

**GEORGE MASON UNIVERSITY  
BOARD OF VISITORS**

**BOARD OF VISITORS MEETING  
December 12, 2018  
Merten Hall, Fairfax Campus**

**AGENDA**

<b>8:00 a.m. – 8:30 a.m.</b> <i>(Room 1205)</i>	<i>Continental Breakfast</i>
<b>8:30 a.m. – 8:55 a.m.</b> <i>(Room 1201)</i>	<b>Executive Committee</b>
<b>9:00 a.m. – 9:55 a.m.</b> <i>(Room 1203)</i>	<b>Audit Committee</b>
<b>10:00 a.m. – 10:55 a.m.</b> <i>(Room 1201)</i>	<b>Academic Programs, Diversity and University Community Committee</b>
<b>11:00 a.m. – 11:50 a.m.</b> <i>(Room 1203)</i>	<b>Development Committee</b>
<b>11:00 a.m. – 11:50 a.m.</b> <i>(Room 1204)</i>	<b>Research Committee</b>
<b>11:55 a.m. – 12:50 p.m.</b> <i>(Room 1201)</i>	<b>Finance and Land Use Committee</b>
<b>12:50 p.m. – 1:30 p.m.</b> <i>(Room 1202)</i>	<i>Lunch</i>

**BOARD OF VISITORS MEETING AGENDA**

**Merten Hall, Room 1201**

<b>1:35 p.m.</b>	<b>I. Call to Order</b>
<b>1:35 p.m.</b>	<b>II. Approval of the Minutes (ACTION ITEMS)</b> A. Executive Committee Meeting Minutes for October 10, 2018 B. Meeting Minutes for October 10, 2018
<b>1:35 p.m. – 1:45 p.m.</b>	<b>III. Rector’s Report</b>
<b>1:45 p.m. – 2:05 p.m.</b>	<b>IV. President’s Report</b>
<b>2:05 p.m. – 2:20 p.m.</b>	<b>V. Provost’s Report</b>

**VI. Committee Reports**

2:20 p.m. – 2:25 p.m.

**A. Development Committee**

2:25 p.m. – 2:30 p.m.

**B. Audit Committee**

2:30 p.m. – 2:35 p.m.

**C. Academic Programs, Diversity and University Community Committee**

2:35 p.m. – 2:40 p.m.

**D. Research Committee**

2:40 p.m. – 2:45 p.m.

**E. Finance and Land Use Committee**

1. Schematic Design Review for IABR Clean Room (ACTION ITEM)

2:45 p.m. – 3:30 p.m.

**VII. Closed Session**

**A. Public Contract (Code of VA: §2.2-3711.A.29)**

**B. Gifts, Bequests, and Fundraising Activities (Code of VA: §2.2-3711.A.9)**

**C. Consultation with Legal Counsel pertaining to actual or probable litigation (Code of VA: §2.2-3711.A.7)**

**D. Consultation with Legal Counsel regarding specific legal matters requiring the provision of legal advice (Code of VA: §2.2-3711.A.8)**

**E. Personnel Matter (Code of VA: §2.2-3711.A.1)**

**F. Honorary Degrees and Special Awards (Code of VA: §2.2-3711.A.10)**

3:30 p.m.

**VIII. Adjournment**

**No public comment will be taken at this meeting.**

**GEORGE MASON UNIVERSITY  
BOARD OF VISITORS**

**Meeting of the  
Executive Committee  
December 12, 2018  
8:30 – 8:55 a.m.**

**Merten Hall, Fairfax Campus  
Room 1201**

**AGENDA**

- I. Call to Order**
- II. President's Comments**
- III. Closed Session**
  - A. Public Contract (Code of VA: §2.2-3711.A.29)**
  - B. Gifts, Bequests, and Fundraising Activities (Code of VA: §2.2-3711.A.9)**
  - C. Consultation with Legal Counsel pertaining to actual or probable litigation (Code of VA: §2.2-3711.A.7)**
  - D. Consultation with Legal Counsel regarding specific legal matters requiring the provision of legal advice (Code of VA: §2.2-3711.A.8)**
  - E. Personnel Matter (Code of VA: §2.2-3711.A.1)**
  - F. Honorary Degrees and Special Awards (Code of VA: §2.2-3711.A.10)**
- IV. Adjournment**

**No public comment will be taken at this meeting.**

**GEORGE MASON UNIVERSITY  
BOARD OF VISITORS**

**Audit Committee  
December 12, 2018  
Merten Hall, Fairfax Campus**

**A G E N D A**

- I. Call to Order**
- II. Approval of Audit Committee Minutes**
  - A. Approval of Committee Minutes for October 10, 2018 Meeting (**ACTION**)
- III. New Business**
  - A. Auditor of Public Accounts Discussion
  - B. Enrollment Update
- IV. Reports**
  - A. Report of Approved Waivers of Contractual Conflicts of Interest
  - B. Office of University Audit Summary Report
- V. Adjournment**

**AUDIT COMMITTEE  
OF THE BOARD OF VISITORS**

**October 10, 2018  
Merten Hall**

**MINUTES**

**PRESENT:** Chair Rice; Vice Chair Moreno; Visitors Blackman, Hazel and Petersen.

Rector Davis; Provost and Executive Vice President Wu; Senior Vice President Davis; Associate Vice President Dade; Director French; Vice President-Finance and Budgeting Kemp; Vice President and Chief Information Officer Smith; University Counsel Walther; Chief Ethics Officer Woodley; Assistant Vice President-Safety, Emergency, and Enterprise Risk Management Zobel; Student Representatives Keatinge and Pettine; University Auditor Dittmeier; and Associate University Auditor Watkins.

**ABSENT:** Visitor Purvis.

**I.** Chair Rice called the meeting to order at 8:31 a.m.

**II. Closed Session**

Visitor Hazel **MOVED** and Visitor Blackman **SECONDED** that the Committee go into Closed Session under the provisions of Section 2.2-3705.2.4 to discuss critical infrastructure vulnerability assessment information. There was no discussion.

**MOTION CARRIED UNANIMOUSLY BY VOICE VOTE.**

Visitor Hazel **MOVED** and Rector Davis **SECONDED** that the committee go back into public session and it was further moved that by **ROLL CALL VOTE** affirm that only public business matters lawfully exempted from the open meeting requirements under the Freedom of Information Act were heard, discussed, or considered in the Closed Session, and that only such business matters that were identified in the motion to go into Closed Session were heard, discussed, or considered in the Closed Session.

Roll call was taken with all present members responding in the affirmative.

**III. Approval of Minutes**

Chair Rice called for a motion to approve the minutes of the May 3, 2018 Audit Committee meeting. The motion was **MOVED** by Visitor Hazel and **SECONDED** by Visitor Blackman.

## **AUDIT COMMITTEE**

October 10, 2018

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**MOTION CARRIED** with four affirmative votes and Vice Chair Moreno abstaining.

### **IV. New Business**

#### **A. Approval of Audit Committee Charter**

The Committee discussed the Audit Committee Charter, including minor edits proposed to ensure the charter continues to be fully aligned with the Board's by-laws. Visitor Blackman **MOVED** and Vice Chair Moreno **SECONDED** that the Audit Committee Charter be approved.

**MOTION CARRIED UNANIMOUSLY BY VOICE VOTE.**

#### **B. Approval of Office of University Audit Charter**

Mr. Dittmeier reviewed with the Committee the Office of University Audit Charter. He also confirmed the organizational independence of the Office of University Audit. After discussion, the Committee concurred with Mr. Dittmeier's organizational independence confirmation. Visitor Petersen **MOVED** and Visitor Hazel **SECONDED** that the Office of University Audit Charter be approved.

**MOTION CARRIED UNANIMOUSLY BY VOICE VOTE.**

### **V. Reports**

#### **A. Office of University Audit Summary Report**

Mr. Dittmeier reviewed with the Committee the Office of University Audit Summary Report. He described the three audit reports and six audit memos issued since the last meeting. Management continues to make progress to remediate 21 outstanding audit issues. He reviewed the status of in-progress and planned audit and investigative projects.

#### **B. Review of Office of University Audit Planning**

Mr. Dittmeier reviewed with the Committee the Office of University Audit's process for determining audit priorities in a flexible, risk-based manner using a frequently refreshed audit risk assessment. The Committee concurred with this approach for establishing risk-based audit plans.

### **VI. Adjournment**

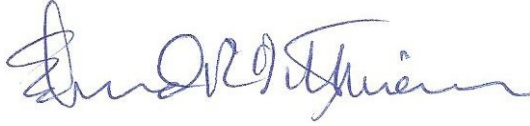
Chair Rice declared the meeting adjourned at 9:23 a.m.

