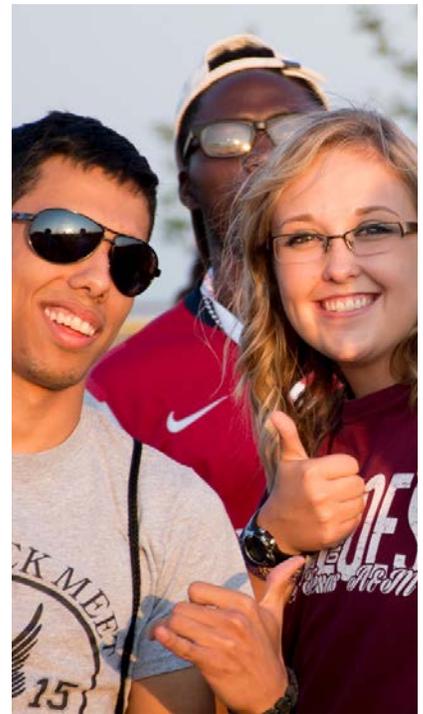




The Economic Value of Harrington
Academic Hall WTAMU Amarillo Center

EXECUTIVE SUMMARY

THE Harrington Academic Hall West Texas A&M University Amarillo Center (WTAMU Amarillo Center) started serving students in 2008 in a rented space. In the spring of 2019, the center relocated to a permanent campus, allowing the center to double its student enrollment to a projected 879 students in FY 2019-20. The following analysis estimates the projected economic value of WTAMU Amarillo Center for fiscal year (FY) 2019-2020, the year following the opening of the permanent campus. The center will play a key role in helping students increase their employability and achieve their individual potential through select upper-level classes and graduate courses. Located in the heart of Amarillo, the center will draw visitors and students to the region through a variety of academic and cultural events, generating new dollars and opportunities for the Amarillo Area.¹ WTAMU Amarillo Center will provide students with the education, training, and skills they need to have fulfilling and prosperous careers. Furthermore, WTAMU Amarillo Center will be a place for students to meet new people, increase their self-confidence, and promote their overall health and well-being.



WTAMU Amarillo Center will influence both the lives of its students and the regional economy. The center will support a variety of industries in the Amarillo Area, serve regional businesses, and benefit society as a whole in Texas from an expanded economy and improved quality of life. The benefits created by the WTAMU Amarillo Center will even extend to the state and local government through increased tax revenues and public sector savings.

*The value of WTAMU Amarillo Center will influence both the **lives of its students** and the **regional economy**.*

This study measures the projected economic impacts created by the WTAMU Amarillo Center program expansion at its new location for FY 2019-20 on the business community. The study also measures the benefits the center will generate in return for the investments made by its key stakeholder groups—students, taxpayers, and society. The following two analyses are presented:



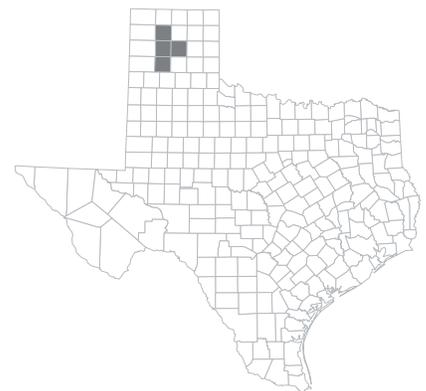
Economic impact analysis



Investment analysis

All results reflect projected employee, student, and financial data, estimated by the university and Emsi, for FY 2019-20. Projected impacts on the Amarillo Area economy are reported under the economic impact analysis and are measured in terms of added income. The returns on investment to students, taxpayers, and society in Texas are reported under the investment analysis.

THE AMARILLO AREA



¹ For the purposes of this analysis, the Amarillo Area is defined as the following four counties: Carson, Moore, Potter, and Randall.



