

Expenditures under Core Research Support Fund (CRSF) and Texas Comprehensive Research Fund (TCRF) Fiscal Year 2019

January 2020

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Texas Higher Education Coordinating Board



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Agency Mission

The mission of the Texas Higher Education Coordinating Board (THECB) is to provide leadership and coordination for Texas higher education and to promote access, affordability, quality, success, and cost efficiency through *60x30TX*, resulting in a globally competitive workforce that positions Texas as an international leader.

Agency Vision

The THECB will be recognized as an international leader in developing and implementing innovative higher education policy to accomplish our mission.

Agency Philosophy

The THECB will promote access to and success in quality higher education across the state with the conviction that access and success without quality is mediocrity and that quality without access and success is unacceptable.

The THECB's core values are:

Accountability: We hold ourselves responsible for our actions and welcome every opportunity to educate stakeholders about our policies, decisions, and aspirations.

Efficiency: We accomplish our work using resources in the most effective manner.

Collaboration: We develop partnerships that result in student success and a highly qualified, globally competent workforce.

Excellence: We strive for excellence in all our endeavors.

The Texas Higher Education Coordinating Board does not discriminate on the basis of race, color, national origin, gender, religion, age or disability in employment or the provision of services.

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Executive Summary

In 2001, the Texas Legislature created the Texas Excellence Fund and the University Research Fund to enhance research. In 2003, the Texas Legislature combined the two funds to establish the Research Development Fund (RDF), effective Fiscal Year (FY) 2006. The RDF supported increased research capacity at eligible public universities (all public institutions, except The University of Texas at Austin and Texas A&M University) by providing funds using a set allocation formula to enhance research efforts.

In 2015, the Texas Legislature abolished the Research Development Fund, effective FY 2016, and created the Core Research Support Fund (CRSF) for emerging research universities. The CRSF supports increased research capacity at public institutions of higher education that are designated as emerging research universities under the Texas Higher Education Accountability System. Funds are distributed by a set formula allocation for the support and maintenance of educational and general activities, including research and student services, that promote increased research capacity at the institution. The distribution formula is based on both total research expenditures and restricted research expenditures. The program's purpose is outlined in Texas Education Code [Chapter 62, Subchapter F-1](#).

In 2015, the Texas Legislature also created the Texas Comprehensive Research Fund (TCRF) for all public four-year institutions of higher education that are not designated as research or emerging research universities under the Texas Higher Education Accountability System. Funds are distributed by a set formula allocation for the support and maintenance of educational and general activities, including research and student services, that promote increased research capacity at the institution. The distribution formula is based on restricted research expenditures. The program's purpose is outlined in Texas Education Code [Chapter 62, Subchapter E](#).

Each biennium, CRSF and TCRF appropriations by institution are included in the [General Appropriations Act, Senate Bill \(SB\) 1, 85th Texas Legislature](#). These funds may be used for two additional fiscal years beyond the original appropriation year until the funds are spent, encumbered and spent, or lapsed per the [Texas Comptroller of Public Accounts](#). Therefore, expenditures by institution and appropriations totals may vary for any given fiscal year.

Institutions that received funds from either the CRSF or the TCRF submit an annual report documenting the use of the appropriated funds for the preceding fiscal year. This report provides the summary information for each institution that received CRSF or TCRF funding.

A summary of expenditures under the Core Research Support Fund (CRSF) in FY 2019 is presented in Table 1. A summary of expenditures under the Texas Comprehensive Research Fund (TCRF) in FY 2019 is presented in Table 2.

Table 1. Fiscal Year 2019 Expenditures from Core Research Support Fund (CRSF)

Institution	Salaries/Wages for New or Reassigned FTEs	Salaries/Wages for Existing FTEs	Operating Expenses	Capital Expenditures	Total
TXST	\$745,075	\$2,646,413	\$568,506	\$1,129,394	\$5,089,388
TTU	\$ 431,156	\$9,080,722	\$382,236	\$780,443	\$10,674,557
UT-Arlington	\$0	\$5,790,907	\$0	\$0	\$5,790,907
UT-Dallas	\$0	\$7,701,848	\$426,247	\$0	\$8,128,095
UT-El Paso	\$1,758,872	\$4,135,116	\$829,705	\$381,481	\$7,105,174
UT-San Antonio	\$160,493	\$4,165,636	\$238,545	\$49,465	\$4,614,139
UH	\$0	\$8,438,552	\$2,522,631	\$1,283,317	\$12,244,500
UNT	\$579,345	\$1,647,886	\$130,260	\$8,506	\$2,365,997
Total	\$3,674,941	\$43,607,080	\$5,098,130	\$3,632,606	\$56,012,757

Source: Institutional Core Research Support Fund expenditure reports

Note: Amounts are rounded to the nearest dollar. Totals may be +/- \$1 from reported amount.

Table 2. Fiscal Year 2019 Expenditures from Texas Comprehensive Research Fund (TCRF)

Institution	Salaries/Wages for New or Reassigned FTEs	Salaries/Wages for Existing FTEs	Operating Expenses	Capital Expenditures	Total
Angelo	\$0	\$0	\$28,334	\$0	\$28,334
Lamar	\$0	\$67,107	\$68,941	\$0	\$136,048
MSU Texas	\$0	\$0	\$23,903	\$14,002	\$37,905
Prairie View	\$0	\$235,596	\$58,896	\$74,817	\$369,309
SHSU	\$0	\$202,059	\$0	\$0	\$202,059
SFA	\$14,143	\$37,500	\$66,500	\$91,540	\$209,683
Sul Ross	\$0	\$86,224	\$0	\$0	\$86,224
Tarleton	\$171,754	\$282,505	\$9,834	\$0	\$464,093
TAM-I	\$0	\$152,586	\$0	\$0	\$152,586
TAMU-Galveston	\$0	\$182,607	\$199,449	\$179,200	\$561,256
TAMU-Commerce	\$0	\$91,250	\$50,425	\$0	\$141,675
TAMU-Corpus Christi	\$337,000	\$425,197	\$469,517	\$29,396	\$1,261,110
TAMU-Kingsville	\$0	\$413,247	\$780,681	\$222,893	\$1,416,821
TAMU-San Antonio	\$0	\$0	\$12,317	\$0	\$12,317
TAMU-Textarkana	\$0	\$0	\$1,080	\$0	\$1,080
TSU	\$0	\$122,565	\$49,500	\$14,093	\$186,158
TWU	\$6,630	\$107,657	\$1,755	\$0	\$116,042
UT-Tyler	\$20,698	\$0	\$39,853	\$0	\$60,551
UT-Permian Basin	\$379	\$0	\$0	\$0	\$379
UT-RGV	\$291,298	\$259,857	\$256,293	\$41,330	\$848,779
UH-Clear Lake	\$11,306	\$15,033	\$158	\$0	\$26,497
UH-Downtown	\$0	\$150,876	\$0	\$0	\$150,876
UH-Victoria	\$0	\$0	\$20,873	\$0	\$20,873
UNT-Dallas	\$0	\$0	\$1,484	\$0	\$1,484
WTAMU	\$0	\$163,099	\$11,060	\$0	\$174,159
Total	\$853,208	\$2,994,965	\$2,150,853	\$667,271	\$6,666,298

Source: Institutional Texas Comprehensive Research Fund expenditure reports

Note: Amounts are rounded to the nearest dollar. Totals may be +/- \$1 from reported amount.

Angelo State University

Entry: 1

Title: *The Effect of Sex on Patellofemoral Joint Stress during Stair Ascent and Descent*

Description: Specialized cameras, calibration equipment, and related supplies necessary for tracking and analyzing body motion in a physical therapy research lab.

Purpose/Intent: To examine whether males and females exhibit biomechanical differences when navigating stairs that help explain why females develop patellofemoral pain (PFP) more frequently than males.

Benefit for the State or Institution: The researcher is investigating the etiology of patellofemoral pain (PFP). The small equipment purchased and the initial study conducted with these funds will support expansion to future studies, with the ultimate goal of refining physical therapy practice to address PFP.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$15,000
Capital Expenditures	\$0
Total	\$15,000

Entry: 2

Title: *New Faculty Research Start-up Support: Chemistry*

Description: Materials and supplies for organic chemistry research and a high performance computer for computational research in physical chemistry.

Purpose/Intent: To support new faculty members in establishing their research lab and activities.

Benefit for the State or Institution: The new organic chemist needed specific scientific supplies to begin his research activities at ASU; these supplies will allow the faculty member to establish his independent research program at ASU, improving his competitiveness for external funding. The new physical chemist using the high performance computer is investigating the structural and electronic properties of molecular systems, the results of which are of interest to experimentalists trying to synthesize these molecules in the laboratory. In addition to conducting basic research in these areas, both researchers will involve multiple undergraduate students in research and research training activities.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$4,752
Capital Expenditures	\$0
Total	\$4,752

Entry: 3**Title:** *New Faculty Research Start-up Support: Criminal Justice***Description:** Statistical software packages for support of research in criminology.**Purpose/Intent:** To support a new faculty member in establishing his research lab and activities.**Benefit for the State or Institution:** The researcher is investigating a variety of topics in criminology, including factors that are predictive of inmate misconduct, predictors of police perceptions, and variables that influence fear of crime. This research involves sophisticated analysis of large data sets, hence the need for advanced statistical software, and it has the potential to help the criminal justice system understand the factors impacting policing, imprisonment, and public perceptions of the system.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$2,565
Capital Expenditures	\$0
Total	\$2,565

Entry: 4**Title:** *New Faculty Research Start-up Support: Engineering***Description:** Statistical and modeling software for research in mechanical engineering.**Purpose/Intent:** To support a new faculty member in establishing his research lab and activities.**Benefit for the State or Institution:** The researcher is investigating the life prediction of power plant components susceptible to a time-dependent deformation called creep, and his goal is to work toward the development of a probabilistic approach to fail-safe design through modeling and calibration, statistical analysis, and simulation. A better understanding of the factors involved in creep could contribute to the development of more resilient components. Additionally, undergraduate students will have an opportunity to gain experience in research and working with modeling and statistical software used in industry.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$1,827
Capital Expenditures	\$0
Total	\$1,827

Entry: 5**Title:** *Sponsored Research Travel***Description:** Funding for Travel**Purpose/Intent:** To support the travel of a representative from ASU to attend the THECB's Restricted Research Committee Review of Award List in Austin in July 2019.**Benefit for the State or Institution:** The THECB strongly recommends all CRSF and TCRF institutions send one or more representatives to the meeting to review and discuss the eligibility of projects reported by each institution as restricted research. These funds allowed ASU to contribute to the review and discussion process as well as to the updates to the SAMs.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$231
Capital Expenditures	\$0
Total	\$231

Entry: 6

Title: *New Faculty Research Start-up Support: Physics*

Description: To purchase the computer hardware necessary for setting up a theoretical and computational biophysics lab.

Purpose/Intent: To provide newly hired faculty in the Department of Physics & Geosciences funds to set up research programs that expand the research diversity of the department and institution.

Benefit for the State or Institution: The setup of a theoretical and computational biophysics lab will provide support for research focused on describing and modeling intercellular interactions in biological tissues. This research will contribute to the fundamental understanding of biological development, which ultimately has implications for human health. Additionally, this lab will provide the researcher with the tools necessary to train and mentor several undergraduate students each year in biophysical research.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$3,959
Capital Expenditures	\$0
Total	\$3,959

Lamar University

Entry: 1

Title: *Salaries for Sponsored Programs*

Description: Salaries and wages

Purpose/Intent: Enables University to seek external funding for research

Benefit for the State or Institution: Provide human resources to support additional staff contributing to the research missions at Lamar University

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$67,107
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$67,107

Entry: 2

Title: *Cayuse grants management Software*

Description: Software for: all IRB submissions, grant submissions, and grant document retention

Purpose/Intent: Streamlines process (IRB) and streamlines proposal preparation and grant management

Benefit for the State or Institution: Cayuse is an intuitive electronic research administration ecosystem which provides complete research suite solutions for sponsored projects, pre-award, post-award, compliance, etc. Cayuse encompasses every facet of the research process. Using Cayuse saves cost in human workforce.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$28,863
Capital Expenditures	\$0
Total	\$28,863

Entry: 3

Title: *InfoReady Corporation*

Description: Software for: internal competitions, limited submissions, and awards.

Purpose/Intent: Streamlines process for internal Research Enhancement grants, faculty fellowship grants and limited submission proposals.

Benefit for the State or Institution: InfoReady is a web-based internal proposal submission system which reduces the time spent checking applications, routing proposals to reviewers and aggregating scores. The software program works with limited submissions, internal funding grants, awards, nominations, development grants, sabbatical approvals, and tenure and promotion submissions. It allows a transparent and compliant operation of internal grant competitions and selections.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$9,500
Capital Expenditures	\$0
Total	\$9,500

Entry: 4**Title:** *Biomedical Research***Description:** Software for: human subjects research training, IRB protocol, biosafety/biosecurity, conflict of interest, export compliance, IACUC administration, clinical trial compliance, and animal care**Purpose/Intent:** Training is required for faculty/staff/students to work on grants/apply for IRB approval to conduct research. Training for researchers promotes ethical compliant research.**Benefit for the State or Institution:** Collaborative Institutional Training Initiative (CITI Program) provides high quality web-based educational courses in research, ethics, regulatory oversight, responsible conduct of research, research administration, and other topics pertinent to the interests of member organizations. Materials are designed and regularly updated to enhance the knowledge of investigators, staff, and students conducting research in the United States and internationally. CITI also educate members, administrators, and leadership of ethics committees that review and oversee research. This greatly reduces the need of performing face-to-face trainings that are usually not possible due to scheduling.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$4,800
Capital Expenditures	\$0
Total	\$4,800

Entry: 5**Title:** *ProQuest LLC***Description:** National database for collaborative grant efforts internally and externally. Works in conjunction with Cayuse.**Purpose/Intent:** None submitted.**Benefit for the State or Institution:** Pro-Quest (Pivot) database provides a single source for scholarly journals, newspapers, reports, working papers, and datasets. It provides researchers less time spent searching for information and collaborative efforts and more time devoted to research. Pivot has a partnership with Cayuse to provide users immediate access to proposals for submission. It saves time & effort for principle investigator.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$7,300
Capital Expenditures	\$0
Total	\$7,300

Entry: 6

Title: *American Association of State Colleges & Universities*

Description: Grant resource center membership 2 years

Purpose/Intent: Membership to AASCU provides university with access to pertinent information regarding public higher education and grants.

Benefit for the State or Institution: AASCU aids members in building academic quality, intellectual diversity, and academic freedom. AASCU is supported by a structure of operating divisions and monitors and analyzes public policy matter at the national, state, and campus level. AASCU aims are to increase knowledge of the importance of public higher education in the United States and to identify the distinctive contributions of the AASCU institutions. The association operates through a series of commissions, committees, and task forces in which the membership's chancellors and presidents participate in discussions and take action on the major issues of higher education. This facilitates collaboration among institutions.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$18,478
Capital Expenditures	\$0
Total	\$18,478

Midwestern State University

Entry: 1

Title: *Office of Sponsored Programs and Research*

Description: Purchase of SPIN Plus subscription

Purpose/Intent: Provides support for faculty research

Benefit for the State or Institution: Assists with identification of grant opportunities that fit the needs of our faculty and institution.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$1,482
Capital Expenditures	\$0
Total	\$1,482

Entry: 2

Title: *Ultra-Low Freezer with -86 C Capability*

Description: Support purchase of ThermoFisher Scientific 86C upright ultra-low temperature freezer

Purpose/Intent: Store DNA, microorganisms and tissue samples at very low temperatures to preserve specimen stability and integrity.

Benefit for the State or Institution: At the time of purchase the science labs shared only one ultra-low freezer that, if a power loss was experienced, was not able to hold temperature and resulted in potential loss of specimens and years of research. Having two freezers ensures if one loses power irreplaceable samples used in research by faculty and graduate students can be moved to a backup.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$1,919
Capital Expenditures	\$0
Total	\$1,919

Entry: 3

Title: *STEAMing HOT Camp: STEAM-based learning research project*

Description: Support purchase of Sphero BOLT app-enabled robots and Avengers Hero Inventors Kits

Purpose/Intent: Provide elementary-aged study participants with the resources and tools to engage in problem-solving STEAM learning during the camp.

Benefit for the State or Institution: This study will examine elementary students' creativity when exposed to project based STEAM camp, and gauge the impact of facilitating project-based learning on self-efficacy of PSTs. Data collected through surveys and reflections will be analyzed to inform the results of the study, and results will be published and disseminated. The researchers hypothesize that results will show increase in creativity and self-efficacy.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$1,502
Capital Expenditures	\$0
Total	\$1,502

Entry: 4**Title:** *Commercial 3D Ceramic Printer***Description:** Support purchase of a Potterbot 7 Super commercial 3D ceramic printer**Purpose/Intent:** Provide faculty and students at MSU Texas with access to commercial ceramic 3D printing equipment to enhance their artistic and scholarly endeavors.**Benefit for the State or Institution:** A commercial ceramic 3D printer would allow MSU Texas to have the most up-to-date ceramic printing capabilities in the state of Texas, which will give students and faculty an advantage in artistic production and in the workplace. MSU will be able to initiate a Fab Lab and give students a better chance at employment while both recruiting and retaining more students.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$0
Capital Expenditures	\$5,700
Total	\$5,700

Entry: 5**Title:** *Bones of Texas***Description:** Purchase of Canon EOS camera and lens**Purpose/Intent:** The camera was used to photograph towns across Texas for the faculty member's scholarly/creative project, Bones of Texas, which catalogs the crumbling structures of ghost towns throughout the state.**Benefit for the State or Institution:** This project has inspired future research for the faculty member and has resulted in numerous exhibitions. The camera purchased will be made available for other faculty and students to use in their scholarly and creative endeavors.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$1,448
Capital Expenditures	\$0
Total	\$1,448

Entry: 6**Title:** *Veritas High Performance Analytical Balances***Description:** Purchase of Veritas high performance analytical balances**Purpose/Intent:** High performance laboratory balances are required for precise measurement of reagents or the products of biological and chemical experiments.**Benefit for the State or Institution:** These balances are equipped with a highly integrated weighing cell that features high stability against temperature changes and time. HPB balances have, as standard, automatic internal calibration that ensures precise measurements, practically independent from environmental temperature changes. The model purchased has a two-year warranty and is capable of being serviced to extend the balance life and ensure continued accuracy.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$9,845
Capital Expenditures	\$0
Total	\$9,845

Entry: 7

Title: *Dietary Niche Partitioning between an Island Anole Lizard and its Invasive Congener*

Description: Support purchase of a Dell Latitude 5424 rugged laptop and mobile GPS unit for field research.

Purpose/Intent: The research will determine the dietary composition of four ecotypes of the Dominican Anole and the Puerto Rican Anole on the island of Dominica. These diets will be compared to understand how they partition dietary resources and the extent to which the invasive species encroaches on the dietary niche ecotype of the Dominican Anole.

Benefit for the State or Institution: Provide support for faculty and student field research in Biology. This will be the first study to document the diets of these species using molecular techniques, and will also be the first comparison of diets between these species. This information is important because the Dominican Anole appears nowhere else on Earth and the Puerto Rican Anole threatens to displace it in some areas, leading to local or total extinction. By better understanding the ecological dynamics of these two species, we may be able to mitigate the effects of the invasive species on the island endemic.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$2,286
Capital Expenditures	\$0
Total	\$2,286

Entry: 8

Title: *What's Not to Lichen? Survey and Molecular Identification of Lichens of the Chihuahuan Desert*

Description: Purchase of a Mini-Beadbeater-16 beadbug homogenizer instrument and supplies to process samples.

Purpose/Intent: This study seeks to survey MSU Texas' Dalquest Desert Research Station (DDRS) property for Lichen species. The lichen will be sampled and identified both by traditional taxonomic means as well as using modern molecular systematic approaches.