**AUDIT COMMITTEE**

October 10, 2018

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Respectfully submitted,

A handwritten signature in blue ink, appearing to read "Edward R. Dittmeier". The signature is fluid and cursive, with a large initial "E" and "R".

Edward R. Dittmeier

Secretary pro tem

**ITEM NUMBER: III.A.**

Auditor of Public Accounts Discussion

**PURPOSE OF ITEM:**

Brief the Audit Committee regarding the upcoming financial statement audit for the year ended June 30, 2018.

**NARRATIVE:**

The Commonwealth's Auditor of Public Accounts is responsible for auditing the accounts of every state department, officer, board, commission, institution, or other agency handling any state funds. Among other things, the Auditor of Public Accounts determines that state agencies are providing and reporting appropriate information on financial and performance measures.

Karen Helderman, Audit Director, is representing the Auditor of Public Accounts.

**ACTION:**

Receive briefing and discuss.



**ITEM NUMBER: III.B.**

Enrollment Update

**PURPOSE OF ITEM:**

Brief the Audit Committee regarding the university's processes and approaches for managing enrollment levels.

**NARRATIVE:**

David Burge, Vice President for Enrollment Management, will review with the Committee the university's approach to managing levels of student enrollment. Among other things, he will review historic, current, and projected enrollment trends; potential risks which might impact projected levels of enrollment; and management's processes for monitoring and limiting the impact of such potential risks.

**ACTION:**

Receive briefing and discuss.

# Enrollment Update

Audit Committee December 12<sup>th</sup>, 2018



## AGENDA:

WHY IS ENROLLMENT IMPORTANT TO MASON?

WHAT ARE THE MARKET REALITIES?

HOW ARE ENROLLMENT LEVELS MANAGED?

# Why Is Enrollment Important?



- ❑ 100,000 Career-Ready Graduates
- ❑ Access Mission
- ❑ Improve financial position

# Mason's Strategic Enrollment Planning

## What We Offer

Existing/New Programs

Honors College

Study Abroad

Washington DC

## Tell the Market

Purchase 600k+ leads

Representatives (some regional)

Common Application

SalesForce CRM

## Deliver on Promises

Mason IMPACT

Student Exp. Redesign

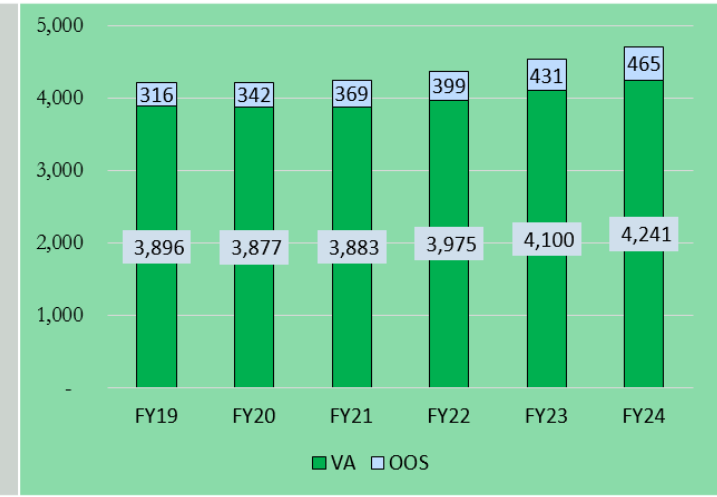
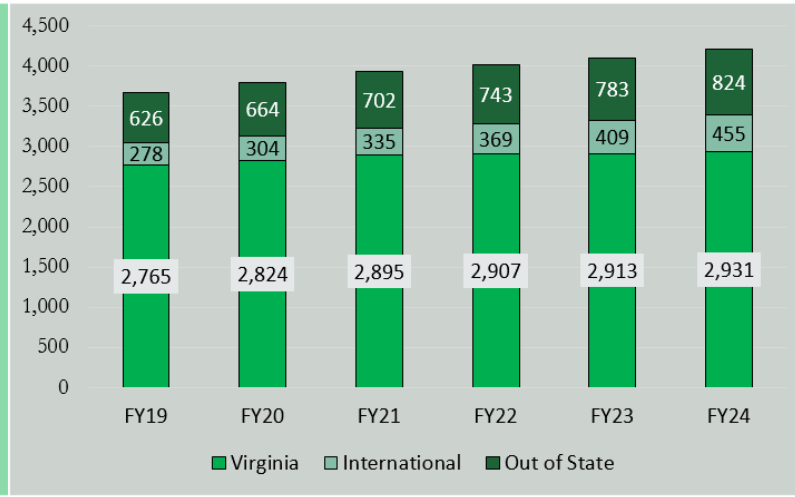
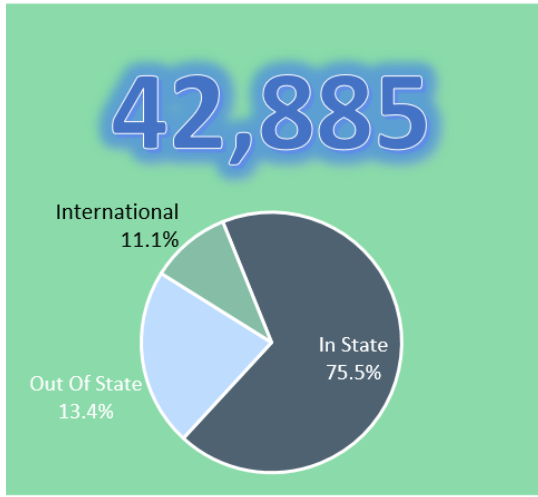
LifeCycle CRM

Build Affinity

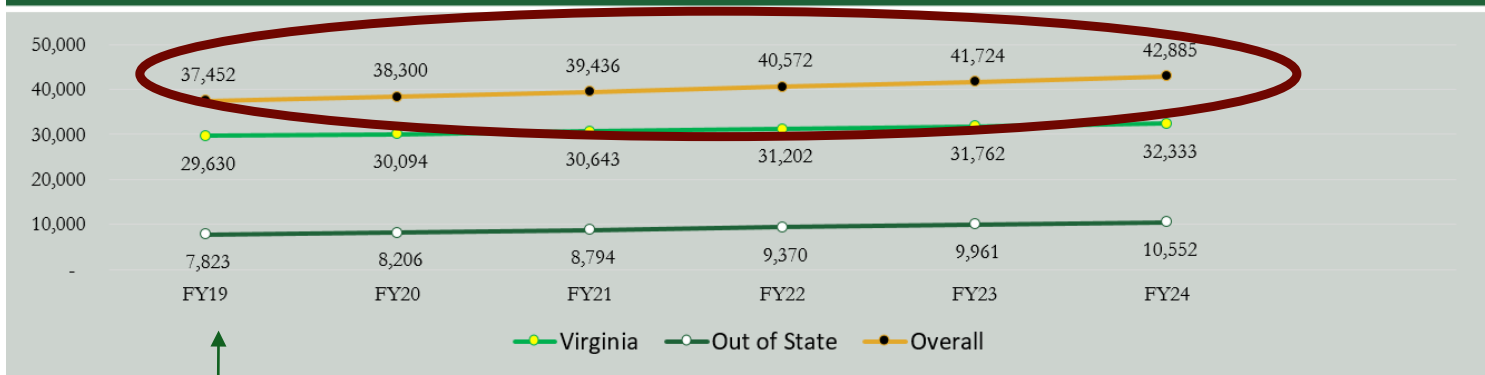


Name	Description	FR/TR OOS	FR/TR VA
SMARTGROWTH	Increase VA and Out of State Enrollment	↑ 8% each year	↑ 1 -3% each year


FY 2024 Overall Enrollment	New Freshmen Enrollment	New Transfer Enrollment
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### Overall Enrollment Timeline



### Key Assumptions

- ADVANCE gains.
  - Growth in residents consistent with recent past.
-  New International  
10% Undergrad  
5% Grad  
Each Year

