LEGISLATIVE APPROPRIATIONS REQUEST

For Fiscal Years 2020 and 2021

Submitted to the
Governor's Office of Budget, Planning and Policy
and the Legislative Budget Board

by

Texas A&M Engineering Experiment Station

August 3, 2018

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For the schedules identified below, the Texas A&M Engineering Experiment Station either has no information to report or the schedule is not applicable. Accordingly, these schedules have been excluded from the TEES Legislative Appropriations Request for the 2020-2021 biennium.

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CERTIFICATE

Agency Name Texas A&M Engineering Experiment Station

This is to certify that the information contained in the agency Legislative Appropriations Request filed with the Legislative Budget Board (LBB) and the Governor's Office Budget Division (Governor's Office) is accurate to the best of my knowledge and that the electronic submission to the LBB via the Automated Budget and Evaluation System of Texas (ABEST) and the PDF file submitted via the LBB Document Submission application are identical.

Additionally, should it become likely at any time that unexpended balances will accrue for any account, the LBB and the Governor's Office will be notified in writing in accordance with Article IX, Section 7.01 (2018-19 GAA).

Chief Executive Officer or Presiding Judge

MKBanks
Signature

Dr. M. Katherine Banks, Ph.D., P.E.
Printed Name

Director, TEES
Title

August 3, 2018
Date

Board or Commission Chair

Chas. Schwartz
Signature

Charles W. Schwartz
Printed Name

Chairman, Board of Regents
Title

August 3, 2018
Date

Chief Financial Officer

Signature

John Crawford
Printed Name

Assistant Vice Chancellor and CFO
Title

August 3, 2018
Date

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Administrator's Statement

86th Regular Session, Agency Submission, Version 1

Automated Budget and Evaluation System of Texas (ABEST)

712 Texas A&M Engineering Experiment Station

The Texas A&M Engineering Experiment Station (TEES) was established by the Legislature in 1914 and incorporated within The Texas A&M University System (TAMUS) in 1948. For more than a century, TEES continues to be a vital institution of higher education within the state's higher education system. The TEES mission, as defined by our Charter as a Texas state agency (Section 88, Subchapter E, Texas Education Code), is to: (1) perform quality research to address the needs of our evolving society; (2) transfer emerging technology to private industry; and (3) support the state's workforce development through continuing and professional education.

TEES headquarters is in College Station and maintains 19 regional divisions in partnership with other institutions of higher education across Texas, including affiliations with local community colleges. These regional divisions include all universities within TAMUS, as well as the following external entities: Angelo State University, Del Mar College, Lamar University, New Mexico State University, Texas State University, Texas Women's University, and University of North Texas. Through these regional partnerships, TEES serves as a catalyst for leveraging collaborations that position the state to be especially competitive for federal funding while providing a platform for strengthening research capabilities across the state. As presented under the Research heading below, there are many examples of TEES' successful leadership of multi-institutional research initiatives.

As the state's leader in innovation engineering, TEES enables government and industry partners to deliver advanced technology solutions in energy systems and services, healthcare, information systems and sensors, infrastructure, materials and manufacturing, and national security and safety. By leveraging our capabilities statewide, we are able to: (1) improve economic development and quality of life in Texas and the nation; (2) support interdisciplinary fundamental and applied research; (3) transfer technology from research and development activities to useful applications; and (4) enhance the positive impact of the state's educational systems.

Thanks to the General Revenue (GR) appropriations from the state, TEES is able to compete for external research awards. TEES successfully leverages the general revenue appropriations it receives, attracting $15 for every $1 appropriated. By allocating base funding from the state to support research programs and new initiatives, TEES has maintained decades of successful partnerships and is currently involved in nearly 1,000 research projects. The majority of the external research dollars generated by TEES continues to be from federal sponsors, including major initiatives with the following entities: National Science Foundation; U.S. Department of Defense; U.S. Department of Energy; National Institutes of Health; and National Aeronautics and Space Administration. Research funding from the private sector has also remained strong through research contracts and established research centers, which serve a broad range of industries in Texas such as: aerospace; automotive; energy; national security; oil and gas; manufacturing; materials; chemical processing; and healthcare.

The research descriptions below are examples of activities and accomplishments at TEES and are directly funded by contracts and grants with federal agencies or industry sponsors, but those are only possible because of base-funding provided to the Agency through general revenue appropriations from the Legislature. They demonstrate how the Agency has leveraged general revenue appropriations by successfully competing for significant opportunities that are providing substantial returns on investment for the state, which appear in the TEES bill pattern as non-general revenue appropriations. As a state agency, TEES does not receive formula-funding in the General Appropriations Act.

As such, TEES is requesting a bill pattern structure change to Method of Finance, in order to become aligned with other institutions of higher education in Texas. Other A&M System agencies, each defined as institutions of higher education, have submitted a similar request. The requested technical change was submitted to both the Legislative Budget Board and Governor's Office of Budget, Policy and Planning during the budget structure change process in the Spring of this year.

Exceptional Item Requests

Innovative Infrastructure Resilience and Recovery (I2R2) – [PROBLEM] In the aftermath of Hurricane Harvey, TEES has identified, as a fiduciary obligation to the state, a

need for improving infrastructure resiliency before, during, and after extreme weather events – such as a hurricane, tornado, flood or wildfires . [ACTION] Developing and transferring emerging technologies resulting from the research, training, and evaluation made possible by the Legislature's investment in this exceptional item to mitigate damages resulting from future catastrophic events. [IMPLEMENTATION] TEES will establish partnerships with state and local agencies, as well as private industry, to identify best practices for strategies and metrics, develop impact prediction tools, quantify options, and modernize adaptive methods that strengthen resiliency of critical infrastructure networks. [SUPPORT] This proposal is based on findings from the Governor's Commission to Rebuild Texas (GCRT) regarding infrastructure damages which resulted in substantial negative impacts on people's accessing basic needs and services – such as, schools, grocery stores, healthcare, government services, etc. – as well as property and the economy of Texas. [HOW] By utilizing TEES subject matter experts at the recently opened Center for Infrastructure Renewal (CIR), as well as the Smart Grid Center, the results of this exceptional item funding will: (1) mitigate mobility vulnerabilities of roads and bridges; (2) enhance the resiliency of water drainage and power utility systems; (3) enable rapid implementation of intelligent structural materials. [SUMMARY] This program, if funded, will demonstrate how the state can establish industry best practices for ensuring resiliency in critical infrastructures, effectively reducing the cost to the state, of repair or replacement of critical infrastructure networks by mitigating damages from extreme weather events.
REQUEST: $9M

Cybersecurity Enterprise, Training Center, and Operations – [PROBLEM] Based on constant reports of hacks and attacks, TEES has identified, as a fiduciary obligation to the state, a need to establish a comprehensive continuum for strengthening cybersecurity protection. [ACTION] TEES will design and deliver realistic applications that, if implemented, will reduce cybersecurity risk. [IMPLEMENTATION] Provide training to: (1) appointed/elected officials of "political subdivisions of the state" in compliance, incident response, emergency management recovery, and network systems resiliency; (2) private industry professionals – and government/military personnel –in emerging technologies, through continuing education/workforce development programs, based on solutions developed through applicable research for adequately protecting controlled/proprietary information or data; (3) faculty at two-year and four-year institutions of higher education in technical (ie, engineering) and non-technical (ie, business) interdisciplinary fields, through a "train the trainer" model. [SUPPORT] The U.S. Department of Defense recognized The Texas A&M University System as a "cleared contractor that best demonstrates the ability to stop foreign theft of U.S. defense and national security technology." U.S. Senator John Cornyn personally presented Chancellor Sharp with the 2017 Defense Security Service Award for Excellence in Counterintelligence. [HOW] By utilizing TEES subject matter experts at the Institute for National-Security and Cyber-Security Education and Research (INSCER), the results of this exceptional item will create a pipeline of experienced and qualified workforce. [SUMMARY] Develop and transfer emerging technologies resulting from the research, training, and evaluation made possible by the Legislature's investment in this exceptional item to mitigate cybersecurity risk for government and private industry.
REQUEST: $5M

Research

Applied engineering research and development, a vital part of our mission, makes life better for the citizens of Texas and the U.S., as well as people throughout the world. In the quest for answers, TEES supports research that strengthens the economic base of Texas through engineering and technology and collaboration with industry . Our goal is to produce and transfer the highest quality, relevant engineering and technology-oriented research.

The A&M Energy Institute (EI), a joint center between Texas A&M University (TAMU) and TEES, supports new approaches for multi-disciplinary energy research, education and external partnerships. The EI interdisciplinary research program focuses on the interacting themes of fossil and non- fossil based technologies for energy; multi-scale energy systems engineering; materials, catalysis and separations for energy; and energy economics, law, policy and societal impact.

In 2011, the federal government launched an advanced manufacturing initiative of public-private partnerships to support academia and industry for applied research on

new technologies and design methodologies. Since then, 15 institutes have been launched with backing from the Department of Energy, Department of Defense, and Department of Commerce. TEES became an active member of six of these manufacturing initiatives in 2017, including:

• The Clean Energy Smart Manufacturing Innovation Institute (CESMII) enables "smart manufacturing" to become the driving, sustainable engine that delivers real-time business improvements in all facets of the U.S. manufacturing industry. As a member of CESMII, TEES leads the Gulf Coast Regional Manufacturing Center on behalf of the State.

• The Rapid Advancement in Process Intensification Deployment (RAPID) enables the development of breakthrough technologies to boost energy productivity and energy efficiency through respective manufacturing processes.

• The Advanced Robotics for Manufacturing (ARM) enables emerging technologies in the manufacturing of robotics and associated workforce innovation.

• The Advanced Regenerative Manufacturing Institute (ARMI) enables large-scale manufacturing of engineered tissues and tissue-related technologies, to benefit existing industries and grow new ones.

• The National Institute for Innovation in Manufacturing Biopharmaceuticals (NIIMBL) enables advancing biopharmaceutical manufacturing innovation and workforce development.

• America Makes is the national accelerator for additive manufacturing and 3D printing. It is the national's leading and most collaborative partner in research, discovery, creation, and innovation of these technologies.

In 2017, the National Science Foundation (NSF) awarded TEES with an Engineering Research Center (ERC) to study "The Precise Advanced Technologies and Health Systems for Underserved Populations" (PATHS-UP). The PATHS-UP mission is to: (1) engineer transformative, robust, and affordable, technologies/ systems that improve healthcare access by enhancing the quality of service and reduce the cost of healthcare in underserved populations; as well as (2) recruit and educate a diverse group of scientists/ engineers who are sufficiently trained to lead future technologies that improve health in underserved communities. TEES leads the PATHS-UP ERC team through a partnership with the University of California at Los Angeles, Florida International University and Rice University, and includes assessment experts from the University of Illinois at Urbana-Champaign.

TAMUS is a partner in Triad National Security LLC, specifically TEES, which has received official notice to proceed toward managing the Los Alamos National Laboratory (LANL) in New Mexico. The National Nuclear Security Administration (NNSA) notified Triad on July 9, 2018 to begin the four-month transition period. The two other Triad partners are the University of California and the Battelle Memorial Institute. LANL is the premier nuclear security assets in the world. TEES, on behalf of TAMUS, is committed to working with our partners to enhance safety and security at LANL while advancing its world-class science and successfully ensuring its vital missions. TEES contributions to the Triad team includes subject matter expertise in nuclear engineering, criticality safety and workforce development, all of which are crucial to the future of LANL. Triad will assume management and operational responsibility for LANL at the conclusion of the transition period, which is Nov. 1, 2018.

Consolidated Nuclear Security (CNS) asked TEES to collaborate on emerging technology research and development, as well as educational and professional development opportunities at the Pantex Plant near Amarillo, which is the primary facility for the final assembly or dismantlement and maintenance of our nation's nuclear weapons program. The Pantex Plant is operated by CNS, under a contractual agreement with the National Nuclear Security Administration (NNSA), and is one of the Panhandle region's largest employers with almost 4,000 employees. The research focus will address areas of mutual interest and mission-critical challenges, as well as serve as an incubator for new ideas in developing technical approaches to national defense. The workforce development activities will help address a growing shortage of skilled workers in the nuclear weapons industry by providing workforce development training at the Pantex Plant, as well as Science, Technology, Engineering and Math (STEM) outreach programming to local public school districts. The goal is to address areas of mutual interest and mission-critical challenges and to serve as an incubator for new ideas in developing technical approaches to national defense challenges.

TEES researchers were recently selected for an award with NASA to lead research into commercially viable civil supersonic transport aircraft that meet noise and efficiency requirements for overland flight. Their research is on designing an aircraft that can modify its shape in real time in order to optimize for fuel efficiency or quiet flight as the flight phase and conditions change. The team is one of five transformative system-level aviation innovations that NASA has selected as part of their Aeronautics' University Leadership Initiative (ULI.) Recently, a major forum in College Station, organized by the U.S. Air Force and attended by Air Force Secretary Heather Wilson, featured this capability at TEES.

The Institute for National Security and Cybersecurity Education and Research (INSCER) is a joint institute among TEES, TAMU and Texas A&M Agrilife Research. INSCER's mission is to enhance national and international security through research and education. To achieve this, INSCER is working to create research collaborations between TEES researchers and national security organizations. Along with the research, INSCER is also delivering educational programs to national security professionals, including opportunities with the recently announced headquarters in Austin for the U.S. Army Futures Command.

The TEES Mary Kay O'Connor Process Safety Center enhances safety in the chemical process industry by assisting private and public enterprises to minimize risk, particularly by conducting independent accident investigation and analysis services for government and industry. Many partnerships and training programs are offered to companies located along the Houston ship channel, where many chemical processing plants are located in Texas.

State statute (Section 252, Chapter 386, Texas Health and Safety Code) establishes that TEES Energy Systems Laboratory (ESL) shall provide technical expertise in the area of calculating and verifying energy savings and air emission reductions from energy efficiency programs. It also provides technical assistance on the statewide building energy code, collaborating with the State Energy Conservation Office (SECO) in the Comptroller's Office, to ensure maximum savings to the state and to local governments in order to achieve mandates established under the U.S. Clean Air Act. Limited funding for these responsibilities comes from the Texas Emissions Reduction Plan (TERP) Fund and the related general revenue appropriations from the Legislature to the Agency for this statutory responsibility has been consistently reduced each biennia, which adversely impacts the ability to provide legally obligated services for the state. At a minimum, previous general revenue appropriations to TEES for ESL from TERP would be very beneficial to fulfilling all statutory assignments.

Additionally, TEES is at the forefront of autonomous systems research and is establishing a multidisciplinary Center for Autonomous Vehicles and Sensor Systems (CANVASS) which focuses on research in challenging areas of national and state significance. For example, CANVASS has an outdoor test range at the TAMUS RELLIS Campus, which is currently one of the test sites for the Lone Star Unmanned Aircraft Systems Center of Excellence and Innovation (LSUASC), a partnership between Texas A&M University-Corpus Christi and TEES. LSUASC is one of only six test sites in the nation designated by the Federal Aviation Administration, under the U.S. Department of Transportation. CANVASS complements LSUASC as it encompasses all types of unmanned aerial systems (UAS) with a primary mission of research and will also support industrial customers.

Emerging Technology Transfer

Cutting edge and world class research is conducted at TEES across 14 engineering divisions and 25 Research Centers. The goal is to catalyze the translation of discoveries and inventions arising from this major research portfolio towards products and services that benefit society while creating sustainable businesses or commercial value.

The TEES Commercialization and Entrepreneurship division collaborates closely with researchers to enable the following six activities: (1) Creation of intellectual property (IP), (2) Licensing of IP, (3) Enhancing the industry sponsored research portfolio, and (4) Launching startup ventures from inventions, (5) Build innovation ecosystem

statewide and (6) Entrepreneurship training.

TEES has been successful increasing the overall intellectual property generation from research projects over the last five years (2012-2017). This includes: (1) a 34 percent increase since 2012 and 16 percent increase since 2016 in the number of invention disclosures per year, (2) a 173 percent increase in the number of provisional patent applications since 2012 and 11 percent increase since 2016, and (3) a 60 percent increase in the number of Utility/PCT patent applications since 2012

TEES plays an active role in building a statewide innovation ecosystem and conducts the annual Texas A&M New Ventures Competition (http://www.texasnvc.org/), at which more than 270 Science and Engineering based start-up companies across Texas have received coaching, presented their technologies, met investors, and competed for monetary prizes from private sources. Now in its fourth year, TNVC has awarded $1.1MM to those Texas based companies.

The TEES Texas Center for Applied Technology (TCAT) provides the structure to pursue need-driven research projects for clients while inserting new technologies into society that promote economic growth and an improved quality of life. TCAT researchers have experience in academia, the military, and the private sector.

TEES Offshore Technology Research Center (OTRC) is the only deep-water model “basin” of its kind in the U.S. and conducts research in support of economical resource development (oil and gas exploration) in deep offshore waters. It is supported by general revenue appropriations from the Legislature through a budget rider.

TEES Turbomachinery Laboratory conducts basic and applied research in reliability and performance of rotating machinery: from the classic Dutch windmills to the space shuttle's main engine turbopumps and compressors that move natural gas through its distribution system. The unique low-speed wind tunnel generates winds to test aircraft, space and ground vehicles, buildings and offshore structures.

TEES is also home to the Nuclear Science Center, one of the leading nuclear research and educational facilities in the country.

Workforce Development

TEES utilizes its statewide mission and reach to support the workforce through education and training pathways, focusing on high-technology areas. The Agency provides training for both industries and public entities at all stages of life. TEES education and training programs are focused in the three areas: (1) Pre- Kindergarten through 12th Grade (PK-12) engineering education outreach; (2) Institutional partnerships; (3) Professional and continuing education.

PK-12 Engineering Education Outreach works to inspire the next generation of engineers and raise STEM literacy by providing engineering education programming from to students and families, as well as professional development opportunities to teachers, counselors, and school administrators. This includes providing hands-on summer training for public school teachers through the Enrichment Experiences in Engineering (E3) program, a two-week summer residential engineering research experience in College Station. It is an introduction to engineering concepts for them to use in their student curriculum plans, resulting in an increased awareness about the field of engineering. A new workshop focusing on 3D printing is training elementary and secondary school teachers and other school professionals in the latest emerging technologies.

Additionally, TEES provides various summer outreach programs for students. Examples include Bioforce, a summer camp that introduces students to the therapeutics manufacturing industry, Raised3D, an engineering design system and additive manufacturing camp, and the TEES Nuclear Power Institute (NPI), which provides elementary and secondary school students a better understanding of careers in nuclear power plants in Texas.

Finally, it is critical that professionals stay up to date on new and emerging technologies in their respective fields. TEES offers many opportunities for state-of-the-art professional development and continuing education. TEES facilitates educational activities provided by the Centers and also TAMU college of engineering departments to bring high-quality technical education for individual learners and organizations. TEES utilizes recognized research faculty and industry experts to deliver superior knowledge and practical application scenarios to its professional development or continuing education offerings. Whether through face-to-face, online or blended methods, TEES is poised to deliver short courses, workshops and conferences.

86th Legislature, Capital Authorization

TEES is very appreciative for the bond funding authorized by the Legislature beginning in FY 2018-2019 biennium. Those funds were used to finance the capital construction of a joint facility managed by TEES and the Texas A&M Transportation Institute (TTI), named the Center for Infrastructure Renewal (CIR). This facility replaces several antiquated facilities

The facility has allowed for the consolidation and coordination of research and workforce development in the technical areas of materials, transportation, construction, geotechnical, structural, and engineering and roadside safety.

TEES requests that funding be continued to cover the debt service on the CIR in 2020 in the amount of $4,801,052 and 2021 in the amount of $4,802,052.

Ten Percent Budget Reduction

TEES general revenue appropriations are critical to the agency's ability to compete for external research awards and thus achieving its mission. TEES has historically leveraged the general revenue appropriations from the Legislature quite successfully by demonstrating a very high return on investment to the state. TEES strategy in assessing the overall impact of a potential ten percent reduction in general revenue identifies areas that would have the least impact on the Agency's ability to leverage the total available state general revenue investment. While we have attempted to minimize the impact, the reduction would still have a negative impact on external research funding and on the Agency's ability to meet compliance requirements, all while maintaining reasonable customer service levels.

Texas A&M University System Issues

Base Funding – Maintaining an equitable, reliable, and predictable source of funding for higher education is critical to allow our institutions to plan and grow, teach and support our students through to graduation, and pursue excellence. This base funding is provided by the State through both formula and non-formula support.

Formula funding, which accounts for 80 percent of our institutions' net GR appropriations, supports the core instructional, operational and infrastructure costs at our institutions and is not keeping pace on a per student basis as enrollments grow. And that is before considering inflation. Consistent formula appropriations that fund student enrollment growth and inflation are needed to avoid adverse impacts on students' success. Our highest priority is additional funding in the formulas to cover student enrollment growth through the spring 2019 semester. Any additional funding you can provide through the formulas to increase the rates to cover the cost of inflation on the state's share of the cost of educating students will help to offset pressure on the portion of core costs borne by tuition.

Until formula funding can keep pace with enrollment growth and inflation, non-formula support remains a critical source of base funding. The Legislature has already

enacted two recent major step downs on non-formula support items. For the general academics, these items were cut by approximately one-third last session. These cuts are on top of the 25 percent reductions in special items made during the 2011 session. We request that non-formula support items be maintained at current levels in the upcoming biennium.

We also request consideration of expanding the Small Institution Supplement – both in lengthening the runway to include Institutions up to 20,000 headcount and increasing the amount of funding provided through this formula supplement. Institutions with fewer than 20,000 students do not have the economies of scale of a research or emerging research institution and therefore are not able to operate on the formula-only funding. Additional funding through this mechanism could be an important tool in getting institutions to a point of financial stability as they grow to the 20,000 student enrollment.

Even though the A&M Agencies do not have an operations formula, they need base funding support much in the same manner as the formulas that provide basic, on-going support for the academics and health related institutions.

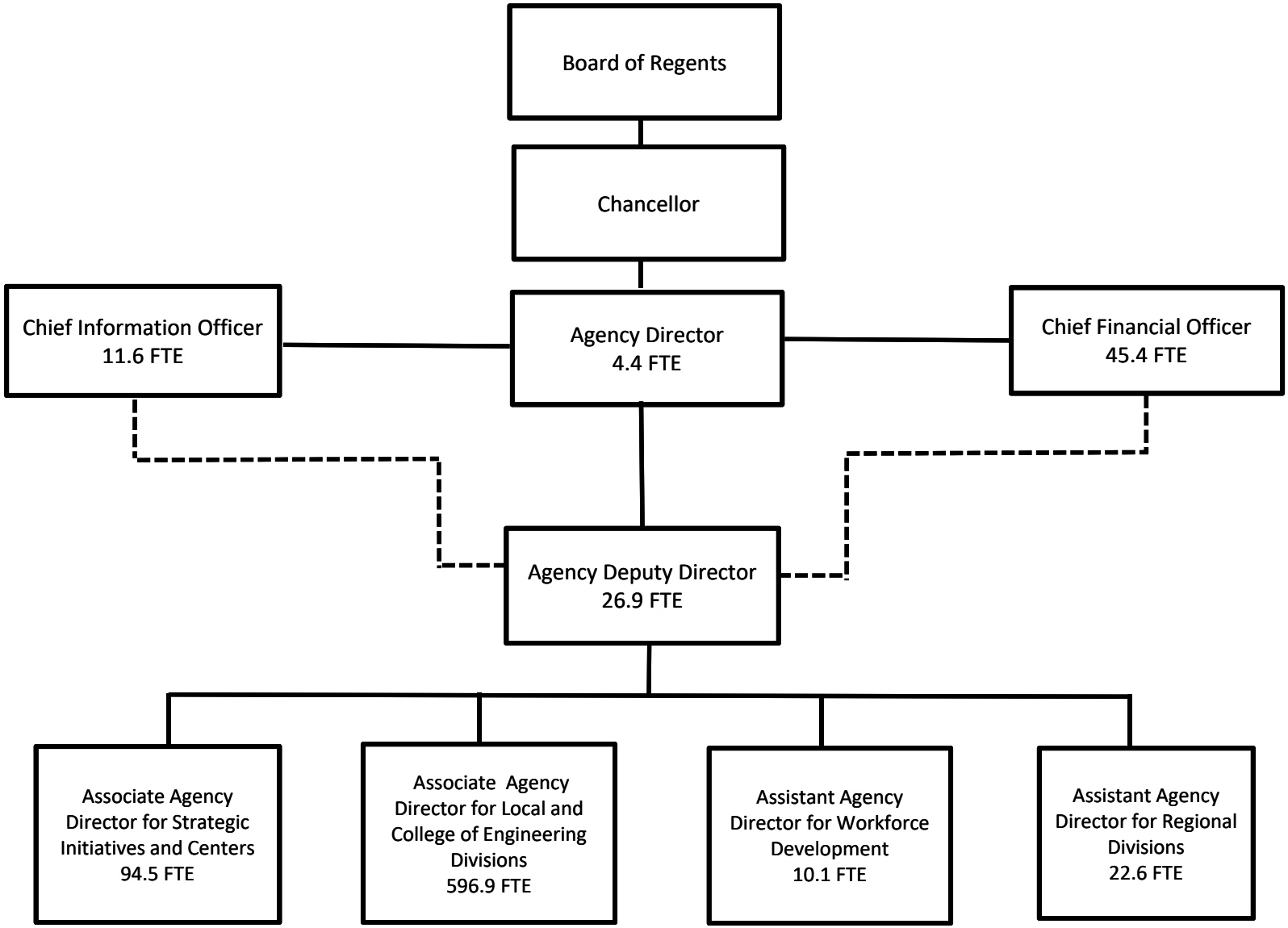
Outcomes Based Funding - Our Board is increasingly incorporating performance and outcomes into our internal budget review processes. We welcome a continued dialog on this issue during the legislative session. However, we believe there are several fundamentals that are important in consideration of any performance funding system:
• Any performance funding should be an incentive bonus on top of current formula funding. Again, formula funding is not keeping pace on a per student basis as enrollments grow. Reallocating existing formula funding for performance will negatively impact some of the very institutions that performance funding is trying to incentivize.
• A fundamental consideration with any performance funding model is the need to avoid penalizing institutions already performing at a high level vs. putting in place a system that rewards those that have room to improve.
• Any performance funding model should be implemented over an extended period of time.

Higher Education Group Health Insurance – We request funding to cover increases in covered enrollments and in health care costs that are beyond our control. We would also request restoration of some of the ever-widening gap in funding level for our employees as compared to the employees in the state employees ERS group insurance plan.

Student Financial Aid – We request increased support for student financial aid because it is vitally important for our students and families and will help students graduate with lower debt. However, since it is a method of paying for tuition and fees and does not increase much needed funding for the universities, we request increases to TEXAS grants and other financial aid programs be made in conjunction with funding the formula that provides the state's share of the costs of educating students.

2017 Indirect Cost Earnings:	
Indirect Costs Earned on TEES Administered Contracts & Grants	$ 20,204,561
Indirect Costs Earned on Research Foundation Administered Contracts & Grants: Distributed to TEES	$ 12,270
TOTAL EARNINGS OF INDIRECT COSTS ON TEES AND TAMRF PROJECTS	$ 20,216,831

Texas A&M Engineering Experiment Station



The **TEES Director/CEO** oversees the Texas A&M Engineering Experiment Station (TEES), the state institution of higher education focused on engineering research and development, technical assistance, workforce development and service.

The **Deputy Director** of TEES is responsible for the oversight of the programmatic and non-programmatic research programs of the institution, including research initiatives & centers, workforce development, regional divisions, corporate relations, technology & commercialization and global initiatives; .

The **Chief Information Officer** of TEES is responsible for the TEES information systems, as well as all network and other IT related infrastructure. This includes IT security, desktop support and email support.

The **Chief Financial Officer** of TEES is responsible for the oversight and coordination of the financial operations of TEES. This includes all fiscal operations, budgets, payroll and human resources, intellectual property management, and compliance.

The **Associate Agency Director for Strategic Initiatives & Centers** is responsible for the oversight of all TEES Centers & Institutes along with any research initiatives.

The **Associate Agency Director for Local & College of Engineering Divisions** is responsible for the oversight of the relationship between the engineering faculty of Texas A&M University and TEES as well as TEES facilities and space allocation; communications and marketing.

The **Assistant Agency Director for Workforce Development** is responsible for all workforce development activities conducted by TEES.

The **Assistant Agency Director for Regional Divisions** is responsible for the oversight of TEES' relationship with regional divisions that are located at universities and community colleges throughout the state.

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Appropriation Years: 2020-21

	GENERAL REVENUE FUNDS		GR DEDICATED		FEDERAL FUNDS		OTHER FUNDS		ALL FUNDS		EXCEPTIONAL ITEM FUNDS
	2018-19	2020-21	2018-19	2020-21	2018-19	2020-21	2018-19	2020-21	2018-19	2020-21	2020-21
Goal: 1. Conduct engineering & related research to enhance higher ed & eco dev											
1.1.1. Research Programs	18,938,654	9,978,334	887,123	887,123	81,569,580	98,876,230	96,934,951	89,614,049	198,330,308	199,355,736	
1.2.1. Technology Transfer	718,500	741,384					618,299	637,990	1,336,799	1,379,374	
1.3.1. Workforce Development	4,597,351	4,703,650			3,940,806	4,031,926	771,099	788,928	9,309,256	9,524,504	14,000,000
Total, Goal	**24,254,505**	**15,423,368**	**887,123**	**887,123**	**85,510,386**	**102,908,156**	**98,324,349**	**91,040,967**	**208,976,363**	**210,259,614**	**14,000,000**
Goal: 3. Maintain staff benefits program for eligible employees and retirees											
3.1.1. Staff Group Insurance					3,130,451	3,193,060	2,636,635	2,689,368	5,767,086	5,882,428	
3.1.2. Workers' Comp Insurance					53,435	54,504	49,085	50,066	102,520	104,570	
3.1.3. Unemployment Insurance					20,470	20,470	31,785	32,830	52,255	53,300	
3.1.4. Oasi					1,223,144	1,223,144	866,255	885,926	2,089,399	2,109,070	
3.1.5. Optional Retirement Program					16,770	16,770	45,348	48,492	62,118	65,262	
Total, Goal					**4,444,270**	**4,507,948**	**3,629,108**	**3,706,682**	**8,073,378**	**8,214,630**	
Goal: 4. Indirect Administration											
4.1.1. Indirect Administration	6,789,506	6,789,506					1,140,356	1,297,816	7,929,862	8,087,322	
4.1.2. Infrastructure Support	2,550,164						12,036,685		14,586,849		
4.1.3. Center For Infrastructure Renewal	9,598,097	9,603,106							9,598,097	9,603,106	
Total, Goal	**18,937,767**	**16,392,612**					**13,177,041**	**1,297,816**	**32,114,808**	**17,690,428**	
Total, Agency	**43,192,272**	**31,815,980**	**887,123**	**887,123**	**89,954,656**	**107,416,104**	**115,130,498**	**96,045,465**	**249,164,549**	**236,164,672**	**14,000,000**
Total FTEs									**842.4**	**842.4**	**22.0**

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Goal / *Objective* / STRATEGY	Exp 2017	Est 2018	Bud 2019	Req 2020	Req 2021
1 Conduct engineering & related research to enhance higher ed & eco dev					
1 *Increase dollar volume of sponsored research*					
1 RESEARCH PROGRAMS	89,893,062	98,927,260	99,403,048	99,677,868	99,677,868
2 *Maintain invention disclosure rate*					
1 TECHNOLOGY TRANSFER	624,815	659,532	677,267	689,687	689,687
3 *Increase # of students involved in engineering research*					
1 WORKFORCE DEVELOPMENT	4,419,171	4,615,757	4,693,499	4,762,252	4,762,252
TOTAL, GOAL 1	**$94,937,048**	**$104,202,549**	**$104,773,814**	**$105,129,807**	**$105,129,807**
3 Maintain staff benefits program for eligible employees and retirees					
1 *Provide staff benefits to eligible employees and retirees*					
1 STAFF GROUP INSURANCE	2,771,838	2,854,993	2,912,093	2,941,214	2,941,214
2 WORKERS' COMP INSURANCE	49,758	50,752	51,768	52,285	52,285
3 UNEMPLOYMENT INSURANCE	24,623	25,869	26,386	26,650	26,650

712 Texas A&M Engineering Experiment Station

Goal / *Objective* / STRATEGY	Exp 2017	Est 2018	Bud 2019	Req 2020	Req 2021
4 OASI	994,960	1,045,305	1,044,094	1,054,535	1,054,535
5 OPTIONAL RETIREMENT PROGRAM	31,059	31,059	31,059	32,631	32,631
TOTAL, GOAL 3	**$3,872,238**	**$4,007,978**	**$4,065,400**	**$4,107,315**	**$4,107,315**
4 Indirect Administration					
1 *Indirect Administration*					
1 INDIRECT ADMINISTRATION	3,742,432	3,964,655	3,965,207	4,043,661	4,043,661
2 INFRASTRUCTURE SUPPORT (1)	7,608,044	7,608,044	6,978,805	0	0
3 CENTER FOR INFRASTRUCTURE RENEWAL	4,999,541	4,799,902	4,798,195	4,801,053	4,802,053
TOTAL, GOAL 4	**$16,350,017**	**$16,372,601**	**$15,742,207**	**$8,844,714**	**$8,845,714**
TOTAL, AGENCY STRATEGY REQUEST	**$115,159,303**	**$124,583,128**	**$124,581,421**	**$118,081,836**	**$118,082,836**
TOTAL, AGENCY RIDER APPROPRIATIONS REQUEST*				**$0**	**$0**
GRAND TOTAL, AGENCY REQUEST	**$115,159,303**	**$124,583,128**	**$124,581,421**	**$118,081,836**	**$118,082,836**

(1) - Formula funded strategies are not requested in 2020-21 because amounts are not determined by institutions.

712 Texas A&M Engineering Experiment Station

Goal / *Objective* / STRATEGY	Exp 2017	Est 2018	Bud 2019	Req 2020	Req 2021
METHOD OF FINANCING:					
General Revenue Funds:					
1 General Revenue Fund	21,183,046	21,596,989	21,595,283	15,907,490	15,908,490
SUBTOTAL	**$21,183,046**	**$21,596,989**	**$21,595,283**	**$15,907,490**	**$15,908,490**
General Revenue Dedicated Funds:					
5071 Texas Emissions Reduction Plan	459,546	443,562	443,561	443,562	443,561
SUBTOTAL	**$459,546**	**$443,562**	**$443,561**	**$443,562**	**$443,561**
Federal Funds:					
555 Federal Funds	49,179,357	44,977,328	44,977,328	53,708,052	53,708,052
SUBTOTAL	**$49,179,357**	**$44,977,328**	**$44,977,328**	**$53,708,052**	**$53,708,052**
Other Funds:					
777 Interagency Contracts	1,433,826	3,076,902	3,076,902	2,493,167	2,493,168
997 Other Funds, estimated	39,895,346	51,480,165	51,480,165	42,521,383	42,521,383
8089 Indirect Cost Recov, Loc Held, est	3,008,182	3,008,182	3,008,182	3,008,182	3,008,182
SUBTOTAL	**$44,337,354**	**$57,565,249**	**$57,565,249**	**$48,022,732**	**$48,022,733**
TOTAL, METHOD OF FINANCING	**$115,159,303**	**$124,583,128**	**$124,581,421**	**$118,081,836**	**$118,082,836**

*Rider appropriations for the historical years are included in the strategy amounts.

(1) - Formula funded strategies are not requested in 2020-21 because amounts are not determined by institutions.

