

The Economic Impact of Texas A&M University-Corpus Christi On The Corpus Christi Metropolitan Statistical Area

1998 UPDATE

I. Purpose of the Study

A. An Update of Short Term Economic Impact

University enrollment rose by 17% between 1995 and 1998

Earlier, Texas A&M University-Corpus Christi (TAMU-CC) published an initial socioeconomic impact study. That study related TAMU-CC to its surrounding community, measured the University's total impact on the community, including the long-term impact caused by the University influence on community life. The study's analysis was based on Fiscal Year 1995, while the current study uses Fiscal Year 1998 (FY 1998) values. Over this time, University enrollment rose by approximately 17%, going from 5,152 students to over 6,000 in the fall of 1997. It is reasonable, therefore, to examine the current economic impact on the Corpus Christi community.

B. The Long Term Economic Impact

A university's long term impact involves more than dollars and jobs

This update is more limited in scope than the previous study. It only examines the short term, measurable economic impact of University operations on the Corpus Christi Metropolitan Statistical Area¹ (MSA) and illustrates the continuous growing economic importance of TAMU-CC throughout the decade of the 1990s. It does this by treating the University much as if it were a factory or a tourist attraction bringing new dollars into the community.

In this sense, it ignores the long-term economic impact of a University upon a community. This longer impact involves the University's influence on the lives of students and all others that come into contact with it. As people enrich their lives through education or other values gained from the University's existence, they profit both economically and

socially. As they are enabled to launch new, or enhance existing careers, they become more productive and higher earning citizens. In short, the long term economic impact of the University is the sum of the way it changes the lives of many people. This impact is difficult, if not impossible to measure, but it is much more important than that which is reported here.

II. TAMU-CC as an Economic Entity

A. Sources of Revenue

Fiscal year 1998 University revenues were over \$60 million

In fiscal year 1998, TAMU-CC generated total revenue amounting to \$60.2 million. Excluding tuition and fees paid for local students as well as local gifts and grants, the University receives 90% of its income from outside the Corpus Christi MSA. Figure 1 depicts the sources of revenue for Fiscal Year 1998².