Benefit for the State or Institution: This project will provide a stimulus for the MSU faculty member's professional development by broadening his research into molecular systematics and field biology. The piece of equipment purchased will also be available for at least 2 other faculty members in Biology whose research makes use of disrupting plant and fungal cells.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$1,738
Capital Expenditures	\$0
Total	\$1,738

Entry: 9**Title:** *Making Men: Race, Class, and Gender Projects Among Parents of Youth Football Players***Description:** Support purchase of NVIVO qualitative data analysis software**Purpose/Intent:** The purchase of this software will allow for the completion of this research project and will be used for future projects focused on families, children, and health/well-being. The goal for this research is a book publication, as well as stand-alone articles published in peer-reviewed academic journals.**Benefit for the State or Institution:** This project is a good investment for MSU for several reasons, including: 1) Creating opportunities to include undergraduates in faculty research projects, fostering intellectual, creative, and applied learning experiences for students, 2) Supporting faculty research (including MSU's contributions to the intellectual community), and 3) Funding research on families, children, and health/well-being, which will contribute to the larger community and social good.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$800
Capital Expenditures	\$0
Total	\$800

Entry: 10**Title:** *Music for Tuba, Marimba, Electronics, and Digital Art***Description:** Purchase of audio equipment, software, and associated materials for the creation of an interdisciplinary performance.**Purpose/Intent:** The overall intent of this project is to commission a new composition for tuba and marimba, utilizing electronic technology and digital arts in its production and performance. The work will be premiered at MSU and at the 2019 International Tuba and Euphonium Conference. Funds provided through this award will cover the costs of necessary equipment required for the production of this interdisciplinary effort to integrate audio performance with digital display.**Benefit for the State or Institution:** Having works commissioned and their subsequent performance will carry scholarly weight for those in academia in the fine arts. The funding also supports an interdisciplinary creative and scholarly collaboration among MSU Texas faculty.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$1,734
Capital Expenditures	\$0
Total	\$1,734

Entry: 11**Title:** *Cultural Influence on Fitness and Health Status***Description:** Purchase of Polar M430 wrist monitors**Purpose/Intent:** The wrist monitors will be used to record movement, intensity of movement, kilocalorie expenditure, and sleep patterns for the project. The project seeks to determine if cultural change effects movement patterns leading to enhanced fitness and health.**Benefit for the State or Institution:** This faculty research project involves both undergraduate and graduate students in research activities. The project pulls both the learning and research process together for the students, enforcing the importance of research and its application within the field. The findings of this project could directly support MSU's stated goal "to contribute constructively to society through" scholarly work.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$1,149
Capital Expenditures	\$0
Total	\$1,149

Entry: 12**Title:** *High-accuracy handheld geoposition data logging device***Description:** Support purchase of a Trimble TDC150 centimeter-scale GNSS receiver. Put simply, this is a GPS locator with the ability to locate the operator's movements within ten centimeters.**Purpose/Intent:** A substantial portion of Earth and environmental science research relies on accurately mapping features on the surface of the Earth and documenting their change with time. This tool permits students and faculty to locate geofeatures for accurate reporting**Benefit for the State or Institution:** This is a fundamental tool that can be used throughout the geosciences program for both student and faculty research. It is particularly useful to our two newest faculty members as they establish their research programs. Accurate geosurveying opens the door to new research projects that can be an enticement to prospective undergraduate and graduate students. The accuracy of this tool permits collection of publishable data that potential bolsters applications for external funding. In addition to its support of research, it is useful for exposing students to modern surveying techniques.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$0
Capital Expenditures	\$8,302
Total	\$8,302

Prairie View A&M University

Entry: 1

Title: *Impact of an External Vascular Access Device on Arteriovenous Fistula Patency Rates*

Description: For hemodialysis, access to the blood is required. Creating and maintaining access has proven to be challenging and expensive. The Ark, a vascular access device is being tested to show its long-term impact on dialysis access.

Purpose/Intent: To gather preliminary data to be used to secure grant funding from a federal agency and to collect data that can be used to submit a preliminary FDA application. This data will be used to inform a first-in-human study while pursuing FDA 510k approval.

Benefit for the State or Institution: This project is a good investment for the State of Texas and PVAMU because it supports the commercialization of academic technologies. Traditionally, funded academic research never makes it into the hands of people where it can do the most good. This research aims to test a viable technology that will benefit kidney doctors, kidney patients, hospital & dialysis clinic personnel. In addition, it can help relieve some of the burden to the US Medicare program by reducing costs associated with creating and maintaining access for dialysis patients.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$8,521
Operating Expenses	\$11,698
Capital Expenditures	\$9,804
Total	\$30,023

Entry: 2

Title: *High Pressure Combustion of Liquid Fuels in Microgravity*

Description: This project outlines a plan for an initial effort of developing a ground-based research program to investigate the droplet burning characteristics of liquid fuels at elevated pressures in a microgravity environment that promotes spherical symmetry.

Purpose/Intent: The goal of this proposal is to achieve the canonical configuration for liquid fuel combustion in a drop tower facility to assess the performance of hydrocarbons and extend experimental conditions to high pressures.

Benefit for the State or Institution: This work will help PVAMU to be placed in a very competitive position among one of the very few places in the U.S. to be able to perform experiments in microgravity, to engage in more research activities, and to attract more funding from various agencies. Specifically, performing high-pressure combustion in microgravity is perfectly aligned with NASA's recent research priorities.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$13,975
Capital Expenditures	\$0
Total	\$13,975

Entry: 3

Title: *Synthesis, Characterization and Modeling Study of Environmentally Friendly Schiff-Based Catalyst with Improved Reducing Power*

Description: This project is investigating the best synthetic procedures to design alternative catalysts environmentally safe to reduce toxic material such as Reactive Oxygen Species and Reactive Nitrogen Species that are producing and ecologic imbalance on our planet.

Purpose/Intent: This project address the environmental imbalance that affects all types of living organisms on our planet, and it is strongly related to human activity. Ultimately, this project is aiming to lower air, water, and soil contamination, promoting sustainability and diminishing production costs.

Benefit for the State or Institution: This research has huge potential for impulse a multi-disciplinary collaborative research project. As the activities reach different stages and produce the necessary data the researchers will be ready to apply for external funding. The project is training undergrads and graduate students in modern instrumental techniques, synthetic methodology and environmental equilibrium useful in their future professional activities.

The project is important to the state of Texas and the country in general, because our research will impact and remediate the current effects caused by environmental problems, as is the case of chemical contamination of the Gulf waters (sea, lakes and rivers), air pollution in major cities, soil contamination, and human health deterioration.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$6,001
Operating Expenses	\$1,206
Capital Expenditures	\$11,173
Total	\$18,380

Entry: 4

Title: *Design and Synthesis of Novel NIR Active Photothermal Agents for Photothermal Therapy of Cancer*

Description: The photothermal therapy (PTT) is identified as a promising alternative to conventional cancer therapies owing to its remote controllability, low systemic toxicity, and minor side effects. In general, photothermal agent which can exhibit excellent photothermal conversion efficiency is a primary requirement for success of PTT.

Purpose/Intent: Success of NIR added hyperthermia is completely depends on transduction of NIR light energy into heat or thermal energy and it can be attained by employment of proper NIR active photothermal (PT) agent in the therapy, known as photothermal therapy (PTT).

Benefit for the State or Institution: With the support of this project, we succeeded to develop the novel photothermal agent, GR-CuS which demonstrated the excellent photothermal effect and photothermal conversion efficiency compared to popular photothermal agent gold. Currently, gold is using in PTT as a photothermal agent, which made the PTT as an infeasible therapy due to expensive gold employed in it.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$5,999
Operating Expenses	\$1,267
Capital Expenditures	\$0
Total	\$7,266

Entry: 5

Title: *Stiffness Matching Implant Through Biomimetic Fibrous Structures for Craniofacial Reconstruction Surgery*

Description: Stress shielding is a major problem in the bone-implant industry as it often leads to undesired failure of the implant. Thus, the ability to control the stiffness of bone-implant has become a very active research field so that the longevity of the implant could be improved. In this project, we attempt to decipher the geometric complexity in the trabecular orientation and how they affect the structural stiffness.

Purpose/Intent: The purpose of this project is to come up with a structural design methodology that allows implant designers to help control the stiffness of the implant from studying trabecular architecture of human bones.

Benefit for the State or Institution: The research topic has a good potential to create exciting collaboration opportunities in and outside the campus. If successful, multiple patents and industrialization of products can also take place. More importantly, many engineering students are showing a great interest in this biomedical project.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$0
Capital Expenditures	\$5,059
Total	\$5,059

Entry: 6

Title: *Dynamic Covalent Polycarbonate Systems: "Rewritable" and Self-Healing Architectures Facilitated by Thiol-Disulfide Exchange*

Description: None submitted.

Purpose/Intent: To gain an understanding of the necessity of the binding site structure and composition of the chelating material to facilitate sufficient lead chelating affinity. The proposed synthetic approach will incorporate chelating sites based on the natural amino acid, cysteine, which has been studied and administered extensively to remediate biological and environmental lead contamination. For this primary phase of research, polymer construction is the major milestone in the overall chelation study.

Benefit for the State or Institution: None submitted.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$5,000
Operating Expenses	\$3,759
Capital Expenditures	\$9,533
Total	\$18,292

Entry: 7

Title: *Sustainable Bio-composites Manufacturing Using Bio-fiber (hemp) Pre-preg*

Description: The proposed research is an attempt of using 100% biodegradable composite materials (woven hemp fiber and bio-resin) for making the semi-finished product (pre-preg, i.e., "pre-impregnated" composite fibers) that can be directly and conveniently used in bio-composite parts manufacturing, achieving better part quality results than using other bio-fibers.

Purpose/Intent: The overall research goal of the proposed project is to validate that woven hemp fibers can be used to make pre-preg ("pre-impregnated" composite fibers) that is able to be applied in bio-composites manufacturing as a sustainable reinforcement material with higher mechanical properties than other bio-fibers, together with various bio-resin systems as the matrix.

Benefit for the State or Institution: Through the successful completion of the proposed project, bio-composite parts manufactured using woven hemp fibers could be obtained conveniently. To the best of the PI's knowledge, this will be the first trial of using woven hemp in 100% biodegradable composite parts made in the U.S. It will serve as a good start for the PI's future study of developing a detailed additive manufacturing process (e.g., 3D printing of bio-composite parts using pre-pregs made by the method developed in this project) using the same materials in the future.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$6,000
Operating Expenses	\$4,258
Capital Expenditures	\$7,805
Total	\$18,063

Entry: 8

Title: *Longitudinal Effect of Personal Growth Initiative on Posttraumatic Stress Symptoms Among African American College Students*

Description: Personal growth initiative (PGI; Robitschek et al., 2012) is a skillset, which plays a critical role in developing and accomplishing goals related to personal growth, and PGI has been found to be beneficial not only in people's everyday lives but also in coping with a potentially traumatic event. Among college students, PGI skills are known to enhance students to thrive and succeed in a college environment. In the context of trauma, college students with PGI skills are more likely to find the meaning of a traumatic event, focus on the future, have a greater appreciation in life, and gain a greater sense of closeness with others (Shigemoto et al., 2016; Shigemoto et al., 2017).

Purpose/Intent: The aim of the present study is two-fold: (i) elucidate the function of PGI skills in the aftermath of a traumatic event, such by examining the immediate and long-term effects of PGI skills on posttraumatic stress and how PGI skills may lead to adaptive coping strategies, alleviating posttraumatic stress and (ii) evaluate the applicability of PGI skills among African American college students who have experienced a traumatic event, such by examining the interindividual differences in the intraindividual changes in PGI, coping, and posttraumatic stress.

Benefit for the State or Institution: At the completion of the proposed research, the expected outcomes are to have defined the immediate and longitudinal effect of PGI on posttraumatic stress among African American college students. The rationale for this project is that a determination of the longitudinal efficacy of PGI skills after a traumatic event is likely to offer a strong framework where the utilization of PGI can be applied to ethnic minority college students, who are more likely to experience a potentially traumatic event.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$6,000
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$6,000

Entry: 9

Title: *The Role of Germline Mutations in DNA Repair Genes in Cancer Stem Cell Development and Renewal*

Description: A number of DNA repair pathway components, including BRCA1/2, are known to be required for hematopoiesis, stem cell maintenance, and cancer suppression. BRCA1-deficient mice develop hematological disorders by four weeks, which include pancytopenia and hepato-splenic T-cell lymphoma (1, 2) and display a pronounced inability to reconstitute stem cells. Although aplastic anemia does not develop, epithelial tumors are observed at a greater incidence in BRCA2 null mice, and these mice also demonstrate a marked failure to reconstitute in competitive transplantation assays (3). Although clinical reports have statistically explored cases relating BRCA mutations to uterine or prostate cancer, the mechanisms that play a role in the pathogenesis of these disorders is not clear.

Purpose/Intent: The objective of this proposal is to determine whether inherited mutations in BRCA-associated proteins, a family of tumor suppressors, confer profound defects in cervical squamous and columnar cell development. Characterization of cervical cancer stem cells has revealed a phenotype identifying HPV-associated surface receptors, AII and CD49f, as well as transcription factor p63 and epithelial stem cell marker CK17 (4). The overall goal will be to investigate whether germline mutations have an effect on cervical cancer pathogenesis and treatability.

Benefit for the State or Institution: This proposal seeks to improve our basic understanding of the numbers of epithelial cancer stem cells relative to tumor cells, proliferation, cancer (stem) cell structural development and maturation. This project will primarily address the impact of germline mutations on cancers of the epithelium of the reproductive tracts.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$6,050
Operating Expenses	\$181
Capital Expenditures	\$0
Total	\$6,231

Entry: 10

Title: *Direct 3D Printing System Using LOM Process: from Point Cloud to Additive Manufacturing*

Description: There is a demanding need for rapid replication or reproduction of physical objects in many industries where the CAD files of parts of interest are usually unavailable or inaccessible. The conventional procedure of reproducing a part includes 3D scanning, CAD model reconstruction, conversion to facet model, slice generation, and then manufacturing. This whole process is far from being automatic, while all these complicated steps result in rather expensive remodeling computations, large file transmissions, and highly accumulated approximation errors.

Purpose/Intent: The goal of this project is to investigate a direct Laminated Object Manufacturing (LOM) system as to automatize the process of rebuilding or duplicating existing objects with advanced woven fiber reinforced composites.

Benefit for the State or Institution: Built on the results of this project, three proposals have been submitted to federal agencies including NSF and DOE. One journal paper and one conference paper have been published based on the results of this project.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$6,336
Operating Expenses	\$8,798
Capital Expenditures	\$0
Total	\$15,134

Entry: 11

Title: *The Collective Group Identity Project: An Examination and Comparison of Identity Development, Cultural Mistrust, and Mental Health Issues Among Black Male College Students and Black Male First Time Offenders*

Description: Recent research shows that the association between psychopathology and criminality holds true more so for whites than black males. That is to say, social-economic and environmental factors, along with critical but non-pathogenic personality and social attitude factors, may better predict why otherwise normal black males are pushed into street life, the underground economy, and eventual incarceration. The absence of psychopathology tendencies among black males guilty of their first criminal offense may mean that incarcerated black males cannot be differentiated from black males currently enrolled in college across an array of identity and personality dynamics. However, research has pointed to important but non-pathogenic factors, such as a sense of hope, level of cultural trust, a sense of future, and the ability to delay gratification, as important predictors of criminality, even in the absence of gross psychopathology.

Purpose/Intent: The current proposal outlines a study that compares incarcerated black males, guilty of their first offense, with same-age black males who are enrolled in college across array of (1) identity, personality, and mental health measures (ego-identity; racial-cultural identity; self-esteem, general personality profiles; depression) and (2) narratives on one's trajectory toward street life and/or college as gleaned from personal interviews conducted with inmates and college students. In addition, (3) the two samples will also be administered important but non-pathogenic social attitudes scales that tap sense of hope, sense of a personal future, cultural mistrust, and coping strategies.

Benefit for the State or Institution: It is hypothesized that both populations will appear more alike than different across most measures of personality and mental health issues (i.e., depression; quality of life; and general personality). It is also anticipated that the inmate population will exhibit less coping abilities, increased depression, and a higher degree of immaturity related to ego identity. However, their overall ego identity level will be close to that of the college students. Additionally, both populations will exhibit similar results with regards to personality factors, with a greater sense of deviance exhibited by the inmate population.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$7,469
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$7,469

Entry: 12

Title: *Office of Sponsored Programs*

Description: The purpose of the office is to support and stimulate all aspects of research and other innovative activities at PVAMU.

Purpose/Intent: This office offers research administrative support in seeking and securing funding and ensuring PVAMU is compliant with sponsor guidelines.

Benefit for the State or Institution: This project is a good investment for the institution because it offers the support faculty researchers need in submitting grant proposals and also having post award services when submitting reports to external funding agencies.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$166,219
Operating Expenses	\$427
Capital Expenditures	\$0
Total	\$166,646

Entry: 13

Title: *Lipidomic Signatures of Milk Lipids and Their Association in the Prevention and Treatment of Alcoholic and Non-Alcoholic Fatty Liver*

Description: This project identifies the lipid biomarkers using metabolomics/lipidomics techniques in different milk types that can potentially be utilized for prevention and treatment of fatty liver diseases and investigate how size and the dry-weight of the naturally formed lipid Nano Particles (NPs) of different types of milk could potentially enhance the gut absorption. Utilization of nuclear magnetic resonance (NMR) spectroscopy, liquid chromatography mass spectrometry (LC-MS), and statistical methods will lead to the qualitative and quantitative identification of the lipid metabolites present in animal and plant-based milks.

Purpose/Intent: The main purpose of this project is to differentiate the lipid profiles of the different types of Milk available in the market and their absorption behavior in the gut that ultimately influence the prevention/treatment of fatty liver diseases.

Benefit for the State or Institution: Milk and dairy products are an essential part of the diet in almost everyone today. In the human body, lipids play an important role in energy storage, cellular structure development, and signaling. It acts as an important source of food in which humans get lipids, specifically phospholipids and hence understanding the differences in constituents among different types of milk is important. Investing on supplies and research support will help to gather preliminary data that will eventually lead to apply for outside grants. Once the findings are published, it will give a good visibility to PVAMU, in regard to contributing to the nation's education and conducting research on current topics of national interest.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$6,000
Operating Expenses	\$7,616
Capital Expenditures	\$5,924
Total	\$19,540

Entry: 14

Title: *Conducting Research in Convergence of High Performance Computing and Data Science*

Description: The project was to conduct preliminary but innovative research in both High-Performance Computing (HPC) and Data Science areas with aim to converging them to support scientific computing.

Purpose/Intent: The primary purpose of the project is to conduct fundamental but pioneering innovative research in applying data science to scientific computing to enhance the accuracy and performance.

Benefit for the State or Institution: The biggest opportunities the project will bring to PVAMU is the establishment of collaborations with top research institutions and a national laboratory. Such collaborations allow faculty and students at PVAMU to work with the world-renowned researchers to perform the cutting-edge research, which significantly benefit PVAMU.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$80
Capital Expenditures	\$19,345
Total	\$19,425

Entry: 15

Title: *Investigate the Glass Transition Temperature (T_g) of Polymer-Graphene Nanoplatelet Thin Films*

Description: Polymeric materials are modified for various target applications. In this project different concentration of polystyrene has been modified by loading an equal amount of graphene oxide as filler. The dispersion of the graphene oxide was achieved in an organic solvent with ultrasonication. The results of the project showcase an observation and significance of the morphology and structural characteristics.

Purpose/Intent: Polymeric materials are modified for various target applications. The properties of polymers, which provide limitations to their practical use, are favorably altered by the addition of trace amounts of a nanofiller. It is broadly demonstrated that nanofillers improve the properties of polymer composites making them better for various applications. With this motivation, we have investigated and disclosed the structure, and morphology of PS/GO composites for improved properties. The future goal of the project is to use this solution, to produce polystyrene graphene oxide nanofibers by electrospinning.

Benefit for the State or Institution: The intention of the research is thorough knowledge in polymer materials with the needs of the expectations in the industry so that our minority students will remain competitive in the job markets.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$6,001
Operating Expenses	\$5,631
Capital Expenditures	\$6,174
Total	\$17,806

Sam Houston State University

Entry: 1

Title: *Office of Research & Sponsored Program Operations*

Description: This appropriation is to cover operational expenses of this office.

Purpose/Intent: The purpose of the office is to promote all aspects of research and other creative endeavors at SHSU.

Benefit for the State or Institution: This office promotes research administration by providing administrative support in seeking and securing funding and ensuring SHSU is compliant with sponsor guidelines.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$202,059
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$202,059

Stephen F. Austin State University

Entry: 1

Title: *Faculty/GRA Collaborative Research*

Description: Funds for GRA salary and research for selected departments

Purpose/Intent: Provided salary support for 4 GRAs and research supplies in Geology and Biology departments.

Benefit for the State or Institution: Provide opportunities for faculty-student collaborative research projects to build research capacity, increase SFA's competitiveness for external funds, and increase the number of well-prepared master's degree graduates with a strong background in research.

Salaries/Wages for New or Reassigned FTEs	\$14,000
Salaries/Wages for Existing FTEs	\$37,500
Operating Expenses	\$26,311
Capital Expenditures	\$0
Total	\$77,811

Entry: 2

Title: *ORGS Research Development*

Description: Purchased software licenses to support faculty research activities (some salary for personnel to assist with grants but position has not been refilled)

Purpose/Intent: The staff position and software allow ORGS to assist research centers and faculty in identifying and applying for external grant opportunities, and developing sustainability plans. In addition, the staff person provides training to faculty on writing research proposals.

Benefit for the State or Institution: These funds enable SFA faculty and research centers to gain recognition by finding and applying for a greater number of research grants which contributes to the research capacity and recognition of the University.

Salaries/Wages for New or Reassigned FTEs	\$143
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$12,430
Capital Expenditures	\$0
Total	\$12,573

Entry: 3

Title: *New faculty research start-up: Petroleum Lab*

Description: Partial funding for research equipment in the Department of Geology

Purpose/Intent: Provided partial funding to purchase research equipment to support a new faculty member in establishing a research program.

