



LAMAR UNIVERSITY

MEMBER THE TEXAS STATE UNIVERSITY SYSTEM™



SEPTEMBER 1, 2024 - AUGUST 31, 2025



FY25 ANNUAL RESEARCH IMPACT REPORT

**OFFICE OF RESEARCH AND
SPONSORED PROGRAMS
ADMINISTRATION**



TABLE OF CONTENTS

INTRODUCTION	2
OVERVIEW OF PROPOSAL & FUNDING ACTIVITY	3
FISCAL YEAR 25 STATISTICS	4
INTERNAL RESEARCH ACTIVITIES	5
FACULTY & STAFF PARTICIPATION TRENDS	5
REQUESTED & AWARDED EXTERNAL FUNDS	6
LIST OF DEPARTMENTAL EXTERNAL GRANT EFFORTS	7
COLLEGE OF ARTS & SCIENCES	7
COLLEGE OF EDUCATION & HUMAN DEVELOPMENT	9
COLLEGE OF ENGINEERING	10
COLLEGE OF FINE ARTS & COMMUNICATION	13
ADMINISTRATIVE OFFICES & CENTERS	14
COUNT OF INTERNAL GRANT AWARDS BY LU SIGNATURE CENTERS	16
INTERNAL RESEARCH GRANT DETAILS	17
PROJECTS FUNDED BY THE OFFICE OF UNDERGRADUATE RESEARCH	24
PARTICIPATION RATES IN EXTERNALLY FUNDED RESEARCH	26

Introduction

The Fiscal Year 2025 Annual Research Impact Report highlights the institution’s commitment to **advancing** knowledge, **supporting** the Southeast Texas community, and **empowering** the next generation of researchers. Lamar University’s research initiatives demonstrate our dedication to these missions under new leadership and rejuvenated momentum driven by innovation and teamwork.

This year proved to be one of the most rewarding and challenging in the history of the Office of Research and Sponsored Programs Administration (ORSPA). The university’s research enterprise experienced structural change, expanded collaboration with Texas State University System institutions, and a new focus on helping our researchers navigate external funding in more streamlined processes.

Lamar University’s achievement of **R2 status** marked a major milestone in its evolution as a research institution, reflecting a significant expansion of its scholarly activity and national impact. In 2024, the university surpassed the Carnegie Classification thresholds by expending more than \$5 million towards research and development and producing more than 20 research doctorates, accomplishments that elevated Lamar into an elite group of high-research universities. This designation affirms the university’s strategic commitment to growing externally funded research, strengthening its research infrastructure, and fostering innovative work supported by federal agencies, state partners, and private foundations.

Beyond the recognition itself, R2 status positions Lamar to attract top-tier faculty, offer students enriched hands-on research opportunities, and expand its influence in key areas such as energy, cybersecurity, community resiliency, and industrial innovation—ultimately advancing the university’s mission and enhancing its long-term competitiveness.

Supported by a new leadership team, the department navigated significant mid-year changes with resilience, adaptability, and a clear commitment to continuity. The transition became a catalyst for renewed alignment and strengthened operations. Researchers can expect our growing proposal development team to continue deploying new processes and strategies to allow them to focus on what is important: performing research.

Executive Director of Research and Sponsored Programs
Ryan J Lee



Overview of Proposal & Funding Activity

The Office of Research and Sponsored Programs Administration presents our annual report, documenting the internal and external grant activities at Lamar University in Fiscal Year 2025 (FY25). The record documented in this report represents the research and grant efforts from September 1, 2024, to August 31, 2025.

External Grant Efforts and Awarded Funds

In FY25, LU submitted 83 external grant applications, requesting a total funding level of \$21,401,013 and yielding awarded funds of \$5,478,807 from 32 approved applications. External funds awarded in FY25 show a 1% increase compared to those of FY24. The number of submitted applications decreased by 5% and the funded applications decreased by 11%.

At the time of publication, there were 43 applications submitted in FY25 pending funding decisions or under negotiation. These pending submissions, totaling \$14,660,262, are not included in the FY25 funded data or percentage changes in *Table 1*.

	FY21	FY22	FY23	FY24	FY25
No. of Submitted Proposals	105	90	94	87	83
No. of Awards	42	39	49	36	32
Awarded Revenue	\$ 4,046,553	\$ 6,011,879	\$ 7,370,661	\$ 5,383,597	\$ 5,478,807

Table 1. Comparison of historical and current proposal submissions and funding amounts.

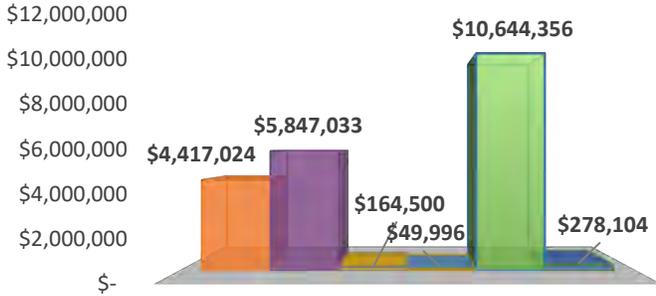
Grant Efforts and Awards by Academic College and Department

Figure 1, below, shows the amount of funds requested and received by the colleges and LU's administrative offices and research centers. The Interdisciplinary Research Centers and Administrative Offices led in the amount of awarded funds (\$2.37M), followed closely by the College of Engineering (\$2.36M), the College of Arts & Sciences (\$394.5K), the College of Fine Arts & Communication (\$164.5K), Career & Testing + Spindletop (\$164.5K), and the College of Education and Human Development (\$24.9K). The College of Business received \$0 in awarded funds in FY25.

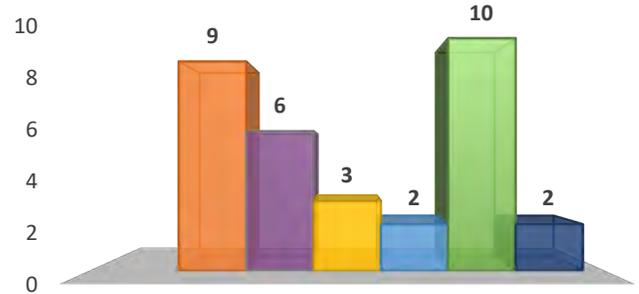
NOTE: Final external funding figures for FY25 may change as funding decisions on pending submissions are completed by sponsors.