Figure 1. Sources of Revenue, FY 1998

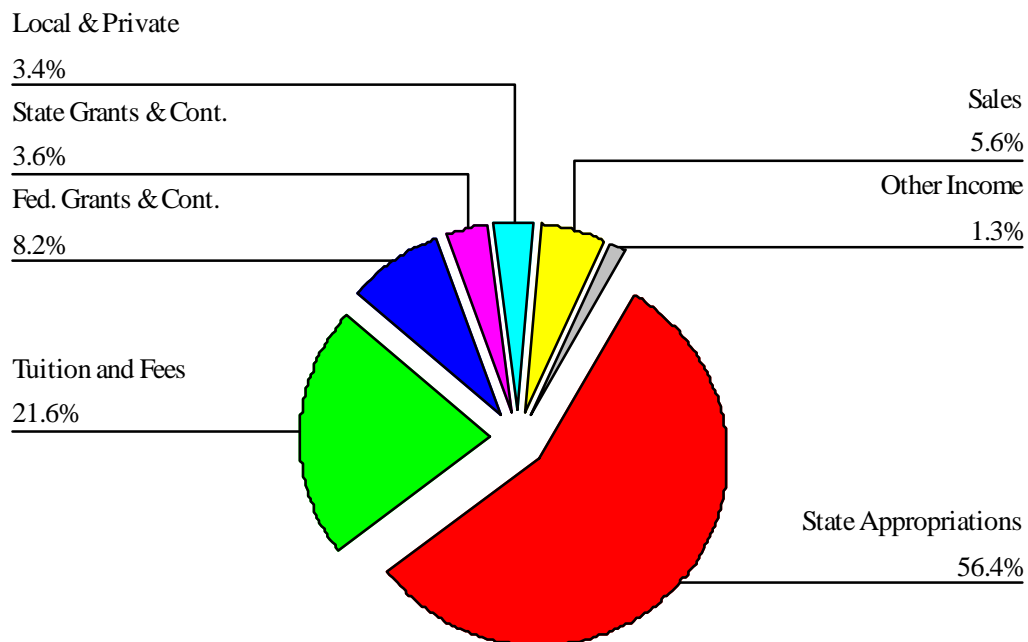


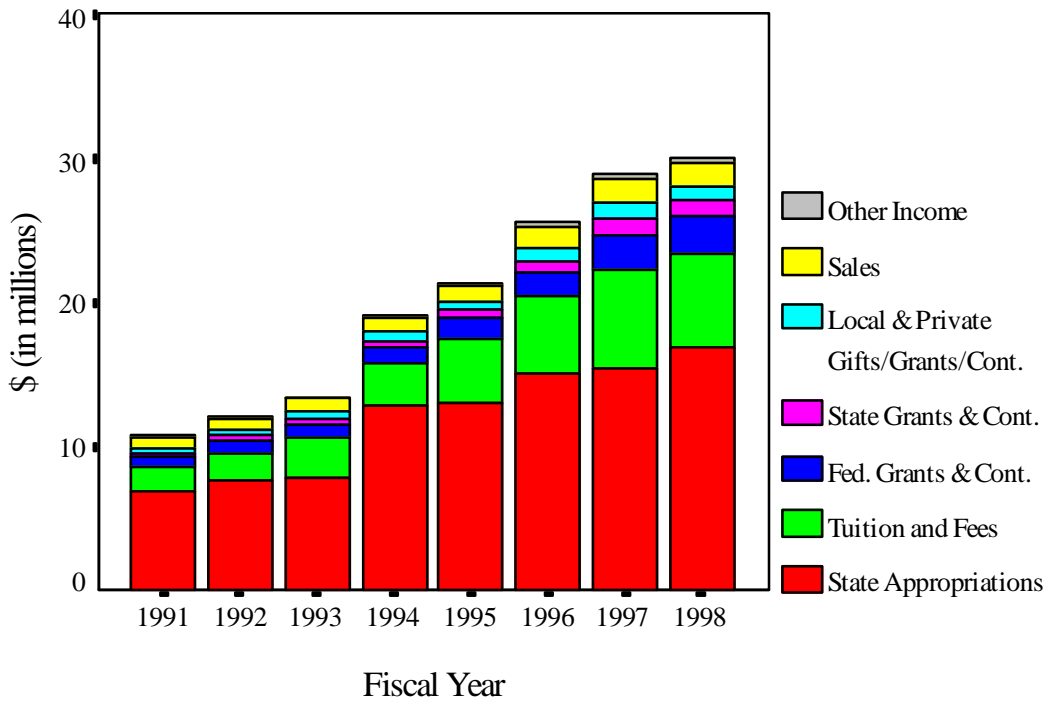
Figure 1 shows that the University receives most of its revenues from State Appropriations (Figure 1). However, it is significant to note in Figure 2 that since FY 1995 state appropriations fell from contributing 61% of total revenue to only 56%. During the same period, the portion of fees and tuition contributing to total revenue only increased by 1 percentage point. Thus, the University, albeit a state institution, relies proportionately less on state funds and only slightly more on student funds than three years ago. These relative changes in revenue are largely due to increases in private gifts

and income from sales of food, books and other student services operated by the university.

To continue this effort, in 1997, the University expanded the Office of Institutional Advancement to concentrate efforts on its capital campaign of \$15 million. Within the last year, until July 1998, the University, University Foundation, and the University Alumni Association received \$2.9 million in donations and \$850,000 in additional pledges. With the raised funds, the University plans to increase scholarship endowments, finance faculty enhancement programs, and enhance the Mary & Jeff Bell Library collection, among other projects.

Finally, it is important to note that revenue growth has accelerated since the University became a traditional four-year university in 1994. This leads to expectations that the University will become an even stronger economic force in the future.

Figure 2. Sources of Revenue, FY 1991 - FY 1998



B. Student Financial Aid

All financial aid rose by 99%, while scholarships were up 207%

The University has also underscored its economic importance during the last three years by doubling the amount of federal student loans it administers. Through federal loan programs, the University injected nearly \$ 12.7 million dollars into the regional economy in FY 1998. In FY 1995, the federal loan program amounted to \$5.9 million (see Table

1). This signifies a 116% percent increase in federal student loans disbursed between FY 1995 and FY 1998.