Benefit for the State or Institution: This hand-held XRF equipment will allow the university to create a cutting-edge rock research program. In addition, this equipment will allow SFA to be more competitive in research and future external grant opportunities.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$0
Capital Expenditures	\$22,982
Total	\$22,982

Entry: 4**Title:** *Computational Chemistry Equipment***Description:** Partial funding for computer resources in the Department of Chemistry**Purpose/Intent:** Provided partial funding to establish a proof of concept computational computer cluster.**Benefit for the State or Institution:** These funds enable Chemistry faculty and students to expand research capabilities, and for faculty to be more competitive with cutting edge computing power and computational research on campus.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$3,374
Capital Expenditures	\$0
Total	\$3,374

Entry: 5**Title:** *Forestry Equipment***Description:** Partial funding for research equipment in the College of Forestry and Agriculture**Purpose/Intent:** Provided partial funding to purchase a sawmill.**Benefit for the State or Institution:** These funds enable Forestry faculty to expand their research capacity in addition to providing research opportunities for undergraduate and graduate students in wood science that are not currently possible.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$0
Capital Expenditures	\$27,926
Total	\$27,926

Entry: 6**Title:** *Human Neuroscience Laboratory Equipment***Description:** Partial funding for new research equipment in the Human Neuroscience Lab**Purpose/Intent:** Provided funding to purchase research equipment to continue critical empirical research in issues related to the brain and neuroscience.**Benefit for the State or Institution:** The new equipment will help faculty and students better address applied issues of human brain-behavior interactions and allow for data collection from an updated system.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$24,385
Capital Expenditures	\$0
Total	\$24,385

Entry: 7**Title:** *High Performance Liquid Chromatography Instrument (HPLC)***Description:** Provided partial funding for a new HPLC in the Department of Chemistry**Purpose/Intent:** This new HPLC will allow faculty and graduate students to be more productive with their research.**Benefit for the State or Institution:** This new HPLC unit replaces a 20-year old unit. This new unit will allow for both faculty and graduate students to better perform research (approximately 30 grad students per semester) and will help make students more competitive in the job market upon graduation.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$0
Capital Expenditures	\$35,632
Total	\$35,632

Entry: 8**Title:** *Gas Chromatography Instrument***Description:** Partial funding for gas chromatography equipment in the Department of Chemistry**Purpose/Intent:** This new instrument will help Chemistry faculty be more productive and competitive with their research.**Benefit for the State or Institution:** The faculty who use this instrument have already been extremely productive in their research efforts. This equipment will allow them to further enhance undergraduate and graduate student research in providing transformative experiences for our students and train future scientists.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$0
Capital Expenditures	\$5,000
Total	\$5,000

Sul Ross State University

Entry: 1

Title: *Research Assistants*

Description: Provide research opportunities for SRSU students.

Purpose/Intent: Provide educational opportunities in non-traditional settings and support of key research programs.

Benefit for the State or Institution: Research Assistants serve as the "lifeblood" of research programs in assisting with data analysis and collection.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$46,309
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$46,309

Entry: 2

Title: *Archives of the Big Bend*

Description: Provide research opportunities for SRSU faculty and students.

Purpose/Intent: The Archives of the Big Bend functions as the repository for primary materials documenting a diverse history and culture and supports the academic mission of the University as a department of the Library.

Benefit for the State or Institution: In addition to serving as teaching facilities for SRSU students, they assist researchers in determining which materials are best suited for various restoration projects.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$5,111
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$5,111

Entry: 3

Title: *Borderlands Research Institute*

Description: Provide research opportunities for SRSU faculty and students.

Purpose/Intent: The mission of the Borderlands Research Institute for Natural Resource Management is to help conserve the natural resources of the Chihuahuan Desert Borderlands through research, education, and outreach.

Benefit for the State or Institution: The goal of BRI is to provide land managers with the most current scientific information on the management of natural resources of the area.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$34,804
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$34,804

Tarleton State University

Entry: 1

Title: *Tarleton State University*

Description: Instructional Grants and Contracts

Purpose/Intent: Instructional Grants and Contracts provides operation funding for the existing office of sponsored projects. This office supports external grant development campus-wide and assists all university departments in seeking sources for grants, writing grant proposals and providing other pre-award and post-award support.

Benefit for the State or Institution: Providing funding to the university office is instrumental in obtaining external grants and grant funding.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$23,858
Operating Expenses	\$124
Capital Expenditures	\$0
Total	\$23,982

Entry: 2

Title: *Tarleton State University*

Description: Texas Institute of Applied Environmental Research

Purpose/Intent: The office of TIAER is a multidisciplinary research institute authorized by the Texas Legislature that is tasked with conducting applied research on environmental issues, provide national leadership and policy development.

Benefit for the State or Institution: The funds allocated by the state to TIAER through the university is an investment in research that pays dividends on a local, state, and national basis, while providing essential solutions to environmental problems facing the world. By being a recognized national leader in environmental research, the state's investment provides a basic foundation for agricultural scientists, mathematical modelers, communication specialists, water quality scientists, graphic artists, computer scientists, water quality monitoring specialists and an accounting and audit team.

Salaries/Wages for New or Reassigned FTEs	\$2,565
Salaries/Wages for Existing FTEs	\$167,092
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$169,657

Entry: 3

Title: *Tarleton State University*

Description: Organized Research Program

Purpose/Intent: The Organized Research Program provides financial support for the individual research projects of at least 8 faculty members across the university's colleges and academic disciplines.

Benefit for the State or Institution: Provides direct funding to the faculty for the university research mission.

Salaries/Wages for New or Reassigned FTEs	\$169,189
Salaries/Wages for Existing FTEs	\$91,555
Operating Expenses	\$9,710
Capital Expenditures	\$0
Total	\$270,454

Texas A&M International University

Entry: 1

Title: *Comprehensive Research Fund*

Description: No description submitted.

Purpose/Intent: Intended for supporting the operations of the university Office of Research & Sponsored Projects.

Benefit for the State or Institution: The Office of Research & Sponsored Projects works closely with the university faculty in the development of research related grant proposals.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$152,586
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$152,586

Texas A&M University at Galveston

Entry: 1

Title: *Center for Texas Beaches and Shores (Dr. Samuel Brody)*

Description: Partial operating expenses for the Center for Texas Beaches and Shores (CTBS).

Purpose/Intent: CTBS research focuses on sustainable coastal management, climate change planning, natural hazards mitigation, fostering the development of resilient coastal communities, and using spatial tools to examine and disseminate data to coastal stakeholders and other interested parties.

Benefit for the State or Institution: Support provided by TCRF enabled CTBS to advance science and policy for protecting people and property along the Texas Coast. Of note, CTBS/TAMUG was awarded a TX GLO grant of \$2 million total over the next 3 years for managing flood risk. CTBS external funding is supporting students, staff, and visiting researchers, expanding the strategic partnerships nationally and internationally, and increasing the capacity of the Texas Coastal Communities Atlas.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$14,992
Operating Expenses	\$8
Capital Expenditures	\$0
Total	\$15,000

Entry: 2

Title: *Post-doctoral research support (Dr. Kyeong Park)*

Description: Post-doctoral research support

Purpose/Intent: Research support and invaluable technical research experience.

Benefit for the State or Institution: Post-doctoral research support for developing a hydrodynamic model for Galveston Bay. The Semi-implicit Cross-scale Hydrodynamic Integrated System Model has been applied to the northwestern Gulf of Mexico with the model domain that includes all Texas coastal systems. Model validation has been completed for water level, salinity, temperature and current velocity for ensemble mean and sub-tidal signals. The model has been shown to reproduce both the normal conditions and extreme events (e.g., Hurricane Harvey). The research has been presented at professional conferences and has generated three peer-reviewed journal papers. We plan to submit one or two more manuscripts to journals. The research has provided invaluable technical and research experience.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$54,167
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$54,167

Entry: 3**Title:** *Start-up funds (Dr. Paul Potier)***Description:** Start-up funding for new Marine Engineering Technology professor**Purpose/Intent:** Research support and advancement.**Benefit for the State or Institution:** The funds have been used for a senior student and Dr. Potier's salary in support of building a networking and electronics lab that will support campus research.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$6,715
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$6,715

Entry: 4**Title:** *Sea Life Facility***Description:** Sea Life Facility partial operational support.**Purpose/Intent:** To provide support for operation and maintenance of the Sea Life Facility.**Benefit for the State or Institution:** This facility is one of the largest & best designed facilities for controlled studies of marine systems and coastal lagoons in the Gulf of Mexico. Installing individual mesocosms (tanks, aquaria, etc.) and integrating them into the 40,000 gallon recirculating sea water system provides the means for TAMUG faculty to design studies that will increase understanding of the ecosystems of the Gulf of Mexico and the resources contained therein.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$1,954
Capital Expenditures	\$0
Total	\$1,954

Entry: 5**Title:** *Gulf Center for Sea Turtle Research (Dr. Christopher Marshall)***Description:** Gulf Center for Sea Turtle Research partial operational support.**Purpose/Intent:** To provide support for the operation of the Gulf Center for Sea Turtle Research.**Benefit for the State or Institution:** The Center will allow sea turtle biologists in the region to organize and speak with one voice to attract attention and funding for sea turtle research and conservation priorities. The Center will seek to create collaborative relationships with other sea turtle researchers and research entities across the Gulf of Mexico.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$101
Capital Expenditures	\$0
Total	\$101

Entry: 6**Title:** *Start-up funds (Dr. Ana Sirovic)***Description:** Start-up funding for new Marine Biology professor.**Purpose/Intent:** Research and advancement.**Benefit for the State or Institution:** The funds have been used to support original research that focuses on cetacean & fish acoustics, cetacean ecology, ocean noise and effect of anthropogenic noise. A portion of the funds were used to support graduate students. The students not only support research, but also gain invaluable technical and research experience.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$30,657
Operating Expenses	\$95,728
Capital Expenditures	\$28,355
Total	\$154,740

Entry: 7**Title:** *Start-up funds (Dr. Laura Jurgens)***Description:** Start-up funding for new Marine Biology professor.**Purpose/Intent:** Research and advancement.**Benefit for the State or Institution:** The funds have been used to support original research that focuses on community and ecosystem resilience in coastal oceans and estuaries, including climate variability, extreme events, species invasions. A portion of the funds were used to support graduate students. The students not only support the research, but also gain invaluable technical and research experience.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$47,503
Operating Expenses	\$32,494
Capital Expenditures	\$0
Total	\$79,997

Entry: 8**Title:** *Start-up funds (Dr. Daniel Roelke)***Description:** Start-up funding for new Marine Biology professor.**Purpose/Intent:** Research and advancement.**Benefit for the State or Institution:** The funds have been used to support original research that focuses on aquatic and plankton ecology.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$21,758
Capital Expenditures	\$5,819
Total	\$27,577

Entry: 9**Title:** *EX02 Water Quality Sonde (Dr. Pete vanHengstum)***Description:** Purchase of an EX02 Water Quality Sonde.**Purpose/Intent:** The purchase will allow researchers the capability for remote measurements of basic water quality parameters, in addition to, simultaneous measurement of total algae and dissolved organic matter.**Benefit for the State or Institution:** This tool collects fundamental data required to publicly disseminate our research findings, and an opportunity to train students on a piece of equipment that is widely used by federal, state, and private companies involved with environmental monitoring.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$0
Capital Expenditures	\$15,409
Total	\$15,409

Entry: 10**Title:** *Gas Chromatograph with a Mass Spectrometer (Dr. Karl Kaiser)***Description:** Purchase of gas chromatograph with 320 triple-quadrupole mass detector.**Purpose/Intent:** To replace two old, broken pieces of equipment that are not fixable, as replacement parts are not available.**Benefit for the State or Institution:** The instrument will be effective for TAMUG faculty's currently funded research projects and will support pending and future proposals.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$0
Capital Expenditures	\$77,581
Total	\$77,581

Entry: 11**Title:** *Project Development (Dr. Wesley Highfield and Dr. Samuel Brody)***Description:** To develop a rapid, accurate and scalable digital methodology for capturing first-floor building elevations.**Purpose/Intent:** Unlocking the critical data will help the investigators leverage this technology as critical inputs to more advanced flood-mitigation research efforts, conduct accurate sensitivity analyses of existing models and define best-practices of remotely-sensed first-floor elevation data.**Benefit for the State or Institution:** The investment in the hardware, software, and drone mapping technology will push forward the research of Texas A&M University Galveston, and further position it as a leader in coastal resiliency research. The technology can also be leveraged by related research programs, enhancing the data collection and processing power of the campus.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$6,356
Operating Expenses	\$8,344
Capital Expenditures	\$7,500
Total	\$22,200

Entry: 12**Title:** *Project Development (Dr. Ayal Anis)***Description:** Research collaboration with University of the Aegean, Greece to develop a model system for the study of coastal circulation and the functioning of bays and gulfs.**Purpose/Intent:** Develop a model system for the study of coastal circulation and the functioning of bays and gulfs. Secondary, develop a parallel research proposal to study deep-ocean mixing processes.**Benefit for the State or Institution:** The collection of the rich datasets will constitute the basis for development of a larger collaborative project focusing on bays of different morphologies. project is expected to lead to: (1) development of new lines of research; (2) expose graduate and undergraduate students to new international research venues and high impact learning opportunities in marine sciences and oceanography.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$4,617
Capital Expenditures	\$0
Total	\$4,617

Entry: 13**Title:** *Project Development (Dr. Timothy Dellapenna)***Description:** Support field collection of sediment cores and the analyses of these age dated cores for Environmental DNA, to determine shifts in microbial and macrofaunal communities over time.**Purpose/Intent:** The development of environmental proxies from the sediment record within the back reef of the Mesoamerican Reef to assess the anthropogenic impact on ecosystem health due to anthropogenic impacts.**Benefit for the State or Institution:** The preliminary data obtained will be used for research development, particularly with an NSF proposal.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$4,607
Operating Expenses	\$5,906
Capital Expenditures	\$0
Total	\$10,513

Entry: 14**Title:** *Water Purification System (Dr. Karl Kaiser)***Description:** Purchase of the Millipore IQ7000 water purification system.**Purpose/Intent:** The system produces the standard 18.2 Mohm cm reagent water required for organic trace analysis. In addition, the system includes a specific polisher cartridge to produce water needed to run the two liquid chromatograph with mas spectrometers.**Benefit for the State or Institution:** Clean reagent water is the most important solvent for all chemical analyses. As such, the system allows execution of all chemical analysis performed on campus and enables current and future funded research.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$0
Capital Expenditures	\$3,226
Total	\$3,226

Entry: 15

Title: *Support of a Pilot Study (Dr. Karl Kaiser and Dr. Jhenny Galan)*

Description: Linking molecular survivors of Earth's biogeochemical cycle to optical properties through quantum mechanical calculations.

Purpose/Intent: Collection of samples, extraction and separation of organic compounds, and analyses of structures, along with the calculation of theoretical absorption spectra.

Benefit for the State or Institution: The data obtained will be used for research development, as the work performed bridges open questions about the marine carbon cycle and the origin of color in the ocean. The development of an NSF proposal is planned.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$2,083
Capital Expenditures	\$0
Total	\$2,083

Entry: 16

Title: *Post-doctoral, graduate student and under graduate research support (Dr. Peter Santschi)*

Description: Training in research techniques and manuscript writing.

Purpose/Intent: Training in polycyclic aromatic hydrocarbons (PAHs), oil analysis on the liquid chromatography with tandem mass spectrometry (LC-MS-MS) is a powerful analytical technique that combines the separating power of liquid chromatography with the highly sensitive and selective mass analysis capability of triple quadrupole mass spectrometry.

Benefit for the State or Institution: Training post-doctoral, graduate and undergraduate students the developed techniques of oil analysis on the LCMSMS, would benefit them with invaluable research and technical experience.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$2,933
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$2,933

Entry: 17

Title: *Project Development (Dr. Hui Liu)*

Description: Support to collect samples for research preliminary data.

Purpose/Intent: To collect samples to expand the time series, in order to understand the biophysical processes that regulate the biomass and distribution of marine populations. Owing to the key role of zooplankton in the growth and survival of larval fish, changes in their species composition and abundance have significant implications to fisheries production and ecosystem dynamics.

Benefit for the State or Institution: The data obtained will be expand the time series, which is valuable for seeking external funds. The development of an NSF proposal is planned.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$3,861
Operating Expenses	\$490
Capital Expenditures	\$0
Total	\$4,351

Entry: 18

Title: *Multiplate Respirometry Systems (Dr. Lene Petersen and Dr. David Hala)*

Description: Purchase of Multiplate Respirometry System, Oxygen Dipping Probe

Purpose/Intent: Allow new collaborative investigations into cardiovascular performance and susceptibility to toxicants of fishes. Intended applications will utilize species commonly used in biomedical, physiological and toxicological studies.

Benefit for the State or Institution: The purchase will complement already existing equipment and current research. The equipment will enhance the research capacity of the collaborating researchers and attract students interested in fish physiology, toxicology, animal performance and behavior.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$4,795
Capital Expenditures	\$41,310
Total	\$46,105

Entry: 19

Title: *Project Development (Dr. Maria Pia Miglietta and Dr. David Hala)*

Description: Support to expand the scope of a current internally funded project.

Purpose/Intent: To use toxicological and novel bioinformatics approaches to identify diagnostic effects of jellyfish toxins on fish health and physiology. To investigate the effect of toxins from additional jellyfish species in the Gulf of Mexico.

Benefit for the State or Institution: Preliminary data generated on stress responses of fish will help the researchers to generate valuable preliminary data to pursue competitive proposals suited for NSF, NIEHS and Texas Sea Grant.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$3,678
Operating Expenses	\$6,030
Capital Expenditures	\$0
Total	\$9,708

Entry: 20

Title: *Project Development (Dr. Randall Davis)*

Description: Support to use new technology, animal-borne video and data recorders (VDRs), to study the oceanographic habitat and ecology of large marine mammals and other elagic species.

Purpose/Intent: To study the behavior and ocean habitat of a marine mammal species threatened by extinction.

Benefit for the State or Institution: The results will provide essential information that will be used in a conservation management plan; will provide research and technical experience to graduate and undergraduate students while assisting in the calibration of the equipment and data analysis. The results will demonstrate the advanced capabilities of the VDRs and be used to leverage new NSF funding.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$6,638
Operating Expenses	\$6,357
Capital Expenditures	\$0
Total	\$12,995

Entry: 21**Title:** *Project Development (Dr. Carol Bunch-Davis)***Description:** Support to investigate how Galveston's African American citizens utilized local institutions to refute Jim Crow segregation's constraints on their daily lived experiences.**Purpose/Intent:** To discover how the local institution facilitated social networks that resisted segregation's impact, to analyze these networks using the artifacts and ephemera stored at local institutions. To discover how they mirror or diverge from the experiences of other African American communities around the state and the nation.**Benefit for the State or Institution:** The pilot project's focus on an interpretative plan and conservation work will strengthen planned applications for three externally funded proposals.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$5,509
Capital Expenditures	\$0
Total	\$5,509

Entry: 22**Title:** *Project Development (Dr. Olbelina Ulloa)***Description:** Support to investigate new metal compounds as potential catalysts for the production of hydrogen gas from water or acids in organic solvents. The compounds will also be tested for potential uptake of carbon dioxide and its reduction to formate ions.**Purpose/Intent:** To probe the catalytic activity of new metal compounds in the production of hydrogen gas and the uptake of carbon dioxide for its reduction to formate ions.**Benefit for the State or Institution:** The data acquired will allow us to apply for funds to build libraries of our catalysts under various conditions for high-throughput screenings (screening hundreds of conditions). These screenings would be employed to optimize for robustness, speed, and yields of hydrogen production and carbon dioxide reduction. The transformations we look to optimize are vital to lower carbon dioxide emissions and increase its removal from our atmosphere.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$500
Operating Expenses	\$3,275
Capital Expenditures	\$0
Total	\$3,775

Texas A&M University-Commerce

Entry: 1

Title: *Senior Project Administrator*

Description: Salaries for professional position responsible for the administration of externally funded research

Purpose/Intent: Reviews, analyzes and interprets award documentation and expenses to identify potential items that may be a compliance issue; and conducts other reviews as necessary based on funded program guidelines.

Benefit for the State or Institution: Ensuring that all externally funded research follows all appropriate guidelines allows the university to be in compliance with the established federal, state, and university regulations.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$31,665
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$31,665

Entry: 2

Title: *Research Compliance Coordinator*

Description: Salaries for professional position responsible for all issues involved in the responsible and ethical conduct of research.

Purpose/Intent: The purpose of this position is to continually evaluate and support faculty in research issues related to the following: Biosafety, human subjects, animal care and use, export control, conflict of interest, responsible conduct of research.

Benefit for the State or Institution: Ensuring that all externally funded research follows all appropriate guidelines allows the university to be in compliance with the established federal, state, and university regulations.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$48,261
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$48,261

Entry: 3

Title: *Student Worker (Animal Care Facility)*

Description: This position assists with the daily tasks in the animal care facility

Purpose/Intent: To help maintain proper care of animals housed in the animal care facility.

