748	\$9,950	\$9,761	\$9,963
Jack	4	5	\$83,029	\$86,503	\$86,396	\$89,935
Jackson	4	4	\$73,243	\$79,458	\$73,300	\$79,516
Jasper	3	3	\$53,596	\$60,158	\$53,725	\$60,291
Jeff Davis	0	0	\$2,207	\$2,346	\$2,207	\$2,346
Jefferson	57	61	\$1,074,481	\$1,229,115	\$1,139,417	\$1,296,923

TABLE 3.2.	<i>(continued)</i>					
	<i>TMD Employees</i>	<i>Total Employment</i>	<i>TMD Salaries & Wages</i>	<i>Total Salaries and Wages</i>	<i>TMD Spending/ Expenditures</i>	<i>All Spending/ Expenditures</i>
Jim Hogg	0	0	\$0	\$0	\$0	\$0
Jim Wells	13	14	\$242,810	\$267,213	\$246,821	\$271,277
Johnson	155	167	\$2,909,837	\$3,256,868	\$2,943,209	\$3,291,385
Jones	16	16	\$295,494	\$313,308	\$297,497	\$315,336
Karnes	2	2	\$31,771	\$34,052	\$31,771	\$34,052
Kaufman	82	88	\$1,538,779	\$1,715,925	\$2,250,561	\$2,446,771
Kendall	59	62	\$1,098,920	\$1,219,668	\$1,103,046	\$1,223,947
Kenedy	0	0	\$0	\$0	\$0	\$0
Kent	0	0	\$48	\$51	\$64	\$67
Kerr	22	24	\$410,497	\$486,977	\$414,570	\$491,201
Kimble	0	0	\$0	\$0	\$0	\$0
King	0	0	\$4,144	\$4,203	\$4,144	\$4,203
Kinney	1	1	\$23,445	\$24,202	\$26,106	\$26,874
Kleberg	52	56	\$973,863	\$1,098,968	\$1,030,558	\$1,156,470
Knox	0	0	\$209	\$222	\$209	\$222
La Salle	2	2	\$42,689	\$44,063	\$42,689	\$44,063
Lamar	81	89	\$1,522,428	\$1,779,513	\$2,026,655	\$2,296,138
Lamb	2	2	\$31,216	\$33,391	\$31,216	\$33,391
Lampasas	55	58	\$1,034,935	\$1,119,731	\$1,053,966	\$1,139,070
Lavaca	11	12	\$211,932	\$232,642	\$221,755	\$242,683
Lee	20	21	\$378,434	\$405,335	\$392,937	\$420,149
Leon	2	2	\$35,086	\$36,855	\$35,086	\$36,855
Liberty	26	27	\$483,023	\$531,235	\$485,311	\$533,567
Limestone	2	2	\$34,736	\$38,702	\$55,909	\$60,120
Lipscomb	0	0	\$0	\$0	\$0	\$0
Live Oak	1	1	\$17,413	\$18,412	\$17,756	\$18,759
Llano	15	16	\$288,845	\$315,124	\$289,747	\$316,046
Loving	0	0	\$0	\$0	\$0	\$0
Lubbock	176	198	\$3,287,081	\$4,153,417	\$4,642,594	\$5,611,231
Lynn	4	5	\$82,733	\$85,632	\$83,670	\$86,581
Madison	4	4	\$76,266	\$83,091	\$76,300	\$83,125
Marion	2	2	\$31,959	\$33,678	\$32,368	\$34,094
Martin	0	0	\$7,699	\$8,244	\$8,612	\$9,165
Mason	0	0	\$2,756	\$2,935	\$2,777	\$2,957

TABLE 3.2.	<i>(continued)</i>					
	<i>TMD Employees</i>	<i>Total Employment</i>	<i>TMD Salaries & Wages</i>	<i>Total Salaries and Wages</i>	<i>TMD Spending/ Expenditures</i>	<i>All Spending/ Expenditures</i>
Matagorda	6	6	\$105,201	\$118,085	\$106,000	\$118,911
Maverick	5	6	\$97,306	\$109,046	\$101,305	\$113,086
McCulloch	1	1	\$14,549	\$15,808	\$19,003	\$20,321
McLennan	205	226	\$3,830,850	\$4,643,149	\$4,154,269	\$4,983,600
McMullen	0	0	\$0	\$0	\$40	\$41
Medina	103	109	\$1,935,278	\$2,106,277	\$2,019,175	\$2,192,366
Menard	0	0	\$67	\$69	\$87	\$90
Midland	46	47	\$853,717	\$938,734	\$900,797	\$987,862
Milam	20	22	\$383,729	\$431,099	\$385,009	\$432,406
Mills	6	7	\$120,074	\$129,192	\$132,124	\$141,403
Mitchell	1	1	\$13,937	\$14,702	\$13,937	\$14,702
Montague	4	4	\$76,370	\$83,016	\$81,591	\$88,360
Montgomery	263	280	\$4,923,838	\$5,646,122	\$5,023,368	\$5,750,301
Moore	1	2	\$27,249	\$29,644	\$29,327	\$31,760
Morris	1	1	\$22,734	\$23,928	\$27,994	\$29,246
Motley	0	0	\$0	\$0	\$0	\$0
Nacogdoches	33	36	\$622,842	\$725,963	\$643,029	\$746,614
Navarro	24	26	\$453,004	\$510,001	\$550,263	\$608,620
Newton	1	1	\$10,942	\$11,316	\$12,393	\$12,785
Nolan	4	4	\$65,619	\$71,929	\$70,262	\$76,671
Nueces	213	232	\$3,979,960	\$4,756,567	\$4,217,527	\$5,008,482
Ochiltree	0	0	\$7,951	\$8,513	\$7,951	\$8,513
Oldham	0	0	\$196	\$201	\$196	\$201
Orange	14	14	\$255,609	\$278,224	\$257,696	\$280,359
Palo Pinto	41	43	\$764,547	\$841,854	\$765,954	\$843,292
Panola	4	4	\$71,023	\$77,299	\$73,150	\$79,468
Parker	360	384	\$6,750,623	\$7,478,587	\$7,600,117	\$8,350,778
Parmer	1	1	\$25,060	\$26,109	\$25,060	\$26,109
Pecos	67	71	\$1,257,666	\$1,383,969	\$2,926,035	\$3,076,799
Polk	5	5	\$97,212	\$106,649	\$97,212	\$106,649
Potter	37	39	\$687,865	\$771,586	\$699,958	\$784,292
Presidio	10	11	\$192,054	\$201,514	\$194,173	\$203,660
Rains	1	1	\$18,434	\$19,563	\$18,659	\$19,794
Randall	30	32	\$560,438	\$624,920	\$573,564	\$638,457