Economic impact analysis

This analysis measures the projected economic value from the permanent building and program expansion of the WTAMU Amarillo Center on the Amarillo Area in FY 2019-20. WTAMU Amarillo Center will expand the number of graduate and undergraduate students it serves. This expansion will increase direct expenditures and the resulting expenditures of operations, visitors, students, and regional businesses. The center will serve as an employer and buyer of goods and services for its day-to-day operations. Numerous start-up companies have and will continue to form as a result of programs and knowledge at WTAMU Amarillo Center. The center's reputation and activities will attract visitors and students from outside the Amarillo Area, whose expenditures benefit regional vendors. In addition, WTAMU Amarillo Center will be a primary source of higher education to the Amarillo Area residents and a supplier of trained workers to regional industries, enhancing overall productivity in the regional workforce.

Operations Spending Impact



WTAMU Amarillo Center will add economic value to the Amarillo Area as an employer of regional residents and a large-scale buyer of goods and services. In FY 2019-20, the center expects to employ 70 full-time and part-time faculty and staff, all of whom will reside in the Amarillo Area. Total payroll at WTAMU Amarillo Center is estimated to be \$968.5 thousand, much of which will be spent in the region for groceries, mortgage and rent payments, dining out, and other household expenses. In addition, the center will spend \$1.7 million on day-to-day expenses related to facilities, supplies, and professional services.

WTAMU Amarillo Center's day-to-day operations spending will add \$1.9 million in income to the region in FY 2019-20. This figure represents the center's payroll, the multiplier effects generated by the in-region spending of the center and its employees, and a downward adjustment to account for funding that the center received from regional sources. The \$1.9 million in added income is equivalent to supporting 80 jobs in the region.

Start-up Company Impact



WTAMU Amarillo Center creates an exceptional environment that fosters innovation and entrepreneurship, evidenced by the number of WTAMU Amarillo Center start-up companies created in the region. Start-up companies are created specifically to license and commercialize

PROJECTED IMPACTS CREATED
BY WTAMU AMARILLO CENTER
IN FY 2019-20



\$1.9 million

Operations Spending Impact



\$116.2 million

Start-up Company Impact



\$11.2 thousand

Visitor Spending Impact



\$1.1 million

Student Spending Impact



\$3.2 million

Alumni Impact



\$122.3 million

TOTAL IMPACT

- OR -

1,968

JOBS SUPPORTED

WTAMU Amarillo Center technology or knowledge. The expected net impact of start-up companies in FY 2019-20 is estimated to generate an added \$116.2 million in income to the Amarillo Area economy, which is equivalent to supporting 1,807 jobs.

Visitor Spending Impact



Visitors from outside the region are expected to attend WTAMU Amarillo Center during FY 2019-20 to attend arts and education activities sponsored by the center. These visitors will spend money for food, transportation, and other personal expenses while in the region. The off-campus expenditures of the center's out-of-region visitors is expected to generate a net impact of \$11.2 thousand in added income for the regional economy in FY 2019-20.

Student Spending impact



Around 11% of credit students attending WTAMU Amarillo Center are expected to originate from outside the region in FY 2019-20, and some of these students will relocate to the Amarillo Area to attend WTAMU Amarillo Center. These students may not have come to the region if the center did not exist. In addition, some in-region students, referred to as retained students, would have left the Amarillo Area if not for the existence of WTAMU Amarillo Center. While attending the center, these relocated and retained students will spend money on groceries, accommodation, transportation, and other household expenses. This spending is expected to generate \$1.1 million in added income for the regional economy in FY 2019-20, which is equivalent to supporting 26 jobs in the Amarillo Area.

Alumni Impact



The education and training WTAMU Amarillo Center provides for regional residents has the greatest impact. Since its establishment, and eventual growth into a permanent campus, students have studied at WTAMU Amarillo Center and entered the regional workforce with greater knowledge and new skills. Today, thousands of former WTAMU Amarillo Center students are employed in the Amarillo Area. As a result of their WTAMU Amarillo Center educations, the students receive higher earnings and increase the productivity of the businesses that employ them. In FY 2019-20, WTAMU Amarillo Center alumni are estimated to generate \$3.2 million in added income for the regional economy, which is equivalent to supporting 54 jobs.