**Fall 2018 Census Actuals:**

**37,757 Overall**      **30,072 Virginia**      **7,685 Out-of-State**

# Revenue and Resource Implications



Students,  
Faculty & Staff

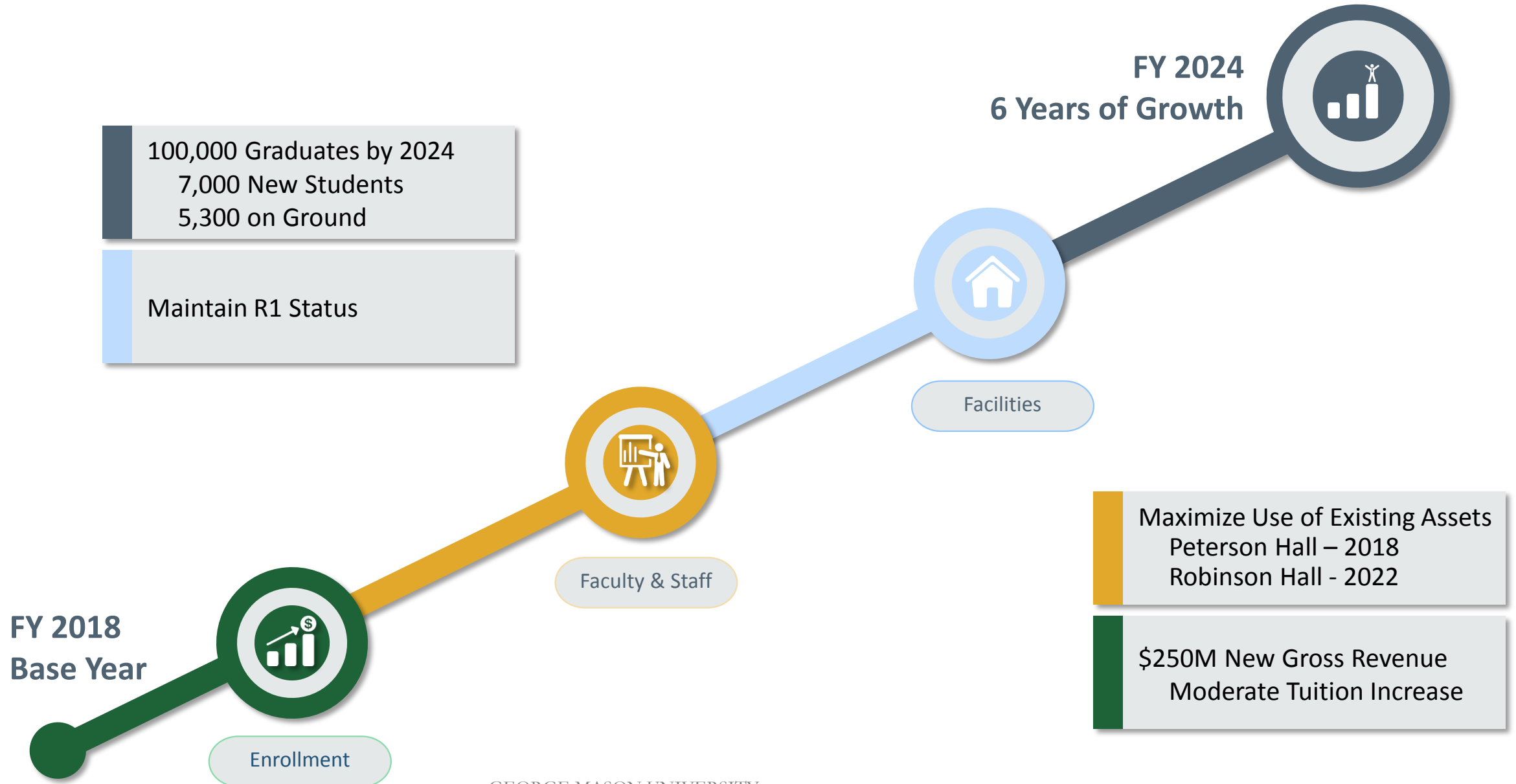
Classrooms,  
Labs, &  
Offices

Residence  
Halls, Dining,  
& Recreation

Convening  
Space/Parking

Investments Predicated on achieving SmartGrowth Targets

# FY 2024 – Strategic Plan, Enrollment and Vision for the Future





# FY 2024 – What will it take to get there?

## Faculty & Staff



Projected 6 Year Growth

Faculty 60 T/TF annually → 360

Temp 15 annually → 90

All Other 75 annually → 450

## Facilities



How Accommodate Growth?

Shared Offices

Off-Campus Leasing

Space Utilization Study

Class Scheduling

Fridays/Summer

Private Sector Housing

Dining Hall Expansion

Skyline Conversion

The Globe Expansion

## Student Services



Auxiliary: Student Centers,  
Student Life, Recreation

Transportation & Parking

IT: WiFi, \$2.5m per 1,000  
students; \$10M, \$60M  
infrastructure, \$6M base

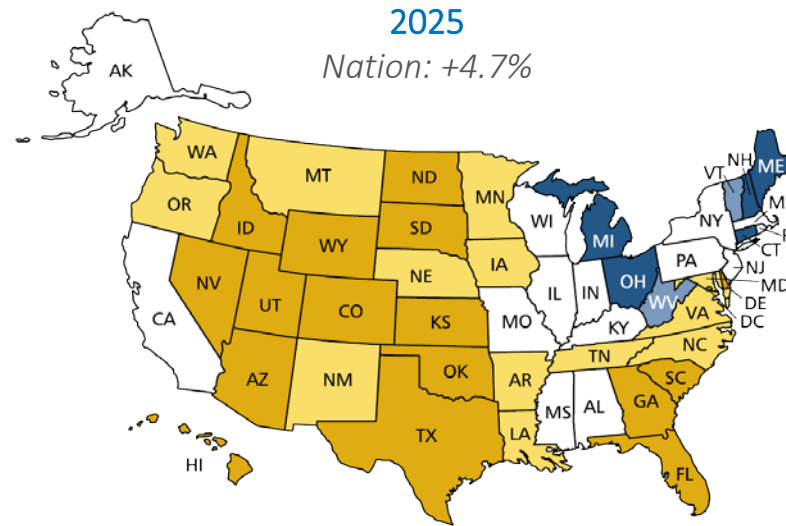
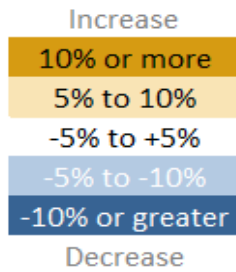
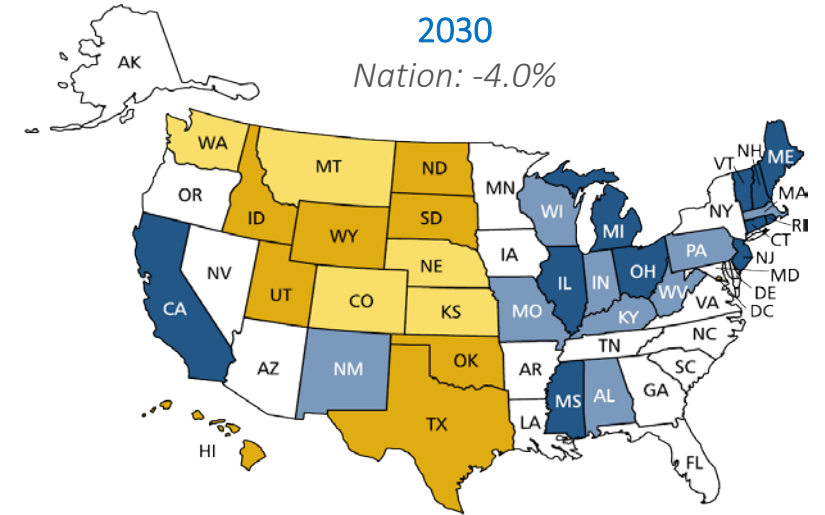
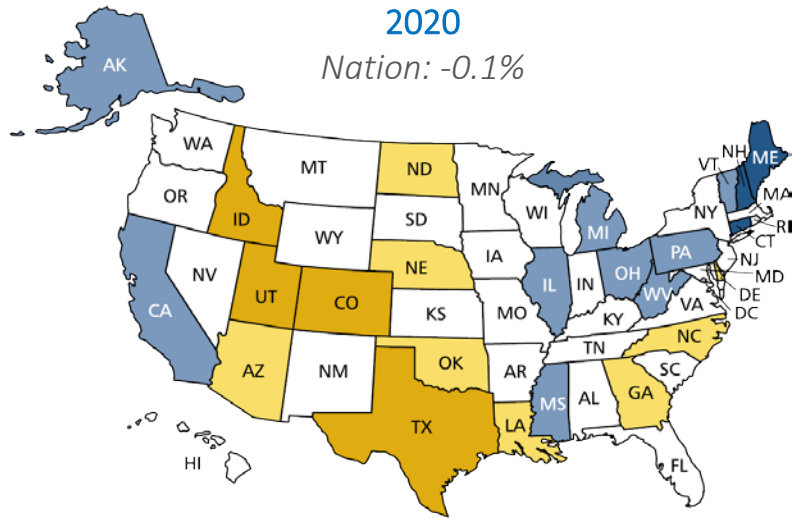
WHAT ARE THE MARKET REALITIES?



