The Economic Impact of Texas A&M University-Corpus Christi on the Local Community, the Coastal Bend Region, and the State of Texas

2014 Update

Prepared by:

Jim Lee
Regents Professor of Economics
jim.lee@TAMU-CC.edu

College of Business
EDA University Center

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TEXAS A&M UNIVERSITY CORPUS CHRISTI | COLLEGE OF BUSINESS

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KEY POINTS

Texas A&M University-Corpus Christi continues to play a vital role in the social and economic vitality of the South Texas region. With a steadily growing student body, the University has continued to improve its infrastructure and expand its capacity. Its contributions also extend throughout the state of Texas and the rest of the world. This 2014 summary report updates the extent to which the Island University enriches the community with additional business and economic activity, income earnings, and employment. In addition to being an economic engine and meeting the specific workforce needs of the local economy, the University acts as a channel for the infusion of financial resources from the federal government through its research activities.

Economic Impact on the Corpus Christi Metro Area by the Number:

Texas A&M University-Corpus Christi is an economic engine, contributing income and jobs to the Corpus Christi metropolitan area.

The direct economic benefit to Corpus Christi is $136,583,290 annually.

- The direct benefit of Texas A&M University-Corpus Christi to the economy of Corpus Christi is estimated at $136.6 million per year. This benefit is associated with $181 million in total direct spending, in which $56 million comes from the University's operation expenses and capital investment, $83 million from students, $39 million from University employees, and $2.3 million from visitors to the University. A total of $44.4 million in direct spending goes to entities outside of Corpus Christi.

The total benefit to Corpus Christi is $237,454,829 annually.

- The total benefit of Texas A&M University-Corpus Christi to the economy of Corpus Christi is estimated at $237.4 million annually. This includes $136.6 million from University-related expenditures that is directly injected into the Corpus Christi economy, along with secondary effects that total $101 million. The total impact on local economic activity generates $200 million in income among local households.

The employment benefit to Corpus Christi is 4,826 full-time-equivalent jobs.

- Texas A&M University-Corpus Christi boosts employment in Corpus Christi by a total of 4,826 full-time-equivalent job positions. Excluding student workers, 2,776 Corpus Christi residents are directly employed through the University, and another 2,050 jobs are created as a result of economic activity related to the University.

The total earning power of Corpus Christi residents increases by $897,132,855 annually.

- In addition to serving local workforce needs, a degree from Texas A&M University-Corpus Christi produces a significant boost to its graduates' lifetime earnings. Based on the gains in earning streams from a university education, the University's contribution to additional lifetime earnings of Corpus Christi residents is estimated at $897 million annually.

Through its research activities, the University channels over $6 million annually from the federal government to Corpus Christi.

Economic Impact on the Coastal Bend Region by the Number:

Texas A&M University-Corpus Christi is a significant source of income and employment in the Coastal Bend region of South Texas.

The direct economic benefit to the Coastal Bend is $144,877,528 annually.

- The direct benefit of Texas A&M University-Corpus Christi to the Coastal Bend economy is estimated at $144.9 million per year. This benefit is associated with $181 million in total direct spending, in which $56 million comes from the University's operation expenses and capital investment, $83 million from students, $39 million from University employees, and $2.3 million from visitors to the University. A total of $36.1 million in direct spending goes to entities outside of the Coastal Bend.

The total benefit to the Coastal Bend is $259,031,458 annually.

- The total benefit of Texas A&M University-Corpus Christi to the Coastal Bend economy is estimated at $259 million annually. This includes $144.9 million from University-related expenditures that is directly injected into the Coastal Bend economy, along with secondary effects that total $114.2 million. The total impact on regional economic activity generates $215.3 million in income among households in the region.

The employment benefit to the Coastal Bend is 5,344 full-time-equivalent jobs.

- Texas A&M University-Corpus Christi boosts employment to the Coastal Bend by a total of 5,344 full-time-equivalent job positions. Excluding student workers, 2,945 Coastal Bend residents are directly employed through the University, and another 2,399 jobs are created as a result of economic activity related to the University.

The total earning power of Coastal Bend residents increases by $1,076,559,426 annually.