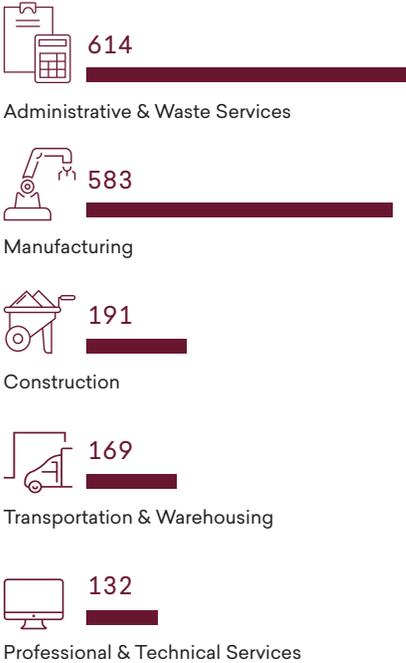
Total Impact

WTAMU Amarillo Center is expected to add \$122.3 million in income to the Amarillo Area economy in FY 2019-20, equal to the sum of the operations spending impact, the start-up company impact, the visitor and student spending impacts, and the alumni impact. For context, the \$122.3 million impact was equal to approximately 0.8% of the total gross regional product (GRP) of the Amarillo Area.

WTAMU Amarillo Center’s total impact can also be expressed in terms of jobs supported. The \$122.3 million impact is equivalent to 1,968 regional jobs supported, using the jobs-to-sales ratios specific to each industry in the region. For perspective, the activities of WTAMU Amarillo Center and its students support **one out of every 91** jobs in the Amarillo Area. In addition, the \$122.3 million, or 1,968 supported jobs, impacted regional industries in different ways. Among non-education industry sectors, WTAMU Amarillo Center will support the most jobs in the Administrative & Waste Services industry sector—supporting 614 jobs in FY 2019-20. These are impacts that will not be generated without the center’s presence in the Amarillo Area.



TOP INDUSTRIES IMPACTED BY WTAMU AMARILLO CENTER (JOBS SUPPORTED)





Investment Analysis

An investment analysis evaluates the costs associated with a proposed venture against its expected benefits. If the benefits outweigh the costs, then the investment is financially worthwhile. The analysis presented here considers WTAMU Amarillo Center as an investment from the perspectives of students, taxpayers, and society in Texas.

Student perspective



In FY 2019-20, WTAMU Amarillo Center expects to serve 879 undergraduate and graduate students. In order to attend classes, the students will pay for tuition, fees, books, and supplies. They also will take out loans and incur interest on those loans. Additionally, students forgo money they would have otherwise earned had they been working instead of attending college. The total investment for WTAMU Amarillo Center's students in FY 2019-20 amounts to a present value of \$2.6 million, equal to \$854 thousand in out-of-pocket expenses (including future principal and interest on student loans) and \$1.8 million in forgone time and money.²

In return for their investment, WTAMU Amarillo Center's students will receive a stream of higher future earnings that will continue to grow throughout their working lives. For example, the average WTAMU Amarillo Center bachelor's degree graduate from FY 2019-20 will see an increase in earnings of \$24,400 each year compared to a person with a high school diploma or equivalent working in Texas. Earnings data was calculated using complete Emsi earnings data supported by WTAMU Alumni Outcomes data. Over a working lifetime, the benefits of the bachelor's degree over a high school diploma will amount to an undiscounted value of \$976 thousand in higher earnings per graduate.

STUDENTS SEE A HIGH RATE OF RETURN FOR THEIR INVESTMENT IN WTAMU AMARILLO CENTER



27.1%

Average annual return for WTAMU Amarillo Center students



9.9%

Stock market 30-year average annual return

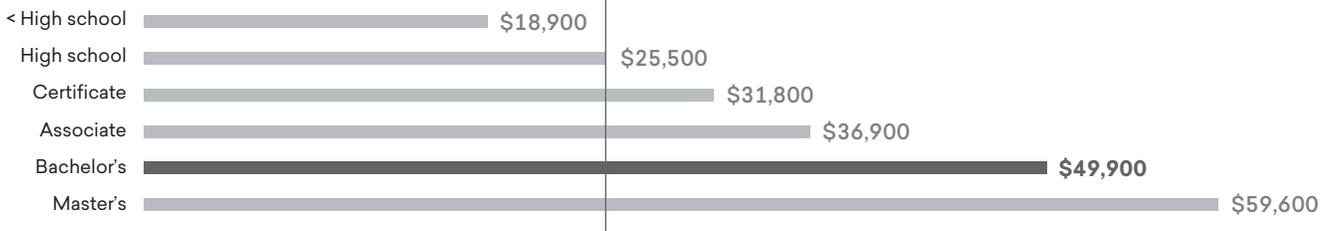


0.8%

Interest earned on savings account (National Rate Cap)

Source: Forbes' S&P 500, 1989-2018. FDIC.gov, 6-2019.