TABLE 3.2.	(continued)					
	<i>TMD Employees</i>	<i>Total Employment</i>	<i>TMD Salaries & Wages</i>	<i>Total Salaries and Wages</i>	<i>TMD Spending/ Expenditures</i>	<i>All Spending/ Expenditures</i>
Reagan	0	0	\$0	\$0	\$0	\$0
Real	0	0	\$0	\$0	\$0	\$0
Red River	9	9	\$162,584	\$172,022	\$162,584	\$172,022
Reeves	2	2	\$43,378	\$47,175	\$54,699	\$58,633
Refugio	0	0	\$8,583	\$9,078	\$8,583	\$9,078
Roberts	0	0	\$0	\$0	\$0	\$0
Robertson	5	5	\$95,489	\$102,482	\$107,725	\$114,928
Rockwall	73	79	\$1,365,500	\$1,579,138	\$1,666,167	\$1,893,769
Runnels	2	2	\$37,242	\$40,263	\$47,936	\$51,079
Rusk	12	13	\$227,199	\$248,805	\$230,318	\$251,990
Sabine	2	2	\$36,277	\$38,869	\$36,277	\$38,869
San Augustine	1	1	\$17,716	\$18,767	\$17,716	\$18,767
San Jacinto	6	6	\$107,504	\$111,306	\$109,354	\$113,193
San Patricio	11	11	\$199,743	\$216,237	\$212,655	\$229,422
San Saba	1	1	\$9,508	\$10,317	\$10,585	\$11,414
Schleicher	0	0	\$0	\$0	\$0	\$0
Scurry	1	1	\$12,358	\$13,236	\$14,425	\$15,342
Shackelford	1	1	\$9,858	\$10,123	\$9,891	\$10,156
Shelby	3	3	\$49,415	\$54,180	\$50,226	\$55,006
Sherman	0	0	\$0	\$0	\$0	\$0
Smith	141	154	\$2,633,709	\$3,173,728	\$2,736,997	\$3,283,291
Somervell	2	2	\$44,758	\$47,736	\$47,684	\$50,731
Starr	12	13	\$219,554	\$240,077	\$227,980	\$248,602
Stephens	1	2	\$27,584	\$29,389	\$29,857	\$31,731
Sterling	0	0	\$0	\$0	\$0	\$0
Stonewall	0	0	\$1,495	\$1,553	\$1,495	\$1,553
Sutton	0	0	\$1,127	\$1,168	\$1,127	\$1,168
Swisher	0	0	\$951	\$1,017	\$951	\$1,017
Tarrant	2509	2775	\$46,980,305	\$59,257,122	\$50,936,910	\$63,545,630
Taylor	117	129	\$2,188,885	\$2,680,615	\$2,389,157	\$2,892,694
Terrell	0	0	\$2,272	\$2,340	\$2,272	\$2,340
Terry	2	2	\$41,448	\$45,583	\$41,448	\$45,583
Throckmorton	0	0	\$4,879	\$5,013	\$4,879	\$5,013