- In addition to serving regional workforce needs, a degree from Texas A&M University-Corpus Christi produces a significant boost to its graduates' lifetime earnings. Based on the gains in earning streams from a university education, the University's contribution to additional lifetime earnings of Coastal Bend residents is estimated at $1.1 billion annually.

Through its research activities, the University channels over $6 million annually from the federal government to the Coastal Bend.

Economic Impact on the State of Texas by the Number:

For each dollar of state appropriated funds, Texas A&M University-Corpus Christi generates $7 in economic activity across Texas communities.

The direct economic benefit to Texas is $181,096,910 annually.

- The direct benefit of Texas A&M University-Corpus Christi to the Texas economy is estimated at $181 million per year. This benefit is associated with $181 million in total direct spending, in which $56 million comes from the University's operation expenses and capital investment, $83 million from students, $39 million from University employees, and $2.3 million from visitors to the University.

The total benefit to Texas is $409,925,351 annually.

- The total benefit of Texas A&M University-Corpus Christi to the Texas economy is estimated at $410 million annually. This includes $181 million from University-related expenditures that is directly injected into the Texas economy, along with secondary effects equal to $228.8 million. The total economic impact generates $307 million in income among households in Texas.

The employment benefit to Texas is 7,268 full-time-equivalent jobs.

- Texas A&M University-Corpus Christi boosts employment in Texas by a total of 7,268 full-time-equivalent job positions. Excluding student workers, 3,681 Texas residents are directly employed through the University and another 3,587 jobs are created as a result of economic activity related to the University.

The total earning power of Texas residents increases by $1,411,051,781 annually.

- In addition to serving regional workforce needs, a degree from Texas A&M University-Corpus Christi produces a significant boost in its graduates' lifetime earnings. Based on the gains in earning streams from a university education, the University's contribution to additional lifetime earnings of Texas residents is estimated at $1.4 billion annually.

Through its research activities, the University channels over $6 million annually from the federal government to Texas.

I. INTRODUCTION

This economic report serves as an update to the original study by Dr. John Richards at the former Office of Planning and Institutional Effectiveness in 2003. Previous updates were completed in 2006, 2009, 2011, and 2012. The University community has continued to grow since 2012. This document presents the most recently available data and quantitative analyses that build on one particular report in the series titled *An Engine of Community Change*—"Business and the Economy." Historical evidence confirms that Texas A&M University-Corpus Christi (TAMU-CC) not only has played an increasingly vital role in the local economy, but its economic contributions have also extended throughout the rest of Texas and beyond. This study highlights the economic benefits of the University to the local community of Corpus Christi, the Coastal Bend region in South Texas, as well as the state of Texas.

II. DIRECT ECONOMIC IMPACTS

The Role of the University

Texas A&M University-Corpus Christi plays two key economic roles in the regional community. First, the University acts as a publicly supported institution that channels state tax dollars and other funds to businesses and households in the community. Second, the University benefits the regional economy through spending on goods and services in order to sustain its operation and through spending on its capital development activity.

The total revenues of the University budget in FY 2014 are $174 million (Table 1).[1] The University's revenues have grown steadily at approximately 3% during the past three fiscal years. In particular, state appropriations have increased after a sharp reduction in FY 2011. Instead of state funding, tuition and fees—over $77 million in FY 2014—have continued to be the dominant source of revenues. The University also benefits from the support of donors, who contribute an estimated total of $4 million in gifts during FY 2014. The University also receives over $20,000 in Student Financial Assistance.

Table 1. Sources of Revenues, Thousands of Dollars.

Source	FY 2012	FY 2013	FY 2014
State Appropriations	47,165	49,113	53,366
Higher Education Fund	7,139	7,139	7,139
Tuition and Fees (Gross)	71,675	76,250	77,621
Contracts and Grants	36,838	17,849	18,930
Student Financial Assistance	--	18,521	20,393
Gifts	4,843	4,752	3,925
Sales and Services	7,799	6,154	5,106
Investment Income	3,901	4,242	2,679
Other Income	1,121	453	347
Discounts	(15,777)	(15,250)	(15,666)
Total Revenues	164,704	169,223	173,840

Source: Texas A&M University System.

[1] A Fiscal Year (FY) ends in August of the given year. Figures for FY 2014 are budget instead of actual data.

