

# Economic Contributions of The University of Texas at San Antonio 2018

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**Prepared by:**

Institute for  
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Development



Center for **Community** and  
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# EXECUTIVE SUMMARY

Founded in 1969, The University of Texas at San Antonio has become an integral component within the region. After nearly fifty years, UTSA continued to expand its capabilities at a rapid pace. This latest economic impact study highlights the significant strides UTSA has made over the past ten years. For example, the university's operating budget grew from \$132 million in 2008 to over \$375 million in 2018. Faculty/staff expenditures rose from \$270 million to over \$584 million. It is important to note that because 2008 marked a period of significant, unprecedented construction on the main campus, capital expenditures at the time (\$132 million) were over double those of 2018 (\$65 million). In every other major category dealing with the economic impact on the San Antonio metro area, however, UTSA exhibited strong growth and steadily increasing influence, as indicated in the summary table below. Excluding capital expenditures, UTSA's output contribution increased nearly 63 percent during the ten-year period spanning 2008-2018.

**Summary Table of Economic Impacts**

<b>Combined Economic Contributions * at the San Antonio MSA level 2018</b> <b>In Millions of Dollars</b>		
<b>Category</b>	<b>Total Output contribution</b>	<b>Total Employment Contribution</b>
Capital expenditures	\$65.0	390
Operating Budget	\$375.1	7,992
Faculty/Staff expenditures	\$584.1	1,964
Research	\$47.6	229
Students expenditures	\$273.0	2,565
Visitor expenditures	\$69.7	799
IED	\$457.3	3,891
<b>Total</b>	<b>\$1,871.9</b>	<b>17,829</b>

\*Includes direct, indirect, and induced contributions.

Elaboration by J. Oyakawa

This report demonstrates the positive economic impact that UTSA has on the region, and how the university remains positioned for the future. A series of important new initiatives undertaken on behalf of the leadership of President Taylor Eighmy will further transform the university in the years ahead, firmly establishing its critical role in fostering local and regional economic, community and social development.

# OVERVIEW

## UTSA Community Partnerships

In September, UTSA announced the President's Initiative on Westside Community Partnerships intended to fortify the university's engagement citywide. UTSA's Downtown Campus will play a key role, given its location within and adjacent to the San Antonio city-center.

UTSA developed the Community Partnerships Initiative in conjunction with the National Association for Latino Community Asset Builders (NALCAB). As part of the ongoing development of this initiative, UTSA and NALCAB conducted research on vulnerable populations and institutions on the Westside.

Key external stakeholders and community partners guided the initiative, led by the Vice President for University Relations. These entities include a Westside Community Advisory Council, an Internal Steering Committee, and task forces charged with specific themes, coordinating well-defined partnerships, and establishing and tracking metrics based on individual goals. Each of these efforts will roll up into the overarching vision for UTSA.

Four key initiatives, initiated on the Westside but with anticipated expansion to other part of San Antonio, address the following targets:

- Create pathways to economic prosperity
- Create pathways to educational excellence
- Develop community- based research, sustainable partnerships, and advocacy
- Foster community-campus engagement

### Creating Pathways to Economic Prosperity

Creating economic opportunities will constitute the primary charge of this task force by exploring and developing localized employment and small business development pathway programs for Westside residents. Opportunity Zone incentive should feature prominently in this effort. Key activities will likely include mitigating barriers to employment, promoting additional procurement opportunities, creating space for mercadito or "pop up" stalls, and making Opportunity Zone recommendations to the Steering Committee.

### Creating Pathways to Educational Excellence

Charged with exploring and establishing pathways for UTSA enrollment, this task force will integrate efforts among university faculty with K-12 school leadership, school staff, families and communities. Continuing education and professional development will also figure prominently in the activities of the task force. Over time, the number of students from the community that matriculate to, and graduate from UTSA should increase.

Specific activities may include assisting in the development and evaluation of curriculum, professional development for teachers, augmenting career readiness education, after-school programs, pedagogical research, and planning. Youth outreach and mentorship targeted to youth that may not consider themselves college-bound represent additional opportunities.

### Developing Community-Based Research, Sustainable Partnerships, and Advocacy

Charged with exploring and establishing pathways for UTSA enrollment, this task force will integrate efforts among university faculty with K-12 school leadership, school staff, families and communities. Continuing education and professional development will also figure prominently in the activities of the task force. Over time, the number of students from the community that matriculate to, and graduate from UTSA should increase.

Specific activities may include assisting in the development and evaluation of curriculum, professional development for teachers, augmenting career readiness education, after-school programs, pedagogical research, and planning. Youth outreach and mentorship targeted to youth that may not consider themselves college-bound represent additional opportunities.

### Fostering Community-Campus Engagement

This task force recently identified a new UTSA Community Center site on the Westside that will serve as a hub for university services and programs within the community. Facilitations with the community will include art, music, architecture and history that correspond to UTSA academic departments.

Services will likely include free or reduced charge use of facilities, farmer/artisan markets, and community-based art and mural projects. Additional activities may include a Westside community historical archive that include a plan for preservation of archival materials. This engagement will ensure that the Westside and Downtown Campus provides an accessible and welcoming space to the community.

### Communications, Partnerships, Community Input, Oversight and Impact Measurement

UTSA will develop targeted strategies intended to benefit the Westside. Raising awareness about UTSA's services, programs, research and other opportunities will benefit residents, business owners and other stakeholder audiences. UTSA will engage new partners on an ongoing basis. Community input will remain crucial to these efforts as outreach efforts evolve.

Future community partnerships targeting other underserved areas of San Antonio such as the Eastside and Southside will develop in future years. The UTSA Downtown Campus will serve as the epicenter for these efforts, which should further strengthen the links between the city and the university.

# PART I: ROLE OF HIGHER EDUCATION

## Introduction/Background 50 years of UTSA

In 1858, over one-hundred sixty years ago, the Texas Legislature's "university endowment" took a major step forward with regard to higher education and the state's competitive position. As The University of Texas at San Antonio 1969-2019 celebrates its 50-year anniversary, the educational institution can boast significant accomplishments. UTSA now plays a major role in workforce training, leading-edge research, community outreach and economic development in its ongoing mission to bolster the future of the region.

As the largest university in the metropolitan region, The University of Texas at San Antonio stands out as a multicultural educational institution with more than 32,000 students and four campuses. UTSA plans to expand enrollment to over 45,000 student by 2028, as well as increase its retention and graduation rates.

## The Vision for UTSA<sup>1</sup>

In conjunction with key stakeholders, UTSA leadership developed a strategic planning framework detailing how the institution will evolve and grow in the decade ahead.

Key initiatives include:

- Integrated approach for student success
- Research excellence
- Strategic growth and innovative excellence

Future milestones include:

By 2020

- \$100 million in total research expenditures
- 215 Ph.D. degrees awarded

By 2023

- 85 percent student retention for sophomores
- 35 percent four year student graduation rate
- 60 percent six-year graduation rate
- 55 percent of freshmen in the top 25 percent of their class

By 2028

- 45,000 total student enrollment
- \$400 million endowment
- 3 million square feet of new construction across four campuses
- 75 percent of students participating in experiential learning
- 20-to-1 student-faculty ratio
- Less than \$20,000 average student debt

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<sup>1</sup> From [www.utsa.edu/strategic-plan](http://www.utsa.edu/strategic-plan)

## UTSA on the Move

The UTSA Downtown campus expansion efforts of the next ten years include a School of Data Science, a School of Entrepreneurship, the National Security Collaboration Center, and an Urban Education Institute in the heart of San Antonio. In addition, student housing will anchor a high technology corridor within the City of San Antonio and Bexar County.

The Institute of Texan Cultures hosts exhibits and live performances, in addition to promoting an understanding and appreciation of the Texan culture. The Park West Athletics Campus constitutes one-hundred twenty-five acres of land less than two miles from the main campus, serving as the home of the Roadrunner athletes and host site for community sporting events.

UTSA provides a major source of talent for the workforce in San Antonio, the nation's seventh largest city and one of the fastest growing in the country. UTSA increasingly represents the University of Choice for students from Texas, other parts of the U.S., as well as eighty-six countries.

The Strategic plan for UTSA will incorporate the following six presidential initiatives:

1. The Classroom to Career (C2C) task force charged with the initial data discovery and analysis phase ("Phase 1") to bring about recommendations based for success and targeted outreach.<sup>2</sup>
2. The Research Excellence initiative seeks to identify and launch activities to increase national and international recognition of UTSA as an institution of research excellence. Part of those objectives include qualifying for the National Research University Fund (NRUF) and Carnegie Research Intensive (R1) Classification. Additional strategies will target increasing research expenditures, the number of doctoral graduates, and recruitment of National Academy members to UTSA faculty.<sup>3</sup>



3. The Inclusive Excellence initiative will focus on issues to develop and maintain a welcoming campus environment for all students. The Excellence Advisory Board

<sup>2</sup> From <https://www.utsa.edu/strategicplan/presidential-initiatives/classroomtocareer/C2C-Phase-1-report.pdf>

<sup>3</sup> From <https://www.utsa.edu/strategicplan/presidential-initiatives/researchexcellence/index.html>

(IEAB) will create additional committees, councils, and task forces to advance specific aspects of inclusive excellence. The use of best practices constitutes the foundation for their work priorities, shaped by feedback from representative segments of the UTSA community.

4. The National Security Collaboration Center (NSCC) and School of Data Science (SDS) form key elements of the cybersecurity, data analytics, and cloud-computing center initiatives at UTSA. The new schools and centers will establish a collaborative ecosystem to engage government, industry, and academia in addressing nation's cybersecurity threats.<sup>4</sup>



Preliminary design rendering for UTSA's new National Security Collaboration Center and School of Data Science / Whiting-Turner / Jacobs / Overland

5. A newly established College for Health, Community and Policy will combine all of the programs from the College of Public Policy, along with selected others from the College of Liberal and Fine Arts in order to better serve the needs of community. The new college will address limited options for health-related and pre-professional programs often fostered by departmental silos of traditional programs. The College of Health, Community and Policy will offer professional training and innovative healthcare models that more fully align with the industry's needs.

According to the SA Works 2018 Jobs Report, the number of healthcare related jobs in the San Antonio- New Braunfels area increased by 8,758 over the last five years, with this trend expected to continue into the next decade and beyond. Health disparities continue to affect the region.

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<sup>4</sup> From <http://www.utsa.edu/strategicplan/tactical-initiatives/nsccl/index.html>

The creation of a multidisciplinary, modern healthcare program will better prepare students who seek to enter public health sector.<sup>5</sup>

The University of Texas at San Antonio strategic initiatives will ensure that the institution remains an essential educational component to the South-Central Texas region. In the coming decade UTSA will advance several initiatives that will enable the university to achieve new levels of excellence. As a Hispanic-serving institution where students from all backgrounds can be successful, UTSA will serve the region as a great public research university fostering an environment of innovation and continuous improvement.

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<sup>5</sup> From <http://www.utsa.edu/strategicplan/academic-initiatives/human-health/index.html>

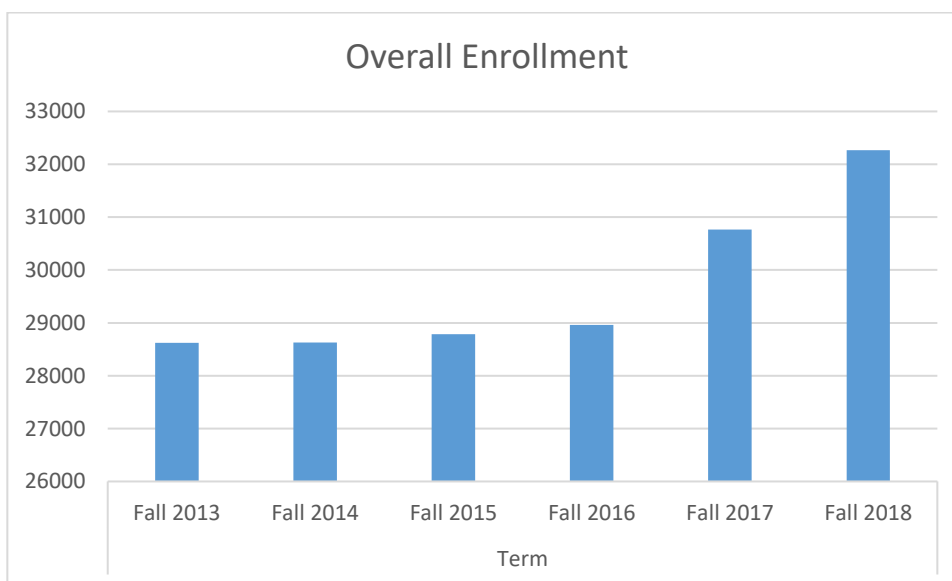
## PART II: ECONOMIC DEVELOPMENT MEANS BUSINESS

### Enrollment

In recent years, UTSA increased its focus on programs that boost retention, graduating rates, and overall student academic success. Some of these programs include:

- Personalized advising and outreach programs.
- Support communities for first-generation and transfer students.
- Programs focused on math and STEM success.
- New technology that flags students who are academically at risk.
- Graduation Help Desk, which assists students in navigating their unique roadblocks to degree completion.