Agency code: **712** Agency name: **Texas A&M Engineering Experiment Station**

METHOD OF FINANCING	Exp 2017	Est 2018	Bud 2019	Req 2020	Req 2021
GENERAL REVENUE					
1 General Revenue Fund					
REGULAR APPROPRIATIONS					
Regular Appropriations from MOF Table (2016-17 GAA)	$21,274,274	$0	$0	$0	$0
Comments: Matches Conference Committee Report					
Regular Appropriations from MOF Table (2018-19 GAA)	$0	$21,596,989	$21,595,283	$15,907,490	$15,908,490
Comments: Matches Conference Committee Report					
LAPSED APPROPRIATIONS					
Savings due to Hiring Freeze	$(90,769)	$0	$0	$0	$0
Comments: Did not fill 46 vacancies					
CIR Debt Service Lapse for FY2017	$(459)	$0	$0	$0	$0
Comments: CIR Debt Service Lapse for FY2017					

Agency code: **712** Agency name: **Texas A&M Engineering Experiment Station**

METHOD OF FINANCING	Exp 2017	Est 2018	Bud 2019	Req 2020	Req 2021
GENERAL REVENUE					
TOTAL, General Revenue Fund	**$21,183,046**	**$21,596,989**	**$21,595,283**	**$15,907,490**	**$15,908,490**
TOTAL, ALL GENERAL REVENUE	**$21,183,046**	**$21,596,989**	**$21,595,283**	**$15,907,490**	**$15,908,490**
GENERAL REVENUE FUND - DEDICATED					
5071 GR Dedicated - Texas Emissions Reduction Plan Account No. 5071					
REGULAR APPROPRIATIONS					
Art IX, Sec 13.11, Earned Federal Funds (2016-17 GAA)	$462,043	$0	$0	$0	$0
Comments: Matches Conference Committee Report					
Art IX, Sec 13.11, Earned Federal Funds (2018-19 GAA)	$0	$443,562	$443,561	$443,562	$443,561
Comments: Matches Conference Committee Report					
TRANSFERS					
Transfer of Unexpended Funds back to TERP/TECQ	$(2,497)	$0	$0	$0	$0
Comments: Transfer of Unexpended Funds back to TERP/TECQ					

Agency code: **712** Agency name: **Texas A&M Engineering Experiment Station**

METHOD OF FINANCING	Exp 2017	Est 2018	Bud 2019	Req 2020	Req 2021
GENERAL REVENUE FUND - DEDICATED					
TOTAL, GR Dedicated - Texas Emissions Reduction Plan Account No. 5071	**$459,546**	**$443,562**	**$443,561**	**$443,562**	**$443,561**
TOTAL, ALL GENERAL REVENUE FUND - DEDICATED	**$459,546**	**$443,562**	**$443,561**	**$443,562**	**$443,561**
TOTAL, GR & GR-DEDICATED FUNDS	**$21,642,592**	**$22,040,551**	**$22,038,844**	**$16,351,052**	**$16,352,051**
FEDERAL FUNDS					
555 Federal Funds					
REGULAR APPROPRIATIONS					
Regular Appropriations from MOF Table (2016-17 GAA)	$44,977,328	$0	$0	$0	$0
Regular Appropriations from MOF Table (2018-19 GAA)	$0	$44,977,328	$44,977,328	$53,708,052	$53,708,052

Comments: Matches Conference Committee Report. TEES reports this as federal non-formula grant funds from the following major agencies: DOE, DOD, DHHS, DOT, NASA, NIH and NSF. These funds support sponsored engineering research in critical fields such as biomedical and remote health, information systems and sensors, energy systems and services, materials and manufacturing and national security and safety.

Agency code: **712** Agency name: **Texas A&M Engineering Experiment Station**

METHOD OF FINANCING	Exp 2017	Est 2018	Bud 2019	Req 2020	Req 2021
FEDERAL FUNDS					
Comments: Matches Conference Committee Report. TEES reports this as federal non-formula grant funds from the following major agencies: DOE, DOD, DHHS, DOT, NASA, NIH and NSF. These funds support sponsored engineering research in critical fields such as biomedical and remote health, information systems and sensors, energy systems and services, materials and manufacturing and national security and safety.					
RIDER APPROPRIATION					
Revised Receipts	$4,202,029	$0	$0	$0	$0
Comments: Revised Receipts. TEES reports the FY17 revised receipts for actual federal funding received is for the following reason(s): Increase in federal awards, particularly from NSF and DOD.					
TOTAL, Federal Funds	**$49,179,357**	**$44,977,328**	**$44,977,328**	**$53,708,052**	**$53,708,052**
TOTAL, ALL FEDERAL FUNDS	**$49,179,357**	**$44,977,328**	**$44,977,328**	**$53,708,052**	**$53,708,052**
OTHER FUNDS					
777 Interagency Contracts					
REGULAR APPROPRIATIONS					
Regular Appropriations from MOF Table (2016-2017 GAA)	$2,493,167	$0	$0	$0	$0
Comments: Matches Conference Committee Report					

Agency code: **712** Agency name: **Texas A&M Engineering Experiment Station**

METHOD OF FINANCING	Exp 2017	Est 2018	Bud 2019	Req 2020	Req 2021
OTHER FUNDS					
Regular Appropriations from MOF Table (2018-19 GAA)	$0	$2,493,167	$2,493,167	$2,493,167	$2,493,168
Comments: Matches Conference Committee Report. These funds are held locally by TEES and represent grants and contracts primarily from Industry, Municipal, and other state agencies.					
BASE ADJUSTMENT					
Art. III-226, TAR Rider 6-Advancements in Water Resource Management (2016-17 GAA)	$583,735	$0	$0	$0	$0
Comments: Revised Receipts. FY17 funding over original projection from TAR to TEES per TAR Rider 6.					
Art. III-235, TAR Rider 6-Advancements in Water Resource Management (2018-19 GAA)	$0	$583,735	$583,735	$0	$0
Comments: Revised Receipts. FY18 & FY18 funding over original projection from TAR to TEES per TAR Rider 6.					
Revised Receipts	$(1,643,076)	$0	$0	$0	$0

Agency code: **712** Agency name: **Texas A&M Engineering Experiment Station**

METHOD OF FINANCING	Exp 2017	Est 2018	Bud 2019	Req 2020	Req 2021
OTHER FUNDS					
Comments: Revised Receipts. FY17 adjustment reflects the decline in actual funding levels from various interagency contracts under the predicted estimates. The decline in Interagency contracts is due to the loss of ARP grants and a change in state guidelines which now views these funds as sales & services rather than contracts.					
TOTAL, Interagency Contracts	**$1,433,826**	**$3,076,902**	**$3,076,902**	**$2,493,167**	**$2,493,168**
997 Other Funds					
REGULAR APPROPRIATIONS					
Regular Appropriations from MOF Table (2016-17 GAA)	$51,480,165	$0	$0	$0	$0
Comments: Matches Conference Committee Report					
Regular Appropriations from MOF Table (2018-19 GAA)	$0	$51,480,165	$51,480,165	$42,521,383	$42,521,383
Comments: Matches Conference Committee Report					
BASE ADJUSTMENT					
Revised Receipts	$(11,584,819)	$0	$0	$0	$0
Comments: Revised Receipts. FY17 adjustment reflects actual funding levels from projected funding.					

Agency code: **712** Agency name: **Texas A&M Engineering Experiment Station**

METHOD OF FINANCING	Exp 2017	Est 2018	Bud 2019	Req 2020	Req 2021
OTHER FUNDS					
TOTAL, Other Funds	**$39,895,346**	**$51,480,165**	**$51,480,165**	**$42,521,383**	**$42,521,383**
8089 Indirect Cost Recovery, Locally Held, estimated					
REGULAR APPROPRIATIONS					
Regular Appropriations from MOF Table (2016-17 GAA)	$3,008,182	$0	$0	$0	$0
Comments: Matches Conference Committee Report					
Regular Appropriations from MOF Table (2018-19 GAA)	$0	$3,008,182	$3,008,182	$3,008,182	$3,008,182
Comments: Matches Conference Committee Report					
TOTAL, Indirect Cost Recovery, Locally Held, estimated	**$3,008,182**	**$3,008,182**	**$3,008,182**	**$3,008,182**	**$3,008,182**
TOTAL, ALL OTHER FUNDS	**$44,337,354**	**$57,565,249**	**$57,565,249**	**$48,022,732**	**$48,022,733**
GRAND TOTAL	**$115,159,303**	**$124,583,128**	**$124,581,421**	**$118,081,836**	**$118,082,836**

Agency code: **712** Agency name: **Texas A&M Engineering Experiment Station**

METHOD OF FINANCING	Exp 2017	Est 2018	Bud 2019	Req 2020	Req 2021
FULL-TIME-EQUIVALENT POSITIONS					
REGULAR APPROPRIATIONS					
Regular Appropriations from MOF Table (2016-17 GAA) **Comments:** Matches Conference Report	880.0	0.0	0.0	0.0	0.0
Regular Appropriations from MOF Table (2018-19 GAA) **Comments:** Matches Conference Report	0.0	842.4	842.4	842.4	842.4
LAPSED APPROPRIATIONS					
FTE's Lapsed due to Hiring Freeze **Comments:** FTE's Lapsed due to Hiring Freeze	(46.0)	0.0	0.0	0.0	0.0
UNAUTHORIZED NUMBER OVER (BELOW) CAP					
Unauthorized Over (Below) CAP **Comments:** Matches FY17 FTE's reported to SAO.	(21.6)	0.0	0.0	0.0	0.0
TOTAL, ADJUSTED FTES	**812.4**	**842.4**	**842.4**	**842.4**	**842.4**
NUMBER OF 100% FEDERALLY FUNDED FTEs	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

712 Texas A&M Engineering Experiment Station

OBJECT OF EXPENSE	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
1001 SALARIES AND WAGES	$38,022,202	$40,337,754	$41,434,637	$42,263,287	$42,263,330
1002 OTHER PERSONNEL COSTS	$1,755,919	$1,818,431	$1,869,448	$1,907,790	$1,907,790
1010 PROFESSIONAL SALARIES	$14,110,113	$14,968,861	$15,417,371	$15,725,717	$15,725,717
2001 PROFESSIONAL FEES AND SERVICES	$3,452,691	$3,554,248	$3,554,248	$3,582,996	$3,582,996
2002 FUELS AND LUBRICANTS	$10,862	$11,187	$11,187	$11,299	$11,299
2003 CONSUMABLE SUPPLIES	$1,394,024	$1,435,699	$1,435,699	$1,449,568	$1,449,568
2004 UTILITIES	$1,281,240	$1,043,987	$1,043,987	$128,633	$128,633
2005 TRAVEL	$3,169,056	$3,264,127	$3,264,127	$3,296,769	$3,296,769
2006 RENT - BUILDING	$4,440,299	$3,634,205	$3,634,205	$516,276	$516,276
2007 RENT - MACHINE AND OTHER	$464,591	$432,499	$432,488	$282,205	$282,205
2009 OTHER OPERATING EXPENSE	$31,631,156	$38,263,255	$36,330,832	$32,691,892	$32,690,034
3001 CLIENT SERVICES	$7,649,338	$7,741,579	$8,075,891	$8,156,654	$8,156,654
4000 GRANTS	$3,013,362	$3,195,675	$3,195,675	$3,227,629	$3,227,629
5000 CAPITAL EXPENDITURES	$4,764,450	$4,881,621	$4,881,626	$4,841,121	$4,843,936
OOE Total (Excluding Riders)	**$115,159,303**	**$124,583,128**	**$124,581,421**	**$118,081,836**	**$118,082,836**
OOE Total (Riders)					
Grand Total	**$115,159,303**	**$124,583,128**	**$124,581,421**	**$118,081,836**	**$118,082,836**

2.D. Summary of Base Request Objective Outcomes

86th Regular Session, Agency Submission, Version 1
Automated Budget and Evaluation system of Texas (ABEST)

712 Texas A&M Engineering Experiment Station

Goal/ *Objective* / **Outcome**	**Exp 2017**	**Est 2018**	**Bud 2019**	**BL 2020**	**BL 2021**
1 Conduct engineering & related research to enhance higher ed & eco dev					
1 Increase dollar volume of sponsored research					
1 Percent Change in Dollar Volume of Sponsored Research	1.00%	1.00%	1.00%	1.00%	1.00%
KEY 2 Leverage Ratio of GR Approp to Total Funds (Excl Infrastructure Funds)	15.00	15.00	15.00	15.00	15.00
KEY 3 Total Dollar Volume of Research (Millions)	122.10	125.80	125.80	125.80	125.80
2 Maintain invention disclosure rate					
1 Number of Formal Invention Disclosures	65.00	65.00	65.00	65.00	65.00
KEY 2 Number of Formal License Agreements	10.00	10.00	10.00	10.00	10.00
3 Increase # of students involved in engineering research					
1 Percent Increase in Number of Students Involved in Research Programs	3.00%	3.00%	3.00%	3.00%	3.00%
2 Number of Participants in Workforce Development Courses	10,500.00	10,500.00	10,500.00	10,500.00	10,500.00

Agency code: **712** Agency name: **Texas A&M Engineering Experiment Station**

	2020			2021			Biennium	
Priority Item	**GR and GR/GR Dedicated**	**All Funds**	**FTEs**	**GR and GR Dedicated**	**All Funds**	**FTEs**	**GR and GR Dedicated**	**All Funds**
1 I2R2	$5,000,000	$5,000,000	12.0	$4,000,000	$4,000,000	12.0	$9,000,000	$9,000,000
2 Cybersecurity	$3,000,000	$3,000,000	10.0	$2,000,000	$2,000,000	10.0	$5,000,000	$5,000,000
Total, Exceptional Items Request	**$8,000,000**	**$8,000,000**	**22.0**	**$6,000,000**	**$6,000,000**	**22.0**	**$14,000,000**	**$14,000,000**
Method of Financing								
General Revenue	$8,000,000	$8,000,000		$6,000,000	$6,000,000		$14,000,000	$14,000,000
General Revenue - Dedicated								
Federal Funds								
Other Funds								
	$8,000,000	**$8,000,000**		**$6,000,000**	**$6,000,000**		**$14,000,000**	**$14,000,000**
Full Time Equivalent Positions			**22.0**			**22.0**		
Number of 100% Federally Funded FTEs			**0.0**			**0.0**		

Agency code: **712** Agency name: **Texas A&M Engineering Experiment Station**

Goal/*Objective*/STRATEGY	Base 2020	Base 2021	Exceptional 2020	Exceptional 2021	Total Request 2020	Total Request 2021
1 Conduct engineering & related research to enhance higher ed & eco d						
1 *Increase dollar volume of sponsored research*						
1 RESEARCH PROGRAMS	$99,677,868	$99,677,868	$0	$0	$99,677,868	$99,677,868
2 *Maintain invention disclosure rate*						
1 TECHNOLOGY TRANSFER	689,687	689,687	0	0	689,687	689,687
3 *Increase # of students involved in engineering research*						
1 WORKFORCE DEVELOPMENT	4,762,252	4,762,252	8,000,000	6,000,000	12,762,252	10,762,252
TOTAL, GOAL 1	**$105,129,807**	**$105,129,807**	**$8,000,000**	**$6,000,000**	**$113,129,807**	**$111,129,807**
3 Maintain staff benefits program for eligible employees and retirees						
1 *Provide staff benefits to eligible employees and retirees*						
1 STAFF GROUP INSURANCE	2,941,214	2,941,214	0	0	2,941,214	2,941,214
2 WORKERS' COMP INSURANCE	52,285	52,285	0	0	52,285	52,285
3 UNEMPLOYMENT INSURANCE	26,650	26,650	0	0	26,650	26,650
4 OASI	1,054,535	1,054,535	0	0	1,054,535	1,054,535
5 OPTIONAL RETIREMENT PROGRAM	32,631	32,631	0	0	32,631	32,631
TOTAL, GOAL 3	**$4,107,315**	**$4,107,315**	**$0**	**$0**	**$4,107,315**	**$4,107,315**
4 Indirect Administration						
1 *Indirect Administration*						
1 INDIRECT ADMINISTRATION	4,043,661	4,043,661	0	0	4,043,661	4,043,661
2 INFRASTRUCTURE SUPPORT	0	0	0	0	0	0
3 CENTER FOR INFRASTRUCTURE RENEWAL	4,801,053	4,802,053	0	0	4,801,053	4,802,053
TOTAL, GOAL 4	**$8,844,714**	**$8,845,714**	**$0**	**$0**	**$8,844,714**	**$8,845,714**

Agency code: **712** Agency name: **Texas A&M Engineering Experiment Station**

Goal/*Objective*/**STRATEGY**	**Base 2020**	**Base 2021**	**Exceptional 2020**	**Exceptional 2021**	**Total Request 2020**	**Total Request 2021**
TOTAL, AGENCY STRATEGY REQUEST	**$118,081,836**	**$118,082,836**	**$8,000,000**	**$6,000,000**	**$126,081,836**	**$124,082,836**
TOTAL, AGENCY RIDER APPROPRIATIONS REQUEST						
GRAND TOTAL, AGENCY REQUEST	**$118,081,836**	**$118,082,836**	**$8,000,000**	**$6,000,000**	**$126,081,836**	**$124,082,836**

Agency code: **712** Agency name: **Texas A&M Engineering Experiment Station**

Goal/*Objective*/**STRATEGY**	**Base 2020**	**Base 2021**	**Exceptional 2020**	**Exceptional 2021**	**Total Request 2020**	**Total Request 2021**
General Revenue Funds:						
1 General Revenue Fund	$15,907,490	$15,908,490	$8,000,000	$6,000,000	$23,907,490	$21,908,490
	$15,907,490	**$15,908,490**	**$8,000,000**	**$6,000,000**	**$23,907,490**	**$21,908,490**
General Revenue Dedicated Funds:						
5071 Texas Emissions Reduction Plan	443,562	443,561	0	0	443,562	443,561
	$443,562	**$443,561**	**$0**	**$0**	**$443,562**	**$443,561**
Federal Funds:						
555 Federal Funds	53,708,052	53,708,052	0	0	53,708,052	53,708,052
	$53,708,052	**$53,708,052**	**$0**	**$0**	**$53,708,052**	**$53,708,052**
Other Funds:						
777 Interagency Contracts	2,493,167	2,493,168	0	0	2,493,167	2,493,168
997 Other Funds, estimated	42,521,383	42,521,383	0	0	42,521,383	42,521,383
8089 Indirect Cost Recov, Loc Held, est	3,008,182	3,008,182	0	0	3,008,182	3,008,182
	$48,022,732	**$48,022,733**	**$0**	**$0**	**$48,022,732**	**$48,022,733**
TOTAL, METHOD OF FINANCING	**$118,081,836**	**$118,082,836**	**$8,000,000**	**$6,000,000**	**$126,081,836**	**$124,082,836**
FULL TIME EQUIVALENT POSITIONS	**842.4**	**842.4**	**22.0**	**22.0**	**864.4**	**864.4**

Agency code: **712** Agency name: **Texas A&M Engineering Experiment Station**

Goal/ *Objective* / **Outcome**

	BL 2020	BL 2021	Excp 2020	Excp 2021	Total Request 2020	Total Request 2021
1 Conduct engineering & related research to enhance higher ed & eco dev						
1 *Increase dollar volume of sponsored research*						
1 Percent Change in Dollar Volume of Sponsored Research	1.00%	1.00%			1.00%	1.00%
KEY **2 Leverage Ratio of GR Approp to Total Funds (Excl Infrastructure Funds)**	15.00	15.00			15.00	15.00
KEY **3 Total Dollar Volume of Research (Millions)**	125.80	125.80			125.80	125.80
2 *Maintain invention disclosure rate*						
1 Number of Formal Invention Disclosures	65.00	65.00			65.00	65.00
KEY **2 Number of Formal License Agreements**	10.00	10.00			10.00	10.00
3 *Increase # of students involved in engineering research*						
1 Percent Increase in Number of Students Involved in Research Programs	3.00%	3.00%			3.00%	3.00%
2 Number of Participants in Workforce Development Courses	10,500.00	10,500.00			10,500.00	10,500.00

Agency code: Agency name: **Texas A&M Engineering Experiment Station**

GR Baseline Request Limit = $22,218,590

GR-D Baseline Request Limit = $887,123

Strategy/Strategy Option/Rider	2020 Funds			2021 Funds				Biennial	Biennial	
FTEs	Total	GR	Ded	FTEs	Total	GR	Ded	Cumulative GR	Cumulative Ded	Page #
Strategy: 1 - 1 - 1 **Research Programs**										
742.5	99,677,868	4,989,167	443,562	742.5	99,677,868	4,989,167	443,561	9,978,334	887,123	
Strategy: 1 - 2 - 1 **Technology transfer**										
11.8	689,687	370,692	0	11.8	689,687	370,692	0	10,719,718	887,123	
Strategy: 1 - 3 - 1 **Workforce Development**										
47.6	4,762,252	2,351,825	0	47.6	4,762,252	2,351,825	0	15,423,368	887,123	
Strategy: 3 - 1 - 1 **Provide funding for staff group insurance premiums**										
0.0	2,941,214	0	0	0.0	2,941,214	0	0	15,423,368	887,123	
Strategy: 3 - 1 - 2 **Provide funding for workers' compensation insurance**										
0.0	52,285	0	0	0.0	52,285	0	0	15,423,368	887,123	
Strategy: 3 - 1 - 3 **Provide funding for unemployment insurance**										
0.0	26,650	0	0	0.0	26,650	0	0	15,423,368	887,123	
Strategy: 3 - 1 - 4 **Provide funding for OASI**										
0.0	1,054,535	0	0	0.0	1,054,535	0	0	15,423,368	887,123	
Strategy: 3 - 1 - 5 **Optional Retirement Program Differential**										
0.0	32,631	0	0	0.0	32,631	0	0	15,423,368	887,123	
Strategy: 4 - 1 - 1 **Indirect Administration**										
40.5	4,043,661	3,394,753	0	40.5	4,043,661	3,394,753	0	22,212,874	887,123	
842.4				**842.4**				********GR Baseline Request Limit=$22,218,590********		
Strategy: 4 - 1 - 3 **Center for Infrastructure Renewal**										
0.0	4,801,053	4,801,053	0	0.0	4,802,053	4,802,053	0	31,815,980	887,123	
Excp Item: 1 **Critical Infrastructure Resilience and Recovery Training, Workforce Development in Emerging Technologies**										
12.0	5,000,000	5,000,000	0	12.0	4,000,000	4,000,000	0	40,815,980	887,123	

Agency code: Agency name: **Texas A&M Engineering Experiment Station**

GR Baseline Request Limit = $22,218,590

GR-D Baseline Request Limit = $887,123

Strategy/Strategy Option/Rider	2020 Funds			2021 Funds				Biennial	Biennial	
	FTEs	Total	GR	Ded	FTEs	Total	GR	Ded	Cumulative GR	Cumulative Ded	Page #
Strategy Detail for Excp Item: 1											
Strategy: 1 - 3 - 1 **Workforce Development**	12.0	5,000,000	5,000,000	0	12.0	4,000,000	4,000,000	0			
Excp Item: 2 **Cybersecurity Training, Workforce Developmentin Emerging Technologies**	10.0	3,000,000	3,000,000	0	10.0	2,000,000	2,000,000	0	45,815,980	887,123	
Strategy Detail for Excp Item: 2											
Strategy: 1 - 3 - 1 **Workforce Development**	10.0	3,000,000	3,000,000	0	10.0	2,000,000	2,000,000	0			
	864.4	**$126,081,836**	**$23,907,490**	**$443,562**	**864.4**	**$124,082,836**	**$21,908,490**	**443,561**			

712 Texas A&M Engineering Experiment Station

GOAL: 1 Conduct engineering & related research to enhance higher ed & eco dev

OBJECTIVE: 1 Increase dollar volume of sponsored research — Service Categories:

STRATEGY: 1 Research Programs — Service: 21 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
Output Measures:						
KEY 1	Dollar Volume Sponsored of Research Awards (Millions)	122.10	125.80	125.80	125.80	125.80
KEY 2	Number of Sponsored Research Projects	1,231.00	1,255.00	1,255.00	1,255.00	1,255.00
3	Number of Peer-reviewed Publications	3,034.00	3,050.00	3,050.00	3,050.00	3,050.00
4	Number of Proposals Submitted	1,502.00	1,555.00	1,555.00	1,555.00	1,555.00
KEY 5	Number of Collaborative Initiatives	214.00	220.00	220.00	220.00	220.00
KEY 6	Dollar Volume of Activities (Millions)	21.90	22.50	22.50	22.50	22.50
Efficiency Measures:						
1	Research Award Dollars per FTE Researcher (Thousands)	489.96	502.21	502.21	502.21	502.21
2	Proposal Acceptance Ratio	34.50	35.40	35.40	35.40	35.40
Objects of Expense:						
1001	SALARIES AND WAGES	$33,017,036	$35,027,774	$36,078,607	$36,800,136	$36,800,179
1002	OTHER PERSONNEL COSTS	$1,508,146	$1,599,992	$1,647,990	$1,680,952	$1,680,952
1010	PROFESSIONAL SALARIES	$13,120,404	$13,919,436	$14,337,020	$14,623,760	$14,623,760
2001	PROFESSIONAL FEES AND SERVICES	$3,287,631	$3,386,260	$3,386,260	$3,420,123	$3,420,123
2002	FUELS AND LUBRICANTS	$10,850	$11,175	$11,175	$11,287	$11,287
2003	CONSUMABLE SUPPLIES	$1,314,420	$1,353,853	$1,353,853	$1,367,391	$1,367,391
2004	UTILITIES	$115,606	$119,074	$119,074	$120,265	$120,265

712 Texas A&M Engineering Experiment Station

GOAL: 1 Conduct engineering & related research to enhance higher ed & eco dev

OBJECTIVE: 1 Increase dollar volume of sponsored research — Service Categories:

STRATEGY: 1 Research Programs — Service: 21 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
2005	TRAVEL	$3,104,277	$3,197,405	$3,197,405	$3,229,379	$3,229,379
2006	RENT - BUILDING	$377,188	$388,504	$388,504	$392,389	$392,389
2007	RENT - MACHINE AND OTHER	$255,350	$263,022	$263,011	$265,641	$265,641
2009	OTHER OPERATING EXPENSE	$19,853,896	$25,362,309	$23,987,376	$22,990,260	$22,987,402
3001	CLIENT SERVICES	$6,302,711	$6,352,233	$6,686,545	$6,753,415	$6,753,415
4000	GRANTS	$2,974,362	$3,155,505	$3,155,505	$3,187,057	$3,187,057
5000	CAPITAL EXPENDITURES	$4,651,185	$4,790,718	$4,790,723	$4,835,813	$4,838,628
TOTAL, OBJECT OF EXPENSE		**$89,893,062**	**$98,927,260**	**$99,403,048**	**$99,677,868**	**$99,677,868**
Method of Financing:						
1	General Revenue Fund	$8,982,234	$9,498,020	$9,440,634	$4,989,167	$4,989,167
SUBTOTAL, MOF (GENERAL REVENUE FUNDS)		**$8,982,234**	**$9,498,020**	**$9,440,634**	**$4,989,167**	**$4,989,167**
Method of Financing:						
5071	Texas Emissions Reduction Plan	$459,546	$443,562	$443,561	$443,562	$443,561
SUBTOTAL, MOF (GENERAL REVENUE FUNDS - DEDICATED)		**$459,546**	**$443,562**	**$443,561**	**$443,562**	**$443,561**
Method of Financing:						
555	Federal Funds					

712 Texas A&M Engineering Experiment Station

GOAL: 1 Conduct engineering & related research to enhance higher ed & eco dev

OBJECTIVE: 1 Increase dollar volume of sponsored research — Service Categories:

STRATEGY: 1 Research Programs — Service: 21 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
10.310.000	Agriculture Food Research (AFRI)	$116,866	$70,239	$70,238	$72,858	$72,858
11.419.000	Coastal Zone Management	$41,549	$0	$0	$11,000	$11,000
11.467.000	Hydrometeorological Development	$215,192	$184,133	$184,133	$184,000	$184,000
11.609.000	Measurement and Engineer	$24,413	$172,432	$172,432	$372,000	$372,000
12.000.000	DOD MAINTENANCE	$501,681	$655,605	$655,605	$1,056,000	$1,056,000
12.101.000	Beach Erosion Control Pr	$25,489	$26,344	$26,344	$26,000	$26,000
12.107.000	Navigation Projects	$84,812	$14,481	$14,481	$14,000	$14,000
12.114.000	Collaborative Research a	$76,881	$58,765	$58,765	$59,000	$59,000
12.300.000	Basic and Applied Scient	$1,030,018	$1,070,414	$1,070,414	$1,670,000	$1,670,000
12.351.000	Combating Wpns of Mass Destruction	$534,338	$105,841	$105,841	$106,000	$106,000
12.420.000	Military Medical Researc	$230,524	$167,578	$167,578	$168,000	$168,000
12.431.000	Basic Scientific Researc	$754,695	$893,011	$893,011	$1,093,000	$1,093,000
12.630.000	Basic, Applied, and Adva	$295,855	$164,879	$164,879	$165,000	$165,000
12.800.000	Air Force Defense Resear	$4,574,430	$4,083,576	$4,083,576	$4,584,000	$4,584,000
12.902.000	Information Security Gra	$99,010	$187,034	$187,034	$187,000	$187,000
12.910.000	Research and Technology	$592,415	$765,124	$765,124	$1,265,000	$1,265,000
15.441.000	Safety and Envir. Enforc Rsch&Data	$1,712,065	$1,141,116	$1,141,116	$1,341,000	$1,341,000
15.650.000	Research Grants (Fish and Wildlife)	$45,895	$0	$0	$0	$0
15.805.000	Assistance to State Water	$5,000	$0	$0	$0	$0
19.033.000	Global Threat Reduction	$524,799	$110,356	$60,356	$110,000	$110,000
20.108.000	Aviation Research Grants	$163,528	$206,208	$206,208	$256,000	$256,000
20.109.000	Air Transportation Cente	$15,591	$0	$0	$7,000	$7,000

712 Texas A&M Engineering Experiment Station

GOAL: 1 Conduct engineering & related research to enhance higher ed & eco dev

OBJECTIVE: 1 Increase dollar volume of sponsored research — Service Categories:

STRATEGY: 1 Research Programs — Service: 21 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
20.200.000	Highway Research and Development	$9,056	$0	$0	$10,000	$10,000
20.301.000	Railroad Safety	$79,355	$0	$0	$0	$0
20.701.000	University Transportation	$158,680	$192,997	$192,997	$268,000	$268,000
20.931.000	Trans. Planning Research & Ed	$48,810	$100,320	$100,320	$125,000	$125,000
27.011.000	Intergovernmental Person	$35,853	$0	$0	$0	$0
43.001.000	Aerospace Education Servi	$138,109	$82,577	$82,577	$83,000	$83,000
43.002.000	Technology Transfer	$53,082	$1,059,742	$1,059,742	$1,435,000	$1,435,000
43.003.000	TEES Project B6830-Exploration	$108,811	$0	$0	$0	$0
43.007.000	Space Operations	$358,703	$197,068	$197,068	$197,000	$197,000
43.008.000	TEES Project B5310 - Education	$247,220	$95,615	$95,615	$96,000	$96,000
43.009.000	TEES Project B5110-Crss Agncy Spprt	$202,233	$92,807	$92,807	$93,000	$93,000
43.012.000	Space Technology	$262,058	$238,721	$238,721	$239,000	$239,000
47.000.000	NATIONAL SCIENCE FOUNDATI	$5,430	$205,931	$205,931	$206,000	$206,000
47.041.000	Engineering Grants	$6,313,149	$6,362,819	$6,362,819	$8,674,858	$8,674,858
47.049.000	Mathematical and Physical	$1,053,506	$1,213,381	$1,213,381	$1,413,000	$1,413,000
47.050.000	Geosciences	$40,306	$261,080	$261,080	$261,080	$261,080
47.070.000	Computer and Information	$4,127,634	$4,072,946	$4,072,946	$4,478,000	$4,478,000
47.074.000	Biological Sciences	$819,443	$291,143	$291,143	$291,000	$291,000
47.075.000	Social, Behavioral, and	$0	$251,259	$251,259	$251,000	$251,000
47.076.000	Education and Human Reso	$1,283,731	$927,842	$927,842	$928,000	$928,000
47.079.000	International Science & Engineering	$105,109	$27,896	$27,896	$28,000	$28,000
47.080.000	Office of Cyber Infrastructure	$133,786	$0	$0	$10,000	$10,000

712 Texas A&M Engineering Experiment Station

GOAL: 1 Conduct engineering & related research to enhance higher ed & eco dev

OBJECTIVE: 1 Increase dollar volume of sponsored research — Service Categories:

STRATEGY: 1 Research Programs — Service: 21 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
64.000.000	Gulf War Research	$37,150	$0	$0	$0	$0
77.006.000	Nuclear Education Grant Program	$63,154	$27,713	$27,713	$28,000	$28,000
77.008.000	US Nuclear Scholarship & Fellowship	$136,228	$219,930	$205,497	$420,000	$420,000
77.009.000	NCR Office of Rsrch Fin Assist Prog	$66,603	$68,883	$68,883	$69,000	$69,000
81.000.010	DOE FOR TTI	$923,617	$0	$0	$0	$0
81.041.000	State Energy Conservation	$57,505	$94,737	$94,737	$95,000	$95,000
81.049.000	OFFICE OF ENERGY RESEARCH	$872,842	$973,745	$973,745	$1,374,000	$1,374,000
81.086.000	Conservation Research and	$489,791	$562,209	$562,209	$762,000	$762,000
81.087.000	Renewable Energy Research	$825,257	$582,130	$582,130	$582,000	$582,000
81.089.000	Fossil Energy Research an	$251,049	$479,376	$479,376	$479,000	$479,000
81.104.000	Technology Development fo	$132,659	$168,181	$168,181	$168,000	$168,000
81.113.000	NONPROLIFERATION & SECURI	$98,851	$130,657	$130,657	$131,000	$131,000
81.117.000	Energy Efficiency	$385,497	$198,304	$198,304	$198,000	$198,000
81.121.000	Nuclear Energy Research, Dev & Demo	$4,242,426	$3,319,023	$3,319,023	$4,319,000	$4,319,000
81.122.000	Elctrcty Dlvry & Rliblty-Stimulus	$388,889	$495,543	$495,543	$896,000	$896,000
81.135.000	ARPA Enrgy Fin Asstnc Prog-Stimulus	$1,793,291	$1,815,384	$1,815,384	$1,815,000	$1,815,000
93.000.000	National Death Index	$0	$151,342	$151,342	$151,000	$151,000
93.084.000	Prevention/Infectious Diseases	$11,927	$0	$0	$97,000	$97,000
93.113.000	Biological Response to En	$447,322	$244,876	$244,876	$245,000	$245,000
93.121.000	Oral Diseases and Disorde	$73,016	$201,590	$201,590	$402,000	$402,000
93.173.000	Research Related to Deafn	$216,166	$137,842	$137,842	$138,000	$138,000
93.262.000	Occupational Safety and H	$9,969	$0	$0	$0	$0

712 Texas A&M Engineering Experiment Station

GOAL: 1 Conduct engineering & related research to enhance higher ed & eco dev

OBJECTIVE: 1 Increase dollar volume of sponsored research — Service Categories:

STRATEGY: 1 Research Programs — Service: 21 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
93.283.000	CENTERS FOR DISEASE CONTR	$0	$0	$0	$13,000	$13,000
93.286.000	Biomedical Imaging Research	$862,975	$830,269	$830,269	$830,000	$830,000
93.310.000	Trans-NIH Research Support	$72,770	$139,031	$139,031	$139,000	$139,000
93.360.000	Biomedical Adv Rsc & Dev. Authority	$1,251,194	$774,796	$774,796	$775,000	$775,000
93.393.000	Cancer Cause and Preventi	$21,641	$113,177	$113,177	$113,000	$113,000
93.394.000	Cancer Detection and Diag	$95,443	$136,740	$136,740	$137,000	$137,000
93.558.000	Temp AssistNeedy Families	$12,451	$56,273	$56,273	$56,000	$56,000
93.837.000	Cardiovascular Diseases Research	$167,659	$61,057	$61,057	$61,000	$61,000
93.846.000	Arthritis, Musculoskeleta	$99,779	$279,762	$279,762	$280,000	$280,000
93.847.000	Diabetes, Endocrinology a	$339,243	$106,373	$106,373	$106,000	$106,000
93.853.000	Clinical Research Related	$1,020,332	$616,233	$616,233	$616,000	$616,000
93.855.000	Allergy, Immunology and T	$722,255	$718,611	$718,611	$719,000	$719,000
93.859.000	Biomedical Research and Research Tr	$77,185	$171,614	$171,614	$172,000	$172,000
93.865.000	Child Health & Human Dvlpmt	$0	$0	$0	$10,319	$10,319
93.866.000	Aging Research	$152,008	$70,082	$70,082	$70,000	$70,000
97.000.000	Misc Pymnts Dept Of Hmlnd Security	$129,935	$203,945	$203,945	$204,000	$204,000
97.061.000	Centers for Homeland Security	$1,298,088	$867,352	$867,352	$867,000	$867,000
97.077.000	Rsrch Related to Nuclear Detection	$27,716	$48,947	$48,947	$49,000	$49,000
97.130.000	Ntl Nuclear Forensics Expertise	$13,256	$0	$0	$0	$0
98.001.000	USAid Asst for Programs Overseas	$32,594	$0	$0	$18,000	$18,000
98.012.000	USAID Development Partnerships	$6	$0	$0	$0	$0

712 Texas A&M Engineering Experiment Station

GOAL: 1 Conduct engineering & related research to enhance higher ed & eco dev

OBJECTIVE: 1 Increase dollar volume of sponsored research — Service Categories:

STRATEGY: 1 Research Programs — Service: 21 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
CFDA Subtotal, Fund 555		$45,168,849	$40,817,007	$40,752,573	$49,438,115	$49,438,115
SUBTOTAL, MOF (FEDERAL FUNDS)		**$45,168,849**	**$40,817,007**	**$40,752,573**	**$49,438,115**	**$49,438,115**
Method of Financing:						
777	Interagency Contracts	$1,433,826	$3,076,902	$3,076,902	$2,493,167	$2,493,168
997	Other Funds, estimated	$33,337,601	$44,886,260	$45,110,995	$39,965,094	$39,965,094
8089	Indirect Cost Recov, Loc Held, est	$511,006	$205,509	$578,383	$2,348,763	$2,348,763
SUBTOTAL, MOF (OTHER FUNDS)		**$35,282,433**	**$48,168,671**	**$48,766,280**	**$44,807,024**	**$44,807,025**
TOTAL, METHOD OF FINANCE (INCLUDING RIDERS)					**$99,677,868**	**$99,677,868**
TOTAL, METHOD OF FINANCE (EXCLUDING RIDERS)		**$89,893,062**	**$98,927,260**	**$99,403,048**	**$99,677,868**	**$99,677,868**
FULL TIME EQUIVALENT POSITIONS:		**716.0**	**742.5**	**742.5**	**742.5**	**742.5**

STRATEGY DESCRIPTION AND JUSTIFICATION:

712 Texas A&M Engineering Experiment Station

GOAL:	1	Conduct engineering & related research to enhance higher ed & eco dev			
OBJECTIVE:	1	Increase dollar volume of sponsored research	Service Categories:		
STRATEGY:	1	Research Programs	Service: 21	Income: A.2	Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021

In order to fulfill the Legislative mandate to promote engineering and technology research, technology transfer and education throughout Texas, TEES' research activities cover the entire spectrum of technology research and development – from fundamental work in the basic engineering sciences, applied efforts addressing specific industrial and governmental needs, and testing and evaluating products and processes. This strategy includes the formation of industry research consortia and public/private partnerships aimed at resolving critical issues facing the state.
For over 100 years, TEES has performed groundbreaking engineering research and developed technology in areas of strategic importance to the economy and our quality of life including energy systems and services, national security and safety, healthcare, infrastructure, materials and manufacturing, information systems and sensors, technology transfer, education and workforce development. Our comprehensive approach ensures that the industries and agencies can adapt to a changing world. Partnerships are built on a commitment to solve real-world challenges that extend beyond the laboratory. Ultimately, TEES provides the human and technical resources that industries and governments need to create opportunities for leadership in new ideas and engineering innovation.