Fiscal Year 25 Statistics

Requested Funding



Funded Award Count



■ Administrative + Centers
 ■ Arts & Sciences
 ■ Career & Testing + Spindletop
 ■ Education & Human Development
 ■ Engineering
 ■ Fine Arts & Communication

Awarded Funding

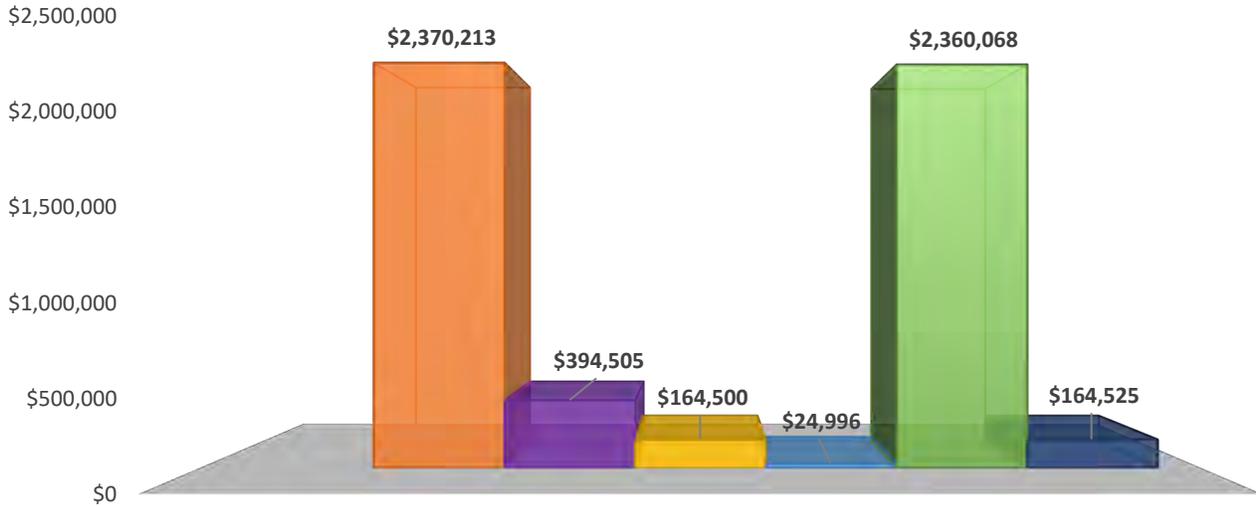


Figure 1. Total amount of external funding requested, number of external awards received, and awarded dollar amount of external funding received by colleges and LU administrative offices/centers in FY25. The College of Business did not request or receive any funding and does not appear in this figure.

Internal Research Activities

Research Centers

Lamar University has established several state-appropriated research centers, such as the Center for Midstream Management & Science (CMMS), the Center for Advances in Port Management (CAPM), the Center for Resiliency (CfR), the Center for Advances in Water & Air Quality (CAWAQ), the Texas Air Research Center (TARC), and the Texas Hazardous Waste Research Center (THWRC). These programs are intended to develop strategic research capabilities that will lead to future projects funded by externally sponsored programs. In summary, 58 internal projects totaling \$2,114,194 were funded by research centers and administrative units.

Undergraduate Research

Undergraduate research serves as a critical pipeline that fosters future graduate students and professional researchers. In FY25, the Office of Undergraduate Research (OUR) supported a total of 24 projects; 11 Undergraduate Research Grant (URG) awards and 13 Summer Undergraduate Research Fellowship (SURF) projects, with a funding level from \$2,000 (URG) to \$7,000 (SURF) per project. The results of these research projects were displayed at the annual Spring Expo and Fall Conference (please refer to the OUR website for details).

Faculty & Staff Participation Trends

Faculty & Staff Participation

Participation in preparing external funding proposals was widespread across colleges and administrative units, resulting in 40 tenured or tenure-track faculty members submitting proposals. This represents 16% of the total tenured or tenure-track faculty population across all colleges. Additionally, 13 staff members or administrators submitted proposals, demonstrating broad involvement throughout Lamar University.

The faculty participation rate was led by the College of Engineering (53%), followed by the College of Arts & Sciences (12%), the College of Education & Human Development (11%), the College of Fine Arts & Communication (2%), and finally the College of Business (0%).

Requested & Awarded External Funds

College/Unit	Department	No. of Proposals	Total Funds Requested	No. of Awards	Awarded Funds
College of Arts & Sciences	Applied Arts & Sciences	1	\$12,925	1	\$12,925
	Biology	3	\$272,656	2	\$73,000
	Chemistry & Biochemistry	5	\$1,225,250	2	\$255,000
	Computer Science	7	\$1,580,226	1	\$53,580
	Physics	7	\$2,672,391	0	\$0
	Sociology, Social Work & Criminal Justice	1	\$83,585	0	\$0
College of Education & Human Development	Curriculum & Instruction	2	\$30,000	1	\$23,000
	Educational Leadership	1	\$18,000	0	\$0
	Health & Kinesiology	1	\$1,996	1	\$1,996
College of Engineering	Chemical & Biomolecular Engineering	6	\$2,524,839	2	\$1,370,426
	Civil & Environmental Engineering	6	\$1,124,191	1	\$678,003
	Electrical & Computer Engineering	5	\$1,381,632	1	\$58,683
	Industrial & Systems Engineering	8	\$4,174,206	1	\$10,500
	Mechanical Engineering	8	\$1,439,488	5	\$242,456
College of Fine Arts & Communication	Deaf Studies & Deaf Education	3	\$180,579	1	\$67,000
	KVLU	1	\$97,525	1	\$97,525
Administrative Offices & Centers	Reaud Honors College	1	\$97,253	1	\$97,253
	McNair Scholars	1	\$259,198	1	\$259,198
	Student Affairs	3	\$191,150	2	\$186,150
	CAWAQ	1	\$585,399	0	\$0
	CMMS	2	\$787,847	1	\$50,000
	CfR	1	\$1,000,000	1	\$1,000,000
	SBDC	1	\$237,611	1	\$237,611
	TMAC	5	\$1,258,566	2	\$540,001
	Career & Testing Center	1	\$145,000	1	\$145,000
	Spindletop	2	\$19,500	2	\$19,500
	TOTAL		83	\$21,401,013	32