The average bachelor's degree graduate from WTAMU Amarillo Center will see an increase in earnings of **\$24,400** each year compared to a person with a high school diploma or equivalent working in Texas.



² Student costs are adjusted to account for the number of credits students will achieve at the WTAMU Amarillo Center.

The present value of the cumulative higher future earnings that WTAMU Amarillo Center's FY 2019-20 students will receive over their working careers is \$8.7 million.

The students' benefit-cost ratio is 3.4. In other words, for every dollar students invest in WTAMU Amarillo Center, in the form of out-of-pocket expenses and forgone time and money, they will receive a cumulative value of \$3.40 in higher future earnings. Annually, the students' investment in WTAMU Amarillo Center has an average annual internal rate of return of 27.1%, which is impressive compared to the U.S. stock market's 30-year average rate of return of 9.9%.

Taxpayer perspective



WTAMU Amarillo Center will generate more in tax revenue than it will take as demonstrated by the following analysis. These benefits to taxpayers consist primarily of taxes that the state and local government will collect from the added revenue created in the state. As WTAMU Amarillo Center students will earn more, they will make higher tax payments throughout their working lives.

Students' employers will also make higher tax payments as they increase their output and purchases of goods and services. By the end of the FY 2019-20 students' working lives, the state and local government will have collected a present value of \$2.5 million in added taxes.

Benefits to taxpayers will also consist of savings generated by the improved lifestyles of WTAMU Amarillo Center students and the corresponding reduced government services. Education is statistically correlated with a variety of lifestyle changes. Students' WTAMU Amarillo Center educations will generate savings in three main categories: 1) healthcare, 2) crime, and 3) income assistance. Improved health will lower students' demand for national health care services. In addition, students will be less likely to interact with the criminal justice system, resulting in a reduced demand for law enforcement and victim costs. WTAMU Amarillo Center students will be more employable, so their reduced demand for income assistance such as welfare and unemployment benefits will benefit taxpayers. For a list of study references, contact the university for a copy of the main report. Altogether, the present value of the

*For every dollar of public money invested in WTAMU Amarillo Center, taxpayers will receive a cumulative value of **\$5.40** over the course of the students' working lives.*



STUDENT PERSPECTIVE

\$8.7 million
Present value benefits

\$2.6 million
Present value costs

\$6.2 million
Net present value

Benefit-cost Ratio	Rate of Return
3.4	27.1%



TAXPAYER PERSPECTIVE

\$3.1 million
Present value benefits

\$584.8 thousand
Present value costs

\$2.6 million
Net present value

Benefit-cost Ratio	Rate of Return
5.4	17.5%



SOCIAL PERSPECTIVE

\$42.1 million
Present value benefits

\$5.2 million
Present value costs

\$32.9 million
Net present value

Benefit-cost Ratio	Rate of Return
8.1	n/a*

* The rate of return is not reported for the social perspective because the beneficiaries of the investment are not necessarily the same as the original investors.

benefits associated with a WTAMU Amarillo Center education will generate \$593.6 thousand in savings to state and local taxpayers.

Total taxpayer benefits amount to \$3.1 million, the present value sum of the added taxes and public sector savings. Taxpayer costs are \$584.8 thousand equal to the amount of state and local government funding WTAMU Amarillo Center will receive in FY 2019-20. These benefits and costs yield a benefit-cost ratio of 5.4. This means that for every dollar of public money invested in WTAMU Amarillo Center in FY 2019-20, taxpayers will receive a cumulative value of \$5.40 over the course of the students' working lives. The average annual internal rate of return for taxpayers is 17.5%, which compares favorably to other long-term investments in the public and private sectors.