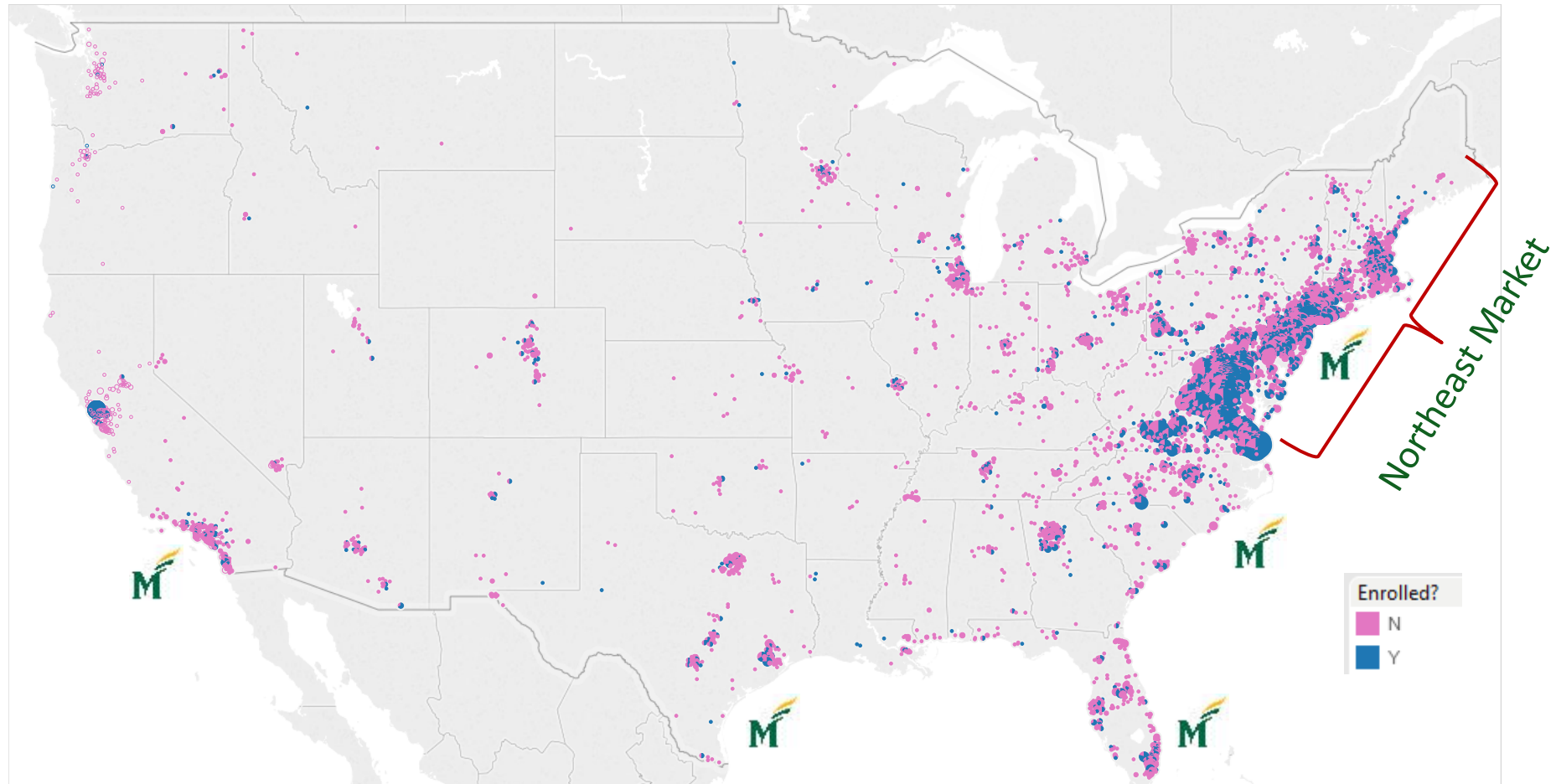
# Market Reality #1

The changing number of high school graduates.

# Compared to 2013 by State



Admits, summary of the last three years



# Freshmen Competitors by Market

Northeast Market			
	Fall 2014	Fall 2015	Fall 2016
1	University of Maryland - College Park	University of Maryland - College Park	University of Maryland - College Park
2	Penn State	Penn State	Penn State
3	University of Delaware	Towson University	Towson University
4	Towson University	University of Delaware	University of Delaware
5	American University	University of Maryland - Baltimore Co.	University of Maryland - Baltimore Co.
6	University of Maryland - Baltimore Co.	University of Pittsburgh	American University
7	University of Pittsburgh	Rutgers University	Temple University
8	Rutgers University	Temple University	George Washington University
9	George Washington University	American University	Rutgers University
10	Temple University	George Washington University	University of Pittsburgh

Other Out of State Markets			
	Fall 2014	Fall 2015	Fall 2016
1	American University	American University	American University
2	North Carolina State University	George Washington University	George Washington University
3	University of N. Carolina - Chapel Hill	University of N. Carolina - Chapel Hill	University of Florida
4	George Washington University	North Carolina State University	Florida State University
5	University of South Carolina	Arizona State University	Arizona State University
6	Florida State University	Florida State University	University of Central Florida
7	Clemson University	University of Florida	New York University
8	The Ohio State University	The Ohio State University	University of N. Carolina - Chapel Hill
9	University of Florida	University of Central Florida	University of South Florida
10	University of N. Carolina - Charlotte	University of Georgia	University of Tennessee

# Market Reality #2

A growing interest in STEM.

# STEM Interest from Virginia on the rise . . . .

## Overall STEM Interest

- Between 2012 and 2016, the percent of students interested in STEM increased by 7%.

**Student STEM Interest Trends: 2012–2016, State vs. National**

		2012	2013	2014	2015	2016
Percent	Virginia	47%	49%	51%	52%	54%
	National	48%	48%	49%	49%	48%
N Count	Virginia	10,252	10,764	11,717	12,927	13,844
	National	804,507	868,194	899,684	939,049	1,009,232

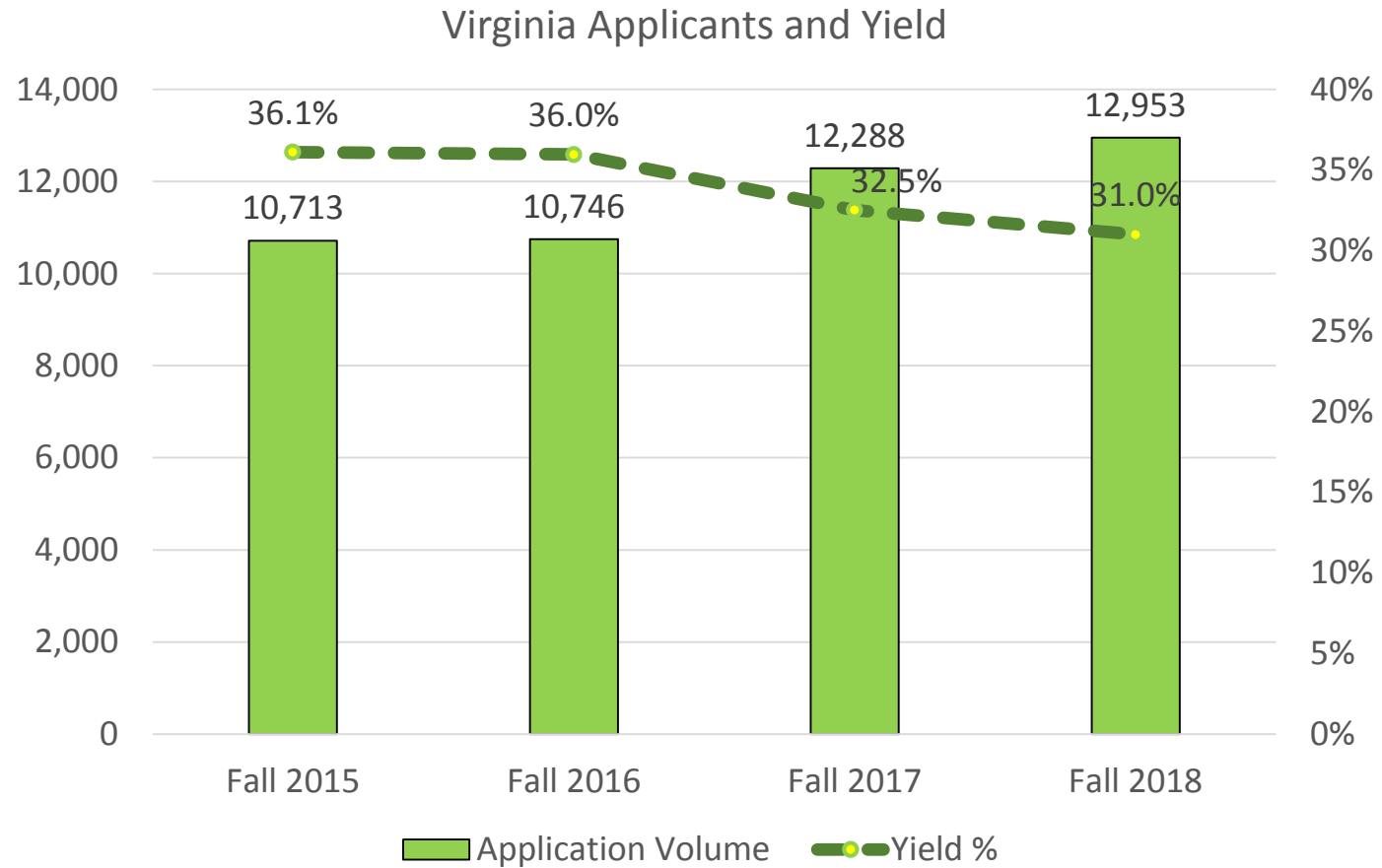
<https://www.act.org/content/act/en/research/condition-of-stem-2016.html>