The other side of the University operating budget is its expenditures (Table 2). For FY 2014, personnel costs, which include wages, salaries and benefits for faculty and staff, total $96 million, or 60% of the institution's total operating expenditures. The net amount of student aid is $19 million, which equals $35 million in the gross amount of scholarships and grants less an adjustment of $16 million in scholarship discounts. The University's operating budget also includes expenses for operations and maintenance, utilities and capital outlay. Including those expenses, the total budget is $159 million, an 8% increase from the previous fiscal year.

Table 2. Sources of Expenditures, Thousands of Dollars.

Source	FY 2012	FY 2013	FY 2014
Salaries - Faculty	30,237	30,500	34,093
Salaries - Non-Faculty	33,267	34,704	36,970
Wages	6,202	6,560	5,031
Benefits	15,253	16,390	19,942
Utilities	4,632	5,399	5,798
Scholarships	34,201	34,338	34,772
Discounts	(15,777)	(15,250)	(15,666)
Equipment (Capitalized)	2,679	4,975	7,124
Operations and Maintenance (Net)	29,807	29,952	31,403
Total Expenditures	140,501	147,568	159,467

Source: Texas A&M University System.

Other than its economic roles from the views of revenues and expenditures, the University benefits the community by channeling assistance from federal and state agencies to students. In addition to a total of $49 million in student loans, grants and scholarships during FY 2014, the University provides over $17 million in work study employment for students and $1.4 million in awards to student athletes (Table 3).

Table 3. Sources of Financial Aid, Thousands of Dollars.

Source	FY 2012	FY 2013	FY 2014
Scholarships/Grants	$26,135	$13,926	$27,267
Work Study/Employment	$16,289	$7,974	$17,584
Loans	$27,684	$13,888	$21,416
Athletic Awards	$1,728	$895	$1,419
Total Financial Aid	$71,836	$36,683	$67,686

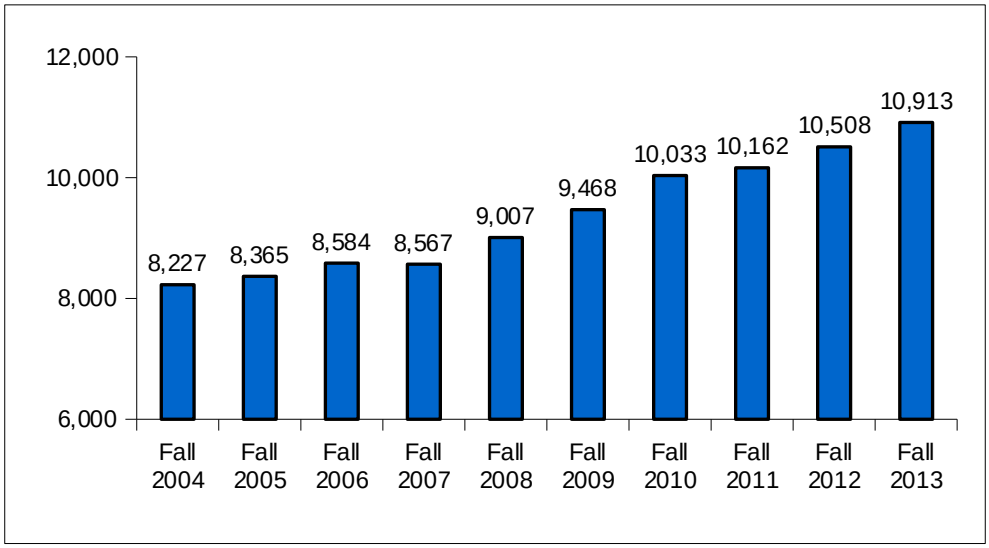
Source: Office of Planning and Institutional Research, TAMU-CC.

The Role of Students

The University serves the greater community by educating its students. Student enrollment has sustained at a steady growth rate in the past decade, reaching 10,913 in Fall 2013 (Chart 1). For the purposes of this study, students fall into one of three broad groups. The first group consists of "local" students, who would forgo a university education altogether absent this University. This means that these students would remain in the local community even if this University did not exist. An estimate of 2,370 students (23%) are considered "local."