List of Departmental External Grant Efforts

<i>College of Arts & Sciences</i>						
Dept	PI	Co-PIs	Project Title	Funder	Amount	Status
Applied Arts & Sciences	Crespo, Molly	-	Joint Admission Medical Program (JAMP)	Texas Higher Education Coordinating Board	\$12,925	Funded
Biology	Armacost, James	-	A Survey of the Avifauna of the Veolia Environmental Services Property in Jefferson, Co., TX	Veolia Environmental Services	\$3,000	Funded
Biology	Hoch, Matthew	Haselbach, L.	CAIG: Salinity Sentinels: AI for Coastal Groundwater and Marshland Protection	National Science Foundation	\$199,656	Pending
Biology	Kucknoor, Ashwini	-	Beachwatch FY25	Texas General Land Office	\$70,000	Funded
Chemistry & Biochemistry	Bekhit, Michael	-	Electrochemical Methods for Fast and Sensitive Detection of Prostate Cancer Biomarker	Welch Foundation	\$300,000	Pending
Chemistry & Biochemistry	Gunaydin-Sen, Ozge	-	Advancing Chemical Education through Research	Welch Foundation	\$180,000	Funded
Chemistry & Biochemistry	Gunaydin-Sen, Ozge	-	Acquisition of a Gas Chromatograph-Mass Spectrometer (GC-MS) to Enhance Research in Chemistry	Welch Foundation	\$75,000	Funded
Chemistry & Biochemistry	Sukhodolets, Maxim	-	A New Hybridization-Based Method for Fast Identification of RNA	National Institutes of Health	\$200,000	Pending
Chemistry & Biochemistry	Twagirayezu, Sylvestre	Chandrasekaran, P.; Gunaydin-Sen, O.; Bernazzani, P.; Bahrim, C.; Ganegamage, S.	The Acquisition of Molecular Rotational Resonance Technique for Fast Analysis of Complex Mixture and Challenging Molecules	National Science Foundation	\$470,250	Pending
Computer Science	Islam, Rakibul	Zhang, J.	REU Site: Multidisciplinary Research Experience for Undergraduates in Engineering and Computer Science	National Science Foundation	\$455,054	Pending

Dept	PI	Co-PIs	Project Title	Funder	Amount	Status
Computer Science	Liu, Jiangjiang	Islam, R.	CSforAll Small RPP: Empowering High School Teachers through AI/DS-Infused Professional Development and Curricula	National Science Foundation	\$300,000	Not Funded
Computer Science	Liu, Jiangjiang	Islam, R.	RET: AI-inspired Global Issues Multidisciplinary Research Experience for K-12 STEM Teachers in Southeast Texas	National Science Foundation	\$600,000	Not Funded
Computer Science	Rana, Masud	Hutson, A.; Lou, H.	Lamar University's Southeast Texas Clean Energy Resilience & Education Initiative	Energy Foundation	\$20,593	Pending
Computer Science	Rana, Masud	-	AI for Maternal Health: Scalable Solutions for Women's Well-Being in Bangladesh & Southeast Asia	Bill and Melinda Gates Foundation	\$149,999	Pending
Computer Science	Rana, Masud	-	Cybersecurity & AI Literacy for Energy-Aware Communities: A Workshop for Digital Resilience and STEM Empowerment	Energy Foundation	\$1,000	Not Funded
Computer Science	Rana, Masud	-	Ensemble Cyber Twins of Near-Infrared-Emitting Graphene Quantum Dots	The Welch Foundation (sub to TCU)	\$53,580	Funded
Physics	Cole, Philip	-	Track 2 Acquisition of a 1.5-Meter Telescope	National Science Foundation	\$399,503	Not Funded
Physics	Cole, Philip	Lou, H.	Monitoring Methane Leakage for Energy Systems	US Department of Energy	\$500,000	Pending
Physics	Nainabasti, Binod	Bahrim, C.	Impact of Out-of-Class Group Work on Enhancing Learning for Underprepared STEM Majors	Spencer Foundation	\$59,491	Pending
Physics	Nainabasti, Binod	-	NSF CAREER	National Science Foundation	\$530,632	Pending
Physics	Romashets, Evgeny	-	SHINE: Toroidal Magnetic Structures in Solar Corona	National Science Foundation	\$368,455	Not Funded
Physics	Romashets, Evgeny	-	GEM: The Magnetopause Surface Currents and Energy Input Rate into the Magnetosphere	National Science Foundation	\$365,210	Not Funded
Physics	Romashets, Evgeny	-	Global Pattern of Altitude-Dependent Shell Current in the Ionosphere	National Science Foundation	\$449,100	Pending
Sociology, Social Work & Criminal Justice	Clavijo, Angela	Aklamanu, I.; Wright, L.	Title IV-E Child Welfare Enhancement Program	US Department of Health and Human Services	\$83,585	Pending

College of Education & Human Development

Dept	PI	Co-PIs	Project Title	Funder	Amount	Status
Educational Leadership	Martin, Kenyetta	-	Enhancing AI Literacy Among Marginalized and First-Generation Doctoral Students	Spencer Foundation (sub to TAMU CC)	\$18,000	Pending
Health & Kinesiology	Bratcher-Rasmus, Brittny	-	Professional Development - SOPHE	National Institutes of Health	\$1,996	Funded
Curriculum & Instruction	Casey, Elizabeth	-	2024-2025 Texas Test of Educator Proficiency (T-TEP) EPP Development Team Selection, Onboarding, and Training	Texas Education Agency	\$7,000	Pending
Curriculum & Instruction	Yan, Yan	Hood, C.	Ancient to the Future Book Vending Machine Project	United Way of Beaumont, North Jefferson County, and the Ancient to the Future Project	\$23,000	Funded