More importantly, the University substantially increased scholarship funds by committing fee income and securing additional private donations. Between FY 1995 and FY 1998, the dollar amount of scholarships awarded to qualified students tripled.

Table 1. Sources of Financial Aid, FY 1991 - FY 1998

Fisc. Yr.	Loans	Grants	Work Study	Scholarships	Total
1991	\$ 1,723,173	\$1,107,606	\$194,438	\$168,239	\$ 3,195,447
1992	\$ 1,885,451	\$1,250,191	\$169,984	\$136,866	\$ 3,444,484
1993	\$ 2,474,064	\$1,493,428	\$173,127	\$142,863	\$ 4,285,475
1994	\$ 3,827,819	\$1,631,789	\$186,040	\$121,418	\$ 5,769,060
1995	\$ 5,904,054	\$2,302,615	\$179,204	\$318,033	\$ 8,705,901
1996	\$ 6,887,856	\$2,587,448	\$181,983	\$334,978	\$ 9,994,261
1997	\$11,652,873	\$3,081,995	\$182,225	\$542,261	\$ 15,461,351
1998 ³	\$12,778,886	\$3,351,525	\$198,418	\$977,443	\$ 17,306,272

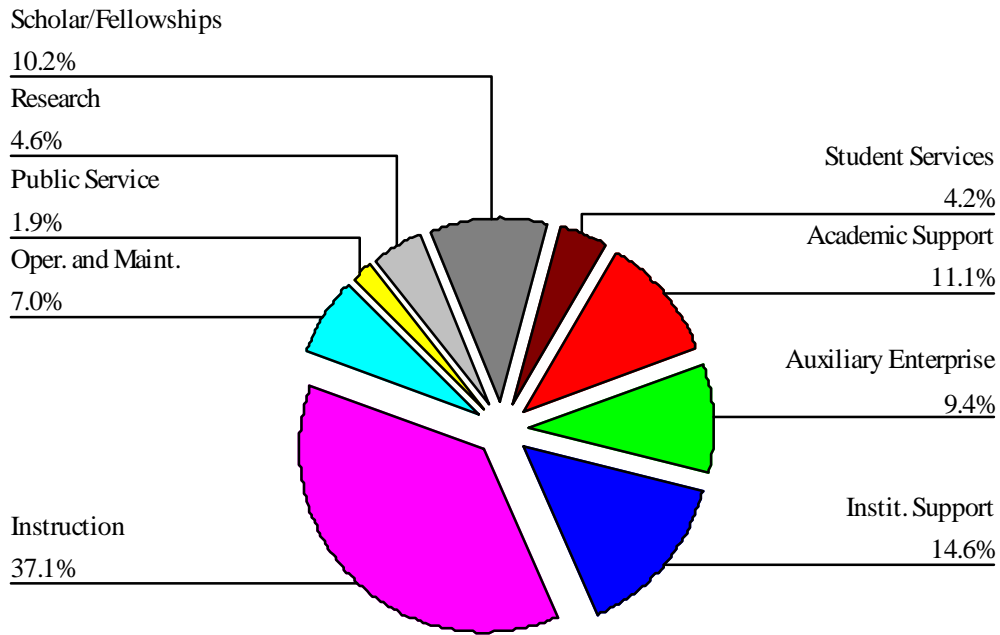
Source: TAMU-CC Office of Financial Aid, Unofficial Report, 1998

C. University Expenditures

University expenditures directly injected over \$50 million into the economy

Revenues reflect the sources of income for the University, but expenditures illustrate how money enters into the local economy. During FY 1998, the university operation expenditures amounted to \$53.4 million. The largest portion of operation expenditures, 37.1%, financed Instruction, followed by Institutional Support, and Scholarships and Fellowships.