TABLE 3.2.	(continued)					
	TMD Employees	Total Employment	TMD Salaries & Wages	Total Salaries and Wages	TMD Spending/ Expenditures	All Spending/ Expenditures
Titus	1	1	\$18,075	\$19,997	\$19,457	\$21,393
Tom Green	258	284	\$4,840,703	\$5,775,496	\$4,928,805	\$5,866,720
Travis	4832	5262	\$90,484,884	\$111,713,076	\$116,550,606	\$140,378,189
Trinity	4	4	\$65,916	\$70,656	\$66,668	\$71,418
Tyler	3	3	\$61,034	\$65,425	\$62,078	\$66,481
Upshur	8	9	\$159,009	\$170,078	\$159,916	\$171,001
Upton	0	0	\$0	\$0	\$0	\$0
Uvalde	4	4	\$68,572	\$76,325	\$71,097	\$78,928
Val Verde	27	28	\$496,435	\$559,748	\$500,960	\$564,347
Van Zandt	22	23	\$405,438	\$439,143	\$413,530	\$447,386
Victoria	42	46	\$793,607	\$957,148	\$1,295,409	\$1,477,115
Walker	93	99	\$1,745,770	\$1,939,565	\$1,887,684	\$2,083,686
Waller	7	7	\$130,412	\$140,480	\$139,777	\$150,020
Ward	4	4	\$72,641	\$77,885	\$72,641	\$77,885
Washington	10	11	\$194,565	\$220,626	\$230,731	\$257,855
Webb	186	206	\$3,490,147	\$4,131,821	\$4,871,309	\$5,586,301
Wharton	26	28	\$489,085	\$545,384	\$536,871	\$593,935
Wheeler	1	1	\$14,905	\$15,864	\$14,905	\$15,864
Wichita	95	104	\$1,786,839	\$2,108,073	\$1,880,526	\$2,205,160
Wilbarger	2	3	\$45,313	\$48,678	\$46,141	\$49,511
Willacy	15	16	\$286,487	\$307,491	\$292,947	\$314,014
Williamson	1753	1886	\$32,830,267	\$38,085,625	\$38,045,399	\$43,524,281
Wilson	95	99	\$1,780,108	\$1,892,515	\$1,790,386	\$1,902,920
Winkler	0	0	\$3,702	\$3,856	\$3,702	\$3,856
Wise	95	101	\$1,787,104	\$1,980,727	\$1,847,156	\$2,042,076
Wood	10	11	\$194,743	\$215,845	\$196,666	\$217,812
Yoakum	5	6	\$101,695	\$106,732	\$101,695	\$106,732
Young	1	1	\$9,858	\$10,820	\$10,102	\$11,072
Zapata	0	0	\$0	\$3	\$923	\$935
Zavala	1	1	\$10,343	\$11,015	\$10,343	\$11,015
Sum of Counties	30,446	33,023	\$570,169,939	\$680,551,073	\$665,638,459	\$783,040,243

Note: Direct employment (TMD Employees) sums to above number if fractional employment is utilized. Only whole numbers are shown above.

Chapter IV. Economic Impacts by Texas Senate and Texas House Districts

Another component of the analysis examined the economic impacts of TMD operations based on Texas Senate Districts. Many senate districts in rural and suburban areas are comprised of multiple counties, while in a number of urban areas, senate districts are a portion of one county, or portions of multiple contiguous counties. The Texas Legislative Council provided a procedure normally used in redistricting to allocate counties into the 31 Senate districts. For this analysis, the program allocated economic impacts of counties into their respective Texas Senate districts.

Table 4.1. identifies estimates for the total employment, total salaries and wages, and total economic impacts attributable to TMD operations in each of the Senate districts. A ranking of the 10 Texas Senate districts with total impacts above \$25 million and total employment above 1,000 is shown in table A.2. in appendix A.

A similar allocation procedure was used for the 150 Texas House Districts. Table 4.2. provides those estimates. The Texas House Districts with total impacts above \$5 million are shown in rank order in table A.3. in appendix A.

Notes for each of the tables appear at the end of the listings.

TABLE 4.1. TOTAL IMPACTS, TEXAS SENATE DISTRICTS, FY2015

	<u>TOTAL</u> <u>EMPLOYMENT</u>	<u>TOTAL</u> <u>SALARIES & WAGES</u>	<u>TOTAL</u> <u>ECONOMIC IMPACT</u>
<i>Texas Senate</i>			
DISTRICT 1	420	\$ 8,435,911	\$ 9,483,102
DISTRICT 2	510	\$ 10,373,767	\$ 14,840,899
DISTRICT 3	261	\$ 5,181,993	\$ 5,345,766
DISTRICT 4	453	\$ 9,195,801	\$ 9,504,797
DISTRICT 5	2,524	\$ 50,914,210	\$ 56,935,686
DISTRICT 6	780	\$ 16,287,729	\$ 17,167,329
DISTRICT 7	777	\$ 16,215,515	\$ 17,091,215
DISTRICT 8	418	\$ 8,775,168	\$ 10,159,296
DISTRICT 9	1,057	\$ 22,561,267	\$ 25,732,520
DISTRICT 10	1,276	\$ 27,258,276	\$ 29,230,990
DISTRICT 11	1,556	\$ 30,952,173	\$ 31,743,544
DISTRICT 12	824	\$ 17,142,466	\$ 18,544,308
DISTRICT 13	792	\$ 16,397,565	\$ 17,180,490
DISTRICT 14	4,306	\$ 90,654,356	\$ 114,141,234
DISTRICT 15	761	\$ 15,891,536	\$ 16,749,740
DISTRICT 16	443	\$ 9,451,711	\$ 16,159,804
DISTRICT 17	936	\$ 19,000,136	\$ 19,660,637
DISTRICT 18	564	\$ 11,188,965	\$ 16,320,837
DISTRICT 19	1,510	\$ 31,589,081	\$ 36,138,884
DISTRICT 20	611	\$ 12,472,763	\$ 13,471,926
DISTRICT 21	1,491	\$ 30,487,675	\$ 36,570,820
DISTRICT 22	809	\$ 16,272,244	\$ 17,077,523
DISTRICT 23	441	\$ 9,417,326	\$ 16,101,016
DISTRICT 24	2,026	\$ 40,515,819	\$ 46,540,135
DISTRICT 25	2,345	\$ 48,444,699	\$ 55,600,655
DISTRICT 26	2,020	\$ 42,920,527	\$ 47,396,161
DISTRICT 27	665	\$ 13,446,080	\$ 14,388,933
DISTRICT 28	604	\$ 12,339,256	\$ 14,018,212
DISTRICT 29	804	\$ 16,245,905	\$ 17,145,231
DISTRICT 30	863	\$ 17,092,779	\$ 19,051,683
DISTRICT 31	174	\$ 3,428,373	\$ 3,546,870
Totals	33,023	\$ 680,551,073	\$ 783,040,243