Return on investment for local taxpayers

It is estimated Amarillo Area residents will provide WTAMU Amarillo Center with less than 1% of its total funding, or about **\$14,000** in FY 2018-19. In return for that investment, the Amarillo Area will receive a present value of **\$150,000** in benefits, generated by increased tax revenues and government savings in the county. This means that for every dollar Amarillo Area taxpayers invest in the center, they will receive **\$11.00** in return.

Social perspective

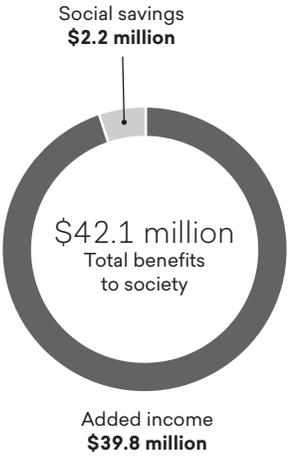


Society as a whole in Texas will benefit from the expansion of WTAMU Amarillo Center in two major ways. Primarily, society benefits from an increased economic base in the state. This is attributed to higher student earnings and increased business output, which raise economic prosperity in Texas.

Benefits to society also consist of the savings generated by the improved lifestyles of WTAMU Amarillo Center students. As discussed in the previous section, education is statistically correlated with a variety of lifestyle changes that generate social savings. Note that these costs are avoided by the consumers but are distinct from the costs avoided by the taxpayers outlined above. Healthcare savings include avoided medical costs associated with smoking, alcohol dependence, obesity, drug abuse, and depression. Savings related to crime include reduced security expenditures and insurance administration, lower victim costs, and reduced expenditures by the criminal justice system. Income assistance savings include reduced welfare and unemployment claims. For a list of study references, contact the university for a copy of the main report.

Altogether, the social benefits of WTAMU Amarillo Center equal a present value of \$42.1 million. These benefits include \$39.8 million in added income

SOCIAL BENEFITS IN TEXAS FROM WTAMU AMARILLO CENTER



through students' increased lifetime earnings and increased business output, as well as \$2.2 million in social savings related to health, crime, and income assistance in Texas. People in Texas will, most likely, invest a present value total of \$5.2 million in WTAMU Amarillo Center in FY 2019-20. The cost includes all the center and student costs.

The benefit-cost ratio for society is 8.1, equal to the \$42.1 million in benefits divided by the \$5.2 million in costs. In other words, for every dollar invested in WTAMU Amarillo Center, people in Texas will receive a cumulative value of \$8.10 in benefits. The benefits of this investment will occur for as long as WTAMU Amarillo Center's FY 2019-20 students remain employed in the state workforce.

Summary of investment analysis results

The results of the analysis demonstrate that WTAMU Amarillo Center is a strong investment for all three major stakeholder groups—students, taxpayers, and society. As shown, students will receive a great return for their investments in a WTAMU Amarillo Center education. At the same time, taxpayers' investment in WTAMU Amarillo Center will return more to government budgets than it costs and create a wide range of social benefits throughout Texas.



Conclusion

The results of this study demonstrate that the expansion of the WTAMU Amarillo Center will create value from multiple perspectives. The center will benefit regional businesses by increasing consumer spending in the region and supplying a steady flow of qualified, trained workers to the workforce. WTAMU Amarillo Center will enrich the lives of students by raising their lifetime earnings and helping them achieve their individual potential. The center will benefit state and local taxpayers through increased tax receipts and a reduced demand for government-supported social services. Finally, WTAMU Amarillo Center will benefit society as a whole in Texas by creating a more prosperous economy and generating a variety of savings through the improved lifestyles of students.

About the Study

Data and assumptions used in the study are based on several sources, including the FY 2019-20 projected academic and financial reports calculated by WTAMU Amarillo Center and Emsi, the university's alumni records matched to Emsi's Alumni Outcomes database, industry and employment data from the U.S. Bureau of Labor Statistics and U.S. Census Bureau, outputs of Emsi's Multi-Regional Social Accounting Matrix model, and a variety of studies and surveys relating education to social behavior. The study applies a conservative methodology and follows standard practice using only the most recognized indicators of economic impact and investment effectiveness. For a full description of the data and approach used in the study, please contact the university for a copy of the main report.

*The results of this study demonstrate that WTAMU Amarillo Center creates value from **multiple perspectives.***



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