Figure 3. Expenditure Categories excluding Construction, FY 1998⁴

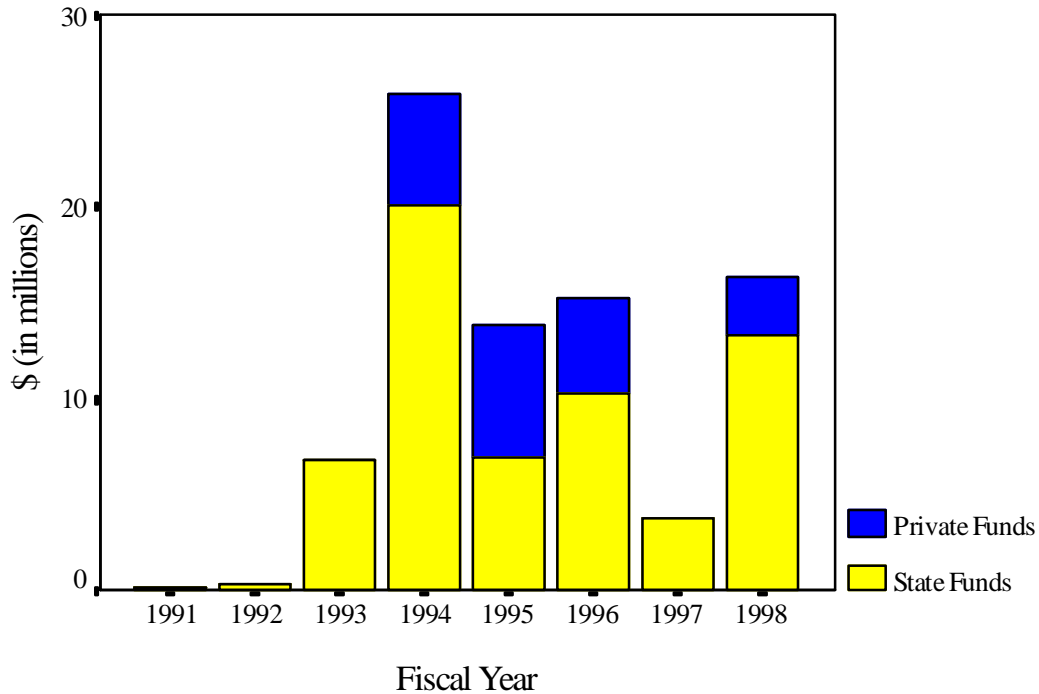


D. Construction; the Expansion of Physical Plant

Between 1993 and 1998, over \$82 million were spent on the physical plant

During FY 1993, the University started to prepare for an increase in its student population. Between FY 1993 and FY 1998, \$82 million dollars were spent on expanding the physical plant on campus. As shown in Figure 4, construction funding involves both state revenue and private funds spent for student housing⁵.

Figure 4. Total Construction by Source, FY 1991 - FY 1998⁶



Currently, the University is building a new University Center, increasing parking facilities, and upgrading equipment among other projects at a cost of \$13.4 million. Further, Camden Property Trust, the owner and managing company of the Miramar Apartments student housing, has invested \$3 million in expanding from current capacity to accommodate 750 students by the Fall of 1998. In addition, proposals for a Classroom Health/Science Center and a Performing Arts Auditorium have been approved for future construction and are scheduled to be finished during FY 2001. The University Center and the proposed projects are estimated to contribute \$28 million in construction expenditures to the local economy during the next three fiscal years.

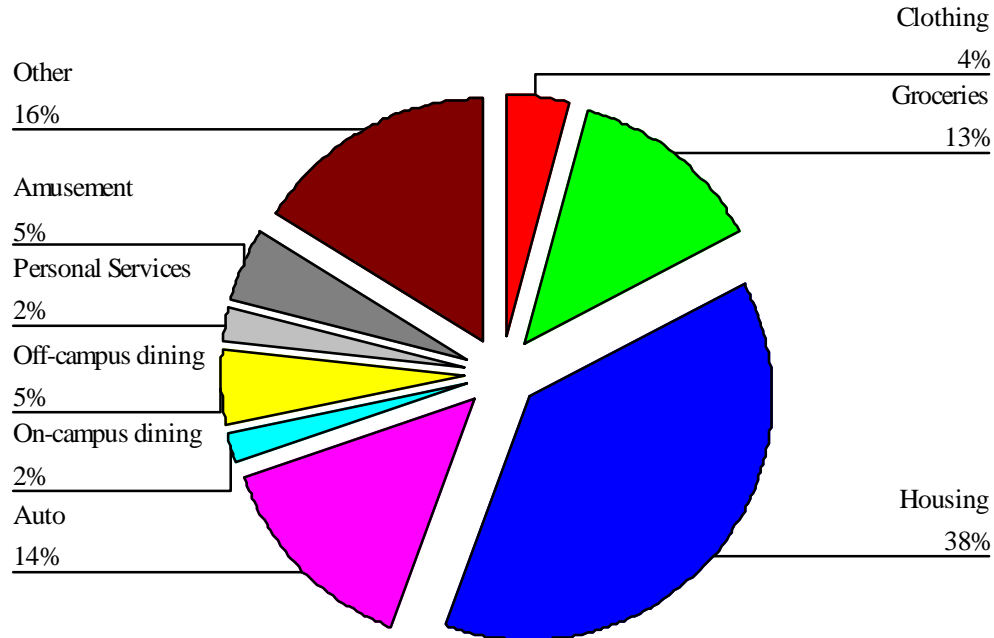
E. Student Spending and its Distribution