College of Engineering

Dept	PI	Co-PIs	Project Title	Funder	Amount	Status
Chemical & Biomolecular Engineering	Henry, James	Yang, W.	Refining Understanding: Mixed and Virtual Reality for Process Education	National Science Foundation	\$558,413	Pending
Chemical & Biomolecular Engineering	Lin, Sidney	Chen, D.; Hutson, A.	Integral & High Resolution CFD Modeling of Shrouding and Obstructions for Management of Pressurized LNG Liquid Releases	US Department of Transportation	\$500,000	Pending
Chemical & Biomolecular Engineering	Lou, Helen	Roden, T.; Liu, X.; Cai, T.; Richmond, P.	Sul Ross: Midstream Critical Manufacturing Industry Cybersecurity Hub	US Department of Energy	\$600,000	Funded
Chemical & Biomolecular Engineering	Lou, Helen	Zhang, X.; Bandyopadhyay, K.; Zhang, J.; Richmond, P.	Southeast Texas Data Analytics and Cybersecurity for Energy Supply Chain Resilience Project	US Department of Energy	\$770,426	Funded
Chemical & Biomolecular Engineering	Xu, Qiang	-	Ultra-compact and Modular Carbon Capture System Based on Polymeric Membranes	US Department of Energy	\$38,000	Pending
Chemical & Biomolecular Engineering	Xu, Qiang	-	Lab-scale Testing of High-Efficiency Liquid Scavenger for CO2 Impurity Removal	US Department of Energy	\$58,000	Pending
Civil & Environmental Engineering	Brake, Nick	-	Cardinal Pipeline: Systematic University-Industry Engineering Recruiting Partnership	NCEES Foundation	\$20,000	Pending
Civil & Environmental Engineering	Kim, Yong Je	-	NSF R212: Winterization of the Infrastructure in the Southwest Region for Improved Extreme Winter Weather Preparation	National Science Foundation	\$146,188	Pending
Civil & Environmental Engineering	Kim, Yong Je	-	Nature-Based Solutions for Coastal Shoreline Erosion: Biopolymer-Enhanced Sediments	Texas General Land Office	\$60,000	Pending
Civil & Environmental Engineering	Qian, Qin	Selvaratnam, T.	Integrated Monitoring, Extension, and Research on Emerging Bacterial Pathogens in Texas waters	Environmental Protection Agency	\$160,000	Pending

Dept	PI	Co-PIs	Project Title	Funder	Amount	Status
Civil & Environmental Engineering	Qian, Qin	Selvaratnam, T.	Reduce Bacteria Loading from OSSFs in Sabine River Watershed	Texas General Land Office	\$60,000	Award Negotiation
Civil & Environmental Engineering	Selvaratnam, Thinesh	Haselbach, L.; Qian, Q.; Singh, M.; Tokgoz, B.	FLAWS: FloodSmart Southeast Texas Youth Initiative for Environmental Literacy and Community Resilience	National Academies	\$678,003	Funded
Electrical & Computer Engineering	Miled, Zina	-	Assessing Urban-Rural Environmental Stress Inequities in ADRD through Ecological Momentary Assessment	National Institutes of Health	\$58,683	Funded
Electrical & Computer Engineering	Miled, Zina	-	ICE ADRD Research	National Institutes of Health (sub to Indiana University)	\$49,394	Pending
Electrical & Computer Engineering	Miled, Zina	-	Digital Detection of Dementia Studies (D3 Studies)	National Institutes of Health (sub to Indiana University)	\$69,724	Pending
Electrical & Computer Engineering	Sifat, Anwarul	-	SCC-IRG: Intelligent EV Charging Allocation for Enhanced Disaster Preparedness	National Science Foundation	\$375,000	Pending
Electrical & Computer Engineering	Tcheslavski, Gleb	Felipe, L.; Miled, Z.	Developing a Wearable Device for a Real-Time Detection of Auditory Hallucinations via EEG	Department of Defense	\$828,831	Pending
Industrial & Systems Engineering	Bradley, Kelley	-	Pathway for Accelerated Development of Advanced Silicone Elastomer Materials for Space Applications	Texas Space Commission - SEARF	\$1,262,328	Pending
Industrial & Systems Engineering	Bradley, Kelley	-	Molecular Dynamics Investigation of Compressive Creep in Polyolefins	American Chemical Society	\$124,993	Pending
Industrial & Systems Engineering	Bradley, Kelley	-	CAREER: Investigation of Segmented Creep in Thermoplastics	National Science Foundation	\$592,575	Pending
Industrial & Systems Engineering	Hamidi, Maryam	Wu, X.	A Nation-Wide AIS Congestion Analysis for Coastal Ports and Inland Waterway System	Department of Homeland Security	\$500,000	Pending
Industrial & Systems Engineering	Hamidi, Maryam	Zhang, J.	An AI-Enabled Tool for Waterway Operation and Freight Analysis Using Video, Trade and AIS Data	Texas Department of Transportation	\$804,673	Pending
Industrial & Systems Engineering	Li, Yueqing	Liu, X.	Analysis of Transmission Pipeline Incidents to Improve Performance Trends	Pipeline Research Council International	\$79,998	Pending
Industrial & Systems Engineering	Liu, Xinyu	-	Creating Your Own Industrial Control and Information Systems	Halliburton Foundation, Inc.	\$10,500	Funded

Dept	PI	Co-PIs	Project Title	Funder	Amount	Status
Industrial & Systems Engineering	Yang, Wenhao	-	MR telerobotic in Sampling and Testing	US Department of Agriculture	\$799,139	Pending
Mechanical Engineering	Baisravan, Homchaudhuri	-	Ensured AI-based Onboard Autonomous Planning Method for Agile Spacecrafts in the Presence of Uncertainty	NASA	\$413,667	Pending
Mechanical Engineering	Doranga, Sushil	-	Exploration of an Accurate and Efficient Reliability Modeling Technique for Semiconductor Packages Subjected to Dynamic Excitation	National Science Foundation	\$198,456	Funded
Mechanical Engineering	Doranga, Sushil	Zhou, J.; Liu, X.; Fan, X.; Li, X.; Lin, C.	REU Site: Advancing Students Competitiveness in Structural Dynamics through Fusion of Analysis, Simulation, and Testing (FAST)	National Science Foundation	\$461,190	Pending
Mechanical Engineering	Fan, Xuejun	-	Thermal Modeling for Semiconductor System-in-Packages	Octavo Systems LLC	\$6,000	Funded
Mechanical Engineering	Homchaudhuri, Baisravan	-	Building LU-NASA Partnership to Advance Multi-Spacecraft Trajectory Optimization	NASA	\$322,175	Not Funded
Mechanical Engineering	Yao, Chun-Wei	-	Thermal Modeling of 3D Chip Architectures Pitch Submission	Amazon-AWS	\$8,000	Funded
Mechanical Engineering	Yao, Chun-Wei	-	Mitigating Thermal Hotspots in 3D Chip Stacks Using Vertically Aligned Carbon Nanotube Arrays	Texas A&M Engineering Experiment Station	\$10,000	Funded
Mechanical Engineering	Zhou, Jenny	-	Enhancing Student Engagement and Applied Research through the TSUS-Quanta Services Partnership	Quanta Services - TSUS Partnership	\$20,000	Funded

