

fy17 research **EXPENDITURES**



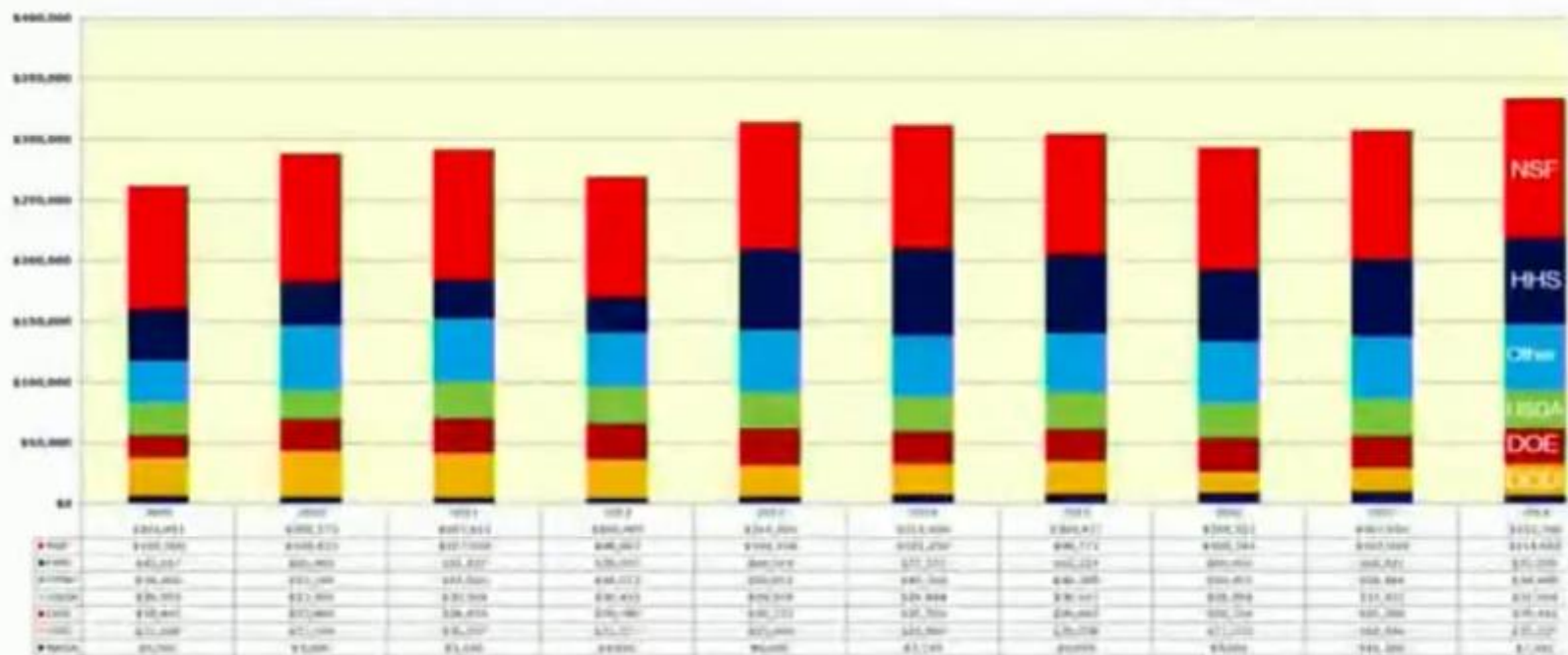
NSF Higher Education Research & Development Survey
Dollars in Millions