Benefit for the State or Institution: Ensures animals receive proper care and treatment in the animal care facility

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$147
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$147

Entry: 4**Title:** *Proposal Administrator***Description:** Salaries for professional positions responsible for the administration of externally submitted research proposals.**Purpose/Intent:** To ensure timely and complete proposal submissions to grant agencies.**Benefit for the State or Institution:** Ensuring that all externally submitted research proposals follow all appropriate guidelines allows the university to be in compliance with the established federal, state, and university regulations.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$6,731
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$6,731

Entry: 5**Title:** *Senior Proposal Administrator***Description:** Salaries for professional positions responsible for the administration of externally submitted research proposals.**Purpose/Intent:** To ensure timely and complete proposal submissions to grant agencies.**Benefit for the State or Institution:** Ensuring that all externally submitted research proposals follow all appropriate guidelines allows the university to be in compliance with the established federal, state, and university regulations.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$4,446
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$4,446

Entry: 6**Title:** *NCURA Region V Meeting***Description:** National Council of University Research Administrators Training**Purpose/Intent:** To stay up to date on current research policies and procedures.**Benefit for the State or Institution:** Ensuring that all externally funded research follows all appropriate guidelines allows the university to be in compliance with the established federal, state, and university regulations.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$2,116
Capital Expenditures	\$0
Total	\$2,116

Entry: 7**Title:** *NCURA Annual Meeting & Registration Fees***Description:** National Council of University Research Administrators Training**Purpose/Intent:** To stay up to date on current research policies and procedures.**Benefit for the State or Institution:** Ensuring that all externally funded research follows all appropriate guidelines allows the university to be in compliance with the established federal, state, and university regulations.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$3,113
Capital Expenditures	\$0
Total	\$3,113

Entry: 8**Title:** *IMURA Spring Meeting***Description:** Inter Mountain University Research Administrators**Purpose/Intent:** Director level discussion of significant grant issues.**Benefit for the State or Institution:** Opportunity to review grant issues and processes with colleagues.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$809
Capital Expenditures	\$0
Total	\$809

Entry: 9**Title:** *PATHWAYS Symposium - Registration and Conference***Description:** PATHWAYS is a symposium that provides a venue for undergraduate and graduate students to interact and discuss their research.**Purpose/Intent:** PATHWAYS is a symposium that provides a venue for undergraduate and graduate students to present their research findings in a poster or oral format and to interact with researchers, judges and other participants.**Benefit for the State or Institution:** This symposium is an opportunity for undergraduate and graduate students to receive recognition for their research endeavors.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$5,346
Capital Expenditures	\$0
Total	\$5,346

Entry: 10**Title:** *Pulsator V***Description:** Ram and bull electro ejaculator**Purpose/Intent:** This machine is used to collect semen on bulls, bucks, and rams.**Benefit for the State or Institution:** It will be vital to test semen quality on male animals that have been left intact for purposes of general research and allow for overall semen parameter evaluation. The previous unit that we purchased was older and needed to be replaced.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$1,745
Capital Expenditures	\$0
Total	\$1,745

Entry: 11**Title:** *Lab Binocular Compound Microscope***Description:** Laboratory microscope with a 20 megapixel camera**Purpose/Intent:** This machine is used to evaluate microscopic organisms which can be assessed and quantified at a greater degree with a quality microscope such as this and help provide a visual association for future research techniques being taught.**Benefit for the State or Institution:** It is very important to be able to microscopically evaluate semen to assess the overall morphology, motility, and membrane permeability. Additionally, this microscope has been used, and will continue to be used, to assess fecal egg counts in animals under a research trial that is evaluating the effectiveness of anthelmintics. Finally, with the addition of the camera, future research individuals can be taught by actual images of specimens that have been witnessed while performing microscopic evaluations previously.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$7,884
Capital Expenditures	\$0
Total	\$7,884

Entry: 12**Title:** *Equine Densimeter***Description:** Semen Densimeter**Purpose/Intent:** This machine evaluates the concentration of semen in a given ejaculate.**Benefit for the State or Institution:** This machine can be utilized to assess the concentration, another vital semen quality parameter, in several different species of male animals that are housed on the farm that will be used for research on semen preservation methods and quality control of various applications.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$3,478
Capital Expenditures	\$0
Total	\$3,478

Entry: 13**Title:** *Synergy LX with Monocromator***Description:** Microplate reader**Purpose/Intent:** This machine allows for multiple varieties of assays to be ran in the UV-Vis absorbance, filter-based fluorescence, and luminescence based assay methods.**Benefit for the State or Institution:** It will be utilized to perform a variety of different assay types that will enhance our basic science abilities. These assays will allow for more possibilities of detailed publications that can evaluate the basic and applied science aspect.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$9,615
Capital Expenditures	\$0
Total	\$9,615

Entry: 14**Title:** *PIVOT Database (ProQuest LLC)***Description:** Global database of sponsored funding opportunities from private, state, and federal sponsors.**Purpose/Intent:** Assist faculty and staff in pursuing and obtaining external funding for research and sponsored projects.**Benefit for the State or Institution:** Ensures that faculty and staff have access to sponsored funding opportunities to enhance the research enterprises.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$6,320
Capital Expenditures	\$0
Total	\$6,320

Entry: 15**Title:** *Advanced Telemetry Systems***Description:** Avian backpack location and life transmitter**Purpose/Intent:** Transmit the location and life status of released quail to the researcher via a VHF signal.**Benefit for the State or Institution:** This generates new knowledge about quail which have declined by 80% in Texas and are a very important socioeconomic species.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$10,000
Capital Expenditures	\$0
Total	\$10,000

Texas A&M University-Corpus Christi

Entry: 1

Title: *CRF-Gulf of Mexico Env Lab FY19*

Description: Gulf of Mexico Environmental Studies

Purpose/Intent: Support work on the Gulf of Mexico Environmental Lab

Benefit for the State or Institution: Increase ability to submit proposal to federal funding agencies.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$24,294
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$24,294

Entry: 2

Title: *TCRF-HARTE FY19*

Description: TCRF-HARTE FY19

Purpose/Intent: Fund PhD students particularly those in studies relating to the Gulf of Mexico and artificial reefs and the increasing fish habitats from these structures.

Benefit for the State or Institution: Gather data and develop preliminary studies that will be submitted for federal funding.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$72,008
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$72,008

Entry: 3

Title: *TCRF - S&E - MARB/CMSS FY19*

Description: Provide gradate assistants the opportunity to assist with teaching research methods on campus and to participate in various research projects.

Purpose/Intent: Cultivates a stronger research environment for students at TAMU-CC, particularly relating to Marine Biology and Coastal Marine System Science, and develop preliminary studies that can then be submitted for federal funding.

Benefit for the State or Institution: Increase awareness and interest in research participation to leverage for federal funding to the state of Texas.

Salaries/Wages for New or Reassigned FTEs	\$246,611
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$246,611

Entry: 4**Title:** *Center for Coastal Studies***Description:** CRF Center for Coastal Studies**Purpose/Intent:** Provide student support for Research Center at Center for Coastal Studies.**Benefit for the State or Institution:** Increase data collection/analysis and prepare preliminary projects for submission to federal agencies.

Salaries/Wages for New or Reassigned FTEs	\$36,764
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$7,068
Capital Expenditures	\$0
Total	\$43,832

Entry: 5**Title:** *CRF - S&E FY19***Description:** Science and Engineering research support**Purpose/Intent:** Provide support for faculty in S&E by providing summer support for research development.**Benefit for the State or Institution:** Support allows faculty to focus on growing research development in order to be competitive for federal research dollars.

Salaries/Wages for New or Reassigned FTEs	\$44,723
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$44,723

Entry: 6**Title:** *TCRF - Discretionary FY19***Description:** Funds research development and administration.**Purpose/Intent:** This is to support development and administration expense.**Benefit for the State or Institution:** Research development and administration is an important part in assisting faculty with their research initiatives as well as driving the University in the path to become an emerging research institution.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$265,747
Operating Expenses	\$17,537
Capital Expenditures	\$24,396
Total	\$307,680

Entry: 7**Title:** *TCRF FY18 Carry Forward***Description:** Funds Research Proposals and applicable research development and administration activities.**Purpose/Intent:** Funds Research Proposals and applicable research development and administration activities.**Benefit for the State or Institution:** Increasing the funding available for continued research is vital to becoming an emerging institution. Funds are set aside for applicable research development and administration activities, reviewing, evaluating and awarding research proposals for the university that will then be federally funded.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$8,705
Capital Expenditures	\$5,000
Total	\$13,705

Entry: 8**Title:** *Comprehensive Research Unallocated FY19***Description:** Funds Research Proposals and applicable research development and administration activities.**Purpose/Intent:** Funds Research Proposals and applicable research development and administration activities.**Benefit for the State or Institution:** Increasing the funding available for continued research is vital to becoming an emerging institution. Funds are set aside for applicable research development and administration activities, reviewing, evaluating and awarding research proposals for the university that will then be federally funded.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$12,499
Operating Expenses	\$33,293
Capital Expenditures	\$0
Total	\$45,792

Entry: 9**Title:** *Humanities Speaker Series***Description:** This promotes research in the Humanities department by engaging faculty in organization in external research talk and presenting their work.**Purpose/Intent:** It promotes research culture in the Humanities department and the department of English.**Benefit for the State or Institution:** This supports faculty research and engages students in Humanities research. Hence the guest speaker is open to the public.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$1,050
Operating Expenses	\$1,062
Capital Expenditures	\$0
Total	\$2,112

Entry:10

Title: *Characterization of the cellular mechanisms underlying the memory impairment caused by prolonged food deprivation in an invertebrate model.*

Description: This TCRF proposal aims to use the lack of sensitization caused by PFD to study the consequences of malnutrition on memory formation. It aims to investigate the cellular and biochemical substrates underlying the lack of sensitization induced by PFD.

Purpose/Intent: The goal of this TCRF proposal is to conduct foundational experiments for a new line of research characterizing the mechanisms underlying the lack of memory caused by PFD in Aplysia.

Benefit for the State or Institution: The experimental outcomes of this project will serve as the foundation to establish a new line of research in the PI's lab in which the detrimental effects of malnutrition on memory formation will be investigated in an animal model amenable for cellular and biochemical analyses. The mechanistic insights gained in the Aplysia model can ultimately be used to help elucidate the debilitating consequences of malnutrition on memory in more complex organisms. The data collected by this TCRF project will be used for the preparation of the competitive renewal of the PI's current NIH grant.

Salaries/Wages for New or Reassigned FTEs	\$528
Salaries/Wages for Existing FTEs	\$6,000
Operating Expenses	\$10,360
Capital Expenditures	\$0
Total	\$16,887

Entry: 11

Title: *Quantifying estuarine CO2 flux using chamber and eddy covariance methods*

Description: This study plans to examine estuarine carbon dioxide (CO2) fluxes in different south Texas estuarine using both a homemade floating chamber and an eddy covariance instrument.

Purpose/Intent: The goal of this research is to establish an algorithm to correlate both CO2 flux measurements using a mathematical function and applies this function to future FC studies given its low cost and portability.

Benefit for the State or Institution: This research will further the understanding on estuarine carbon flux in the poorly studied subtropical coastal environment. This project can potentially enable a pilot study. Further collaboration with Dr. McGillis from the Lamont-Doherty Earth Observatory at Columbia University will be ensured as a joint proposal based on the preliminary findings from this work will be submitted to the NSF Chemical Oceanography Program with a target submission date of Feb 15, 2020, half a year after the completion of this project.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$17,583
Operating Expenses	\$2,541
Capital Expenditures	\$0
Total	\$20,124

Entry: 12

Title: *The Effect of Acute and Chronic Heat Therapy on Type 2 Diabetes Skeletal Muscle Gene Expression, Oxidative Stress and Inflammation Responses: A Pilot Study.*

Description: The proposed study consists of observing the acute and chronic effect of thermotherapy on miRNA and HSP70 gene expression in both a healthy and a T2D human skeletal muscle cell lines. Secondly, markers of oxidative stress and cytokines associated with inflammation will be investigated in response to both acute and chronic thermotherapy.

Purpose/Intent: The project aims to address the following hypotheses: 1) Acute thermotherapy will promote an increase in skeletal muscle-derived miRNAs and HSP70 associated with muscle regeneration and development, reduce oxidative stress, and stimulate anti-inflammatory cytokines in skeletal T2D muscle cell line. 2) Chronic thermotherapy will have a more significant impact on miRNA and HSP70 expression, oxidative stress and inflammatory response than an acute bout.

Benefit for the State or Institution: This investigation of the T2D skeletal muscle cell line will promote and justify future collaborative studies of exercise training, nutritional interventions, and thermotherapy on skeletal muscle mass in T2D populations in the greater South Texas area. The idea of promoting a more open campus through community outreach for exercise, nutrition, and temperature modalities to improve skeletal muscle mass maintenance and gain for populations in need. We are currently in the process of a collaboration with the Texas A&M Coastal Bend Health Science Center – Diabetes Education and interested local and regional partners. We seek to use this pilot data to acquire external grant funding to facilitate a significant community outreach to financially support community exercise training center for populations in need for community service, research, and academic/research support for undergraduate and graduate students.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$21,541
Capital Expenditures	\$0
Total	\$21,541

Entry: 13

Title: *Deep Perception with and beyond visual sensors*

Description: This is for Post Doc salary support for the titled research.

Purpose/Intent: The funding is to pay for a Post Doc under Dr. Maryam Rahnemoonfar of College of Science and Engineering.

Benefit for the State or Institution: Post-doc teaches a course spring, summer, fall each year. Post-doc also write proposal to enhance the University's visibility in research.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$10,835
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$10,835

Entry: 14

Title: *Impacts of increasing blended fuel vehicle emissions on atmospheric ethanol concentrations*

Description: The proposal looks into the question "What are the impacts of increasing ethanol fuel consumption and subsequently ethanol emissions on atmospheric composition and chemistry?"

Purpose/Intent: 1) Investigate the spatial and temporal variations of ethanol concentrations in wet deposition on an event-basis in the Eastern US. 2) Quantify the contribution of anthropogenic and biogenic sources of ethanol to the atmosphere.

Benefit for the State or Institution: Ethanol concentrations in the Eastern US wet deposition samples will provide a current concentration baseline and the event-basis sampling will allow for investigation of temporal and spatial trends of ethanol concentrations in the atmosphere. Knowledge of current ethanol concentrations is vital as the US prepares to double the amount of renewable fuel production. The wet deposition data will be combined with the PI's previous data to create a more robust inventory to model US ethanol wet deposition flux. Moreover, quantifying the significance of vehicle ethanol emissions to the atmosphere will provide air quality scientists with required data to predict potential ozone effects in populated areas. This will be vital information for policy-makers as the US moves to double ethanol fuel production and consumption.

Salaries/Wages for New or Reassigned FTEs	\$445
Salaries/Wages for Existing FTEs	\$6,100
Operating Expenses	\$9,686
Capital Expenditures	\$0
Total	\$16,231

Entry: 15

Title: *Machine Learning based Sleep Classification for Aging in Place*

Description: The project aims to develop an unobtrusive automated sleep monitoring system that can measure sleep behaviors of elderly people by using touchless sensors and machine learning for sleep classification.

Purpose/Intent: 1) Investigate the advantages of using 3D depth images provided by the proposed sensor technology to record sleep postures and movements. These images have to be enhanced and analyzed such that it can be the base of the proposed machine learning classification method. 2) Develop sleep classification models by employing machine learning techniques such as ANN, DTs, and SVM. The best method is the one that can provide a high classification rate based on the contingency matrix.

Benefit for the State or Institution: The proposed work will advance the knowledge of sleep behaviors as well as sleep sensing technologies. Indeed, a range of concepts spanning the science, technology, engineering, and mathematics fields is required to develop such system. The proposed system will not only applicable to smart elderly-care facilities but also will satisfy the demand of new senior care technologies. The proposed automated sleep classification system (ASCS) can be used to improve the overall quality of life for elderly by providing a means to detect and early diagnosis of various sleep disturbances.

Salaries/Wages for New or Reassigned FTEs	\$4,040
Salaries/Wages for Existing FTEs	\$740
Operating Expenses	\$399
Capital Expenditures	\$0
Total	\$5,178

Entry: 16

Title: *Abnormal growth in offspring and epigenetic changes due to stress-induced sodium retention during pregnancy*

Description: This project seeks to identify genetic and environmental factors during pregnancy that contribute to the development of childhood obesity. Underlying epigenetic changes due to conditions prevailing during pregnancy is central to our understanding of abnormal growth in offspring leading to childhood obesity and is essential to preventing childhood obesity and other related diseases.

Purpose/Intent: The objective is to identify whether stress-induced sodium retention during pregnancy results in epigenetic changes that affects gene regulation leading to AGT which further leads to childhood obesity and other diseases, in predominantly Mexican-American population at Corpus Christi.

Benefit for the State or Institution: The proposed model allow, for the first time, the examination of the effects of stress-induced sodium retention during pregnancy on abnormal growth trajectory and of how alterations in DNA methylation occur due to stress-induced sodium retention leading to abnormal growth trajectory. This novel model will provide critical information for developing new interventions for abnormal growth trajectory during the gestational period, the potential development of targeted drugs for stress-induced sodium retention, and development of prevention strategies for cardiovascular injury and abnormal growth trajectory. The results from this study are particularly translational as stress-induced sodium retention is amenable to pharmacological or behavioral intervention and may help in reducing the childhood obesity problem in the world.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$12,500
Capital Expenditures	\$0
Total	\$12,500

Entry: 17

Title: *Evaluation of the function of serotonin to rescue learning deficits caused by food deprivation in an invertebrate model*

Description: This project is to explore a method to rescue memory impairment resulted from food deprivation using the marine mollusk *Aplysia*. *Aplysia* have been used to study learning and memory in the field of neurobiology. The advantages of the species include small

Purpose/Intent: The research aims to attempt to rescue the prevented sensitization in 14 days food deprived animals.

Benefit for the State or Institution: The experimental outcomes of this project will provide clues to solve learning and memory deficient. In addition, this study at behavioral level can serve as foundation for the biochemical mechanism study at cellular level. The mechanism can also be applied to more complex organisms for learning and memory study. The results that TSWR sensitization was prevented in food deprived *Aplysia* showed the impacts of starvation on animals. Failure of learning and memorizing the noxious stimuli in will influence animal's survival and adaption to the environment. The data collected from this project will provide clues to rescue learning and memory in food shortage situation. The principle can also be applied to human to enhance learning and memory by nutrient supply.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$791
Capital Expenditures	\$0
Total	\$791

Entry: 18

Title: *Assessing the impact of storm water runoff on the marine bacterial community in Corpus Christi Bay.*

Description: Storm water runoff frequently transports pollutants and microorganisms to aquatic environments. The coastal bays of Texas, where barrier islands limit exchange with the Gulf of Mexico and increase residence time, are sinks for stormwater runoff and its associated pollutants. Moreover, the loading of storm water runoff in coastal Texas is predicted to worsen with population growth, urbanization, and climate change. However, the impact of storm water runoff on coastal marine ecosystems is largely unknown. To assess the impact of storm water runoff in coastal Texas, the project proposes to quantify how the marine bacterial community responds to stormwater loading.

Purpose/Intent: 1) Quantify enterococci (a commonly used FIB) present before and after storm events in Corpus Christi Bay. Hypothesis: The concentration of enterococci will be higher immediately following storm events than prior to storm events.

2) Assess the prevalence of antimicrobial resistant *E. faecalis* isolates collected before and after storm events. Hypothesis: Stormwater-associated *E. faecalis* will be more resistant to antimicrobials than the *E. faecalis* present in the bay prior to rainfall.

3) Determine the most probable source(s) of fecal associated bacteria present in the bay by measuring the concentration of specific host-associated markers. Hypothesis: A large number of the enteric bacteria present in the bay after rainfall will be attributed to humans, dogs, or gulls, as these are all present in high numbers in the surrounding area.

4) Analyze the bacterial community composition (16S rRNA) present in the bay before and after rainfall. Hypothesis: Enteric bacterial species will comprise a greater percentage of the overall population in the bay after rainfall events.

Benefit for the State or Institution: The proposed study will provide aspiring microbiologists (graduate and undergraduate) with hands-on research experience. Students will be trained in culture-dependent (e.g., selective and differential media) and culture-independent (e.g., droplet digital PCR and 16S rRNA sequencing) techniques. The proposed study also directly addresses ongoing problems with water quality in coastal Texas in partnership with the coastal community as well as city, state, and federal agencies. Results of this study will be presented at scientific conferences and published in peer-reviewed journals. Findings will guide future efforts to monitor, remediate, and manage water quality in marine ecosystems.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$300
Capital Expenditures	\$0
Total	\$300

Entry: 19

Title: *Emotion Recognition and Prediction from Physiological Signals to Enhance Human-Computer Interaction experience*

Description: This proposal suggests developing a new platform to detect and predict user emotional states in playing a video game using physiological sensor data and a machine learning analytic approach. Emotions are critical components in human decision-making process that influence interactions between people and complex intelligent systems. Understanding emotional or affective experience during the interactions through physiological measures enables to assess the levels of stress and excitement and to provide explicit biofeedback to interacted systems.

Purpose/Intent: The research interest in this proposal is in how to make physiological input more desirable in emotion detection and prediction. Two main research questions will be answered: 1. How are users' emotions responded by different types of physiological sensors? 2. What are data patterns identified from physiological measures and how can the patterns be mapped with subjective outcomes for emotion detection?