College of Fine Arts & Communication

Dept	PI	Co-PIs	Project Title	Funder	Amount	Status
Deaf Studies & Deaf Education	Clark, Mary Diane	-	Increasing the Space Science Signing Vocabulary of Undergraduate Student Interpreters and Teachers of the Deaf	National Science Foundation	\$69,999	Pending
Deaf Studies & Deaf Education	Clark, Mary Diane	-	Guided Viewing as an Effective Strategy towards ASL Literacy and a Bridge to English Literacy	The Spencer Foundation	\$43,580	Pending
Deaf Studies & Deaf Education	Clark, Mary Diane	-	Improving Undergraduate STEM Education: Education and Human Resources	National Science Foundation	\$67,000	Funded
KVLU/LUTV	Miller, Jason	-	2025 Radio Community Service Grant	Corporation for Public Broadcasting	\$97,525	Funded

Administrative Offices & Centers

Dept	PI	Co-PIs	Project Title	Funder	Amount	Status
Career & Testing Center	Tyson, Haley	-	Quanta Services - TSUS Partnership	Quanta Services - TSUS Partnership	\$145,000	Funded
Center for Advances in Water & Air Quality	Jeffryes, Clayton	Benson, T.; Brake, N.	Upper-West Gulf Coast Climate and Energy Data and Assessment Resource	National Academies	\$585,399	Pending
Center for Midstream Management & Science	Hutson, Alek	-	TRUE Pathways Design and Planning Grant	Texas Higher Education Coordinating Board (sub to LIT)	\$50,000	Funded
Center for Resiliency	Haselbach, Liv	Lin, S.; Cai, T.; Jeffryes, C.; Qian, Q.; Brake, N.; Hoch, M.	Southeast Texas Urban Integrated Field Laboratories: Equitable Solutions for Communities Caught Between Floods and Air Pollution	US Department of Energy	\$1,000,000	Funded
Center for Midstream Management & Science	Hutson, Alek	Chang, C.; Li, X.; Lin, C.; Xu, Q.; Zhang, J.	Career Pathways for Midstream Engineers and Technicians in Southeast Texas	National Academies	\$737,847	Pending
Student Affairs	Titus, Freddie	-	VITA / VITA Plus Lamar University	Entergy	\$19,150	Funded
Reaud Honors College	Thibodeaux, Tilisa	Jordan, S.	Governor's Summer Merit Program	Texas Workforce Commission	\$97,253	Funded
McNair Scholars	Comer, Pam	Bahrim, C.; Thibodeaux, T.	McNair Scholars Program	US Department of Education	\$259,198	Funded
Small Business Development Center	Lee, John	-	Small Business Development Center CY26	University of Houston	\$237,611	Funded
Spindletop Gladys City	Thompson, Shawntaul	-	Jefferson County HOT Tax Grant	Jefferson County	\$8,500	Funded

Dept	PI	Co-PIs	Project Title	Funder	Amount	Status
Spindletop Gladys City	Thompson, Shawntaul	-	Jefferson County HOT Tax Grant	Jefferson County	\$11,000	Funded
Student Affairs	Gray, Shawn	Jackson, W.	Lamar University and South Park Neighborhood Partnership	Be Well Beaumont	\$167,000	Funded
Student Affairs	Jackson, Wilma	-	First Gen College Celebration	NASPA	\$5,000	Pending
Texas Manufacturing Assistance Center	Jones, Gavin	-	Manufacturing Day 2024: Rosie the Riveter	Entergy Foundation	\$8,565	Not Funded
Texas Manufacturing Assistance Center	Jones, Gavin	-	TMACSE: Federal Appropriation (Recompete)	NIST/University of Texas - Arlington	\$235,000	Funded
Texas Manufacturing Assistance Center	Jones, Gavin	-	Strengthening Manufacturing	Texas Workforce Commission	\$305,000	Pending
Texas Manufacturing Assistance Center	Jones, Gavin	-	TMAC State of Texas Center (Recompete) GY1 - GY5	Texas Workforce Commission	\$405,000	Pending
Texas Manufacturing Assistance Center	Jones, Gavin	-	TMAC (GY 10): Federal Appropriation	University of Texas - Arlington	\$305,001	Funded

Count of Internal Grant Awards by LU Signature Centers

<i>Unit</i>	<i>No. of Projects</i>	<i>Funded Amount</i>
Center for Advances in Port Management (CAPM)	3	\$103,683
Center for Resiliency (CfR)	50	\$1,773,151
Center for Midstream Management & Science (CMMS)	6	\$440,000
Total	59	\$2,316,834

Internal Research Grant Details

<i>Department</i>	<i>Investigator</i>	<i>Co-PIs</i>	<i>Project Title</i>	<i>Sponsor</i>	<i>Award</i>
Biology	Kubicek, Kole	-	Preliminary Larval Fish and Invertebrate Recruitment Survey of the Sabine Lake Estuarine Ecosystem	CfR	\$19,010
Biology	Kucknoor, Ashwini	-	Identification and Seasonal Variations of Arbovirus Incidence in Mosquitoes of Jefferson County	CfR	\$21,500
Biology	Yoder, Randall	-	Biodiversity of Parasites of Fishes from Southeast Texas	CfR	\$15,226
Management & Marketing	Weeks, Kelly	-	A Thermodynamic Approach to Business Efficiency: The Role of Entropy in Performance Evaluation	CfR	\$23,316
Chemical & Biomolecular Engineering	Henry, James	Yang, W.	Utilizing Augmented Reality (AR) and Standard Alarm Management Practices to Provide Real-Time Information to Refinery Workers in High-Stress Dangerous Environments	CfR	\$18,000
Civil & Environmental Engineering	Brake, Nicholas	-	Southeast Texas Regional Flood Sensor Network	CfR	\$100,000
Civil & Environmental Engineering	Haselbach, Liv	Qian, Q.; Kim, Y.	Flood Coordination Study Main	CfR	\$240,000
Civil & Environmental Engineering	Qian, Qin	Li, X.	Manage Surface Water Quality Under Climate Change Conditions to Improve Resiliency of Southeast Texas	CfR	\$25,000
Civil & Environmental Engineering	Qian, Qin	Zhang, J.; Liu, X.; Selvaratnam, T.; Yang, W.; Brake, N.	Collaborative Flooding and Water Quality Monitoring with AI Technology to Transform Environmental Resilience in Southeast Texas	CfR	\$50,002
Civil & Environmental Engineering	Qian, Qin	-	Environmental Cluster	CfR	\$110,000
Civil & Environmental Engineering	Selvaratnam, Thinesh	Cindioglu, B.	Empowerment, Enrichment, and Elevation of Rising Stars for Resilience from Southeast Texas (E3-Rising Stars)	CfR	\$21,970