The second group includes "retained" students, who would have gone to school elsewhere if this University did not exist. The third group belongs to so-called "imported" students, who live in Corpus Christi for the sole purpose of attending the University. An estimated total of 7,488 students (76%) belong to the latter two groups. As opposed to "local" students, spending by "retained" and "imported" students is attributable to the University.[2] Each of these students spent an estimated $10,597 in 2014. Together, these students incurred an estimated total of $79 million per year in Corpus Christi.

Chart 1. Student Enrollment.



Source: Office of Planning and Institutional Research, TAMU-CC.

The Role of University Employees

Faculty and staff are the backbone of the University. The University currently employs more than 400 full-time-equivalent (FTE) faculty positions. Together with staff and other employees, the University is directly responsible for 1,433 FTE job positions.

Each university employee spent an estimated total of $27,055 locally on average in 2013-14.[3] Together, university employees incurred over $40 million in expenses on local goods and services.

[2] Estimates of student expenditures exclude direct educational payments, such as tuition and fees. Figures are expressed in current dollars.
[3] Figures are expressed in current dollars.

Direct Spending

The University's economic contributions to its local community can be measured by all expenditures attributable to the presence of the University. The first measure is direct spending, which can be broken down into four areas (Table 4). The first area comes from the University's own operations, which totaled $40 million in 2013-14. The second source of spending comes from the University's "imported" and "retained" students, who purchased an estimated total of $83 million in local goods and services in 2013-14. The third source of spending comes from the University's direct employees, who spent an estimated total of $39 million in the same period. Together, the University's own operations, and its students and employees accounted for $162 million in spending on local goods and services. For each student, the University incurred total expenses equal to approximately $14,000, which includes its spending on wages and salaries, operations and maintenance that draw from local resources.

Visitors to the University contribute to the last source of spending. They include visitors to the campus for University events, and students' parents visiting them from out of town. In 2013-14, those visitors spent an estimated total of $2.3 million.[4] Including visitor spending, the estimated direct spending associated with the University was $165 million.

Table 4. Direct Spending, Thousands of Dollars, 2013-14.

Source	Amount
University Operations and Maintenance	$40,326
Students	$83,286
Employees	$38,764
Visitors	$2,349
Total Direct Spending	$164,725

Source: Office of Planning and Institutional Research, TAMU-CC; author's calculations.

Capital Investments

Capital development is an ongoing activity for the University. In addition to sustaining its current operation, the University has continued to expand with new buildings and facilities, and recently, a new campus off the Ward Island. The budget for major construction and capital development projects are treated separately from the University's annual operating budget. The University has adopted a long-term capital plan between 2015 and 2019, which provides a reasonably accurate picture of its progress in capital development. Because of the lengthy time between funding approvals and the eventual completion of construction projects, the estimate of annual spending on campus construction is calculated as an annual average over the FY2015 and FY 2019 time period (Table 5).

[4] *Ibid.*

Table 5. Capital Investments, Thousands of Dollars, FY 2015-19

Project (Approved/Proposed)	Amount
University Center Expansion	$28,465,000
New Dinning Hall	$8,000,000
Parking Garage - Island Campus	$25,000,000
Physical Plant Projects	$20,394,524
FY 2015-19 Total	$81,859,524
Annual Average	$16,371,904

Source: Texas A&M University System.

Since 2007, the University has completed the construction of the Dugan Wellness Center, the Island Hall building for Nursing, Health Sciences and Kinesiology, the Michael and Karen O'Connor Building for the College of Business, the Woo Sung Lee Alumni Welcome Center, a new parking garage, redevelopment projects at the Coastal Bend Business Innovation Center, and the initial development phase of the Momentum Campus. Major capital developments currently undertaken include the expansion of the University Center. Between FY 2015 and FY 2019, capital investments by the University would total $82 million, with an annual average of $16 million.

Including investment on capital development projects, spending directly associated with the presence of Texas A&M University-Corpus Christi totals $181 million annually. The University itself incurs a total of $56 million, in which operations and maintenance account for $40 million, and capital development investments account for $16 million.