These programs will support the university's growing enrollment. From 2013 to the fall term of 2018, UTSA witnessed significant increases in student enrollment. Table 1 indicates that in 2018, UTSA enrolled a record number of students, adding over 1,500 students and growing nearly five percent from 2017.



Source: UTSA's Institutional Research Office

Table 1

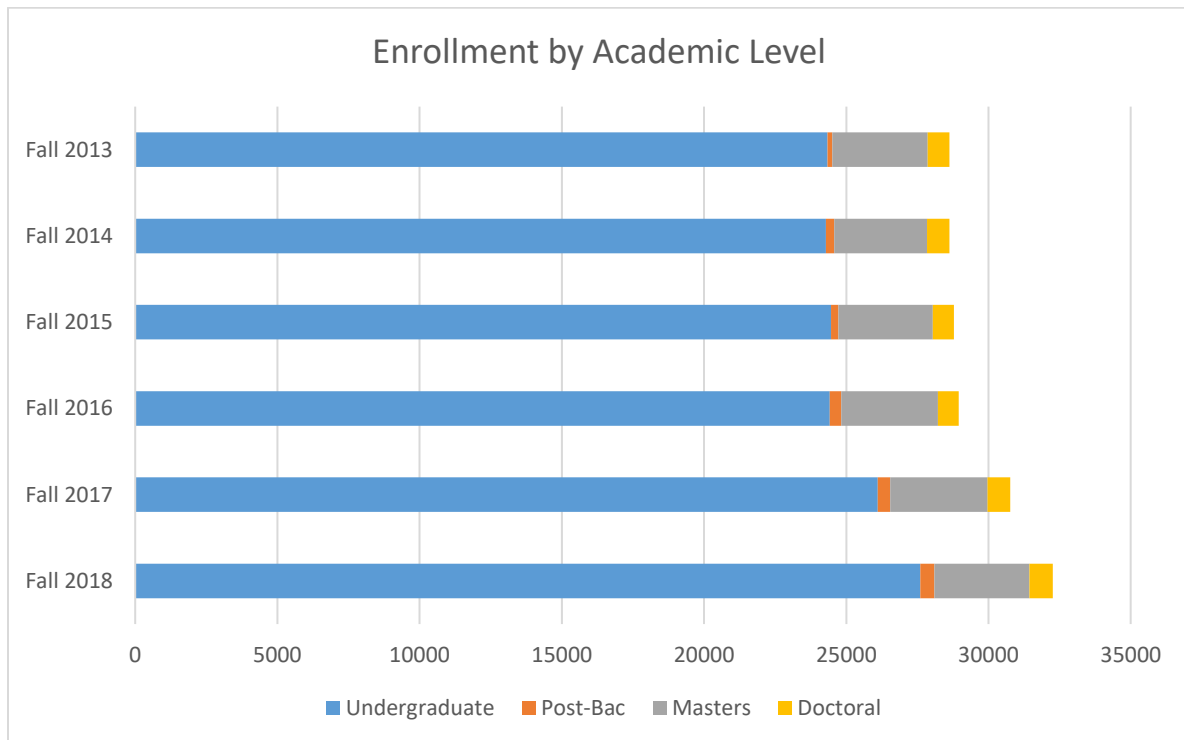
Overall Enrollment						
Enrollment	Term					
	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Fall 2017	Fall 2018
Total	28,623	28,628	28,787	28,959	30,768	32,264

Source: UTSA's Institutional Research Office

As depicted in the table above, the majority of enrollment has consistently been the undergraduates, representing 86 percent of the student population in 2018. For the fall term of 2018 the number of undergraduates has increased for the second straight year to 6,161 students. Additionally, from these it is estimated that 4,200 students will further pursue graduate degrees.<sup>6</sup>

### ***Enrollment by Academic Level***

Table 2 shows that undergraduates make up the majority of enrollment, representing 86 percent of the student population in 2018. Between 2013 and 2018, the student population for most academic levels has increased.



Source: UTSA's Institutional Research Office

<sup>6</sup> From <https://www.utsa.edu/today/2018/09/story/Fall2018CensusandGradRates.html>

Table 2

Enrollment by Level												
Level	Term											
	Fall 2013		Fall 2014		Fall 2015		Fall 2016		Fall 2017		Fall 2018	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Undergraduate	24,342	85%	24,285	85%	24,462	85%	24,423	84%	26,105	85%	27,606	86%
Post-Bac	168	1%	297	1%	259	1%	403	1%	443	1%	496	2%
Masters	3,354	12%	3,264	11%	3,325	12%	3,392	12%	3,419	11%	3,340	10%
Doctoral	759	3%	782	3%	741	3%	741	3%	801	3%	822	3%
Total	28,623	100%	28,628	100%	28,787	100%	28,959	100%	30,768	100%	32,264	100%

Source: UTSA's Institutional Research Office

### ***Enrollment by Race/Ethnicity***

Table 3 demonstrates UTSA's status as a Hispanic-Serving Institution (HSI), with over fifty percent of enrollment identified as Latino. Along those lines, the university consistently receives national recognition as an HSI. For the second time, Hispanic Outlook on Education Magazine (HO) recognized UTSA as one of the best institutions in the country serving its Latino demographic. The 2017 annual issue ranked UTSA as one of the nation's top ten graduate schools for Latinos.<sup>7</sup>

In addition, HO magazine recognized UTSA in the following categories:

- 3rd in architecture
- 3rd in bilingual, multilingual and multicultural education
- 4th in parks, recreation, leisure and fitness studies
- 5th in communication and media studies
- 6th in computer/IT administration and management

<sup>7</sup> From <https://www.utsa.edu/today/2017/04/hispanicranking.html>

Table 3

Enrollment by Race/Ethnicity										
Race/Ethnicity	Term									
	Fall 2014		Fall 2015		Fall 2016		Fall 2017		Fall 2018	
	Count	%	Count	%	Count	%	Count	%	Count	%
American Indian or Alaskan Native	59	a	54	a	45	a	51	a	65	a
Asian	1,485	5%	1,524	5%	1,517	5%	1,653	5%	1,819	6%
Black or African-American	2,471	9%	2,439	8%	2,523	9%	2,680	9%	2,760	9%
Hispanic or Latino	13,849	48%	14,408	50%	14,896	51%	16,276	53%	17,604	55%
International	1,677	6%	1,473	5%	1,166	4%	1,034	3%	950	3%
Native Hawaiian or Other Pacific Islander	55	a	50	a	56	a	58	a	57	a
Two or More Races	831	3%	827	3%	858	3%	979	3%	1,050	3%
Unknown or Not Reported	311	1%	293	1%	451	2%	519	2%	397	1%
White	7,890	28%	7,719	27%	7,447	26%	7,518	24%	7,562	23%
Total	28,628	100%	28,787	100%	28,959	100%	30,768	100%	32,264	100%

a Less than one percent enrollment.

Source: UTSA's Institutional Research Office

UTSA meets the needs of its Hispanic community by creating programs that bridge between the business and the student population. For example, the College of Architecture, Construction and Planning (CACP) regularly works in partnership with the San Antonio Latinos in Architecture (AIA) Network to fortify bonds between students, design professionals and the community. The CACP participated in NEXO Exhibition, an event organized by Latinos in Architecture, with particular emphasis on serving the predominantly Latino West Side.<sup>8</sup>

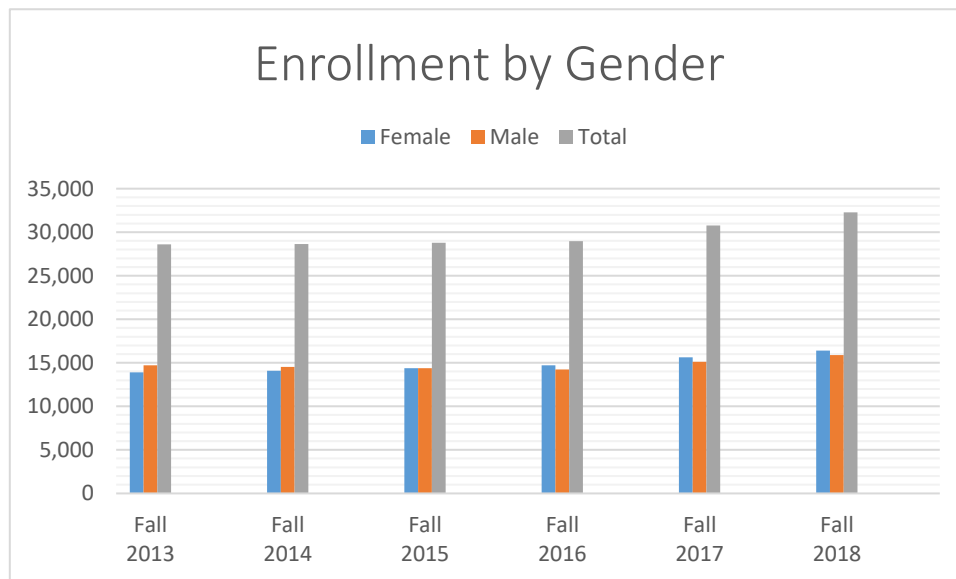
UTSA has always aimed to meet the needs of its Hispanic community, creating programs that can bridge between the business and the student population. For example, the College of Architecture, Construction and Planning (CACP) has repeatedly worked in partnership with the San Antonio Latinos in Architecture (AIA) Network to successfully fortify bonds between students, design professionals and the community. In fact, the CACP attended and participated in NEXO Exhibition, an event organized by Latinos in Architecture. This event was organized with the purpose of uniting students and industry professionals, and service organizations, in a predominantly Hispanic area of San Antonio's West Side.<sup>9</sup>

<sup>8</sup> From <https://www.utsa.edu/today/2020/01/story/rankings-hsi.html>

<sup>9</sup> From <https://www.utsa.edu/today/2020/01/story/rankings-hsi.html>

### Enrollment by Gender

The University of Texas at San Antonio had a total 32,264 enrolled students registered for the fall term of 2018. Breakdown by gender in Table 4 shows 15,871 male and 16,393 female students (male-female ratio: 49:51) attending UTSA.



Source: UTSA's Institutional Research Office

Table 4

Enrollment by Gender										
Gender	Term									
	Fall 2013		Fall 2014		Fall 2015		Fall 2016		Fall 2017	
	Count	%	Count	%	Count	%	Count	%	Count	%
Female	13,900	49%	14,091	49%	14,399	50%	14,721	51%	15,634	51%
Male	14,723	51%	14,537	51%	14,388	50%	14,238	49%	15,134	49%
Total	28,623	100%	28,628	100%	28,787	100%	28,959	100%	30,768	100%

Source: UTSA's Institutional Research Office

### STEM Enrollment

The importance of increasing the number of undergraduate Latino students completing degrees in science, mathematics, and engineering remains a key goal, as recognized by Congress in the Goals 2000 Educate America Act (Goals 2000, 1994, section 102, 5Biii). The federal government allocates billions of dollars to increase funding earmarked for postsecondary STEM programs (U.S. Government Accountability Office, 2005). Currently, there are more than 200 education programs across the country specifically designed to increase the number of students pursuing

and graduating with STEM degrees and entering STEM-related occupations or to improve programs in the areas of science, mathematics, engineering and technology (U.S. Government Accountability Office, 2005). At UTSA, the number of students enrolled by STEM from 2013 to 2018 steadily increased, now representing 33 percent of the student population (Table 5).

Table 5

Enrollment by STEM												
Program	Term											
	Fall 2013		Fall 2014		Fall 2015		Fall 2016		Fall 2017		Fall 2018	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
STEM	8,695	30%	9,031	32%	9,116	32%	9,354	32%	10,053	33%	10,657	33%
Not STEM	19,928	70%	19,597	68%	19,671	68%	19,605	68%	20,715	67%	21,607	67%
Total	28,623	100%	28,628	100%	28,787	100%	28,959	100%	30,768	100%	32,264	100%

Source: UTSA's Institutional Research Office

### ***Future Enrollment***

Forecasts for 2023 indicate that UTSA will reach an enrollment of approximately 38,400 students, comprised of 33,000 undergraduates, 4,600 graduate students and 800 post-baccalaureate students (second bachelor's degree or second entry degree). These increases will bring an additional \$13 million in tuition revenue and \$5 million in fee revenue to UTSA.