<i>Department</i>	<i>Investigator</i>	<i>Co-PIs</i>	<i>Project Title</i>	<i>Sponsor</i>	<i>Award</i>
Civil & Environmental Engineering	Selvaratnam, Thinesh	-	Development of Resilience Science	CfR	\$50,000
Civil & Environmental Engineering	Uddameri, Venkatesh	-	Stochastic Characteristics of Floods and Droughts under Non-Stationary Climate and their Impacts on Infrastructure Resiliency in Southeast Texas (SETX)/ Southwest Louisiana (SWLA)	CfR	\$25,000
Civil & Environmental Engineering	Wu, Xing	Kim, Y.; Lai, F.	Data-driven Flood Risk Assessment for Transportation Infrastructure in Southeast Texas	CfR	\$49,988
College of Fine Arts & Communication	Fresne, Jeanette	Smith, A.; Holmes, H.; Saar, K.; Thompson, C.; Forcier, S.; Williams, G.	Grit and Groove Summer Camps	CfR	\$25,000
Computer Science	Alam, Tauhidul	-	Integrating Autonomous Robots and AI for Harmful Algal Blooms Assessments in Southeast Texas	CfR	\$14,100
Computer Science	Liu, Xingya	Yan, Y.; Tsado, L.	Investigating and Increasing Cybersecurity Awareness for Early Childhood Education	CfR	\$18,716
Computer Science	Wang, Sujing	Tsado, L.; Doe, R.	Multidisciplinary Arts and Sciences Summer Camp	CfR	\$25,000
Computer Science	Zhang, Jing	-	Augmented Reality Platform for Resilience at Lamar University – Phase 2: Refinery Hazards	CfR	\$24,853
Earth & Space Sciences	Kruger, Joseph	-	Determining Subsidence Rates in Southeast Texas by Repeated GNSS Measurements of Preexisting National Geodetic Survey (NGS) Benchmarks	CfR	\$22,064
Earth & Space Sciences	Lai, Feilin	-	Geospatial Analysis of the Impact of Floods on Water-Borne Diseases in Southeast Texas	CfR	\$14,100
Curriculum & Instruction	Singh, Mamta	-	Exploring Digital Resilience Among Elementary Students and Teachers in Southeast Texas: Challenges & Opportunities	CfR	\$22,000
Curriculum & Instruction	Yan, Yan	Killough, J.	Promoting Resilience: A Pre-Kindergarten Intervention for At-risk Children through Positive Storybook Reading Initiatives and Pre-service Teachers' Emotionally Responsive Teaching Training	CfR	\$22,000
College of Engineering	Benson, Tracy	-	Engagement Cluster	CfR	\$100,000

<i>Department</i>	<i>Investigator</i>	<i>Co-PIs</i>	<i>Project Title</i>	<i>Sponsor</i>	<i>Award</i>
Nutrition, Hospitality & Human Services	White, Janeal	Wallet, K.	Assets & Advocacy: Increasing Community Capacity to Respond to Homelessness in Southeast Texas	CfR	\$22,000
Nutrition, Hospitality & Human Services	White, Janeal	Wallet, K.; Favors, A.; Lagrone, J.; Mulvaney, T.; Selveratnam, T.; Yan, Y.	Resiliency Think Tank: An Intellectual Sandbox for Interdisciplinary Response to Homelessness in Southeast Texas	CfR	\$50,780
General Business	Baldo, Melissa	Schatz, G.	Short Sea Shipping: The Potential for More Resilient Communities After Disaster Strikes and Enhanced Energy Management in the Maritime Sector	CfR	\$23,296
Health & Kinesiology	Jordan, Shannon	Felipe, L.; Li, Y.	Investigation of Psychological Resilience Linked to Physiological Factors Associated with Driving Confidence and Behaviors	CfR	\$22,000
Health & Kinesiology	Jordan, Shannon	Killough, J.	STEM Basketball Camp: Incorporating Math and Nutritional Strategies into Sport Specific Examples to Improve Math and Science Comprehension in Student Athletes from a Community High School Where STAAR Scores are Low in Math and Science	CfR	\$14,663
Industrial & Systems Engineering	Li, Yueqing	Felipe, L.; Jordan, S.	Understanding Age-Related Balance Issues and Their Effects on Driving: Implications for Safety and Regional Resilience	CfR	\$49,930
Industrial & Systems Engineering	Tokgoz, Berna	Tokgoz, C.; Gummelt, G.; Williams, B.; Hwang, S.; Clavijo, A.	CRISys - Community Resilience Indicator System: Developing a Community Resilience Framework in Response to Natural Disasters – Phase IV	CfR	\$25,040
Industrial & Systems Engineering	Yang, Wenhao	Li, Y.; Lin, C.; Singh, M.	Enhancing Disaster Response Preparedness: Advanced Mixed Reality (MR) Simulations for First Responder Training in Hurricane Scenarios	CfR	\$50,000
Information Systems	Bandyopadhyay, Kakoli	Kumari, S.; Nelson, M.; Walker, N.	An Investigation of the Adoption of Information Technology Disaster Recovery Planning in the Energy Management Sector of Southeast Texas	CfR	\$25,000
Mechanical Engineering	Li, Xianchang	Tucker, C.; Zargarzadeh, H.; Sargsyan, G.; Liu, X.; Zhou, J.	Enriching Research and Education of Green Energy and Power Resilience with Net Zero Energy Building and Weather Station	CfR	\$50,931
Music	Frost, Brielle	Malick, S.	Building Resiliency by Empowering Future Musicians, Innovators and Entrepreneurs	CfR	\$17,239