III. TOTAL ECONOMIC IMPACTS

Effects on the Corpus Christi Metro Area

Local economic and business activity directly associated with the presence of the University represents its direct economic impact on the community. Out of its estimated total direct spending of $181 million on goods and services in 2013-14, an estimated total of $136 million (75%) was provided by local business vendors of the Corpus Christi metropolitan statistical area (MSA) in the form valued-added output.[5] The economic activity from these local businesses generated an estimated total income of $104 million among local households and 2,776 full-time-equivalent job positions within the Corpus Christi metro area (Table 6).[6]

[5] Corpus Christi is defined by the Metropolitan Statistical Area (MSA), which includes the counties of Nueces, San Patricio, and Aransas. Valued-added output represents the value of goods and services associated with the resources of the area.

[6] Estimates for the economic impact on income and jobs, as well as estimates for secondary impacts are calculated using the IMPLAN model built for the specified study areas.

Table 6. Economic Effects on Corpus Christi.

	Direct	Secondary	Total
University Total:			
Value-Added Output	$136,583,290	$100,871,540	$237,454,829
Income	$104,572,842	$95,396,704	$199,969,545
Employment	2,776	2,050	4,826
Per 1,000 Students:			
Value-Added Output	$12,998,029	$9,599,499	$22,597,528
Income	$9,951,736	$9,078,483	$19,030,219
Employment	264	195	459

Source: Author's calculations.

Spending directly associated with the University is only part of the total economic contributions. The direct effects of spending and income generate secondary or spin-off effects on the local community as well as the rest of the world. There are two types of secondary effects. One type of effects is called indirect effects, which capture the benefits to the businesses and households that provide goods and services to the University. Another type of effect is called induced effects, which represent the benefits to businesses and households as their income and spending increase due to the presence of the University.

Including these two types of secondary effects, the total economic impact on the Corpus Christi metro area is estimated to be $237 million. This total effect generated $200 million in local household income and created 4,826 jobs locally. Given this workforce impact, the University directly and indirectly accounts for approximately 3% of Corpus Christi area employment.

The total student enrollment at the University was 10,913 in Fall 2013. Per 1,000 students, the economic impact on Corpus Christi is an estimated $23 million in value-added output, $19 million in household income, and 459 jobs.

Effects on the Coastal Bend Region

Texas A&M University-Corpus Christi is a major higher-learning institution in South Texas. In addition to developing an educated workforce, the University is an engine of the regional economy in the 12-country region of the Coastal Bend.[7] The estimated total effect of the University on the regional economy is $259 million, which in turn generates $215 million in household income, and 5,344 full-time-equivalent job positions within the Coastal Bend (Table 7). Per 1,000 students, the economic impact on the Coastal Bend region is an estimated $25 million in value-added output, $20 million in household income, and 509 jobs.

[7] Following the Texas Workforce Commission, the Coastal Bend region consists of 12 counties: Aransas, Bee, Brooks, Duval, Jim Wells, Kenedy, Kleberg, Live Oak, McMullen, Nueces, Refugio, and San Patricio.

Table 7. Economic Effects on the Coastal Bend.

	Direct	Secondary	Total
University Total:			
Value-Added Output	$144,877,528	$114,153,930	$259,031,458
Income	$110,923,195	$104,364,232	$215,287,427
Employment	2,945	2,399	5,344
Per 1,000 Students:			
Value-Added Output	$13,787,355	$10,863,526	$24,650,881
Income	$10,556,071	$9,931,884	$20,487,955
Employment	280	228	509

Source: Author's calculations.

Effects on the State of Texas

The economic impact of Texas A&M University-Corpus Christi extends beyond the region of South Texas. Some of the effects can also be felt in other parts of world. Within the State of Texas, the University generates an estimated total impact of $410 million in economic activity, $307 million in household income, and 7,268 full-time-equivalent job positions (Table 8). Per 1,000 students, the economic impact on the state is an estimated $39 million in value-added output, $29 million in household income, and 692 jobs.

Table 8. Economic Effects on Texas.

	Direct	Secondary	Total
University Total:			
Value-Added Output	$181,096,910	$228,828,441	$409,925,351
Income	$138,653,993	$168,396,361	$307,050,354
Employment	3,681	3,587	7,268
Per 1,000 Students:			
Value-Added Output	$17,234,194	$21,776,593	$39,010,787
Income	$13,195,089	$16,025,539	$29,220,628
Employment	350	341	692

Source: Author's calculations.