Note 1:

Total Employment is the number of employees who receive salary, wages, and other compensation from TMD and those in other businesses and organizations dependent upon TMD who receive salary, wages, and other compensation. These are the numbers **after** IMPLAN calculations.

Total Salaries and Wages (Income) is the amount of salary, wages, and other compensation received by TMD employees and the amount of salary, wages, and other compensation in other businesses and organizations dependent upon TMD. This is the amount **after** IMPLAN calculations.

Total Economic Impact is the amount of all spending (personnel, operations, capital projects) by TMD and the spending by other businesses and organizations that is due to TMD. This is the amount **after** IMPLAN calculations.

Note 2: Only whole numbers appear in this table. Many districts have fractional employees.

TABLE 4.2. TOTAL IMPACTS, TEXAS HOUSE DISTRICTS, FY2015

	<u>TOTAL EMPLOYMENT</u>	<u>TOTAL SALARIES & WAGES</u>	<u>TOTAL ECONOMIC IMPACT</u>
<i>TEXAS HOUSE</i>			
<i>DISTRICT 1</i>	118	\$ 2,363,074	\$ 3,009,550
<i>DISTRICT 2</i>	108	\$ 2,087,170	\$ 2,192,931
<i>DISTRICT 3</i>	82	\$ 1,648,810	\$ 1,686,181
<i>DISTRICT 4</i>	103	\$ 2,017,961	\$ 2,782,152
<i>DISTRICT 5</i>	53	\$ 1,075,998	\$ 1,113,150
<i>DISTRICT 6</i>	117	\$ 2,412,033	\$ 2,495,301
<i>DISTRICT 7</i>	59	\$ 1,170,432	\$ 1,289,810
<i>DISTRICT 8</i>	72	\$ 1,432,129	\$ 1,585,595
<i>DISTRICT 9</i>	66	\$ 1,278,181	\$ 1,436,969
<i>DISTRICT 10</i>	157	\$ 3,066,728	\$ 3,146,093
<i>DISTRICT 11</i>	61	\$ 1,202,689	\$ 1,230,032
<i>DISTRICT 12</i>	163	\$ 3,308,740	\$ 3,509,232
<i>DISTRICT 13</i>	67	\$ 1,330,404	\$ 5,744,086
<i>DISTRICT 14</i>	419	\$ 8,489,564	\$ 8,824,661
<i>DISTRICT 15</i>	103	\$ 2,073,244	\$ 2,111,499
<i>DISTRICT 16</i>	103	\$ 2,064,548	\$ 2,102,641
<i>DISTRICT 17</i>	502	\$ 9,695,360	\$ 11,930,975
<i>DISTRICT 18</i>	132	\$ 2,582,105	\$ 2,730,446
<i>DISTRICT 19</i>	29	\$ 559,141	\$ 565,286
<i>DISTRICT 20</i>	481	\$ 9,681,380	\$ 10,883,917
<i>DISTRICT 21</i>	36	\$ 720,706	\$ 747,251
<i>DISTRICT 22</i>	39	\$ 786,634	\$ 830,030
<i>DISTRICT 23</i>	358	\$ 7,064,947	\$ 7,234,137
<i>DISTRICT 24</i>	440	\$ 8,687,826	\$ 8,901,834
<i>DISTRICT 25</i>	328	\$ 6,405,263	\$ 6,472,015
<i>DISTRICT 26</i>	176	\$ 3,478,849	\$ 3,520,911
<i>DISTRICT 27</i>	176	\$ 3,478,849	\$ 3,520,911
<i>DISTRICT 28</i>	176	\$ 3,478,849	\$ 3,520,911
<i>DISTRICT 29</i>	410	\$ 8,001,863	\$ 8,085,768
<i>DISTRICT 30</i>	66	\$ 1,342,719	\$ 1,869,843
<i>DISTRICT 31</i>	80	\$ 1,541,835	\$ 1,561,847
<i>DISTRICT 32</i>	114	\$ 2,330,718	\$ 2,454,156