Looking further out, main campus and downtown Phases II-IV expansions will result in more than 45,000 students at UTSA by the fall of 2028. These enrollment numbers will place UTSA's enrollment in alignment with some of the most prestigious research universities in Texas.<sup>10</sup>

## **Research Expenditures**

The majority of UTSA's research will focus primarily in the following areas:

- Biosciences, including brain health, regenerative medicine and infectious disease
- Cybersecurity, including data sciences and analytics, machine learning, cloud computing and artificial intelligence
- Advanced materials, micro to macro
- Sustainable communities and critical infrastructure, including smart cities
- Human and social development, particularly as it applies to education.<sup>11</sup>

To facilitate and further promote research in these areas, the university has a number of programs, including the UTSA RISE Research Training Program, which received over \$6 million in fiscal year 2018 from the National Institutes of Health to advance undergraduate research success. President Taylor Eighmy launched the Presidential Initiative on Research Excellence, led

<sup>10</sup> From <https://www.utsa.edu/today/2018/09/story/Fall2018CensusandGradRates.html>

<sup>11</sup> From <https://www.utsa.edu/about/doc/fastfacts.pdf>

by Vice President for Research, Economic Development and Knowledge Enterprise (REDKE) Dr. Bernard Arulanandam in 2018. The new department will diversify UTSA's research portfolio and create new partnerships models with industry and government agencies. The goal will consist of creating new funding streams, while simultaneously increasing UTSA's national and international recognition as a research institution.<sup>12</sup>

Alongside the Office of International Programs, REDKE will expand international research opportunities for students and faculty alike by establishing strategic connections with institutions such as Tecnológico de Monterrey (Monterrey Institute of Technology and Higher Education). Partnering with Citibanamex, IBM, Cisco, Deloitte, Thales and UTSA, November 2018 marked the creation of the first Tec Cybersecurity Hub in Latin America.<sup>13</sup>

Another office making headway into making UTSA into a Carnegie Research 1 status, for the fiscal year of 2019, the Office of Research Support (ORS) was awarded 33 research grants, totaling \$495,000 to support research on campus.

In fiscal year 2018, UTSA's research expenditures totaled \$69.6 million, with the university's restricted expenditures growing to \$44.0 million. Additionally, researchers in the areas of cyber and national security, brain health, psychology, small business development, infectious diseases, advanced materials, autism, and student success initiatives received a number of million dollar federal grants.<sup>14</sup> In all, UTSA received 301 new awards totaling \$57.7 million for fiscal year 2018.

For fiscal year 2019, total research expenditures increased to \$80.6 million, while restricted research expenditures grew to \$50.8 million, and National Research University Fund (NRUF) expenditures were \$44.1 million.<sup>15</sup> Research expenditure should continue to increase steadily in the coming years. Federal research expenditures for fiscal years 2015-2019 appear in Table 6.

Table 6

UTSA Federal Funded Research Expenditures	
Fiscal Year	Federal Sources
2015	\$23.4
2016	\$25.8
2017	\$30.0
2018	\$29.8
2019	\$31.4

Source: UTSA's Institutional Research Office

<sup>12</sup> From <https://www.utsa.edu/today/2018/08/story/ResearchInitiative.html>

<sup>13</sup> From <https://observatory.tec.mx/edu-news/tec-de-monterrey-launches-hub-to-tackle-cybercrime>

<sup>14</sup> From <http://research.utsa.edu/2019/01/31/utsake2018/>

<sup>15</sup> From <http://research.utsa.edu/2020/01/22/utsaknowfy2019/>

In addition, five UTSA faculty members have each received the National Science Foundation (NSF) CAREER AWARD, amounting to a collective \$2.5 million.<sup>16</sup>

Areas of Research Excellence:<sup>17</sup>

- Advanced Materials and Manufacturing
- Cloud, Cybersecurity, Computing, Analytics and Data Sciences
- Integrated Biomedicine: Neuroscience/Brain Health, Regenerative and Molecular Medicine, and Infectious Diseases
- Social and Educational Transformation and Innovation
- Sustainable Communities and Critical Infrastructure
- Research Center and Institutes:<sup>18</sup>
- Autism Research Center
- Bank of America Child and Adolescent Policy Research Institute
- Center for Advanced Manufacturing and Lean Systems
- Center for Archaeological Research
- Center for Community Based and Applied Health Research
- Center for Cultural Sustainability
- Center for Infrastructure Assurance and Security
- Center for Innovative Drug Discovery
- Center for the Inquiry of Transformative Literacies
- Center for Research and Policy in Education
- Center for Research and Training in the Sciences
- Center for Simulation, Visualization and Real Time Prediction
- Center for Urban and Regional Planning Research
- Center for Water Research
- Institute for Cyber Security
- Institute for Demographic and Socioeconomic Research
- Institute for Health Disparities Research
- Open Cloud Institute
- San Antonio Cellular Therapeutics Institute
- South Texas Center for Emerging Infectious Diseases
- Texas Sustainable Energy Research Institute
- The Cyber Center for Security and Analytics
- UTSA Neurosciences Institute
- Water Institute of Texas

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<sup>16</sup> From <http://research.utsa.edu/2020/01/22/utsaknowfy2019/>

<sup>17</sup> From <https://www.utsa.edu/about/doc/fastfacts.pdf>

<sup>18</sup> From <https://www.utsa.edu/about/doc/fastfacts.pdf>

## National Security Collaboration Center

Because of San Antonio's unique composition of information assurance organization, growth in the cybersecurity sector will remain robust for years to come. As an example of but one of many initiatives in this arena, President Eighmy launched the National Security Collaboration Center, an innovative collaboration of government, industry and academic stakeholders designed to lead to the creation of innovative supply chains and industry clusters – also known as ecosystems – in order to tackle the nation's greatest cybersecurity threats. The mission of the NSCC is to advance research, education and workforce development focusing in the areas of cyber security, data analytics, 5G integration, Artificial Intelligence and cloud computing. The NSCC continues to build a collaborative and impactful government-university-industry ecosystem engaging more than forty federal agencies, contractor and industry leaders, and academia to solve the nation's highest priority national security challenges in today's digital global environment.

Construction of the world-class NSCC/School of Data Science in the heart of downtown San Antonio will begin in November 2020 as part of the Phase I downtown campus expansion. In the meantime federal and industry partners temporarily house on main campus North Paseo Building working with UTSA faculty and researchers connecting them with federal and research partners.<sup>19</sup> Currently, the NSCC includes over 40 partners who will co-locate once the new NSCC/SDS building opens in 2022.

### ***Sampling of NSCC Partners***<sup>20</sup>

- IPSecure
- CACI
- CNF Technologies
- Dell Technologies
- Raytheon
- Air Force Research Laboratory (AFRL)
- Army Research Laboratory (ARL)
- National Security Agency (NSA)
- 16<sup>th</sup> Air Force/Air Force Cyber Command (AFCYBER)
- Air Force Life Cycle Management Center (Cryptologic and Cyber Systems Division)
- Air Force Chief Data Science Office
- 25th Air Force
- Texas Department of Information Resources
- US Secret Service
- Sandia National Laboratory
- Idaho National Laboratory

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<sup>19</sup> From <http://www.utsa.edu/president/reporting-offices/nscc/>

<sup>20</sup> From <http://www.utsa.edu/president/reporting-offices/nscc/>

## Institute for Economic Development

Housed within the Division of Research, Economic Development and Knowledge Enterprise, the Institute for Economic Development works alongside UTSA to serve San Antonio's growing community and economy, one business at a time. The IED hosts programs that facilitate economic, community and business development at the local, regional and national levels – from the entrepreneur starting out, to the experienced business owner, to large organizations.

Through the mentoring, counseling and aid these programs offer, businesses create new products, jobs, and tax revenues, fostering local and regional economic development. Based on the Institute for Economic Development 2018 Annual report, the IED generated the following impacts: <sup>21</sup>

### Service Results:

- 43,320 Business Served
- 1,123 Training Events & Courses
- 30,815 Training Participants
- 7,694 Consulting Cases
- 4,811 Business Research Tasks

### Economic Impact:

- 6,238 Jobs Created
- 13,193 Jobs Retained
- 565 New Business Starts
- 534 Business Expansions
- \$290,932,480 New Financing & Investments
- \$2,597,538,884 New Sales, Contracts & Exports
- \$34,854,959 New Tax Revenue Generated
- \$2.9 Billion Economic Impact <sup>22</sup>

## ***Institute for Economic Development Partnerships*** <sup>23</sup>

The Institute of Economic Development works in partnership with federal, state, local, business, banks, contracting agencies, chambers of commerce, and higher education organizations that share the mission of economic and community development.

Major resource partners include:

- U.S. Small Business Administration (SBA)

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<sup>21</sup> From [https://iedtexas.org/wp-content/uploads/2019/01/Institute\\_18AnnualReport\\_Compressed.pdf](https://iedtexas.org/wp-content/uploads/2019/01/Institute_18AnnualReport_Compressed.pdf)

<sup>22</sup> The economic impact mentioned here as the \$2.9 billion represents the aggregate amount of new financing and investment, new sales, contracts and exports.

<sup>23</sup> From <https://iedtexas.org/aboutus/>

- Economic Development Administration (EDA), part of the U.S. Department of Commerce
- Minority Business Development Agency, part of the U.S. Department of Commerce
- University of Texas at San Antonio (UTSA)
- U.S. Agency for International Development (US AID)
- U.S. Department of Agriculture (USDA)
- U.S. Department of Commerce
- U.S. Department of State

## Part III: UTSA's CONTRIBUTIONS TO HUMAN CAPITAL

Several studies have shown that a college degree provides more opportunities and lifetime earnings than just a high-school diploma or less (Schultz 1961; Becker 1993; Mincer 1974). More recently, research by Golding and Katz (2007), and Acemoglu and Autor (2012) bolster the case for a college education.

Several applied research studies have used a synthetic methodology to estimate lifetime earnings by college graduates,<sup>24</sup> such as Day and Newburger (2002), and Kantrowitz (2007). Other applied studies used regression methods (Julian and Kominsky 2011; Tamborini, Chang-Hwan, and Sakamoto 2015; Carnevale, Cheah, and Hanson 2015; Carnevale et al. 2017). For the State of Texas, Keeton (2005), among several others lend insight as well. The advantage of most of these regressions methods is the inclusion of several other factors affecting the lifetime earnings of graduates; factors such as gender, age, geography, or race together with the educational attainment.

Higher education has important impacts in the State and local economies but it also enhances the quality of life of individuals and communities as higher education is correlated with less crime and better health, for example. These are good reasons for the State support of universities and colleges.

### Educational Attainment and Work-Life Earnings

Studies using Census data show a positive correlation between higher earnings and educational attainment. For example, a study by Tamborini, Chang-Hwan, and Sakamoto (2015) measured the impacts of educational attainment on earnings over a 50-year work-life career period. Their results used data derived from a matching of individuals who participated in the Survey of Income and Program Participation (SIPP) with their tax earnings records compiled from the Social Security Administration (SSA). Based on this data, the effect of educational attainment on aggregated earnings from ages 20 to 69 was estimated using a “semi-synthetic” methodology. For the current study, those earnings are adjusted to the 2018-dollar value.

This “semi-synthetic” approach presents several benefits over the purely synthetic methodology of previous studies; it gives a more accurate representation of the total earnings over a graduate’s work-life history because these data provide a consistent and greater length of work years for an individual. This approach also provides greater demographic details that have an impact on work-life earnings and has a high rate of successful matching between SIPP and SSA data, thus the bias for matching for the same individual across years is relatively small. Besides, the data collection focuses on the years from 1982 up to 2008, to minimize the effects of market place fluctuations after 2008. Moreover, the purely synthetic approach, which uses average

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<sup>24</sup> “‘Synthetic’ estimates of work-life earnings are created by using the working population’s 1-year annual earnings and summing their age-specific average earnings for people ages 25 to 64 years. The resulting totals represent what individuals with the same educational level could expect to earn, on average, in today’s dollars, during a hypothetical 40-year working life. A typical worklife is defined as the period from age 25 through age 64. While many people stop working at an age other than 65, or start before age 25, this range of 40 years provides a practical benchmark for many people.” Taken from Day and Newburger (2002).

annual earnings summed over several age-specific cohorts, seems to overestimate the work-life earnings of graduates.

An estimate of the aggregate differences in earnings between high-school graduates and college graduates from the UTSA 6,329 degrees awarded in FY 2018 alone would be about \$8.4 billion (in 2018 adjusted present value). The values in Table 7 have been adjusted using a Consumer Price Index (CPI-Houston) to change the nominal dollar amounts to the real 2018 dollar.

Table 7

<b>Total Work-Life Earnings Comparisons UTSA Bachelor's and Graduate Degrees with High School Graduate</b> <b>2018 dollars</b>			
UTSA Educational Attainment	UTSA Total Awards By Gender**	Gap From HSG (High School Graduate)***	UTSA Total Work-Life Earnings (Millions of Dollars)
Bachelor's	4,963	\$1,112,428	\$5,521.0
*Graduate (Master's, Doctorate)	1366	\$2,083,875	\$2,846.6
Total	6,329	\$3,196,303	\$8,367.6

Source: IPEDS data on completions 2017-2018.

\* In the study by Tamborini, Chang-Hwan, and Sakamoto (2015), Master's and Doctorate degrees are grouped into a single category called "Graduate."

\*\* "Total Awards By Gender" is the number of "Total Awards" (from tables 1 and 2) by gender; it is the combined or added number derived from the values under those tables.

\*\*\* "Gap From HSG" is how much more males/females with a college degree make more than male/female high school graduates (HSG), it is the difference in work-life earnings between college grads and high school graduates.

Elaboration by J. Oyakawa and L. Barrera

The figures above represent median earnings potential over a work-life period of 50 years for an individual with a college degree and above. This analysis does not differentiate among specific degree fields, it does, however, provide a disaggregation of the work-life earnings of UTSA graduates by gender, that is, the differences in earnings for male and female university graduates based on degree earned.