EXTERNAL/INTERNAL FACTORS IMPACTING STRATEGY:

The tremendous advances made as a result of engineering contributions and technology-related research have left few facets of our everyday lives untouched. Science and engineering research is responsible for advancements in technology that lead to new/improved products and processes that, in turn, lead to economic expansion and a higher standard of living. This need for new technology is accelerated both by the growth of a global economy and the search for solutions to societal problems. The State of Texas is at the forefront of this technology revolution. The support structure at TEES encourages a research approach that is atypical of that found in the traditional higher education setting – one that accommodates, to a larger extent, industry and government needs and that is more applications-based. Industrial research consortia, strong external advisory bodies and links to federal and state funding agencies ensure the relevance of TEES research efforts to real-world needs.

712 Texas A&M Engineering Experiment Station

GOAL: 1 Conduct engineering & related research to enhance higher ed & eco dev

OBJECTIVE: 1 Increase dollar volume of sponsored research — Service Categories:

STRATEGY: 1 Research Programs — Service: 21 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021

EXPLANATION OF BIENNIAL CHANGE (includes Rider amounts):

STRATEGY BIENNIAL TOTAL - ALL FUNDS		BIENNIAL	EXPLANATION OF BIENNIAL CHANGE	
Base Spending (Est 2018 + Bud 2019)	Baseline Request (BL 2020 + BL 2021)	CHANGE	$ Amount	Explanation(s) of Amount (must specify MOFs and FTEs)
$198,330,308	$199,355,736	$1,025,428	$1,025,428	Estimating Expenditures for FY2020/FY2021 is based on current growth trends in Grants and Contracts Proposals and Awards. TEES has seen an increase in federal funds.
			$1,025,428	**Total of Explanation of Biennial Change**

712 Texas A&M Engineering Experiment Station

GOAL: 1 Conduct engineering & related research to enhance higher ed & eco dev

OBJECTIVE: 2 Maintain invention disclosure rate — Service Categories:

STRATEGY: 1 Technology transfer — Service: 21 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
Output Measures:						
KEY 1	Number of Patent Applications	75.00	65.00	65.00	65.00	65.00
KEY 2	Number of Industry-sponsored Research Projects	208.00	210.00	210.00	210.00	210.00
Efficiency Measures:						
1	Ratio of Disclosure of Inventions to $1 Million in Research Expends	0.05	0.05	0.05	0.05	0.05
Objects of Expense:						
1001	SALARIES AND WAGES	$277,303	$294,190	$303,016	$309,077	$309,077
1002	OTHER PERSONNEL COSTS	$6,413	$6,803	$7,007	$7,147	$7,147
1010	PROFESSIONAL SALARIES	$233,173	$247,373	$254,795	$259,890	$259,890
2003	CONSUMABLE SUPPLIES	$6,463	$6,657	$6,657	$6,724	$6,724
2004	UTILITIES	$1,749	$1,802	$1,802	$1,820	$1,820
2005	TRAVEL	$24,751	$25,494	$25,494	$25,749	$25,749
2006	RENT - BUILDING	$2,421	$2,494	$2,494	$2,518	$2,518
2007	RENT - MACHINE AND OTHER	$783	$807	$807	$815	$815
2009	OTHER OPERATING EXPENSE	$62,296	$64,165	$65,448	$66,103	$66,103
3001	CLIENT SERVICES	$4,360	$4,491	$4,491	$4,536	$4,536
5000	CAPITAL EXPENDITURES	$5,103	$5,256	$5,256	$5,308	$5,308

712 Texas A&M Engineering Experiment Station

GOAL: 1 Conduct engineering & related research to enhance higher ed & eco dev

OBJECTIVE: 2 Maintain invention disclosure rate — Service Categories:

STRATEGY: 1 Technology transfer — Service: 21 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
TOTAL, OBJECT OF EXPENSE		**$624,815**	**$659,532**	**$677,267**	**$689,687**	**$689,687**
Method of Financing:						
1	General Revenue Fund	$335,825	$354,484	$364,016	$370,692	$370,692
SUBTOTAL, MOF (GENERAL REVENUE FUNDS)		**$335,825**	**$354,484**	**$364,016**	**$370,692**	**$370,692**
Method of Financing:						
997	Other Funds, estimated	$288,990	$305,048	$313,251	$318,995	$318,995
SUBTOTAL, MOF (OTHER FUNDS)		**$288,990**	**$305,048**	**$313,251**	**$318,995**	**$318,995**
TOTAL, METHOD OF FINANCE (INCLUDING RIDERS)					**$689,687**	**$689,687**
TOTAL, METHOD OF FINANCE (EXCLUDING RIDERS)		**$624,815**	**$659,532**	**$677,267**	**$689,687**	**$689,687**
FULL TIME EQUIVALENT POSITIONS:		**11.4**	**11.8**	**11.8**	**11.8**	**11.8**

STRATEGY DESCRIPTION AND JUSTIFICATION:

712 Texas A&M Engineering Experiment Station

GOAL: 1 Conduct engineering & related research to enhance higher ed & eco dev

OBJECTIVE: 2 Maintain invention disclosure rate — Service Categories:

STRATEGY: 1 Technology transfer — Service: 21 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021

Cutting-edge research generates substantial payoffs. It creates new products, improves lives, and spurs jobs and economic development through the licensing of research discoveries, and sparks start-up companies. Research experiences also train students so they can hit the ground running when they enter the workforce and become innovators of tomorrow. TEES works closely with Texas industry in generating new jobs and economic activity using established and new partnerships for the development of technologies and intellectual property. TEES activities in this area include industry sponsorship of research projects, licensing and commercialization of research results, industrial research consortia, assistance with technology insertion and testing and evaluation capabilities. Assistance is provided to researchers on intellectual property policies and a system for evaluating, marketing and promoting TEES' research results for commercial application is maintained. Of equal importance is technology transfer in the form of publications of innovative advances in engineering, industrial symposia, seminars and workshops.

EXTERNAL/INTERNAL FACTORS IMPACTING STRATEGY:

Technological innovation and commercialization are crucial to the sustained economic growth of our state and nation. The technology transfer component of TEES relates directly to the state's goals of building a foundation for social and economic prosperity and enhancing the productivity of Texas. In particular, TEES is focusing upon the Texas target industry clusters indentified by the Governor's initiative: advanced technologies and manufacturing, aerospace and defense, biotechnology and life sciences, information and computer technology, petroleum refining and chemical products, and energy. Commercialization of higher education research results, whether through patents granted, license agreements executed, or companies started, is an expensive and time-consuming process. TEES will continue to work closely with industry to accelerate the transfer of technology to the commercial marketplace.

712 Texas A&M Engineering Experiment Station

GOAL: 1 Conduct engineering & related research to enhance higher ed & eco dev

OBJECTIVE: 2 Maintain invention disclosure rate — Service Categories:

STRATEGY: 1 Technology transfer — Service: 21 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021

EXPLANATION OF BIENNIAL CHANGE (includes Rider amounts):

STRATEGY BIENNIAL TOTAL - ALL FUNDS		BIENNIAL	EXPLANATION OF BIENNIAL CHANGE	
Base Spending (Est 2018 + Bud 2019)	Baseline Request (BL 2020 + BL 2021)	CHANGE	$ Amount	Explanation(s) of Amount (must specify MOFs and FTEs)
$1,336,799	$1,379,374	$42,575	$42,575	Increases reflect changes in salaries and benefits associated with the merit program.
			$42,575	**Total of Explanation of Biennial Change**

712 Texas A&M Engineering Experiment Station

GOAL: 1 Conduct engineering & related research to enhance higher ed & eco dev

OBJECTIVE: 3 Increase # of students involved in engineering research — Service Categories:

STRATEGY: 1 Workforce Development — Service: 21 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
Output Measures:						
	1 Number of Graduate Student Assistantships	592.00	609.00	609.00	609.00	609.00
	2 Number of Undergraduate Students Employed in Research Activities	335.00	345.00	345.00	345.00	345.00
KEY	3 Number of Students from Underrepresented Groups Participating	21,157.00	21,272.00	21,272.00	21,272.00	21,272.00
Efficiency Measures:						
	1 Leverage Ratio of State Dollars to Total Workforce Development Revenue	102.50	102.50	102.50	102.50	102.50
Objects of Expense:						
1001	SALARIES AND WAGES	$1,169,565	$1,240,792	$1,278,016	$1,303,576	$1,303,576
1002	OTHER PERSONNEL COSTS	$88,469	$93,857	$96,672	$98,606	$98,606
1010	PROFESSIONAL SALARIES	$738,511	$783,486	$806,990	$823,130	$823,130
2001	PROFESSIONAL FEES AND SERVICES	$141,779	$146,032	$146,032	$147,492	$147,492
2002	FUELS AND LUBRICANTS	$12	$12	$12	$12	$12
2003	CONSUMABLE SUPPLIES	$72,530	$74,705	$74,705	$75,453	$75,453
2004	UTILITIES	$6,294	$6,483	$6,483	$6,548	$6,548
2005	TRAVEL	$40,028	$41,228	$41,228	$41,641	$41,641

712 Texas A&M Engineering Experiment Station

GOAL: 1 Conduct engineering & related research to enhance higher ed & eco dev

OBJECTIVE: 3 Increase # of students involved in engineering research — Service Categories:

STRATEGY: 1 Workforce Development — Service: 21 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
2006	RENT - BUILDING	$116,668	$120,168	$120,168	$121,369	$121,369
2007	RENT - MACHINE AND OTHER	$13,780	$14,193	$14,193	$14,335	$14,335
2009	OTHER OPERATING EXPENSE	$689,268	$709,946	$724,145	$731,387	$731,387
3001	CLIENT SERVICES	$1,342,267	$1,384,855	$1,384,855	$1,398,703	$1,398,703
4000	GRANTS	$0	$0	$0	$0	$0
5000	CAPITAL EXPENDITURES	$0	$0	$0	$0	$0
TOTAL, OBJECT OF EXPENSE		**$4,419,171**	**$4,615,757**	**$4,693,499**	**$4,762,252**	**$4,762,252**
Method of Financing:						
1	General Revenue Fund	$2,182,396	$2,279,479	$2,317,872	$2,351,825	$2,351,825
SUBTOTAL, MOF (GENERAL REVENUE FUNDS)		**$2,182,396**	**$2,279,479**	**$2,317,872**	**$2,351,825**	**$2,351,825**
Method of Financing:						
555	Federal Funds					
47.041.000	Engineering Grants	$92,261	$151,841	$154,399	$156,660	$156,660
47.070.000	Computer and Information	$69,317	$101,255	$102,960	$104,469	$104,469
47.076.000	Education and Human Reso	$1,709,150	$1,700,852	$1,729,499	$1,754,834	$1,754,834
CFDA Subtotal, Fund 555		$1,870,728	$1,953,948	$1,986,858	$2,015,963	$2,015,963

712 Texas A&M Engineering Experiment Station

GOAL: 1 Conduct engineering & related research to enhance higher ed & eco dev

OBJECTIVE: 3 Increase # of students involved in engineering research — Service Categories:

STRATEGY: 1 Workforce Development — Service: 21 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
SUBTOTAL, MOF (FEDERAL FUNDS)		**$1,870,728**	**$1,953,948**	**$1,986,858**	**$2,015,963**	**$2,015,963**
Method of Financing:						
997	Other Funds, estimated	$366,047	$382,330	$388,769	$394,464	$394,464
SUBTOTAL, MOF (OTHER FUNDS)		**$366,047**	**$382,330**	**$388,769**	**$394,464**	**$394,464**
TOTAL, METHOD OF FINANCE (INCLUDING RIDERS)					**$4,762,252**	**$4,762,252**
TOTAL, METHOD OF FINANCE (EXCLUDING RIDERS)		**$4,419,171**	**$4,615,757**	**$4,693,499**	**$4,762,252**	**$4,762,252**
FULL TIME EQUIVALENT POSITIONS:		**45.9**	**47.6**	**47.6**	**47.6**	**47.6**

STRATEGY DESCRIPTION AND JUSTIFICATION:

The TEES active research environment contributes to the recruitment of a new generation of engineers. TEES participates in various programs to interest middle-school and high-school students in science, technology, math and engineering, and to support undergraduate and graduate students in obtaining engineering degrees and participating in research programs. Since Texas faces a growing need for diversity among the professionals in engineering and related fields, many of these programs focus upon, but not limited to, under-represented groups. These activities directly relate to the state's and the agency's education mission and include programs to engage pre-college, undergraduate and graduate students in research activities, to foster partnerships between K-12, two- and four-year institutions, to modify the delivery of engineering curriculum, to increase student retention, to encourage graduate studies, and to interact with industry in these areas.

712 Texas A&M Engineering Experiment Station

GOAL:	1	Conduct engineering & related research to enhance higher ed & eco dev			
OBJECTIVE:	3	Increase # of students involved in engineering research	Service Categories:		
STRATEGY:	1	Workforce Development	Service: 21	Income: A.2	Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021

EXTERNAL/INTERNAL FACTORS IMPACTING STRATEGY:

The accelerating pace of industrial and technological developments has created an ever-increasing demand for highly qualified, professional engineers and scientists. Technology has diversified the Texas economy, altered the way in which we live, and allowed information more accessible than ever. However, given its large population, Texas presently lags behind most of its key competitor states in the number of engineering and computer science degrees awarded. Texas must strengthen science, technology, engineering and math (STEM) education at all levels in order to sustain its economic growth and remain competitive in an increasingly global and technology-driven economy. In addition, increases in under-represented group participation are essential at all levels of the engineering profession. Opportunities must be made available for recruiting and retaining a diverse student body into higher education and research.

EXPLANATION OF BIENNIAL CHANGE (includes Rider amounts):

STRATEGY BIENNIAL TOTAL - ALL FUNDS		BIENNIAL	EXPLANATION OF BIENNIAL CHANGE	
Base Spending (Est 2018 + Bud 2019)	Baseline Request (BL 2020 + BL 2021)	CHANGE	$ Amount	Explanation(s) of Amount (must specify MOFs and FTEs)
$9,309,256	$9,524,504	$215,248	$215,248	TEES is estimating conservative growth in this strategy with the main areas of increase to do merit and program growth.
			$215,248	**Total of Explanation of Biennial Change**

712 Texas A&M Engineering Experiment Station

GOAL: 3 Maintain staff benefits program for eligible employees and retirees

OBJECTIVE: 1 Provide staff benefits to eligible employees and retirees — Service Categories:

STRATEGY: 1 Provide funding for staff group insurance premiums — Service: 06 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
Objects of Expense:						
1002	OTHER PERSONNEL COSTS	$37,638	$0	$0	$0	$0
2009	OTHER OPERATING EXPENSE	$2,734,200	$2,854,993	$2,912,093	$2,941,214	$2,941,214
TOTAL, OBJECT OF EXPENSE		**$2,771,838**	**$2,854,993**	**$2,912,093**	**$2,941,214**	**$2,941,214**
Method of Financing:						
555	Federal Funds					
10.001.000	AGRICULTURAL RESEARCH BAS	$73	$73	$74	$75	$75
10.025.000	Plant and Animal Disease	$1,162	$1,197	$1,221	$1,233	$1,233
10.310.000	Agriculture Food Research (AFRI)	$2,126	$2,189	$2,233	$2,256	$2,256
11.419.000	Coastal Zone Management	$333	$343	$350	$353	$353
11.467.000	Hydrometeorological Development	$5,573	$5,740	$5,855	$5,913	$5,913
11.609.000	Measurement and Engineer	$11,272	$11,610	$11,842	$11,961	$11,961
12.000.000	DOD MAINTENANCE	$31,948	$32,907	$33,565	$33,900	$33,900
12.101.000	Beach Erosion Control Pr	$797	$821	$838	$846	$846
12.107.000	Navigation Projects	$438	$451	$460	$465	$465
12.114.000	Collaborative Research a	$1,779	$1,832	$1,869	$1,887	$1,887
12.300.000	Basic and Applied Scient	$50,556	$52,072	$53,114	$53,645	$53,645
12.351.000	Combating Wpns of Mass Destruction	$3,203	$3,299	$3,365	$3,399	$3,399
12.420.000	Military Medical Researc	$5,072	$5,224	$5,328	$5,382	$5,382
12.431.000	Basic Scientific Researc	$33,080	$34,073	$34,754	$35,102	$35,102

712 Texas A&M Engineering Experiment Station

GOAL: 3 Maintain staff benefits program for eligible employees and retirees

OBJECTIVE: 1 Provide staff benefits to eligible employees and retirees — Service Categories:

STRATEGY: 1 Provide funding for staff group insurance premiums — Service: 06 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
12.630.000	Basic, Applied, and Adva	$4,990	$5,140	$5,243	$5,295	$5,295
12.800.000	Air Force Defense Resear	$138,774	$142,936	$145,795	$147,253	$147,253
12.902.000	Information Security Gra	$5,661	$5,830	$5,947	$6,007	$6,007
12.910.000	Research and Technology	$38,289	$39,438	$40,227	$40,629	$40,629
15.441.000	Safety and Envir. Enforc Rsch&Data	$40,589	$41,807	$42,643	$43,069	$43,069
19.033.000	Global Threat Reduction	$3,340	$3,440	$3,509	$3,544	$3,544
20.108.000	Aviation Research Grants	$7,754	$7,987	$8,147	$8,228	$8,228
20.109.000	Air Transportation Cente	$226	$233	$238	$240	$240
20.200.000	Highway Research and Development	$312	$321	$328	$331	$331
20.701.000	University Transportation	$8,528	$8,784	$8,959	$9,049	$9,049
20.931.000	Trans. Planning Research & Ed	$3,793	$3,907	$3,985	$4,025	$4,025
43.001.000	Aerospace Education Servi	$2,499	$2,574	$2,626	$2,652	$2,652
43.002.000	Technology Transfer	$43,433	$44,735	$45,630	$46,086	$46,086
43.007.000	Space Operations	$5,964	$6,143	$6,266	$6,329	$6,329
43.008.000	TEES Project B5310 - Education	$2,894	$2,981	$3,040	$3,071	$3,071
43.009.000	TEES Project B5110-Crss Agncy Spprt	$2,809	$2,893	$2,951	$2,980	$2,980
43.012.000	Space Technology	$7,225	$7,442	$7,591	$7,666	$7,666
47.000.000	NATIONAL SCIENCE FOUNDATI	$6,233	$6,420	$6,548	$6,613	$6,613
47.041.000	Engineering Grants	$310,644	$319,963	$326,362	$329,626	$329,626
47.049.000	Mathematical and Physical	$42,776	$44,060	$44,941	$45,390	$45,390
47.050.000	Geosciences	$7,902	$8,139	$8,301	$8,385	$8,385
47.070.000	Computer and Information	$135,526	$139,592	$142,384	$143,807	$143,807

712 Texas A&M Engineering Experiment Station

GOAL: 3 Maintain staff benefits program for eligible employees and retirees

OBJECTIVE: 1 Provide staff benefits to eligible employees and retirees — Service Categories:

STRATEGY: 1 Provide funding for staff group insurance premiums — Service: 06 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
47.074.000	Biological Sciences	$8,812	$9,076	$9,257	$9,350	$9,350
47.075.000	Social, Behavioral, and	$7,604	$7,833	$7,989	$8,069	$8,069
47.076.000	Education and Human Reso	$28,081	$28,924	$29,502	$29,797	$29,797
47.079.000	International Science & Engineering	$844	$870	$887	$896	$896
47.080.000	Office of Cyber Infrastructure	$234	$241	$246	$249	$249
77.006.000	Nuclear Education Grant Program	$839	$864	$881	$890	$890
77.008.000	US Nuclear Scholarship & Fellowship	$12,709	$13,091	$13,352	$13,486	$13,486
77.009.000	NCR Office of Rsrch Fin Assist Prog	$2,085	$2,147	$2,190	$2,212	$2,212
81.041.000	State Energy Conservation	$2,867	$2,953	$3,012	$3,042	$3,042
81.086.000	Conservation Research and	$23,069	$23,761	$24,236	$24,478	$24,478
81.087.000	Renewable Energy Research	$17,618	$18,147	$18,510	$18,695	$18,695
81.089.000	Fossil Energy Research an	$14,508	$14,944	$15,243	$15,395	$15,395
81.104.000	Technology Development fo	$5,090	$5,243	$5,348	$5,401	$5,401
81.113.000	NONPROLIFERATION & SECURI	$3,954	$4,073	$4,154	$4,196	$4,196
81.117.000	Energy Efficiency	$6,002	$6,182	$6,305	$6,368	$6,368
81.121.000	Nuclear Energy Research, Dev & Demo	$130,956	$134,885	$137,582	$138,958	$138,958
81.122.000	Elctrcty Dlvry & Rliblty-Stimulus	$27,104	$27,917	$28,475	$28,760	$28,760
81.135.000	ARPA Enrgy Fin Asstnc Prog-Stimulus	$54,943	$56,591	$57,723	$58,300	$58,300
93.000.000	National Death Index	$4,580	$4,718	$4,812	$4,860	$4,860
93.084.000	Prevention/Infectious Diseases	$2,922	$3,009	$3,070	$3,100	$3,100
93.113.000	Biological Response to En	$7,411	$7,634	$7,786	$7,864	$7,864
93.121.000	Oral Diseases and Disorde	$12,154	$12,519	$12,769	$12,897	$12,897

712 Texas A&M Engineering Experiment Station

GOAL: 3 Maintain staff benefits program for eligible employees and retirees

OBJECTIVE: 1 Provide staff benefits to eligible employees and retirees — Service Categories:

STRATEGY: 1 Provide funding for staff group insurance premiums — Service: 06 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
93.173.000	Research Related to Deafn	$4,172	$4,297	$4,383	$4,427	$4,427
93.283.000	CENTERS FOR DISEASE CONTR	$385	$397	$405	$409	$409
93.286.000	Biomedical Imaging Research	$25,128	$25,882	$26,400	$26,664	$26,664
93.310.000	Trans-NIH Research Support	$4,230	$4,357	$4,444	$4,489	$4,489
93.360.000	Biomedical Adv Rsc & Dev. Authority	$23,449	$24,153	$24,636	$24,882	$24,882
93.393.000	Cancer Cause and Preventi	$3,425	$3,528	$3,599	$3,635	$3,635
93.394.000	Cancer Detection and Diag	$4,138	$4,263	$4,348	$4,391	$4,391
93.558.000	Temp AssistNeedy Families	$1,703	$1,754	$1,789	$1,807	$1,807
93.837.000	Cardiovascular Diseases Research	$1,848	$1,903	$1,941	$1,961	$1,961
93.846.000	Arthritis, Musculoskeleta	$8,467	$8,721	$8,895	$8,984	$8,984
93.847.000	Diabetes, Endocrinology a	$3,219	$3,316	$3,382	$3,416	$3,416
93.853.000	Clinical Research Related	$18,651	$19,210	$19,594	$19,790	$19,790
93.855.000	Allergy, Immunology and T	$21,749	$22,401	$22,849	$23,078	$23,078
93.859.000	Biomedical Research and Research Tr	$5,200	$5,356	$5,463	$5,518	$5,518
93.865.000	Child Health & Human Dvlpmt	$312	$322	$328	$331	$331
93.866.000	Aging Research	$2,121	$2,185	$2,228	$2,251	$2,251
97.000.000	Misc Pymnts Dept Of Hmlnd Security	$6,172	$6,358	$6,485	$6,550	$6,550
97.061.000	Centers for Homeland Security	$26,251	$27,038	$27,579	$27,855	$27,855
97.077.000	Rsrch Related to Nuclear Detection	$1,481	$1,526	$1,556	$1,572	$1,572
98.001.000	USAid Asst for Programs Overseas	$531	$543	$561	$565	$565
CFDA Subtotal, Fund	555	$1,504,591	$1,549,728	$1,580,723	$1,596,530	$1,596,530

712 Texas A&M Engineering Experiment Station

GOAL: 3 Maintain staff benefits program for eligible employees and retirees

OBJECTIVE: 1 Provide staff benefits to eligible employees and retirees — Service Categories:

STRATEGY: 1 Provide funding for staff group insurance premiums — Service: 06 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
SUBTOTAL, MOF (FEDERAL FUNDS)		**$1,504,591**	**$1,549,728**	**$1,580,723**	**$1,596,530**	**$1,596,530**
Method of Financing:						
997	Other Funds, estimated	$1,267,247	$1,305,265	$1,331,370	$1,344,684	$1,344,684
SUBTOTAL, MOF (OTHER FUNDS)		**$1,267,247**	**$1,305,265**	**$1,331,370**	**$1,344,684**	**$1,344,684**
TOTAL, METHOD OF FINANCE (INCLUDING RIDERS)					**$2,941,214**	**$2,941,214**
TOTAL, METHOD OF FINANCE (EXCLUDING RIDERS)		**$2,771,838**	**$2,854,993**	**$2,912,093**	**$2,941,214**	**$2,941,214**

FULL TIME EQUIVALENT POSITIONS:

STRATEGY DESCRIPTION AND JUSTIFICATION:

To provide funds to support the state group insurance contribution for the basic health insurance coverage as mandated by the Texas State College and University Employees Uniform Insurance Benefits Act, Section 3.50-3 of the Texas Insurance Code. The amount requested has been determined by using the individual contribution amounts prescribed in the Appropriations Act.

EXTERNAL/INTERNAL FACTORS IMPACTING STRATEGY:

712 Texas A&M Engineering Experiment Station

GOAL: 3 Maintain staff benefits program for eligible employees and retirees

OBJECTIVE: 1 Provide staff benefits to eligible employees and retirees — Service Categories:

STRATEGY: 1 Provide funding for staff group insurance premiums — Service: 06 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021

EXPLANATION OF BIENNIAL CHANGE (includes Rider amounts):

STRATEGY BIENNIAL TOTAL - ALL FUNDS		BIENNIAL	EXPLANATION OF BIENNIAL CHANGE	
Base Spending (Est 2018 + Bud 2019)	Baseline Request (BL 2020 + BL 2021)	CHANGE	$ Amount	Explanation(s) of Amount (must specify MOFs and FTEs)
$5,767,086	$5,882,428	$115,342	$115,342	The incremental change is an increase in benefits is associated with the corresponding growth in FTE's and salaries.
			$115,342	**Total of Explanation of Biennial Change**

712 Texas A&M Engineering Experiment Station

GOAL: 3 Maintain staff benefits program for eligible employees and retirees

OBJECTIVE: 1 Provide staff benefits to eligible employees and retirees — Service Categories:

STRATEGY: 2 Provide funding for workers' compensation insurance — Service: 06 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
Objects of Expense:						
2009	OTHER OPERATING EXPENSE	$49,758	$50,752	$51,768	$52,285	$52,285
TOTAL, OBJECT OF EXPENSE		**$49,758**	**$50,752**	**$51,768**	**$52,285**	**$52,285**
Method of Financing:						
555	Federal Funds					
10.001.000	AGRICULTURAL RESEARCH BAS	$2	$1	$1	$1	$1
10.025.000	Plant and Animal Disease	$20	$18	$19	$19	$19
10.310.000	Agriculture Food Research (AFRI)	$37	$37	$38	$39	$39
11.419.000	Coastal Zone Management	$6	$6	$6	$6	$6
11.467.000	Hydrometeorological Development	$96	$98	$100	$101	$101
11.609.000	Measurement and Engineer	$194	$198	$202	$204	$204
12.000.000	DOD MAINTENANCE	$551	$562	$573	$579	$579
12.101.000	Beach Erosion Control Pr	$14	$14	$14	$14	$14
12.107.000	Navigation Projects	$8	$8	$8	$8	$8
12.114.000	Collaborative Research a	$31	$31	$32	$32	$32
12.300.000	Basic and Applied Scient	$871	$889	$907	$916	$916
12.351.000	Combating Wpns of Mass Destruction	$55	$56	$57	$58	$58
12.420.000	Military Medical Researc	$87	$89	$91	$92	$92
12.431.000	Basic Scientific Researc	$570	$582	$593	$599	$599
12.630.000	Basic, Applied, and Adva	$86	$88	$89	$90	$90

712 Texas A&M Engineering Experiment Station

GOAL: 3 Maintain staff benefits program for eligible employees and retirees

OBJECTIVE: 1 Provide staff benefits to eligible employees and retirees — Service Categories:

STRATEGY: 2 Provide funding for workers' compensation insurance — Service: 06 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
12.800.000	Air Force Defense Resear	$2,392	$2,440	$2,489	$2,514	$2,514
12.902.000	Information Security Gra	$98	$100	$102	$103	$103
12.910.000	Research and Technology	$660	$673	$687	$694	$694
15.441.000	Safety and Envir. Enforc Rsch&Data	$700	$714	$728	$735	$735
19.033.000	Global Threat Reduction	$58	$59	$60	$60	$60
20.108.000	Aviation Research Grants	$134	$136	$139	$140	$140
20.109.000	Air Transportation Cente	$4	$4	$4	$4	$4
20.200.000	Highway Research and Development	$5	$5	$6	$6	$6
20.701.000	University Transportation	$147	$150	$153	$154	$154
20.931.000	Trans. Planning Research & Ed	$65	$67	$68	$69	$69
43.001.000	Aerospace Education Servi	$43	$44	$45	$45	$45
43.002.000	Technology Transfer	$749	$764	$779	$787	$787
43.007.000	Space Operations	$103	$105	$107	$108	$108
43.008.000	TEES Project B5310 - Education	$50	$51	$52	$52	$52
43.009.000	TEES Project B5110-Crss Agncy Spprt	$48	$49	$50	$51	$51
43.012.000	Space Technology	$125	$127	$130	$131	$131
47.000.000	NATIONAL SCIENCE FOUNDATI	$107	$110	$112	$113	$113
47.041.000	Engineering Grants	$5,355	$5,462	$5,571	$5,627	$5,627
47.049.000	Mathematical and Physical	$737	$752	$767	$775	$775
47.050.000	Geosciences	$136	$139	$142	$143	$143
47.070.000	Computer and Information	$2,336	$2,383	$2,430	$2,455	$2,455
47.074.000	Biological Sciences	$152	$155	$158	$160	$160

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GOAL: 3 Maintain staff benefits program for eligible employees and retirees

OBJECTIVE: 1 Provide staff benefits to eligible employees and retirees — Service Categories:

STRATEGY: 2 Provide funding for workers' compensation insurance — Service: 06 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
47.075.000	Social, Behavioral, and	$131	$134	$136	$138	$138
47.076.000	Education and Human Reso	$484	$494	$504	$509	$509
47.079.000	International Science & Engineering	$15	$15	$15	$15	$15
47.080.000	Office of Cyber Infrastructure	$4	$4	$4	$4	$4
77.006.000	Nuclear Education Grant Program	$14	$15	$15	$15	$15
77.008.000	US Nuclear Scholarship & Fellowship	$219	$223	$228	$230	$230
77.009.000	NCR Office of Rsrch Fin Assist Prog	$36	$37	$37	$38	$38
81.041.000	State Energy Conservation	$49	$50	$51	$52	$52
81.086.000	Conservation Research and	$398	$406	$414	$418	$418
81.087.000	Renewable Energy Research	$304	$310	$316	$319	$319
81.089.000	Fossil Energy Research an	$250	$255	$260	$263	$263
81.104.000	Technology Development fo	$88	$89	$91	$92	$92
81.113.000	NONPROLIFERATION & SECURI	$68	$70	$71	$72	$72
81.117.000	Energy Efficiency	$103	$106	$108	$109	$109
81.121.000	Nuclear Energy Research, Dev & Demo	$2,257	$2,302	$2,348	$2,372	$2,372
81.122.000	Elctrcty Dlvry & Rliblty-Stimulus	$467	$477	$486	$491	$491
81.135.000	ARPA Enrgy Fin Asstnc Prog-Stimulus	$947	$966	$985	$995	$995
93.000.000	National Death Index	$79	$81	$82	$83	$83
93.084.000	Prevention/Infectious Diseases	$50	$51	$52	$53	$53
93.113.000	Biological Response to En	$128	$130	$133	$134	$134
93.121.000	Oral Diseases and Disorde	$210	$214	$218	$220	$220
93.173.000	Research Related to Deafn	$72	$73	$75	$76	$76

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GOAL: 3 Maintain staff benefits program for eligible employees and retirees

OBJECTIVE: 1 Provide staff benefits to eligible employees and retirees — Service Categories:

STRATEGY: 2 Provide funding for workers' compensation insurance — Service: 06 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
93.283.000	CENTERS FOR DISEASE CONTR	$7	$7	$7	$7	$7
93.286.000	Biomedical Imaging Research	$433	$442	$451	$455	$455
93.310.000	Trans-NIH Research Support	$73	$74	$76	$77	$77
93.360.000	Biomedical Adv Rsc & Dev. Authority	$404	$412	$421	$425	$425
93.393.000	Cancer Cause and Preventi	$59	$60	$61	$62	$62
93.394.000	Cancer Detection and Diag	$71	$73	$74	$75	$75
93.558.000	Temp AssistNeedy Families	$29	$30	$31	$31	$31
93.837.000	Cardiovascular Diseases Research	$32	$32	$33	$33	$33
93.846.000	Arthritis, Musculoskeleta	$146	$149	$152	$153	$153
93.847.000	Diabetes, Endocrinology a	$55	$57	$58	$58	$58
93.853.000	Clinical Research Related	$321	$328	$334	$338	$338
93.855.000	Allergy, Immunology and T	$375	$382	$390	$394	$394
93.859.000	Biomedical Research and Research Tr	$90	$91	$93	$94	$94
93.865.000	Child Health & Human Dvlpmt	$5	$5	$6	$6	$6
93.866.000	Aging Research	$37	$37	$38	$38	$38
97.000.000	Misc Pymnts Dept Of Hmlnd Security	$106	$109	$111	$112	$112
97.061.000	Centers for Homeland Security	$452	$462	$471	$475	$475
97.077.000	Rsrch Related to Nuclear Detection	$26	$26	$27	$27	$27
98.001.000	USAid Asst for Programs Overseas	$9	$9	$10	$10	$10
CFDA Subtotal, Fund	555	$25,935	$26,453	$26,982	$27,252	$27,252

712 Texas A&M Engineering Experiment Station

GOAL: 3 Maintain staff benefits program for eligible employees and retirees

OBJECTIVE: 1 Provide staff benefits to eligible employees and retirees — Service Categories:

STRATEGY: 2 Provide funding for workers' compensation insurance — Service: 06 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
SUBTOTAL, MOF (FEDERAL FUNDS)		**$25,935**	**$26,453**	**$26,982**	**$27,252**	**$27,252**
Method of Financing:						
997	Other Funds, estimated	$23,823	$24,299	$24,786	$25,033	$25,033
SUBTOTAL, MOF (OTHER FUNDS)		**$23,823**	**$24,299**	**$24,786**	**$25,033**	**$25,033**
TOTAL, METHOD OF FINANCE (INCLUDING RIDERS)					**$52,285**	**$52,285**
TOTAL, METHOD OF FINANCE (EXCLUDING RIDERS)		**$49,758**	**$50,752**	**$51,768**	**$52,285**	**$52,285**

FULL TIME EQUIVALENT POSITIONS:

STRATEGY DESCRIPTION AND JUSTIFICATION:

To provide legislatively authorized staff benefits for employees as provided in Title 5, Subchapter 502 of The Texas Labor Code.