Texas A&M University-Corpus Christi is a tax-assisted institution. In FY 2014, the University received $60 million in state appropriations and the Texas Higher Education fund, while it is projected to generate an economic impact of $410 million statewide. This means that for each dollar of state fund that the University received, the return on Texans was as much as $7.

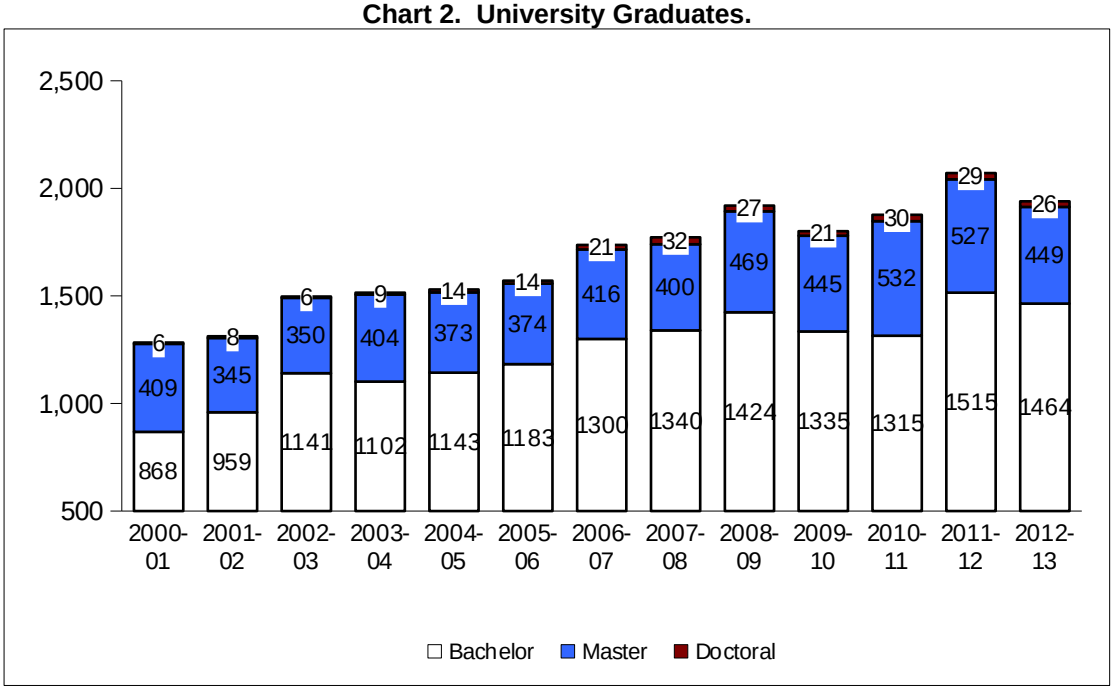
To summarize, the University generates an estimated total economic impact of $237 million on the economy of Corpus Christi, $259 million on the Coastal Bend, and $410 million on the state of Texas as a whole. For each 1,000 students, the estimated economic impact was $23 million for Corpus Christi, $25 million for the Coastal Bend, and $39 million for the state of Texas.

Effects on Earning Power

Texas A&M University-Corpus Christi contributes to the closing of local skill gaps in a broad range of occupations. At the individual level, the University provides educational services that boost the earning power of its graduates throughout their working life. According to the latest Census data, a graduate with a Bachelor's degree earns $10.3 per hour more on average than does a high school graduate.[8] This "wage premium" results in additional earnings of $856,960 in the graduate's working lifetime. Similarly, a Master's degree would boost a person's lifetime earning power by an additional $486,720; and a Doctorate degree, $578,240.

Between 2000 and 2013, the total number of University graduates grew over 50% to 1,939. The Bachelor's degrees increased approximately 70% over this period. The number of doctoral degrees also grew from 6 to 26.

Chart 2. University Graduates.



Source: Office of Planning and Institutional Research, TAMU-CC.

While the University serves the community by meeting the specific workforce needs of the local economy, it also facilitates the creation of high-paying jobs. As a result of the education and training from the University, a typical TAMU-CC graduate earned $24,519, or nearly 70%, more in the Coastal Bend than the rest of the local workforce in 2013-14.