Student spending injects, or retains over \$ 31 million within the economy

Although TAMU-CC is a regional university, 26.4% of the student population⁷ reside in the area for the sole purpose of attending TAMU-CC. For the purpose of this study, these students are defined as “non-regional” students, since their spending brings new money into the community. In addition, 31.7% of the student population would have attended college and spent money elsewhere if TAMU-CC did not exist. These students are defined as “export” students, since without the university much of their spending would occur elsewhere. Together, these two student groups constitute 58.1% of the student population whose local spending is linked to the university.

A 1996 survey of TAMU-CC non-regional and export students indicated that the average expenditure, adjusted for inflation, was approximately \$8,870 per student⁸. This would amount to \$ 31,050,000 for FY 1998; up 22.7 % from the near \$24 million spent three years ago. In addition, Figure 5 categorizes the way students spent their money⁹.

**Figure 5. Total Student Impact Spending Categories
Annual Spending: \$ 31,050,000**



F. TAMU-CC Faculty & Staff Spending

University employees spend over \$22 million each year

In fiscal year 1998, the University employed 1,137 people and Miramar Apartments had 124 employees, for a total of 1,161 people¹⁰. Adjusting for part time employees, there is an equivalent of 920 full-time employees (FTE)¹¹. Within three years from the publication of the first economic impact study, the University increased its staff by approximately 220 people.

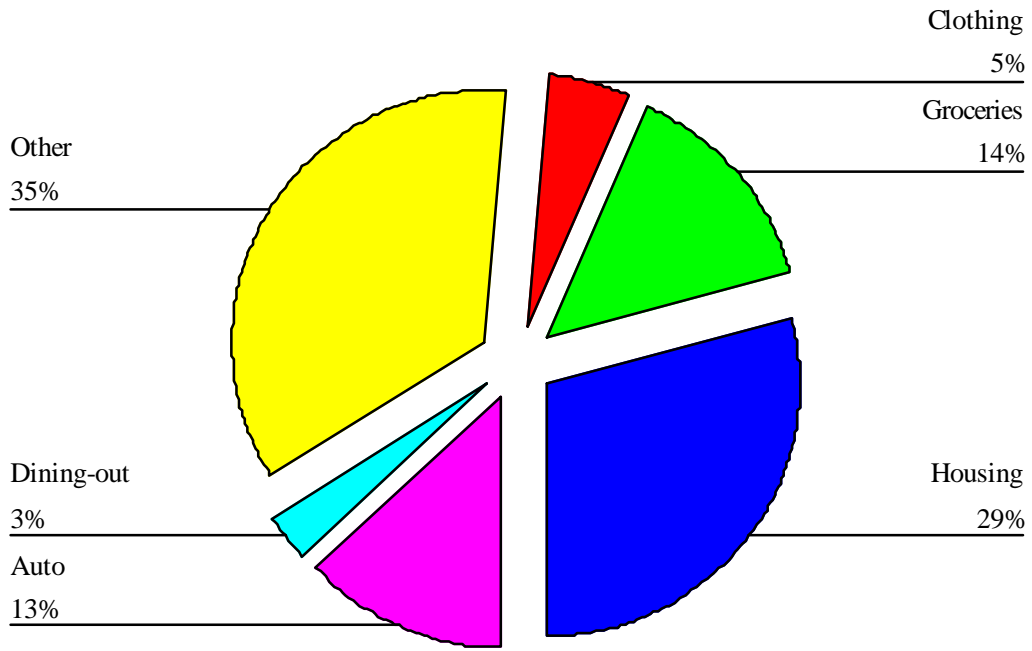
Table 2. Total Employment by Category, FY 1998