EXTERNAL/INTERNAL FACTORS IMPACTING STRATEGY:

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GOAL: 3 Maintain staff benefits program for eligible employees and retirees

OBJECTIVE: 1 Provide staff benefits to eligible employees and retirees — Service Categories:

STRATEGY: 2 Provide funding for workers' compensation insurance — Service: 06 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021

EXPLANATION OF BIENNIAL CHANGE (includes Rider amounts):

STRATEGY BIENNIAL TOTAL - ALL FUNDS		BIENNIAL	EXPLANATION OF BIENNIAL CHANGE	
Base Spending (Est 2018 + Bud 2019)	Baseline Request (BL 2020 + BL 2021)	CHANGE	$ Amount	Explanation(s) of Amount (must specify MOFs and FTEs)
$102,520	$104,570	$2,050	$2,050	The incremental change is an increase in benefits is associated with the corresponding growth in FTE's and salaries.
			$2,050	**Total of Explanation of Biennial Change**

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GOAL: 3 Maintain staff benefits program for eligible employees and retirees

OBJECTIVE: 1 Provide staff benefits to eligible employees and retirees — Service Categories:

STRATEGY: 3 Provide funding for unemployment insurance — Service: 06 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
Objects of Expense:						
2009	OTHER OPERATING EXPENSE	$24,623	$25,869	$26,386	$26,650	$26,650
TOTAL, OBJECT OF EXPENSE		**$24,623**	**$25,869**	**$26,386**	**$26,650**	**$26,650**
Method of Financing:						
555	Federal Funds					
10.001.000	AGRICULTURAL RESEARCH BAS	$1	$0	$0	$0	$0
10.025.000	Plant and Animal Disease	$8	$4	$4	$4	$4
10.310.000	Agriculture Food Research (AFRI)	$20	$14	$14	$14	$14
11.419.000	Coastal Zone Management	$3	$2	$2	$2	$2
11.467.000	Hydrometeorological Development	$53	$38	$38	$38	$38
11.609.000	Measurement and Engineer	$108	$77	$77	$77	$77
12.000.000	DOD MAINTENANCE	$305	$217	$217	$217	$217
12.101.000	Beach Erosion Control Pr	$8	$5	$5	$5	$5
12.107.000	Navigation Projects	$4	$3	$3	$3	$3
12.114.000	Collaborative Research a	$17	$12	$12	$12	$12
12.300.000	Basic and Applied Scient	$483	$344	$344	$344	$344
12.351.000	Combating Wpns of Mass Destruction	$31	$22	$22	$22	$22
12.420.000	Military Medical Researc	$48	$35	$35	$35	$35
12.431.000	Basic Scientific Researc	$316	$225	$225	$225	$225
12.630.000	Basic, Applied, and Adva	$48	$34	$34	$34	$34

712 Texas A&M Engineering Experiment Station

GOAL: 3 Maintain staff benefits program for eligible employees and retirees

OBJECTIVE: 1 Provide staff benefits to eligible employees and retirees — Service Categories:

STRATEGY: 3 Provide funding for unemployment insurance — Service: 06 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
12.800.000	Air Force Defense Resear	$1,325	$944	$944	$944	$944
12.902.000	Information Security Gra	$54	$39	$39	$39	$39
12.910.000	Research and Technology	$366	$260	$260	$260	$260
15.441.000	Safety and Envir. Enforc Rsch&Data	$388	$276	$276	$276	$276
19.033.000	Global Threat Reduction	$32	$23	$23	$23	$23
20.108.000	Aviation Research Grants	$74	$53	$53	$53	$53
20.109.000	Air Transportation Cente	$2	$2	$2	$2	$2
20.200.000	Highway Research and Development	$3	$2	$2	$2	$2
20.701.000	University Transportation	$81	$58	$58	$58	$58
20.931.000	Trans. Planning Research & Ed	$36	$26	$26	$26	$26
43.001.000	Aerospace Education Servi	$24	$17	$17	$17	$17
43.002.000	Technology Transfer	$415	$295	$295	$295	$295
43.007.000	Space Operations	$57	$41	$41	$41	$41
43.008.000	TEES Project B5310 - Education	$28	$20	$20	$20	$20
43.009.000	TEES Project B5110-Crss Agncy Spprt	$27	$19	$19	$19	$19
43.012.000	Space Technology	$69	$49	$49	$49	$49
47.000.000	NATIONAL SCIENCE FOUNDATI	$60	$42	$42	$42	$42
47.041.000	Engineering Grants	$2,966	$2,113	$2,113	$2,113	$2,113
47.049.000	Mathematical and Physical	$408	$291	$291	$291	$291
47.050.000	Geosciences	$75	$54	$54	$54	$54
47.070.000	Computer and Information	$1,294	$922	$922	$922	$922
47.074.000	Biological Sciences	$84	$60	$60	$60	$60

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GOAL: 3 Maintain staff benefits program for eligible employees and retirees

OBJECTIVE: 1 Provide staff benefits to eligible employees and retirees — Service Categories:

STRATEGY: 3 Provide funding for unemployment insurance — Service: 06 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
47.075.000	Social, Behavioral, and	$73	$52	$52	$52	$52
47.076.000	Education and Human Reso	$268	$191	$191	$191	$191
47.079.000	International Science & Engineering	$8	$6	$6	$6	$6
47.080.000	Office of Cyber Infrastructure	$2	$2	$2	$2	$2
77.006.000	Nuclear Education Grant Program	$8	$6	$6	$6	$6
77.008.000	US Nuclear Scholarship & Fellowship	$121	$86	$86	$86	$86
77.009.000	NCR Office of Rsrch Fin Assist Prog	$20	$14	$14	$14	$14
81.041.000	State Energy Conservation	$27	$20	$20	$20	$20
81.086.000	Conservation Research and	$220	$157	$157	$157	$157
81.087.000	Renewable Energy Research	$168	$120	$120	$120	$120
81.089.000	Fossil Energy Research an	$139	$99	$99	$99	$99
81.104.000	Technology Development fo	$49	$35	$35	$35	$35
81.113.000	NONPROLIFERATION & SECURI	$38	$27	$27	$27	$27
81.117.000	Energy Efficiency	$57	$41	$41	$41	$41
81.121.000	Nuclear Energy Research, Dev & Demo	$1,250	$891	$891	$891	$891
81.122.000	Elctrcty Dlvry & Rliblty-Stimulus	$259	$184	$184	$184	$184
81.135.000	ARPA Enrgy Fin Asstnc Prog-Stimulus	$525	$374	$374	$374	$374
93.000.000	National Death Index	$44	$31	$31	$31	$31
93.084.000	Prevention/Infectious Diseases	$28	$20	$20	$20	$20
93.113.000	Biological Response to En	$71	$50	$50	$50	$50
93.121.000	Oral Diseases and Disorde	$116	$83	$83	$83	$83
93.173.000	Research Related to Deafn	$40	$28	$28	$28	$28

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GOAL: 3 Maintain staff benefits program for eligible employees and retirees

OBJECTIVE: 1 Provide staff benefits to eligible employees and retirees — Service Categories:

STRATEGY: 3 Provide funding for unemployment insurance — Service: 06 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
93.283.000	CENTERS FOR DISEASE CONTR	$4	$3	$3	$3	$3
93.286.000	Biomedical Imaging Research	$240	$171	$171	$171	$171
93.310.000	Trans-NIH Research Support	$40	$29	$29	$29	$29
93.360.000	Biomedical Adv Rsc & Dev. Authority	$224	$160	$160	$160	$160
93.393.000	Cancer Cause and Preventi	$33	$23	$23	$23	$23
93.394.000	Cancer Detection and Diag	$40	$28	$28	$28	$28
93.558.000	Temp AssistNeedy Families	$16	$12	$12	$12	$12
93.837.000	Cardiovascular Diseases Research	$18	$13	$13	$13	$13
93.846.000	Arthritis, Musculoskeleta	$81	$58	$58	$58	$58
93.847.000	Diabetes, Endocrinology a	$31	$22	$22	$22	$22
93.853.000	Clinical Research Related	$178	$127	$127	$127	$127
93.855.000	Allergy, Immunology and T	$208	$148	$148	$148	$148
93.859.000	Biomedical Research and Research Tr	$50	$35	$35	$35	$35
93.865.000	Child Health & Human Dvlpmt	$3	$2	$2	$2	$2
93.866.000	Aging Research	$20	$14	$14	$14	$14
97.000.000	Misc Pymnts Dept Of Hmlnd Security	$59	$42	$42	$42	$42
97.061.000	Centers for Homeland Security	$251	$179	$179	$179	$179
97.077.000	Rsrch Related to Nuclear Detection	$14	$10	$10	$10	$10
98.001.000	USAid Asst for Programs Overseas	$5	$4	$4	$4	$4
CFDA Subtotal, Fund	555	$14,367	$10,235	$10,235	$10,235	$10,235

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GOAL: 3 Maintain staff benefits program for eligible employees and retirees

OBJECTIVE: 1 Provide staff benefits to eligible employees and retirees — Service Categories:

STRATEGY: 3 Provide funding for unemployment insurance — Service: 06 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
SUBTOTAL, MOF (FEDERAL FUNDS)		**$14,367**	**$10,235**	**$10,235**	**$10,235**	**$10,235**
Method of Financing:						
997	Other Funds, estimated	$10,256	$10,256	$10,256	$12,283	$12,283
8089	Indirect Cost Recov, Loc Held, est	$0	$5,378	$5,895	$4,132	$4,132
SUBTOTAL, MOF (OTHER FUNDS)		**$10,256**	**$15,634**	**$16,151**	**$16,415**	**$16,415**
TOTAL, METHOD OF FINANCE (INCLUDING RIDERS)					**$26,650**	**$26,650**
TOTAL, METHOD OF FINANCE (EXCLUDING RIDERS)		**$24,623**	**$25,869**	**$26,386**	**$26,650**	**$26,650**

FULL TIME EQUIVALENT POSITIONS:

STRATEGY DESCRIPTION AND JUSTIFICATION:

To provide funds for the statutorily mandated unemployment compensation insurance program (Article 8309b, V.T.C.S.). This program provides partial income continuation for regular employees impacted by reductions in force. The program is part of a total compensation and benefit package that is designed to assist in attracting and retaining quality employees.

EXTERNAL/INTERNAL FACTORS IMPACTING STRATEGY:

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GOAL: 3 Maintain staff benefits program for eligible employees and retirees

OBJECTIVE: 1 Provide staff benefits to eligible employees and retirees — Service Categories:

STRATEGY: 3 Provide funding for unemployment insurance — Service: 06 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021

EXPLANATION OF BIENNIAL CHANGE (includes Rider amounts):

STRATEGY BIENNIAL TOTAL - ALL FUNDS		BIENNIAL	EXPLANATION OF BIENNIAL CHANGE	
Base Spending (Est 2018 + Bud 2019)	Baseline Request (BL 2020 + BL 2021)	CHANGE	$ Amount	Explanation(s) of Amount (must specify MOFs and FTEs)
$52,255	$53,300	$1,045	$1,045	Changes reflect growth and changes in funding sources as appropriate.
			$1,045	**Total of Explanation of Biennial Change**

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GOAL: 3 Maintain staff benefits program for eligible employees and retirees

OBJECTIVE: 1 Provide staff benefits to eligible employees and retirees — Service Categories:

STRATEGY: 4 Provide funding for OASI — Service: 06 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
Objects of Expense:						
2009	OTHER OPERATING EXPENSE	$994,960	$1,045,305	$1,044,094	$1,054,535	$1,054,535
TOTAL, OBJECT OF EXPENSE		**$994,960**	**$1,045,305**	**$1,044,094**	**$1,054,535**	**$1,054,535**
Method of Financing:						
555	Federal Funds					
10.001.000	AGRICULTURAL RESEARCH BAS	$26	$32	$32	$32	$32
10.025.000	Plant and Animal Disease	$452	$472	$472	$472	$472
10.310.000	Agriculture Food Research (AFRI)	$827	$864	$864	$864	$864
11.419.000	Coastal Zone Management	$130	$135	$135	$135	$135
11.467.000	Hydrometeorological Development	$2,168	$2,265	$2,265	$2,265	$2,265
11.609.000	Measurement and Engineer	$4,386	$4,582	$4,582	$4,582	$4,582
12.000.000	DOD MAINTENANCE	$12,431	$12,986	$12,986	$12,986	$12,986
12.101.000	Beach Erosion Control Pr	$310	$324	$324	$324	$324
12.107.000	Navigation Projects	$171	$178	$178	$178	$178
12.114.000	Collaborative Research a	$692	$723	$723	$723	$723
12.300.000	Basic and Applied Scient	$19,671	$20,549	$20,549	$20,549	$20,549
12.351.000	Combating Wpns of Mass Destruction	$1,246	$1,302	$1,302	$1,302	$1,302
12.420.000	Military Medical Researc	$1,973	$2,062	$2,062	$2,062	$2,062
12.431.000	Basic Scientific Researc	$12,872	$13,446	$13,446	$13,446	$13,446
12.630.000	Basic, Applied, and Adva	$1,942	$2,028	$2,028	$2,028	$2,028

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GOAL: 3 Maintain staff benefits program for eligible employees and retirees

OBJECTIVE: 1 Provide staff benefits to eligible employees and retirees — Service Categories:

STRATEGY: 4 Provide funding for OASI — Service: 06 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
12.800.000	Air Force Defense Resear	$53,997	$56,407	$56,407	$56,407	$56,407
12.902.000	Information Security Gra	$2,203	$2,301	$2,301	$2,301	$2,301
12.910.000	Research and Technology	$14,898	$15,563	$15,563	$15,563	$15,563
15.441.000	Safety and Envir. Enforc Rsch&Data	$15,793	$16,498	$16,498	$16,498	$16,498
19.033.000	Global Threat Reduction	$1,300	$1,358	$1,358	$1,358	$1,358
20.108.000	Aviation Research Grants	$3,017	$3,152	$3,152	$3,152	$3,152
20.109.000	Air Transportation Cente	$88	$92	$92	$92	$92
20.200.000	Highway Research and Development	$121	$127	$127	$127	$127
20.701.000	University Transportation	$3,318	$3,466	$3,466	$3,466	$3,466
20.931.000	Trans. Planning Research & Ed	$1,476	$1,542	$1,542	$1,542	$1,542
43.001.000	Aerospace Education Servi	$972	$1,016	$1,016	$1,016	$1,016
43.002.000	Technology Transfer	$16,900	$17,654	$17,654	$17,654	$17,654
43.007.000	Space Operations	$2,321	$2,424	$2,424	$2,424	$2,424
43.008.000	TEES Project B5310 - Education	$1,126	$1,176	$1,176	$1,176	$1,176
43.009.000	TEES Project B5110-Crss Agncy Spprt	$1,093	$1,142	$1,142	$1,142	$1,142
43.012.000	Space Technology	$2,811	$2,937	$2,937	$2,937	$2,937
47.000.000	NATIONAL SCIENCE FOUNDATI	$2,425	$2,533	$2,533	$2,533	$2,533
47.041.000	Engineering Grants	$120,871	$126,267	$126,267	$126,267	$126,267
47.049.000	Mathematical and Physical	$16,644	$17,387	$17,387	$17,387	$17,387
47.050.000	Geosciences	$3,075	$3,212	$3,212	$3,212	$3,212
47.070.000	Computer and Information	$52,733	$55,087	$55,087	$55,087	$55,087
47.074.000	Biological Sciences	$3,429	$3,582	$3,582	$3,582	$3,582

712 Texas A&M Engineering Experiment Station

GOAL: 3 Maintain staff benefits program for eligible employees and retirees

OBJECTIVE: 1 Provide staff benefits to eligible employees and retirees — Service Categories:

STRATEGY: 4 Provide funding for OASI — Service: 06 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
47.075.000	Social, Behavioral, and	$2,959	$3,091	$3,091	$3,091	$3,091
47.076.000	Education and Human Reso	$10,926	$11,414	$11,414	$11,414	$11,414
47.079.000	International Science & Engineering	$329	$343	$343	$343	$343
47.080.000	Office of Cyber Infrastructure	$91	$95	$95	$95	$95
77.006.000	Nuclear Education Grant Program	$326	$341	$341	$341	$341
77.008.000	US Nuclear Scholarship & Fellowship	$4,945	$5,166	$5,166	$5,166	$5,166
77.009.000	NCR Office of Rsrch Fin Assist Prog	$811	$847	$847	$847	$847
81.041.000	State Energy Conservation	$1,116	$1,165	$1,165	$1,165	$1,165
81.086.000	Conservation Research and	$8,976	$9,377	$9,377	$9,377	$9,377
81.087.000	Renewable Energy Research	$6,855	$7,161	$7,161	$7,161	$7,161
81.089.000	Fossil Energy Research an	$5,645	$5,897	$5,897	$5,897	$5,897
81.104.000	Technology Development fo	$1,981	$2,069	$2,069	$2,069	$2,069
81.113.000	NONPROLIFERATION & SECURI	$1,539	$1,607	$1,607	$1,607	$1,607
81.117.000	Energy Efficiency	$2,335	$2,440	$2,440	$2,440	$2,440
81.121.000	Nuclear Energy Research, Dev & Demo	$50,955	$53,230	$53,230	$53,230	$53,230
81.122.000	Elctrcty Dlvry & Rliblty-Stimulus	$10,546	$11,017	$11,017	$11,017	$11,017
81.135.000	ARPA Enrgy Fin Asstnc Prog-Stimulus	$21,378	$22,333	$22,333	$22,333	$22,333
93.000.000	National Death Index	$1,782	$1,862	$1,862	$1,862	$1,862
93.084.000	Prevention/Infectious Diseases	$1,137	$1,188	$1,188	$1,188	$1,188
93.113.000	Biological Response to En	$2,884	$3,012	$3,012	$3,012	$3,012
93.121.000	Oral Diseases and Disorde	$4,729	$4,940	$4,940	$4,940	$4,940
93.173.000	Research Related to Deafn	$1,623	$1,696	$1,696	$1,696	$1,696

712 Texas A&M Engineering Experiment Station

GOAL: 3 Maintain staff benefits program for eligible employees and retirees

OBJECTIVE: 1 Provide staff benefits to eligible employees and retirees — Service Categories:

STRATEGY: 4 Provide funding for OASI — Service: 06 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
93.283.000	CENTERS FOR DISEASE CONTR	$150	$157	$157	$157	$157
93.286.000	Biomedical Imaging Research	$9,777	$10,214	$10,214	$10,214	$10,214
93.310.000	Trans-NIH Research Support	$1,646	$1,719	$1,719	$1,719	$1,719
93.360.000	Biomedical Adv Rsc & Dev. Authority	$9,124	$9,531	$9,531	$9,531	$9,531
93.393.000	Cancer Cause and Preventi	$1,333	$1,392	$1,392	$1,392	$1,392
93.394.000	Cancer Detection and Diag	$1,610	$1,682	$1,682	$1,682	$1,682
93.558.000	Temp AssistNeedy Families	$663	$692	$692	$692	$692
93.837.000	Cardiovascular Diseases Research	$719	$751	$751	$751	$751
93.846.000	Arthritis, Musculoskeleta	$3,295	$3,442	$3,442	$3,442	$3,442
93.847.000	Diabetes, Endocrinology a	$1,253	$1,309	$1,309	$1,309	$1,309
93.853.000	Clinical Research Related	$7,257	$7,581	$7,581	$7,581	$7,581
93.855.000	Allergy, Immunology and T	$8,463	$8,840	$8,840	$8,840	$8,840
93.859.000	Biomedical Research and Research Tr	$2,023	$2,114	$2,114	$2,114	$2,114
93.865.000	Child Health & Human Dvlpmt	$122	$127	$127	$127	$127
93.866.000	Aging Research	$825	$862	$862	$862	$862
97.000.000	Misc Pymnts Dept Of Hmlnd Security	$2,402	$2,509	$2,509	$2,509	$2,509
97.061.000	Centers for Homeland Security	$10,214	$10,670	$10,670	$10,670	$10,670
97.077.000	Rsrch Related to Nuclear Detection	$576	$602	$602	$602	$602
98.001.000	USAid Asst for Programs Overseas	$207	$216	$216	$216	$216
CFDA Subtotal, Fund	555	$585,435	$611,572	$611,572	$611,572	$611,572

712 Texas A&M Engineering Experiment Station

GOAL: 3 Maintain staff benefits program for eligible employees and retirees

OBJECTIVE: 1 Provide staff benefits to eligible employees and retirees — Service Categories:

STRATEGY: 4 Provide funding for OASI — Service: 06 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
SUBTOTAL, MOF (FEDERAL FUNDS)		**$585,435**	**$611,572**	**$611,572**	**$611,572**	**$611,572**
Method of Financing:						
997	Other Funds, estimated	$409,525	$99,420	$99,420	$109,861	$109,861
8089	Indirect Cost Recov, Loc Held, est	$0	$334,313	$333,102	$333,102	$333,102
SUBTOTAL, MOF (OTHER FUNDS)		**$409,525**	**$433,733**	**$432,522**	**$442,963**	**$442,963**
TOTAL, METHOD OF FINANCE (INCLUDING RIDERS)					**$1,054,535**	**$1,054,535**
TOTAL, METHOD OF FINANCE (EXCLUDING RIDERS)		**$994,960**	**$1,045,305**	**$1,044,094**	**$1,054,535**	**$1,054,535**

FULL TIME EQUIVALENT POSITIONS:

STRATEGY DESCRIPTION AND JUSTIFICATION:

To provide funds to support the employer's matching contribution to the Federal Insurance Contributions ACT (FICA). Past expenditures also include "state-paid social security" contributions which were eliminated by Senate Bill No. 102 (74th Legislature) and replaced with benefit replacement pay on compensation paid after December 31, 1995.

EXTERNAL/INTERNAL FACTORS IMPACTING STRATEGY:

712 Texas A&M Engineering Experiment Station

GOAL: 3 Maintain staff benefits program for eligible employees and retirees

OBJECTIVE: 1 Provide staff benefits to eligible employees and retirees — Service Categories:

STRATEGY: 4 Provide funding for OASI — Service: 06 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021

EXPLANATION OF BIENNIAL CHANGE (includes Rider amounts):

STRATEGY BIENNIAL TOTAL - ALL FUNDS		BIENNIAL	EXPLANATION OF BIENNIAL CHANGE	
Base Spending (Est 2018 + Bud 2019)	Baseline Request (BL 2020 + BL 2021)	CHANGE	$ Amount	Explanation(s) of Amount (must specify MOFs and FTEs)
$2,089,399	$2,109,070	$19,671	$19,671	Changes represent growth and changes in funding sources as appropriate.
			$19,671	**Total of Explanation of Biennial Change**

712 Texas A&M Engineering Experiment Station

GOAL: 3 Maintain staff benefits program for eligible employees and retirees

OBJECTIVE: 1 Provide staff benefits to eligible employees and retirees — Service Categories:

STRATEGY: 5 Optional Retirement Program Differential — Service: 06 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
Objects of Expense:						
1002	OTHER PERSONNEL COSTS	$31,059	$31,059	$31,059	$32,631	$32,631
TOTAL, OBJECT OF EXPENSE		**$31,059**	**$31,059**	**$31,059**	**$32,631**	**$32,631**
Method of Financing:						
1	General Revenue Fund	$0	$0	$0	$0	$0
SUBTOTAL, MOF (GENERAL REVENUE FUNDS)		**$0**	**$0**	**$0**	**$0**	**$0**
Method of Financing:						
555	Federal Funds					
10.025.000	Plant and Animal Disease	$7	$10	$10	$10	$10
10.103.000	2009 Aquaculture Grant Program	$13	$12	$12	$12	$12
11.419.000	Coastal Zone Management	$2	$2	$2	$2	$2
11.467.000	Hydrometeorological Development	$35	$31	$31	$31	$31
11.609.000	Measurement and Engineer	$71	$63	$63	$63	$63
12.000.000	DOD MAINTENANCE	$201	$178	$178	$178	$178
12.101.000	Beach Erosion Control Pr	$5	$4	$4	$4	$4
12.107.000	Navigation Projects	$3	$2	$2	$2	$2
12.114.000	Collaborative Research a	$11	$10	$10	$10	$10
12.300.000	Basic and Applied Scient	$318	$282	$282	$282	$282

712 Texas A&M Engineering Experiment Station

GOAL: 3 Maintain staff benefits program for eligible employees and retirees

OBJECTIVE: 1 Provide staff benefits to eligible employees and retirees — Service Categories:

STRATEGY: 5 Optional Retirement Program Differential — Service: 06 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
12.351.000	Combating Wpns of Mass Destruction	$20	$18	$18	$18	$18
12.420.000	Military Medical Researc	$32	$28	$28	$28	$28
12.431.000	Basic Scientific Researc	$208	$184	$184	$184	$184
12.630.000	Basic, Applied, and Adva	$31	$28	$28	$28	$28
12.800.000	Air Force Defense Resear	$872	$773	$773	$773	$773
12.902.000	Information Security Gra	$36	$32	$32	$32	$32
12.910.000	Research and Technology	$241	$213	$213	$213	$213
15.441.000	Safety and Envir. Enforc Rsch&Data	$255	$226	$226	$226	$226
19.033.000	Global Threat Reduction	$21	$19	$19	$19	$19
20.108.000	Aviation Research Grants	$49	$43	$43	$43	$43
20.109.000	Air Transportation Cente	$1	$1	$1	$1	$1
20.200.000	Highway Research and Development	$2	$2	$2	$2	$2
20.701.000	University Transportation	$54	$48	$48	$48	$48
20.931.000	Trans. Planning Research & Ed	$24	$21	$21	$21	$21
43.001.000	Aerospace Education Servi	$16	$14	$14	$14	$14
43.002.000	Technology Transfer	$273	$242	$242	$242	$242
43.007.000	Space Operations	$37	$33	$33	$33	$33
43.008.000	TEES Project B5310 - Education	$18	$16	$16	$16	$16
43.009.000	TEES Project B5110-Crss Agncy Spprt	$18	$16	$16	$16	$16
43.012.000	Space Technology	$45	$40	$40	$40	$40
47.000.000	NATIONAL SCIENCE FOUNDATI	$39	$35	$35	$35	$35
47.041.000	Engineering Grants	$1,951	$1,731	$1,731	$1,731	$1,731

712 Texas A&M Engineering Experiment Station

GOAL: 3 Maintain staff benefits program for eligible employees and retirees

OBJECTIVE: 1 Provide staff benefits to eligible employees and retirees — Service Categories:

STRATEGY: 5 Optional Retirement Program Differential — Service: 06 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
47.049.000	Mathematical and Physical	$269	$238	$238	$238	$238
47.050.000	Geosciences	$50	$44	$44	$44	$44
47.070.000	Computer and Information	$851	$755	$755	$755	$755
47.074.000	Biological Sciences	$55	$49	$49	$49	$49
47.075.000	Social, Behavioral, and	$48	$42	$42	$42	$42
47.076.000	Education and Human Reso	$176	$156	$156	$156	$156
47.079.000	International Science & Engineering	$5	$5	$5	$5	$5
47.080.000	Office of Cyber Infrastructure	$1	$1	$1	$1	$1
77.006.000	Nuclear Education Grant Program	$5	$5	$5	$5	$5
77.008.000	US Nuclear Scholarship & Fellowship	$80	$71	$71	$71	$71
77.009.000	NCR Office of Rsrch Fin Assist Prog	$13	$12	$12	$12	$12
81.041.000	State Energy Conservation	$18	$16	$16	$16	$16
81.086.000	Conservation Research and	$145	$129	$129	$129	$129
81.087.000	Renewable Energy Research	$111	$98	$98	$98	$98
81.089.000	Fossil Energy Research an	$91	$81	$81	$81	$81
81.104.000	Technology Development fo	$32	$28	$28	$28	$28
81.113.000	NONPROLIFERATION & SECURI	$25	$22	$22	$22	$22
81.117.000	Energy Efficiency	$38	$33	$33	$33	$33
81.121.000	Nuclear Energy Research, Dev & Demo	$823	$730	$730	$730	$730
81.122.000	Elctrcty Dlvry & Rliblty-Stimulus	$170	$151	$151	$151	$151
81.135.000	ARPA Enrgy Fin Asstnc Prog-Stimulus	$345	$306	$306	$306	$306
93.000.000	National Death Index	$29	$26	$26	$26	$26

712 Texas A&M Engineering Experiment Station

GOAL: 3 Maintain staff benefits program for eligible employees and retirees

OBJECTIVE: 1 Provide staff benefits to eligible employees and retirees — Service Categories:

STRATEGY: 5 Optional Retirement Program Differential — Service: 06 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
93.084.000	Prevention/Infectious Diseases	$18	$16	$16	$16	$16
93.113.000	Biological Response to En	$47	$41	$41	$41	$41
93.121.000	Oral Diseases and Disorde	$76	$68	$68	$68	$68
93.173.000	Research Related to Deafn	$26	$23	$23	$23	$23
93.283.000	CENTERS FOR DISEASE CONTR	$2	$2	$2	$2	$2
93.286.000	Biomedical Imaging Research	$158	$140	$140	$140	$140
93.310.000	Trans-NIH Research Support	$27	$24	$24	$24	$24
93.360.000	Biomedical Adv Rsc & Dev. Authority	$147	$131	$131	$131	$131
93.393.000	Cancer Cause and Preventi	$22	$19	$19	$19	$19
93.394.000	Cancer Detection and Diag	$26	$23	$23	$23	$23
93.558.000	Temp AssistNeedy Families	$11	$9	$9	$9	$9
93.837.000	Cardiovascular Diseases Research	$12	$10	$10	$10	$10
93.846.000	Arthritis, Musculoskeleta	$53	$47	$47	$47	$47
93.847.000	Diabetes, Endocrinology a	$20	$18	$18	$18	$18
93.853.000	Clinical Research Related	$117	$104	$104	$104	$104
93.855.000	Allergy, Immunology and T	$137	$121	$121	$121	$121
93.859.000	Biomedical Research and Research Tr	$33	$29	$29	$29	$29
93.865.000	Child Health & Human Dvlpmt	$2	$2	$2	$2	$2
93.866.000	Aging Research	$13	$12	$12	$12	$12
97.000.000	Misc Pymnts Dept Of Hmlnd Security	$39	$34	$34	$34	$34
97.061.000	Centers for Homeland Security	$165	$146	$146	$146	$146
97.077.000	Rsrch Related to Nuclear Detection	$9	$8	$8	$8	$8

712 Texas A&M Engineering Experiment Station

GOAL: 3 Maintain staff benefits program for eligible employees and retirees

OBJECTIVE: 1 Provide staff benefits to eligible employees and retirees — Service Categories:

STRATEGY: 5 Optional Retirement Program Differential — Service: 06 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
98.001.000	USAid Asst for Programs Overseas	$3	$3	$3	$3	$3
CFDA Subtotal, Fund 555		$9,452	$8,385	$8,385	$8,385	$8,385
SUBTOTAL, MOF (FEDERAL FUNDS)		**$9,452**	**$8,385**	**$8,385**	**$8,385**	**$8,385**
Method of Financing:						
997	Other Funds, estimated	$9,611	$19,072	$19,072	$20,644	$20,644
8089	Indirect Cost Recov, Loc Held, est	$11,996	$3,602	$3,602	$3,602	$3,602
SUBTOTAL, MOF (OTHER FUNDS)		**$21,607**	**$22,674**	**$22,674**	**$24,246**	**$24,246**
TOTAL, METHOD OF FINANCE (INCLUDING RIDERS)					**$32,631**	**$32,631**
TOTAL, METHOD OF FINANCE (EXCLUDING RIDERS)		**$31,059**	**$31,059**	**$31,059**	**$32,631**	**$32,631**

FULL TIME EQUIVALENT POSITIONS:

STRATEGY DESCRIPTION AND JUSTIFICATION:

To provide funds to support employer supplements allowed by Article III, Page 29, Rider 6 of the GAA. The program is part of a total compensation and benefit package designed to assist in attracting and retaining quality employees.

712 Texas A&M Engineering Experiment Station

GOAL: 3 Maintain staff benefits program for eligible employees and retirees

OBJECTIVE: 1 Provide staff benefits to eligible employees and retirees — Service Categories:

STRATEGY: 5 Optional Retirement Program Differential — Service: 06 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021

EXTERNAL/INTERNAL FACTORS IMPACTING STRATEGY:

EXPLANATION OF BIENNIAL CHANGE (includes Rider amounts):

STRATEGY BIENNIAL TOTAL - ALL FUNDS		BIENNIAL	EXPLANATION OF BIENNIAL CHANGE	
Base Spending (Est 2018 + Bud 2019)	Baseline Request (BL 2020 + BL 2021)	CHANGE	$ Amount	Explanation(s) of Amount (must specify MOFs and FTEs)
$62,118	$65,262	$3,144	$3,144	Changes reflect changes to fund sources as appropriate.
			$3,144	**Total of Explanation of Biennial Change**

712 Texas A&M Engineering Experiment Station

GOAL: 4 Indirect Administration

OBJECTIVE: 1 Indirect Administration — Service Categories:

STRATEGY: 1 Indirect Administration — Service: 09 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
Objects of Expense:						
1001	SALARIES AND WAGES	$3,558,298	$3,774,998	$3,774,998	$3,850,498	$3,850,498
1002	OTHER PERSONNEL COSTS	$84,194	$86,720	$86,720	$88,454	$88,454
1010	PROFESSIONAL SALARIES	$18,025	$18,566	$18,566	$18,937	$18,937
2001	PROFESSIONAL FEES AND SERVICES	$14,785	$15,229	$15,229	$15,381	$15,381
2007	RENT - MACHINE AND OTHER	$1,360	$1,400	$1,400	$1,414	$1,414
2009	OTHER OPERATING EXPENSE	$26,770	$27,572	$28,124	$28,405	$28,405
4000	GRANTS	$39,000	$40,170	$40,170	$40,572	$40,572
TOTAL, OBJECT OF EXPENSE		**$3,742,432**	**$3,964,655**	**$3,965,207**	**$4,043,661**	**$4,043,661**
Method of Financing:						
1	General Revenue Fund	$3,412,699	$3,394,753	$3,394,753	$3,394,753	$3,394,753
SUBTOTAL, MOF (GENERAL REVENUE FUNDS)		**$3,412,699**	**$3,394,753**	**$3,394,753**	**$3,394,753**	**$3,394,753**
Method of Financing:						
997	Other Funds, estimated	$254,709	$254,708	$254,709	$330,325	$330,325
8089	Indirect Cost Recov, Loc Held, est	$75,024	$315,194	$315,745	$318,583	$318,583
SUBTOTAL, MOF (OTHER FUNDS)		**$329,733**	**$569,902**	**$570,454**	**$648,908**	**$648,908**

712 Texas A&M Engineering Experiment Station

GOAL: 4 Indirect Administration
OBJECTIVE: 1 Indirect Administration — Service Categories:
STRATEGY: 1 Indirect Administration — Service: 09 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
TOTAL, METHOD OF FINANCE (INCLUDING RIDERS)					**$4,043,661**	**$4,043,661**
TOTAL, METHOD OF FINANCE (EXCLUDING RIDERS)		**$3,742,432**	**$3,964,655**	**$3,965,207**	**$4,043,661**	**$4,043,661**
FULL TIME EQUIVALENT POSITIONS:		**39.1**	**40.5**	**40.5**	**40.5**	**40.5**

STRATEGY DESCRIPTION AND JUSTIFICATION:

This activity is the overall management function for the Texas A&M Engineering Experiment Station and consists of technical direction and related affairs. This function is organized and staffed to provide the greatest inducement to the Engineering faculty and staff to obtain new funding sources as well as to maximum efforts to allocate seed dollars to be used for the greatest benefit to the Texas economy. This administration provides overall management and direction of the affairs of the Texas A&M Engineering Experiment Station in order to achieve the most prolific research endeavor attainable with available resources while emphasizing projects of special benefit to Texas industry, and to manage the service operation so as to make available to the user community the best possible services at the most reasonable cost.