Overall	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Fall 2017
STEM	34%	37%	39%	40%	43%
Non-Stem	66%	63%	61%	60%	57%

*An increase of +800 students annually*



# Growing Demand in Virginia - Freshmen



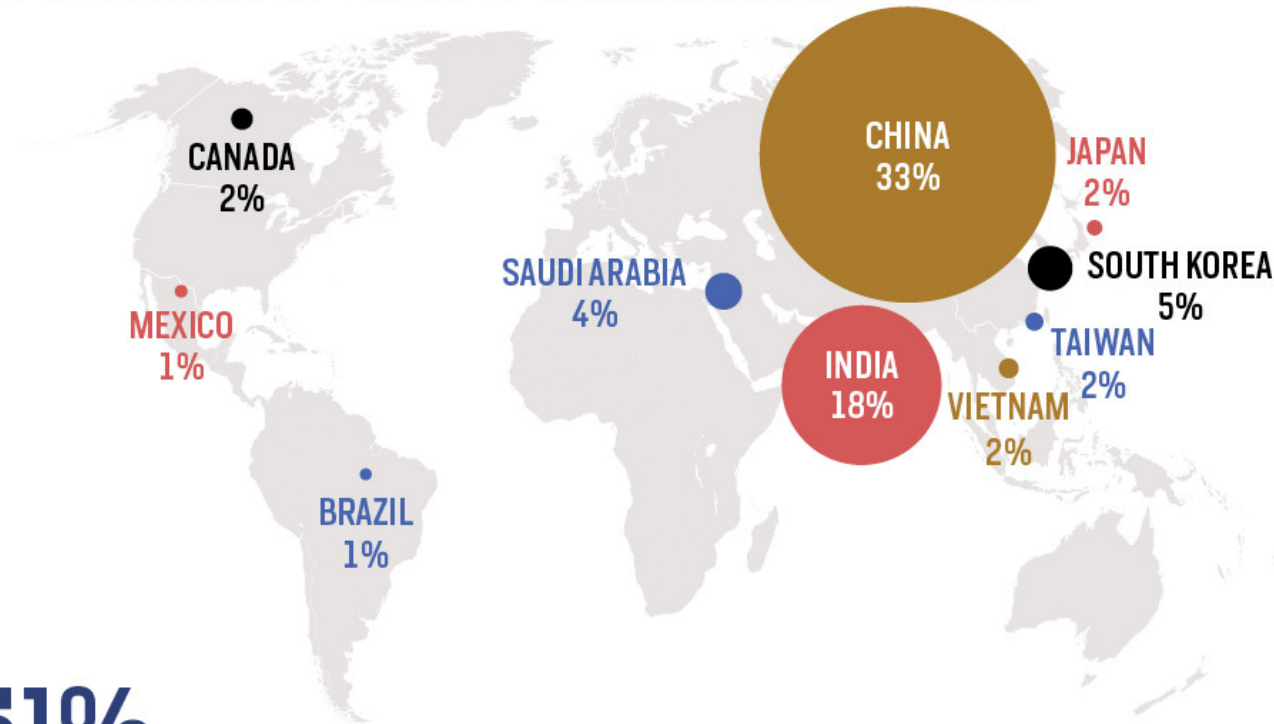
# Freshmen Competitors by Market

Virginia			
	Fall 2014	Fall 2015	Fall 2016
1	James Madison University	James Madison University	Virginia Tech
2	Virginia Tech	Virginia Tech	James Madison University
3	Virginia Commonwealth University	Virginia Commonwealth University	Virginia Commonwealth University
4	University of Virginia	University of Virginia	University of Virginia
5	Christopher Newport University	Christopher Newport University	Northern Virginia Community College
6	Northern Virginia Community College	Northern Virginia Community College	Christopher Newport University
7	College of William & Mary	Old Dominion University	College of William & Mary
8	Old Dominion University	College of William & Mary	Old Dominion University
9	University of Mary Washington	University of Mary Washington	University of Mary Washington
10	Radford University	Penn State	Penn State

# Market Reality #3

Volatility in the International Market.

## TOP TEN PLACES OF ORIGIN OF INTERNATIONAL STUDENTS

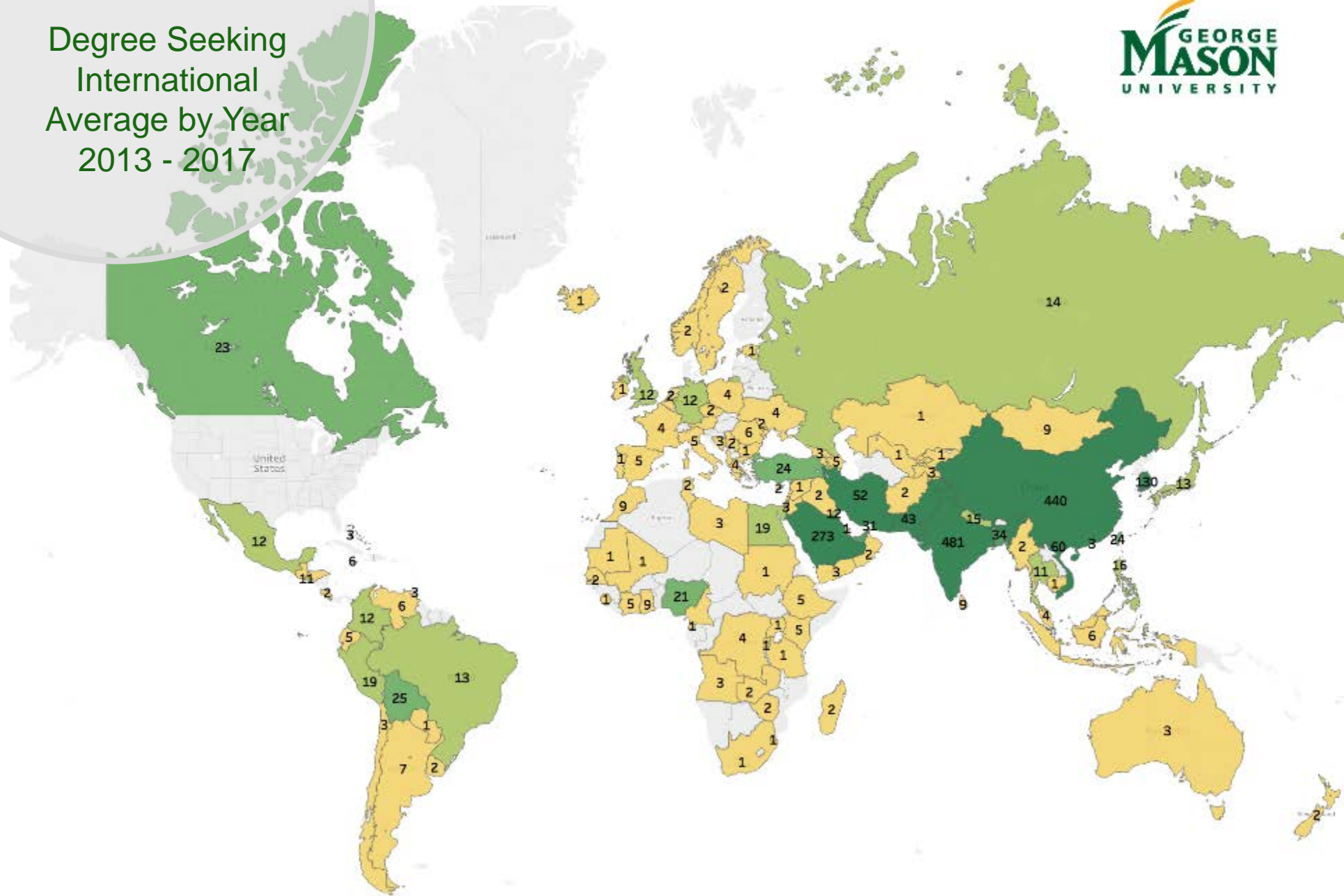


**51%**  
of international students come from China and India.

Open Doors is conducted by the Institute of International Education with the support of the Bureau of Educational and Cultural Affairs of the U.S. Department of State. Online at: [www.iie.org/opendoors](http://www.iie.org/opendoors)