Employment Category	Headcount
Faculty (full-time)	208
Executive/Administrative/Managerial	51
Professional	139
Secretarial/Clerical	160
Technical/Paraprofessional	68
Skilled Craft	24
Service	82
Adjunct Faculty	99
Graduate Assistants	74
Work Study Students	256
Total	1,161

Source: BPP database, May 31, 1998 and Camden Property Trust Employment Documentation

The impact of spending by University employees is included in the analysis of University expenditures since wages and salaries are a major portion of those expenditures. The initial study did, however, display how employees spent their money. When adjusted for inflation, University employees are estimated to spend \$22,400,000 annually in the categories depicted in Figure 6¹². This is an increase of 19.6 percent over the estimated \$18 million of spending in 1995. Additionally, extrapolating from the 1996 faculty survey, faculty increased their income about \$1.2 million through consulting, royalties and similar sources¹³.

Figure 6. TAMU-CC Faculty and Staff Spending Impacts
Annual Spending: \$22,400,000



III. Total Economic Impact

A. The "Multiplier" Effect

As money passes from hand to hand it generates new personal income and jobs

The multiplier, sometimes called the “ripple” effect arises as money flows into an area from an outside source (or money that would otherwise have been spent outside the community) circulates, or ripples throughout the local economy. As this money is first spent it contributes to personal income and job creation. But, as all the recipients of spending also spend some of these funds, the ripple effect accounts for still more personal income and job growth. This effect continues until this money flows out of the community as it is spent on goods or services imported from outside the region.

The multiplier applies only to "new" funds flowing into a community. As they are spent and respent they continue to increase total spending. As money passes from hand to hand it creates jobs and provides personal income to many people. Thus, the final effect on personal income is some multiple of the original amount spent in the region.

B. Spending and Personal Income Impact

The University directly and indirectly generated over \$273 million in personal income

Direct University spending, from all sources, was \$70.8 million in 1998. Faculty as well as non-regional and full-time export students spent an additional \$32.2 million raising the total value of spending to \$103 million (see Table 3).

Table 3. Total University Related Spending, FY 1998 (in millions)

University Spending for Current Operation	\$ 53.4
Miramar Apartments (current operations)	\$ 0.6
NRC (current operations)	\$ 0.4
University State Funded Construction	\$ 13.4
Privately Funded Construction (Miramar Apartments)	\$ 3.0
Faculty, additional income	\$ 1.2
Non-regional Students	\$ 14.1
Export Students (full-time)	\$ 16.9
Total	\$ 103.0

The University's related spending of \$103 million, applying appropriate multipliers, generated \$273.5 million in personal income (see Table 4). This means that people living and working in the Corpus Christi MSA earn that much more in wages, salaries and profits because Texas A&M University-Corpus Christi exists.

This figure represents 3.5% of the estimated personal income of the entire metropolitan area¹⁴. Indeed, Texas A&M University-Corpus Christi is big business.

Table 4. Economic Impact of TAMU-CC, FY 1998

Expenditures	Spending	Spending less local Sources of Funds¹⁵	Multiplier¹⁶	Personal Income
University Operating Expenses ¹⁷	\$ 54.4	\$ 48.4	2.75	\$133.1
Construction ¹⁸	\$ 16.4	\$ 16.4	1.93	\$ 31.7
Faculty, additional Income	\$ 1.2	\$ 1.2	2.75	\$ 3.3
Students (non-regional and full-time export)	\$ 31.0	\$ 31.0	2.75	\$ 85.3
Federal Student Assistance for regional and part-time export Students ¹⁹	\$ 7.3	\$ 7.3	2.75	\$ 20.1
Total	\$110.3	\$104.3		\$273.5

C. Employment Impact

Almost 2,000 people owe their jobs to the University

As mentioned previously, the University employed 1,137 people during FY 1998. Including jobs generated through construction expenditures, the University related FTE employment amounts to 1,124 jobs. Applying the appropriate employment multipliers, nearly 2,000 people owe their job to the University (see Table 5).