EXTERNAL/INTERNAL FACTORS IMPACTING STRATEGY:

712 Texas A&M Engineering Experiment Station

GOAL: 4 Indirect Administration

OBJECTIVE: 1 Indirect Administration — Service Categories:

STRATEGY: 1 Indirect Administration — Service: 09 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021

EXPLANATION OF BIENNIAL CHANGE (includes Rider amounts):

STRATEGY BIENNIAL TOTAL - ALL FUNDS		BIENNIAL	EXPLANATION OF BIENNIAL CHANGE	
Base Spending (Est 2018 + Bud 2019)	Baseline Request (BL 2020 + BL 2021)	CHANGE	$ Amount	Explanation(s) of Amount (must specify MOFs and FTEs)
$7,929,862	$8,087,322	$157,460	$157,460	The incremental increase represents some growth in salaries and other personnel costs due to merit programs.
			$157,460	**Total of Explanation of Biennial Change**

712 Texas A&M Engineering Experiment Station

GOAL: 4 Indirect Administration

OBJECTIVE: 1 Indirect Administration — Service Categories:

STRATEGY: 2 Infrastructure Support — Service: 10 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020 (1)	BL 2021 (1)
Objects of Expense:						
2001	PROFESSIONAL FEES AND SERVICES	$8,496	$6,727	$6,727	$0	$0
2003	CONSUMABLE SUPPLIES	$611	$484	$484	$0	$0
2004	UTILITIES	$1,157,591	$916,628	$916,628	$0	$0
2006	RENT - BUILDING	$3,944,022	$3,123,039	$3,123,039	$0	$0
2007	RENT - MACHINE AND OTHER	$193,318	$153,077	$153,077	$0	$0
2009	OTHER OPERATING EXPENSE	$2,195,844	$3,322,442	$2,693,203	$0	$0
5000	CAPITAL EXPENDITURES	$108,162	$85,647	$85,647	$0	$0
TOTAL, OBJECT OF EXPENSE		**$7,608,044**	**$7,608,044**	**$6,978,805**	**$0**	**$0**
Method of Financing:						
1	General Revenue Fund	$1,270,351	$1,270,351	$1,279,813	$0	$0
SUBTOTAL, MOF (GENERAL REVENUE FUNDS)		**$1,270,351**	**$1,270,351**	**$1,279,813**	**$0**	**$0**
Method of Financing:						
997	Other Funds, estimated	$3,927,537	$4,193,507	$3,927,537	$0	$0
8089	Indirect Cost Recov, Loc Held, est	$2,410,156	$2,144,186	$1,771,455	$0	$0
SUBTOTAL, MOF (OTHER FUNDS)		**$6,337,693**	**$6,337,693**	**$5,698,992**	**$0**	**$0**

(1) - Formula funded strategies are not requested in 2020-21 because amounts are not determined by institutions.

712 Texas A&M Engineering Experiment Station

GOAL: 4 Indirect Administration
OBJECTIVE: 1 Indirect Administration — Service Categories:
STRATEGY: 2 Infrastructure Support — Service: 10 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020 (1)	BL 2021 (1)
TOTAL, METHOD OF FINANCE (INCLUDING RIDERS)					**$0**	**$0**
TOTAL, METHOD OF FINANCE (EXCLUDING RIDERS)		**$7,608,044**	**$7,608,044**	**$6,978,805**	**$0**	**$0**

FULL TIME EQUIVALENT POSITIONS:

STRATEGY DESCRIPTION AND JUSTIFICATION:

To provide funds for infrastructure maintenance and operation needs of the agency in Brazos County.

EXTERNAL/INTERNAL FACTORS IMPACTING STRATEGY:

Formula funded Strategies are not requested in 2020-21 because the amounts are not determined by the institutions.

EXPLANATION OF BIENNIAL CHANGE (includes Rider amounts):

STRATEGY BIENNIAL TOTAL - ALL FUNDS		BIENNIAL	EXPLANATION OF BIENNIAL CHANGE	
Base Spending (Est 2018 + Bud 2019)	Baseline Request (BL 2020 + BL 2021)	CHANGE	$ Amount	Explanation(s) of Amount (must specify MOFs and FTEs)
$14,586,849	$0	$(14,586,849)	$(14,586,849)	No funds are being requested-Formula Funding.
			$(14,586,849)	**Total of Explanation of Biennial Change**

(1) - Formula funded strategies are not requested in 2020-21 because amounts are not determined by institutions.

712 Texas A&M Engineering Experiment Station

GOAL: 4 Indirect Administration

OBJECTIVE: 1 Indirect Administration — Service Categories:

STRATEGY: 3 Center for Infrastructure Renewal — Service: 10 Income: A.2 Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
Objects of Expense:						
2009	OTHER OPERATING EXPENSE	$4,999,541	$4,799,902	$4,798,195	$4,801,053	$4,802,053
TOTAL, OBJECT OF EXPENSE		**$4,999,541**	**$4,799,902**	**$4,798,195**	**$4,801,053**	**$4,802,053**
Method of Financing:						
1	General Revenue Fund	$4,999,541	$4,799,902	$4,798,195	$4,801,053	$4,802,053
SUBTOTAL, MOF (GENERAL REVENUE FUNDS)		**$4,999,541**	**$4,799,902**	**$4,798,195**	**$4,801,053**	**$4,802,053**
TOTAL, METHOD OF FINANCE (INCLUDING RIDERS)					**$4,801,053**	**$4,802,053**
TOTAL, METHOD OF FINANCE (EXCLUDING RIDERS)		**$4,999,541**	**$4,799,902**	**$4,798,195**	**$4,801,053**	**$4,802,053**
FULL TIME EQUIVALENT POSITIONS:						

STRATEGY DESCRIPTION AND JUSTIFICATION:

Funds appropriated and approved in the 86th Legislature will be used for debt service on the Revenue Bonds issued. The joint facility will house the Center for Infrastructure Renewal. This building will replace a 90 year old laboratory facility used for hydraulic cements and mixtures (Portland cement concrete and related binders/mixtures), the 45 year old McNew Laboratory which houses pavement materials research, the nearly 30 year old large scale structures facility and the Advanced Characterization of Infrastructure Materials Laboratory. The facility will allow for the consolidation and coordination of research and workforce development in the technical areas of materials, transportation, construction, geotechnical, structural and engineering and roadside safety.

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GOAL:	4	Indirect Administration			
OBJECTIVE:	1	Indirect Administration	Service Categories:		
STRATEGY:	3	Center for Infrastructure Renewal	Service: 10	Income: A.2	Age: B.3

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021

EXTERNAL/INTERNAL FACTORS IMPACTING STRATEGY:

With Texas' growing population combined with an aging highway infrastructure, there will be a tremendous strain put on the state and nation for further design, construction, rehabilitation and maintenance of our state's and nation's infrastructure. TEES, along with the Texas A&M Transportation Institute (TTI), is heavily involved in research in highway materials and advanced characterization of infrastructure material. As the programs have grown, the facilities that house these programs have been further strained. Currently, existing facilities at TEES and TTI are at or near the bottom when compared to other peer institutions in this area. In order to continue to house our existing programs and provide space for future expansion, TEES and TTI needs a world class facility that will position these agencies to meet the needs of our state and nation and become the preeminent leader in this research discipline.

EXPLANATION OF BIENNIAL CHANGE (includes Rider amounts):

STRATEGY BIENNIAL TOTAL - ALL FUNDS		BIENNIAL	EXPLANATION OF BIENNIAL CHANGE	
Base Spending (Est 2018 + Bud 2019)	Baseline Request (BL 2020 + BL 2021)	CHANGE	$ Amount	Explanation(s) of Amount (must specify MOFs and FTEs)
$9,598,097	$9,603,106	$5,009	$5,009	Amount represents the change in Debt Service.
			$5,009	**Total of Explanation of Biennial Change**

SUMMARY TOTALS:

OBJECTS OF EXPENSE:	**$115,159,303**	**$124,583,128**	**$124,581,421**	**$118,081,836**	**$118,082,836**
METHODS OF FINANCE (INCLUDING RIDERS):				**$118,081,836**	**$118,082,836**
METHODS OF FINANCE (EXCLUDING RIDERS):	**$115,159,303**	**$124,583,128**	**$124,581,421**	**$118,081,836**	**$118,082,836**
FULL TIME EQUIVALENT POSITIONS:	**812.4**	**842.4**	**842.4**	**842.4**	**842.4**

3.A.1. PROGRAM-LEVEL REQUEST SCHEDULE

85th Regular Session, Agency Submission, Version 1

Agency Code: 712	**Agency: 712 - Texas A&M Engineering Experiment Station**					**Prepared By:**	**John Crawford**				
Date: 8/5/2016										**Biennial Difference**	
Goal	Goal Name	Strategy	Strategy Name	Program	Program Name	**18-19 Base**	**Requested 2020**	**Requested 2021**	**Biennial Total 20-21**	**$**	**%**
A	Engineering Research	A.1.1	Research Divisions	A.1.1.1.	Develop/Support Research Programs, Centers, Institutes & Initiatives	197,035,463	99,030,445	99,030,446	198,060,891	1,025,428	0.5%
A	Engineering Research	A.1.1	Research Divisions	A.1.1.2.	Energy Systems Laboratory	887,123	443,562	443,561	887,123	0	0.0%
A	Engineering Research	A.1.1	Research Divisions	A.1.1.3.	Offshore Technology Research Center	407,722	203,861	203,861	407,722	0	0.0%
A	Engineering Research	A.2.1	Technology Transfer	A.2.1.1.	Technology Transfer	1,336,799	689,687	689,687	1,379,374	42,575	3.2%
A	Engineering Research	A.3.1	Workforce Development	A.3.1.1.	Workforce Development	9,309,256	4,762,252	4,762,252	9,524,504	215,248	2.3%
A	Engineering Research	A.3.2	Workforce Development	A.3.1.1.	Workforce Development	0	5,000,000	4,000,000	9,000,000	9,000,000	
		A.3.3	Workforce Development	A.3.1.1.	Workforce Development	0	3,000,000	2,000,000	5,000,000	5,000,000	
A	Engineering Research	A.3.1	Workforce Development	A.1.2.1	Nuclear Power Institute	5,000,000	2,500,000	2,500,000	5,000,000	0	0.0%
B	Staff Benefits	B.1.1.	Staff Benefits	B.1.1.1.	SGIP	5,767,086	2,941,214	2,941,214	5,882,428	115,342	2.0%
B	Staff Benefits	B.1.2.	Staff Benefits	B.1.2.1.	WCI	102,520	52,285	52,285	104,570	2,050	2.0%
B	Staff Benefits	B.1.3.	Staff Benefits	B.1.3.1.	UCI	52,255	26,650	26,650	53,300	1,045	2.0%
B	Staff Benefits	B.1.4.	Staff Benefits	B.1.4.1.	OASI	2,089,399	1,054,535	1,054,535	2,109,070	19,671	0.9%
B	Staff Benefits	B.1.5.	Staff Benefits	B.1.5.1.	ORP	62,118	32,631	32,631	65,262	3,144	5.1%
C	Indirect Adminstration	C.1.1	Indirect Adminstration	C.1.1.1.	Indirect Adminstration	7,929,862	4,043,661	4,043,661	8,087,322	157,460	2.0%
C	Indirect Adminstration	C.1.2	Indirect Adminstration	C.1.2.1.	Infrastructure Support	14,586,849	0	0	0	(14,586,849)	-100.0%
C	Indirect Adminstration	C.1.3.	Indirect Adminstration	C.1.3.1.	Center for Infrastructure Renewal	9,598,097	4,801,053	4,802,053	9,603,106	5,009	0.1%

Agency code: **712** Agency name:

Texas A&M Engineering Experiment Station

CODE	DESCRIPTION	Excp 2020	Excp 2021
	Item Name: Critical Infrastructure Resilience and Recovery Training, Workforce Development in Emerging Technologies		
	Item Priority: 1		
	IT Component: No		
	Anticipated Out-year Costs: Yes		
	Involve Contracts > $50,000: No		
	Includes Funding for the Following Strategy or Strategies: 01-03-01 Workforce Development		
OBJECTS OF EXPENSE:			
1001	SALARIES AND WAGES	400,000	400,000
1002	OTHER PERSONNEL COSTS	75,000	75,000
1010	PROFESSIONAL SALARIES	800,000	800,000
2005	TRAVEL	250,000	250,000
2009	OTHER OPERATING EXPENSE	475,000	475,000
4000	GRANTS	2,000,000	2,000,000
5000	CAPITAL EXPENDITURES	1,000,000	0
	TOTAL, OBJECT OF EXPENSE	**$5,000,000**	**$4,000,000**
METHOD OF FINANCING:			
1	General Revenue Fund	5,000,000	4,000,000
	TOTAL, METHOD OF FINANCING	**$5,000,000**	**$4,000,000**
FULL-TIME EQUIVALENT POSITIONS (FTE):		12.00	12.00

DESCRIPTION / JUSTIFICATION:

TEES will establish partnerships with state and local agencies, as well as private industry, to identify best practices for strategies and metrics that strengthen resiliency of critical infrastructure networks – roads and bridges; electric power generation and distribution systems; water and wastewater pipelines; telecommunication and cellular services – by developing impact-prediction tools, quantifying realistic options and modernizing adaptive methods.

Recent catastrophic natural disasters have caused substantial negative impacts on access to basic human needs or services – groceries; healthcare; schools; government services – before, during and after extreme weather events.

The baseline mission of this program is to:

1. effectively reduce the cost to local and state governments for repairs to or replacement of critical infrastructure networks.
2. substantially mitigate the risk of damage by natural disasters.
3. significantly enhance the lifespan of public infrastructure paid for with taxpayer money.

Agency code: **712** Agency name:

Texas A&M Engineering Experiment Station

CODE	DESCRIPTION	Excp 2020	Excp 2021

EXTERNAL/INTERNAL FACTORS:

This initiative is a natural extension to the groundwork performed by the Governor's Commission to Rebuild Texas (GCRT), led by Chancellor John Sharp and The Texas A&M University System. TEES participated in the GCRT effort by identifying gaps in hurricane preparedness, response and recovery. The resulting information points to a combination of efforts recommending how to prepare Texas for the next major disaster, and this initiative can further develop and implement those efforts.

This initiative dovetails with the mission of the recently opened Center for Infrastructure Renewal (a joint TEES Center with Texas A&M Transportation Institute, established by authorization from the 84th Legislature) at the A&M System RELLIS Campus, which has expertise in all areas of infrastructure, as well as an educational conference center where much of the related training could occur. However, training will also be offered outside of Bryan/College Station in local communities across the state.

TEES has a myriad of experts on issues related to the resilience and recovery of non-transportation related critical infrastructure networks, including those represented by the research conducted at several of its existing Centers:

- Energy Institute
- Smart Grid Center
- Intelligent Infrastructure Laboratory
- Center for Intelligent Multifunctional Materials and Structures

Through research, training and evaluation, TEES subject matter experts can identify best practices to strengthen resiliency of critical infrastructure networks and then introduce them to communities that are vulnerable to extreme weather events.

PCLS TRACKING KEY:

DESCRIPTION OF ANTICIPATED OUT-YEAR COSTS :

TEES would request GR funding for out-year costs to maintain service and operations levels established at the beginning stages of this project. It would be anticipated that TEES would leverage the state dollars in generating new revenues from training courses.

ESTIMATED ANTICIPATED OUT-YEAR COSTS FOR ITEM:

2022	2023	2024
$4,000,000	$4,000,000	$4,000,000

Agency code: **712** Agency name:

Texas A&M Engineering Experiment Station

CODE	DESCRIPTION	Excp 2020	Excp 2021
	Item Name: Cybersecurity Training, Workforce Developmentin Emerging Technologies		
	Item Priority: 2		
	IT Component: Yes		
	Anticipated Out-year Costs: Yes		
	Involve Contracts > $50,000: No		
	Includes Funding for the Following Strategy or Strategies: 01-03-01 Workforce Development		
OBJECTS OF EXPENSE:			
1001	SALARIES AND WAGES	365,000	365,000
1002	OTHER PERSONNEL COSTS	60,000	60,000
1010	PROFESSIONAL SALARIES	875,000	875,000
2005	TRAVEL	250,000	250,000
2009	OTHER OPERATING EXPENSE	450,000	450,000
5000	CAPITAL EXPENDITURES	1,000,000	0
	TOTAL, OBJECT OF EXPENSE	**$3,000,000**	**$2,000,000**
METHOD OF FINANCING:			
1	General Revenue Fund	3,000,000	2,000,000
	TOTAL, METHOD OF FINANCING	**$3,000,000**	**$2,000,000**
FULL-TIME EQUIVALENT POSITIONS (FTE):		10.00	10.00

DESCRIPTION / JUSTIFICATION:

TEES will establish a comprehensive continuum for strengthening cybersecurity protection of sensitive information systems or proprietary datasets stored by governmental entities (all levels); state or federal branches of the armed services; and industry.

Frequent reports of hacks and attack has created a public need for more opportunities to access workforce development training in cybersecurity technical skills.

Based on emerging technologies resulting from the research and evaluation of applications for mitigating malicious cyber activities, subject matter experts at TEES can design model curriculum and develop continuing education courses that are delivered throughout the state.

The baseline mission of this program is to:

(1) conduct research in emerging technologies to mitigate cybersecurity risk;

(2) develop and evaluate realistic applications to commercialize for the public or private sector;

(3) design curriculum for workforce development training, one model widely accessible to employers/employees (teach-the-trainee) and another model exclusively available to program instructors (train-the-trainer);

(4) deliver workforce development training locally or online;

(5) provide professional continuing education courses for trainers;

(6) issue a TEES Certificate in Cybersecurity Risk Mitigation;

Agency code: **712** Agency name:

Texas A&M Engineering Experiment Station

CODE	DESCRIPTION	Excp 2020	Excp 2021

(7) track issued TEES Certificates and report totals to the Texas Higher Education Coordinating Board (THECB) as contributions toward 60x30TX Plan goals.

EXTERNAL/INTERNAL FACTORS:

The U.S. Department of Defense recognized The Texas A&M University System as a "cleared contractor that best demonstrates the ability to stop foreign theft of U.S. defense and national security technology." U.S. Senator John Cornyn personally presented Chancellor Sharp with the 2017 Defense Security Service Award for Excellence in Counterintelligence. TEES will provide training to: (1)appointed/elected officials of "political subdivisions of the state" (2)private industry professionals – and government/military personnel (3) faculty at two-year and four-year institutions of higher education

TEES will operate a cyber-range, which will require software and hardware acquisition in year one. An isolated experiential learning environment is necessary as a suitable setting for effectively delivering technical skills training needed when responding to and recovering from a significant cyber-attack. This proven model is best way for information technology (IT) network security personnel to undergo practical exercises as "cyber first responders" and gain invaluable simulated real-world experience. This training delivery model will require a private network that poses no threat to any other IT system, actively operating in the surrounding proximity. The participant can then experiment with tools typically utilized only when malicious cyber activities actually penetrate a secure network, exercise classified/controlled protocols or procedures and test new aggressive defense tactics based on available emerging technologies developed by university-affiliated researchers. This entire model ensures that training is delivered to participants without fear of failure or concern of accidently "crashing" any operational systems. Additionally, this training model could be offered as a "mobile range" so that TEES can increase the access to and number of training programs across Texas.

PCLS TRACKING KEY:

N/A

DESCRIPTION OF IT COMPONENT INCLUDED IN EXCEPTIONAL ITEM:

IT Component: TEES will be creating a mobile cyber range which will require software and hardware acquisition in year 1. Experiential learning of technical skills needed to respond to and recover from a cyber-attach is the best way for IT personnel to train and develop as cyber first responders. This requires a private network that poses no threat to any surrounding IT system in operation. The development of an isolated, air-gapped "sandbox" provides the participant with an opportunity to experiment with tools typically utilized only when an issue arises, to exercise protocols and procedures, and test new aggressive defense tactics. All accomplished without fear of failure or concern of accidentally crashing operational systems. A mobile range will allow TEES to bring the facility to the team so training and exercises can occur more often.

IS THIS IT COMPONENT RELATED TO A NEW OR CURRENT PROJECT?

NEW

STATUS:

N/A-New initiative and in planning and request stage.

OUTCOMES:

TEES will design and deliver realistic applications that can reduce cybersecurity risk for all levels of government and state/federal branches of the armed services, as well as private industry. Potential partnerships with other state agencies have been identified, such as: Texas Secretary of State (SOS); Texas Department of Information Resources (DIR); Texas Department of Public Safety (DPS).

OUTPUTS:

TEES will issue a credentialed "Certificate in Cybersecurity Risk Mitigation" to information technology (IT) network security personnel, which will be reported to the Texas Higher Education Coordinating Board (THECB) for contributing to its 60x30TX Plan goals, upon successfully completing the curriculum. Participants will undergo practical exercises as part of the training program and learn advanced skills as "cyber first responders" to mitigate malicious cyber activities against critical infrastructure systems.

Agency code: **712** Agency name:

Texas A&M Engineering Experiment Station

CODE	DESCRIPTION	Excp 2020	Excp 2021

TYPE OF PROJECT

Cyber Security

ALTERNATIVE ANALYSIS

Lack of requested General Revenue funding for this initiative would have a negative impact in TEES's ability to provide state of the art training and exercises that would contribute to the state's initiatives in cybersecurity and developing a more highly trained and skilled workforce.

ESTIMATED IT COST

2018	2019	2020	2021	2022	2023	2024	Total Over Life of Project
$0	$0	$1,000,000	$0	$0	$0	$0	$1,000,000

SCALABILITY

2018	2019	2020	2021	2022	2023	2024	Total Over Life of Project
$0	$0	$0	$0	$0	$0	$0	$0

FTE

2018	2019	2020	2021	2022	2023	2024
0.0	0.0	10.0	10.0	10.0	10.0	10.0

DESCRIPTION OF ANTICIPATED OUT-YEAR COSTS :

TEES would request GR funding for out-year costs to maintain service and operations levels established at the beginning stages of this project. TEES anticipates that we would leverage the state dollars in generating new revenues from training courses.

ESTIMATED ANTICIPATED OUT-YEAR COSTS FOR ITEM:

2022	2023	2024
$2,000,000	$2,000,000	$2,000,000

Agency code: **712** Agency name: **Texas A&M Engineering Experiment Station**

Code	Description	Excp 2020	Excp 2021
Item Name:	Critical Infrastructure Resilience and Recovery Training, Workforce Development in Emerging Technologies		
Allocation to Strategy:	1-3-1 Workforce Development		
OBJECTS OF EXPENSE:			
1001	SALARIES AND WAGES	400,000	400,000
1002	OTHER PERSONNEL COSTS	75,000	75,000
1010	PROFESSIONAL SALARIES	800,000	800,000
2005	TRAVEL	250,000	250,000
2009	OTHER OPERATING EXPENSE	475,000	475,000
4000	GRANTS	2,000,000	2,000,000
5000	CAPITAL EXPENDITURES	1,000,000	0
TOTAL, OBJECT OF EXPENSE		**$5,000,000**	**$4,000,000**
METHOD OF FINANCING:			
1	General Revenue Fund	5,000,000	4,000,000
TOTAL, METHOD OF FINANCING		**$5,000,000**	**$4,000,000**
FULL-TIME EQUIVALENT POSITIONS (FTE):		12.0	12.0

Agency code: **712** Agency name: **Texas A&M Engineering Experiment Station**

Code	Description	Excp 2020	Excp 2021
Item Name:	Cybersecurity Training, Workforce Developmentin Emerging Technologies		
Allocation to Strategy:	1-3-1 Workforce Development		
OBJECTS OF EXPENSE:			
1001	SALARIES AND WAGES	365,000	365,000
1002	OTHER PERSONNEL COSTS	60,000	60,000
1010	PROFESSIONAL SALARIES	875,000	875,000
2005	TRAVEL	250,000	250,000
2009	OTHER OPERATING EXPENSE	450,000	450,000
5000	CAPITAL EXPENDITURES	1,000,000	0
TOTAL, OBJECT OF EXPENSE		**$3,000,000**	**$2,000,000**
METHOD OF FINANCING:			
1	General Revenue Fund	3,000,000	2,000,000
TOTAL, METHOD OF FINANCING		**$3,000,000**	**$2,000,000**
FULL-TIME EQUIVALENT POSITIONS (FTE):		10.0	10.0

Agency Code: **712** Agency name: **Texas A&M Engineering Experiment Station**

GOAL: 1 Conduct engineering & related research to enhance higher ed & eco dev

OBJECTIVE: 1 Increase dollar volume of sponsored research Service Categories:

STRATEGY: 1 Research Programs Service: 21 Income: A.2 Age: B.3

CODE	DESCRIPTION	Excp 2020	Excp 2021
OUTPUT MEASURES:			
2	Number of Sponsored Research Projects	1,255.00	1,255.00
4	Number of Proposals Submitted	1,555.00	1,555.00
5	Number of Collaborative Initiatives	220.00	220.00

Agency Code: **712** Agency name: **Texas A&M Engineering Experiment Station**

GOAL: 1 Conduct engineering & related research to enhance higher ed & eco dev

OBJECTIVE: 3 Increase # of students involved in engineering research Service Categories:

STRATEGY: 1 Workforce Development Service: 21 Income: A.2 Age: B.3

CODE	DESCRIPTION	Excp 2020	Excp 2021
OBJECTS OF EXPENSE:			
1001	SALARIES AND WAGES	765,000	765,000
1002	OTHER PERSONNEL COSTS	135,000	135,000
1010	PROFESSIONAL SALARIES	1,675,000	1,675,000
2005	TRAVEL	500,000	500,000
2009	OTHER OPERATING EXPENSE	925,000	925,000
4000	GRANTS	2,000,000	2,000,000
5000	CAPITAL EXPENDITURES	2,000,000	0
	Total, Objects of Expense	**$8,000,000**	**$6,000,000**
METHOD OF FINANCING:			
1	General Revenue Fund	8,000,000	6,000,000
	Total, Method of Finance	**$8,000,000**	**$6,000,000**
FULL-TIME EQUIVALENT POSITIONS (FTE):		22.0	22.0

EXCEPTIONAL ITEM(S) INCLUDED IN STRATEGY:

Critical Infrastructure Resilience and Recovery Training, Workforce Development in Emerging Technologies

Cybersecurity Training, Workforce Developmentin Emerging Technologies

Agency Code: **712** Agency: **Texas A&M Engineering Experiment Station**

COMPARISON TO STATEWIDE HUB PROCUREMENT GOALS

A. Fiscal Year 2016 - 2017 HUB Expenditure Information

Statewide HUB Goals	Procurement Category	HUB Expenditures FY 2016 % Goal	% Actual	Diff	Actual $	Total Expenditures FY 2016	HUB Expenditures FY 2017 % Goal	% Actual	Diff	Actual $	Total Expenditures FY 2017
11.2%	Heavy Construction	0.0 %	0.0%	0.0%	$0	$0	0.0 %	0.0%	0.0%	$0	$0
21.1%	Building Construction	56.7 %	58.1%	1.4%	$2,204,284	$3,791,284	57.1 %	6.9%	-50.2%	$130,034	$1,881,728
32.9%	Special Trade	45.1 %	51.0%	5.9%	$316,317	$619,657	72.5 %	23.3%	-49.2%	$266,502	$1,143,339
23.7%	Professional Services	5.4 %	14.7%	9.3%	$42,675	$289,483	20.3 %	21.7%	1.4%	$20,334	$93,503
26.0%	Other Services	26.6 %	5.7%	-20.9%	$480,793	$8,430,140	9.9 %	13.9%	4.0%	$540,259	$3,894,132
21.1%	Commodities	20.7 %	14.1%	-6.6%	$1,961,971	$13,928,581	19.3 %	16.3%	-3.0%	$2,052,900	$12,575,827
	Total Expenditures		**18.5%**		**$5,006,040**	**$27,059,145**		**15.4%**		**$3,010,029**	**$19,588,529**

B. Assessment of Fiscal Year 2016 - 2017 Efforts to Meet HUB Procurement Goals

Attainment:

The agency attained or exceeded three of five, or 60%, of the applicable statewide HUB procurement goals in FY 2016.
The agency attained or exceeded two of five, or 40%, of the applicable statewide HUB procurement goals in FY 2017.

Applicability:

The "Heavy Construction" category was not applicable to agency operations in fiscal year 2016 and 2017.

Factors Affecting Attainment:

TAMUS outsourced building construction and maintenance to a non-HUB vendor which makes it very difficult to set goals in the Building Construction, Special Trades and Professional Services.
The majority of the agency's purchases are scientific and technical equipment in support of ongoing research projects. Items of this nature (i.e. multi-power lasers, micro-activity effireactor and wind tunnel motor) have not been identified as being readily available from HUB vendors, and in some cases, these purchases must be made outside the country to obtain the most advanced technology available. Our agency typically has limited or no expenditures in "Heavy Construction" or "Special Trade" categories.

"Good-Faith" Efforts:

TEES continues to assist HUB vendors in becoming certified as well as assisting them in making direct contact with department personnel responsible for initiating purchases.
TEES has strongly encouraged the use of HUB vendors on DIR contracts for computers and related purchases.
TEES provides researchers and staff an updated HUB vendor list for commodities most often used by TEES divisions.

Agency Code: **712** Agency: **Texas A&M Engineering Experiment Station**

We remain committed to ensuring the utilization of HUB vendors through our outreach efforts by attending Economic Opportunity Forums and Purchasing Conferences, thus allowing constant contact with new HUB vendors as well as maintaining relationships with HUB vendors currently being utilized. TEES is also active in the HUB Discussion Workgroup and Texas Universities HUB Coordinator Alliance.

712 Texas A&M Engineering Experiment Station

CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
10.001.000 AGRICULTURAL RESEARCH BAS					
3 - 1 - 1 STAFF GROUP INSURANCE	73	73	74	75	75
3 - 1 - 2 WORKERS' COMP INSURANCE	2	1	1	1	1
3 - 1 - 3 UNEMPLOYMENT INSURANCE	1	0	0	0	0
3 - 1 - 4 OASI	26	32	32	32	32
TOTAL, ALL STRATEGIES	**$102**	**$106**	**$107**	**$108**	**$108**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$102**	**$106**	**$107**	**$108**	**$108**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
10.025.000 Plant and Animal Disease					
3 - 1 - 1 STAFF GROUP INSURANCE	1,162	1,197	1,221	1,233	1,233
3 - 1 - 2 WORKERS' COMP INSURANCE	20	18	19	19	19
3 - 1 - 3 UNEMPLOYMENT INSURANCE	8	4	4	4	4
3 - 1 - 4 OASI	452	472	472	472	472
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	7	10	10	10	10
TOTAL, ALL STRATEGIES	**$1,649**	**$1,701**	**$1,726**	**$1,738**	**$1,738**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$1,649**	**$1,701**	**$1,726**	**$1,738**	**$1,738**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
10.103.000 2009 Aquaculture Grant Program					
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	13	12	12	12	12
TOTAL, ALL STRATEGIES	**$13**	**$12**	**$12**	**$12**	**$12**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$13**	**$12**	**$12**	**$12**	**$12**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
10.310.000 Agriculture Food Research (AFRI)					

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CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
1 - 1 - 1 RESEARCH PROGRAMS	116,866	70,239	70,238	72,858	72,858
3 - 1 - 1 STAFF GROUP INSURANCE	2,126	2,189	2,233	2,256	2,256
3 - 1 - 2 WORKERS' COMP INSURANCE	37	37	38	39	39
3 - 1 - 3 UNEMPLOYMENT INSURANCE	20	14	14	14	14
3 - 1 - 4 OASI	827	864	864	864	864
TOTAL, ALL STRATEGIES	**$119,876**	**$73,343**	**$73,387**	**$76,031**	**$76,031**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$119,876**	**$73,343**	**$73,387**	**$76,031**	**$76,031**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
11.419.000 Coastal Zone Management					
1 - 1 - 1 RESEARCH PROGRAMS	41,549	0	0	11,000	11,000
3 - 1 - 1 STAFF GROUP INSURANCE	333	343	350	353	353
3 - 1 - 2 WORKERS' COMP INSURANCE	6	6	6	6	6
3 - 1 - 3 UNEMPLOYMENT INSURANCE	3	2	2	2	2
3 - 1 - 4 OASI	130	135	135	135	135
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	2	2	2	2	2
TOTAL, ALL STRATEGIES	**$42,023**	**$488**	**$495**	**$11,498**	**$11,498**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$42,023**	**$488**	**$495**	**$11,498**	**$11,498**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
11.467.000 Hydrometeorological Development					
1 - 1 - 1 RESEARCH PROGRAMS	215,192	184,133	184,133	184,000	184,000
3 - 1 - 1 STAFF GROUP INSURANCE	5,573	5,740	5,855	5,913	5,913
3 - 1 - 2 WORKERS' COMP INSURANCE	96	98	100	101	101
3 - 1 - 3 UNEMPLOYMENT INSURANCE	53	38	38	38	38
3 - 1 - 4 OASI	2,168	2,265	2,265	2,265	2,265

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CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	35	31	31	31	31
TOTAL, ALL STRATEGIES	**$223,117**	**$192,305**	**$192,422**	**$192,348**	**$192,348**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$223,117**	**$192,305**	**$192,422**	**$192,348**	**$192,348**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
11.609.000 Measurement and Engineer					
1 - 1 - 1 RESEARCH PROGRAMS	24,413	172,432	172,432	372,000	372,000
3 - 1 - 1 STAFF GROUP INSURANCE	11,272	11,610	11,842	11,961	11,961
3 - 1 - 2 WORKERS' COMP INSURANCE	194	198	202	204	204
3 - 1 - 3 UNEMPLOYMENT INSURANCE	108	77	77	77	77
3 - 1 - 4 OASI	4,386	4,582	4,582	4,582	4,582
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	71	63	63	63	63
TOTAL, ALL STRATEGIES	**$40,444**	**$188,962**	**$189,198**	**$388,887**	**$388,887**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$40,444**	**$188,962**	**$189,198**	**$388,887**	**$388,887**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
12.000.000 DOD MAINTENANCE					
1 - 1 - 1 RESEARCH PROGRAMS	501,681	655,605	655,605	1,056,000	1,056,000
3 - 1 - 1 STAFF GROUP INSURANCE	31,948	32,907	33,565	33,900	33,900
3 - 1 - 2 WORKERS' COMP INSURANCE	551	562	573	579	579
3 - 1 - 3 UNEMPLOYMENT INSURANCE	305	217	217	217	217
3 - 1 - 4 OASI	12,431	12,986	12,986	12,986	12,986
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	201	178	178	178	178

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CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
TOTAL, ALL STRATEGIES	**$547,117**	**$702,455**	**$703,124**	**$1,103,860**	**$1,103,860**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$547,117**	**$702,455**	**$703,124**	**$1,103,860**	**$1,103,860**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
12.101.000 Beach Erosion Control Pr					
1 - 1 - 1 RESEARCH PROGRAMS	25,489	26,344	26,344	26,000	26,000
3 - 1 - 1 STAFF GROUP INSURANCE	797	821	838	846	846
3 - 1 - 2 WORKERS' COMP INSURANCE	14	14	14	14	14
3 - 1 - 3 UNEMPLOYMENT INSURANCE	8	5	5	5	5
3 - 1 - 4 OASI	310	324	324	324	324
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	5	4	4	4	4
TOTAL, ALL STRATEGIES	**$26,623**	**$27,512**	**$27,529**	**$27,193**	**$27,193**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$26,623**	**$27,512**	**$27,529**	**$27,193**	**$27,193**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
12.107.000 Navigation Projects					
1 - 1 - 1 RESEARCH PROGRAMS	84,812	14,481	14,481	14,000	14,000
3 - 1 - 1 STAFF GROUP INSURANCE	438	451	460	465	465
3 - 1 - 2 WORKERS' COMP INSURANCE	8	8	8	8	8
3 - 1 - 3 UNEMPLOYMENT INSURANCE	4	3	3	3	3
3 - 1 - 4 OASI	171	178	178	178	178
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	3	2	2	2	2