Benefit for the State or Institution: The outcomes from the platform will provide a meaningful scale for emotional satisfaction and quantification of affective interactions. In addition, this platform can be validated with usability studies of various exergame environments. Exergames, games with remote controls and motion sensors, have huge potential benefits for the aging adults with depression. Though regular physical activity is important for depression treatment and the physical/cognitive wellness as well, the aging adults with depression are reluctant to participate in a regular exercise (Maillot, Perrot, & Hartley, 2012). Exergames can play a positive role in meeting the elderly's need for fun and mental stimulation, while also heightening their self-esteem and feelings of success and achievement (McGuire, 1984; Weisman, 1983). The exergame with the platform not only enhance physical and cognitive capabilities, but also ease depression symptoms and encourage social activities (Rosenberg et al., 2010). Additionally, the emotion recognition and prediction from physiological signals will contribute to advancing the basic scientific understanding about the complex interactions among biophysical and human behaviors and improving the human – technology interactions by illuminating the influences of emotions. Furthermore, it can be extended to other applications in human – technology interaction areas such as trust in automation, technology adoption, quantitative and analytic usability/user experience evaluation and persuasive product design.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$800
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$800

Entry: 20

Title: *The lived experiences of participants whom engage and participate in pro-eating disorder online media.*

Description: This phenomenological study aims to explore the lived experiences of participants whom engage and participate in pro-eating disorder online media.

Purpose/Intent: The purpose of this proposal is to gather support for a research study that aims to explore the lived experiences of individuals who seek encouragement and support through participation on pro-eating disorder online media. This study aims to explore the perceptions of benefits by individuals who have used and continue to use this form of social media. This study also aims to describe the purposes of using pro-eating disorder online media.

Benefit for the State or Institution: The results of this study can inform counselor practice on a national level, and increase the capacity for effective treatment outcomes for individuals who seek out the support and acceptance from this form of social media worldwide. The results of this study can also inform researchers of how to meet the needs of their clients and provide tailored and effective treatment.

Salaries/Wages for New or Reassigned FTEs	\$623
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$180
Capital Expenditures	\$0
Total	\$803

Entry: 21

Title: *Spatial and Temporal Variability of Microbial Communities within Mangrove Systems*

Description: This project aims to resolve missing links in carbon cycling by investigating the interactions between the biogeochemistry and microbial community. Understanding how microbial communities change in structure and function over time will allow for predictions to be made about future community shifts and subsequent methane emissions. Focusing on microbial and geochemical aspects will provide the public and stakeholders a different vantage of mangrove systems than typically presented.

Purpose/Intent: 1) Determine differences in microbial community structure and function across day and night. 2) Determine differences in microbial community structure and function across seasons. 3) Determine differences in microbial community structure and function by vegetation type.

Benefit for the State or Institution: Investigating the microbial community in mangrove systems over temporal and spatial scales will expose the importance of mangrove systems and their relation to the carbon cycle, specifically microbial methane production and transformation. Climate change will affect microbial community structure and function, and therefore methane emissions. This information will be valuable as a predictor for future changes in climate. TAMU-CC is a Hispanic serving institution and this project will create opportunities for underrepresented STEM undergraduates to participate in research. Undergraduates have previously served on this project through LSAMP, McNair, and through the Honors Program's Project of Excellence. This project allows for undergraduate researchers to participate and develop their own research problems with respect to the overall project.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$800
Capital Expenditures	\$0
Total	\$800

Entry: 22**Title:** *Microbial Community Survival in Mariana Forearc Sediments*

Description: This study focuses on the microbial community structure and function within serpentine sediments of the Mariana Forearc, with specific attention to microbial interactions. The microbial community structure and function will answer critical questions regarding cell survival within an extremely isolated environment. Understanding how the microbial community obtains energy will give insight into their contribution to the geochemical cycling found within the Mariana Forearc. Analyses of these data will also provide a foundation for further study of subduction zone biogeochemistry, marine deep subsurface geochemistry, and microbial survival.

Purpose/Intent: Identify and quantify genes (DNA) and transcripts (RNA) capable of antimicrobial production within marine deep subsurface sediment.

Benefit for the State or Institution: This research could potentially lead to discovery of natural products. By investigating the metagenomes and metatranscriptomes for antibiotic gene expression, the ecology and evolution of these organisms can be examined and help draw conclusions about the specific interactions between microbial communities. This project will allow the PI to train undergraduates in this project, including first generation students and underrepresented students. Texas A&M University-Corpus Christi is a Hispanic Serving Institution which offers the opportunity of training underrepresented students who are eager to learn and want to pursue scientific research in the future. The PI plans to present her findings at local and national conferences as well as publish findings.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$635
Capital Expenditures	\$0
Total	\$635

Entry: 23**Title:** *South Texas Speech Corpus*

Description: This project aims to collect, analyze, and archive the conversational speech among the local residents who identify themselves as South Texan.

Purpose/Intent: The goal of this research is to better understand different ways people speak in the South Texas region, and the factors that can explain the differences such as race, sex, age, occupation, or neighborhood. The research will contribute to a better understanding of the complex relations between language and society.

Benefit for the State or Institution: The research will broaden the understanding of local language practices in the South Texas region, in comparison to the language landscape of the U.S. Society as a whole. We will benefit from this added discovery, given that the South Texas region (especially the coastal bend and the valley) is largely understudied in the field. Generally speaking, documenting and analyzing various language patterns that reflect social structures such as race, sex, and age will contribute to our knowledge of the complex relationship between language and society.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$485
Capital Expenditures	\$0
Total	\$485

Entry: 24

Title: *Volume computations for characterization of three-dimensional (3D) objects.*

Description: This research proposes to develop a tool to compute the volume of objects whose shape is captured via a 3D structured light scanner. It also proposes to develop a calibration technique to ensure correct dimensions are represented in the scans. Afterwards, we will learn how to utilize the mesh models optimally and export the data into MATLAB programming tool to develop algorithms for computing the volume of odd-shaped objects, and further characterize their visual attributes.

Purpose/Intent: The goal of this research is to develop techniques and algorithms to accurately measure the volume of 3D scanned objects using structured light scanning (SLS) technology. Besides accurate volumetric measurements, other attributes of the scanned objects will also be characterized.

Benefit for the State or Institution: The results of this research will benefit those who are interested in determining the volume of various objects precisely and accurately without destroying the objects. Some examples include space research/missions; unmanned aerial systems, agricultural studies, biomedical sciences, and manufacturing processes. Most directly, it will benefit the imaging community, who are working on characterizing 3D volumes and objects in the fields of medicine, manufacturing, inspection of oil fields, and others that monitor growth characteristics. We have immediate collaborators who are interested in measuring volume of molluscs and their shape parameters as well as other attributes, which we hope will lead into further research projects.

Salaries/Wages for New or Reassigned FTEs	\$800
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$800

Entry: 25

Title: *The XR-Lab: Positioning Texas A&M University-Corpus Christi as a Leader in High-Tech Education*

Description: Building on innovative and award-winning hands-on interactive augmented reality mobile applications currently in use at the Art Museum of South Texas, which highlight and enhance art exhibitions designed with TAMU-CC faculty, CILS proposes the introduction of a learning lab housed in the ECDC which will function as both a teaching tool and a creative suite. In partnership with The Art Museum of South Texas, and the Garcia Center, the XR-lab will be designed for use by students, faculty and staff and will serve as an open-source home for innovation and creative skill-building.

Purpose/Intent: Equipment for participants to explore and utilize development tools, software, hardware, and content for Augmented Reality, Mixed Reality, and Virtual Reality experience platforms.

Benefit for the State or Institution: The economic future for the people of South Texas relies on a well-educated public and workforce. Indeed the future of the state of Texas, as well as the Nation, will need a new generation of creative thinkers to allow us to compete scholastically and economically on a global scale. Raising a literate and technologically-skilled generation of problem solvers will help ensure that tomorrow's decision-makers are prepared for the challenges of the future. In alignment with Texas A&M Corpus Christi's Momentum vision to pursue and promote enrollment, student success, community engagement, learning, and information resources, the Curriculum, Instruction, and Learning Sciences Department proposes the creation of a learning lab titled the XR-Lab.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$1,123
Capital Expenditures	\$0
Total	\$1,123

Entry: 26

Title: *A Novel Method to Augment Personal Identification in the Medical Examiner/Coroner Setting*

Description: The project will develop population-level likelihood values for circumstantial evidence from medical examiner case files of deceased individuals.

Purpose/Intent: The purpose of the project is to pilot an "IDdatabase" tool that can be expanded and validated for use by medicolegal investigators to support identification of unknown deceased individuals.

Benefit for the State or Institution: The number of missing individuals and the number of unknown deceased bodies in the United States are described by forensic scientists as the "Silent Mass Disaster" with approximately 4,400 unidentified bodies received by medical examiners and coroners each year. Approximately 1000 of the bodies remain unidentified after a year of investigation. This project can provide a much needed tool for forensic identification, relieving the burden on families of the missing, and showcasing the scientific expertise of the TAMU-CC faculty in publications and presentations at national meetings.

Salaries/Wages for New or Reassigned FTEs	\$999
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$999

Entry: 27

Title: *The Fundamentals of Dealing with Missing Data*

Description: National Council on Family Relations. 1.5-hour online data analysis training. Takes place on 5/16 and will be presented by Dr. Isaac Washburn (Assistant Professor at Oklahoma State University).

Purpose/Intent: The goal is to learn about effective handling and consideration of missing data to ensure non-biased results in research. Training will cover topics such as data missing completely at random (MCAR), missing at random (MAR), and missing not at random (MNAR). Modern missing data analysis techniques such as multiple imputation and maximum likelihood will be discussed along with tutorials on using these techniques in several software including Mplus, Stata, and SPSS.

Benefit for the State or Institution: As a graduate faculty member, the PI will learn how to effectively handle missing data and gain a better understanding of modern missing data analysis techniques. This knowledge is advantageous for her own community-engaged outcome research agenda as well as her role in serving as a methodologist and faculty research mentor for doctoral students.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$325
Capital Expenditures	\$0
Total	\$325

Entry: 28

Title: *The effects of a yoga-based social-emotional learning program on emotion regulation*

Description: The PI will be using the emotion regulation portion of the Transformative Life Skills curriculum for this study, which includes 12 lesson plans that are 20-30 minutes in length. An a priori power analysis was run using G*Power, which calculated that the sample size of this study should be at least 34 in order to have an effect size of 0.8. The PI anticipates having a total of 44 students from the 4th and 5th grade – half will receive the intervention treatment, while the control group gets treatment as usual (typical guidance lessons provided by the school counselor). An IRB with both Texas A&M University – Corpus Christi as well as a separate IRB with Corpus Christi Independent School District will be needed. The PI is in communication with ECDC principal to coordinate times for treatment as she works out times for the next school year. The principal, Dr. Castillo, is supportive and excited to bring yoga and additional social-emotional learning to the elementary school. She believes the children at this school will enjoy and benefit from the experience. In order to track changes in emotion regulation, the PI will be administering the Emotion Regulation Questionnaire for Children and Adolescents (ERQ-CA). This scale is exactly the same as the Emotion Regulation Questionnaire (ERQ), but has slightly modified language to be more appropriate for a younger age group. This measure is a 10-question self-report scale that was picked due to its validity, reliability, and ease of use since children will not likely have the desire or the attention span to answer lengthy questionnaires. The ERQ-CA will be administered before the treatment as well as after to both groups. From there, the PI will complete a mixed ANOVA analysis on SPSS in order to compare the two groups over two time periods.

Purpose/Intent: Children face stressors daily. These stressors might include a stressful home situation, such as financial strain, sibling rivalry, single-parent homes, etc. Other stressors might be related to school, such as social discord, bullying, test/academic pressure, just to name a few. The goal of this study is to further research on a yoga-based SEL program with a curriculum that minimizes the time and fiscal impact of the school districts in order to be mindful of the time and financial constraints that school districts face. If successful, this program would be one that teachers could implement in their classrooms using minimal amounts of time and without any formal yoga training. Imagine what daily life would be like if children understood how to manage emotions – if they learned to get along, have tolerance of others, how to deal with rejection and academic pressure, or even started each day with soul-searching and meditation! This study primarily seeks to test whether or not a yoga-based social-emotional learning program relates to emotional regulation in elementary school students at Early Childhood Development Center. The social-emotional learning program will include yoga interventions, specifically designed to increase mindfulness and emotion regulation. The children studied will be in grades four and five only, primarily due to the more advanced language used in the program that would be a challenge for the younger children. The chosen curriculum has been studied on high school youth in an urban setting. This study would add to the literature to further explore the use of the same curriculum with upper elementary aged children in a bilingual, south Texas elementary school.

Benefit for the State or Institution: Social-emotional learning could potentially have an impact on students, school staff, and the greater community. Several studies suggest that stressors at an early age can lead to psychological and mood disturbances (Carter, Garber, Ciesla, & Cole, 2006; Grant et al., 2009; Roberts, Roberts, & Chan, 2009). Students endure stress on a regular basis – whether it's environmental, chronic, or related to trauma. Regardless of the type of stress experienced, it can impact young children, including their ability to learn. Stress has an impairment effect on brain functioning in the areas of memory, listening, language, and thinking (Bidyut, Ancin, Frank, & Malik, 2017, p.3).

Entry: 28 continued

If a yoga-based social-emotional learning program could create improvements in self-regulation, physical fitness, and behaviors/mental state, it is possible it can mediate other problems facing young children (Butzer et al., 2016). The program could impact bullying prevalence, suicide rates, and school violence, in addition to academic performance and attrition. This simple and cost-effective program could provide ample and lifelong benefits to participants, families, and communities within the state of Texas.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$403
Capital Expenditures	\$0
Total	\$403

Entry: 29

Title: *Learn from the Experts: Lessons learned from a Service-Learning*

Description: This a Service-Learning program started in the fall of 2018. Among its purposes are to encourage TAMU-CC and High School students to (1) take advantage of the social character of learning and to (2) collaborate as much as possible with people from their own community in their learning processes. The program involves beginner Spanish students and Spanish majors in the Spanish Program at TAMU-CC and Spanish-speaking learners of English at West Oso High School. Beginning Spanish students from TAMU-CC meet one-on-one once a week with high school English learners from West Oso High School to help each other with their needs in learning Spanish and English. Meetings take place every Tuesday during 10 weeks. The lessons follow a translanguaging pedagogy (García, Johnson & Seltzer, 2017), which respects the complex discursive practices of the emergent bilingual students and do not constrain their communication and learning processes to linguistic practices that are not natural for them. Furthermore, in this program, pre-service teachers gain professional experience by helping to prepare lessons and monitoring the language learners under the supervision of the program coordinator.

The program needs a student with knowledge of Spanish, English and language teaching pedagogy to support the program coordinator in preparing lesson plans and materials that will help reach the goals of the programs for its participants. This specific funding will be used to pay for an ESL student to prepare lessons for the next semester.

Purpose/Intent: The program has multiple purposes: 1. Teach Spanish to Texas A&M University students. 2. Teach English to West Oso High School English-learning students. 3. Prepare pre-service teachers professionally. 4. Foster understanding and respect among the groups involved in the project. 5. Support West Oso High School English-learning students in their mother language maintenance.

Benefit for the State or Institution: This project is beneficial in different aspects for all students involved: (a) high school Spanish-speaking learners of English who receive instruction on academic English, are tutored by an English-proficient college student and understand the value of knowing Spanish in the U.S. context;(b) college learners of Spanish who are tutored by Spanish-proficient high school students; and (c) Spanish Majors acquire hands-on experience by helping me prepare teaching materials and monitoring the students' pairs.

Moreover, all students involved have the opportunity to reflect on their interactions with different students, which should lead them to the realization that diversity is natural and positive. In post meeting activities, they are also led to reflections that should make them more open to and respectful of other cultures. Participation in the project as a whole should lead participants to become competent global citizens who are able to respectfully communicate with peoples from different cultures and values.

Salaries/Wages for New or Reassigned FTEs	\$480
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$480

Entry: 30**Title:** *Cultivation of single and cooperating methane metabolizing cells:**Developing novel techniques to isolate and quantify in situ methanogenesis rates*

Description: The rise in biological methane fluxes is a growing concern in this era of climate change. Understanding methane metabolism on the molecular level and devising novel ways to cultivate environmental cells is essential for us to understand biogeochemical cycling in subsurface environments. These understandings can also elucidate to the origins of early life. Proposed here is a novel technique to isolate environmental cells involved in methane metabolism and uncover the relationship between RNA based signatures and in situ methane flux rates. Phase one of this study focuses on establishing methods for anaerobic cultivation and phase two will test the ability of fluorescent activated cell sorting devices to isolate viable anaerobic methane metabolizing cells. Final phases of the study are understanding the environmental factors that affect methanogenesis rates and testing if mRNA transcripts can be used as a proxy for quantifying methanogenesis rates.

Purpose/Intent: The purpose of this project is to test if functional transcripts can be used for quantifying methanogenesis rates. The PI will test the ability of fluorescent active cell sorting (FACS) to quantify the abundances of methane metabolizing cells from lab grown cultures and environmental samples/enrichments. FACS also provides opportunity for us to isolate and potentially cultivate novel methane metabolizing cells.

Benefit for the State or Institution: This project will be a good scientific investment to both the A&M system and our State. Scientifically, there currently lacks proper quantification of methanogenesis in the natural environment due to the presence of methane oxidizing cells. This project also focuses on developing novel methods for isolating and cultivating methane metabolizing cells, which potentially can be applied to industrial sized bioreactors where methane is an energy source.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$1,500
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$1,500

Entry: 31**Title:** *Solid phase organic carbon in methanogenic sediments*

Description: The project aims to collect and analyze sediment core samples to characterize carbon elemental and isotopic composition in shallow estuaries in Corpus Christi, Texas.

Purpose/Intent: To determine the relationship between solid phase organic carbon and methane production in shallow subtropical estuarine sediments.

Benefit for the State or Institution: Methane is an abundant greenhouse gas but little is known about it's distribution, transport and cycling in shallow subtropical estuarine sediments. This work will further characterize the behavior of methane in sediments and it's impact on local and global climate. Further, this funding provides Hannah Organ, an undergraduate in the Biology program at TAMU-CC, the opportunity to participate in field research and learn advanced laboratory and analytical techniques in the Isotope Core Laboratory.

Salaries/Wages for New or Reassigned FTEs	\$988
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$988

Entry: 32

Title: *The development of gender, transgender identities as well as political concerns pertaining toward transgender identities.*

Description: According to the National Center for Transgender Equality (NCTE), transgender is an identity for “people whose gender identity is different from the gender they were thought to be at birth” (NCTE, 2017). In 2015, the NCTE conducted a survey involving 27,715 transgender people and revealed that 46% of transgender adults had experienced verbal harassment, nine percent had experienced physical assault, and ten percent had experienced sexual assault due to their transgender identity (NCTE, 2015). Initial research found that transphobia relates to heterosexual participants' views on gender as a binary category composed of men and women (Herek & Norton, 2013).

Purpose/Intent: The research aims to implement an experiment designed to gather qualitative responses from non-transgender, heterosexual individuals regarding the development of gender, transgender identities as well as political concerns pertaining toward transgender identities. Participants will be asked questions such as: What is the most important difference between men and women? Describe how men and women differ. Why are restrooms separated by gender? Imagine sharing a locker room with a transgender individual. How would you feel? This experiment will also assist in developing and refining indirect contact techniques that will be used in subsequent experiments designed to reduce transphobia.

Benefit for the State or Institution: It provides a better understanding on what underlines transphobia.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$615
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$615

Entry: 33

Title: *College of Education Support*

Description: The fund is to support College of Education's research initiatives.

Purpose/Intent: The fund assists with the enhancement of the college's research infrastructure.

Benefit for the State or Institution: The fund enhances the college's research infrastructure, thus improving its research capabilities. This will help with proposal submissions in the future which will then bring recognition and enhance the University's visibility in research.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$350
Capital Expenditures	\$0
Total	\$350

Entry: 34**Title:** *Data Collection Methods and Privacy Breaches: Does Privacy Even Matter?*

Description: This study uses a 2 (passive/active data collection method) x2 (data breach/no data breach), between subjects experimental design. The PI will recruit 200 respondents to complete the survey (50 participants per cell). Respondents will be exposed to one of four scenario descriptions to convey: 1) passive data collection with no data breach; 2) passive data collection with a data breach; 3) active data collection with no data breach; 4) passive data collection with a data breach, presented in a randomized design. After reading the scenario descriptions, respondents evaluated the scenario company on measured scales to assess their degree of privacy concerns, privacy violation risk, attitude toward the retailer and intent to shop at the retailer.

Purpose/Intent: The purpose of the study is to determine whether or not data collection methods, defined as active (the retailer actively collects data from customers) and passive (the retailer purchases data from customers) impacts consumers perceptions of privacy concerns and privacy violation risk and whether or not the attitudes toward the retailer and intention to shop at the retailer are impacted. Ultimately our research question is, Does the data collection method impact (via privacy concerns) whether or not a customer will shop with the organization? Additionally, we will investigate how a privacy breach impacts moderates these relationships.

Benefit for the State or Institution: In today's world of Big Data, Governments, institutions and businesses all utilize a multitude of data collection methods. Organizations use both active methods, where they ask customers and constituents directly for their personal information, and passive methods, where they buy data from third parties. Yet little is known about the perceived privacy differences between the two methods. Additionally, there is very little research that examines the effect that data breaches have on privacy concerns. This research provides value to both the state and institution by shedding light on the unintended consequences of data breaches and data collection methods.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$1,250
Capital Expenditures	\$0
Total	\$1,250

Entry: 35**Title:** *TRDF - OSRS ASSESSMENT FEES FY19*

Description: This is to fund OSRS Assessment Fees for TAMU-CC.

Purpose/Intent: The funding is used to pay for SRS to process faculty's proposals.