TABLE 4.2.	(continued)		
	<u>TOTAL EMPLOYMENT</u>	<u>TOTAL SALARIES & WAGES</u>	<u>TOTAL ECONOMIC IMPACT</u>
<i>HOUSE</i>			
<i>DISTRICT 33</i>	128	\$ 2,611,631	\$ 2,975,215
<i>DISTRICT 34</i>	118	\$ 2,425,849	\$ 2,554,326
<i>DISTRICT 35</i>	138	\$ 2,804,145	\$ 3,028,874
<i>DISTRICT 36</i>	139	\$ 2,843,518	\$ 3,126,320
<i>DISTRICT 37</i>	137	\$ 2,776,656	\$ 2,919,008
<i>DISTRICT 38</i>	134	\$ 2,710,545	\$ 2,849,508
<i>DISTRICT 39</i>	139	\$ 2,843,518	\$ 3,126,320
<i>DISTRICT 40</i>	139	\$ 2,843,518	\$ 3,126,320
<i>DISTRICT 41</i>	139	\$ 2,843,518	\$ 3,126,320
<i>DISTRICT 42</i>	138	\$ 2,768,320	\$ 3,742,821
<i>DISTRICT 43</i>	83	\$ 1,635,703	\$ 1,722,287
<i>DISTRICT 44</i>	538	\$ 10,385,308	\$ 11,182,199
<i>DISTRICT 45</i>	515	\$ 10,176,450	\$ 10,856,473
<i>DISTRICT 46</i>	855	\$ 18,149,751	\$ 22,806,902
<i>DISTRICT 47</i>	901	\$ 19,120,879	\$ 24,027,217
<i>DISTRICT 48</i>	889	\$ 18,868,967	\$ 23,699,473
<i>DISTRICT 49</i>	860	\$ 18,247,802	\$ 22,930,112
<i>DISTRICT 50</i>	855	\$ 18,161,312	\$ 22,821,430
<i>DISTRICT 51</i>	903	\$ 19,163,960	\$ 24,081,353
<i>DISTRICT 52</i>	735	\$ 14,853,394	\$ 16,974,470
<i>DISTRICT 53</i>	172	\$ 3,336,543	\$ 3,428,709
<i>DISTRICT 54</i>	520	\$ 10,366,747	\$ 11,028,011
<i>DISTRICT 55</i>	501	\$ 10,017,600	\$ 10,713,020
<i>DISTRICT 56</i>	158	\$ 3,250,205	\$ 3,488,520
<i>DISTRICT 57</i>	49	\$ 972,625	\$ 1,001,077
<i>DISTRICT 58</i>	180	\$ 3,517,539	\$ 3,555,134
<i>DISTRICT 59</i>	321	\$ 6,175,094	\$ 8,115,933
<i>DISTRICT 60</i>	319	\$ 6,285,773	\$ 7,509,099
<i>DISTRICT 61</i>	485	\$ 9,459,314	\$ 10,392,855
<i>DISTRICT 62</i>	55	\$ 1,095,332	\$ 1,751,860
<i>DISTRICT 63</i>	124	\$ 2,511,380	\$ 2,742,185
<i>DISTRICT 64</i>	124	\$ 2,515,147	\$ 2,746,299

TABLE 4.2.	(continued)		
	<u>TOTAL EMPLOYMENT</u>	<u>TOTAL SALARIES & WAGES</u>	<u>TOTAL ECONOMIC IMPACT</u>
<i>HOUSE</i>			
<i>DISTRICT 65</i>	123	\$ 2,487,442	\$ 2,716,048
<i>DISTRICT 66</i>	90	\$ 1,892,905	\$ 1,982,651
<i>DISTRICT 67</i>	90	\$ 1,892,905	\$ 1,982,651
<i>DISTRICT 68</i>	32	\$ 620,844	\$ 638,006
<i>DISTRICT 69</i>	108	\$ 2,183,865	\$ 2,281,576
<i>DISTRICT 70</i>	90	\$ 1,892,905	\$ 1,982,651
<i>DISTRICT 71</i>	150	\$ 3,065,852	\$ 3,284,701
<i>DISTRICT 72</i>	300	\$ 6,071,294	\$ 6,185,612
<i>DISTRICT 73</i>	369	\$ 7,417,051	\$ 9,372,874
<i>DISTRICT 74</i>	121	\$ 2,361,847	\$ 4,084,763
<i>DISTRICT 75</i>	159	\$ 3,206,770	\$ 3,386,185
<i>DISTRICT 76</i>	159	\$ 3,206,770	\$ 3,386,185
<i>DISTRICT 77</i>	159	\$ 3,206,770	\$ 3,386,185
<i>DISTRICT 78</i>	159	\$ 3,206,770	\$ 3,386,185
<i>DISTRICT 79</i>	159	\$ 3,206,770	\$ 3,386,185
<i>DISTRICT 80</i>	76	\$ 1,518,403	\$ 2,003,647
<i>DISTRICT 81</i>	23	\$ 450,527	\$ 477,933
<i>DISTRICT 82</i>	49	\$ 960,679	\$ 1,010,821
<i>DISTRICT 83</i>	89	\$ 1,845,446	\$ 2,431,626
<i>DISTRICT 84</i>	119	\$ 2,492,050	\$ 3,366,739
<i>DISTRICT 85</i>	150	\$ 2,944,075	\$ 3,020,724
<i>DISTRICT 86</i>	41	\$ 808,072	\$ 822,323
<i>DISTRICT 87</i>	44	\$ 868,417	\$ 890,127
<i>DISTRICT 88</i>	28	\$ 539,563	\$ 556,035
<i>DISTRICT 89</i>	90	\$ 1,892,905	\$ 1,982,651
<i>DISTRICT 90</i>	245	\$ 5,230,645	\$ 5,609,193
<i>DISTRICT 91</i>	250	\$ 5,333,958	\$ 5,719,983
<i>DISTRICT 92</i>	249	\$ 5,317,187	\$ 5,701,998
<i>DISTRICT 93</i>	249	\$ 5,311,782	\$ 5,696,202
<i>DISTRICT 94</i>	257	\$ 5,482,540	\$ 5,879,318
<i>DISTRICT 95</i>	248	\$ 5,294,519	\$ 5,677,690
<i>DISTRICT 96</i>	253	\$ 5,402,484	\$ 5,793,468