The over 50 graduate and undergraduate programs at TAMU-CC equip students with skills that fill in-demand occupations. Some of the University's graduates have found

[8] Earning estimates in this section are based on 2010 U.S. Census data adjusted for inflation. Given the new $10,000 degree plan for the Texas State University System and the assumption of a typical 5% discount rate for the future, it would take less than *12 years* for TAMUCC graduates to fully recover the amount they pay in tuition, plus the amount their peers earn while they are at school. After the twelfth year, the degree will continue to pay dividends through the rest of the graduates' lives. For this calculation methodology, see Mary Daly and Leila Bengali, "Is It Still Worth Going to College?" Federal Reserve Bank of San Francisco, Economic Letter, May 5, 2014.

employment within the local community, while others have relocated elsewhere. Based on a recent alumni survey, approximately 60% of University alumni remain in the Corpus Christi metro area, and a great majority of other alumni reside in other parts of Texas. Given this breakdown and earning estimates for university graduates, the University contributed an estimated total gain of approximately $900 million in the lifetime earning power for the 2012-13 graduates who reside in Corpus Christi, $1.1 billion in the Coast Bend region, and over $1.4 billion in the state of Texas.

Table 9. Annual Earning Power Gains, 2012-13 Graduates.

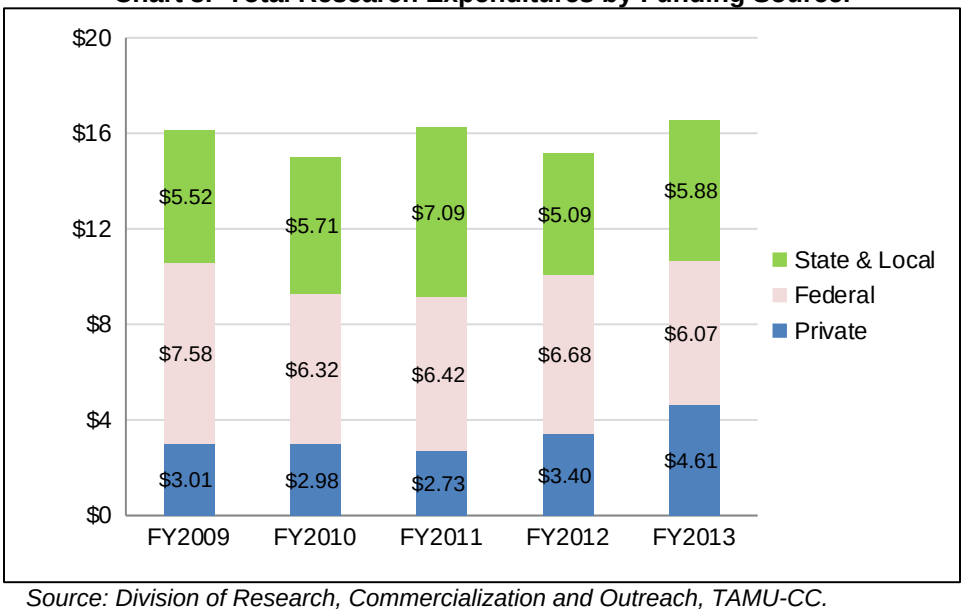
Area	Amount
Corpus Christi Metro Area	$897,132,855
Coastal Bend Region	$1,076,559,426
State of Texas	$1,411,051,781

Source: Author's calculations.

INFUSION OF FEDERAL RESOURCES

In addition to being an economic engine of its own, Texas A&M University-Corpus Christi acts as a channel for the infusion of federal funds into the local community. One key area that attracts external financial resources is research activity. University research grants are funded by federal, state and local governments, and private organizations. Between FY 2009 and FY 2013, the University incurred an average of $16 million per year in research expenditures (chart 3). Research funding from the federal government, the largest funding source, averaged at $6.6 million per year. This amount represents the direct financial benefits to the local community and the rest of Texas as a result of the University's research activity by its faculty and students.

Chart 3. Total Research Expenditures by Funding Source.



Source: Division of Research, Commercialization and Outreach, TAMU-CC.



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