Table 5. TAMU-CC Employment Impact

Category	University related FTE Employment	Multiplier²⁰	Induced Community Employees
Direct University Employees	907	1.73	1,569
Construction Employees ²¹	217	1.87	406
Total	1,124		1,975

D. Future Total Economic Impact

An increase of three students will add one job to the community

The current study is a snap shot of the economic contributions and impact of TAMU-CC during one fiscal year. Internal projections expect that student enrollment will be 8,958 students in September 2005²². If these projections are near accurate, the economic and social impact of the University will continue to increase in the future.

Table 6. University Related Averages per Student, FY 1998

Total University Related Spending	\$ 17,095 per student
Total Impact on Personal Income	\$ 45,394 per student
Total Community Employment	1 job for 3 students

Source: Internal Documentation

Assuming the student to expenditure ratios to remain constant (see Table 6), 1,000 new students would add \$ 17.1 million to total University related spending, \$ 45.4 million to local personal income and create 333 new jobs.

Extrapolating these ratios to the year 2005 and assuming enrollment to be at 8,958 students, TAMU-CC would increase its economic impact by 48.7 percent. Its University related spending (in current dollars) would top \$153 million and would account for \$406 million in personal income would reach \$ 406 million and 978 additional jobs. These figures indicate how growth for the University will translate into dollars and jobs for the local economy.

IV. Summary

Texas A & M-Corpus Christi has an important economic impact on the area

Table 7 summarizes the increased economic impact of Texas A&M University-Corpus Christi since a prior study three years ago.

Table 7. Summary of University Change, FY, 1995 to FY 1998
(monetary values in millions of dollars)

Item	FY 1995	FY 1998	Change	% Change
Student Enrollment	5,152	6,025	873	16.9%
Total Revenue	\$42.9	\$60.2	\$17.3	40.4%
-State Appropriations	\$26.2	\$34.0	\$ 7.8	29.8%
-Other	\$16.7	\$26.2	\$ 9.5	57.2%
Financial aid	\$ 8.7	\$17.3	\$ 8.6	98.8%
- Scholarships	\$.3	\$.9	\$.6	207.2%
- Other	\$ 8.4	\$16.3	\$ 7.9	94.7%
University expenditures	\$ 37.4	\$53.4	\$16.0	42.8%
FTE Employees	698	920	222	31.8%
Student Spending	\$24.2	\$31.1	\$ 6.9	28.5%
Total Personal Income Impact	\$199.0	\$273.5	\$74.5	37.4%
Total Employment Impact	1,550	1,975	425	27.4%

Due to a continuous increase in student enrollment and credit hour generation, the University received a larger allocation in state funds. The administration also continued to attract more private funds and increased institutional sales. This increase in revenues is reflected through increased spending on current operations. Further, due to a steady increase in student enrollment, construction expenditure reached \$16.4 million to provide new facilities. Thus, during FY 1998, the University and related economic entities injected \$103 million into the local economy. These expenditures translated into an economic impact of nearly \$275 million in increased personal income within the region.

200 people to 1,161 people also reflect the economic impact in the University's staff increase. Lastly, the University's expenditures and related expenditures created 2,000 jobs in the MSA of Corpus Christi during Fiscal Year 1998.