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CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
TOTAL, ALL STRATEGIES	**$85,436**	**$15,123**	**$15,132**	**$14,656**	**$14,656**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$85,436**	**$15,123**	**$15,132**	**$14,656**	**$14,656**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
12.114.000 Collaborative Research a					
1 - 1 - 1 RESEARCH PROGRAMS	76,881	58,765	58,765	59,000	59,000
3 - 1 - 1 STAFF GROUP INSURANCE	1,779	1,832	1,869	1,887	1,887
3 - 1 - 2 WORKERS' COMP INSURANCE	31	31	32	32	32
3 - 1 - 3 UNEMPLOYMENT INSURANCE	17	12	12	12	12
3 - 1 - 4 OASI	692	723	723	723	723
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	11	10	10	10	10
TOTAL, ALL STRATEGIES	**$79,411**	**$61,373**	**$61,411**	**$61,664**	**$61,664**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$79,411**	**$61,373**	**$61,411**	**$61,664**	**$61,664**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
12.300.000 Basic and Applied Scient					
1 - 1 - 1 RESEARCH PROGRAMS	1,030,018	1,070,414	1,070,414	1,670,000	1,670,000
3 - 1 - 1 STAFF GROUP INSURANCE	50,556	52,072	53,114	53,645	53,645
3 - 1 - 2 WORKERS' COMP INSURANCE	871	889	907	916	916
3 - 1 - 3 UNEMPLOYMENT INSURANCE	483	344	344	344	344
3 - 1 - 4 OASI	19,671	20,549	20,549	20,549	20,549
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	318	282	282	282	282

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CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
TOTAL, ALL STRATEGIES	**$1,101,917**	**$1,144,550**	**$1,145,610**	**$1,745,736**	**$1,745,736**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$1,101,917**	**$1,144,550**	**$1,145,610**	**$1,745,736**	**$1,745,736**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
12.351.000 Combating Wpns of Mass Destruction					
1 - 1 - 1 RESEARCH PROGRAMS	534,338	105,841	105,841	106,000	106,000
3 - 1 - 1 STAFF GROUP INSURANCE	3,203	3,299	3,365	3,399	3,399
3 - 1 - 2 WORKERS' COMP INSURANCE	55	56	57	58	58
3 - 1 - 3 UNEMPLOYMENT INSURANCE	31	22	22	22	22
3 - 1 - 4 OASI	1,246	1,302	1,302	1,302	1,302
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	20	18	18	18	18
TOTAL, ALL STRATEGIES	**$538,893**	**$110,538**	**$110,605**	**$110,799**	**$110,799**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$538,893**	**$110,538**	**$110,605**	**$110,799**	**$110,799**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
12.420.000 Military Medical Researc					
1 - 1 - 1 RESEARCH PROGRAMS	230,524	167,578	167,578	168,000	168,000
3 - 1 - 1 STAFF GROUP INSURANCE	5,072	5,224	5,328	5,382	5,382
3 - 1 - 2 WORKERS' COMP INSURANCE	87	89	91	92	92
3 - 1 - 3 UNEMPLOYMENT INSURANCE	48	35	35	35	35
3 - 1 - 4 OASI	1,973	2,062	2,062	2,062	2,062
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	32	28	28	28	28

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CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
TOTAL, ALL STRATEGIES	**$237,736**	**$175,016**	**$175,122**	**$175,599**	**$175,599**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$237,736**	**$175,016**	**$175,122**	**$175,599**	**$175,599**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
12.431.000 Basic Scientific Researc					
1 - 1 - 1 RESEARCH PROGRAMS	754,695	893,011	893,011	1,093,000	1,093,000
3 - 1 - 1 STAFF GROUP INSURANCE	33,080	34,073	34,754	35,102	35,102
3 - 1 - 2 WORKERS' COMP INSURANCE	570	582	593	599	599
3 - 1 - 3 UNEMPLOYMENT INSURANCE	316	225	225	225	225
3 - 1 - 4 OASI	12,872	13,446	13,446	13,446	13,446
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	208	184	184	184	184
TOTAL, ALL STRATEGIES	**$801,741**	**$941,521**	**$942,213**	**$1,142,556**	**$1,142,556**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$801,741**	**$941,521**	**$942,213**	**$1,142,556**	**$1,142,556**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
12.630.000 Basic, Applied, and Adva					
1 - 1 - 1 RESEARCH PROGRAMS	295,855	164,879	164,879	165,000	165,000
3 - 1 - 1 STAFF GROUP INSURANCE	4,990	5,140	5,243	5,295	5,295
3 - 1 - 2 WORKERS' COMP INSURANCE	86	88	89	90	90
3 - 1 - 3 UNEMPLOYMENT INSURANCE	48	34	34	34	34
3 - 1 - 4 OASI	1,942	2,028	2,028	2,028	2,028
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	31	28	28	28	28

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CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
TOTAL, ALL STRATEGIES	**$302,952**	**$172,197**	**$172,301**	**$172,475**	**$172,475**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$302,952**	**$172,197**	**$172,301**	**$172,475**	**$172,475**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
12.800.000 Air Force Defense Resear					
1 - 1 - 1 RESEARCH PROGRAMS	4,574,430	4,083,576	4,083,576	4,584,000	4,584,000
3 - 1 - 1 STAFF GROUP INSURANCE	138,774	142,936	145,795	147,253	147,253
3 - 1 - 2 WORKERS' COMP INSURANCE	2,392	2,440	2,489	2,514	2,514
3 - 1 - 3 UNEMPLOYMENT INSURANCE	1,325	944	944	944	944
3 - 1 - 4 OASI	53,997	56,407	56,407	56,407	56,407
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	872	773	773	773	773
TOTAL, ALL STRATEGIES	**$4,771,790**	**$4,287,076**	**$4,289,984**	**$4,791,891**	**$4,791,891**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$4,771,790**	**$4,287,076**	**$4,289,984**	**$4,791,891**	**$4,791,891**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
12.902.000 Information Security Gra					
1 - 1 - 1 RESEARCH PROGRAMS	99,010	187,034	187,034	187,000	187,000
3 - 1 - 1 STAFF GROUP INSURANCE	5,661	5,830	5,947	6,007	6,007
3 - 1 - 2 WORKERS' COMP INSURANCE	98	100	102	103	103
3 - 1 - 3 UNEMPLOYMENT INSURANCE	54	39	39	39	39
3 - 1 - 4 OASI	2,203	2,301	2,301	2,301	2,301
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	36	32	32	32	32

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CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
TOTAL, ALL STRATEGIES	**$107,062**	**$195,336**	**$195,455**	**$195,482**	**$195,482**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$107,062**	**$195,336**	**$195,455**	**$195,482**	**$195,482**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
12.910.000 Research and Technology					
1 - 1 - 1 RESEARCH PROGRAMS	592,415	765,124	765,124	1,265,000	1,265,000
3 - 1 - 1 STAFF GROUP INSURANCE	38,289	39,438	40,227	40,629	40,629
3 - 1 - 2 WORKERS' COMP INSURANCE	660	673	687	694	694
3 - 1 - 3 UNEMPLOYMENT INSURANCE	366	260	260	260	260
3 - 1 - 4 OASI	14,898	15,563	15,563	15,563	15,563
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	241	213	213	213	213
TOTAL, ALL STRATEGIES	**$646,869**	**$821,271**	**$822,074**	**$1,322,359**	**$1,322,359**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$646,869**	**$821,271**	**$822,074**	**$1,322,359**	**$1,322,359**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
15.441.000 Safety and Envir. Enforc Rsch&Data					
1 - 1 - 1 RESEARCH PROGRAMS	1,712,065	1,141,116	1,141,116	1,341,000	1,341,000
3 - 1 - 1 STAFF GROUP INSURANCE	40,589	41,807	42,643	43,069	43,069
3 - 1 - 2 WORKERS' COMP INSURANCE	700	714	728	735	735
3 - 1 - 3 UNEMPLOYMENT INSURANCE	388	276	276	276	276
3 - 1 - 4 OASI	15,793	16,498	16,498	16,498	16,498
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	255	226	226	226	226

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CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
TOTAL, ALL STRATEGIES	**$1,769,790**	**$1,200,637**	**$1,201,487**	**$1,401,804**	**$1,401,804**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$1,769,790**	**$1,200,637**	**$1,201,487**	**$1,401,804**	**$1,401,804**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
15.650.000 Research Grants (Fish and Wildlife)					
1 - 1 - 1 RESEARCH PROGRAMS	45,895	0	0	0	0
TOTAL, ALL STRATEGIES	**$45,895**	**$0**	**$0**	**$0**	**$0**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$45,895**	**$0**	**$0**	**$0**	**$0**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
15.805.000 Assistance to State Water					
1 - 1 - 1 RESEARCH PROGRAMS	5,000	0	0	0	0
TOTAL, ALL STRATEGIES	**$5,000**	**$0**	**$0**	**$0**	**$0**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$5,000**	**$0**	**$0**	**$0**	**$0**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
19.033.000 Global Threat Reduction					
1 - 1 - 1 RESEARCH PROGRAMS	524,799	110,356	60,356	110,000	110,000
3 - 1 - 1 STAFF GROUP INSURANCE	3,340	3,440	3,509	3,544	3,544
3 - 1 - 2 WORKERS' COMP INSURANCE	58	59	60	60	60
3 - 1 - 3 UNEMPLOYMENT INSURANCE	32	23	23	23	23
3 - 1 - 4 OASI	1,300	1,358	1,358	1,358	1,358
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	21	19	19	19	19

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CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
TOTAL, ALL STRATEGIES	**$529,550**	**$115,255**	**$65,325**	**$115,004**	**$115,004**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$529,550**	**$115,255**	**$65,325**	**$115,004**	**$115,004**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
20.108.000 Aviation Research Grants					
1 - 1 - 1 RESEARCH PROGRAMS	163,528	206,208	206,208	256,000	256,000
3 - 1 - 1 STAFF GROUP INSURANCE	7,754	7,987	8,147	8,228	8,228
3 - 1 - 2 WORKERS' COMP INSURANCE	134	136	139	140	140
3 - 1 - 3 UNEMPLOYMENT INSURANCE	74	53	53	53	53
3 - 1 - 4 OASI	3,017	3,152	3,152	3,152	3,152
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	49	43	43	43	43
TOTAL, ALL STRATEGIES	**$174,556**	**$217,579**	**$217,742**	**$267,616**	**$267,616**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$174,556**	**$217,579**	**$217,742**	**$267,616**	**$267,616**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
20.109.000 Air Transportation Cente					
1 - 1 - 1 RESEARCH PROGRAMS	15,591	0	0	7,000	7,000
3 - 1 - 1 STAFF GROUP INSURANCE	226	233	238	240	240
3 - 1 - 2 WORKERS' COMP INSURANCE	4	4	4	4	4
3 - 1 - 3 UNEMPLOYMENT INSURANCE	2	2	2	2	2
3 - 1 - 4 OASI	88	92	92	92	92
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	1	1	1	1	1

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CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
TOTAL, ALL STRATEGIES	**$15,912**	**$332**	**$337**	**$7,339**	**$7,339**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$15,912**	**$332**	**$337**	**$7,339**	**$7,339**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
20.200.000 Highway Research and Development					
1 - 1 - 1 RESEARCH PROGRAMS	9,056	0	0	10,000	10,000
3 - 1 - 1 STAFF GROUP INSURANCE	312	321	328	331	331
3 - 1 - 2 WORKERS' COMP INSURANCE	5	5	6	6	6
3 - 1 - 3 UNEMPLOYMENT INSURANCE	3	2	2	2	2
3 - 1 - 4 OASI	121	127	127	127	127
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	2	2	2	2	2
TOTAL, ALL STRATEGIES	**$9,499**	**$457**	**$465**	**$10,468**	**$10,468**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$9,499**	**$457**	**$465**	**$10,468**	**$10,468**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
20.301.000 Railroad Safety					
1 - 1 - 1 RESEARCH PROGRAMS	79,355	0	0	0	0
TOTAL, ALL STRATEGIES	**$79,355**	**$0**	**$0**	**$0**	**$0**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$79,355**	**$0**	**$0**	**$0**	**$0**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
20.701.000 University Transportation					
1 - 1 - 1 RESEARCH PROGRAMS	158,680	192,997	192,997	268,000	268,000
3 - 1 - 1 STAFF GROUP INSURANCE	8,528	8,784	8,959	9,049	9,049
3 - 1 - 2 WORKERS' COMP INSURANCE	147	150	153	154	154
3 - 1 - 3 UNEMPLOYMENT INSURANCE	81	58	58	58	58

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CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
3 - 1 - 4 OASI	3,318	3,466	3,466	3,466	3,466
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	54	48	48	48	48
TOTAL, ALL STRATEGIES	**$170,808**	**$205,503**	**$205,681**	**$280,775**	**$280,775**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$170,808**	**$205,503**	**$205,681**	**$280,775**	**$280,775**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
20.931.000 Trans. Planning Research & Ed					
1 - 1 - 1 RESEARCH PROGRAMS	48,810	100,320	100,320	125,000	125,000
3 - 1 - 1 STAFF GROUP INSURANCE	3,793	3,907	3,985	4,025	4,025
3 - 1 - 2 WORKERS' COMP INSURANCE	65	67	68	69	69
3 - 1 - 3 UNEMPLOYMENT INSURANCE	36	26	26	26	26
3 - 1 - 4 OASI	1,476	1,542	1,542	1,542	1,542
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	24	21	21	21	21
TOTAL, ALL STRATEGIES	**$54,204**	**$105,883**	**$105,962**	**$130,683**	**$130,683**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$54,204**	**$105,883**	**$105,962**	**$130,683**	**$130,683**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
27.011.000 Intergovernmental Person					
1 - 1 - 1 RESEARCH PROGRAMS	35,853	0	0	0	0
TOTAL, ALL STRATEGIES	**$35,853**	**$0**	**$0**	**$0**	**$0**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$35,853**	**$0**	**$0**	**$0**	**$0**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
43.001.000 Aerospace Education Servi					
1 - 1 - 1 RESEARCH PROGRAMS	138,109	82,577	82,577	83,000	83,000
3 - 1 - 1 STAFF GROUP INSURANCE	2,499	2,574	2,626	2,652	2,652

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CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
3 - 1 - 2 WORKERS' COMP INSURANCE	43	44	45	45	45
3 - 1 - 3 UNEMPLOYMENT INSURANCE	24	17	17	17	17
3 - 1 - 4 OASI	972	1,016	1,016	1,016	1,016
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	16	14	14	14	14
TOTAL, ALL STRATEGIES	**$141,663**	**$86,242**	**$86,295**	**$86,744**	**$86,744**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$141,663**	**$86,242**	**$86,295**	**$86,744**	**$86,744**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
43.002.000 Technology Transfer					
1 - 1 - 1 RESEARCH PROGRAMS	53,082	1,059,742	1,059,742	1,435,000	1,435,000
3 - 1 - 1 STAFF GROUP INSURANCE	43,433	44,735	45,630	46,086	46,086
3 - 1 - 2 WORKERS' COMP INSURANCE	749	764	779	787	787
3 - 1 - 3 UNEMPLOYMENT INSURANCE	415	295	295	295	295
3 - 1 - 4 OASI	16,900	17,654	17,654	17,654	17,654
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	273	242	242	242	242
TOTAL, ALL STRATEGIES	**$114,852**	**$1,123,432**	**$1,124,342**	**$1,500,064**	**$1,500,064**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$114,852**	**$1,123,432**	**$1,124,342**	**$1,500,064**	**$1,500,064**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
43.003.000 TEES Project B6830-Exploration					
1 - 1 - 1 RESEARCH PROGRAMS	108,811	0	0	0	0
TOTAL, ALL STRATEGIES	**$108,811**	**$0**	**$0**	**$0**	**$0**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$108,811**	**$0**	**$0**	**$0**	**$0**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
43.007.000 Space Operations					

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CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
1 - 1 - 1 RESEARCH PROGRAMS	358,703	197,068	197,068	197,000	197,000
3 - 1 - 1 STAFF GROUP INSURANCE	5,964	6,143	6,266	6,329	6,329
3 - 1 - 2 WORKERS' COMP INSURANCE	103	105	107	108	108
3 - 1 - 3 UNEMPLOYMENT INSURANCE	57	41	41	41	41
3 - 1 - 4 OASI	2,321	2,424	2,424	2,424	2,424
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	37	33	33	33	33
TOTAL, ALL STRATEGIES	**$367,185**	**$205,814**	**$205,939**	**$205,935**	**$205,935**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$367,185**	**$205,814**	**$205,939**	**$205,935**	**$205,935**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
43.008.000 TEES Project B5310 - Education					
1 - 1 - 1 RESEARCH PROGRAMS	247,220	95,615	95,615	96,000	96,000
3 - 1 - 1 STAFF GROUP INSURANCE	2,894	2,981	3,040	3,071	3,071
3 - 1 - 2 WORKERS' COMP INSURANCE	50	51	52	52	52
3 - 1 - 3 UNEMPLOYMENT INSURANCE	28	20	20	20	20
3 - 1 - 4 OASI	1,126	1,176	1,176	1,176	1,176
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	18	16	16	16	16
TOTAL, ALL STRATEGIES	**$251,336**	**$99,859**	**$99,919**	**$100,335**	**$100,335**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$251,336**	**$99,859**	**$99,919**	**$100,335**	**$100,335**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
43.009.000 TEES Project B5110-Crss Agncy Spprt					
1 - 1 - 1 RESEARCH PROGRAMS	202,233	92,807	92,807	93,000	93,000
3 - 1 - 1 STAFF GROUP INSURANCE	2,809	2,893	2,951	2,980	2,980
3 - 1 - 2 WORKERS' COMP INSURANCE	48	49	50	51	51
3 - 1 - 3 UNEMPLOYMENT INSURANCE	27	19	19	19	19

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CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
3 - 1 - 4 OASI	1,093	1,142	1,142	1,142	1,142
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	18	16	16	16	16
TOTAL, ALL STRATEGIES	**$206,228**	**$96,926**	**$96,985**	**$97,208**	**$97,208**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$206,228**	**$96,926**	**$96,985**	**$97,208**	**$97,208**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
43.012.000 Space Technology					
1 - 1 - 1 RESEARCH PROGRAMS	262,058	238,721	238,721	239,000	239,000
3 - 1 - 1 STAFF GROUP INSURANCE	7,225	7,442	7,591	7,666	7,666
3 - 1 - 2 WORKERS' COMP INSURANCE	125	127	130	131	131
3 - 1 - 3 UNEMPLOYMENT INSURANCE	69	49	49	49	49
3 - 1 - 4 OASI	2,811	2,937	2,937	2,937	2,937
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	45	40	40	40	40
TOTAL, ALL STRATEGIES	**$272,333**	**$249,316**	**$249,468**	**$249,823**	**$249,823**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$272,333**	**$249,316**	**$249,468**	**$249,823**	**$249,823**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
47.000.000 NATIONAL SCIENCE FOUNDATI					
1 - 1 - 1 RESEARCH PROGRAMS	5,430	205,931	205,931	206,000	206,000
3 - 1 - 1 STAFF GROUP INSURANCE	6,233	6,420	6,548	6,613	6,613
3 - 1 - 2 WORKERS' COMP INSURANCE	107	110	112	113	113
3 - 1 - 3 UNEMPLOYMENT INSURANCE	60	42	42	42	42
3 - 1 - 4 OASI	2,425	2,533	2,533	2,533	2,533
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	39	35	35	35	35

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CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
TOTAL, ALL STRATEGIES	**$14,294**	**$215,071**	**$215,201**	**$215,336**	**$215,336**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$14,294**	**$215,071**	**$215,201**	**$215,336**	**$215,336**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
47.041.000 Engineering Grants					
1 - 1 - 1 RESEARCH PROGRAMS	6,313,149	6,362,819	6,362,819	8,674,858	8,674,858
1 - 3 - 1 WORKFORCE DEVELOPMENT	92,261	151,841	154,399	156,660	156,660
3 - 1 - 1 STAFF GROUP INSURANCE	310,644	319,963	326,362	329,626	329,626
3 - 1 - 2 WORKERS' COMP INSURANCE	5,355	5,462	5,571	5,627	5,627
3 - 1 - 3 UNEMPLOYMENT INSURANCE	2,966	2,113	2,113	2,113	2,113
3 - 1 - 4 OASI	120,871	126,267	126,267	126,267	126,267
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	1,951	1,731	1,731	1,731	1,731
TOTAL, ALL STRATEGIES	**$6,847,197**	**$6,970,196**	**$6,979,262**	**$9,296,882**	**$9,296,882**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$6,847,197**	**$6,970,196**	**$6,979,262**	**$9,296,882**	**$9,296,882**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
47.049.000 Mathematical and Physical					
1 - 1 - 1 RESEARCH PROGRAMS	1,053,506	1,213,381	1,213,381	1,413,000	1,413,000
3 - 1 - 1 STAFF GROUP INSURANCE	42,776	44,060	44,941	45,390	45,390
3 - 1 - 2 WORKERS' COMP INSURANCE	737	752	767	775	775
3 - 1 - 3 UNEMPLOYMENT INSURANCE	408	291	291	291	291
3 - 1 - 4 OASI	16,644	17,387	17,387	17,387	17,387
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	269	238	238	238	238

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CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
TOTAL, ALL STRATEGIES	**$1,114,340**	**$1,276,109**	**$1,277,005**	**$1,477,081**	**$1,477,081**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$1,114,340**	**$1,276,109**	**$1,277,005**	**$1,477,081**	**$1,477,081**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
47.050.000 Geosciences					
1 - 1 - 1 RESEARCH PROGRAMS	40,306	261,080	261,080	261,080	261,080
3 - 1 - 1 STAFF GROUP INSURANCE	7,902	8,139	8,301	8,385	8,385
3 - 1 - 2 WORKERS' COMP INSURANCE	136	139	142	143	143
3 - 1 - 3 UNEMPLOYMENT INSURANCE	75	54	54	54	54
3 - 1 - 4 OASI	3,075	3,212	3,212	3,212	3,212
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	50	44	44	44	44
TOTAL, ALL STRATEGIES	**$51,544**	**$272,668**	**$272,833**	**$272,918**	**$272,918**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$51,544**	**$272,668**	**$272,833**	**$272,918**	**$272,918**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
47.070.000 Computer and Information					
1 - 1 - 1 RESEARCH PROGRAMS	4,127,634	4,072,946	4,072,946	4,478,000	4,478,000
1 - 3 - 1 WORKFORCE DEVELOPMENT	69,317	101,255	102,960	104,469	104,469
3 - 1 - 1 STAFF GROUP INSURANCE	135,526	139,592	142,384	143,807	143,807
3 - 1 - 2 WORKERS' COMP INSURANCE	2,336	2,383	2,430	2,455	2,455
3 - 1 - 3 UNEMPLOYMENT INSURANCE	1,294	922	922	922	922
3 - 1 - 4 OASI	52,733	55,087	55,087	55,087	55,087
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	851	755	755	755	755

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CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
TOTAL, ALL STRATEGIES	**$4,389,691**	**$4,372,940**	**$4,377,484**	**$4,785,495**	**$4,785,495**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$4,389,691**	**$4,372,940**	**$4,377,484**	**$4,785,495**	**$4,785,495**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
47.074.000 Biological Sciences					
1 - 1 - 1 RESEARCH PROGRAMS	819,443	291,143	291,143	291,000	291,000
3 - 1 - 1 STAFF GROUP INSURANCE	8,812	9,076	9,257	9,350	9,350
3 - 1 - 2 WORKERS' COMP INSURANCE	152	155	158	160	160
3 - 1 - 3 UNEMPLOYMENT INSURANCE	84	60	60	60	60
3 - 1 - 4 OASI	3,429	3,582	3,582	3,582	3,582
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	55	49	49	49	49
TOTAL, ALL STRATEGIES	**$831,975**	**$304,065**	**$304,249**	**$304,201**	**$304,201**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$831,975**	**$304,065**	**$304,249**	**$304,201**	**$304,201**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
47.075.000 Social, Behavioral, and					
1 - 1 - 1 RESEARCH PROGRAMS	0	251,259	251,259	251,000	251,000
3 - 1 - 1 STAFF GROUP INSURANCE	7,604	7,833	7,989	8,069	8,069
3 - 1 - 2 WORKERS' COMP INSURANCE	131	134	136	138	138
3 - 1 - 3 UNEMPLOYMENT INSURANCE	73	52	52	52	52
3 - 1 - 4 OASI	2,959	3,091	3,091	3,091	3,091
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	48	42	42	42	42

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CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
TOTAL, ALL STRATEGIES	**$10,815**	**$262,411**	**$262,569**	**$262,392**	**$262,392**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$10,815**	**$262,411**	**$262,569**	**$262,392**	**$262,392**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
47.076.000 Education and Human Reso					
1 - 1 - 1 RESEARCH PROGRAMS	1,283,731	927,842	927,842	928,000	928,000
1 - 3 - 1 WORKFORCE DEVELOPMENT	1,709,150	1,700,852	1,729,499	1,754,834	1,754,834
3 - 1 - 1 STAFF GROUP INSURANCE	28,081	28,924	29,502	29,797	29,797
3 - 1 - 2 WORKERS' COMP INSURANCE	484	494	504	509	509
3 - 1 - 3 UNEMPLOYMENT INSURANCE	268	191	191	191	191
3 - 1 - 4 OASI	10,926	11,414	11,414	11,414	11,414
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	176	156	156	156	156
TOTAL, ALL STRATEGIES	**$3,032,816**	**$2,669,873**	**$2,699,108**	**$2,724,901**	**$2,724,901**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$3,032,816**	**$2,669,873**	**$2,699,108**	**$2,724,901**	**$2,724,901**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
47.079.000 International Science & Engineering					
1 - 1 - 1 RESEARCH PROGRAMS	105,109	27,896	27,896	28,000	28,000
3 - 1 - 1 STAFF GROUP INSURANCE	844	870	887	896	896
3 - 1 - 2 WORKERS' COMP INSURANCE	15	15	15	15	15
3 - 1 - 3 UNEMPLOYMENT INSURANCE	8	6	6	6	6
3 - 1 - 4 OASI	329	343	343	343	343
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	5	5	5	5	5

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CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
TOTAL, ALL STRATEGIES	**$106,310**	**$29,135**	**$29,152**	**$29,265**	**$29,265**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$106,310**	**$29,135**	**$29,152**	**$29,265**	**$29,265**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
47.080.000 Office of Cyber Infrastructure					
1 - 1 - 1 RESEARCH PROGRAMS	133,786	0	0	10,000	10,000
3 - 1 - 1 STAFF GROUP INSURANCE	234	241	246	249	249
3 - 1 - 2 WORKERS' COMP INSURANCE	4	4	4	4	4
3 - 1 - 3 UNEMPLOYMENT INSURANCE	2	2	2	2	2
3 - 1 - 4 OASI	91	95	95	95	95
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	1	1	1	1	1
TOTAL, ALL STRATEGIES	**$134,118**	**$343**	**$348**	**$10,351**	**$10,351**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$134,118**	**$343**	**$348**	**$10,351**	**$10,351**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
64.000.000 Gulf War Research					
1 - 1 - 1 RESEARCH PROGRAMS	37,150	0	0	0	0
TOTAL, ALL STRATEGIES	**$37,150**	**$0**	**$0**	**$0**	**$0**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$37,150**	**$0**	**$0**	**$0**	**$0**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
77.006.000 Nuclear Education Grant Program					
1 - 1 - 1 RESEARCH PROGRAMS	63,154	27,713	27,713	28,000	28,000
3 - 1 - 1 STAFF GROUP INSURANCE	839	864	881	890	890
3 - 1 - 2 WORKERS' COMP INSURANCE	14	15	15	15	15
3 - 1 - 3 UNEMPLOYMENT INSURANCE	8	6	6	6	6

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CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
3 - 1 - 4 OASI	326	341	341	341	341
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	5	5	5	5	5
TOTAL, ALL STRATEGIES	**$64,346**	**$28,944**	**$28,961**	**$29,257**	**$29,257**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$64,346**	**$28,944**	**$28,961**	**$29,257**	**$29,257**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
77.008.000 US Nuclear Scholarship & Fellowship					
1 - 1 - 1 RESEARCH PROGRAMS	136,228	219,930	205,497	420,000	420,000
3 - 1 - 1 STAFF GROUP INSURANCE	12,709	13,091	13,352	13,486	13,486
3 - 1 - 2 WORKERS' COMP INSURANCE	219	223	228	230	230
3 - 1 - 3 UNEMPLOYMENT INSURANCE	121	86	86	86	86
3 - 1 - 4 OASI	4,945	5,166	5,166	5,166	5,166
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	80	71	71	71	71
TOTAL, ALL STRATEGIES	**$154,302**	**$238,567**	**$224,400**	**$439,039**	**$439,039**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$154,302**	**$238,567**	**$224,400**	**$439,039**	**$439,039**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
77.009.000 NCR Office of Rsrch Fin Assist Prog					
1 - 1 - 1 RESEARCH PROGRAMS	66,603	68,883	68,883	69,000	69,000
3 - 1 - 1 STAFF GROUP INSURANCE	2,085	2,147	2,190	2,212	2,212
3 - 1 - 2 WORKERS' COMP INSURANCE	36	37	37	38	38
3 - 1 - 3 UNEMPLOYMENT INSURANCE	20	14	14	14	14
3 - 1 - 4 OASI	811	847	847	847	847
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	13	12	12	12	12

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CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
TOTAL, ALL STRATEGIES	**$69,568**	**$71,940**	**$71,983**	**$72,123**	**$72,123**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$69,568**	**$71,940**	**$71,983**	**$72,123**	**$72,123**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
81.000.010 DOE FOR TTI					
1 - 1 - 1 RESEARCH PROGRAMS	923,617	0	0	0	0
TOTAL, ALL STRATEGIES	**$923,617**	**$0**	**$0**	**$0**	**$0**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$923,617**	**$0**	**$0**	**$0**	**$0**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
81.041.000 State Energy Conservation					
1 - 1 - 1 RESEARCH PROGRAMS	57,505	94,737	94,737	95,000	95,000
3 - 1 - 1 STAFF GROUP INSURANCE	2,867	2,953	3,012	3,042	3,042
3 - 1 - 2 WORKERS' COMP INSURANCE	49	50	51	52	52
3 - 1 - 3 UNEMPLOYMENT INSURANCE	27	20	20	20	20
3 - 1 - 4 OASI	1,116	1,165	1,165	1,165	1,165
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	18	16	16	16	16
TOTAL, ALL STRATEGIES	**$61,582**	**$98,941**	**$99,001**	**$99,295**	**$99,295**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$61,582**	**$98,941**	**$99,001**	**$99,295**	**$99,295**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
81.049.000 OFFICE OF ENERGY RESEARCH					
1 - 1 - 1 RESEARCH PROGRAMS	872,842	973,745	973,745	1,374,000	1,374,000

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CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
TOTAL, ALL STRATEGIES	**$872,842**	**$973,745**	**$973,745**	**$1,374,000**	**$1,374,000**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$872,842**	**$973,745**	**$973,745**	**$1,374,000**	**$1,374,000**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
81.086.000 Conservation Research and					
1 - 1 - 1 RESEARCH PROGRAMS	489,791	562,209	562,209	762,000	762,000
3 - 1 - 1 STAFF GROUP INSURANCE	23,069	23,761	24,236	24,478	24,478
3 - 1 - 2 WORKERS' COMP INSURANCE	398	406	414	418	418
3 - 1 - 3 UNEMPLOYMENT INSURANCE	220	157	157	157	157
3 - 1 - 4 OASI	8,976	9,377	9,377	9,377	9,377
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	145	129	129	129	129
TOTAL, ALL STRATEGIES	**$522,599**	**$596,039**	**$596,522**	**$796,559**	**$796,559**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$522,599**	**$596,039**	**$596,522**	**$796,559**	**$796,559**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
81.087.000 Renewable Energy Research					
1 - 1 - 1 RESEARCH PROGRAMS	825,257	582,130	582,130	582,000	582,000
3 - 1 - 1 STAFF GROUP INSURANCE	17,618	18,147	18,510	18,695	18,695
3 - 1 - 2 WORKERS' COMP INSURANCE	304	310	316	319	319
3 - 1 - 3 UNEMPLOYMENT INSURANCE	168	120	120	120	120
3 - 1 - 4 OASI	6,855	7,161	7,161	7,161	7,161
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	111	98	98	98	98

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CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
TOTAL, ALL STRATEGIES	**$850,313**	**$607,966**	**$608,335**	**$608,393**	**$608,393**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$850,313**	**$607,966**	**$608,335**	**$608,393**	**$608,393**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
81.089.000 Fossil Energy Research an					
1 - 1 - 1 RESEARCH PROGRAMS	251,049	479,376	479,376	479,000	479,000
3 - 1 - 1 STAFF GROUP INSURANCE	14,508	14,944	15,243	15,395	15,395
3 - 1 - 2 WORKERS' COMP INSURANCE	250	255	260	263	263
3 - 1 - 3 UNEMPLOYMENT INSURANCE	139	99	99	99	99
3 - 1 - 4 OASI	5,645	5,897	5,897	5,897	5,897
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	91	81	81	81	81
TOTAL, ALL STRATEGIES	**$271,682**	**$500,652**	**$500,956**	**$500,735**	**$500,735**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$271,682**	**$500,652**	**$500,956**	**$500,735**	**$500,735**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
81.104.000 Technology Development fo					
1 - 1 - 1 RESEARCH PROGRAMS	132,659	168,181	168,181	168,000	168,000
3 - 1 - 1 STAFF GROUP INSURANCE	5,090	5,243	5,348	5,401	5,401
3 - 1 - 2 WORKERS' COMP INSURANCE	88	89	91	92	92
3 - 1 - 3 UNEMPLOYMENT INSURANCE	49	35	35	35	35
3 - 1 - 4 OASI	1,981	2,069	2,069	2,069	2,069
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	32	28	28	28	28

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CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
TOTAL, ALL STRATEGIES	**$139,899**	**$175,645**	**$175,752**	**$175,625**	**$175,625**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$139,899**	**$175,645**	**$175,752**	**$175,625**	**$175,625**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
81.113.000 NONPROLIFERATION & SECURI					
1 - 1 - 1 RESEARCH PROGRAMS	98,851	130,657	130,657	131,000	131,000
3 - 1 - 1 STAFF GROUP INSURANCE	3,954	4,073	4,154	4,196	4,196
3 - 1 - 2 WORKERS' COMP INSURANCE	68	70	71	72	72
3 - 1 - 3 UNEMPLOYMENT INSURANCE	38	27	27	27	27
3 - 1 - 4 OASI	1,539	1,607	1,607	1,607	1,607
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	25	22	22	22	22
TOTAL, ALL STRATEGIES	**$104,475**	**$136,456**	**$136,538**	**$136,924**	**$136,924**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$104,475**	**$136,456**	**$136,538**	**$136,924**	**$136,924**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
81.117.000 Energy Efficiency					
1 - 1 - 1 RESEARCH PROGRAMS	385,497	198,304	198,304	198,000	198,000
3 - 1 - 1 STAFF GROUP INSURANCE	6,002	6,182	6,305	6,368	6,368
3 - 1 - 2 WORKERS' COMP INSURANCE	103	106	108	109	109
3 - 1 - 3 UNEMPLOYMENT INSURANCE	57	41	41	41	41
3 - 1 - 4 OASI	2,335	2,440	2,440	2,440	2,440
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	38	33	33	33	33

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CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
TOTAL, ALL STRATEGIES	**$394,032**	**$207,106**	**$207,231**	**$206,991**	**$206,991**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$394,032**	**$207,106**	**$207,231**	**$206,991**	**$206,991**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
81.121.000 Nuclear Energy Research, Dev & Demo					
1 - 1 - 1 RESEARCH PROGRAMS	4,242,426	3,319,023	3,319,023	4,319,000	4,319,000
3 - 1 - 1 STAFF GROUP INSURANCE	130,956	134,885	137,582	138,958	138,958
3 - 1 - 2 WORKERS' COMP INSURANCE	2,257	2,302	2,348	2,372	2,372
3 - 1 - 3 UNEMPLOYMENT INSURANCE	1,250	891	891	891	891
3 - 1 - 4 OASI	50,955	53,230	53,230	53,230	53,230
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	823	730	730	730	730
TOTAL, ALL STRATEGIES	**$4,428,667**	**$3,511,061**	**$3,513,804**	**$4,515,181**	**$4,515,181**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$4,428,667**	**$3,511,061**	**$3,513,804**	**$4,515,181**	**$4,515,181**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
81.122.000 Elctrcty Dlvry & Rliblty-Stimulus					
1 - 1 - 1 RESEARCH PROGRAMS	388,889	495,543	495,543	896,000	896,000
3 - 1 - 1 STAFF GROUP INSURANCE	27,104	27,917	28,475	28,760	28,760
3 - 1 - 2 WORKERS' COMP INSURANCE	467	477	486	491	491
3 - 1 - 3 UNEMPLOYMENT INSURANCE	259	184	184	184	184
3 - 1 - 4 OASI	10,546	11,017	11,017	11,017	11,017
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	170	151	151	151	151