Benefit for the State or Institution: SRS has the expertise and consistent and efficient procedures to enhance research administration. This helps make the proposals more competitive for funding opportunities. It also saves a lot of time for the University and faculty.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$335,129
Capital Expenditures	\$0
Total	\$335,129

Entry: 36

Title: *Preliminary Study to Determine if an eDNA Method can be Developed for Texas Diamondback Terrapin in Texas Bays and Rivers*

Description: Texas Diamondback Terrapin is a “Species of Greatest Conservation Need” in Texas. Determining if terrapins are present is expensive and labor intensive requiring extensive trapping to determine their presence in Texas bays and rivers. Environmental DNA (eDNA) is a new method that allows DNA in water, soil, or other environmental samples to be tested to determine if an animal is present in the area. If an eDNA method could be developed for Texas Diamondback Terrapin, then researchers and managers will gain a better understanding of terrapin distribution within the state because a rapid and much less labor intensive (i.e., no trapping necessary) means to determine if terrapins are present in an area will be available.

Purpose/Intent: The PI will perform preliminary work on use of environmental DNA (eDNA) to indicate presence/absence of diamondback terrapins in Texas bays and rivers. The eDNA technique requires acquisition of genetic material from wild-caught terrapins to identify specific, unique genetic primers that will later be used to test water samples from throughout Texas.

Benefit for the State or Institution: Although Texas Diamondback Terrapin is designated as a “species of greatest conservation need” by the state, the availability of funding has been very limited, especially because the current method of determining their presence (i.e., distribution) has been reliant on trapping which is expensive and labor intensive, and which may not yield any results should the turtles be unwilling to cooperate. This project is a good investment because if an eDNA method is successfully developed then large swathes of the coast can be tested more easily, and in conjunction with other projects since it will only require a water sample. A better understanding of terrapin distribution will contribute greatly to ongoing conservation efforts which are hampered because the species’ ecology is poorly known.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$1,500
Capital Expenditures	\$0
Total	\$1,500

Entry: 37

Title: *Multi-Agent Network Control – A Brain Emotional Learning-Inspired Approach*

Description: The research objective of this project is to employ computational models of emotional learning observed in the mammalian limbic system to develop novel and systematic methodologies for analysis, design, and implementation of autonomous multi-agent systems (MAS) operations.

Purpose/Intent: To enhance research at TAMU-CC in the Engineering department.

Benefit for the State or Institution: This project is to bring recognition to TAMU-CC for the research that is happening on this campus. By cost sharing the PIs salary, we were able to receive \$50,000 from the Department of Defense for this research.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$5,426
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$5,426

Entry: 38

Title: *Study of Perceptions, Attitudes, and Behavioral Intentions of the Potential Market of Visitors to Corpus Christi, Texas*

Description: Currently, there is scarcity of information available about the consumer profiles, motivations, perceptions, attitudes, and behavioral intentions of the potential visitors to Corpus Christi as a tourism destination. A better identification and understanding of this important market segment is necessary in order to allow decision-makers to conceive and implement effective marketing strategies aimed at appealing to consumers with a greater likelihood of visitation, satisfaction, and spending capacity. Thus, this research is conducted to understand the attitudes, motivations, demographic and psychographic profiles of potential and past visitors to Corpus Christi.

Purpose/Intent: The purpose of this research project is to study the perceptions and attitudes of potential visitors towards Corpus Christi as a tourism destination in the Texas Coastal Bend. The research question is: What are the attitudes, motivations, demographic and psychographic profiles of potential travelers to Corpus Christi?

Benefit for the State or Institution: The study results will be useful for destination marketers and hospitality and tourism-related business in the Corpus Christi and Coastal Bend area, strengthening the image and visibility of the TAMU-CC and its role in local communities of the region. Also, the results and findings of this project will lead to the publication of articles in business journals and presentations in academic conferences, contributing to fulfill research-activity requirements established by the accrediting body of the College of Business: the Association to Advance Collegiate Schools of Business (AACSB).

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$926
Capital Expenditures	\$0
Total	\$926

Entry: 39

Title: *Texas A&M University Corpus Christi (TAMU-CC) Unmanned Systems Lab Safety Netting Addition Proposal*

Description: The research faculty members that work on unmanned vehicles research have merged their facilities (EN-208 and EN-209) into EN-201. The new room provides a larger area to develop experimental procedures for unmanned aerial vehicles (UAV) operations among other unmanned systems. Netting is needed for safe operation of unmanned aerial vehicles and to add new research capabilities. The safety netting will function as a curtain to allow UAV to be flown in an area separated from humans for safe operations. The netting will be installed in such way as to allow flexibility of operation. The netting curtain can be opened or closed depending the activity or level of safety required for the experiment.

Purpose/Intent: The allocation of three nets has been defined and can be observed. The logistics and setup process was consulted and approved by the College of Science and Engineering Operations Supervisor and the Laboratory Coordinator. The process will consist on docking three steel wires from concrete wall at EN-201 to later attach the Safety Netting to them. With this safety addition it can be ensure that the stakeholders within the USL can safely operate experiments with drone type vehicles.

Benefit for the State or Institution: With the addition of the Safety Netting newer types of research involving swarms of drones can be done. That was not possible before due to the limited room area and the need for safety personnel for safe operation of each UAV in the previous facilities. The expectation is that the addition of the Safety Netting will help the development of newer unmanned systems related algorithms and models that will derived into multiple publications and funded grants. That way TAMU-CC will have capabilities that are closer to other institutions that lead in the unmanned systems research. The enhanced capabilities for the research and development of new unmanned systems technologies will greatly support the students and lead investigators efforts.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$630
Capital Expenditures	\$0
Total	\$630

Texas A&M University-Kingsville

Entry: 1

Title: *Citrus Center*

Description: Research salary support for this large research component of the University.

Purpose/Intent: The Citrus Center provides research and service support to the multimillion dollar Texas citrus industry and develops future leaders through academic training of graduate students. It focuses on citrus variety development, pest and disease control, plant physiology, soil science and irrigation technology, using both established and cutting edge technologies.

Benefit for the State or Institution: The Citrus Center is the only state funded research facility dedicated to serving the Texas citrus industry. Over 1,900 industry jobs are currently provided, and increased plantings resulting from acreage reduction in Florida caused by disease, weather and urbanization, will provide increased employment opportunities. A large Californian citrus company now owns and manages extensive acreage in south Texas, which bodes well for the future of the industry. It is propagating large numbers of new trees for expanding its citrus acreage. The citrus industry faces threats from endemic and exotic pests and diseases, as well as water issues, and faculty at the Citrus Center are leading research programs to counter these threats, thereby enabling the industry to remain profitable.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$285,341
Operating Expenses	\$8,819
Capital Expenditures	\$0
Total	\$294,160

Entry: 2

Title: *Library Research Acquisitions*

Description: The funding provided access to several major online and printed resources for the Library.

Purpose/Intent: The purpose of these expenditures is to support research and learning across the curriculum. These expenditures represent all individually-subscribed journals (both print and online) as well as several online services in chemistry, engineering, social sciences, and indeed across all program areas.

Benefit for the State or Institution: All these products and services are important resources for students and faculty and are essential for the mission of the University and especially for particular programs. The cost of these products and services represent approximately 40% of the library's collections budget. Most of these resources are available online and are accessible by the University community from any Internet-connected computer or device.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$523,523
Capital Expenditures	\$0
Total	\$523,523

Entry: 3

Title: *Faculty Start Up Funds - College of Engineering*

Description: To support doctoral program funding aligned with the establishment of research as well as prioritized college internal research projects.

Purpose/Intent: To provide funding for the college doctoral programs in order to enable data collection, analysis, and results which will help establish program, department, and college research agendas in developing external research proposals.

Benefit for the State or Institution: This funding promotes and facilitates research capacity building for doctoral programs throughout the college, its departments, and individual faculty.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$10,825
Operating Expenses	\$85,452
Capital Expenditures	\$193,391
Total	\$289,668

Entry: 4

Title: *Faculty Start Up Funds - College of Arts and Sciences*

Description: The funding was used to assist new researchers as well as prioritized college internal research projects within the College of Arts and Sciences.

Purpose/Intent: To provide startup funding for the collection of preliminary data, analysis, and results to help establish research agendas as well as external research proposals.

Benefit for the State or Institution: This funding promotes and facilitates research capacity building for the entire University, colleges, departments and individual faculty.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$59,809
Capital Expenditures	\$19,678
Total	\$79,487

Entry: 5

Title: *Faculty Start Up Funds - College of Education*

Description: The funding was used to assist new researchers as well as prioritized college internal research projects within the College of Education.

Purpose/Intent: To provide startup funding for the collection of preliminary data, analysis, and results to help establish research agendas as well as external research proposals.

Benefit for the State or Institution: This funding promotes and facilitates research capacity building for the entire University, colleges, departments and individual faculty.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$1,803
Capital Expenditures	\$9,824
Total	\$11,627

Entry: 6

Title: *Faculty Start Up Funds - College of Agriculture*

Description: The funding was used to assist new researchers as well as prioritized college internal research projects within the College of Agriculture.

Purpose/Intent: To provide startup funding for the collection of preliminary data, analysis, and results to help establish research agendas as well as external research proposals.

Benefit for the State or Institution: This funding promotes and facilitates research capacity building for the entire University, colleges, departments and individual faculty.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$9,056
Operating Expenses	\$28,389
Capital Expenditures	\$0
Total	\$37,445

Entry: 7

Title: *Research Support - Office of Student Access*

Description: Development and advancement of institutional research through the support of sponsored undergraduate research. The overarching aim includes building departmental, college and institutional research capacity through faculty supervision of targeted research projects. Student Access assists with the implementation of the undergraduate research plans and the preparation of all associated project budgets.

Purpose/Intent: The purpose of the undergraduate research program is to facilitate research sponsorships through an undergraduate research training program that builds research capacity and delivers meaningful participatory methodology training to upcoming student researchers. Student Access conducts oversight functions of the implementation of the undergraduate research plans, all associated local, regional, and national scholarly work developed by participants in the program and the preparation of all associated project budgeting functions in partnership with various University departments and colleges.

Benefit for the State or Institution: Participatory research training allows students to conceptualize various research methods and work directly with faculty as research mentors. Furthermore, students began to realize and form a researcher minded identity. Research mentorship programs such as this, provide meaningful learning experiences through a sense of connectedness. The literature in this area, indicates that participants in program such as this are more likely to complete their degrees, go on to graduate school, and consider research related careers.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$1,500
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$1,500

Entry: 8

Title: *Undergraduate Research Support - Office of Student Access*

Description: This project encourages the engagement of undergraduate students to participate in research in various disciplines within the Office of Student Access.

Purpose/Intent: The purpose of this project is to increase participation of undergraduate students in research and presentations. The funding provides the opportunity for students to engage in high impact research practices within their field of study.

Benefit for the State or Institution: By providing these types of research opportunities, the University advances new knowledge for students and faculty. Students who engage in these kinds of projects are more likely to reach degree completion and further their education, potentially here at Texas A&M University-Kingsville.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$7,500
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$7,500

Entry: 9

Title: *Office of Research and Graduate Studies*

Description: To support the Office of Research and Graduate Studies (ORGS) involving proposal development, compliance, post award staff, and research reviewers.

Purpose/Intent: The staff of the Office of Research and Graduate Studies (ORGS) supports the University researchers by assisting with proposal development and monitoring compliance and financial requirements. The reviewers assess internal research proposals to determine eligible awardees.

Benefit for the State or Institution: Expansion of proposal development activities toward continued and increased research awards will allow further growth in the institutional, regional and statewide impact of our research programs. Expansion of programs also allows for further student research training and contributions toward workforce related and continued academic advancements. Successful internal research projects will be leveraged for the development of external grant proposals. The Office of Research and Graduate Studies (ORGS) support staff provides the infrastructure to submit projects to external agencies and to manage the projects when funded.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$64,808
Operating Expenses	\$35,505
Capital Expenditures	\$0
Total	\$100,313

Entry: 10**Title:** *Examining the Components of Reading in Adults and Children*

Description: Reading is a multi-faceted ability that is composed of many cognitive resources (e.g., vocabulary knowledge, working memory), cognitive processes (e.g., memory, inferencing, knowledge-based inferencing), and knowledge about strategies. The goal of this project is to use modern techniques/technology, such as structural equation modeling, and eye-tracking technology to determine which cognitive resources, cognitive processes, and strategies are most important to be a successful reader.

Purpose/Intent: To assist student research assistants during the collection and who will help Collect/Analyze data that can be used for (i) grant proposals, and (ii) to generate manuscripts.

Benefit for the State or Institution: This funding assisted in exposing students (majority being minority students) to search for research opportunities. The resulting analyzed data may also be used for future grant proposals submitted by Texas A&M University-Kingsville.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$983
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$983

Entry: 11**Title:** *Structure-Function Analysis of Pro-Apoptotic BMRP and its Role as Tumor Suppressor*

Description: The SCORE Program is a developmental program designed to increase the research competitiveness of faculty and research base of institutions with a historical mission and/or demonstrated track record of training and graduating students from backgrounds underrepresented in biomedical research. The overall goal of this project is to understand the function of proteins that regulate apoptosis, which will provide novel targets and tools for the design of innovative therapies for the treatment and/ or prevention of cancer and other human diseases characterized by deregulated apoptosis.

Purpose/Intent: To provide institutional support necessary for the successful implementation of the proposed activities in the title project along with supporting a Research Assistant.

Benefit for the State or Institution: The results of this project will enhance the possibility of receiving sustained federal support from the National Institute of Health for the research projects of the principal investigator. Additionally, the student involved in the project will be provided research skills that are applicable for future research in academic and industrial settings.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$7,200
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$7,200

Entry: 12**Title:** *Research Support - Department of Mechanical & Industrial Engineering*

Description: The REU Site hosted at Texas A&M University-Kingsville is designed to develop and implement a model environment for multidisciplinary collaborative efforts where research and education are tightly integrated around the different facets of sustainable energy and environmental research. The specific objectives are: providing research opportunities to undergraduate students, increasing the number of underrepresented students who participate in graduate education, and to build collaborative links among faculty and student from different engineering departments within the University.

Purpose/Intent: To provide institutional support necessary for the successful implementation of the proposed activities in the title project along with supporting a Research Assistant.

Benefit for the State or Institution: The funding assisted in maintaining the National Science Foundation extramural funded research project while providing research training and experience to graduate students at Texas A&M University-Kingsville.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$5,000
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$5,000

Entry: 13**Title:** *Performance Analysis and Experimental Investigation of a Solar-thermal Powered Adsorption Cooling System*

Description: Air-conditioning accounts for the significant portion of the primary energy use in buildings, and solar-thermal driven adsorption cooling technology has a great potential in reducing primary energy demand. Adsorption cooling relies on the adsorption of a refrigerant on a porous material which plays an important role in the overall system performance. This project aims to develop enhanced porous materials and to simulate the performance of an adsorption cooling system to maximize the solar fraction by testing different strategies.

Purpose/Intent: The purpose of this project is to better understand the economic and technical feasibility of the solar-thermal powered adsorption cooling technology for South Texas. Additionally, this project will explore the use of novel porous materials such as metal organic frameworks in adsorption cooling applications.

Benefit for the State or Institution: Texas is one of the states with abundant sunshine throughout the year. As a result, there is a significant air conditioning need during hot and humid summer months especially in South Texas. Unfortunately, utilization of solar energy in Texas is very limited. This project will explore the feasibility of using solar-thermal adsorption cooling technology for residential applications to reduce energy use in buildings located in Texas. This project will also advance the research output in the solar-thermal adsorption cooling area in Texas A&M University-Kingsville. This project will help with the training of undergraduate and graduate students at Texas A&M University-Kingsville in this novel research area as well.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$541
Capital Expenditures	\$0
Total	\$541

Entry: 14

Title: *Texas A&M University-Kingsville University Research Awards*

Description: The University Research Award provides seed money for research projects that have high potential to secure external funding. Interdisciplinary proposals among the University Colleges are encouraged.

Purpose/Intent: The intent is to facilitate research capacity through demonstrated quality research and enrichment of the research environment at Texas A&M University-Kingsville through external funding and scholarly publications.

Benefit for the State or Institution: The expected outcome is to provide funding for research pilot studies that will result in an increase in grant proposals, grant awards, and research expenditures at Texas A&M University-Kingsville.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$21,034
Operating Expenses	\$36,840
Capital Expenditures	\$0
Total	\$57,874

Texas A&M University-San Antonio

Entry: 1

Title: *Professional Development - Employee Training*

Description: Travel to participate in National Conferences and Texas A&M University System training and related concur fees.

Purpose/Intent: To train in MAESTRO, System Software package, used for Grant Management. To attend conference to gain knowledge that will allow the Sponsored Program Department to better serve the Faculty/Staff members. To attend conference on compliance to gain additional knowledge of export controls.

Benefit for the State or Institution: The institution will become more efficient and effective in the realm of Sponsored Programs and as a result increase the output of grants submitted and accepted.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$5,602
Capital Expenditures	\$0
Total	\$5,602

Entry: 2

Title: *Export control Compliance Training Materials*

Description: Citi Program Module on Export Controls, Visual Compliance export control screening subscription

Purpose/Intent: To train employees on export control practices and screen for restricted parties.

Benefit for the State or Institution: The institution will remain compliant in all export controls matters related to research.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$1,410
Capital Expenditures	\$0
Total	\$1,410

Entry: 3

Title: *Student Research Support*

Description: A symposium to promote and showcase student research.

Purpose/Intent: Experiential learning in the areas of research for the student population.

Benefit for the State or Institution: The institution has the opportunity of showcasing student research to the community. The top student from the symposium represents the University during the Undergraduate Research Day at the Texas State Capitol in Austin, TX.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$4,226
Capital Expenditures	\$0
Total	\$4,226

Entry: 4

Title: *Resource Materials - Sponsored Programs*

Description: IRB/IACUC Handbooks and IACUC Administrators guides. Grant Application Writer's workbooks for NIH and NSF.

Purpose/Intent: To educate and Guide IRB and IACUC members on roles and responsibilities of committees. To guide faculty members writing proposals to NIH and NSF.

Benefit for the State or Institution: The institution will remain compliant in matters relating to Human and Animal subjects. The Institution will produce better proposals with an increased chance at funding.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$1,079
Capital Expenditures	\$0
Total	\$1,079

Texas A&M University-Texarkana

Entry: 1

Title: *Psychology Study - Predictors and Moderators of Peremptory Jury Selection Bias*

Description: Response Button Pad

Purpose/Intent: To measure implicit bias in research participants.

Benefit for the State or Institution: The use of implicit measures will allow students to experience and use multi-method measurement of attitudes and prejudice.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$553
Capital Expenditures	\$0
Total	\$553

Entry: 2

Title: *Psychology Study - Predictors and Moderators of Peremptory Jury Selection Bias*

Description: 1 License: Direct RT Software master

Purpose/Intent: Design reaction-time experiments

Benefit for the State or Institution: The use of implicit measures will allow students to experience and use multi-method measurement of attitudes and prejudice.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$377
Capital Expenditures	\$0
Total	\$377

Entry: 3

Title: *Psychology Study - Predictors and Moderators of Peremptory Jury Selection Bias*

Description: 1 License: Direct RT Software for data collection and presentation of stimuli

Purpose/Intent: Data collection and presentation of stimuli

Benefit for the State or Institution: The use of implicit measures will allow students to experience and use multi-method measurement of attitudes and prejudice.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$150
Capital Expenditures	\$0
Total	\$150

Texas Southern University

Entry: 1

Title: *Research Enhancement and Compliance Programs*

Description: Educational workshops on laboratory safety, use of animals, radiation, and biohazardous substances in research for research community of TSU. State and federal agency reporting, registrations and assurance renewals. Research protocol submission, review and approval processes.

Purpose/Intent: To ensure research compliance with state and federal governing agency guidelines policies and procedures. To showcase research activities at TSU. To enhance internal and external research collaborations and networking.

Benefit for the State or Institution: Ensures compliance with state guidelines policies and procedures. Ensures state employee safety. Promotes high quality research. Enhances extramural funding opportunities for the university.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$80,835
Operating Expenses	\$7,705
Capital Expenditures	\$7,494
Total	\$96,034

Entry: 2

Title: *Animal Care Facilities and Animal Research Protection Program Operations and Maintenance.*

Description: Management and maintenance of research animal care facility supplies, equipment and infrastructure. Procurement of animals for sentinel testing to ensure that all of the animals that are housed in the facility are healthy and pathogen free.

Purpose/Intent: To ensure that the research animals are cared for in a humane manner and in accordance to PHS policy.

Benefit for the State or Institution: Ensures compliance with state guidelines policies and procedures. Ensures state employee safety. Promotes high quality research. Better positions the university to conduct state of the art animal research that will enable the increased chances of acquiring extramural funds for the university.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$41,730
Operating Expenses	\$41,795
Capital Expenditures	\$6,599
Total	\$90,124

Texas State University

Entry: 1

Title: *Faculty Startup*

Description: Research equipment and other startup costs.

Purpose/Intent: Research equipment and other startup costs.

Benefit for the State or Institution: Funding state of the art equipment and laboratories allows us to retain top faculty to instruct and perform research.

Salaries/Wages for New or Reassigned FTEs	\$745,075
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$337,675
Capital Expenditures	\$358,727
Total	\$1,441,477

Entry: 2

Title: *Grant Support*

Description: Provides supplemental funding for grant research.