In 2018, an individual with a graduate degree (Master's and/or Doctorate) would expect to earn \$2.1 million over what he or she would earn with only a high school education. An individual with a Bachelor's degree would expect to earn \$1.1 million over a high-school graduate. The multiplication of these earnings times the number of UTSA Bachelor's and Graduate's degrees (that is, 4,963 and 1,366, respectively) shows the total earnings for all awards in 2018 (for 6,329 degrees awarded). Multiplying the number of Bachelor's degrees times the earnings gap of \$1.1 million results in \$5.5 billion; and multiplying the number of Graduate's degrees times the earnings gap of \$2.1 results in \$2.8 billion. The combined total amounts to \$8.4 billion.

The evidence indicates that men in every level of educational attainment earn more than women with the same level of education. For example, men with a graduate degree earn \$168,587 more than women with a bachelor's and men with a graduate degree earn about \$340,419 more than women with a graduate degree (master's and/or a doctorate). Also, at age 20, women with a graduate degree would expect to earn a net present value of \$471,921 over women with a high-school degree. Men with a graduate degree (master's and/or doctorate) would expect earnings of \$640,507 over men with a high-school degree.

Table 8

<b>Male: Total Work-Life Earnings Comparisons UTSA Bachelor's and Graduate Degrees with High School Graduate 2018 dollars</b>			
<b>UTSA Educational Attainment</b>	<b>UTSA Total Awards By Gender**</b>	<b>Gap From HSG (High School Graduate)***</b>	<b>UTSA Total Work-Life Earnings (Millions of Dollars)</b>
Bachelor's	2,335	\$640,507	\$1,495.6
*Graduate (Master's, Doctorate)	589	\$1,212,147	\$714.0
Total	2,924	\$1,852,654	\$2,209.5

Source: IPEDS data on completions 2017-2018.

Elaboration by J. Oyakawa and L. Barrera

Table 9

<b>Female: Total Work-Life Earnings Comparisons UTSA Bachelor's and Graduate Degrees with High School Graduate 2018 dollars</b>			
<b>UTSA Educational Attainment</b>	<b>UTSA Total Awards By Gender**</b>	<b>Gap From HSG (High School Graduate)***</b>	<b>UTSA Total Work-Life Earnings (Millions of Dollars)</b>
Bachelor's	2,628	\$471,921	\$1,240.2
*Graduate (Master's, Doctorate)	777	\$871,728	\$677.3
Total	3,405	\$1,343,648	\$1,917.5

Source: IPEDS data on completions 2017-2018.

Elaboration by J. Oyakawa and L. Barrera

The above tables indicate that earnings over a work career, regardless of gender, increase with each level of educational attainment. In addition to greater earnings potential, graduates benefit from the quality of life enhancements, which tend to improve fulfillment levels of students' potential on several personal growth dimensions. Some of the benefits include:

- Greater opportunities for employment are created and can be seen in the decrease in unemployment rates for individuals 25 years and older with a Bachelor's degree. For example, the high school graduate unemployment rate decreased by about 1.7 percent for those with a college Bachelor's degree in 2018 (from 3.7 to 2.0 percent).
- Increased resources are available for managing health, for treating disease and illness. For example, the percent of high school graduates without health insurance in 2017 was about 12.4 compared to 5.3 percent of Bachelor's graduates without health insurance.
- A decrease in poverty, in 2018 there was an 8.5 percent decrease in families below the poverty line for graduates with a Bachelor's degree.
- Greater involvement in the community. In 2015, about 38.8 percent of college graduates with a Bachelor's degree volunteered in the community. It is 23.2 percent higher from high school graduates who volunteered in the community.
- Higher voting participation. For example, 59.4 percent of college graduates with a Bachelor's degree voted in the November 2018 congressional election compared to the 30.0 percent of high school graduates who voted.

Table 10

<b>Comparison High School and Bachelor's Degree Graduates Year 2018</b>		
<b>Comparison Category</b>	<b>High School Graduate</b>	<b>College Bachelor's Degree</b>
Percent of Families Below Poverty Line (1)	13.10%	4.60%
Percent Lacking Health Insurance* (2)	12.45%	5.35%
Unemployment Rates, Age 25 or Older (3)	3.70%	2.00%
Percent Who Volunteer in Community ** (4)	15.60%	38.80%
Percent Who Voted in the November 2018 Congressional Election (5)	30.00%	59.40%

\* Health Insurance Coverage in 2018.

\*\* Volunteers by selected characteristics, September 2015 (Numbers in thousands).

Sources: BLS (2017), BLS (2018b), BLS (2015), Census Bureau (2018).

## San Antonio Market Share

The benefits of higher education can not only be seen on an individual level among graduates but can also be seen as having a significant impact on larger-scale systems such as local and state economies. The educational attainment of the adult population with a Bachelor's degree or higher is a strong indicator of regional economic prosperity. In 1980, this population comprised

15.3 percent of the San Antonio MSA, compared to the then state average of 16.9. By 2007, this percentage grew to 24.3 near the state average of 25.2 percent. Moreover, by 2017, this percentage grew to 25.8, compared to the state average of 30.3.<sup>25</sup>

UTSA is a sizable contributor to the overall educational attainment of the San Antonio MSA. As the MSA has grown, so too has its supply of college-educated professionals. From 2007 to 2017, the estimated number of residents 25 and older with Bachelor's degrees or higher increased by 39.0 percent from 300,114 to an estimated 417,679.

Because it is the largest awarder of bachelor's degrees in the San Antonio area, UTSA's contributions to this segment's growth have been sizeable. In 2018, UTSA awarded 4,963 bachelor's <sup>26</sup> degrees, 1,237 master's degrees, and 129 Ph.D. degrees, for a combined 6,329 degrees awarded for 6,311 students (some students get more than one degree). This impact is evident simply by looking at the number of graduates from UTSA and comparing that to the annual increase in the total number of residents 25 and older with a bachelor's degree or higher.

In 2017, the San Antonio MSA increased its population of adults 25 years and older with a bachelor's degree or higher by 16,438 <sup>27</sup> residents. This number includes those that graduated from local institutions as well as those coming to the San Antonio MSA from outside the area. During that same year, UTSA graduated 6,049 students. Even though not all recent graduates stay within the San Antonio MSA upon graduation but the fact that UTSA is producing the equivalent of 37 percent of the annual gains in this population shows the important role UTSA is playing in shaping the region's human capital.

With roughly 72 percent <sup>28</sup> of these graduates remaining in the San Antonio MSA, they comprised 26 percent of the adult population with a bachelor's degree or higher in the San Antonio area.

## STEM Graduates

In an increasingly competitive world, the "nation's youth must be prepared to bring knowledge and skills to solve problems, make sense of information, and know-how to gather and evaluate evidence to make decisions." <sup>29</sup> These are the skills that science, technology, engineering, and math (STEM) majors provide. Higher education institutions provide the high-tech skills demanded in the knowledge-intensive, innovation-driven economy and society.

UTSA's strategic planning includes the goal of becoming a nationally recognized research university, by attaining National Research University Fund (NRUF) eligibility and aiming for an R1 designation by the Carnegie Commission. These designations will position UTSA to align with members of the prestigious Association of American Universities (AAU). UTSA is an urban-serving

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<sup>25</sup> American Community Survey, 2017

<sup>26</sup> IPEDS graduation by major 2018. The UTSA's Office of Institutional Research shows 6,307, a difference of 4 with IPEDS' 6,311.

<sup>27</sup> American FactFinder, 2016.

<sup>28</sup> Information provided by UTSA's Institutional Research Office.

<sup>29</sup> From the Education Department <https://www.ed.gov/Stem>

university focused on driving San Antonio's knowledge economy, living out the notion that great universities need great cities and great cities need great universities.<sup>30</sup>

In the fall of 2018, 10,657<sup>31</sup> of the 32,264 enrolled students were studying in a STEM program, this is over 33.0 percent of the entire student population. When considering the awarded degrees in 2018, of over 6,300, STEM majors amounted to 1,763 or about 28.0 percent of the graduating class in that year.<sup>32</sup>

## Cybersecurity Careers

An independent organization<sup>33</sup> has ranked UTSA's online cybersecurity degree program 15th overall in the nation and first in the nation in providing academic support for students pursuing a cybersecurity degree online. UTSA's online cybersecurity program also ranked first overall in the State of Texas.

With the rise in cybercrime and the higher associated risks, the amount of cybersecurity positions is rapidly increasing around the world. It is expected that 3.5 million unfilled cybersecurity jobs will show up globally by 2021.

In the United States, according to Cyberseek.org, 'in 2017-18, there were 122,000 information security analyst positions available in the U.S., but only 105,000 workers to fill them.'<sup>34</sup> These openings are high paying and in high demand; and the field is thought to maintain its high growth rate. Growth for American cybersecurity positions is three times larger than Information Technology positions and twelve times the average job growth.

In general, the average compensation for cybersecurity workers in the U.S. is \$116,000, and management positions can earn upward of \$160,000 annually.<sup>35</sup>

Engaging more women and minorities into cybersecurity careers can help in reducing the shortage. The talent in these groups could help ease the demand. In the short run, there is untapped talent in similar or related fields that could enter cybersecurity.

To meet future demands will mean encouraging more people, especially women and minorities, to peruse the occupation. In 2017, women accounted for only 14 percent of the cybersecurity workforce in North America, 11 percent worldwide. This is even lower than other STEM fields, which have a 25 percent female workforce. Minorities accounted for slightly less than 12 percent

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<sup>30</sup> From UTSA website <https://www.utsa.edu/strategicplan/destinations/index.html#excellence>

<sup>31</sup> Information provided by Jinny Case from the Office of Institutional Research. This group has a restricted definition and includes students from the College of Sciences, the College of Engineering along with selected majors in cyber-security, management science, statistics, data analytics, information technology, and actuarial science in the College of Business. A broader definition could include the College of Architecture, some social science advanced degrees, and post-secondary science teachers, among others.

<sup>32</sup> When the number of architecture graduates is added, the STEM amount increases by 100 to 1,863 awarded degrees.

<sup>33</sup> From Intelligent, 2019 available at: <https://www.intelligent.com/best-online-cyber-security-degree-programs/>

<sup>34</sup> Ibid.

<sup>35</sup> Ibid.

of the cyber workforce. The NSCC project at one of the more diverse major American universities can play a role in attracting new talent.

## Key University Rankings

The University of Texas at San Antonio has received several awards and recognitions by different organizations. Some of them are reviewed in this section.<sup>36</sup>

The *American Council of Trustees and Alumni* (ACTA) assesses whether institutions of higher learning require seven courses deemed "crucial" to a well-rounded education: composition, literature, foreign language, U.S. government or history, economics, mathematics and science.

- In 2011-2014, UTSA received an A-rating for the caliber of its core curriculum.

The *Best Value Schools* produces a series of rankings, including academic rankings and rankings related to value.

- In 2019, UTSA ranked No.8 in Best Value Hispanic-serving college/university in Texas.

*Bloomberg BusinessWeek's Best Undergraduate Business Schools* assesses how well undergraduate business programs guide students on a successful career path. It uses employer and student surveys, starting salary and internships to come up with its findings.

- In 2016, UTSA was considered No.1 Hispanic Serving Institution in the U.S. and one of the top five undergraduate business schools in Texas.
- In 2009, the UTSA College of Business (COB) was ranked as one of the top part-time MBA programs in the nation by BusinessWeek in its biennial business school rankings.
  - o Nationally, the COB part-time M.B.A. program is ranked 28th.
  - o The COB ranked 10th in the student satisfaction category and received top marks for its teaching quality, caliber of classmates and curriculum.
  - o More than 99 schools participated in the ranking. It was the second time BusinessWeek had ranked the College of Business.

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<sup>36</sup> This information was available as of July 2019, and provided by Christi Fish with the University Communications & Marketing office and UTSA's Institutional Research Office.

## Part IV: UTSA ECONOMIC CONTRIBUTIONS IN 2018

Economic contribution studies are useful ways to explain the benefits of universities to the regional economy. To make these studies transparent and reliable, they must follow proper methods, data, and assumptions as discussed in several studies, for example in Caffrey and Isaacs (1971), Siegfried, Sanderson, and McHenry (2006), and, more recently, the Association of Public and Land-Grant Universities <sup>37</sup> (2014), among others. Some of the issues include:

- The use of appropriate regional input-output matrices
- The correct definition of the study region
- The proper scope of university activities
- The use of suitable multipliers
- Avoid narrative about the return-on-investment from public funds
- Refrain from quantifying secondary impacts from difficult to measure economic and social spillovers.

Economic contribution studies quantify the **gross change in economic activity** associated with an industry, event, or policy in an existing regional economy. Economic impact studies quantify the **net changes in new economic activity** associated with an industry, event, or policy in an existing regional economy (Watson et al., 2007).

The current study used the well-known input-output software and database IMPLAN, which is recommended in several studies, among them Swenson (2011). This software/database utilizes benchmark tables provided by the Bureau of Economic Analysis (BEA) as well as other statistical data to model transactions occurring within a region, state, or nation. A part of IMPLAN is, in a general sense, like an accounting system of the economic transactions taking place between industries, businesses (universities), and consumers in an economy. It estimates the contributions on total output (revenues or sales), payroll, gross regional product, taxes, and employment. By expanding its analysis beyond the direct contributions, IMPLAN provides a more complete picture of the economic effects of transactions.