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CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
TOTAL, ALL STRATEGIES	**$427,435**	**$535,289**	**$535,856**	**$936,603**	**$936,603**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$427,435**	**$535,289**	**$535,856**	**$936,603**	**$936,603**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
81.135.000 ARPA Enrgy Fin Asstnc Prog-Stimulus					
1 - 1 - 1 RESEARCH PROGRAMS	1,793,291	1,815,384	1,815,384	1,815,000	1,815,000
3 - 1 - 1 STAFF GROUP INSURANCE	54,943	56,591	57,723	58,300	58,300
3 - 1 - 2 WORKERS' COMP INSURANCE	947	966	985	995	995
3 - 1 - 3 UNEMPLOYMENT INSURANCE	525	374	374	374	374
3 - 1 - 4 OASI	21,378	22,333	22,333	22,333	22,333
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	345	306	306	306	306
TOTAL, ALL STRATEGIES	**$1,871,429**	**$1,895,954**	**$1,897,105**	**$1,897,308**	**$1,897,308**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$1,871,429**	**$1,895,954**	**$1,897,105**	**$1,897,308**	**$1,897,308**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
93.000.000 National Death Index					
1 - 1 - 1 RESEARCH PROGRAMS	0	151,342	151,342	151,000	151,000
3 - 1 - 1 STAFF GROUP INSURANCE	4,580	4,718	4,812	4,860	4,860
3 - 1 - 2 WORKERS' COMP INSURANCE	79	81	82	83	83
3 - 1 - 3 UNEMPLOYMENT INSURANCE	44	31	31	31	31
3 - 1 - 4 OASI	1,782	1,862	1,862	1,862	1,862
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	29	26	26	26	26

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CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
TOTAL, ALL STRATEGIES	**$6,514**	**$158,060**	**$158,155**	**$157,862**	**$157,862**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$6,514**	**$158,060**	**$158,155**	**$157,862**	**$157,862**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
93.084.000 Prevention/Infectious Diseases					
1 - 1 - 1 RESEARCH PROGRAMS	11,927	0	0	97,000	97,000
3 - 1 - 1 STAFF GROUP INSURANCE	2,922	3,009	3,070	3,100	3,100
3 - 1 - 2 WORKERS' COMP INSURANCE	50	51	52	53	53
3 - 1 - 3 UNEMPLOYMENT INSURANCE	28	20	20	20	20
3 - 1 - 4 OASI	1,137	1,188	1,188	1,188	1,188
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	18	16	16	16	16
TOTAL, ALL STRATEGIES	**$16,082**	**$4,284**	**$4,346**	**$101,377**	**$101,377**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$16,082**	**$4,284**	**$4,346**	**$101,377**	**$101,377**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
93.113.000 Biological Response to En					
1 - 1 - 1 RESEARCH PROGRAMS	447,322	244,876	244,876	245,000	245,000
3 - 1 - 1 STAFF GROUP INSURANCE	7,411	7,634	7,786	7,864	7,864
3 - 1 - 2 WORKERS' COMP INSURANCE	128	130	133	134	134
3 - 1 - 3 UNEMPLOYMENT INSURANCE	71	50	50	50	50
3 - 1 - 4 OASI	2,884	3,012	3,012	3,012	3,012
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	47	41	41	41	41

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CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
TOTAL, ALL STRATEGIES	**$457,863**	**$255,743**	**$255,898**	**$256,101**	**$256,101**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$457,863**	**$255,743**	**$255,898**	**$256,101**	**$256,101**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
93.121.000 Oral Diseases and Disorde					
1 - 1 - 1 RESEARCH PROGRAMS	73,016	201,590	201,590	402,000	402,000
3 - 1 - 1 STAFF GROUP INSURANCE	12,154	12,519	12,769	12,897	12,897
3 - 1 - 2 WORKERS' COMP INSURANCE	210	214	218	220	220
3 - 1 - 3 UNEMPLOYMENT INSURANCE	116	83	83	83	83
3 - 1 - 4 OASI	4,729	4,940	4,940	4,940	4,940
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	76	68	68	68	68
TOTAL, ALL STRATEGIES	**$90,301**	**$219,414**	**$219,668**	**$420,208**	**$420,208**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$90,301**	**$219,414**	**$219,668**	**$420,208**	**$420,208**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
93.173.000 Research Related to Deafn					
1 - 1 - 1 RESEARCH PROGRAMS	216,166	137,842	137,842	138,000	138,000
3 - 1 - 1 STAFF GROUP INSURANCE	4,172	4,297	4,383	4,427	4,427
3 - 1 - 2 WORKERS' COMP INSURANCE	72	73	75	76	76
3 - 1 - 3 UNEMPLOYMENT INSURANCE	40	28	28	28	28
3 - 1 - 4 OASI	1,623	1,696	1,696	1,696	1,696
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	26	23	23	23	23

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CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
TOTAL, ALL STRATEGIES	**$222,099**	**$143,959**	**$144,047**	**$144,250**	**$144,250**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$222,099**	**$143,959**	**$144,047**	**$144,250**	**$144,250**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
93.262.000 Occupational Safety and H					
1 - 1 - 1 RESEARCH PROGRAMS	9,969	0	0	0	0
TOTAL, ALL STRATEGIES	**$9,969**	**$0**	**$0**	**$0**	**$0**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$9,969**	**$0**	**$0**	**$0**	**$0**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
93.283.000 CENTERS FOR DISEASE CONTR					
1 - 1 - 1 RESEARCH PROGRAMS	0	0	0	13,000	13,000
3 - 1 - 1 STAFF GROUP INSURANCE	385	397	405	409	409
3 - 1 - 2 WORKERS' COMP INSURANCE	7	7	7	7	7
3 - 1 - 3 UNEMPLOYMENT INSURANCE	4	3	3	3	3
3 - 1 - 4 OASI	150	157	157	157	157
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	2	2	2	2	2
TOTAL, ALL STRATEGIES	**$548**	**$566**	**$574**	**$13,578**	**$13,578**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$548**	**$566**	**$574**	**$13,578**	**$13,578**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
93.286.000 Biomedical Imaging Research					
1 - 1 - 1 RESEARCH PROGRAMS	862,975	830,269	830,269	830,000	830,000
3 - 1 - 1 STAFF GROUP INSURANCE	25,128	25,882	26,400	26,664	26,664
3 - 1 - 2 WORKERS' COMP INSURANCE	433	442	451	455	455
3 - 1 - 3 UNEMPLOYMENT INSURANCE	240	171	171	171	171

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CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
3 - 1 - 4 OASI	9,777	10,214	10,214	10,214	10,214
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	158	140	140	140	140
TOTAL, ALL STRATEGIES	**$898,711**	**$867,118**	**$867,645**	**$867,644**	**$867,644**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$898,711**	**$867,118**	**$867,645**	**$867,644**	**$867,644**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
93.310.000 Trans-NIH Research Support					
1 - 1 - 1 RESEARCH PROGRAMS	72,770	139,031	139,031	139,000	139,000
3 - 1 - 1 STAFF GROUP INSURANCE	4,230	4,357	4,444	4,489	4,489
3 - 1 - 2 WORKERS' COMP INSURANCE	73	74	76	77	77
3 - 1 - 3 UNEMPLOYMENT INSURANCE	40	29	29	29	29
3 - 1 - 4 OASI	1,646	1,719	1,719	1,719	1,719
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	27	24	24	24	24
TOTAL, ALL STRATEGIES	**$78,786**	**$145,234**	**$145,323**	**$145,338**	**$145,338**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$78,786**	**$145,234**	**$145,323**	**$145,338**	**$145,338**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
93.360.000 Biomedical Adv Rsc & Dev. Authority					
1 - 1 - 1 RESEARCH PROGRAMS	1,251,194	774,796	774,796	775,000	775,000
3 - 1 - 1 STAFF GROUP INSURANCE	23,449	24,153	24,636	24,882	24,882
3 - 1 - 2 WORKERS' COMP INSURANCE	404	412	421	425	425
3 - 1 - 3 UNEMPLOYMENT INSURANCE	224	160	160	160	160
3 - 1 - 4 OASI	9,124	9,531	9,531	9,531	9,531
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	147	131	131	131	131

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CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
TOTAL, ALL STRATEGIES	**$1,284,542**	**$809,183**	**$809,675**	**$810,129**	**$810,129**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$1,284,542**	**$809,183**	**$809,675**	**$810,129**	**$810,129**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
93.393.000 Cancer Cause and Preventi					
1 - 1 - 1 RESEARCH PROGRAMS	21,641	113,177	113,177	113,000	113,000
3 - 1 - 1 STAFF GROUP INSURANCE	3,425	3,528	3,599	3,635	3,635
3 - 1 - 2 WORKERS' COMP INSURANCE	59	60	61	62	62
3 - 1 - 3 UNEMPLOYMENT INSURANCE	33	23	23	23	23
3 - 1 - 4 OASI	1,333	1,392	1,392	1,392	1,392
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	22	19	19	19	19
TOTAL, ALL STRATEGIES	**$26,513**	**$118,199**	**$118,271**	**$118,131**	**$118,131**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$26,513**	**$118,199**	**$118,271**	**$118,131**	**$118,131**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
93.394.000 Cancer Detection and Diag					
1 - 1 - 1 RESEARCH PROGRAMS	95,443	136,740	136,740	137,000	137,000
3 - 1 - 1 STAFF GROUP INSURANCE	4,138	4,263	4,348	4,391	4,391
3 - 1 - 2 WORKERS' COMP INSURANCE	71	73	74	75	75
3 - 1 - 3 UNEMPLOYMENT INSURANCE	40	28	28	28	28
3 - 1 - 4 OASI	1,610	1,682	1,682	1,682	1,682
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	26	23	23	23	23

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CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
TOTAL, ALL STRATEGIES	**$101,328**	**$142,809**	**$142,895**	**$143,199**	**$143,199**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$101,328**	**$142,809**	**$142,895**	**$143,199**	**$143,199**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
93.558.000 Temp AssistNeedy Families					
1 - 1 - 1 RESEARCH PROGRAMS	12,451	56,273	56,273	56,000	56,000
3 - 1 - 1 STAFF GROUP INSURANCE	1,703	1,754	1,789	1,807	1,807
3 - 1 - 2 WORKERS' COMP INSURANCE	29	30	31	31	31
3 - 1 - 3 UNEMPLOYMENT INSURANCE	16	12	12	12	12
3 - 1 - 4 OASI	663	692	692	692	692
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	11	9	9	9	9
TOTAL, ALL STRATEGIES	**$14,873**	**$58,770**	**$58,806**	**$58,551**	**$58,551**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$14,873**	**$58,770**	**$58,806**	**$58,551**	**$58,551**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
93.837.000 Cardiovascular Diseases Research					
1 - 1 - 1 RESEARCH PROGRAMS	167,659	61,057	61,057	61,000	61,000
3 - 1 - 1 STAFF GROUP INSURANCE	1,848	1,903	1,941	1,961	1,961
3 - 1 - 2 WORKERS' COMP INSURANCE	32	32	33	33	33
3 - 1 - 3 UNEMPLOYMENT INSURANCE	18	13	13	13	13
3 - 1 - 4 OASI	719	751	751	751	751
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	12	10	10	10	10

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CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
TOTAL, ALL STRATEGIES	**$170,288**	**$63,766**	**$63,805**	**$63,768**	**$63,768**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$170,288**	**$63,766**	**$63,805**	**$63,768**	**$63,768**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
93.846.000 Arthritis, Musculoskeleta					
1 - 1 - 1 RESEARCH PROGRAMS	99,779	279,762	279,762	280,000	280,000
3 - 1 - 1 STAFF GROUP INSURANCE	8,467	8,721	8,895	8,984	8,984
3 - 1 - 2 WORKERS' COMP INSURANCE	146	149	152	153	153
3 - 1 - 3 UNEMPLOYMENT INSURANCE	81	58	58	58	58
3 - 1 - 4 OASI	3,295	3,442	3,442	3,442	3,442
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	53	47	47	47	47
TOTAL, ALL STRATEGIES	**$111,821**	**$292,179**	**$292,356**	**$292,684**	**$292,684**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$111,821**	**$292,179**	**$292,356**	**$292,684**	**$292,684**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
93.847.000 Diabetes, Endocrinology a					
1 - 1 - 1 RESEARCH PROGRAMS	339,243	106,373	106,373	106,000	106,000
3 - 1 - 1 STAFF GROUP INSURANCE	3,219	3,316	3,382	3,416	3,416
3 - 1 - 2 WORKERS' COMP INSURANCE	55	57	58	58	58
3 - 1 - 3 UNEMPLOYMENT INSURANCE	31	22	22	22	22
3 - 1 - 4 OASI	1,253	1,309	1,309	1,309	1,309
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	20	18	18	18	18

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CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
TOTAL, ALL STRATEGIES	**$343,821**	**$111,095**	**$111,162**	**$110,823**	**$110,823**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$343,821**	**$111,095**	**$111,162**	**$110,823**	**$110,823**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
93.853.000 Clinical Research Related					
1 - 1 - 1 RESEARCH PROGRAMS	1,020,332	616,233	616,233	616,000	616,000
3 - 1 - 1 STAFF GROUP INSURANCE	18,651	19,210	19,594	19,790	19,790
3 - 1 - 2 WORKERS' COMP INSURANCE	321	328	334	338	338
3 - 1 - 3 UNEMPLOYMENT INSURANCE	178	127	127	127	127
3 - 1 - 4 OASI	7,257	7,581	7,581	7,581	7,581
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	117	104	104	104	104
TOTAL, ALL STRATEGIES	**$1,046,856**	**$643,583**	**$643,973**	**$643,940**	**$643,940**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$1,046,856**	**$643,583**	**$643,973**	**$643,940**	**$643,940**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
93.855.000 Allergy, Immunology and T					
1 - 1 - 1 RESEARCH PROGRAMS	722,255	718,611	718,611	719,000	719,000
3 - 1 - 1 STAFF GROUP INSURANCE	21,749	22,401	22,849	23,078	23,078
3 - 1 - 2 WORKERS' COMP INSURANCE	375	382	390	394	394
3 - 1 - 3 UNEMPLOYMENT INSURANCE	208	148	148	148	148
3 - 1 - 4 OASI	8,463	8,840	8,840	8,840	8,840
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	137	121	121	121	121

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CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
TOTAL, ALL STRATEGIES	**$753,187**	**$750,503**	**$750,959**	**$751,581**	**$751,581**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$753,187**	**$750,503**	**$750,959**	**$751,581**	**$751,581**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
93.859.000 Biomedical Research and Research Tr					
1 - 1 - 1 RESEARCH PROGRAMS	77,185	171,614	171,614	172,000	172,000
3 - 1 - 1 STAFF GROUP INSURANCE	5,200	5,356	5,463	5,518	5,518
3 - 1 - 2 WORKERS' COMP INSURANCE	90	91	93	94	94
3 - 1 - 3 UNEMPLOYMENT INSURANCE	50	35	35	35	35
3 - 1 - 4 OASI	2,023	2,114	2,114	2,114	2,114
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	33	29	29	29	29
TOTAL, ALL STRATEGIES	**$84,581**	**$179,239**	**$179,348**	**$179,790**	**$179,790**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$84,581**	**$179,239**	**$179,348**	**$179,790**	**$179,790**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
93.865.000 Child Health & Human Dvlpmt					
1 - 1 - 1 RESEARCH PROGRAMS	0	0	0	10,319	10,319
3 - 1 - 1 STAFF GROUP INSURANCE	312	322	328	331	331
3 - 1 - 2 WORKERS' COMP INSURANCE	5	5	6	6	6
3 - 1 - 3 UNEMPLOYMENT INSURANCE	3	2	2	2	2
3 - 1 - 4 OASI	122	127	127	127	127
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	2	2	2	2	2

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CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
TOTAL, ALL STRATEGIES	**$444**	**$458**	**$465**	**$10,787**	**$10,787**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$444**	**$458**	**$465**	**$10,787**	**$10,787**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
93.866.000 Aging Research					
1 - 1 - 1 RESEARCH PROGRAMS	152,008	70,082	70,082	70,000	70,000
3 - 1 - 1 STAFF GROUP INSURANCE	2,121	2,185	2,228	2,251	2,251
3 - 1 - 2 WORKERS' COMP INSURANCE	37	37	38	38	38
3 - 1 - 3 UNEMPLOYMENT INSURANCE	20	14	14	14	14
3 - 1 - 4 OASI	825	862	862	862	862
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	13	12	12	12	12
TOTAL, ALL STRATEGIES	**$155,024**	**$73,192**	**$73,236**	**$73,177**	**$73,177**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$155,024**	**$73,192**	**$73,236**	**$73,177**	**$73,177**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
97.000.000 Misc Pymnts Dept Of Hmlnd Security					
1 - 1 - 1 RESEARCH PROGRAMS	129,935	203,945	203,945	204,000	204,000
3 - 1 - 1 STAFF GROUP INSURANCE	6,172	6,358	6,485	6,550	6,550
3 - 1 - 2 WORKERS' COMP INSURANCE	106	109	111	112	112
3 - 1 - 3 UNEMPLOYMENT INSURANCE	59	42	42	42	42
3 - 1 - 4 OASI	2,402	2,509	2,509	2,509	2,509
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	39	34	34	34	34

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CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
TOTAL, ALL STRATEGIES	**$138,713**	**$212,997**	**$213,126**	**$213,247**	**$213,247**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$138,713**	**$212,997**	**$213,126**	**$213,247**	**$213,247**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
97.061.000 Centers for Homeland Security					
1 - 1 - 1 RESEARCH PROGRAMS	1,298,088	867,352	867,352	867,000	867,000
3 - 1 - 1 STAFF GROUP INSURANCE	26,251	27,038	27,579	27,855	27,855
3 - 1 - 2 WORKERS' COMP INSURANCE	452	462	471	475	475
3 - 1 - 3 UNEMPLOYMENT INSURANCE	251	179	179	179	179
3 - 1 - 4 OASI	10,214	10,670	10,670	10,670	10,670
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	165	146	146	146	146
TOTAL, ALL STRATEGIES	**$1,335,421**	**$905,847**	**$906,397**	**$906,325**	**$906,325**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$1,335,421**	**$905,847**	**$906,397**	**$906,325**	**$906,325**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
97.077.000 Rsrch Related to Nuclear Detection					
1 - 1 - 1 RESEARCH PROGRAMS	27,716	48,947	48,947	49,000	49,000
3 - 1 - 1 STAFF GROUP INSURANCE	1,481	1,526	1,556	1,572	1,572
3 - 1 - 2 WORKERS' COMP INSURANCE	26	26	27	27	27
3 - 1 - 3 UNEMPLOYMENT INSURANCE	14	10	10	10	10
3 - 1 - 4 OASI	576	602	602	602	602
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	9	8	8	8	8

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CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
TOTAL, ALL STRATEGIES	**$29,822**	**$51,119**	**$51,150**	**$51,219**	**$51,219**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$29,822**	**$51,119**	**$51,150**	**$51,219**	**$51,219**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
97.130.000 Ntl Nuclear Forensics Expertise					
1 - 1 - 1 RESEARCH PROGRAMS	13,256	0	0	0	0
TOTAL, ALL STRATEGIES	**$13,256**	**$0**	**$0**	**$0**	**$0**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$13,256**	**$0**	**$0**	**$0**	**$0**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
98.001.000 USAid Asst for Programs Overseas					
1 - 1 - 1 RESEARCH PROGRAMS	32,594	0	0	18,000	18,000
3 - 1 - 1 STAFF GROUP INSURANCE	531	543	561	565	565
3 - 1 - 2 WORKERS' COMP INSURANCE	9	9	10	10	10
3 - 1 - 3 UNEMPLOYMENT INSURANCE	5	4	4	4	4
3 - 1 - 4 OASI	207	216	216	216	216
3 - 1 - 5 OPTIONAL RETIREMENT PROGRAM	3	3	3	3	3
TOTAL, ALL STRATEGIES	**$33,349**	**$775**	**$794**	**$18,798**	**$18,798**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$33,349**	**$775**	**$794**	**$18,798**	**$18,798**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**
98.012.000 USAID Development Partnerships					
1 - 1 - 1 RESEARCH PROGRAMS	6	0	0	0	0

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CFDA NUMBER/ STRATEGY	**Exp 2017**	**Est 2018**	**Bud 2019**	**BL 2020**	**BL 2021**
TOTAL, ALL STRATEGIES	**$6**	**$0**	**$0**	**$0**	**$0**
ADDL FED FNDS FOR EMPL BENEFITS	0	0	0	0	0
TOTAL, FEDERAL FUNDS	**$6**	**$0**	**$0**	**$0**	**$0**
ADDL GR FOR EMPL BENEFITS	**$0**	**$0**	**$0**	**$0**	**$0**

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CFDA NUMBER/ STRATEGY		Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
SUMMARY LISTING OF FEDERAL PROGRAM AMOUNTS						
10.001.000	AGRICULTURAL RESEARCH BAS	102	106	107	108	108
10.025.000	Plant and Animal Disease	1,649	1,701	1,726	1,738	1,738
10.103.000	2009 Aquaculture Grant Program	13	12	12	12	12
10.310.000	Agriculture Food Research (AFRI)	119,876	73,343	73,387	76,031	76,031
11.419.000	Coastal Zone Management	42,023	488	495	11,498	11,498
11.467.000	Hydrometeorological Development	223,117	192,305	192,422	192,348	192,348
11.609.000	Measurement and Engineer	40,444	188,962	189,198	388,887	388,887
12.000.000	DOD MAINTENANCE	547,117	702,455	703,124	1,103,860	1,103,860
12.101.000	Beach Erosion Control Pr	26,623	27,512	27,529	27,193	27,193
12.107.000	Navigation Projects	85,436	15,123	15,132	14,656	14,656
12.114.000	Collaborative Research a	79,411	61,373	61,411	61,664	61,664
12.300.000	Basic and Applied Scient	1,101,917	1,144,550	1,145,610	1,745,736	1,745,736
12.351.000	Combating Wpns of Mass Destruction	538,893	110,538	110,605	110,799	110,799
12.420.000	Military Medical Researc	237,736	175,016	175,122	175,599	175,599
12.431.000	Basic Scientific Researc	801,741	941,521	942,213	1,142,556	1,142,556
12.630.000	Basic, Applied, and Adva	302,952	172,197	172,301	172,475	172,475
12.800.000	Air Force Defense Resear	4,771,790	4,287,076	4,289,984	4,791,891	4,791,891

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CFDA NUMBER/ STRATEGY		Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
12.902.000	Information Security Gra	107,062	195,336	195,455	195,482	195,482
12.910.000	Research and Technology	646,869	821,271	822,074	1,322,359	1,322,359
15.441.000	Safety and Envir. Enforc Rsch&Data	1,769,790	1,200,637	1,201,487	1,401,804	1,401,804
15.650.000	Research Grants (Fish and Wildlife)	45,895	0	0	0	0
15.805.000	Assistance to State Water	5,000	0	0	0	0
19.033.000	Global Threat Reduction	529,550	115,255	65,325	115,004	115,004
20.108.000	Aviation Research Grants	174,556	217,579	217,742	267,616	267,616
20.109.000	Air Transportation Cente	15,912	332	337	7,339	7,339
20.200.000	Highway Research and Development	9,499	457	465	10,468	10,468
20.301.000	Railroad Safety	79,355	0	0	0	0
20.701.000	University Transportation	170,808	205,503	205,681	280,775	280,775
20.931.000	Trans. Planning Research & Ed	54,204	105,883	105,962	130,683	130,683
27.011.000	Intergovernmental Person	35,853	0	0	0	0
43.001.000	Aerospace Education Servi	141,663	86,242	86,295	86,744	86,744
43.002.000	Technology Transfer	114,852	1,123,432	1,124,342	1,500,064	1,500,064
43.003.000	TEES Project B6830-Exploration	108,811	0	0	0	0
43.007.000	Space Operations	367,185	205,814	205,939	205,935	205,935
43.008.000	TEES Project B5310 - Education	251,336	99,859	99,919	100,335	100,335
43.009.000	TEES Project B5110-Crss Agncy Spprt	206,228	96,926	96,985	97,208	97,208
43.012.000	Space Technology	272,333	249,316	249,468	249,823	249,823

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CFDA NUMBER/ STRATEGY		Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
47.000.000	NATIONAL SCIENCE FOUNDATI	14,294	215,071	215,201	215,336	215,336
47.041.000	Engineering Grants	6,847,197	6,970,196	6,979,262	9,296,882	9,296,882
47.049.000	Mathematical and Physical	1,114,340	1,276,109	1,277,005	1,477,081	1,477,081
47.050.000	Geosciences	51,544	272,668	272,833	272,918	272,918
47.070.000	Computer and Information	4,389,691	4,372,940	4,377,484	4,785,495	4,785,495
47.074.000	Biological Sciences	831,975	304,065	304,249	304,201	304,201
47.075.000	Social, Behavioral, and	10,815	262,411	262,569	262,392	262,392
47.076.000	Education and Human Reso	3,032,816	2,669,873	2,699,108	2,724,901	2,724,901
47.079.000	International Science & Engineering	106,310	29,135	29,152	29,265	29,265
47.080.000	Office of Cyber Infrastructure	134,118	343	348	10,351	10,351
64.000.000	Gulf War Research	37,150	0	0	0	0
77.006.000	Nuclear Education Grant Program	64,346	28,944	28,961	29,257	29,257
77.008.000	US Nuclear Scholarship & Fellowship	154,302	238,567	224,400	439,039	439,039
77.009.000	NCR Office of Rsrch Fin Assist Prog	69,568	71,940	71,983	72,123	72,123
81.000.010	DOE FOR TTI	923,617	0	0	0	0
81.041.000	State Energy Conservation	61,582	98,941	99,001	99,295	99,295
81.049.000	OFFICE OF ENERGY RESEARCH	872,842	973,745	973,745	1,374,000	1,374,000
81.086.000	Conservation Research and	522,599	596,039	596,522	796,559	796,559
81.087.000	Renewable Energy Research	850,313	607,966	608,335	608,393	608,393
81.089.000	Fossil Energy Research an	271,682	500,652	500,956	500,735	500,735

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CFDA NUMBER/ STRATEGY		Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
81.104.000	Technology Development fo	139,899	175,645	175,752	175,625	175,625
81.113.000	NONPROLIFERATION & SECURI	104,475	136,456	136,538	136,924	136,924
81.117.000	Energy Efficiency	394,032	207,106	207,231	206,991	206,991
81.121.000	Nuclear Energy Research, Dev & Demo	4,428,667	3,511,061	3,513,804	4,515,181	4,515,181
81.122.000	Elctrcty Dlvry & Rliblty-Stimulus	427,435	535,289	535,856	936,603	936,603
81.135.000	ARPA Enrgy Fin Asstnc Prog-Stimulus	1,871,429	1,895,954	1,897,105	1,897,308	1,897,308
93.000.000	National Death Index	6,514	158,060	158,155	157,862	157,862
93.084.000	Prevention/Infectious Diseases	16,082	4,284	4,346	101,377	101,377
93.113.000	Biological Response to En	457,863	255,743	255,898	256,101	256,101
93.121.000	Oral Diseases and Disorde	90,301	219,414	219,668	420,208	420,208
93.173.000	Research Related to Deafn	222,099	143,959	144,047	144,250	144,250
93.262.000	Occupational Safety and H	9,969	0	0	0	0
93.283.000	CENTERS FOR DISEASE CONTR	548	566	574	13,578	13,578
93.286.000	Biomedical Imaging Research	898,711	867,118	867,645	867,644	867,644
93.310.000	Trans-NIH Research Support	78,786	145,234	145,323	145,338	145,338
93.360.000	Biomedical Adv Rsc & Dev. Authority	1,284,542	809,183	809,675	810,129	810,129
93.393.000	Cancer Cause and Preventi	26,513	118,199	118,271	118,131	118,131
93.394.000	Cancer Detection and Diag	101,328	142,809	142,895	143,199	143,199
93.558.000	Temp AssistNeedy Families	14,873	58,770	58,806	58,551	58,551
93.837.000	Cardiovascular Diseases Research	170,288	63,766	63,805	63,768	63,768

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CFDA NUMBER/ STRATEGY		Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
93.846.000	Arthritis, Musculoskeleta	111,821	292,179	292,356	292,684	292,684
93.847.000	Diabetes, Endocrinology a	343,821	111,095	111,162	110,823	110,823
93.853.000	Clinical Research Related	1,046,856	643,583	643,973	643,940	643,940
93.855.000	Allergy, Immunology and T	753,187	750,503	750,959	751,581	751,581
93.859.000	Biomedical Research and Research Tr	84,581	179,239	179,348	179,790	179,790
93.865.000	Child Health & Human Dvlpmt	444	458	465	10,787	10,787
93.866.000	Aging Research	155,024	73,192	73,236	73,177	73,177
97.000.000	Misc Pymnts Dept Of Hmlnd Security	138,713	212,997	213,126	213,247	213,247
97.061.000	Centers for Homeland Security	1,335,421	905,847	906,397	906,325	906,325
97.077.000	Rsrch Related to Nuclear Detection	29,822	51,119	51,150	51,219	51,219
97.130.000	Ntl Nuclear Forensics Expertise	13,256	0	0	0	0
98.001.000	USAid Asst for Programs Overseas	33,349	775	794	18,798	18,798
98.012.000	USAID Development Partnerships	6	0	0	0	0
TOTAL, ALL STRATEGIES		$49,179,357	$44,977,328	$44,977,328	$53,708,052	$53,708,052
TOTAL , ADDL FED FUNDS FOR EMPL BENEFITS		0	0	0	0	0
TOTAL, FEDERAL FUNDS		**$49,179,357**	**$44,977,328**	**$44,977,328**	**$53,708,052**	**$53,708,052**
TOTAL, ADDL GR FOR EMPL BENEFITS		**$0**	**$0**	**$0**	**$0**	**$0**

712 Texas A&M Engineering Experiment Station

CFDA NUMBER/ STRATEGY	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021

SUMMARY OF SPECIAL CONCERNS/ISSUES

Assumptions and Methodology:

Potential Loss:

6.G HOMELAND SECURITY FUNDING SCHEDULE - PART B NATURAL OR MAN-MADE DISASTERS

86th Regular Session, Agency Submission, Version 1
Automated Budget and Evaluation System of Texas (ABEST)

Agency code: **712** Agency name: **Texas A&M Eng Expr Station**

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021
OBJECTS OF EXPENSE						
1001	SALARIES AND WAGES	$991,640	$511,978	$341,749	$364,532	$364,532
1002	OTHER PERSONNEL COSTS	$149,984	$150,195	$100,256	$106,940	$106,940
1010	PROFESSIONAL SALARIES	$173,577	$116,234	$77,587	$82,759	$82,759
2001	PROFESSIONAL FEES AND SERVICES	$0	$11,282	$7,531	$8,033	$8,033
2004	UTILITIES	$0	$2,997	$0	$0	$0
2005	TRAVEL	$17,528	$165	$0	$0	$0
2007	RENT - MACHINE AND OTHER	$207	$85	$0	$0	$0
2009	OTHER OPERATING EXPENSE	$113,368	$237,631	$160,789	$171,508	$171,508
3001	CLIENT SERVICES	$8,468	$0	$0	$0	$0
5000	CAPITAL EXPENDITURES	$0	$93,015	$62,088	$66,228	$66,228
TOTAL, OBJECTS OF EXPENSE		**$1,454,772**	**$1,123,582**	**$750,000**	**$800,000**	**$800,000**
METHOD OF FINANCING						
555	Federal Funds					
	CFDA 97.000.000, Misc Pymnts Dept Of Hmlnd Security	$0	$205,670	$250,000	$275,000	$275,000
	CFDA 97.061.000, Centers for Homeland Security	$1,262,656	$868,965	$500,000	$525,000	$525,000
	CFDA 97.077.000, Rsrch Related to Nuclear Detection	$181,001	$48,947	$0	$0	$0
	CFDA 97.130.000, Ntl Nuclear Forensics Expertise	$11,115	$0	$0	$0	$0
	Subtotal, MOF (Federal Funds)	$1,454,772	$1,123,582	$750,000	$800,000	$800,000
TOTAL, METHOD OF FINANCE		**$1,454,772**	**$1,123,582**	**$750,000**	**$800,000**	**$800,000**
FULL-TIME-EQUIVALENT POSITIONS		**12.0**	**10.0**	**6.0**	**7.0**	**7.0**

NO FUNDS WERE PASSED THROUGH TO LOCAL ENTITIES

Agency code: **712** Agency name: **Texas A&M Eng Expr Station**

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021

NO FUNDS WERE PASSED THROUGH TO OTHER STATE AGENCIES OR INSTITUTIONS OF HIGHER EDUCATION

USE OF HOMELAND SECURITY FUNDS

All Homeland Security expenditures are contained within Strategy 01-01-01. The Laboratory Capacity Estimation Model (LCEM) estimated the real-time capacities of the National Animal Health Laboratory Network (NAHLN) laboratories. The Emergency Response Support System (ERSS) developed and applied an integrated multi-purpose system for emergency managers that supports the overall emergency response cycle. The Laboratory Information Management System (LIMS) developed and implemented a bio-surveillance program for foot and mouth disease in Pakistani Veterinary Diagnostic Laboratories. Engage to Excel (E2E) offered an approach to maintaining business continuity and performing risk management during a disease outbreak. The mobile Certificate of Veterinary Inspection (mCVI) supported veterinary practitioners submitting field animal health certificate records in over 40 states. The goal of the Plum Island Animal Disease Center (PIADC) project was to assist in streamlining their processes through mobile options and better system tools. The goal of the Enhanced Passive Surveillance (EPS) was to set up a system for early detection and situational awareness of significant endemic and emerging diseases, and augment current foreign animal, emerging, and zoonotic disease surveillance. The goal of the Multi-Laboratory International Collaborative Environment (MICE) program was to implement a virtual collaborative environment that will bring together international animal health diagnostic and research bio-containment laboratories.