opendoors®

Degree Seeking  
International  
Average by Year  
2013 - 2017



# opendoors<sup>®</sup>

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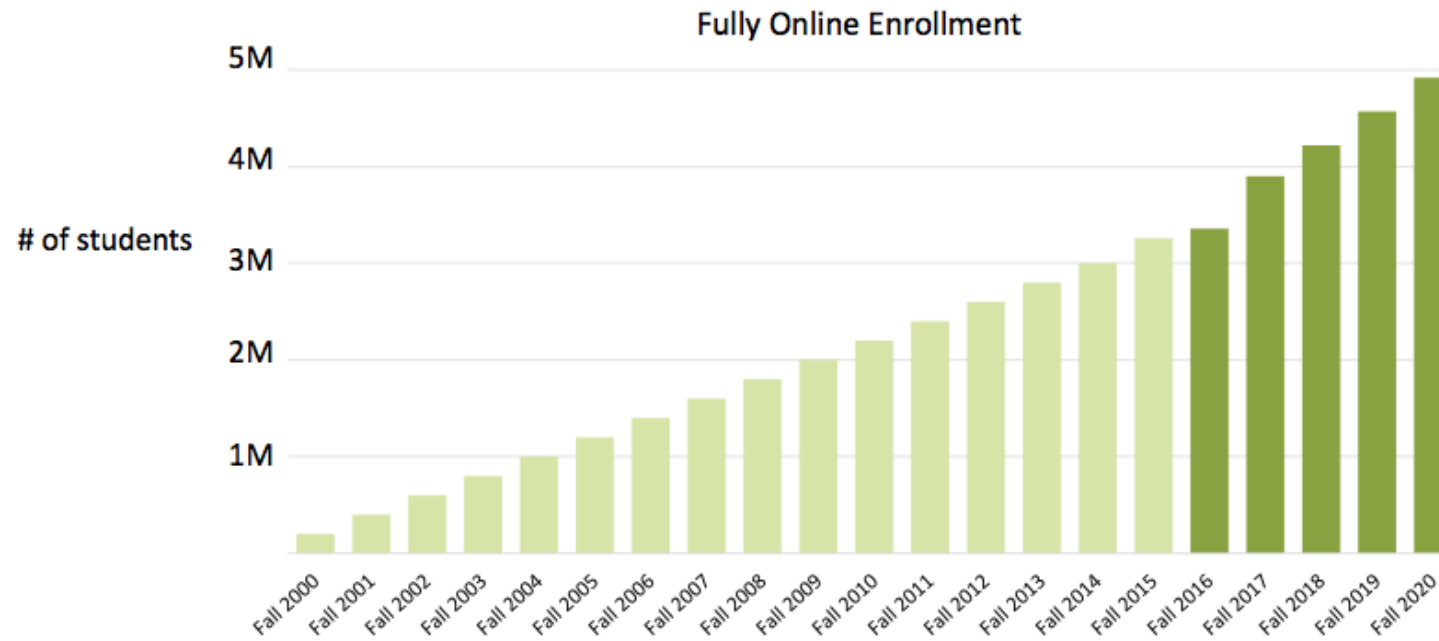
## INTERNATIONAL STUDENTS IN THE U.S. NEW INTERNATIONAL STUDENT ENROLLMENT

2012/13	250,920	New international student enrollment — students enrolling for the first time at a U.S. institution in fall 2017 — <u>decreased by 6.6% over the previous year.</u>
2013/14	270,128	
2014/15	293,766	
2015/16	300,743	
2016/17	290,836	
<b>2017/18</b>	<b>271,738</b>	

# Market Reality #4

The rise of online learning.

## PROJECTED US MARKET GROWTH



Source: BMO Capital Markets estimates and EduVentures

Proprietary and Confidential

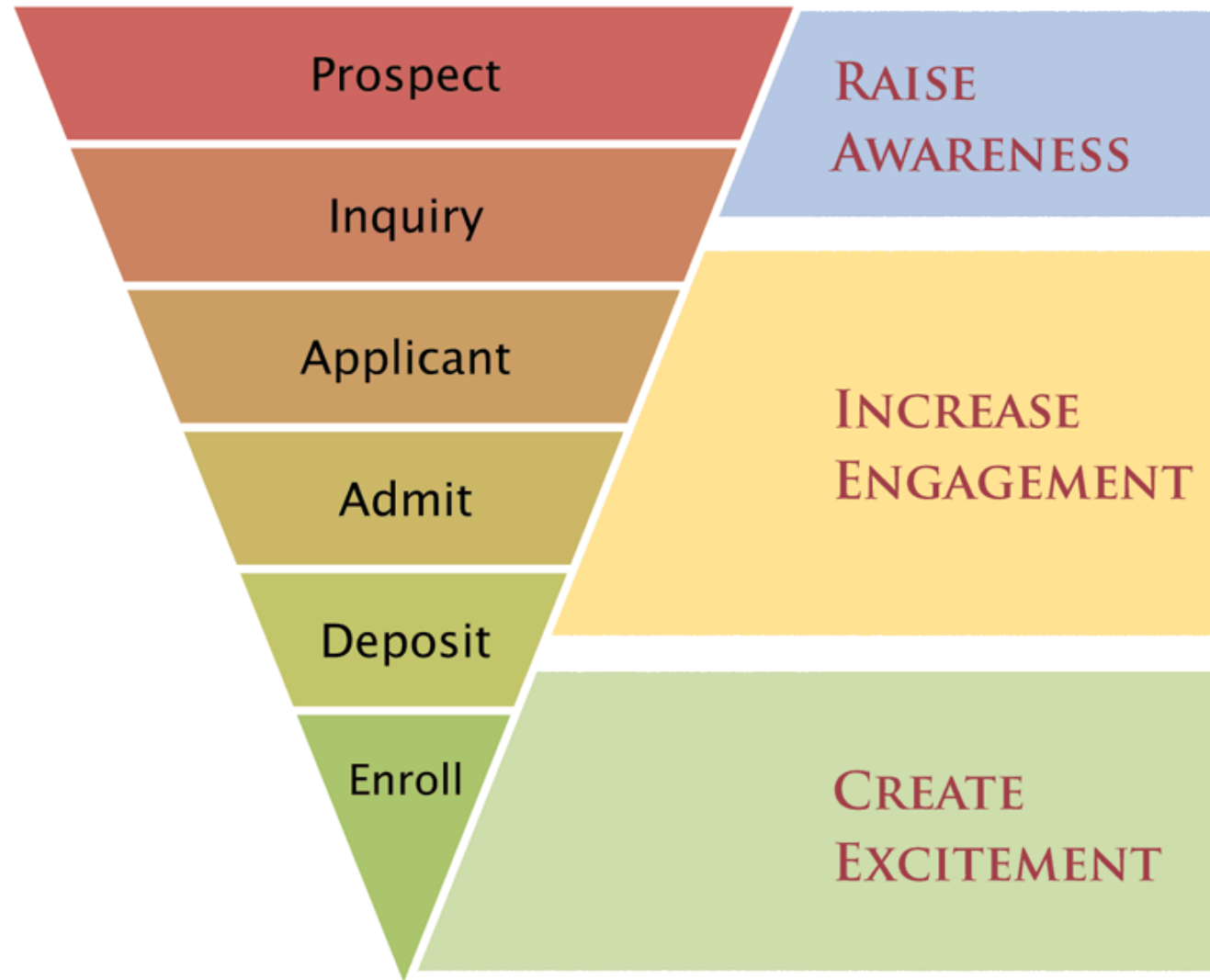
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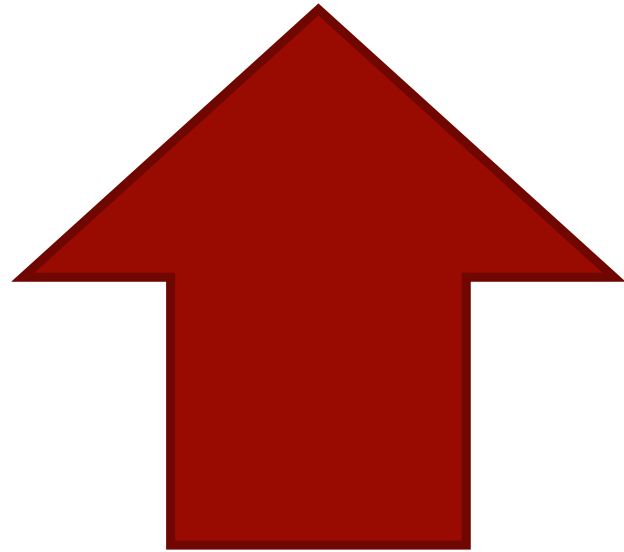


HOW ARE ENROLLMENT LEVELS MANAGED?