<i>Department</i>	<i>Investigator</i>	<i>Co-PIs</i>	<i>Project Title</i>	<i>Sponsor</i>	<i>Award</i>
Music	Greschner, Debra	-	Strength through Song, Part 2: Building Resiliency One Voice at a Time	CfR	\$9,782
Music	Iles, Jennifer	-	Building Resilience and Connecting Music Education	CfR	\$9,886
Nursing	Knight, Stacey	Seaman, J.	Exploration of Mental Health Concerns for Online Students	CfR	\$20,000
Nursing	Kostandy, Raouth	-	Nurse Use of Non-pharmacological Interventions for Neonatal Opioid and Pain Management	CfR	\$14,167
Nursing	Rolf, Carmen	Jilla, A.; Moss, P.; LaGrone, J.	Promoting Resiliency and Wellness Across the Lifespan through Preventative Care, Health Education, Remote Patient Monitoring, and Telehealth/Telemedicine	CfR	\$23,864
Physics	Cole, Philip	Chen, D.; Hutson, A.	Subsurface Migration and Surface Emission of Methane from an Underground Pipeline Leak and the Effects of Varying Environmental Conditions	CfR	\$50,000
Political Science	Qi, Dan	Williams, B.	Community Resilience Networks: Investigating The Resilient Community Through Political Behavior and Social Network Analysis.	CfR	\$17,381
Psychology	Doe, Raymond	Wang, S.; Tsado, L.	Empowering Youth Resilience in Southeast Texas with Multidisciplinary Summer Program	CfR	\$45,423
Sociology, Social Work & Criminal Justice	Boyett, Kirstie	-	Utilizing Virtual Reality to Build Resiliency and Reduce Recidivism Rates: An Experimental Pilot Study	CfR	\$25,000
Sociology, Social Work & Criminal Justice	Gummelt, Ginger	Zhang, J.; Liu, X.; Selvaratnam, T.; Yang, W.; Brake, N.	Mental Health Intervention, Networking, & Diversion (MIND)	CfR	\$24,358
Sociology, Social Work & Criminal Justice	Lin, Cheng-Hsien	Li, Y.	Mental Health, Safety, and Efficiency for First Responders and Rescue Personnel - Impacts Through Potential Environmental and Equipment Redesigns	CfR	\$25,000
Speech & Hearing Sciences	Filipe, Lilian	Lyles, C.; Reading, H.	Fostering Resilience in Aphasia: Integrating Balance Education and Fall Prevention to Support Holistic Rehabilitation in Southeast Texas	CfR	\$13,384
Speech & Hearing Sciences	Jaisinghani, Priyanka	-	Enhancing Resiliency for Bimodal Hearing Users (with both Cochlear Implant and Hearing Aid) in Southeast Texas	CfR	\$13,446

<i>Department</i>	<i>Investigator</i>	<i>Co-PIs</i>	<i>Project Title</i>	<i>Sponsor</i>	<i>Award</i>
Speech & Hearing Sciences	Jilla, Anna	Howard, C.; Coco, L.; Hansen, P.; Deng, Y.; Johnson, C.	Characterizing Accessibility to Medicaid-Enrolled Audiologists in Texas: A study for Public Health for Vulnerable Texans with Low-Incomes and Hearing Disabilities	CfR	\$14,000
Theatre & Dance	Smith, Amy	-	In the Studio with Amy Elizabeth: Podcast, YouTube Channel, and Blog	CfR	\$13,125
Computer Science	Liu, Xingya	Wang, R.	Towards Port Internet Connectivity and Security: Starlink Maritime Evaluation	CAPM	\$34,750
Curriculum & Instruction	Singh, Mamta	-	Creating Knowledge & Awareness of Port-Related Activities & Education Among Future Elementary Teachers & Students	CAPM	\$35,000
Mechanical Engineering	Wu, Xing	Zaloom, V.	AIS-Data-Based Assessment of Utilization and Traffic Dealy in Deep-Drafted Waterway Channel	CAPM	\$33,933
Biology	Hoch, Matthew	Brake, N.; Qian, Q.; Selvaratnam, T.; Wi, X.; Morris, E.; Lai, F.; Jeffryes, C.; Sargsyan, G.; McCollouch, J.; Singh M.; Malick S.; Fedorchenko, X.	Lamar University Beneficial Use of Dredge Material Advancement Coalition (BUDMAC)	CMMS	\$100,000
Chemical & Biomolecular Engineering	Chen, Daniel	N/A	Leaks Detection, Soil Transport, and Emission Measurements of methane from Underground Pipelines	CMMS	\$40,000
Chemical & Biomolecular Engineering	Xu, Qiang	Wang, S.	Simulation and Optimization of Natural-gas Midstream Value Chain	CMMS	\$40,000
Computer Science	Sun, Bo	Hutson, A.; Rana, M.	Lamar University Data Lakehouse: Scalable and Reliable Data Storage with AI-Enhanced Analytics and Visualization for Research and Education	CMMS	\$40,000

<i>Department</i>	<i>Investigator</i>	<i>Co-PIs</i>	<i>Project Title</i>	<i>Sponsor</i>	<i>Award</i>
Mechanical Engineering	Li, Xianchang	Liu, X.; Doranga, S.; Zhou, J.	Integration of MATLAB Simscape and ANSYS Mechanical for Analysis of Pipeline Vibration Induced by Two-Phase Flow and/or Hydraulic Pressure Wave	CMMS	\$40,000
Mechanical Engineering	Seidi, Ebrahim	-	Solid-State Metal Deposition via Lateral Friction Surfacing for Localized Repair of Pipelines	CMMS	\$40,000
Chemistry & Biochemistry	Bekhit, Michael	-	Sensing Amphetamine-Type Stimulants at Nanoparticle-Modified Screen-Printed Electrodes	COAS SPRING	\$500
Chemistry & Biochemistry	Ganegamage, Susantha	-	Development of Dual-Functional Molecules Targeting G-Quadruplexes and Proteasomes for Cancer Detection and Inhibition	COAS SPRING	\$500
Computer Science	Rana, Md Masud	-	Innovative Research on Securing IoT Networks in EV Charging Infrastructure Using AMQP	COAS SPRING	\$500
Earth & Space Sciences	Takodjou Wambo, Jonas Didero	-	Regional and Local Structural Controls on Gold Mineralization in the Ngoura-Colomines Shear Zone, Eastern Cameroon: Implications for Gold Exploration in Shear Systems	COAS SPRING	\$500
English & Modern Languages	Gutierrez, Sandra	-	Haunted Heroines: Gender and Monstrosity in Isabel Cañas's Vampires of El Norte	COAS SPRING	\$500
Political Science	Qi, Dan	-	Turnout vs. Misreporting Turnout: Intersectional Effect of Racial Identity and Immigrant Status	COAS SPRING	\$500
Chemistry & Biochemistry	Twagirayezu, Sylvestre	-	Rotational Dynamics of Perfluorinated Carboxylic Acids Studied by Molecular Rotational Resonance Spectroscopy	COAS SUMMER	\$10,000
Computer Science	Islam, Md Rakibul	-	Instant Answers, Lasting Impact: Transforming Academic Advising Through AI	COAS SUMMER	\$10,000
English & Modern Languages	Gutierrez, Sandra	-	The Evolution of the Spanish Gothic Heroine: From the 19th to the 21st Century	COAS SUMMER	\$10,000
History	Vallejo, Maria	-	Transitioning Borderlands: A Struggle for Land and Citizenship in the Llano Grande Grant	COAS SUMMER	\$10,000