Economic impacts and economic contributions include direct, indirect, and induced effects. The direct effects result from the activities of the university. The indirect effects are the result of the activities from business suppliers supporting the university. The induced effects are the result of the affected workers spending their incomes on different goods and services in the region. These

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<sup>37</sup> The Association of Public Land-Grant Universities, APLU, “is a research, policy, and advocacy organization dedicated to strengthening and advancing the work of public universities in the U.S., Canada, and Mexico. The association's membership consists of 243 public research universities, land-grant institutions, state university systems, and affiliated organizations.” From the website <https://www.aplu.org/about-us/>

effects were estimated by applying IMPLAN to the San Antonio Metropolitan Statistical Area (SAMSA).<sup>38</sup>

Economic contribution studies quantify the gross change in economic activity associated with an industry, event, or policy in an existing regional economy. Economic impact studies quantify the net changes in new economic activity associated with an industry, event, or policy in an existing regional economy (Watson et al., 2007). The current report implements an economic contributions study for the year 2018 and an economic impact study for the future Downtown developments.

The study region SAMSA includes eight counties as defined by the United States Census Bureau's Office of Management and Budget (OMB): Atascosa, Bandera, Comal, Bexar, Guadalupe, Kendall, Medina, and Wilson. In January 2019, Bexar County accounted for almost 79.0 percent of the SAMSA population, according to the State Demographer Texas Demographic Center.<sup>39</sup> In general, the SAMSA concept defines a core area with a substantial population nucleus and adjacent communities with a high degree of economic and social integration with that core.<sup>40</sup> According to UTSA's Institutional Research Office, for the fall 2018 class, nearly 55.5 percent of the student enrollment belongs to the SAMSA.

The proper scope of university activities in an economic contribution study includes various expenditures categories. The study estimates the direct expenditures in several broad categories including but not limited to 1) expenditures for operations and maintenance; 2) capital expenditures; 3) student spending; 4) expenditures of visitors. Expenditures for operations can be further split into research and non-research spending and, in some cases, should not include the amounts paid in the form of wages and salaries as these expenditures are used for separate faculty and staff spending contributions.

Most studies of university contributions follow along those same lines with modifications. In the current analysis, we will estimate the expenditures from six categories: 1) expenditures for operations and maintenance; 2) capital expenditures; 3) out-of-area funds for research; 4) faculty and staff spending; 5) out-of-area student spending, and 6) out-of-area visitor spending. An additional category includes the activities of the Institute for Economic Development's small business clients because they have clear measurements of their economic and financial results as a result of the Institute's interventions.

## Multipliers

The ratio of total contribution to direct spending is often referred to as the multiplier and can be expressed in terms of dollars and jobs. As mentioned before, direct effects are the changes in the university under analysis; indirect effects are the changes due to the suppliers' response to the direct effects; induced effects are the changes in spending from employees as income change due to direct and indirect activities.

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<sup>38</sup> The complete name is San Antonio-New Braunfels Metropolitan Statistical Area. For this report, it is labeled SAMSA.

<sup>39</sup> Website located at <https://demographics.texas.gov/Data/TPEPP/Estimates/>. The SAMSA population in January 2019 was estimated at 2.5 million people.

<sup>40</sup> From the Census website <https://www.census.gov/programs-surveys/metro-micro/about.html>

Multipliers measure the changes in economic activity due to the direct effects. There are different types of multipliers; here we mention three to understand the differences. Type I multipliers are calculated by dividing the sum of direct and indirect effects by the direct effects. Type II multipliers are calculated by dividing the sum of direct, indirect, and induced effects by the direct effects. SAM multipliers are the third type to be described in this section.

IMPLAN default multipliers are the SAM type multipliers (where SAM stands for Social Accounting Matrix). These multipliers include the induced effects from households' expenses but not at 100 percent, as in the case of Type II multipliers. SAM multipliers take into account that households pay taxes (payroll or income), have savings, some employees are non-local who commute to work, and there are purchases from outside the area of analysis that represent leakages from the local economy and reduce the impacts of indirect expenditures.<sup>41</sup>

While not all of these expenditures will be spent locally, the study intends to measure the direct expenditures of each component within UTSA and estimate the additional economic contributions to the local region. In this sense, it is also important to look at dollars that originated outside the study area. This can be in the form of out-of-area student expenditures, or externally funded research, for example.

## Capital Expenditures Contributions

The construction of new facilities implies the hiring of workers and the buying of equipment and other items from suppliers across several industries. Workers employed in these activities spend their wages and salaries on consumption goods and services generating, in turn, more jobs.

Similar to the previous 2008 UTSA study, due to the variability of construction expenditures over time, the current study used the average from past years, specifically, the past four years (2015-2018) to determine an average amount for initial capital expenditures on construction, major equipment and other improvements in 2018. Not only construction expenditures but also furnishing and equipment, computer equipment, library books, and museum artifacts, among other items, are included in this section. The four-year average amounted to roughly \$40.7 million. The table below illustrates these items and the corresponding IMPLAN sectors for the simulations.

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<sup>41</sup> From IMPLAN Pro User's Guide (third edition, 2004) MIG, Inc.

Table 11

<b>Capital Expenditures 2015-2018</b> <b>In Millions of Dollars</b>		
<b>Category</b>	<b>Average period 2015-2018</b>	<b>IMPLAN sector</b>
Construction of buildings	\$10.303	55
Remodeling of Bldg Ut	\$11.142	55
Construct Impr Grounds	\$2.153	55
Construct Imp Facil	\$2.875	55
Utility Construction	\$3.341	56
Construction of Roads	\$0.175	56
Furnishings & Equip Capitaliz	\$5.583	139
Computer Equip Capitalized	\$1.372	301
Motor Vehicles Passenger Car	\$0.145	442
Motor Vehicles Other	\$0.561	442
Library Books & Other	\$1.118	419
Museum Artifacts	\$0.113	493
CIP Fabr of Eqp & Intang Assest	\$0.252	55
Capital Interest Building	\$0.561	55
Capital Interest Facil	\$0.820	55
Computer Software Capital	\$0.217	422
<b>Total</b>	<b>\$40.733</b>	

Source: UTSA Office of Research Finance and Operations

Table 12

<b>Capital Expenditures Total Economic Contributions * at the San Antonio MSA level</b> <b>2018</b> <b>In Millions of Dollars</b>							
<b>Category</b>	<b>Initial direct spending</b>	<b>Total Output</b>	<b>Total Employment</b>	<b>Total Payroll</b>	<b>Total Gross Regional Products</b>	<b>Total State Revenues</b>	<b>Total Local Governments Revenues</b>
Capital expenditures	\$37.0	\$65.0	390	\$15.0	\$30.2	\$0.9	\$0.9

\*Includes direct, indirect, and induced contributions.

Elaboration by J. Oyakawa

Among the several construction projects, we have the Science and Engineering building (SEB) with a projected total cost of \$95.0 million for 140,000 square feet; between the years 2016 and

2018 \$32.0 million has been already spent in the building.<sup>42</sup> The Large-Scale Testing Laboratory (LST) had an estimated total cost of \$9.9 million with 15,000 square feet; during the period 2016-2018 nearly \$8.7 million has been spent. <sup>43</sup> Other projects over the years include the East Campus parking lot and office building (\$4.5 million), the Brennan and Tobin parking lots (\$2.7 million), and the Recreation Center pool (\$6.3 million), among others.

## Operating Budget Contribution Excluding Payroll and Research

The total budget for 2017-18 was nearly \$540 million. Salaries and wages amounted to \$247.9 million and other related costs and benefits were just over \$68 million, for a combined total of \$316.2 million. Research expenditures exclusive of salaries and wages were \$16.7 million. These amounts were deducted from the operating budget leaving an initial direct spending of \$206.9 million. Expenses like depreciation with \$49.2 million and a miscellaneous category for \$1.8 million were also deducted. The net operating budget amounted to \$155.9 million.

In FY2018, the initial direct spending for operations of the university includes payments for professional services, printing, utilities, telecommunications, repair and maintenance, material and supplies, rentals, and travel, among other items.

Table 13

Operating Expenses 2017-2018 In Millions of Dollars	
Category	Amount
Professional fees/services	\$12.970
Travel	\$11.352
Material supplies	\$25.875
Utilities	\$13.650
Telecom	\$3.145
Repairs/maintenance	\$8.712
Rentals/leases	\$2.123
Printing	\$1.429
Scholarships/fellowships	\$56.312
Cost of goods	\$0.160
Other expenses	\$36.826
Miscellaneous	\$1.863
Amount of depreciation	\$49.168
Salaries and Wages	\$247.958
Payroll Related Costs	\$68.259
<b>Total</b>	<b>\$539.802</b>

Source: UTSA Office of Research Finance and Operations

<sup>42</sup> From <https://facilities.utsa.edu/projects/science-and-engineering-building-seb/> and information provided by Benjamin Perry, Assistant Vice President of Facilities Planning & Development, University Architect.

<sup>43</sup> From <https://facilities.utsa.edu/projects/lss/> and information from Benjamin Perry.

Salaries and wages, and research expenditures have their own economic contributions analyses in the coming sections. For presentation purposes, the depreciation amount of \$49.2 million and other miscellaneous of \$1.8 million were added back for a combined total of \$206.9 million.

The total effects of the initial and the secondary spending represent more than \$375.1 million of business output.

Table 14

<b>Operating Budget* Total Economic Contributions ** at the San Antonio MSA level</b> <b>2018</b> <b>In Millions of Dollars</b>							
Category	Initial direct spending	Total Output	Total Employment	Total Payroll	Total Gross Regional Products	Total State Revenues	Total Local Governments Revenues
Operating Budget excluding wages and research	\$206.9	\$375.1	7,992	\$44.8	\$94.6	\$4.1	\$4.1

\* Excludes wages and research.

\*\*Includes direct, indirect, and induced contributions.

Elaboration by J. Oyakawa

The university directly hired 6,790 full- and part-time employees while secondary contributions by businesses and employees' expenditures added jobs for a combined total of 7,992 jobs.

### ***Utilization of HUB suppliers***

In the State, certification as a historically underutilized business (HUB) can increase the opportunities of companies owned by minority members, service-disabled veterans and women to do business with the state. Small Business and Historically Underutilized Business usage by university business offices is a way to strategically reinvest where it will do the most good. As small and minority businesses prosper, their owners and employees will be better positioned economically to provide a university education for their children and will be positioned to offer good jobs for graduates in their regions across Texas.

In the fiscal year 2018, Texas had 15,667 certified HUBs. About 27.3 percent of them took part in state contracts as prime contractors or subcontractors; this group received 13.1 percent of all statewide expenditures. In the same year, UTSA purchases totaled over \$71.7 million, with 33.5 percent or \$24.0 million obtained from HUB (historically underutilized businesses) vendors. In

2018, UTSA ranked seventh among State agencies in Texas spending the largest percentages with HUBs.<sup>44</sup> Expenditures on HUBs across UTSA outperformed the state’s average of 13.1 percent.

## Faculty and Staff Economic Contributions

For 2018, UTSA spent \$316.2 million on labor compensation including payroll taxes and benefits. This amount includes wages and salaries of full- and part-time faculty, staff, and students working at the university. By October 2018, there were 6,790 full-time and part-time employees (not included in the table below because they are included in the budget contributions’ section) at the university. Expenditures by these workers supported additional jobs related to the everyday spending of people on food, housing, transportation, and travel, among other consumption-related items. Because of these expenditures, a combined total of \$584.1 million on local business revenues (output) are generated.

Table 15

<b>Faculty and Staff Total Economic Contributions * at the San Antonio MSA level 2018</b>							
<b>In Millions of Dollars</b>							
<b>Category</b>	<b>Initial payroll</b>	<b>Total Output</b>	<b>Total Employment</b>	<b>Total Payroll</b>	<b>Total Gross Regional Products</b>	<b>Total State Revenues</b>	<b>Total Local Governments Revenues</b>
Faculty and Staff expenditures	\$316.2	\$584.1	1,964	\$391.9	\$469.9	\$7.3	\$7.4

\*Includes direct, indirect, and induced contributions.

Elaboration by J. Oyakawa

Faculty and staff expenditures on consumption goods and services also support jobs in the local economy. For the year 2018, the total employment contribution of these expenditures is 1,964 jobs.

## Out-of-SAMSA Student Expenditures Contributions

In the fall 2018, 32,101 students were enrolled at The University of Texas at San Antonio. Of this amount, 17,790 (55.4 percent) were from the SAMSA and 14,311 (44.6 percent) were from out-of-MSA.