Endnotes

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- ¹ The Corpus Christi Metropolitan Statistical Area comprises Nueces and San Patricio counties.
- ² The revenue figures for FY 1998 were estimated as of July 1 by Kathy Funk-Baxter, Comptroller.
- ³ Figures for FY 1998 are estimations provided by Dolly Zeriali, Director of Office for Financial Assistance.
- ⁴ The expenditure figures for FY 1998 were estimated as of July 1 by Kathy Funk-Baxter, Comptroller.
- ⁵ Miramar Apartments are owned and operated by Camden Property Trust, a real estate company based in Houston.
- ⁶ Annual Financial Reports TAMU-CC and TAMU-S, 1991-1997; construction costs for Miramar Apartments provided by Camden Property Trust via TAMU-CC's Comptroller's Office; construction costs for NRC provided by Gary Lee Clendenin, GSC officer at TAMU-CC.
- ⁷ The percentage was assessed through the 1998 student survey. From the survey, three student groups were identified: Regional Students, Non-regional Students and Export Students. Regional Students are defined as students who are permanent residents of the region and who would not be able to get an education if it were not for TAMU-CC existing. Non-regional students are defined as students who are in the area solely for the purpose of attending the University. Export students are defined as students who are permanent residents of the region who would leave the region to attend another university if TAMU-CC were not here. For the purpose of the calculation of student spending, only Non-regional students and full-time export students are considered to inject additional money into the regional economy. Respondents of the 1998 student survey are classified as regional students if they indicated "No" in Question 6 "Would you have taken college courses outside of Corpus Christi if TAMU-CC had not been here". Regional Students amounted to 14.3% of the total student population. Respondents of the 1998 student survey are classified as non-regional students if they indicated "Yes" in Question 6 "Would you have taken college courses outside of Corpus Christi if TAMU-CC had not been here" and who indicated "Elsewhere in Texas" and "Outside of Texas" as their permanent residence in Question 1. Non-Regional Students amounted to 26.4% of the total student population. Respondents of the 1998 student survey are classified as Export Students if they indicated "Yes" in Question 6 "Would you have taken college courses outside of Corpus Christi if TAMU-CC had not been here" and who indicated "Nueces or San Patricio County" as their permanent residence in Question 1. Additionally, assuming the distribution between full-time and part-time students to be homogeneous among the three classified student groups, full-time export students and part-time export students amounted to 31.7% and 27.5% of the total student population, respectively.
- ⁸ According to the Bureau of Labor Statistics ([ftp://146.142.4.23/pub/special requests/cpi.txt](ftp://146.142.4.23/pub/special%20requests/cpi.txt)), the CPI for 1996, 1997 and 1998 measured during the month of May was 2.69%, 2.3% and 1.77%, respectively.
- ⁹ It is assumed that student spending behavior has not changed significantly since 1996. The 1996 student spending was assessed through a survey administered by the Center for Statistical and Quality Improvement Services, TAMU-CC. Details of the survey are documented in the 1996 "Study of the Socioeconomic Impact of Texas A&M University-Corpus Christi on the Corpus Christi MSA", Appendix A.
- ¹⁰ Budgeted Personnel and Payroll (BPP) DataBase dated 5/31/98 and Camden Property Trust documentation provided by the Comptroller's office.
- ¹¹ FTE State Employee Quarterly Report ending May 31, 1998, Texas A&M University System, Budget/Payroll/Personnel System.
- ¹² It is assumed that faculty/staff spending behavior has not changed significantly since 1996. The 1996 faculty/staff spending was assessed through a survey administered by the Center for Statistical and Quality Improvement Services, TAMU-CC. Details of the survey are documented in the 1996 "Study of the Socioeconomic Impact of Texas A&M University-Corpus Christi on the Corpus Christi MSA", Appendix A.
- ¹³ see endnote 12 and 9.
- ¹⁴ According to the Bureau of Economic Analysis, the MSA of Corpus Christi's personal income in 1996 was \$6,526 million. Adjusted for inflation and a 4% job growth in the MSA, this amounts to \$7,888 million in 1998. (http://www.bea.doc.gov/remd2/svy_msa.htm).

¹⁵ As noted above 41.9% of all students were identified to be regional or part-time export students. Thus, their payment of tuition and fees is not considered extra money entering the local economy. These students' tuition and fees amount to \$5.5 million. Under the same specification falls local grants and gifts which amount to \$.5 million.

¹⁶ All multipliers used in this analysis are from an unpublished input-output study for the Corpus Christi Metropolitan Statistical Area conducted by Dr. Lonnie Jones of the Department of Agricultural Economics at Texas A&M University. This study followed the "IMPLAN" model developed at the University of Minnesota; see: "Input-Output Model for Planning and Analysis", University of Minnesota, 1992.

¹⁷ This includes the operating expenses for the University, the NRC, and Miramar Apartments.

¹⁸ This includes all state and privately funded construction.

¹⁹ Federal Student Assistance granted to part-time export students and regional students constitutes new money for the regional economy.

²⁰ see endnote 16.

²¹ The number of construction employees is calculated by using the direct employment multiplier of 13.2568 per million dollars spent for construction.

²² Internal Report, Office of Planning and Institutional Effectiveness, Texas A&M University-Corpus Christi.