<i>Department</i>	<i>Investigator</i>	<i>Co-PIs</i>	<i>Project Title</i>	<i>Sponsor</i>	<i>Award</i>
Physics	Bahrim, Cristian	-	Changing the Reflectivity of Silica Glass Surfaces	COAS SUMMER	\$10,000
Management & Marketing	Chowdhury, Sharmistha	-	Decoding the CEO Duality-Performance Relationship: A Multi-Contingency Framework of Cross-Border Acquisitions	COB	\$10,000
Management & Marketing	Dong, Meichen	-	Time Will Tell: The Impact of Activating Time versus Money on Consumers' WOM	COB	\$10,000
Construction Management	Niazi, Fawad	-	State of Practice for Specifying and Repairing Mechanically Stabilized Earth Walls	COB	\$10,000
Accounting, Finance & Economics	Swift, Orrin	-	Advances in Artificial General Intelligence: LLM Performance of Undergraduate Accounting Student Tasks	COB	\$10,000

Projects Funded by the Office of Undergraduate Research

<i>Faculty Advisor</i>	<i>Student</i>	<i>Title</i>	<i>Grant Type</i>
Armacost, Jim	Servantes, Ryan	Correlation Between Humans and Angel Wing Syndrome in Ducks.	SURF
Bradley, Robert Kelly	Qi, Andy	Systematic Study of Silicone Elastomers: Formulation, Testing, and Open Source Data Sharing.	SURF
Favors, Andre	Wolford, Evan	Censorship? An Analysis of the Discourses of Three Kendrick Lamar Performances.	SURF
Islam, Rakibul	Neupane, Nirbhik (Nick)	Automating Traceability between App Reviews and Code Using Large Language Models.	SURF
Nainabasti, Binod	Addison III, James	Role of Group-Test on STEM Students' Success in Physics Class.	SURF
Prezas, Raul	Prater, Harvest	Bridging Disciplines: Integrating Interprofessional into Modern Healthcare Education.	SURF
Rana, MD Masud	Verma, Mahima	Self- Learning AI Tools for Automating Molecular Property Prediction.	SURF
Sargsyan, Gevorg & Warren, Don	Nikbin, Ali & Rahman, Abrar	AI-Driven Real Estate Permitting System: From Research to Market	SURF
Seidi, Ebrahim	Thomas, Kendyl	Evaluating Effects of Process Parameters on Polymer 3D Printing	SURF
Selvaratnam, Thinesh	Arif, Ayna & Rathore, Priya	Bioremediation of Industrial Mine Wastewaters using Galdieria Sulphuraria	SURF
Twagirayezu, Sylvestre	Abusaleh, Layali	Investigation of Thermally Energized Petroleum Mixture by Molecular Rotational Resonance (MRR) Spectroscopy	SURF

<i>Faculty Advisor</i>	<i>Student/Department</i>	<i>Title</i>	<i>Grant Type</i>
Williams, Douglas	Hernandez, Carolina Lizeth	“¡OYE! Abre tus ojos: To Hispanic/Latino Sign Language Interpreter Hardships	SURF
Yan, Yan	Howell, Mackenzie & Junot, Ashlyn	Effects of Elementary Children’s Screen Time on the Sociometric Status	SURF
Bahrim, Cristian	Withers, Jason	Fundamentals of Light-Matter Interaction for Explaining Optical Phenomena	URG
Hale, Gina	Bean, Natalie	Generating Educational Materials on Firearm Safety: Action to Promote Public Safety	URG
Jordan, Shannon	Tu, Jenny Xiaoxuan	Landing Mechanics and Muscle Activation in Modern Dancers	URG
Kubicek, Kole	Magdaleno, Brianna	Optimizing Acid-Free Clearing and Double Staining for Small Vertebrate Skeletons	URG
Liu, Jane	Robertson, Austin	Predicting Future Deforestation Hotspots Using Deep Learning and Satellite Images	URG
Prezas, Raul	Prater, Harvest	Simulative Role: Disclosing Broca's Area Aphasia Post-Ischemic Stroke to Health Advocates	URG
Priyanka Jaisinghani	Deras, Allison	Classroom Seating and Auditory Capabilities in Students with Hearing Loss	URG
Sargsyan, Gevorg & Warren, Don	Nikbin, Ali & Rahman, Abrar	Improving the Construction Permitting Process in SETX through Technological Integration	URG
Springer, Sheila & Michalski, Nicki	Heng, Alexa	Navigating Sexual and Emotional Communication in Generation Z University Situationships	URG
Tokgoz, Cagatay	Oloyede, Mololuwa	A Comparative Study of Monopole Antennas Using Various Simulation Methods	URG
Yan, Yan	Stinson, Ashlin	Enhancing Student Behavior and Engagement through Whole Brain Teaching in an Elementary English Language Arts Classroom	URG

Participation Rates in Externally Funded Research

COLLEGE/DIVISION	TOTAL FACULTY	ASSISTANT PROFESSOR SUBMISSIONS			ASSOCIATE PROFESSOR SUBMISSIONS			FULL PROFESSOR SUBMISSIONS			ADMIN/STAFF/OTHER SUBMISSIONS		
		Number of Faculty	Number of Proposals	Funding Requested	Number of Faculty	Number of Proposals	Funding Requested	Number of Faculty	Number of Proposals	Funding Requested	Other Personnel	Number of Proposals	Funding Requested
Arts & Sciences	102	5	11	\$2,753,114	5	6	\$997,906	2	3	\$1,100,000	2	4	\$996,013
Business	36	0	0	\$0	0	0	\$0	0	0	\$0	0	0	\$0
Education	38	3	3	\$49,996	1	1	\$7,000	0	0	\$0	0	0	\$0
Engineering	40	5	10	\$3,958,074	10	14	\$4,964,858	6	9	\$1,722,926	0	0	\$0
Fine Arts & Communication	41	0	0	\$0	0	0	\$0	1	3	\$180,579	1	1	\$97,525
Admin/Centers/Other	-	0	0	\$0	1	1	\$585,399	1	1	\$1,000,000	10	16	\$3,017,575
UNIVERSITY TOTAL	257	13	24	\$6,761,184	17	22	\$6,555,163	10	16	\$4,003,505	13	21	\$4,111,113