TABLE 4.2.	<i>(continued)</i>		
	<u>TOTAL EMPLOYMENT</u>	<u>TOTAL SALARIES & WAGES</u>	<u>TOTAL ECONOMIC IMPACT</u>
<i>HOUSE</i>			
<i>DISTRICT 97</i>	259	\$ 5,531,511	\$ 5,931,833
<i>DISTRICT 98</i>	252	\$ 5,374,674	\$ 5,763,645
<i>DISTRICT 99</i>	261	\$ 5,584,052	\$ 5,988,176
<i>DISTRICT 100</i>	87	\$ 1,864,985	\$ 3,188,607
<i>DISTRICT 101</i>	253	\$ 5,393,771	\$ 5,784,124
<i>DISTRICT 102</i>	87	\$ 1,864,904	\$ 3,188,468
<i>DISTRICT 103</i>	93	\$ 1,978,463	\$ 3,382,622
<i>DISTRICT 104</i>	94	\$ 1,999,712	\$ 3,418,952
<i>DISTRICT 105</i>	95	\$ 2,033,784	\$ 3,477,206
<i>DISTRICT 106</i>	120	\$ 2,430,487	\$ 2,653,858
<i>DISTRICT 107</i>	93	\$ 1,989,157	\$ 3,400,906
<i>DISTRICT 108</i>	89	\$ 1,889,173	\$ 3,229,962
<i>DISTRICT 109</i>	94	\$ 2,016,366	\$ 3,447,426
<i>DISTRICT 110</i>	91	\$ 1,938,650	\$ 3,314,554
<i>DISTRICT 111</i>	91	\$ 1,932,342	\$ 3,303,769
<i>DISTRICT 112</i>	91	\$ 1,933,361	\$ 3,305,511
<i>DISTRICT 113</i>	93	\$ 1,983,902	\$ 3,391,922
<i>DISTRICT 114</i>	93	\$ 1,994,457	\$ 3,409,969
<i>DISTRICT 115</i>	93	\$ 1,988,346	\$ 3,399,521
<i>DISTRICT 116</i>	432	\$ 9,175,636	\$ 10,132,446
<i>DISTRICT 117</i>	425	\$ 9,027,349	\$ 9,968,696
<i>DISTRICT 118</i>	414	\$ 8,799,595	\$ 9,717,192
<i>DISTRICT 119</i>	403	\$ 8,561,191	\$ 9,453,928
<i>DISTRICT 120</i>	441	\$ 9,371,978	\$ 10,349,262
<i>DISTRICT 121</i>	440	\$ 9,357,797	\$ 10,333,602
<i>DISTRICT 122</i>	441	\$ 9,374,761	\$ 10,352,335
<i>DISTRICT 123</i>	442	\$ 9,400,983	\$ 10,381,291
<i>DISTRICT 124</i>	440	\$ 9,353,944	\$ 10,329,348
<i>DISTRICT 125</i>	440	\$ 9,340,780	\$ 10,314,810
<i>DISTRICT 126</i>	162	\$ 3,391,389	\$ 3,574,537
<i>DISTRICT 127</i>	157	\$ 3,285,734	\$ 3,463,176
<i>DISTRICT 128</i>	165	\$ 3,450,799	\$ 3,637,155
<i>DISTRICT 129</i>	167	\$ 3,488,990	\$ 3,677,408
<i>DISTRICT 130</i>	168	\$ 3,517,142	\$ 3,707,081
<i>DISTRICT 131</i>	168	\$ 3,511,030	\$ 3,700,639

TABLE 4.2.	<i>(continued)</i>		
	<u>TOTAL EMPLOYMENT</u>	<u>TOTAL SALARIES & WAGES</u>	<u>TOTAL ECONOMIC IMPACT</u>
HOUSE			
<i>DISTRICT 132</i>	166	\$ 3,465,867	\$ 3,653,037
<i>DISTRICT 133</i>	165	\$ 3,434,369	\$ 3,619,838
<i>DISTRICT 134</i>	167	\$ 3,494,880	\$ 3,683,617
<i>DISTRICT 135</i>	165	\$ 3,454,826	\$ 3,641,400
<i>DISTRICT 136</i>	735	\$ 14,853,394	\$ 16,974,470
<i>DISTRICT 137</i>	164	\$ 3,427,917	\$ 3,613,037
<i>DISTRICT 138</i>	166	\$ 3,467,590	\$ 3,654,853
<i>DISTRICT 139</i>	169	\$ 3,521,169	\$ 3,711,326
<i>DISTRICT 140</i>	164	\$ 3,420,964	\$ 3,605,709
<i>DISTRICT 141</i>	160	\$ 3,336,127	\$ 3,516,291
<i>DISTRICT 142</i>	153	\$ 3,196,729	\$ 3,369,365
<i>DISTRICT 143</i>	160	\$ 3,350,494	\$ 3,531,433
<i>DISTRICT 144</i>	155	\$ 3,243,175	\$ 3,418,319
<i>DISTRICT 145</i>	158	\$ 3,297,576	\$ 3,475,657
<i>DISTRICT 146</i>	167	\$ 3,496,163	\$ 3,684,969
<i>DISTRICT 147</i>	169	\$ 3,523,974	\$ 3,714,282
<i>DISTRICT 148</i>	164	\$ 3,422,547	\$ 3,607,377
<i>DISTRICT 149</i>	164	\$ 3,420,363	\$ 3,605,075
<i>DISTRICT 150</i>	162	\$ 3,380,950	\$ 3,563,534
TOTALS	33,023	\$ 680,551,073	\$ 783,040,243

Note 1:

Total Employment is the number of employees who receive salary, wages, and other compensation from TMD and those in other businesses and organizations dependent upon TMD who receive salary, wages, and other compensation. These are the numbers **after** IMPLAN calculations.