Many students remain in their local communities to attend college and their money would have circulated throughout the local economy even without the presence of the University. Of the total \$356.0 million, \$168.0 million can be considered “new money” – money spent by residents

<sup>44</sup> From Fiscal Year [2018 Annual HUB Report](#), Texas Comptroller’s Office.

from outside the San Antonio MSA, including foreign and out-of-state students. This amount does not include room and board paid by students living at the university's dorms at Chaparral Villages. Students from other counties that belong to the San Antonio MSA were not included in these out-of-region expenditures; they were estimated at 3.1 percent of the student population. After these deductions, 48 percent of student enrollment (14,311 students) was considered as out-of-MSA students. The vast majority of students reside in Texas, 30,462 (95.0 percent of the total), and 1,639 are non-Texan residents (5.1 percent of the total). Texas residents pay lower tuition than non-Texas.

Table 16

<b>Enrollment Characteristics 2018</b>		
<b>Student Characteristics</b>	<b>Number of Students</b>	<b>Percentage</b>
Total enrollment	32,101	100.00%
Non-MSA origin (including foreign)	14,311	44.60%
MSA origin	17,790	55.40%
Texas resident	30,462	94.90%
Non-Texas resident (including foreign)	1,639	5.10%

Source: UTSA's Institutional Research Office

Table 17

<b>Enrollment Characteristics 2018</b>		
<b>Student Characteristics</b>	<b>Number of Students</b>	<b>Percentage</b>
Non-MSA origin (including foreign)	14,311	100.00%
Non-MSA living on-campus	1,929	7.10%
Non-MSA living off-campus	12,382	92.90%

Source: UTSA's Institutional Research Office

Considering the direct expenditures from new money alone (purchases by students from outside of the region), an additional \$200.1 million is spent in local and non-local businesses because of the presence of UTSA. Because expenditures "leak" outside the local area, the direct spending for local businesses amounts only to \$153.2 million. The combined contribution of direct and secondary spending is 273.0 million.

Table 18

<b>Students Expenditures Total Economic Contributions * at the MSA level 2018</b> <b>In Millions of Dollars</b>							
<b>Category</b>	<b>Initial direct spending</b>	<b>Total Output</b>	<b>Total Employment</b>	<b>Total Payroll</b>	<b>Total Gross Regional Products</b>	<b>Total State Revenues</b>	<b>Total Local Governments Revenues</b>
Students expenditures	\$153.2	\$273.0	2,565	\$82.6	\$159.2	\$8.3	\$8.4

\*Includes direct, indirect, and induced contributions.

Elaboration by J. Oyakawa

These out-of-MSA student expenditures supported a combined total of direct and secondary jobs of 2,565 that contribute to the economic health of the area.

## Research Spending Contributions

The UTSA vision is to become a premier research institution. With research, the true impact the university has on the economy is the power to prepare knowledge workers and breed innovative ideas.

The university obtains research funds from a diverse group of organizations. For the study of the economic contributions, it is important to highlight the funds originating from outside the area. Based on the information from the UTSA's Institutional Research, from 2014 to 2019, non-local restricted research funds <sup>45</sup> increased from \$29.4 to \$50.8 million, and is expected to reach \$67.0 million by 2022.

Total research expenditures grew from \$45.3 million in 2014 to \$80.6 million in 2019. By 2022, total research expenditures are expected to reach \$142.0 million.

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<sup>45</sup> "A restricted research expenditure is an expenditure of funds for which the use of the funds qualifies as research and development and for which an external entity has placed limitations of use" This allows a review process for the Texas [Legislature](#) to allocate funds to emerging research universities and institutions of higher education (THECB, April 2019).

Table 19

<b>Research Funding 2015-2019 In Millions of Dollars</b>		
<b>Fiscal Year</b>	<b>Restricted Expenditures</b>	<b>Total Expenditures</b>
2014	\$29.4	\$45.3
2015	\$31.8	\$51.8
2016	\$36.4	\$56.8
2017	\$40.1	\$68.1
2018	\$44.0	\$69.6
2019	\$50.8	\$80.6
2020 (projected)	\$67.0	\$130.0
2021 (projected)	\$69.0	\$134.0
2022 (projected)	\$76.0	\$142.0

## Visitors' Spending Contributions

The number of visitors to UTSA is highly variable. For different reasons, such as sporting events, continuing-education classes, official pre-college visits, arts events, cultural festivals and graduations, visitors play an important part in the life of the university. Nevertheless, a systematic collection of data from their presence in San Antonio is not available at this time.

The University offers science, engineering, architecture, sports, music, writing and language, and culture camps for kids, teens, and adults. Some camps are daylong programs; others last a week or two. However, each of the camps offers participants the chance to have fun, make friends, and learn something new.<sup>46</sup>

For athletics activities, there are several camps for different sports, like men's and women's basketball, baseball, soccer, volleyball, football, softball, and tennis. These venues receive important attendance and several of them are attendees from outside the San Antonio area.

Some events attract visitors not only from the State of Texas but also from out of the state. For example, the Senior Olympics Games, the South Texas Regional Track Meeting, and the Spring Tournament. The South Texas Regional Track meeting can attract 10,000 people over five days.

Even more, in FY18, several home games took place for football, volleyball, basketball (women and men), softball, and baseball. These events attracted crowds supporting not only UTSA's teams but also the visiting squads.

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<sup>46</sup> From <https://www.utsa.edu/camps/>

Table 20

<b>UTSA 2018 Sporting Events</b>			
<b>Sporting event</b>	<b>Number of home games</b>	<b>Total attendance</b>	<b>Revenues</b>
Football	5	114,105	\$1,335,864
Volleyball	8	6,283	\$22,567
Women's Basketball	12	6,284	\$7,957
Men's Basketball	14	15,566	\$57,195
Softball	17	3,405	\$13,507
Baseball	27	8,276	\$25,279

Source: Athletics Department

Because these sporting events occurred in San Antonio, they likely attracted visitors from outside the area. Nevertheless, the available information at this time does not detail the expenses from out-of-the-area visitors.

In 2007, the CCBR in conjunction with the Tourism Management Program at the UTSA College of Business performed a study of the proposed athletics complex at UTSA at the time.<sup>47</sup> The study projected the number of visitors to UTSA athletic events through 2016-2017 with 2007-2008 serving as the base year for these projections. By extrapolating some of the results to the year 2018, it was estimated that the total economic contribution of visitors to UTSA athletic events was nearly \$18.1 million supporting 244 jobs.

Table 21

<b>Visitors (Athletics) Economic Contributions at the San Antonio MSA level 2018 In Millions of Dollars</b>		
<b>Activity</b>	<b>Output Contributions</b>	<b>Employment Contributions</b>
Athletic Events Visitors	\$18.10	244

Elaboration: J. Oyakawa

<sup>47</sup> From *Operations, Construction, and Tourism Contributions of a Proposed Athletics Complex at the University of Texas at San Antonio*. Center for Community and Business Research and Tourism Management Program at the University of Texas at San Antonio College of Business, 2007.

Similarly, visitors to UTSA not related to sporting events contributed to the university's standing in the community. As with the previous UTSA study, based not only on the Illinois Higher Education Coordinating Board report of 9.01 total visits of relatives and friends per student per year but also on other studies <sup>48</sup> the current research used 18-person-days average visitors per out-of-the-area student each year.

The Tourism Research Division of the Governor's Office Economic Development estimated the average daily per-person spending, in the SAMSA, of leisure visitors to be \$135.5 in 2018. That year, there were 32,264 students enrolled and 14,374 <sup>49</sup> were from outside the SAMSA, the total amount spent by the out-of-the-area visitors was \$35.1 million. When using IMPLAN, to estimate the economic contributions, the analysis has to take into consideration that the spending "leaks" to outside the area, for example, when buying at retail stores, a great portion of the price paid goes to the original producer of the groceries, whom usually is a non-local producer. This translates into a lower amount of \$29.0 million of direct spending in the area.

Table 22

<b>Visitors (Non-Athletics) Expenditures Total Economic Contributions * at the MSA level</b> <b>2018</b> <b>In Millions of Dollars</b>							
Category	Initial direct spending	Total Output	Total Employment	Total Payroll	Total Gross Regional Products	Total State Revenues	Total Local Governments Revenues
Visitors (Non-Athletics) expenditures	\$29.0	\$51.6	554	\$16.7	\$30.6	\$1.7	\$1.7

\*Includes direct, indirect, and induced contributions.

Elaboration by J. Oyakawa

Visitors from non-athletics events contributed with a total output of \$51.6 million, total employment of 554 jobs, a total payroll of \$16.7 million, a total gross regional product of \$30.6 million, total state revenues of \$1.7 million, and local governments' revenues of \$1.7 million.

In the table below, combined with the total estimated visitors' expenditures for UTSA athletic events, the total economic contribution of visitors to the university in 2018 was \$69.7 million and supported 799 jobs with a total payroll of \$16.7 million.

<sup>48</sup> For example, in Rephann (2016); and Gourley and White-Means (2008).

<sup>49</sup> From UTSA Institutional Research Service.

Table 23

<b>Visitors Expenditures Total Economic Contributions * at the MSA level 2018</b>							
<b>In Millions of Dollars</b>							
<b>Category</b>	<b>Initial direct spending</b>	<b>Total Output</b>	<b>Total Employment</b>	<b>Total Payroll</b>	<b>Total Gross Regional Products</b>	<b>Total State Revenues</b>	<b>Total Local Governments Revenues</b>
Visitors expenditures	\$40.5	\$69.7	799	\$16.7	\$30.6	\$1.7	\$1.7

\*Includes direct, indirect, and induced contributions.

Elaboration by J. Oyakawa

## Institute for Economic Development Economic Contributions

The Institute for Economic Development delivers economic and small business development services to San Antonio and the State of Texas. In 2018, the Institute merged internally with UTSA's research arm to form a synergistic team to promote the UTSA Research, Economic Development, and Knowledge Enterprise division.

In addition to its San Antonio-based programs and centers, there are nine satellite centers associated with other institutions of higher education located throughout the southwest Texas/border area focusing specifically on small business development. Satellite centers are located in Alpine, Austin/San Marcos, Corpus Christi, Eagle Pass, Edinburg, El Paso, Laredo, San Angelo, and Victoria.

Similar to the other contributions analyzed, this section reports only the new and retained jobs in the SAMSA to measure the contribution UTSA has had on the community. The activities of the IED are far greater than the numbers reported here.

When adjusted to reflect only the direct contribution to the area, the IED activities resulted in 3,052 new and retained jobs for a total economic output from operations of over \$361.3 million.

Table 24

<b>IED Total Economic Contributions * From Operations at the San Antonio MSA level 2018</b> <b>In Millions of Dollars</b>							
Category	Initial direct spending	Total Output	Total Employment	Total Payroll	Total Gross Regional Products	Total State Revenues	Total Local Governments Revenues
IED expenditures	\$203.2	\$361.3	3,052	\$114.0	\$197.8	\$7.8	\$7.8

\*Includes direct, indirect, and induced contributions.

Elaboration by J. Oyakawa

These small businesses also contributed to capital investments with \$62.5 million. These investments were allocated to four industries in the IMPLAN simulations in different percentages for each industry: maintenance and repair construction of nonresidential structures has a 55 percent share (sector 62), furniture and fixtures has a 10 percent share (sector 374), machinery and equipment has a 25 percent share (sector 274), and computer electronics has a 10 percent share (sector 301). The different shares correspond to information from previous studies of businesses opening new operations in San Antonio.

Those amounts were adjusted to show the expenditures that applied to local businesses and resulted in a net initial direct spending of \$52.2 million. The combined initial and secondary contributions yielded a total output of \$96.0 million and 839 jobs supported.

Table 25

<b>IED Total Economic Contributions * From Capital Investments at the San Antonio MSA level 2018</b>							
Category	Initial direct spending	Total Output	Total Employment	Total Payroll	Total Gross Regional Products	Total State Revenues	Total Local Governments Revenues
IED expenditures	\$52.2	\$96.0	839	\$27.5	\$52.0	\$2.2	\$2.2

\*Includes direct, indirect, and induced contributions.

Elaboration by J. Oyakawa

Adding together operations and capital investments contributions translated into an initial direct spending of \$255.5 million, a total output of \$457.3 million, a total employment of 3,891 jobs, a total payroll of \$141.5 million, a total gross regional product of \$249.8 million, total state revenues of \$10.0 million and a similar amount for local governments.

Table 26

<b>IED Total Economic Contributions * at the San Antonio MSA level 2018</b> <b>In Millions of Dollars</b>							
Category	Initial direct spending	Total Output	Total Employment	Total Payroll	Total Gross Regional Products	Total State Revenues	Total Local Governments Revenues
IED expenditures	\$255.5	\$457.3	3,891	\$141.5	\$249.8	\$10.0	\$10.0

\*Includes direct, indirect, and induced contributions.

Elaboration by J. Oyakawa

## Summary of UTSA Economic Contributions

For the year 2018, UTSA's direct and secondary contributions generated \$1.9 billion in annual output in the SAMSA and supported 17,828 jobs. This total contribution in annual output corresponds to the direct and secondary effects of UTSA's capital, operations, personnel, out-of-MSA students, visitors, and IED client expenditures.

Table 27

<b>Combined Economic Contributions * at the San Antonio MSA level 2018</b> <b>In Millions of Dollars</b>		
Category	Total Output contribution	Total Employment Contribution
Capital expenditures	\$65.0	390
Operating Budget	\$375.1	7,992
Faculty/Staff expenditures	\$584.1	1,964
Research	\$47.6	229
Students expenditures	\$273.0	2,565
Visitor expenditures	\$69.7	799
IED	\$457.3	3,891
<b>Total</b>	<b>\$1,871.9</b>	<b>17,829</b>

\*Includes direct, indirect, and induced contributions.