fy17 → 18 research EXPENDITURES

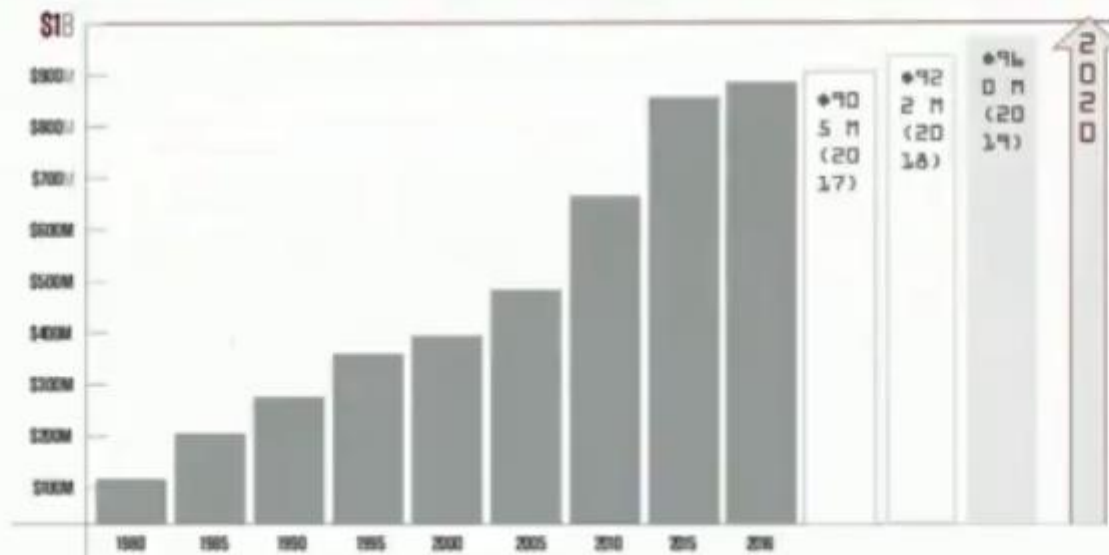


NSF Higher Education Research & Development Survey
Dollars in Millions

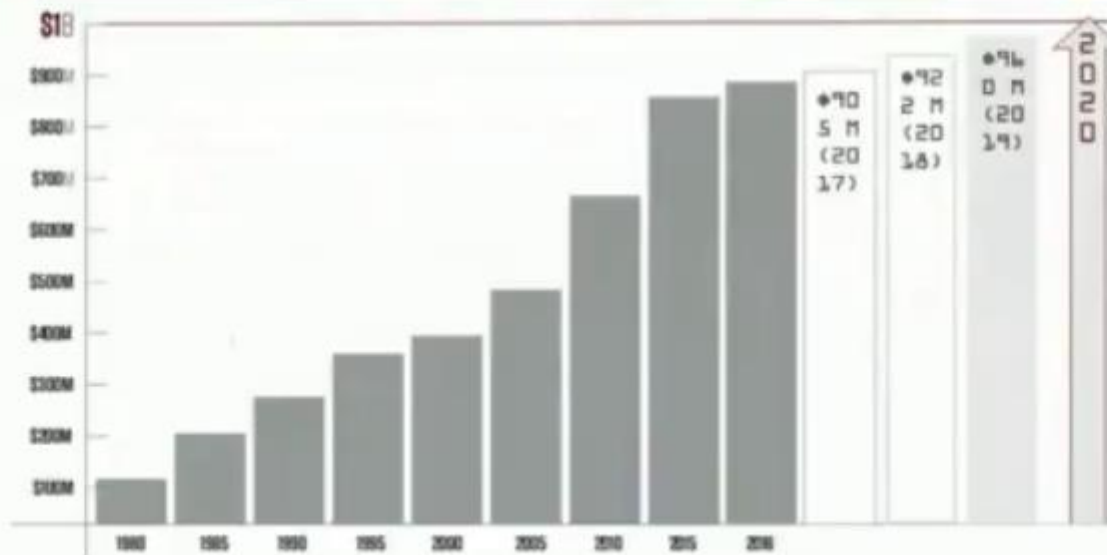
Research Expenditures by Federal Agency



research
GROWTH



research GROWTH



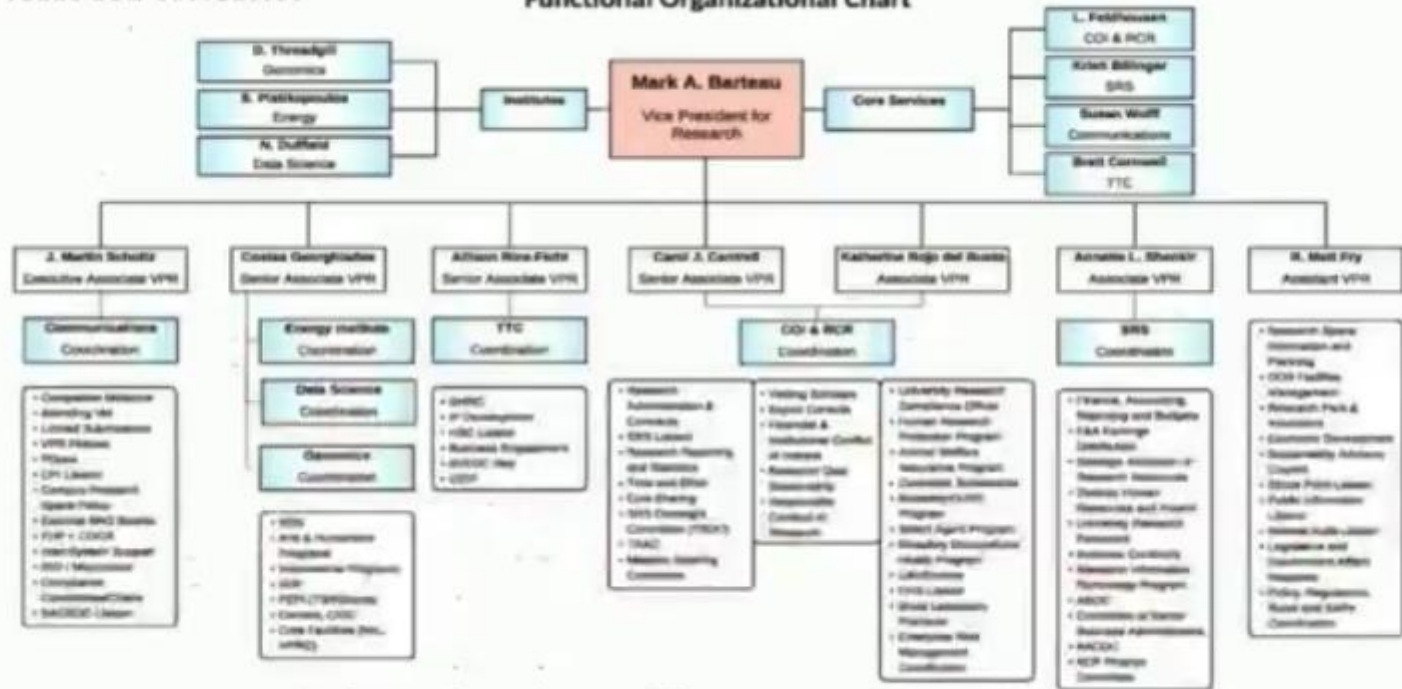
How the Division of Research delivers strategic support to further research:

- ▶ *Provides support to faculty as individuals or in groups;*
- ▶ *Supports interdisciplinary/multidisciplinary collaborations to grow federal funding;*
- ▶ *Strengthens the research infrastructure;*
- ▶ *Promotes the value of research and enterprise;*
- ▶ *Ensures research compliance with research standards established by the federal government, the state of Texas, Texas A&M, and The Texas A&M University System.*

VPR as the Chief Research Advocate!



Functional Organizational Chart





bit.ly/tamuresearch-subscribe



research
DEVELOPMENT SERVICES

Assists the Texas A&M research community by

- providing professional development workshops, seminars, and writing groups
- assisting with proposal resubmission based on reviewers' comments
- administering four internal grant programs, including two international programs
- facilitating and supporting preparation of large-scale multidisciplinary team proposals
- accessing and training for funding opportunities

vpr.tamu.edu/researchdevelopment

Issues, Needs, and Plans: Research Development Services



Expand to enable pursuit of large multidisciplinary proposals

Existing positives:

- Ability to make strong institutional (\$) commitments
- Effective external consultant for DOE, NSF, DOD programs

Needs:

- Project management support for large proposals
- Expand range of consultants' expertise (NIH?)



core **FACILITIES**

Some examples through the Research Development Fund

- Advanced Nano-Patterning and Substrate Development Capabilities at AggieFab Nanofabrication Cleanroom
- Enhancing Access to NMR Spectroscopy
- Human Biometrics and Behavior Laboratory
- Interdisciplinary Advanced Robotics Facility
- Materials Characterization Facility
- Multidisciplinary Soft Matter Facility
- Texas A&M's Mass Spectrometry Core Facility

tamu.corefacilities.org



high-performance
RESEARCH COMPUTING

A dedicated resource for research and discovery at Texas A&M and a prime example of the excellent core facilities available to researchers.