Purpose/Intent: Provides supplemental funding for grant research.

Benefit for the State or Institution: Leverages institution's ability to get new or continuing research grants.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$2,646,413
Operating Expenses	\$52,162
Capital Expenditures	\$770,667
Total	\$3,469,242

Entry: 3

Title: *Service and Maintenance Contracts*

Description: Pays for service, maintenance and calibration of research equipment.

Purpose/Intent: Pays for service, maintenance and calibration of research equipment.

Benefit for the State or Institution: Maintains state of the art equipment in research labs.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$178,669
Capital Expenditures	\$0
Total	\$178,669

Texas Tech University

Entry: 1

Title: *Start-up Support*

Description: Core Research Support funding assisted approximately 107 individual investigators in an effort to build nationally recognized areas of research excellence.

Purpose/Intent: To enhance the national reputation of research at Texas Tech University and for the state, the university is investing in individual research investigators across all disciplines in an effort to increase extramural research funding and facilitate interdisciplinary research groups and projects. Core Research Support fund investments provide unique opportunities for investigators to launch focused research initiatives and train our students for the future research and education workforce.

Benefit for the State or Institution: CRS funds have been used to facilitate the investigations of researchers such as Dr. Rebecca Hite, Professor in the Department of Curriculum and Instruction. 3D mixed reality technologies, utilized by Dr. Hite, has been instrumental in developing research and providing outreach experiences giving learners new modalities to access science content and processes for improved teaching and learning. In a collaborative partnership with the Museum of Texas Tech University, technologically-enhanced exhibits are providing guests 1) new and interactive means to access and manipulate museum collections and 2) immersive opportunities to discover the historical, cultural, and scientific importance of museum objects. Avenues for future research include teaching local ecology and environmental conservation using 3D mixed reality in informal science spaces.

Salaries/Wages for New or Reassigned FTEs	\$431,156
Salaries/Wages for Existing FTEs	\$2,056,521
Operating Expenses	\$102,688
Capital Expenditures	\$405,832
Total	\$2,996,197

Entry: 2

Title: *Salary support (non-start up)*

Description: Provides support to the most active research faculty. Recipients are identified by the college. The selections are reviewed by the Provost's office. Approximately 50 faculty members salary was partially paid from Core Research Support funds.

Purpose/Intent: To support research activities and increase external research funding opportunities.

Benefit for the State or Institution: CRS funds allow Texas Tech University to retain exceptional researchers. By using CRS funds to support research, institutional funds are freed up to continue to support superior teaching experiences for the students.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$6,169,234
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$6,169,234

Entry: 3**Title:** *Center Support*

Description: Support for multiple centers and institutes including the National Wind Institute, Animal Care Services, the Neuroimaging Center, and the Center for Pulsed Power and Power Electronics.

Purpose/Intent: To enhance multidisciplinary programs by providing support to the centers and seed grants to researchers. These investments into bolster existing research programs and support the continued growth of multidisciplinary programs.

Benefit for the State or Institution: Biotechnology and genomic research is a major focus at Texas Tech University. The Center for Biotechnology & Genomics is designed to capitalize on this strength by facilitating research partnerships between highly productive research teams that extend across departmental boundaries. These partnerships are established to bring together complementary research efforts in biochemistry, molecular biology and genetics.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$751,275
Operating Expenses	\$267,985
Capital Expenditures	\$11,201
Total	\$1,030,461

Entry: 4**Title:** *Cost Sharing/Matching*

Description: Funding allocated to provide matching funds to extramural research projects.

Purpose/Intent: The fund was established to cover committed and voluntary cost share for extramural funding, enabling faculty to conduct research and advancing the mission of the University.

Benefit for the State or Institution: This investment helps Texas Tech University build research capacity to attract top tier research faculty, be more competitive for extramural funding and assists faculty in meeting the requirements of certain awards.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$103,692
Operating Expenses	\$11,563
Capital Expenditures	\$363,410
Total	\$478,665

Texas Woman's University

Entry: 1

Title: *Center for Research Design and Analysis*

Description: Provide support to faculty and students for qualitative and quantitative research.

Purpose/Intent: Funds are used to supplement University resources to support TWU's Center for Research Design and Analysis.

Benefit for the State or Institution: These funds assisted in increasing statistical and research design support to faculty for their current research projects, increased faculty and students' knowledge about the research process and data analysis, and trained graduate research students in research and data analysis.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$50,397
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$50,397

Entry: 2

Title: *Departmental Research Support*

Description: Initiative to increase research at Texas Woman's University in the College of Health Sciences.

Purpose/Intent: Funds were provided for departmental support within the Colleges of Health Sciences and Professional Education to support initiatives within the colleges.

Benefit for the State or Institution: These funds were used for the translation of a proposal for external funding to the Mango Board and for partial travel expenses for the Associate Dean for Research in Professional Education to attend a training conference.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$750
Operating Expenses	\$255
Capital Expenditures	\$0
Total	\$1,005

Entry: 3

Title: *Compliance*

Description: Compliance-related expenses for animal facility, human subjects research, and training.

Purpose/Intent: Funds were used to assist with salary support to provide care for animals in the TWU Vivarium, stipends to IRB chairs and co-chairs, and training for faculty and students conducting research with radioactive materials.

Benefit for the State or Institution: Funds were used to support a variety of expenses to promote the conduct of responsible research compliant with all aspects of federal and institutional regulations.

Salaries/Wages for New or Reassigned FTEs	\$6,630
Salaries/Wages for Existing FTEs	\$3,915
Operating Expenses	\$100
Capital Expenditures	\$0
Total	\$10,645

Entry: 4**Title:** *Proposal Development Award*

Description: The purpose of the proposal development award is to provide funds to a faculty member or research team to "buy-out" time during the academic year or pay summer salary to develop and submit an external proposal.

Purpose/Intent: Faculty from several departments including Biology, Communication Sciences, Kinesiology, Nursing, Nutrition and Food Sciences, Psychology and Philosophy, Physical Therapy, and Occupational Therapy were supported.

Benefit for the State or Institution: These funds assisted in increasing the number of research proposals submitted for external funding, therefore contributing to faculty and graduate student research and scholarly productivity.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$52,595
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$52,595

Entry: 5**Title:** *Hanover Research Initiative*

Description: Membership to the Research Component of Hanover

Purpose/Intent: Hanover manages a program for emerging faculty at TWU to provide individualized mentoring on the grant writing process.

Benefit for the State or Institution: Twelve emerging research professionals are receiving individualized mentoring on the grant writing process. Grant funding is an increasingly competitive process in which guided expertise is critical to crafting the most fundable research proposals. The ability to describe one's research in a way that can be understood and valued is critical in the competitive selection process.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$1,400
Capital Expenditures	\$0
Total	\$1,400

The University of Texas at Arlington

Entry: 1

Title: *Faculty Salary Support*

Description: Salaries paid to Faculty working at UT Arlington, including the Colleges of Engineering, Science, Nursing, Education and Schools of Urban and Public Affairs, Social Work, Architecture, etc.

Purpose/Intent: To enable the retention of outstanding research faculty who are sought for employment at other institutions.

Benefit for the State or Institution: This investment lowers faculty turnover rates and the expenses associated with faculty recruitment.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$4,334,194
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$4,334,194

Entry: 2

Title: *Graduate Research Assistant Salaries*

Description: Salaries paid to Graduate Research Assistants working at UT Arlington, including the Colleges of Engineering, Science, Nursing, Education and Schools of Urban and Public Affairs, Social Work, Architecture, etc.

Purpose/Intent: The purpose of these funds is to pay graduate research assistants who provide a vital research support role to our research faculty who are working to generate extramural funding.

Benefit for the State or Institution: The research experience gained by these students is a critical part of their graduate education. They also play a role in generating extramural funding for the university.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$240,341
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$240,341

Entry: 3

Title: *Research Technicians and Research Support*

Description: Salaries for Research Technicians and Research Support

Purpose/Intent: The purpose of these funds is to pay research technicians and other research support positions who provide a valuable research support role to our research faculty.

Benefit for the State or Institution: They provide valuable research support which contributes to the University's research mission.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$1,216,372
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$1,216,372

The University of Texas at Dallas

Entry: 1

Title: *Research Development – Behavioral & Brain Science*

Description: To provide faculty and administrative salary support for the research for the healthy brain.

Purpose/Intent: Modern non-intrusive methods for monitoring real-time functioning of the human brain have led to issues requiring the definition of normal brain function. A goal of this school is to define the concept of a "healthy" brain as well as developing techniques for the brain as well as developing techniques for the early detection of non-healthy functioning.

Benefit for the State or Institution: Results of this research will have major positive effects upon human health, and will create possible commercial applications, and will reduce burdens upon social service agencies.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$831,169
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$831,169

Entry: 2

Title: *Research Development – Center for Vital Longevity*

Description: To provide salary support and operating expenses for the research of Alzheimer's.

Purpose/Intent: Research scientists at the Center for Vital Longevity are using advanced brain-imaging technologies and research techniques in cognitive neuroscience to understand and improve the vitality of the aging mind. Center scientists are working to identify a neural signature in middle-aged adults that will help predict who will and will not age well cognitively and who might be at risk of Alzheimer's disease long before symptoms appear. They are working to understand how memories are formed and retrieved and how these processes change with age. And they are investigating the effects of physical exercise and mental stimulation on memory and cognition in young and older adults.

Benefit for the State or Institution: The ultimate goal of the center's wide-ranging studies is to advance our understanding of the aging mind and to improve the long-term cognitive health and vitality of present and future generations. Their focus holds particular importance to our society, which has a higher proportion of older adults than ever before.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$565,824
Operating Expenses	\$22,542
Capital Expenditures	\$0
Total	\$588,366

Entry: 3**Title:** *Research Development – Economic Political & Policy Sciences***Description:** To provide faculty salary support for educational programs that teach students the skills needed for critical thinking.**Purpose/Intent:** Economics Political and Policy Sciences programs provide an education that allows the student to understand social phenomena from an economics perspective and to provide students with the substantive and analytical skills necessary to study interesting and important questions about how citizens influence what government does, the responsibilities and effectiveness of government, and the consequences of what public institutions and officials do for individual and community well-being.**Benefit for the State or Institution:** Research support funds provide faculty the support to teach students to be able to think critically about choices in the face of limited resources in order to understand more clearly the choices available to society and the economic consequences of decisions.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$143,630
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$143,630

Entry: 4**Title:** *Research Development – Engineering and Computer Science***Description:** To provide research support for salaries and materials for the various departments in the School of ECS to assist with the growth in developing relationships between UT Dallas and the industry.**Purpose/Intent:** The School of Engineering & Computer Science is creating and maintaining a fearless environment that inspires the pursuit, creation and dissemination of knowledge in the following areas: Analog and mixed-signal circuits and systems, bioengineering, human communication technology, information assurance and cyber security, materials characterization, micro- and nanomanipulation, nanoelectronic materials, devices and systems, organic electronics, physical/chemical and biosensors, RF/microwave technology, wireless communications engineering.**Benefit for the State or Institution:** The School of Engineering & Computer Science, created in large part to serve the demands of the Dallas area high-tech community, has capitalized on its unique location and is becoming an integral part of the North Texas 'economic engine.' Research Development funds aid in developing the relationships between UT Dallas and industry which benefit our students, the Jonsson School and industry by providing career opportunities for graduate students, co/op/internship opportunities for students, and potential creation of research partnerships.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$1,659,255
Operating Expenses	\$69,305
Capital Expenditures	\$0
Total	\$1,728,560

Entry: 5

Title: *Research Development - School of Natural Sciences and Mathematics*

Description: To provide supplemental funds for salary and operating expenditures for the School of Natural Sciences and Math.

Purpose/Intent: The purpose of the research support funds is to assist UT Dallas in furthering its academic excellence goals by providing supplemental funds for Faculty and Staff to develop and support research in the areas of Physics, Chemistry, Biology, Mathematics and Geosciences.

Benefit for the State or Institution: The academic and research programs in the School of Natural Sciences and Math create the environment for excellence in student achievement and cutting edge research in the biological, geological, mathematical and physical sciences. Through this research, it will ensure that the North Texas region continues to grow as a science, mathematics, and educational destination, as a source of scientific talent, and as an incubator of new technologies.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$1,020,655
Operating Expenses	\$334,400
Capital Expenditures	\$0
Total	\$1,355,055

Entry: 6

Title: *Research Development - Management*

Description: To provide research support for School of Management.

Purpose/Intent: The purpose of the research support funds is to assist the School of Management in furthering its academic excellence goals by providing supplemental funds to conduct research that will enhance management knowledge.

Benefit for the State or Institution: Research support funds provide support to the Jindal School of Management's mission to meet the challenges of a rapidly changing, technology-driven, global society.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$0

Entry: 7

Title: *Research Development - Research*

Description: To provide research support for salaries and tuition for Ph.D students.

Purpose/Intent: The Office of the Vice President for Research (OVPR) manages the Sponsored Programs (OSP), Research Compliance (ORC), Research Development (ORD) and Technology Commercialization (OTC) operations. These functions are all vital to ensuring the continued growth of the research enterprise at UT Dallas.

Benefit for the State or Institution: The four offices operating under the OVPR umbrella (OSP, ORC, ORD, and OTC) directly support faculty members in the development and submission of research proposals, negotiation of award contracts, facilitation of compliance with federal, state and local laws and regulations related to research, and the commercialization of technologies developed by UT Dallas faculty members. All of these functions are integral to the operations of a top tier research university and to the continued development and growth of high quality research in the state.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$3,481,315
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$3,481,315

The University of Texas at El Paso

Entry: 1

Title: *Grant Cost Shares*

Description: Cost share for major sponsored projects

Purpose/Intent: CORE funds were invested to cover the committed and voluntary cost shares for national competitive federal grants sponsored by the National Science Foundation, The National Institute of Health, the Office of Naval Research and the Air Force Office of Scientific Research.

Benefit for the State or Institution: Cost sharing projects not only help principal investigators to meet the needs of the grant, but also show institutional support to the agencies where the return on investment is beneficial to UTEP, the students, and the researchers involved.

Salaries/Wages for New or Reassigned FTEs	\$16,090
Salaries/Wages for Existing FTEs	\$59,694
Operating Expenses	\$62,601
Capital Expenditures	\$35,000
Total	\$173,386

Entry: 2

Title: *Institutional Animal Care and Use Committee*

Description: Operating support for the Institutional Animal Care and Use Committee (IACUC)

Purpose/Intent: The purpose of the IACUC is to assure that UTEP researchers care for and use animals in ways judged to be scientifically, technically, and humanely appropriate. The committee provides research oversight and evaluation of the institution's animal care and use program and facilities by ensuring compliance with federal regulations related to the proper care, use, and humane treatment of animals used in research, testing and education. The IACUC also provides assistance to investigators in fulfilling their obligation to plan and conduct animal research in accordance with the highest scientific and ethical principles.

Benefit for the State or Institution: The CORE investment will allow the execution of animal related research in order to be in compliance with the Public Health Service Policy on Humane Care and Use of Laboratory Animals; United States Department of Agriculture-Animal and Plant Health Inspection Service; U.S. Government Principles for the Utilization and Care of Vertebrate Animals Used in Testing, Research and Training; and Code of Federal Regulations, 1989, Title 9, Parts 1, 2, and 3 (Animal Welfare Final Rules).

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$62,645
Operating Expenses	\$6,373
Capital Expenditures	\$0
Total	\$69,017

Entry: 3**Title:** *Office of Technology Commercialization*

Description: OTC works with UTEP researchers to commercialize their ideas by providing services such as best-in-class innovation practices; technology, intellectual property and patent strategies; licensing strategies, market research; business strategy and plan development; company formation, organization structures and capitalization strategies; fundraising; incubation; and recruitment strategies.

Purpose/Intent: The purpose of OTC is to be the single portal to assist customers on innovation, entrepreneurship, technology transfer, and commercialization.

Benefit for the State or Institution: The outcomes of OTC not only have enhanced tech transfer operations, but also are expected to contribute to the economic development of the El Paso Region.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$146,857
Operating Expenses	\$6,108
Capital Expenditures	\$0
Total	\$152,965

Entry: 4**Title:** *Research Centers Support*

Description: This program provides start-up and transitional support for the establishment of research centers with an aggressive extramural funding agenda.

Purpose/Intent: The purpose of these funds is to provide start-up and transitional support to develop the infrastructure for the Center for Space Exploration Research and Technologies and the Future Aerospace Science and Technology Center. These two centers have secured multiple grants from federal agencies and aerospace industry partners with obligations exceeding \$7 million.

Benefit for the State or Institution: The investment is effectively used to leverage extramural funding, which in turn, provides support for the educational and research mission of the University.

Salaries/Wages for New or Reassigned FTEs	\$251,416
Salaries/Wages for Existing FTEs	\$2,008,762
Operating Expenses	\$82,060
Capital Expenditures	\$110,408
Total	\$2,452,646

Entry: 5**Title:** *Strategic Hires*

Description: The strategic hires program provides funding to Colleges to recruit outstanding and high-profile faculty researchers who are aligned to the educational and research mission of the University.

Purpose/Intent: The purpose of the program is to provide agility to the University in the strategic recruitment of outstanding faculty who advance the University to attain a National Research University status.

Benefit for the State or Institution: The recruitment of high-profile faculty members is one way to enhance the caliber of research at UTEP and to increase the quality of education the students deserve.

Salaries/Wages for New or Reassigned FTEs	\$42,495
Salaries/Wages for Existing FTEs	\$431,259
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$473,754

Entry: 6**Title:** *Research Equipment*

Description: Funds were allocated for acquisition, maintenance and support of research equipment in the Colleges of Science, Engineering, Liberal Arts and Health Sciences.

Purpose/Intent: UTEP continues to expand its research agenda to increase research capacity in the STEM disciplines. As part of these efforts, UTEP has acquired a number of scientific instruments which are heavily used for sponsored research projects. In order to avoid service interruptions, several of these instruments were placed in yearly maintenance contracts using CORE Funds. New equipment was also acquired replacing obsolete items.

Benefit for the State or Institution: These CRSF and the TCRF investments have helped UTEP in building research capacity and becoming more effective in securing competitive research funding.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$170,109
Capital Expenditures	\$223,421
Total	\$393,530

Entry: 7**Title:** *Research Initiatives*

Description: The University uses these funds to provide transitional salary and support for newly hired faculty and faculty that need to be retained for their research credentials.

Purpose/Intent: The intent of this program is to retain existing faculty and attract new, highly competitive research faculty in order to increase the level of research funding and enhance institutional excellence. The funds are used for capital expenditures, operating expenses, and salaries and wages for research assistants, post-Docs and laboratory technician and salaries for faculty members.

Benefit for the State or Institution: These CORE investments have helped UTEP in building research capacity and becoming more effective in securing competitive research funding. This enables the hiring of strong faculty who will enhance the standing of the institution and contribute to its research and instructional missions.

Salaries/Wages for New or Reassigned FTEs	\$197,401
Salaries/Wages for Existing FTEs	\$1,225,210
Operating Expenses	\$246,002
Capital Expenditures	\$12,652
Total	\$1,681,265

Entry: 8**Title:** *Start-up packages***Description:** The University uses these funds to provide support for newly hired faculty who are expected to establish funded research programs.**Purpose/Intent:** The intent of this program is to attract new, highly competitive research faculty in order to increase the level of research funding and enhance institutional excellence. The funds are used for salaries and wages for faculty members, post-Docs, research technicians, laboratory assistants, capital expenditures, and operating expenses required to operate and maintain laboratories for the purpose of research production.**Benefit for the State or Institution:** These investments have helped UTEP in building research capacity and becoming more effective in securing competitive research funding. This enables the hiring of strong faculty who will enhance the standing of the institution and contribute to its research and instructional missions.

Salaries/Wages for New or Reassigned FTEs	\$1,164,737
Salaries/Wages for Existing FTEs	\$49,645
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$1,214,382

Entry: 9**Title:** *University Research Institute***Description:** Funding program for individuals in full-time positions for which research productivity is an expected requirement.**Purpose/Intent:** The University Research Institute provides funding assistance to those full-time individuals that have submitted proposals to the Faculty Research Senate Committee and meet all requirements. Funding assistance is awarded to those proposals that assist in the development of new junior faculty members, assist in the development of research programs that will attract external sources of funds, and make maximum use of resources and facilities available within UTEP.**Benefit for the State or Institution:** The URI grants have been one of the most important means to support research faculty at UTEP. The funds have provided infrastructure support for research to engage in pilot studies or further current research activities. This, in turn, allowed many of these researchers to obtain and apply external funding from major science and engineering funding agencies. This URI funding has been used by these researchers in many ways such as conference travel, equipment purchase, supplies and materials purchase, and in some cases student research assistant support.

Salaries/Wages for New or Reassigned FTEs	\$20,361
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$35,502
Capital Expenditures	\$0
Total	\$55,863

Entry: 10

Title: *Veterinary Services*

Description: Operating support for Veterinary Services Office

Purpose/Intent: In recent years, UTEP has aggressively expanded its research agenda to increase capacity in biomedical and health-related research. As part of these efforts, UTEP recently completed the new Biosciences building, which houses animal research facilities, vivaria, and Biosafety Level 3 containment facilities. These research facilities also demand that all research dealing with animals (funded and unfunded) be in compliance with animal welfare regulations of the Office of Laboratory Animal Welfare (OLAW) of the US Department of Health and Human Services. CORE funds were used to cover capital and operating expenditures in support of the Veterinary Services Office.