ADMISSIONS FUNNEL

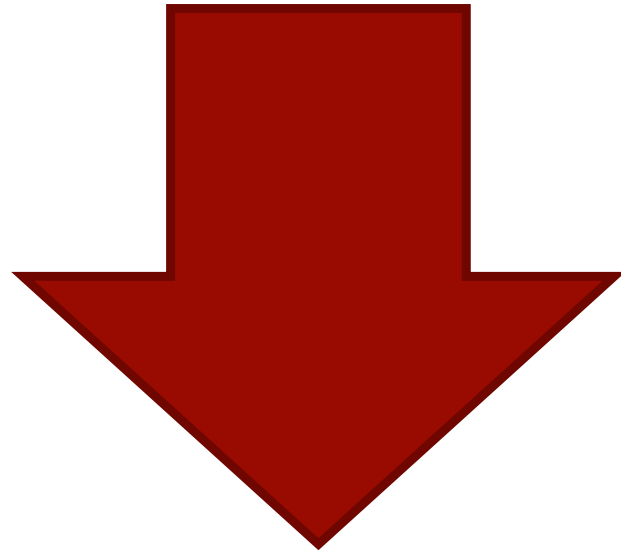




A large, single year,  
enrollment spike

Tools for Management:

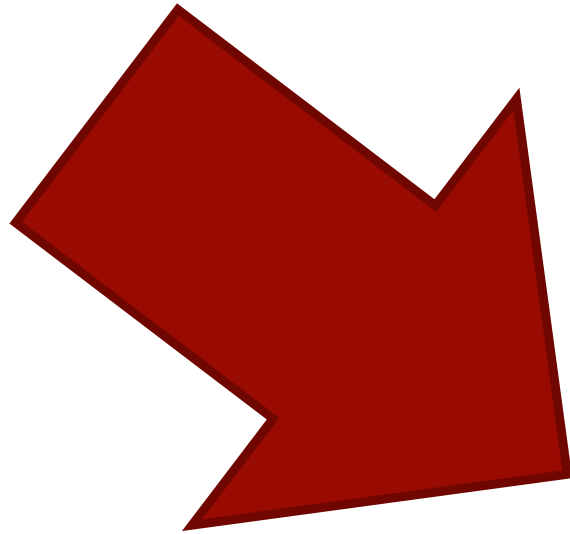
- Visibility during the recruitment process
- Reduced risk with transfer programs like ADVANCE
- Updated Resource Modeling
- College/Unit planning tools to accommodate, consistent with the new budget model
- If needed, we have procedural options we can leverage to throttle
  - Confirmation Deadlines
  - Financial Aid Leveraging



A large, single-year,  
enrollment drop

Tools for Management:

- Visibility during the recruitment process
- Updated resource modeling
- Adjustments to procedural processes
  - Alteration of admit process
  - Alteration of financial aid process
- Coordinated effort between units and central services
  - Enrollment Maximization
  - Resource Management



A gradual decline in enrollment

Tools for Management:

- Tools to monitor multi-year market performance
- Diversified enrollment portfolio reduces the university-wide impact
  - Traditional offerings
  - Investments in online
  - New initiatives
- College/Unit planning tools to accommodate, consistent with the new budget model

Questions / Discussion?



## MEMORANDUM

**TO:** George Mason University Board of Visitors

**THRU:** Ángel Cabrera, President, George Mason University

**FROM:** George Mason University Office of the President  
Elizabeth Woodley, University Ethics Officer and Policy Manager

**RE:** Contractual Conflict of Interest Waivers

Pursuant to the Board of Visitors Resolution of August 1, 2014, the following is a report of existing Contractual Conflict of Interest Waivers at George Mason University between 12/1/2017 and 12/1/2018:

- I. Waivers granted by the University Ethics Officer and Policy Manager pursuant to Virginia Code § 2.2-3106.C.2, stating that the dual employment of immediate family members is in the best interest of the University:
1. Jessica Adams, Fiscal Training Manager, Fiscal Services and Robert Wayne Adams, Senior Academic Advisor, Center for Academic Advising, Retention, and Transitions
  2. Peggy Agouris, Dean, College of Science and Anthony Stefanidis, Chair, Department of Geography and Geoinformation Science, College of Science
  3. Paul Ammann, Associate Professor, Computer Science and Rebecca Hartley, Director of Export Compliance and Secure Research, Research Development, Integrity, and Assurance
  4. Jennifer Atkinson, Associate Professor of English/Creative Writing, English and Eric Pankey, Professor of English
  5. Kenneth Ball, Dean, Volgenau School of Engineering and Sandra Ball, Clinic Nurse, Student Health Services
  6. Chris Burrell, Production Manager, Hylton Performing Arts Center, CVPA and Diane Burrell, Operations Coordinator, Hylton Performing Arts Center, CVPA
  7. Michael Buschmann, Department Chair and Professor, Bioengineering and Caroline Hoemann, Professor, Bioengineering
  8. Henry N. Butler, Dean and Professor of Law, Antonin Scalia Law School and Paige V. Butler, Director, Judicial Education, LEC, Antonin Scalia Law School
  9. Amanda Caswell, Associate Professor, CEHD and Shane Caswell, Professor, CEHD
  10. John Cicchetti, Assistant Director, Student Support and Advocacy Center, University Life and Kaitlin Cicchetti, Director of Advancement, University Life
  11. Cody Clarke, Development Coordinator, CVPA and Brianna St. Clair, Event Coordinator, Admissions
  12. Aurali Dade, Associate Vice President, Research Development, Integrity, and Assurance and Damon Dade, Adjunct Faculty, School of Business

13. Ed Daniels, Director, Human Resources and Administration, Facilities and Tara Daniels, Business Office Manager, ICA General Administration, Intercollegiate Athletics
14. Rick Davis, Dean, CVPA and Julie Thompson, Executive Director, Center for the Arts
15. Suzanne de Janasz, Term Visiting Professor of Management and Conflict Analysis and Resolution and Maury Peiperl, Dean, School of Business
16. Nikki Dinh, Senior Database Analyst, Database/Middleware/ERP Support, ITS and Robert Peraino, Advisory Systems Engineer, Enterprise Infrastructure Service, ITS
17. Kevin Dunayer, Asst. Director Event Services/Adjunct Professor SRHT, Theater, Student Centers and Laurel Dunayer, Costume Shop Supervisor, CVPA
18. May Elleisi-Salem, Education Support Specialist, Office of Undergraduate Student Services, VSE and Ossama Salem, Chair, Civil, Environmental and Infrastructure Engineering, VSE
19. Joyce French, Director, Office of Risk Management and Roderick French, Adjunct Professor, School of Business
20. Boris Gafurov, Assistant Professor, CEHD and Anya Evmenova, Associate Professor, Special Education and disAbility Research, CEHD
21. Colby Grant, Operations Coordinator, Science and Technology Campus, Executive Office and Megan Grant, Fiscal and Grants Technician, National Center for Biodefense and Infectious Disease, College of Science
22. Matthew Green, Assistant Director, Schar School of Policy and Government and Alice Magelssen-Green, Development Coordinator, CVPA
23. Yali Guo, Accounts Payable Accountant, Purchasing and Accounts Payable and Guoqing Diao, Associate Professor, Statistics, Volgenau School of Engineering
24. Donald Paul Haspel, Term Assistant Professor of English, CHSS and Linda H. Mason, Professor and Endowed Director, Kellar Institute for Human disAbilities, CEHD
25. Nicholas Hofmann, ILL Lending & Reserves Coordinator Access Services, Fenwick Library and Katara Wright, Reference, Research & Instruction Specialist Information Services, Fenwick Library
26. Houman Homayoun, Assistant Professor, Electrical and Computer Engineering and Setareh Rafatirad, Assistant Professor, Information Sciences and Technology
27. Joy Hughes, Professor, Volgenau School of Engineering; Senior Advisor, East Asia, Office of the Provost and Kenneth Lee, Chief Statistician, CVPA
28. Cing-Dao (Steve) Kan, Professor/Director, Center for Collision Safety and Analysis and Chi Yang, Professor, Department of Physics and Astronomy
29. Setarra Kennedy, Strategic Initiatives Coordinator, Communications and Marketing and Charles Nicholson, Senior Account Manager, Communications and Marketing
30. Amir Ali Khan, Research Assistant Professor Bio-engineering, VSE, and Sana Khan, Graduate Teaching Assistant, Civil, Environmental and Infrastructure Engineering, VSE
31. Christopher Koper, Associate Professor, Criminology, Law and Society, CHSS and Cynthia Lum, Professor and Director of the Center for Evidence-Based Crime Policy, Criminology, Law and Society, CHSS
32. Alison Landsberg, Professor, History and Art History and Matthew Karush, Professor, History and Art History
33. Clare Laskofski, Director of Accounting and Treasury Operations, Fiscal Services and Mike Laskofski, Associate Vice President of Research Operations, Office of Sponsored Programs