Total Salaries and Wages (Income) is the amount of salary, wages, and other compensation received by TMD employees and the amount of salary, wages, and other compensation in other businesses and organizations dependent upon TMD. This is the amount **after** IMPLAN calculations.

Total Economic Impact is the amount of all spending (personnel, operations, capital projects) by TMD and the spending by other businesses and organizations that is due to TMD. This is the amount **after** IMPLAN calculations.

Note 2: Only whole numbers appear in this table. Many districts have fractional employees.

Appendix A

TABLE A.1. TEXAS COUNTIES WITH TOTAL EXPENDITURES/IMPACTS ABOVE \$5 MILLION, FY2015

		<u>TMD SPENDING /EXPENDITURES (EXPENDITURES DIRECT)</u>	<u>TOTAL ECONOMIC IMPACT</u>
<u>Rank</u>	<u>County</u>		
1	Travis	\$116,550,606	\$140,378,189
2	Bexar	81,633,056	101,332,912
3	Harris	73,238,445	86,429,119
4	Tarrant	50,936,910	63,545,630
5	Dallas	40,407,699	46,859,395
6	Williamson	38,045,399	43,524,281
7	Bell	18,171,778	20,601,961
8	El Paso	14,263,872	16,930,927
9	Galveston	13,995,812	15,896,131
10	Brazoria	13,056,941	14,438,872
11	Hidalgo	11,804,923	14,210,546
12	Fort Bend	11,524,632	13,040,410
13	Denton	9,432,360	10,858,390
14	Brazos	8,927,084	10,505,548
15	Hays	9,046,695	10,417,071
16	Bastrop	9,155,011	9,902,000
17	Guadalupe	8,625,252	9,279,279
18	Collin	7,456,306	9,012,050
19	Parker	7,600,117	8,350,778
20	Comal	6,301,331	7,235,250
21	Cameron	5,803,294	6,950,020
22	Coryell	6,448,509	6,889,978
23	Tom Green	4,928,805	5,866,720
24	Montgomery	5,023,368	5,750,301
25	Lubbock	4,642,594	5,611,231
26	Webb	4,871,309	5,586,301
27	Brown	4,539,741	5,153,505
28	Nueces	4,217,527	5,008,482

TMD Spending/Expenditures (Expenditures Direct) is the amount of spending by TMD for salary, wages, other compensation, fringe benefits, and for all other operational and capital projects.

Total Economic Impact is the amount of all spending (personnel, operations, capital projects) by TMD and the spending by other businesses and organizations that is due to TMD. This is the amount after IMPLAN calculations.

TABLE A.2. TEXAS SENATE DISTRICTS WITH TOTAL ECONOMIC IMPACT ABOVE \$25 MILLION AND TOTAL EMPLOYMENT ABOVE 1,000, FY2015

		<u>TOTAL ECONOMIC IMPACT</u>	<u>TOTAL EMPLOYMENT</u>
<u>Rank</u>	<u>Texas Senate</u>		
1	DISTRICT 14	\$114,141,234	4,306
2	DISTRICT 5	\$56,935,686	2,524
3	DISTRICT 25	\$55,600,655	2,345
4	DISTRICT 26	\$47,396,161	2,020
5	DISTRICT 24	\$46,540,135	2,026
6	DISTRICT 21	\$36,570,820	1,491
7	DISTRICT 19	\$36,138,884	1,510
8	DISTRICT 11	\$31,743,544	1,556
9	DISTRICT 10	\$29,230,990	1,276
10	DISTRICT 9	\$25,732,520	1,057

Total Economic Impact is the amount of all spending (personnel, operations, capital projects) by TMD and the spending by other businesses and organizations that is due to TMD. This is the amount **after** IMPLAN calculations.

Total Employment is the number of employees who receive salary, wages, and other compensation from TMD and those in other businesses and organizations dependent upon TMD who receive salary, wages, and other compensation. These are the numbers **after** IMPLAN calculations.