Benefit for the State or Institution: The CORE investment will allow the execution of biomedical and health -related research to be in compliance with OLAW federal regulations.

Salaries/Wages for New or Reassigned FTEs	\$66,371
Salaries/Wages for Existing FTEs	\$151,044
Operating Expenses	\$220,950
Capital Expenditures	\$0
Total	\$438,365

The University of Texas at San Antonio

Entry: 1

Title: *Science Faculty Research Support*

Description: Funding provided to College of Sciences to support existing research faculty.

Purpose/Intent: Purpose is to retain existing outstanding researcher faculty who are aligned to research strategic goals of the institution.

Benefit for the State or Institution: Faculty supported through this program submitted 163 proposals in FY19 requesting \$136,143,224. They received 65 awards for \$18,805,472.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$2,271,307
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$2,271,307

Entry: 2

Title: *Business Faculty Research Support*

Description: Funding provided to College of Business to support existing research faculty.

Purpose/Intent: Purpose is to retain existing outstanding researcher faculty who are aligned to research strategic goals of the institution.

Benefit for the State or Institution: Faculty supported through this program submitted 29 proposals in FY19 requesting \$18,814,230. They received 14 awards for \$5,055,047.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$702,576
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$702,576

Entry: 3

Title: *Engineering Faculty Research Support*

Description: Funding provided to College of Engineering to support existing research faculty.

Purpose/Intent: Purpose is to retain existing outstanding researcher faculty who are aligned to research strategic goals of the institution.

Benefit for the State or Institution: Faculty supported through this program submitted 58 proposals in FY19 requesting \$23,487,297. They received 13 awards for \$5,536,887.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$1,031,067
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$1,031,067

Entry: 4

Title: *Connecting through Research Partnerships (CONNECT) Program*

Description: Seed grant program to enhance greater scientific collaboration between UTSA and Southwest Research Institute.

Purpose/Intent: This program seeks to encourage interaction and promote cross-campus collaborative programs.

Benefit for the State or Institution: CONNECT leverages partnership resources and expertise in joint research collaborations in pursuit of large scale, federal funding opportunities. In FY19 faculty through this program submitted 21 proposals for \$4,756,831 and received 5 awards for \$2,582,674.

Salaries/Wages for New or Reassigned FTEs	\$47,801
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$19,947
Capital Expenditures	\$0
Total	\$67,748

Entry: 5

Title: *INTRA (Internal Research Awards) Program*

Description: Seed grant program to promote research and scholarly excellence.

Purpose/Intent: This program offers experience in identifying and submitting applications to potential funding sources, provides preliminary data to support applications for extramural funding, and enhances scholarly and creative activities.

Benefit for the State or Institution: Faculty supported through the INTRA program submitted 28 proposals in FY19 requesting \$2,880,041 and received 11 awards totaling \$1,110,827.

Salaries/Wages for New or Reassigned FTEs	\$54,263
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$10,571
Capital Expenditures	\$0
Total	\$64,834

Entry: 6

Title: *GREAT Program (Grants for Research Advancement and Transformation)*

Description: Seed grant program to support new areas of research for tenured/tenure track faculty.

Purpose/Intent: This program enables faculty to assemble preliminary data that can be used to seek extramural funding and advance UTSA's goal of reaching Tier One status.

Benefit for the State or Institution: Faculty supported through the GREAT program submitted 26 proposals in FY19 requesting \$6,156,745 and received 10 awards for \$2,357,152.

Salaries/Wages for New or Reassigned FTEs	\$58,429
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$29,557
Capital Expenditures	\$0
Total	\$87,986

Entry: 7

Title: *Research Development and Support*

Description: Funding allocated to support various research initiatives.

Purpose/Intent: Purpose is to establish a foundation of assistance for research-engaged faculty and students.

Benefit for the State or Institution: Enables UTSA to increase awareness of its research capabilities, support collaboration across all academic disciplines, promote high standards of research integrity and scholarly excellence, and protect the institution's intellectual property.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$160,686
Operating Expenses	\$178,470
Capital Expenditures	\$49,465
Total	\$388,621

The University of Texas at Tyler

Entry: 1

Title: *Texas Comprehensive Research Fund Annual Report*

Description: Increase Research Enhancement Budget

Purpose/Intent: These funds enable the university to fund several small faculty research grants. Such grants are aimed at helping faculty members generate initial results necessary to successfully obtain funding from extramural grant sources.

Benefit for the State or Institution: These funds provide seed money for research projects and provide institutions the ability to acquire resources that would otherwise be unattainable through standard appropriations.

Salaries/Wages for New or Reassigned FTEs	\$20,698
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$39,853
Capital Expenditures	\$0
Total	\$60,551

The University of Texas Permian Basin

Entry: 1

Title: *TCRF FY 2019 Research Administration Support*

Description: Salaries for research administration personnel.

Purpose/Intent: Funds were utilized to support research administration's salaries.

Benefit for the State or Institution: This a great project for the state of Texas to ensure federal and state regulations are adhered to and assists with securing external research funds for our university.

Salaries/Wages for New or Reassigned FTEs	\$379
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$379

The University of Texas Rio Grande Valley

Entry: 1

Title: *Texas Comprehensive Research Fund*

Description: Monies received from the Texas Comprehensive Research Fund may only be used for the support and maintenance of educational and general activities, including research and students services, that promote increased research capacity in accordance to the mission and goals of the institution.

Purpose/Intent: For the support and maintenance of E&G and Research activities that promote increased research capacity for the University of Texas Rio Grande Valley (UTRGV).

Benefit for the State or Institution: UTRGV engages with health providers, industry and other business leaders, educational and other community organization to find solutions to civic, economic, environmental and social challenges through inquiry and innovation. Supporting specialized instructional/research spaces by providing the equipment and infrastructure to fully utilize technological advances. The Texas Comprehensive Research fund supports all of these endeavors through funding that would otherwise not be available to us. This year's allocation was utilized to support research assistants, scientific labs and computer equipment, software, research conferences, chemicals and other supplies for faculty members to implement their research agendas. The Texas Comprehensive Research Fund is undoubtedly a good investment for UTRGV to continuously improve and advance the cause of education and research in this region which will, in turn, benefit the state and nation.

Salaries/Wages for New or Reassigned FTEs	\$291,298
Salaries/Wages for Existing FTEs	\$259,857
Operating Expenses	\$256,293
Capital Expenditures	\$41,330
Total	\$848,779

University of Houston

Entry: 1

Title: *Faculty Research Startup Packages*

Description: Support for newly hired faculty who are within their first 2-3 years at UH.

Purpose/Intent: Support for postdoctoral fellows or other researchers, new equipment and consumables to set up research operations of new faculty.

Benefit for the State or Institution: New faculty are expected to conduct research in addition to expand the research capabilities of their department and UH. Such increased capacity should improve the competitiveness of research faculty when seeking external funding.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$531,142
Operating Expenses	\$255,041
Capital Expenditures	\$789,824
Total	\$1,576,007

Entry: 2

Title: *Other Research Investments*

Description: Lease of lab space; cost sharing and equipment or other matched investments.

Purpose/Intent: Support for cost sharing equipment purchases, lease payments for research laboratory space, and matching opportunities to strengthen the UH research core.

Benefit for the State or Institution: Cost sharing projects and procuring quality laboratory space assists researchers in meeting grant requirements and demonstrates institutional support to the agencies where the return on investment is beneficial to UH, the students and the researchers involved.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$501,749
Operating Expenses	\$1,986,835
Capital Expenditures	\$493,493
Total	\$2,982,078

Entry: 3

Title: *Research Support*

Description: Support for the central research infrastructure (OCG, RIO and EHLS)

Purpose/Intent: Support for the Office of Contracts and Grants, Research Integrity and Oversight; and Laboratory Safety.

Benefit for the State or Institution: Assist faculty in submitting proposals and managing sponsored awards; Support and educate the UH research community in all areas of compliance with federal regulations concerning human subjects, animal subjects, conflicts of interest, grant congruency, and responsible conduct of research; and promote healthy and safe research operations.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$3,023,340
Operating Expenses	\$280,755
Capital Expenditures	\$0
Total	\$3,304,094

Entry: 4

Title: *Faculty Salary Support*

Description: Department of Mathematics Faculty Salary Support

Purpose/Intent: Salaries paid to faculty working in the College of Natural Sciences and Mathematics within the Department of Mathematics.

Benefit for the State or Institution: To enable the retention of outstanding research faculty. This investment lowers faculty turnover rates and the expenses associated with faculty recruitment.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$4,382,321
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$4,382,321

University of Houston-Clear Lake

Entry: 1

Title: *EIH Main Research Development*

Description: Environmental Research and Education Funds

Purpose/Intent: Funds are used to provide seed funding in the field of environmental research and education support. Funds support research conducted by UH System faculty researchers and educators in the fields of environmental science, fisheries science, chemistry, geology, meteorology, biology and hydrology.

Benefit for the State or Institution: NA.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$15,033
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$15,033

Entry: 2

Title: *Real-time Facial Expression Recognition System Based on Raspberry Pi and Pi Camera*

Description: Study of facial expression recognition using Raspberry Pi.

Purpose/Intent: This project is devoted to building a facial expression recognition system in real-time based on Raspberry Pi from a live Pi Camera.

Benefit for the State or Institution: This technology gives a reliable method to learn facial expression. With the help of this system, the cost of emotion tracking and analysis, as well as mental/psychology condition monitoring, can be significantly reduced. The results of this research could be extended to many areas, such as human-machine interaction, autism treatment, mental behavioral health monitoring, psychological counseling services, etc.

Salaries/Wages for New or Reassigned FTEs	\$3,200
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$3,200

Entry: 3

Title: *Benefits and Challenges of Completing a Counseling Degree in a Cohort Model*

Description: None submitted.

Purpose/Intent: This study is to investigate the cohort model's contribution or lack thereof to minority student learning, to multicultural competence development, and as an emotional support network to maintain mental wellness post-graduation.

Benefit for the State or Institution: This research will address gaps in literature of the effects of a cohort model on developing multicultural competence building, best options for minority student learning, and compassion-fatigue reduction.

Salaries/Wages for New or Reassigned FTEs	\$600
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$600

Entry: 4

Title: *Employer Expectations of Written Communication Abilities in UHCL's Top Major-Professions: Education, Accounting, Psychology, and Healthcare Administration*

Description: Define and describe common workplace writing requirements for new hires.

Purpose/Intent: This study extends research on professional writing, working to define and describe common workplace writing requirements for new hires while isolating and identifying trends by academic major.

Benefit for the State or Institution: The knowledge gained by this research will produce generalizable findings that can apply to the teaching of writing at all levels at UHCL and beyond. In addition, this knowledge has the potential to influence industry standards in the evaluation and training of new hires.

Salaries/Wages for New or Reassigned FTEs	\$720
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$720

Entry: 5

Title: *Game-Theoretic Model of Sustainability of Health Information Exchange (HIE)*

Description: Study of Regional HIE's in hopes to make them cost effective and sustainable.

Purpose/Intent: This project aims to understand the complex strategic business decision of whether to participate in HIEs by healthcare providers and to bridge the gap between macro economic studies showing the substantial benefits of HIEs in terms of cost saving to the society and micro economic studies that demonstrate the struggles facing many HIEs for sustainability.

Benefit for the State or Institution: The results of this project would provide valuable recommendations to regional HIE providers in terms of strategic pricing decisions. It would influence the sustainability of regional HIE, which in turn affect the establishment of a nationwide HIE.

Salaries/Wages for New or Reassigned FTEs	\$3,841
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$3,841

Entry: 6

Title: *Exploiting An Energy-Efficient Face Detection System by Approximating Circuit Designs*

Description: Study of face detection platform that would save both energy and costs.

Purpose/Intent: This project will demonstrate a face detection platform with Zynq-7000 FPGA, and exploit the optimal energy-quality (E-Q) balance by approximating the combination computations.

Benefit for the State or Institution: The goal of this project is not only to demonstrate a face detection system on FPGA, but also to find the maximum energy saving within different quality margins. Different from the prior research on high-end CPUs, GPUs, and cloud servers, this project will implement the system on FPGA, aiming at an inexpensive and high-speed solution with multiple energy-quality options.

Salaries/Wages for New or Reassigned FTEs	\$2,595
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$2,595

Entry: 7

Title: *The Skaff Family Arab American Archive: Communities, Traditions, and Institutions on the Gulf Coast and in Houston*

Description: Create Digital archives of the Skaff Family Arab American Archive

Purpose/Intent: The Skaff Family Arab American Archive, now housed on the UHCL campus, will be processed and become a part of the larger Houston Public Library's Houston Metropolitan Research Center.

Benefit for the State or Institution: This is the largest know single archive of Arab American history in existence, and its contents are unique and will likely influence the way Arab American history is written about and conceptualized in the future.

Salaries/Wages for New or Reassigned FTEs	\$350
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$158
Capital Expenditures	\$0
Total	\$508

University of Houston-Downtown

Entry: 1

Title: *Texas Comprehensive Research Fund*

Description: Support the University of Houston-Downtown's Office of Sponsored Research and Programs

Purpose/Intent: The funding is used to support the Office of Research and Sponsored Programs which facilitates and oversees the research and grant process for the university, including identifying new and available funding, assisting with proposals and post-award support.

Benefit for the State or Institution: The funding provides support for the University's effort to expand its research opportunities, to create new funding sources through additional grant funds and indirect cost recovery as well as providing the proper administration of existing grants. Also to ensure adherence to compliance requirements.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$150,876
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$150,876

University of Houston-Victoria

Entry: 1

Title: *Character Animations with mocap*

Description: Animating synthetic characters have several applications in the entertainment industry: from computer games to animated feature films. Traditionally, animating characters is a long, highly demanding process that takes animator years to develop the necessary skills to master. Using mocap is a way to improve the precision of animations while reducing the time and effort necessary to create such animations. Our project aims at studying how to record motion capture data to use this data later to retarget skeletal animations for games and animations.

Purpose/Intent: This activity aims at work as training sessions for students to get acquainted with the technologies we have available to produce digital games and simulations applications based on what they are learning in several courses of the Bachelor of Digital Games and Simulations program. Examples are: Using Wacom tablets to produce 2D animation content and/or 3D models via digital sculpting; Using Looking Glass holographic displays in combination with leap motion hand gestures tracking sensors to produce interactive non-immersive virtual reality applications; Using Oculus Quest and/or HTC Vive goggles to produce immersive virtual reality applications; These goggles can also be used to develop augmented reality applications. Particularly, oculus quest allows for mobile applications since it's a wireless device.

Benefit for the State or Institution: It allows our students to experiment with cutting-edge technology in digital entertainment development. By mastering these tools and skills, our students would have a sharp edge in the job market. UHV would benefit from a higher student employment rate upon graduation.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$20,873
Capital Expenditures	\$0
Total	\$20,873

University of North Texas

Entry: 1

Title: *Research Support Staff*

Description: Professional staff assigned to assist and promote research development at the university

Purpose/Intent: Ensures researchers have a professional support staff available to assist them throughout all aspects of research administration.

Benefit for the State or Institution: Support staff helps researchers identify, obtain, and administer external grant funding awards; remain compliant with governmental regulations and reporting; and aid in the promotion and marketing of all research being conducted at the university.

Salaries/Wages for New or Reassigned FTEs	\$8,467
Salaries/Wages for Existing FTEs	\$134,245
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$142,712

Entry: 2

Title: *Shared Research Facilities*

Description: Support for Shared Research Facilities: Materials Research Facility, Additive Manufacturing Lab, High Performance Computing

Purpose/Intent: Enables researchers shared access to elite, high-tech research equipment and professional laboratory staff expertise in order to execute their research projects.

Benefit for the State or Institution: University managed and supported shared research facilities allow researcher's access to sophisticated research equipment and instruments that would otherwise be unattainable. Shared research facilities are a cost-effective solution that benefit the needs of researchers across a wide range of academic disciplines. Shared research facilities also enhance research innovation by fostering interdisciplinary collaboration between UNT researchers, other universities, and industry partners.

Salaries/Wages for New or Reassigned FTEs	\$13,409
Salaries/Wages for Existing FTEs	\$246,578
Operating Expenses	\$120,863
Capital Expenditures	\$8,506
Total	\$389,355

Entry: 3**Title:** *Faculty Research Start-up***Description:** Support for newly hired faculty to conduct research projects within their first 2-3 years**Purpose/Intent:** Provides new faculty with funding for graduate and undergraduate research assistants, postdoctoral research assistants, and other research lab support staffing.**Benefit for the State or Institution:** Increases the volume of research projects being conducted by new research faculty, ensures that the scope of new faculty research projects are effectively supported, provides students with increased opportunities to work on research projects and further their educational experience, and improves researchers competitiveness in pursuing external grant funding.

Salaries/Wages for New or Reassigned FTEs	\$486,149
Salaries/Wages for Existing FTEs	\$781,527
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$1,267,676

Entry: 4**Title:** *Faculty Research Seed Grants***Description:** Provides faculty with seed funding to begin new research projects.**Purpose/Intent:** Seed funding opportunities for faculty research projects.**Benefit for the State or Institution:** The preliminary research being conducted through faculty research seed grants becomes the foundation for external grant proposal submissions which further grows research activity at the university.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$500
Operating Expenses	\$2,597
Capital Expenditures	\$0
Total	\$3,097

Entry: 5**Title:** *Student Research Projects***Description:** Support for undergraduate and graduate student research.**Purpose/Intent:** Funding to support student research projects, including the presentation and publication of their research.**Benefit for the State or Institution:** Enhances the academic experience for students by providing a resource for them to be able to conduct their own research projects. This better prepares students for success in their future careers, and increases the innovative research activity of the university.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$6,800
Capital Expenditures	\$0
Total	\$6,800

Entry: 6

Title: *Institutes of Research Excellence*

Description: Support for Institutes of Research Excellence – Advanced Environmental Research Institute (AERI), Advanced Materials Manufacturing and Processes Institute (AMMPI), BioDiscovery Institute (BDI), & Jim McNatt Institute for Logistics Research (JMI).

Purpose/Intent: Institutes of Research Excellence staffing, including: professional support staff, faculty researchers, postdoctoral research assistants, undergraduate and graduate research assistants.

Benefit for the State or Institution: The Institutes of Research Excellence bring together a critical mass of knowledge and faculty research collaboration on projects designed to create a stronger platform for interdisciplinary research and partnerships with industry to create innovative solutions to complex problems. These institutes further contribute to economic growth in the North Texas region.

Salaries/Wages for New or Reassigned FTEs	\$71,320
Salaries/Wages for Existing FTEs	\$485,037
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$556,357

University of North Texas-Dallas

Entry: 1

Title: *Materials for Undergraduate Research*

Description: Marine tank and accessories, micro-plates and microorganisms, butterflies containers and weed, chemicals and micro-tools set.

Purpose/Intent: Support of research projects involving undergraduate students.

Benefit for the State or Institution: These materials will help the advancement and success of undergraduate research projects in the Department of Life and Health Sciences.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$1,484
Capital Expenditures	\$0
Total	\$1,484

West Texas A&M University

Entry: 1

Title: *Sponsored Research Services (SRS)*

Description: Salary

Purpose/Intent: Partially pays salary for the pre award sponsored project function.

Benefit for the State or Institution: SRS supports faculty and staff campus-wide by identifying external funding opportunities. Sponsored project administration and compliance requirements for externally sponsored projects are supported through SRS. Internal grant competitions for faculty, graduate and undergraduate students are also administered from this office. The internal grant programs provide students in all fields of study exposure to the research environment and facilitates faculty in acquiring preliminary data used in their external proposals. Non-financial post award administration is also managed in the office of Sponsored Research Services.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$104,728
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$104,728

Entry: 2

Title: *Academic & Research Environmental Health & Safety (AR-EHS)*

Description: Salary

Purpose/Intent: Partially pays for the Director and the Export Control Officer's salary.

Benefit for the State or Institution: AR-EHS supports academic and research by providing a safe educational and research environment for students, staff and faculty. The office provides safety inspections to ensure all activities are conducted in accordance with all environmental regulations and laws. Administration of the institutional compliance committees such as IACUC, IRB and IBC as well as the Export Control function for the institution are housed in AR-EHS.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$54,271
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$54,271

Entry: 3**Title:** *Life, Earth & Environmental Sciences***Description:** Rodent Incubator**Purpose/Intent:** Allows environment of the rodents to be controlled during research.**Benefit for the State or Institution:** Incubator provides the critically needed light and temperature controls required for research with rodents. Without this control the research results could be skewed by the external environment of the room.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$0
Operating Expenses	\$11,060
Capital Expenditures	\$0
Total	\$11,060

Entry: 4**Title:** *Core Laboratories***Description:** Salary**Purpose/Intent:** Partially pays for the Lab Director's salary.**Benefit for the State or Institution:** The Core Lab supports laboratory research by providing faculty and students with shared equipment and expertise to achieve their research goals.

Salaries/Wages for New or Reassigned FTEs	\$0
Salaries/Wages for Existing FTEs	\$4,100
Operating Expenses	\$0
Capital Expenditures	\$0
Total	\$4,100



This document is available on the [Texas Higher Education Coordinating Board website](http://theccb.state.tx.us).

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