Elaboration by J. Oyakawa

Out of the total annual output contributions, \$375.1 million correspond to the operations of the university and \$584.1 million correspond to faculty and staff expenditures in the local economy. Student expenditures account for \$273.0 million of the total, while visitors to UTSA account for over \$69.7 million. A sizable portion of the total contribution came from the activities of the Institute for Economic Development. The direct output of IED clients generated a total economic contribution of \$457.3 million.

Another look at these UTSA's contributions shows an initial direct contribution over \$1.0 billion producing \$1.9 billion total output contribution, paying \$701.9 million in payroll, generating over \$1.0 billion in gross regional product, \$32.7 million in State's revenues, and \$33.1 million in local governments' revenues.

This latest economic impact study highlights the significant strides UTSA has made over the past ten years. For example, the university's operating budget grew from \$132 million in 2008 to over \$375 million in 2018. Faculty/staff expenditures rose from \$270 million to over \$584 million. It is important to note that because 2008 marked a period of significant, unprecedented construction on the main campus, capital expenditures at the time (\$132 million) were over double those of 2018 (\$65 million). In every other major category dealing with the economic impact on the San Antonio metro area, however, UTSA exhibited strong growth and steadily increasing influence, as indicated in Table 28. Excluding capital expenditures, UTSA's output contribution increased nearly 63 percent during the ten-year period from 2008-2018.

Table 28

<b>Overall Expenditures Total Economic Contributions * at the San Antonio MSA level</b> <b>2018</b> <b>In Millions of Dollars</b>							
Category	Initial direct spending	Total Output	Total Employment	Total Payroll	Total Gross Regional Products	Total State Revenues	Total Local Governments Revenues
Overall expenditures	\$1,026.0	\$1,871.9	17,829	\$701.9	\$1,052.1	\$32.7	\$33.1

\*Includes direct, indirect, and induced contributions.

Elaboration by J. Oyakawa

## PART V: FUTURE ECONOMIC IMPACTS

This section demonstrates the economic impacts of capital investments and **new** operations of The University of Texas at San Antonio's downtown expansion plan. This expansion includes several phases and construction is expected to begin by the end of 2020. Additional impacts from the **new** student population of eleven thousand are included.

### Phases for Future Expansion

**Phase 1 (2020-2024)** includes several capital investments and operations of schools, centers, and housing for students, faculty, and staff. In addition to the National Security Collaboration Center (NSCC) and the School of Data Science (SDS), this phase includes a student housing at the Continental Hotel site, a new building for the expanded College of Business Entrepreneurship, and student housing at Dolorosa Street.<sup>50</sup> At this time, this section of the plan has secured \$70 million from the UT System Regents and \$15 million in private donations. These buildings appear in the next figure as ***UTSA Parcels East of I-10/I-35***.

Beyond benefiting and expanding UTSA's current military and private partnerships, the National Security Collaboration Center (NSCC) is expected to attract additional companies who will co-locate their facilities on or near campus, creating more jobs and further solidifying San Antonio's place as a leader in Cyber national security.

With groundbreaking scheduled in November 2020, the NSCC will form a hub for innovation to enhance national security and deal with other computational and data-intensive problems. The environment will put students in a position to work with and get noticed by firms and the security agencies, which will enhance recruitment efforts. These opportunities will benefit students with real-world, experiential learning applications of their skills.

The adjacent School of Data Science will contain assigned areas for academic units and centers, and for faculty and staff offices to service several thousand students.

**Phase 2 (2024-2025)** includes the construction of a mixed-use facility at the Cattleman's Square for student housing and commercial activities at the ground level. Housing buildings like this will be as high as eight to fifteen stories. This building appears in the next figure at the top side of the ***UTSA Parcels West of I-10/I-35***.

**Phase 3 (2025-2028)** includes the construction of several facilities on Frio street for academic, research, and housing purposes. These buildings appear in the next figure as the ***City of San Antonio Parcels***.

**Phase 4 (2027-2029)** includes the construction of academic and other facilities at the Durango Lot near the DoubleTree Hotel. This space appears in the next figure as ***TxDOT Parcels***.

By 2029, it is estimated that the Downtown Campus will serve 15,000 students with 2,000 faculty and staff working at this location. Currently approximately to 4,000 students take at least one

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<sup>50</sup> UTSA Campus Master Plan, November 2019.

class with no university housing facilities. Also, at this time, approximately 450 faculty and staff work at the Downtown Campus.

## Projected Expenditures

The projected construction costs for the Downtown Campus are divided by phase and for the analysis it was assumed that 90 percent of the funds originate from out-of-SAMSA. The combined total external funding for these phases will be over \$1.0 billion.

Table 29

<b>Projected Construction Expenditures by Phase for Downtown Campus In Millions of Dollars</b>		
<b>Period</b>	<b>Projected Costs</b>	<b>Projected External Funds at 90 %</b>
Phase 1 (2020-2024)	\$283.0	\$254.69
Phase 2 (2024-2025)	\$396.1	\$356.49
Phase 3 (2025-2028)	\$84.5	\$76.08
Phase 4 (2027-2029)	\$439.5	\$395.52
<b>Total</b>	<b>\$1,203.1</b>	<b>\$1,082.78</b>

Elaboration: J. Oyakawa

## Downtown Campus Illustrative Plan



As the Downtown Campus grows and changes, it will become an externally-focused campus, connecting students, faculty, staff, and collaborative partners with downtown, the West Side, and other surrounding neighborhoods. Physical changes to the campus will support UTSA's abilities to reinforce community partnerships and enhance and embrace the urban environment. UTSA also has a unique opportunity to connect with the West Side neighborhood; establishing links, both literal and figurative, are important to both UTSA and the community.

1. Improved Bill Miller Plaza
2. Buena Vista Pavilion
3. Medina Promenade
4. San Pedro Creek Culture Park
5. Pedestrianized Frio Street
6. Cattleman's Square Housing
7. Continental Hotel Housing

The UTSA Master Plan shows the projected needs of the Downtown Campus with 1.3 million adjusted square feet and 1.9 million gross square feet. These needs are presented by space type (e.g., instruction, research, library), as shown in the following table.

Table 30

<b>Master Plan Projected Needs</b>		
<b>Space Type</b>	<b>Projected Future Net New Space (ASF)</b>	<b>Projected Future Net New Space (GSF)</b>
Instruction	428,700	
Research	302,500	
Office	310,300	
Library	124,400	
Support	123,700	
Auxiliary *	134,000	
Subtotal	1,423,600	
Less NSCC+SDS	(141,700)	
Adjusted Total **	1,281,900	1,972,100

\* Includes food service, child care, lounge, retail, recreation among others.

\*\* Does not include housing

Source: UTSA Campus Master Plan. November 2019

For the analyses of the economic impacts, the Master Plan space types were reduced to three: academic, support, and auxiliary. A fourth type, housing, was added to the study. The gross square feet without the space type “housing” is the same as shown in the Master Plan at 1.9 million square feet whereas with the inclusion of housing the area increases to 2.8 million square feet.

Table 31

<b>Economic Impact Study Projected Construction Square Feet</b>		
<b>Space Type</b>	<b>Gross Square Feet</b>	<b>Gross Square Feet</b>
Academic	1,222,149	1,222,149
Housing		783,683
Support	373,780	373,780
Auxiliary	376,171	376,171
Subtotal	1,972,100	2,755,783

Elaboration by J. Oyakawa

The different space types and phases were combined with prices per square feet to obtain construction expenditures per year. In the majority of cases, each year of expenses was split into two years, only in one case they were split into three years (for phase 3).

Additionally, future operations of the different new buildings were projected using the number of projected faculty and staff per year according to the available academic, support, and auxiliary new constructions. Additionally, a projection of the number of new students per year allowed the estimation of their spending impacts in the area.

The following table shows the expenditures for construction activities assuming that 90 percent of the funding originates from outside the SAMSA. Operation budgets were estimated using IMPLAN's average budget for private colleges modified to simulate public college activities with zero taxes and no profits.

The number of **new** faculty and staff grows from zero in 2022 to 300 in 2023 up to 1,550 in 2029 when all construction activities are supposed to finish. **New** student attendance similarly grows from zero in 2022 to 1,000 in 2023 up to 11,000 in 2029.

Table 32

<b>Projected Construction Expenditures, Operations, Number of New Faculty/Staff, Wages Paid, and Number of New Students for Selected Years.</b> <b>In Millions of Dollars</b>						
<b>Event Category</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2025</b>	<b>2027</b>	<b>2029</b>
Construction Expenditures	\$70.6	\$127.3	\$85.2	\$184.6	\$204.2	\$0
Only New Operations Budget ex wages	NA	NA	\$16.5	\$27.8	\$61.4	\$71.6
Only New Faculty/Staff jobs	NA	NA	300	509	1,263	1,550
Only New Salaries and wages	NA	NA	\$23.3	\$39.3	\$86.8	\$101.2
Only new students	NA	NA	1,000	4,333	7,621	11,000

Elaboration: J. Oyakawa

Even though years 2024, 2026, and 2028 do not appear in the previous table, they all experience construction activities, new operations from the different facilities at the Downtown Campus, and spending from new students.

## Projected Downtown Campus Economic Impacts for Selected Years

Based on the projected changes, economic impacts for the combined activities of construction, operation of the new facilities, and student expenses are presented in the table below for *selected years*.

Table 33

Projected Economic Impacts of Future Downtown Campus Developments In Millions of Dollars						
Economic Impacts *	2021	2022	2023	2025	2027	2029
Total Output	\$121.7	\$218.9	\$230.2	\$457.0	\$686.9	\$393.4
Total Employment	694	1,234	1,438	2,760	4,550	3,117
Total Gross Regional Product	\$55.3	\$99.5	\$116.7	\$228.0	\$360.5	\$228.7
Total Payroll	\$26.4	\$47.4	\$66.8	\$114.3	\$214.1	\$145.4
Total State Revenues	\$1.5	\$2.7	\$3.7	\$5.8	\$11.9	\$5.8
Total Local Governments Revenues	\$1.5	\$2.7	\$3.6	\$5.8	\$11.9	\$5.7

\*Includes direct, indirect, and induced Impacts.

Elaboration: J. Oyakawa

For these projections, the total cost of construction activities was assumed to be funded with 90 percent out-of-SAMSA sources.

In 2021, with only construction activities, the total impacts on output reach \$121.7 million, 694 supported jobs, a gross regional product of \$55.3 million, payroll of \$26.4 million, State revenues \$1.5 million, and a similar amount for local governments.

In 2022, still with only construction activities, the total impacts on output reach \$218.9 million, 1,234 supported jobs, a gross regional product of \$99.5 million, payroll of \$47.4 million, State revenues \$2.7 million, and a similar amount for local governments.

For years 2023, 2025, and 2027, construction activities, new operations of the facilities, and new student spending generate additional impacts in the area. In 2027, total output impacts reach the highest level at \$686.9 million supporting 4,550 jobs. State and local government's revenues will reach \$11.9 million each.

The year 2029 shows only total impacts from new operations of the facilities and new student spending. That is the reason this year shows smaller impacts than the previous two years. At this time, it is projected that 1,550 new faculty and 11,000 new students are already active on the campus.

**Appendix A** provides detailed economic impacts for the selected years.

## Projected Main Campus Construction Impacts for Selected Years

Currently, the Main Campus is in the process of expanding and renovating its facilities. Among several projects, there are ongoing construction activities for the Guadalupe Hall with a projected cost of \$43.6 million, the Roadrunner Athletics Center for Excellence (RACE) with a cost of \$34.0 million, and the Park West Athletics Complex Team Building with \$10.0 million. Together with future construction plans, these developments will transform the landscape of the university.

Future projects include the following:

- Student Success Center with a cost of \$105 million
- Creative Arts Education and Engagement Building with a cost of \$156.7 million
- Honors Residential College (phase 1) with a cost of \$6.2 million
- Roadrunner Village and Innovation Park with an estimated cost of \$100.0 million
- Library and Student Collaboration Center with a cost of \$75.0 million
- Bio-Safety Level III Laboratory with a cost of \$52.0 million
- Peter T. Flawn Building renovations and adaptive reuse with a cost of \$44.0 million
- New Warehouse and offices for Purchasing and Distribution with a cost of \$5.5 million
- Garage number 4 with a cost of \$40.0 million
- Band Hall Annex and Practice Field with a cost of \$27.0 million
- Arena-Convocation Center with a cost of \$115.0 million, and
- New Child Development Center with \$12.0 million.

Additional developments include the renovations or remodeling of several structures, like the Arts Building, the HVACs systems for the Multidisciplinary Studies Building and the John Peace Library, among others.