- The HPRC supports more than 2,300 users, including more than 450 faculty members
- HPRC promotes emerging computing technology to researchers and assists them in using it for research and discovery.



technology **COMMERCIALIZATION**

Assists the Texas A&M research community by

- encouraging broad practical applications of Texas A&M University System research
- assisting faculty, researchers, and staff in the protection, licensing, and commercialization of their discoveries
- ensuring the equitable distribution of royalties and other monetary benefits resulting from the commercial application of intellectual property

techtransfer.tamu.edu



Division of Research **CENTERS *and* INSTITUTES**



MICROSCOPY AND IMAGING CENTER

provides current and emerging technologies for teaching and research involving microscopy and imaging in life and physical sciences, training and support services for microscopy, sample preparation, *in situ* elemental/molecular analyses, as well as digital image analysis and processing




TEXAS A&M ENERGY INSTITUTE

pursues and supports new approaches for multi-disciplinary energy research, education, and external partnerships. These approaches cross departmental and college boundaries and address all facets of the energy landscape that naturally connect engineering, sciences, technologies, economics, law, and policy decisions



TEXAS A&M INSTITUTE OF DATA SCIENCE

provides leadership in the development of data science as a new discipline and satisfies the diverse data collection, management, security, and analysis requirements of researchers, students, and partner organizations throughout Texas A&M



research
CENTERS & INSTITUTES

144

BOARD OF
REGENTS
APPROVED
CENTERS AND
INSTITUTES

- Research centers and institutes play an important role in the academic landscape at Texas A&M, bringing together scholars and scientists—often from different disciplines—to tackle major research challenges.

**144 Centers and Institutes
in 8 Thematic Areas**

- Climate and the Environment
- Computation and Information
- Education and Outreach
- Energy, Food and Water
- Global Health and Security
- Healthcare
- Infrastructure, Materials and Manufacturing
- Society, Policy and the Economy

Promoting Collaborations



What's new?

- Research Development Fund
 - ❖ RDF renewed for 5 years
 - ❖ Up to 20% of funds for operations and personnel

 - T3 Grants
 - X-Grants
- President's Excellence Fund*
- ❖ No change (same advantage for Asst. Profs.)
 - ❖ 100 New Triads awarded
 - ❖ Revised process for submissions
 - Title/subject posting November 15, 2018
 - 1-pagers due in January 14, 2019
 - Smaller awards reduced to \$325K

1st President's Excellence Fund Symposium: April 4, 2019

Promoting Collaborations



- Research Development Fund
 - T3 Grants
 - X-Grants
-
- *Are all of these serving the same faculty profile?*
 - *How do we foster greater collaboration with and within fields not well served by these programs?*
 - *How do we integrate the human/societal focus (humanities, social sciences, policy, etc.) into our strategies from the beginning?*

Gerianne Alexander has joined as a Faculty Fellow focusing on Humanities and Social Sciences

Growing the impact of Texas A&M Scholars



- **Take advantage of the resources being invested**
- **Look for team-building/collaboration/big challenge opportunities**
- **Pursue opportunities for public engagement**
- **Consider/promote faculty service on advisory boards and committees**
 - Federal agencies, National labs, National Academies, etc.
- **Strengthen our external partnerships**
 - National Labs (DOE, USDA, EPA, CDC...)
 - Academic consortia
 - Business

How can the Division of Research help you?

Commentary

Thinking about becoming a VPR?

Consider this a warning that the average person at any age, with no prior experience with a VPR or VPR, is not prepared to be successful in a career. Before embarking on a career in research, the person has to understand the nature of the research, the nature of the organization, the nature of the industry, and the nature of the job. The person has to understand the nature of the industry, the nature of the organization, and the nature of the job. The VPR job is not a job that can be done in a vacuum. It is a job that requires a person to be able to work with others, to be able to communicate, and to be able to understand the nature of the industry and the organization.

When thinking of a graduate career or thinking of a career, the graduate has to be able to understand the nature of the industry, the nature of the organization, and the nature of the job. The graduate has to be able to work with others, to be able to communicate, and to be able to understand the nature of the industry and the organization. The graduate has to be able to understand the nature of the industry, the nature of the organization, and the nature of the job. The graduate has to be able to work with others, to be able to communicate, and to be able to understand the nature of the industry and the organization.

When VPRs enter the workforce, they are often in a position where they are not prepared to be successful in a career. They are often in a position where they are not prepared to be successful in a career. They are often in a position where they are not prepared to be successful in a career. They are often in a position where they are not prepared to be successful in a career. They are often in a position where they are not prepared to be successful in a career.

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Mark Van Vleet, Chief Executive Officer of the National Institute of Standards and Technology, is shown with a group of students in a classroom.

to think and design across the boundaries. Research often can take place in VPR environments, but the research has to be done in a way that is consistent with the nature of the industry and the organization. The research has to be done in a way that is consistent with the nature of the industry and the organization. The research has to be done in a way that is consistent with the nature of the industry and the organization.

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**CONTACT
PHYSICS
TODAY**

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Mark Van Vleet is the Chief Executive Officer of the National Institute of Standards and Technology.

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University of California
Berkeley

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