TABLE A.3. TEXAS HOUSE DISTRICTS WITH TOTAL ECONOMIC IMPACT ABOVE \$5 MILLION, FY2015

		<u>TOTAL ECONOMIC IMPACT</u>	<u>TOTAL EMPLOYMENT</u>
<u>Rank</u>	<u>Texas House</u>		
1	DISTRICT 51	\$24,081,353	903
2	DISTRICT 47	24,027,217	901
3	DISTRICT 48	23,699,473	889
4	DISTRICT 49	22,930,112	860
5	DISTRICT 50	22,821,430	855
6	DISTRICT 46	22,806,902	855
7	DISTRICT 52	16,974,470	735
8	DISTRICT 136	16,974,470	735
9	DISTRICT 17	11,930,975	502
10	DISTRICT 44	11,182,199	538
11	DISTRICT 54	11,028,011	520
12	DISTRICT 20	10,883,917	481
13	DISTRICT 45	10,856,473	515
14	DISTRICT 55	10,713,020	501
15	DISTRICT 61	10,392,855	485
16	DISTRICT 123	10,381,291	442
17	DISTRICT 122	10,352,335	441
18	DISTRICT 120	10,349,262	441
19	DISTRICT 121	10,333,602	440
20	DISTRICT 124	10,329,348	440
21	DISTRICT 125	10,314,810	440
22	DISTRICT 116	10,132,446	432
23	DISTRICT 117	9,968,696	425
24	DISTRICT 118	9,717,192	414
25	DISTRICT 119	9,453,928	403
26	DISTRICT 73	9,372,874	369

Cont.

		<u>TOTAL ECONOMIC IMPACT</u>	<u>TOTAL EMPLOYMENT</u>
<u>Rank</u>	<u>Texas House</u>		
27	DISTRICT 24	\$8,901,834	440
28	DISTRICT 14	8,824,661	419
29	DISTRICT 59	8,115,933	321
30	DISTRICT 29	8,085,768	410
31	DISTRICT 60	7,509,099	319
32	DISTRICT 23	7,234,137	358
33	DISTRICT 25	6,472,015	328
34	DISTRICT 72	6,185,612	300
35	DISTRICT 99	5,988,176	261
36	DISTRICT 97	5,931,833	259
37	DISTRICT 94	5,879,318	257
38	DISTRICT 96	5,793,468	253
39	DISTRICT 101	5,784,124	253
40	DISTRICT 98	5,763,645	252
41	DISTRICT 13	5,744,086	67
42	DISTRICT 91	5,719,983	250
43	DISTRICT 92	5,701,998	249
44	DISTRICT 93	5,696,202	249
45	DISTRICT 95	5,677,690	248
46	DISTRICT 90	5,609,193	245

Total Economic Impact is the amount of all spending (personnel, operations, capital projects) by TMD and the spending by other businesses and organizations that is due to TMD. This is the amount **after** IMPLAN calculations.

Total Employment is the number of employees who receive salary, wages, and other compensation from TMD and those in other businesses and organizations dependent upon TMD who receive salary, wages, and other compensation. These are the numbers **after** IMPLAN calculations.

Appendix B

Overview and Example of Economic Impact Analysis

There is an economic ripple effect from spending by public organizations and private companies. This ripple effect can be positive or negative depending on whether an economic entity is expanding or contracting. This study estimates the economic ripple effects using the IMPLAN input-output model. Results are categorized in terms of direct, indirect, and induced impacts on total output.

As an example, consider Camp Mabry in Austin. The organization employs executive management, administrative personnel, specialists in various fields, support staff, and other personnel for its operations. In addition, the organization spends on goods and services to support its operations, leading to auxiliary jobs in the community in transportation, real estate, utilities, retail goods, and so on. Direct spending is the sum of expenditures by all units at Camp Mabry. Direct labor income is that amount of expenditures devoted to salary, wages, fringe benefits, incentives, and other types of pay for TMD employees. When Camp Mabry performs transactions with other organizations and businesses, those amounts are categorized as indirect—they are in the Camp Mabry supply chain.

In addition, Camp Mabry employees (and suppliers' employees) spend their earnings on goods and services in their communities, leading to jobs in retail, entertainment, and so on—these impacts from spending by individuals and households (not businesses) are categorized as induced impacts.

An economic multiplier quantifies the size of this ripple effect of economic activity. Multipliers sometimes are separately enumerated for estimating the indirect impacts (indirect employment, indirect labor income, indirect output) and for estimating the induced impacts. Other times, multipliers are stated for total impacts. In both instances, multipliers are static for a period of time and are usually updated annually. This model uses IMPLAN multipliers for the State of Texas as a whole and for each of the individual counties in Texas.

To summarize:

The total economic impact (total output) is comprised of the direct, indirect, and induced impacts from TMD economic activities.

Direct impacts result from expenditures associated with constructing and operating the Texas Military Department—employee salaries and wages, materials and supplies, capital.

Indirect impacts result from the suppliers/businesses to TMD purchasing goods and services and hiring workers to meet demand. These “second round” impacts would not occur but for purchases by TMD.

Induced impacts result from the employees of TMD and employees of suppliers purchasing goods and services at a household level.

Appendix C

Performing Organization: The Bureau of Business Research, IC² Institute, The University of Texas at Austin

The Bureau of Business Research (BBR) was established in 1926 to provide small business owners and policymakers with applied economic research and data to strengthen the state's business environment. Throughout its history, the Bureau and its work has been characterized by objectivity and independence. The IC² Institute was established in 1977 with the vision that science and technology are resources for economic development and enterprise growth. In addition to the BBR, the Institute oversees programs that include the Austin Technology Incubator, the Global Commercialization Group, and numerous educational and training initiatives, economic assessments, and program evaluations.

Project Staff

Dr. James Jarrett, Senior Research Scientist, The Bureau of Business Research, served as the principal investigator. Brian Lewandowski, Associate Director, Business Research Division, Leeds School of Business, University of Colorado Boulder, served as the senior researcher. The research was performed in 2016.