With the information on the current and future costs of the different projects, and apportioning the costs in three or four years depending on the particular project, the following table shows the projected **construction** expenditures for **selected years**, assuming that **90 percent** of the costs is funded from sources outside the SAMSA:

Table 34

Projected Construction Expenditures in Main Campus for Selected Years					
In Millions of Dollars					
Category	2021	2022	2023	2025	2027
Ongoing new construction	\$26.3	\$3.0			
New Construction	\$73.1	\$73.1	\$73.1	\$151.0	\$77.9
Renovation, maintenance				\$20.7	\$20.7
	\$99.4	\$76.1	\$73.1	\$171.6	\$98.5

Source: Information provided by Assistant Vice President of Facilities Planning & Development, University Architect.

With **ongoing construction** continuing over the next years and with **future new construction** projects, by 2021, there are \$99.4 million expenditures projected. Similarly, in 2022 and 2023, projected construction expenditures will reach \$76.1 and \$73.1 million each. For 2025 and 2027, including the **renovation of existing facilities**, construction expenditures will reach \$171.6 and \$98.5 million, respectively.

Table 35

<b>Projected Economic Impacts of Future Main Campus Construction for Selected Years In Millions of Dollars</b>					
<b>Economic Impacts *</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2025</b>	<b>2027</b>
Total Output	\$171.2	\$130.8	\$125.4	\$294.7	\$169.2
Total Employment	976	738	699	1,636	934
Total Gross Regional Product	\$77.8	\$59.5	\$57.0	\$135.9	\$78.9
Total Payroll	\$21.5	\$21.5	\$21.5	\$21.5	\$21.5
Total State Revenues	\$2.1	\$1.6	\$1.6	\$3.7	\$2.2
Total Local Governments Revenues	\$2.1	\$1.6	\$1.5	\$3.7	\$2.1

\*Includes direct, indirect, and induced impacts.

Elaboration: J. Oyakawa

**Appendix B** presents a table with annual Main Campus projected construction expenditures for the period 2021-2028.

## Combined Future Downtown and Main Campus Impacts

Combining **all of Downtown Campus future economic impacts** (as shown in Table 33) and **Main Campus future construction impacts** for selected years (as shown in Table 35), the following table exhibits the potential economic impacts in the area:

Table 36

<b>Combined Economic Impacts of Future Downtown Campus Developments and Main Campus Construction for Selected Years In Millions of Dollars</b>					
<b>Economic Impacts *</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2025</b>	<b>2027</b>
Total Output	\$292.9	\$349.7	\$355.7	\$751.6	\$856.2
Total Employment	1,670	1,972	2,137	4,395	5,484
Total Gross Regional Product	\$133.2	\$158.9	\$173.7	\$363.9	\$439.4
Total Payroll	\$47.9	\$68.9	\$88.4	\$135.8	\$235.7
Total State Revenues	\$3.6	\$4.3	\$5.2	\$9.5	\$14.1
Total Local Governments Revenues	\$3.6	\$4.3	\$5.2	\$9.4	\$14.0

\*Includes direct, indirect, and induced Impacts.

Elaboration: J. Oyakawa

In 2021, total output impacts attain \$292.9 million, 1,670 supported jobs, a gross regional product of \$133.2 million, a payroll of \$47.9 million, state's revenues of \$3.6 million, and a similar amount for local governments.

In 2022, total output impacts make \$349.7 million, 1,972 supported jobs, a gross regional product of \$158.9 million, a payroll of \$68.9 million, state's revenues of \$4.3 million, and a matching amount for local governments.

For years 2023, 2025, and 2027, construction activities, renovations of existing buildings, new operations of the facilities, and new student spending generate impacts in the area. In 2027, total output impacts hit the highest level at \$856.2 million supporting 5,484 jobs. State and local governments' revenues reach \$14.1 and \$14.0 million, respectively.

## PART VI: SUMMARY AND FORECAST

The University of Texas at San Antonio continues to undertake key strategic initiatives making the institution integral to the region. UTSA has identified several initiatives that will enable the university to achieve new levels of excellence over the coming decade.

The overarching theme to drive the university forward consists of three destinations. As a Hispanic-serving institution where students from all backgrounds can excel, UTSA will be a model for student success. Secondly, UTSA will become a great public research university aiming for an R1 designation by the Carnegie Commission. Finally, UTSA will realize its full potential by growing enrollment and infrastructure focusing on innovation and continuous improvement.

By 2028, UTSA targets a total enrollment of 45,000 students with faculty of 2,000 and an annual budget of \$1 billion. The university will add an additional 3 million gross square feet. Four-year graduations rates should reach 35 percent, with a six-year graduation goal of 60 percent. Annual research expenditures should reach \$300 million.

The UTSA Downtown campus will see significant additions, such as one-stop enrollment center as part of its Phase I expansion. The National Security Collaboration Center and the School of Data Science will be based downtown, benefiting from a \$70 million commitment from the University of Texas System Board of Regents. In addition, UTSA secured a \$15 million gift and parcels of land downtown for campus facilities from the City of San Antonio and Bexar County.

In an effort to promote experiential learning, UTSA will target three-quarters of students for practical applications of classroom learning. The Classroom-to-Career initiative will utilize internships, co-ops, field experience and service learning in order to enable students to explore career interests before graduation.

UTSA has targeted the Carnegie R1 classification, which encompasses research expenditures, faculty awards and number of Ph.D. graduates. Achieving this target will positively influence the economy in the San Antonio area.

The UTSA Downtown Campus already houses the College of Architecture, Construction and Planning, the College of Public Policy, the College of Education and Human Development, and the Institute for Economic Development. The College of Business will reside downtown as well.

Phases II-IV Downtown Campus expansion will add dormitory facilities and other mixed-used development projects that include restaurants, shopping and gathering places. Cattleman's Square residential tower is planned for two acres and is expected to contain 10-15 floors of student housing along with two floors of retail, restaurants and services.

In order to better connect with underserved communities in San Antonio's urban core, UTSA has established a community center on the city's Westside neighborhood. The center will foster meaningful relationships with Westside residents and business owners in terms of educational access, lifelong learning and economic opportunity.

The Roadrunner Center of Excellence will serve as a hub for over 350 student-athletes participating in 17 NCAA Division I sport programs. A task force will develop a comprehensive

multi-purpose sports performance center focusing on student-athlete academic success, safety, and wellness.

The \$33 million Guadalupe Hall on main campus will enhance student on-campus living and add 360 beds. Guadalupe Hall will expand the residential experience to a greater number of students and provide for increased engagement of new UTSA matriculates. Similarly, a new Student Success Center will also provide academic support programs from start to finish.

A new College for Health, Community and Policy has been submitted to the UT System for formal approval. Nine departments will be housed within the college, including the four that comprise the existing College of Public Policy.

Planning is underway for 50 acres between the new College of Engineering Building and Valero for the Tricentennial Innovation Park near the main campus with funding provided by the U.S. Department of Commerce Economic Development Administration. The vision for the park encompasses a partnership with at least one other university or research institution, an environment conducive to the formation and growth of new companies, and technology-led economic development and commercialization.

UTSA remains well positioned to serve its local, regional, state, national and international constituencies going forward. The university's economic, cultural, social and intellectual contributions will synergize to increase the vibrancy of the region as the population surges toward 3.3 million by 2050. As an emerging world-class institution of higher learning just 50 years old, UTSA will play a key role in the Greater San Antonio area for many decades to come.

### 3c Innovation Park



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## APPENDIX A Projected Economic Impacts in the Downtown Campus. Selected Years

For Phase 1, there are several academic and housing buildings to be constructed: the School of Data Science, the National Security Collaboration Center, the expansion of the College of Business, and the transformation of the Continental Hotel. Total expenditures for this phase amounts to \$212.4 million.

Expenditures are allocated to different years between 2021 and 2024 with the construction of a particular building taking more than one year, usually two years. The next tables for years 2021 and 2022 show the results of those construction activities.

Table A. 1

Future Downtown Total Economic Impacts * at the San Antonio MSA level 2021							
In Millions of Dollars							
	Initial direct contribution	Total Output	Total Employment	Total Payroll	Total Gross Regional Products	Total State Revenues	Total Local Governments Revenues
Construction	\$70.6	\$121.7	694	\$26.4	\$55.3	\$1.5	\$1.5

\*Includes direct, indirect, and induced Impacts.

Elaboration by J. Oyakawa

Table A. 2

Future Downtown Total Economic Impacts * at the San Antonio MSA level 2022							
In Millions of Dollars							
	Initial direct contribution	Total Output	Total Employment	Total Payroll	Total Gross Regional Products	Total State Revenues	Total Local Governments Revenues
Construction	\$127.3	\$218.9	1,234	\$47.4	\$99.5	\$2.7	\$2.7

\*Includes direct, indirect, and induced Impacts.

Elaboration by J. Oyakawa

Different from the previous two years, in 2023, some buildings are already in operations and therefore new students are attending classes at these new locations. Several of these students are from out-the-SAMSA and bring “new” money to the region. It is not shown here, but 2024 is very similar to the year 2025.

Table A. 3

Future Downtown Total Economic Impacts * at the San Antonio MSA level 2023							
In Millions of Dollars							
	Initial direct contribution	Total Output	Total Employment	Total Payroll	Total Gross Regional Products	Total State Revenues	Total Local Governments Revenues
Construction	\$85.2	\$146.0	814	\$31.6	\$66.4	\$1.8	\$1.8
Operations	\$39.8	\$76.0	547	\$32.8	\$45.6	\$1.6	\$1.6
Students	\$4.6	\$8.2	77	\$2.5	\$4.8	\$0.2	\$0.3
Total	\$129.5	\$230.2	1,438	\$66.8	\$116.7	\$3.7	\$3.6

\*Includes direct, indirect, and induced Impacts.

Elaboration by J. Oyakawa

For years 2025 and 2027, there are new academic, support, and housing facilities with increasing numbers of new faculty, staff, and students. In the year 2025, the impacts from Phase 2 construction activities are at their peak, including the redevelopment of the Bill Miller Plaza and new academic buildings.

Table A.4

Future Downtown Total Economic Impacts * at the San Antonio MSA level 2025							
In Millions of Dollars							
	Initial direct contribution	Total Output	Total Employment	Total Payroll	Total Gross Regional Products	Total State Revenues	Total Local Governments Revenues
Construction	\$184.6	\$315.3	1,718	\$54.9	\$143.2	\$2.7	\$2.6
Operations	\$67.0	\$126.9	911	\$54.9	\$76.2	\$2.7	\$2.6
Students	\$8.3	\$14.8	131	\$4.4	\$8.6	\$0.4	\$0.5
Total	\$259.9	\$457.0	2,760	\$114.3	\$228.0	\$5.8	\$5.8

\*Includes direct, indirect, and induced Impacts.

Elaboration by J. Oyakawa

In the year 2027, phases 3 and 4 are already taking shape with new academic, support, parking, and housing buildings.

Table A. 5

Future Downtown Total Economic Impacts * at the San Antonio MSA level 2027							
In Millions of Dollars							
	Initial direct contribution	Total Output	Total Employment	Total Payroll	Total Gross Regional Products	Total State Revenues	Total Local Governments Revenues
Construction	\$204.2	\$347.5	1,857	\$74.9	\$157.8	\$4.3	\$4.2
Operations	\$148.2	\$278.9	2,127	\$120.9	\$167.4	\$5.8	\$5.8
Students	\$33.9	\$60.5	566	\$18.3	\$35.2	\$1.8	\$1.9
Total	\$386.3	\$686.9	4,550	\$214.1	\$360.5	\$11.9	\$11.9

\*Includes direct, indirect, and induced impacts.

Elaboration by J. Oyakawa

By the year 2029, only operations of the new facilities with new faculty/staff and new students are considered to generate economic impacts.

Table A. 6

Future Downtown Total Economic Impacts * at the San Antonio MSA level 2029							
In Millions of Dollars							
	Initial direct contribution	Total Output	Total Employment	Total Payroll	Total Gross Regional Products	Total State Revenues	Total Local Governments Revenues
Operations	\$172.8	\$331.0	2,580	\$126.6	\$192.2	\$3.9	\$3.8
Students	\$34.9	\$62.4	537	\$18.8	\$36.5	\$1.9	\$1.9
Total	\$207.7	\$393.4	3,117	\$145.4	\$228.7	\$5.8	\$5.7

\*Includes direct, indirect, and induced impacts.

Elaboration by J. Oyakawa

## APPENDIX B Projected Construction Expenditures in Main Campus.

The Table below adds information for years 2026 and 2028 to the construction expenditures presented previously. As before, these values are assumed at 90 percent of the original cost of the projects because it is assumed that not 100 percent of funds will come from outside the area (SAMSA).

Table B.1

<b>Projected Construction Expenditures in Main Campus 2021-2028</b> <b>In Millions of Dollars</b>								
<b>Category</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>
Ongoing new construction	\$26.3	\$3.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Construction	\$73.1	\$73.1	\$73.1	\$151.0	\$151.0	\$92.9	\$77.9	\$77.9
Renovation, maintenance	\$0.0	\$0.0	\$0.0	\$20.7	\$20.7	\$20.7	\$20.7	\$20.7
	\$99.4	\$76.1	\$73.1	\$171.6	\$171.6	\$113.5	\$98.5	\$98.5

Source: Information provided by Assistant Vice President of Facilities Planning & Development, University Architect.

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