6.G HOMELAND SECURITY FUNDING SCHEDULE - PART B NATURAL OR MAN-MADE DISASTERS

Funds Passed through to Local Entities

86th Regular Session, Agency Submission, Version 1

Automated Budget and Evaluation System of Texas (ABEST)

Agency code: **712** Agency name: **Texas A&M Eng Expr Station**

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021

Agency code: **712** Agency name: **Texas A&M Eng Expr Station**

CODE	DESCRIPTION	Exp 2017	Est 2018	Bud 2019	BL 2020	BL 2021

Texas A&M Engineering Experiment Station (712)
Estimated Funds Outside the Institution's Bill Pattern
2018-19 and 2020-21 Biennia

	2018-19 Biennium				2020-21 Biennium			
	FY 2018 Revenue	FY 2019 Revenue	Biennium Total	Percent of Total	FY 2020 Revenue	FY 2021 Revenue	Biennium Total	Percent of Total
Appropriated Sources Inside the Bill Pattern								
State Appropriations (excluding HEGI & State Paid Fringes)	22,040,551	22,038,844	44,079,395		22,038,844	22,038,844	44,077,688	
Tuition and Fees (net of Discounts and Allowances)	-	-	-		-	-	-	
Endowment and Interest Income	-	-	-		-	-	-	
Sales and Services of Educational Activities (net)	-	-	-		-	-	-	
Sales and Services of Hospitals (net)	-	-	-		-	-	-	
Other Income								
Federal Grants and Contracts	46,344,840	46,344,840	92,689,680		46,808,288	47,276,371	94,084,660	
State Grants and Contracts	2,566,910	2,566,910	5,133,819		2,592,579	2,618,505	5,211,083	
Local Government Grants and Contracts	2,540,158	2,540,158	5,080,316		2,565,560	2,591,215	5,156,775	
Private Gifts and Grants	50,505,234	50,505,234	101,010,468		51,010,287	51,520,389	102,530,676	
Total	123,997,693	123,995,986	247,993,679	85.7%	125,015,557	126,045,325	251,060,882	85.8%
Appropriated Sources Outside the Bill Pattern								
State Appropriations (HEGI & State Paid Fringes)	4,336,294	4,466,383	8,802,677		4,466,383	4,466,383	8,932,766	
Higher Education Assistance Funds	-	-	-		-	-	-	
Available University Fund	-	-	-		-	-	-	
State Grants and Contracts	583,735	583,735	1,167,470		500,000	500,000	1,000,000	
Total	4,920,029	5,050,118	9,970,147	3.4%	4,966,383	4,966,383	9,932,766	3.4%
Non-Appropriated Sources								
Tuition and Fees (net of Discounts and Allowances)	-	-	-		-	-	-	
Federal Grants and Contracts	-	-	-		-	-	-	
State Grants and Contracts	-	-	-		-	-	-	
Local Government Grants and Contracts	-	-	-		-	-	-	
Private Gifts and Grants	1,570,000	1,400,000	2,970,000		1,400,000	1,400,000	2,800,000	
Endowment and Interest Income	4,000,000	4,037,000	8,037,000		4,000,000	4,000,000	8,000,000	
Sales and Services of Educational Activities (net)	9,800,000	10,000,000	19,800,000		10,100,000	10,201,000	20,301,000	
Sales and Services of Hospitals (net)	-	-	-		-	-	-	
Professional Fees (net)	-	-	-		-	-	-	
Auxiliary Enterprises (net)	-	-	-		-	-	-	
Other Income	300,000	300,000	600,000		300,000	300,000	600,000	
Total	15,670,000	15,737,000	31,407,000	10.9%	15,800,000	15,901,000	31,701,000	10.8%
Total Sources	**144,587,722**	**144,783,104**	**289,370,826**	**100.0%**	**145,781,940**	**146,912,707**	**292,694,648**	**100.0%**

Agency code: **712** Agency name: **Texas A&M Engineering Experiment Station**

Item Priority and Name/ Method of Financing	REVENUE LOSS 2020	REVENUE LOSS 2021	REVENUE LOSS Biennial Total	REDUCTION AMOUNT 2020	REDUCTION AMOUNT 2021	REDUCTION AMOUNT Biennial Total	PROGRAM AMOUNT 2020	PROGRAM AMOUNT 2021	TARGET Biennial Total

1 Research Programs 2.5%

Category: Across the Board Reductions

Item Comment: The Texas A&M Engineering Experiment Station (TEES) will reduce the scope of research, technology transfer and workforce development programs and administrative support and services. This will result in a total 10% reduction of $2,310,571 over the biennium.

TEES will reduce the research programs strategy by 2.5%, or $249,511(10%-$998,042).The 2.5% general revenue reduction would decrease TEES's ability to leverage general revenue funds, resulting in a reduction to the scope of TEES's sponsored research activities. This would create an estimated 2.5% loss of $2,471,906(10% -$9,887,622) in sponsored research revenues.

TEES will reduce the technology transfer strategy by 2.5%, or $27,000(10%-$108,000).The 2.5% general revenue reduction would reduce TEES's ability to attract technology transfer funds to the State of Texas. This would create an estimated 2.5% loss of $15,950(10%-$63,799) in technology licensing related revenues.

TEES will reduce the workforce development strategy by 2.5%, or $125,000(10%-$500,000).The 2.5% general revenue reduction would result in a negative impact to TEES's financial resources and would require TEES to find alternate funding for this program that contributes to workforce initiatives that promote the development of a well-educated, highly skilled workforce for Texas. This would create an estimated 2.5% loss of $120,521(10%-$482,085) in workforce development revenues from individuals and sponsors.

TEES will reduce the indirect administration strategy by 2.5%, or $153,954 (10%-$615,817). The budget reduction would result in a negative impact on TEES's ability to provide operations support to TEES researchers and staff thus impacting compliance and security within the agency.

TEES will reduce the Texas Emissions Reduction Plan (TERP) method of finance by 2.5%, or $22,178(10%-$88,712).The budget reduction would result in a negative impact on TEES's ability to provide valuable research data for the state of Texas.

Strategy: 1-1-1 Research Programs

General Revenue Funds

Agency code: **712** Agency name: **Texas A&M Engineering Experiment Station**

Item Priority and Name/ Method of Financing	REVENUE LOSS 2020	REVENUE LOSS 2021	REVENUE LOSS Biennial Total	REDUCTION AMOUNT 2020	REDUCTION AMOUNT 2021	REDUCTION AMOUNT Biennial Total	PROGRAM AMOUNT 2020	PROGRAM AMOUNT 2021	TARGET Biennial Total
1 General Revenue Fund	$0	$0	$0	$124,756	$124,756	$249,512	$124,756	$124,756	$249,512
General Revenue Funds Total	**$0**	**$0**	**$0**	**$124,756**	**$124,756**	**$249,512**	**$124,756**	**$124,756**	**$249,512**
Gr Dedicated									
5071 Texas Emissions Reduction Plan	$0	$0	$0	$11,089	$11,089	$22,178	$11,089	$11,089	$22,178
Gr Dedicated Total	**$0**	**$0**	**$0**	**$11,089**	**$11,089**	**$22,178**	**$11,089**	**$11,089**	**$22,178**
Federal Funds									
555 Federal Funds	$1,235,953	$1,235,953	$2,471,906						
Federal Funds Total	**$1,235,953**	**$1,235,953**	**$2,471,906**						
Strategy: 1-2-1 Technology transfer									
General Revenue Funds									
1 General Revenue Fund	$0	$0	$0	$13,500	$13,500	$27,000	$13,500	$13,500	$27,000
General Revenue Funds Total	**$0**	**$0**	**$0**	**$13,500**	**$13,500**	**$27,000**	**$13,500**	**$13,500**	**$27,000**

Agency code: **712** Agency name: **Texas A&M Engineering Experiment Station**

Item Priority and Name/ Method of Financing	REVENUE LOSS 2020	REVENUE LOSS 2021	REVENUE LOSS Biennial Total	REDUCTION AMOUNT 2020	REDUCTION AMOUNT 2021	REDUCTION AMOUNT Biennial Total	PROGRAM AMOUNT 2020	PROGRAM AMOUNT 2021	TARGET Biennial Total
Other Funds									
997 Other Funds, estimated	$7,975	$7,975	$15,950						
Other Funds Total	**$7,975**	**$7,975**	**$15,950**						
Strategy: 1-3-1 Workforce Development									
General Revenue Funds									
1 General Revenue Fund	$0	$0	$0	$62,500	$62,500	$125,000	$62,500	$62,500	$125,000
General Revenue Funds Total	**$0**	**$0**	**$0**	**$62,500**	**$62,500**	**$125,000**	**$62,500**	**$62,500**	**$125,000**
Federal Funds									
555 Federal Funds	$60,261	$60,261	$120,522						
Federal Funds Total	**$60,261**	**$60,261**	**$120,522**						
Strategy: 4-1-1 Indirect Administration									

Agency code: **712** Agency name: **Texas A&M Engineering Experiment Station**

Item Priority and Name/ Method of Financing	REVENUE LOSS 2020	REVENUE LOSS 2021	REVENUE LOSS Biennial Total	REDUCTION AMOUNT 2020	REDUCTION AMOUNT 2021	REDUCTION AMOUNT Biennial Total	PROGRAM AMOUNT 2020	PROGRAM AMOUNT 2021	TARGET Biennial Total
General Revenue Funds									
1 General Revenue Fund	$0	$0	$0	$76,978	$76,977	$153,955	$76,978	$76,977	$153,955
General Revenue Funds Total	**$0**	**$0**	**$0**	**$76,978**	**$76,977**	**$153,955**	**$76,978**	**$76,977**	**$153,955**
Item Total	**$1,304,189**	**$1,304,189**	**$2,608,378**	**$288,823**	**$288,822**	**$577,645**	**$288,823**	**$288,822**	**$577,645**

FTE Reductions (From FY 2020 and FY 2021 Base Request)

2 Research Programs 2.5%

Category: Across the Board Reductions

Agency code: **712** Agency name: **Texas A&M Engineering Experiment Station**

	REVENUE LOSS			REDUCTION AMOUNT			PROGRAM AMOUNT			TARGET
Item Priority and Name/			**Biennial**			**Biennial**			**Biennial**	
Method of Financing	**2020**	**2021**	**Total**	**2020**	**2021**	**Total**	**2020**	**2021**	**Total**	

Item Comment: The Texas A&M Engineering Experiment Station (TEES) will reduce the scope of research, technology transfer and workforce development programs and administrative support and services. This will result in a total 10% reduction of $2,310,571 over the biennium.

TEES will reduce the research programs strategy by 2.5%, or $249,511(10%-$998,042).The 2.5% general revenue reduction would decrease TEES's ability to leverage general revenue funds, resulting in a reduction to the scope of TEES's sponsored research activities. This would create an estimated 2.5% loss of $2,471,906(10% -$9,887,622) in sponsored research revenues.

TEES will reduce the technology transfer strategy by 2.5%, or $27,000(10%-$108,000).The 2.5% general revenue reduction would reduce TEES's ability to attract technology transfer funds to the State of Texas. This would create an estimated 2.5% loss of $15,950(10%-$63,799) in technology licensing related revenues.

TEES will reduce the workforce development strategy by 2.5%, or $125,000(10%-$500,000).The 2.5% general revenue reduction would result in a negative impact to TEES's financial resources and would require TEES to find alternate funding for this program that contributes to workforce initiatives that promote the development of a well-educated, highly skilled workforce for Texas. This would create an estimated 2.5% loss of $120,521(10%-$482,085) in workforce development revenues from individuals and sponsors.

TEES will reduce the indirect administration strategy by 2.5%, or $153,954 (10%-$615,817). The budget reduction would result in a negative impact on TEES's ability to provide operations support to TEES researchers and staff thus impacting compliance and security within the agency.

TEES will reduce the Texas Emissions Reduction Plan (TERP) method of finance by 2.5%, or $22,178(10%-$88,712).The budget reduction would result in a negative impact on TEES's ability to provide valuable research data for the state of Texas.

Strategy: 1-1-1 Research Programs

General Revenue Funds

1 General Revenue Fund	$0	$0	$0	$124,756	$124,756	$249,512	$124,755	$124,755	$249,510
General Revenue Funds Total	**$0**	**$0**	**$0**	**$124,756**	**$124,756**	**$249,512**	**$124,755**	**$124,755**	**$249,510**

Agency code: **712** Agency name: **Texas A&M Engineering Experiment Station**

Item Priority and Name/ Method of Financing	REVENUE LOSS 2020	REVENUE LOSS 2021	REVENUE LOSS Biennial Total	REDUCTION AMOUNT 2020	REDUCTION AMOUNT 2021	REDUCTION AMOUNT Biennial Total	PROGRAM AMOUNT 2020	PROGRAM AMOUNT 2021	TARGET Biennial Total
Gr Dedicated									
5071 Texas Emissions Reduction Plan	$0	$0	$0	$11,089	$11,089	$22,178	$11,089	$11,089	$22,178
Gr Dedicated Total	**$0**	**$0**	**$0**	**$11,089**	**$11,089**	**$22,178**	**$11,089**	**$11,089**	**$22,178**
Federal Funds									
555 Federal Funds	$1,235,953	$1,235,953	$2,471,906						
Federal Funds Total	**$1,235,953**	**$1,235,953**	**$2,471,906**						
Strategy: 1-2-1 Technology transfer									
General Revenue Funds									
1 General Revenue Fund	$0	$0	$0	$13,500	$13,500	$27,000	$13,500	$13,500	$27,000
General Revenue Funds Total	**$0**	**$0**	**$0**	**$13,500**	**$13,500**	**$27,000**	**$13,500**	**$13,500**	**$27,000**
Other Funds									

Agency code: **712** Agency name: **Texas A&M Engineering Experiment Station**

Item Priority and Name/ Method of Financing	REVENUE LOSS 2020	REVENUE LOSS 2021	REVENUE LOSS Biennial Total	REDUCTION AMOUNT 2020	REDUCTION AMOUNT 2021	REDUCTION AMOUNT Biennial Total	PROGRAM AMOUNT 2020	PROGRAM AMOUNT 2021	TARGET Biennial Total
997 Other Funds, estimated	$7,975	$7,975	$15,950						
Other Funds Total	**$7,975**	**$7,975**	**$15,950**						
Strategy: 1-3-1 Workforce Development									
General Revenue Funds									
1 General Revenue Fund	$0	$0	$0	$62,500	$62,500	$125,000	$62,500	$62,500	$125,000
General Revenue Funds Total	**$0**	**$0**	**$0**	**$62,500**	**$62,500**	**$125,000**	**$62,500**	**$62,500**	**$125,000**
Federal Funds									
555 Federal Funds	$60,261	$60,261	$120,522						
Federal Funds Total	**$60,261**	**$60,261**	**$120,522**						
Strategy: 4-1-1 Indirect Administration									
General Revenue Funds									
1 General Revenue Fund	$0	$0	$0	$76,977	$76,977	$153,954	$76,977	$76,977	$153,954
General Revenue Funds Total	**$0**	**$0**	**$0**	**$76,977**	**$76,977**	**$153,954**	**$76,977**	**$76,977**	**$153,954**

Agency code: **712** Agency name: **Texas A&M Engineering Experiment Station**

	REVENUE LOSS			REDUCTION AMOUNT			PROGRAM AMOUNT			TARGET
Item Priority and Name/ Method of Financing	**2020**	**2021**	**Biennial Total**	**2020**	**2021**	**Biennial Total**	**2020**	**2021**	**Biennial Total**	
Item Total	**$1,304,189**	**$1,304,189**	**$2,608,378**	**$288,822**	**$288,822**	**$577,644**	**$288,821**	**$288,821**	**$577,642**	

FTE Reductions (From FY 2020 and FY 2021 Base Request)

3 Research Programs 2.5%

Category: Across the Board Reductions

Item Comment: The Texas A&M Engineering Experiment Station (TEES) will reduce the scope of research, technology transfer and workforce development programs and administrative support and services. This will result in a total 10% reduction of $2,310,571 over the biennium.

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TEES will reduce the technology transfer strategy by 2.5%, or $27,000(10%-$108,000).The 2.5% general revenue reduction would reduce TEES's ability to attract technology transfer funds to the State of Texas. This would create an estimated 2.5% loss of $15,950(10%-$63,799) in technology licensing related revenues.

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TEES will reduce the Texas Emissions Reduction Plan (TERP) method of finance by 2.5%, or $22,178(10%-$88,712).The budget reduction would result in a negative impact on TEES's ability to provide valuable research data for the state of Texas.

Strategy: 1-1-1 Research Programs

Agency code: **712** Agency name: **Texas A&M Engineering Experiment Station**

Item Priority and Name/ Method of Financing	REVENUE LOSS 2020	REVENUE LOSS 2021	REVENUE LOSS Biennial Total	REDUCTION AMOUNT 2020	REDUCTION AMOUNT 2021	REDUCTION AMOUNT Biennial Total	PROGRAM AMOUNT 2020	PROGRAM AMOUNT 2021	TARGET Biennial Total
General Revenue Funds									
1 General Revenue Fund	$0	$0	$0	$124,756	$124,755	$249,511	$124,755	$124,755	$249,510
General Revenue Funds Total	**$0**	**$0**	**$0**	**$124,756**	**$124,755**	**$249,511**	**$124,755**	**$124,755**	**$249,510**
Gr Dedicated									
5071 Texas Emissions Reduction Plan	$0	$0	$0	$11,089	$11,089	$22,178	$11,089	$11,089	$22,178
Gr Dedicated Total	**$0**	**$0**	**$0**	**$11,089**	**$11,089**	**$22,178**	**$11,089**	**$11,089**	**$22,178**
Federal Funds									
555 Federal Funds	$1,235,953	$1,235,953	$2,471,906						
Federal Funds Total	**$1,235,953**	**$1,235,953**	**$2,471,906**						

Strategy: 1-2-1 Technology transfer

General Revenue Funds

Agency code: **712** Agency name: **Texas A&M Engineering Experiment Station**

Item Priority and Name/ Method of Financing	REVENUE LOSS 2020	REVENUE LOSS 2021	Biennial Total	REDUCTION AMOUNT 2020	REDUCTION AMOUNT 2021	Biennial Total	PROGRAM AMOUNT 2020	PROGRAM AMOUNT 2021	Biennial Total	TARGET
1 General Revenue Fund	$0	$0	$0	$13,500	$13,500	$27,000	$13,500	$13,500	$27,000	
General Revenue Funds Total	**$0**	**$0**	**$0**	**$13,500**	**$13,500**	**$27,000**	**$13,500**	**$13,500**	**$27,000**	
Other Funds										
997 Other Funds, estimated	$7,975	$7,975	$15,950							
Other Funds Total	**$7,975**	**$7,975**	**$15,950**							
Strategy: 1-3-1 Workforce Development										
General Revenue Funds										
1 General Revenue Fund	$0	$0	$0	$62,500	$62,500	$125,000	$62,500	$62,500	$125,000	
General Revenue Funds Total	**$0**	**$0**	**$0**	**$62,500**	**$62,500**	**$125,000**	**$62,500**	**$62,500**	**$125,000**	
Federal Funds										
555 Federal Funds	$60,261	$60,261	$120,522							
Federal Funds Total	**$60,261**	**$60,261**	**$120,522**							
Strategy: 4-1-1 Indirect Administration										

Agency code: **712** Agency name: **Texas A&M Engineering Experiment Station**

Item Priority and Name/ Method of Financing	REVENUE LOSS 2020	REVENUE LOSS 2021	REVENUE LOSS Biennial Total	REDUCTION AMOUNT 2020	REDUCTION AMOUNT 2021	REDUCTION AMOUNT Biennial Total	PROGRAM AMOUNT 2020	PROGRAM AMOUNT 2021	TARGET Biennial Total
General Revenue Funds									
1 General Revenue Fund	$0	$0	$0	$76,977	$76,977	$153,954	$76,977	$76,977	$153,954
General Revenue Funds Total	**$0**	**$0**	**$0**	**$76,977**	**$76,977**	**$153,954**	**$76,977**	**$76,977**	**$153,954**
Item Total	**$1,304,189**	**$1,304,189**	**$2,608,378**	**$288,822**	**$288,821**	**$577,643**	**$288,821**	**$288,821**	**$577,642**

FTE Reductions (From FY 2020 and FY 2021 Base Request)

4 Research Programs 2.5%

Category: Across the Board Reductions

Agency code: **712** Agency name: **Texas A&M Engineering Experiment Station**

	REVENUE LOSS			REDUCTION AMOUNT			PROGRAM AMOUNT			TARGET
Item Priority and Name/ Method of Financing	**2020**	**2021**	**Biennial Total**	**2020**	**2021**	**Biennial Total**	**2020**	**2021**	**Biennial Total**	

Item Comment: The Texas A&M Engineering Experiment Station (TEES) will reduce the scope of research, technology transfer and workforce development programs and administrative support and services. This will result in a total 10% reduction of $2,310,571 over the biennium.

TEES will reduce the research programs strategy by 2.5%, or $249,511(10%-$998,042).The 2.5% general revenue reduction would decrease TEES's ability to leverage general revenue funds, resulting in a reduction to the scope of TEES's sponsored research activities. This would create an estimated 2.5% loss of $2,471,906(10% -$9,887,622) in sponsored research revenues.

TEES will reduce the technology transfer strategy by 2.5%, or $27,000(10%-$108,000).The 2.5% general revenue reduction would reduce TEES's ability to attract technology transfer funds to the State of Texas. This would create an estimated 2.5% loss of $15,950(10%-$63,799) in technology licensing related revenues.

TEES will reduce the workforce development strategy by 2.5%, or $125,000(10%-$500,000).The 2.5% general revenue reduction would result in a negative impact to TEES's financial resources and would require TEES to find alternate funding for this program that contributes to workforce initiatives that promote the development of a well-educated, highly skilled workforce for Texas. This would create an estimated 2.5% loss of $120,521(10%-$482,085) in workforce development revenues from individuals and sponsors.

TEES will reduce the indirect administration strategy by 2.5%, or $153,954 (10%-$615,817). The budget reduction would result in a negative impact on TEES's ability to provide operations support to TEES researchers and staff thus impacting compliance and security within the agency.

TEES will reduce the Texas Emissions Reduction Plan (TERP) method of finance by 2.5%, or $22,178(10%-$88,712).The budget reduction would result in a negative impact on TEES's ability to provide valuable research data for the state of Texas.

Strategy: 1-1-1 Research Programs

General Revenue Funds

1 General Revenue Fund	$0	$0	$0	$124,755	$124,755	$249,510	$124,755	$124,755	$249,510
General Revenue Funds Total	**$0**	**$0**	**$0**	**$124,755**	**$124,755**	**$249,510**	**$124,755**	**$124,755**	**$249,510**

Agency code: **712** Agency name: **Texas A&M Engineering Experiment Station**

Item Priority and Name/ Method of Financing	REVENUE LOSS 2020	REVENUE LOSS 2021	REVENUE LOSS Biennial Total	REDUCTION AMOUNT 2020	REDUCTION AMOUNT 2021	REDUCTION AMOUNT Biennial Total	PROGRAM AMOUNT 2020	PROGRAM AMOUNT 2021	TARGET Biennial Total
Gr Dedicated									
5071 Texas Emissions Reduction Plan	$0	$0	$0	$11,089	$11,089	$22,178	$11,089	$11,089	$22,178
Gr Dedicated Total	**$0**	**$0**	**$0**	**$11,089**	**$11,089**	**$22,178**	**$11,089**	**$11,089**	**$22,178**
Federal Funds									
555 Federal Funds	$1,235,953	$1,235,953	$2,471,906						
Federal Funds Total	**$1,235,953**	**$1,235,953**	**$2,471,906**						
Strategy: 1-2-1 Technology transfer									
General Revenue Funds									
1 General Revenue Fund	$0	$0	$0	$13,500	$13,500	$27,000	$13,500	$13,500	$27,000
General Revenue Funds Total	**$0**	**$0**	**$0**	**$13,500**	**$13,500**	**$27,000**	**$13,500**	**$13,500**	**$27,000**
Other Funds									

Agency code: **712** Agency name: **Texas A&M Engineering Experiment Station**

Item Priority and Name/ Method of Financing	REVENUE LOSS 2020	REVENUE LOSS 2021	REVENUE LOSS Biennial Total	REDUCTION AMOUNT 2020	REDUCTION AMOUNT 2021	REDUCTION AMOUNT Biennial Total	PROGRAM AMOUNT 2020	PROGRAM AMOUNT 2021	TARGET Biennial Total
997 Other Funds, estimated	$7,975	$7,975	$15,950						
Other Funds Total	**$7,975**	**$7,975**	**$15,950**						
Strategy: 1-3-1 Workforce Development									
General Revenue Funds									
1 General Revenue Fund	$0	$0	$0	$62,500	$62,500	$125,000	$62,500	$62,500	$125,000
General Revenue Funds Total	**$0**	**$0**	**$0**	**$62,500**	**$62,500**	**$125,000**	**$62,500**	**$62,500**	**$125,000**
Federal Funds									
555 Federal Funds	$60,261	$60,261	$120,522						
Federal Funds Total	**$60,261**	**$60,261**	**$120,522**						
Strategy: 4-1-1 Indirect Administration									
General Revenue Funds									
1 General Revenue Fund	$0	$0	$0	$76,977	$76,977	$153,954	$76,977	$76,977	$153,954
General Revenue Funds Total	**$0**	**$0**	**$0**	**$76,977**	**$76,977**	**$153,954**	**$76,977**	**$76,977**	**$153,954**

Agency code: **712** Agency name: **Texas A&M Engineering Experiment Station**

Item Priority and Name/ Method of Financing	REVENUE LOSS 2020	REVENUE LOSS 2021	REVENUE LOSS Biennial Total	REDUCTION AMOUNT 2020	REDUCTION AMOUNT 2021	REDUCTION AMOUNT Biennial Total	PROGRAM AMOUNT 2020	PROGRAM AMOUNT 2021	TARGET Biennial Total
Item Total	**$1,304,189**	**$1,304,189**	**$2,608,378**	**$288,821**	**$288,821**	**$577,642**	**$288,821**	**$288,821**	**$577,642**
FTE Reductions (From FY 2020 and FY 2021 Base Request)									
AGENCY TOTALS									
General Revenue Total				**$1,110,932**	**$1,110,930**	**$2,221,862**	**$1,155,286**	**$1,155,285**	**$2,310,571**	**$2,221,859**
GR Dedicated Total				**$44,356**	**$44,356**	**$88,712**				**$88,712**
Agency Grand Total	**$5,216,756**	**$5,216,756**	**$10,433,512**	**$1,155,288**	**$1,155,286**	**$2,310,574**	**$1,155,286**	**$1,155,285**	**$2,310,571**	**$2,310,571**
Difference, Options Total Less Target						**$3**				
Agency FTE Reductions (From FY 2020 and FY 2021 Base Request)									
Article Total				**$1,155,288**	**$1,155,286**	**$2,310,574**	**$1,155,286**	**$1,155,285**	**$2,310,571**	
Statewide Total				**$1,155,288**	**$1,155,286**	**$2,310,574**	**$1,155,286**	**$1,155,285**	**$2,310,571**	

6.L. Document Production Standards

Summary of Savings Due to Improved Document Production Standards

Agency Code:	Agency Name:	Prepared By:
712	Texas A&M Engineering Experiment Station	John Crawford

Documented Production Standards Strategies	Estimated 2018	Budgeted 2019
1.	$0	$0
2.	$0	$0
3.	$0	$0
4.	$0	$0
Total, All Strategies	$0	$0
Total Estimated Paper Volume Reduced	-	-

Description:

Chapter 2052 of the Government Code (State Agency Reports and Publications) addresses similar issues as the rider provision. Texas A&M Engineering Experiment Station has been following the statutory requirements in this chapter since they were enacted; there are no cost savings for this biennium.

712 Texas A&M Engineering Experiment Station

		E&G Enrollment	GR Enrollment	GR-D/OEGI Enrollment	Total E&G (Check)	Local Non-E&G
GR & GR-D Percentages						
GR %	100.00%					
GR-D/Other %	0.00%					
Total Percentage	100.00%					
FULL TIME ACTIVES						
1a Employee Only		64	64	0	64	123
2a Employee and Children		25	25	0	25	31
3a Employee and Spouse		20	20	0	20	27
4a Employee and Family		30	30	0	30	72
5a Eligible, Opt Out		10	10	0	10	30
6a Eligible, Not Enrolled		0	0	0	0	2
Total for This Section		**149**	**149**	**0**	**149**	**285**
PART TIME ACTIVES						
1b Employee Only		12	12	0	12	609
2b Employee and Children		1	1	0	1	13
3b Employee and Spouse		1	1	0	1	76
4b Employee and Family		1	1	0	1	26
5b Eligble, Opt Out		1	1	0	1	18
6b Eligible, Not Enrolled		0	0	0	0	60
Total for This Section		**16**	**16**	**0**	**16**	**802**
Total Active Enrollment		**165**	**165**	**0**	**165**	**1,087**

712 Texas A&M Engineering Experiment Station

	E&G Enrollment	GR Enrollment	GR-D/OEGI Enrollment	Total E&G (Check)	Local Non-E&G
FULL TIME RETIREES by ERS					
1c Employee Only	103	103	0	103	1
2c Employee and Children	3	3	0	3	0
3c Employee and Spouse	52	52	0	52	1
4c Employee and Family	5	5	0	5	0
5c Eligble, Opt Out	0	0	0	0	0
6c Eligible, Not Enrolled	0	0	0	0	0
Total for This Section	**163**	**163**	**0**	**163**	**2**
PART TIME RETIREES by ERS					
1d Employee Only	0	0	0	0	0
2d Employee and Children	0	0	0	0	0
3d Employee and Spouse	0	0	0	0	0
4d Employee and Family	0	0	0	0	0
5d Eligble, Opt Out	0	0	0	0	0
6d Eligible, Not Enrolled	0	0	0	0	0
Total for This Section	**0**	**0**	**0**	**0**	**0**
Total Retirees Enrollment	**163**	**163**	**0**	**163**	**2**
TOTAL FULL TIME ENROLLMENT					
1e Employee Only	167	167	0	167	124
2e Employee and Children	28	28	0	28	31
3e Employee and Spouse	72	72	0	72	28
4e Employee and Family	35	35	0	35	72
5e Eligble, Opt Out	10	10	0	10	30
6e Eligible, Not Enrolled	0	0	0	0	2
Total for This Section	**312**	**312**	**0**	**312**	**287**

712 Texas A&M Engineering Experiment Station

	E&G Enrollment	GR Enrollment	GR-D/OEGI Enrollment	Total E&G (Check)	Local Non-E&G
TOTAL ENROLLMENT					
1f Employee Only	179	179	0	179	733
2f Employee and Children	29	29	0	29	44
3f Employee and Spouse	73	73	0	73	104
4f Employee and Family	36	36	0	36	98
5f Eligble, Opt Out	11	11	0	11	48
6f Eligible, Not Enrolled	0	0	0	0	62
Total for This Section	**328**	**328**	**0**	**328**	**1,089**

Schedule 4: Computation of OASI

86th Regular Session, Agency Submission, Version 1

Automated Budget and Evaluation System of Texas (ABEST)

Agency 712 Texas A&M Engineering Experiment Station

Proportionality Percentage Based on Comptroller Accounting Policy Statement #011, Exhibit 2	2017		2018		2019		2020		2021	
	% to Total	**Allocation of OASI**	**% to Total**	**Allocation of OASI**	**% to Total**	**Allocation of OASI**	**% to Total**	**Allocation of OASI**	**% to Total**	**Allocation of OASI**
General Revenue (% to Total)	100.0000	$994,960	100.0000	$1,080,526	100.0000	$1,102,137	100.0000	$1,102,137	100.0000	$1,102,137
Other Educational and General Funds (% to Total)	0.0000	$0	0.0000	$0	0.0000	$0	0.0000	$0	0.0000	$0
Health-Related Institutions Patient Income (% to Total)	0.0000	$0	0.0000	$0	0.0000	$0	0.0000	$0	0.0000	$0
Grand Total, OASI (100%)	100.0000	**$994,960**	100.0000	**$1,080,526**	100.0000	**$1,102,137**	100.0000	**$1,102,137**	100.0000	**$1,102,137**

712 Texas A&M Engineering Experiment Station

Description	Act 2017	Act 2018	Bud 2019	Est 2020	Est 2021
Proportionality Amounts					
Gross Educational and General Payroll - Subject To TRS Retirement	9,597,912	9,558,824	9,845,588	9,845,588	9,845,588
Employer Contribution to TRS Retirement Programs	652,658	650,000	669,500	669,500	669,500
Gross Educational and General Payroll - Subject To ORP Retirement	4,560,833	5,235,268	52,392,326	5,392,326	5,392,326
Employer Contribution to ORP Retirement Programs	301,015	345,528	355,894	355,894	355,894
Proportionality Percentage					
General Revenue	100.0000 %	100.0000 %	100.0000 %	100.0000 %	100.0000 %
Other Educational and General Income	0.0000 %	0.0000 %	0.0000 %	0.0000 %	0.0000 %
Health-related Institutions Patient Income	0.0000 %	0.0000 %	0.0000 %	0.0000 %	0.0000 %
Proportional Contribution					
Other Educational and General Proportional Contribution (Other E&G percentage x Total Employer Contribution to Retirement Programs)	0	0	0	0	0
HRI Patient Income Proportional Contribution (HRI Patient Income percentage x Total Employer Contribution To Retirement Programs)	0	0	0	0	0
Differential					
Differential Percentage	1.9000 %	1.9000 %	1.9000 %	1.9000 %	1.9000 %
Gross Payroll Subject to Differential - Optional Retirement Program	2,227,110	2,157,718	2,157,718	2,157,718	2,157,718
Total Differential	42,315	40,997	40,997	40,997	40,997

712 Texas A&M Engineering Experiment Station

Activity	Act 2017	Act 2018	Bud 2019	Est 2020	Est 2021
A. PUF Bond Proceeds Allocation	0	0	3,100,000	0	0
Project Allocation					
Library Acquisitions	0	0	0	0	0
Construction, Repairs and Renovations	0	0	1,500,000	0	0
Furnishings & Equipment	0	0	0	0	0
Computer Equipment & Infrastructure	0	0	0	0	0
Reserve for Future Consideration	0	0	0	0	0
Other (Itemize)					
PUF Bond Proceeds					
Equipment/Minor Renovation Projects	0	0	1,600,000	0	0
B. HEF General Revenue Allocation	0	0	0	0	0
Project Allocation					
Library Acquisitions	0	0	0	0	0
Construction, Repairs and Renovations	0	0	0	0	0
Furnishings & Equipment	0	0	0	0	0
Computer Equipment & Infrastructure	0	0	0	0	0
Reserve for Future Consideration	0	0	0	0	0
HEF for Debt Service	0	0	0	0	0
Other (Itemize)					

Agency code: **712** Agency name: **Texas A&M Eng Expr Station**

	Actual 2017	Actual 2018	Budgeted 2019	Estimated 2020	Estimated 2021
Part A.					
FTE Postions					
Directly Appropriated Funds (Bill Pattern)					
Educational and General Funds Non-Faculty Employees	323.9	334.1	336.1	336.1	336.1
Subtotal, Directly Appropriated Funds	**323.9**	**334.1**	**336.1**	**336.1**	**336.1**
Other Appropriated Funds					
Other (Itemize)	488.5	508.3	506.3	506.3	506.3
Subtotal, Other Appropriated Funds	**488.5**	**508.3**	**506.3**	**506.3**	**506.3**
Subtotal, All Appropriated	**812.4**	**842.4**	**842.4**	**842.4**	**842.4**
Non Appropriated Funds Employees	154.9	166.9	171.5	174.9	174.9
Subtotal, Other Funds & Non-Appropriated	**154.9**	**166.9**	**171.5**	**174.9**	**174.9**
GRAND TOTAL	**967.3**	**1,009.3**	**1,013.9**	**1,017.3**	**1,017.3**

Agency code: **712** Agency name: **Texas A&M Eng Expr Station**

	Actual 2017	Actual 2018	Budgeted 2019	Estimated 2020	Estimated 2021
Part B. **Personnel Headcount**					
Directly Appropriated Funds (Bill Pattern)					
Educational and General Funds Non-Faculty Employees	522.0	542.0	542.0	553.0	553.0
Subtotal, Directly Appropriated Funds	**522.0**	**542.0**	**542.0**	**553.0**	**553.0**
Other Appropriated Funds					
Other (Itemize)	782.0	810.0	810.0	828.0	828.0
Subtotal, Other Appropriated Funds	**782.0**	**810.0**	**810.0**	**828.0**	**828.0**
Subtotal, All Appropriated	**1,304.0**	**1,352.0**	**1,352.0**	**1,381.0**	**1,381.0**
Non Appropriated Funds Employees	224.0	271.0	271.0	292.0	292.0
Subtotal, Non-Appropriated	**224.0**	**271.0**	**271.0**	**292.0**	**292.0**
GRAND TOTAL	**1,528.0**	**1,623.0**	**1,623.0**	**1,673.0**	**1,673.0**

Agency code: **712** Agency name: **Texas A&M Eng Expr Station**

	Actual 2017	Actual 2018	Budgeted 2019	Estimated 2020	Estimated 2021
PART C.					
Salaries					
Directly Appropriated Funds (Bill Pattern)					
Educational and General Funds Non-Faculty Employees	$17,244,235	$18,280,313	$18,791,165	$19,166,988	$19,166,988
Subtotal, Directly Appropriated Funds	**$17,244,235**	**$18,280,313**	**$18,791,165**	**$19,166,988**	**$19,166,988**
Other Appropriated Funds					
Other (Itemize)	$31,255,176	$33,133,067	$34,058,986	$34,740,165	$34,740,165
Subtotal, Other Appropriated Funds	**$31,255,176**	**$33,133,067**	**$34,058,986**	**$34,740,165**	**$34,740,165**
Subtotal, All Appropriated	**$48,499,411**	**$51,413,380**	**$52,850,151**	**$53,907,153**	**$53,907,153**
Non Appropriated Funds Employees	$5,388,823	$5,388,823	$5,388,823	$5,388,823	$5,388,823
Subtotal, Non-Appropriated	**$5,388,823**	**$5,388,823**	**$5,388,823**	**$5,388,823**	**$5,388,823**
GRAND TOTAL	**$53,888,234**	**$56,802,203**	**$58,238,974**	**$59,295,976**	**$59,295,976**