34. David Lattanzi, Assistant Professor, Civil, Environmental and Infrastructure Engineering, VSE and Elisabeth Lattanzi, Assistant Professor, Mechanical Engineering, VSE
35. Yi-Ching Lee, Assistant Professor, Department of Psychology and Benoit Van Aken, Associate Professor, Department of Chemistry and Biochemistry
36. Vera Lichtenberg, Director of Mason Game Institute/ Assistant Director Potomac Arts Academy and Scott M. Martin, Director Computer Game Design Program Virginia Serious Game Institute (VSGI); Associate Dean, Research & Technology; Associate Professor, CVPA
37. David R. Long, Associate Vice President, Office of University Advancement and Alumni Relations and Patricia Long, Administrative Assistant to the Director, Special Education & disAbility Research, CEHD
38. Robert Matz, Senior Associate Dean, College of Humanities and Social Sciences and Teresa Michals, Associate Professor, English
39. Kirsten J. McLagan, ELI-CISA Matriculation Advisor and Frank Neville, Chief of Staff, Vice President, Communications and Marketing
40. Tyler G. Parowski, Hylton Performing Arts Center ticket office and Karen L. Parowski, Hylton Performing Arts Center ticket office
41. Tom Perdiou, Financial Aid Counselor, Student Financial Aid and Laurie Schintler, Associate Professor and MS Transport Policy Director, Schar School of Policy and Government
42. Kelly Reid, Administrative Coordinator, Student Centers and Linda Reid, Account Clerk, Student Centers
43. Damoon Soudbakhsh, Assistant Professor, Mechanical Engineering, VSE and Elham Sahraei Esfahani Assistant Professor, Mechanical Engineering, VSE
44. Kerone Wetter, Assistant Director, Marketing and Communications, College of Science and Ryan Wetter, Senior Grants and Finance Analyst - Lead, College of Science

II. Waivers approved by the President of George Mason University and the Vice President for Research or Senior Vice President for Administration and Finance pursuant to Virginia Code § 2.2-3106:

1. Yali Chen; Virongy, LLC; waiver period: 1/17/2018 – 1/17/2020
2. Mychelle DeWolfson; Oakleaf Farm, LLC; waiver period: 3/22/2108 – 3/22/2019
3. Liping Di, General Science and Technology Solutions, Inc.(GSTS); waiver period: 5/1/2016 – 4/30/2019
4. Elham Sahraei Esfahani; Massachusetts Institute of Technology (MIT); waiver period: 7/12/2018 – 7/12/2021
5. Kenneth Hintz; FirstGuard Technologies (FGT); waiver period: 11/25/2014 – 11/25/2019
6. Dmitri Klimov; Parabon Nanolabs (PNL); waiver period: 5/14/2018 – 7/1/2019
7. Emanuel Petricoin; Perthera, Inc.; waiver period: 9/1/2018 – 9/1/2019
8. Emanuel Petricoin; Ceres Nanosciences, Inc.; waiver period: 10/17/2018 – 9/30/2020
9. Amarda Shehu; Catholic University of America; waiver period: 10/10/2018 – 5/31/2023
10. Ali Weinstein; Inova Health System; waiver period: 10/26/2017 – 11/30/2020
11. Xinyuan Wang; CyberRock, Inc.; waiver period: 2/16/2018 – 8/31/2019

Pursuant to the Board of Visitors Resolution of February 4, 2015, the following is a report of information regarding Dr. Elizabeth F. “Beth” Cabrera during the fiscal year beginning July 1, 2017:

I. Total payment to Dr. Beth Cabrera by the University: \$9,607.86

II. All graduate, professional and continuing education courses of instruction for which Dr. Beth Cabrera was compensated and the amount of compensation for each course of instruction:

Focused Leadership Webinar (Fall 2017)	\$1,500
Positive Leadership (Fall 2017)	\$8,107.86

Details are available at the Board’s request.



**Office of University Audit**

**Report to the Audit Committee of the Board of Visitors**

**December 12, 2018**

## EXECUTIVE SUMMARY

- Two audit reports were issued since the last meeting.
  - Two additional memos addressed aspects of management's monitoring of technology server configuration implementations and verified the effectiveness of CEHD processes for managing adherence to faculty workload policies; budget planning and management; and oversight of academic programs and specialized accreditations.
- Remediation of 29 audit issues is in progress as of November 2018:
  - 17 issues have current target remediation dates in the next five months (through March 2019).
- Audit Plan status:
  - Substantially on track with 3+6 Audit Plan reviewed at the prior meeting.
- Status of fraud, waste, and abuse investigations:
  - Two completed since the prior meeting; there are two investigations in progress.
  - The completed investigations were isolated in nature.
- Audit staffing:
  - The audit team remains stable with no changes since the prior Committee meeting. Co-sourced resources are being used to provide supplemental skilled expertise when needed.

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  - Department of Homeland Security Criminal Investigations and Network Analysis Cooperative Agreement
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- 4 STATUS OF INVESTIGATIONS
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  - Audit Issue Details

## SUMMARY OF AUDIT REPORTS

- Department of Homeland Security Criminal Investigations and Network Analysis Cooperative Agreement
- Intercollegiate Athletics
- Audit Memos:
  - Monitoring Server Configuration Benchmarks and Implementations
  - College of Education and Human Development: Selected Processes



# INTERNAL AUDIT REPORT

<b>Report Title:</b>	DHS CINA Cooperative Agreement	<b>Report Date:</b>	October 30, 2018
<b>Responsible Manager:</b>	Dr. Deborah Crawford Vice President of Research		

## EXECUTIVE SUMMARY:

### Background:

The Criminal Investigations and Network Analysis (CINA) Center is part of a network of Department of Homeland Security (DHS) Centers of Excellence. It was established by an August 2017 cooperative agreement and is funded by the DHS Science and Technology Directorate’s Office of University Programs. The ten year agreement provides up to \$38.5 million in funding. The agreement is intended to bring together researchers and experts to pursue solutions to disrupt criminal activities across physical and cyber spaces. It is a Mason-led consortium advancing science while pursuing the development of cutting edge outcomes and innovative educational and training activities to support workforce needs.

At Mason, the CINA Center has been established through multidisciplinary efforts and research across a number of schools or colleges including:

- College of Humanities and Social Sciences
- College of Science
- Schar School of Policy and Government
- School of Business
- School of Conflict Analysis and Resolution
- Volgenau School of Engineering

Partner institutions include:

- University of Notre Dame
- Virginia Tech
- Rensselaer Polytechnic Institute
- Carnegie Mellon University
- Michigan State University
- Purdue University
- Rutgers University

CINA Center activities are grouped under three broad categories: research, outreach, and workforce development. Day-to-day management is led by Dr. Anthony Stefanidis, who is situated organizationally under the Vice President of Research. Dr. Stefanidis is supported by a CINA Science Manager, who manages project lifecycle, requirements, cost, and milestones follow-up; supports coordination efforts among research teams and stakeholders; and provides coordination support across center operations, and a CINA Financial and Administrative Specialist who provides administrative and logistical support. Several other groups provide various levels of feedback and/or support including, but not limited to, external individuals or groups (e.g., the DHS Program Manager and Advisory Board (DHS stakeholders)), internal groups unique to CINA (e.g., the Science Leadership team) as well as those that support all Mason research endeavors (e.g., Office of the Provost, Office of Sponsored Programs, etc.).

**Audit Conclusion:**

In our view, Mason has complied with the requirements of the cooperative agreement. CINA management should continue to implement and strengthen oversight and monitoring controls. University management should evaluate opportunities to improve research faculty and staff support for future large scale research efforts which will be important for meeting Mason's strategic goals relating to research growth and outcomes.





# INTERNAL AUDIT REPORT

<b>Report Title:</b>	Intercollegiate Athletics	<b>Report Date:</b>	November 14, 2018
<b>Responsible Manager:</b>	Brad Edwards Assistant Vice President and Director of Intercollegiate Athletics		

## EXECUTIVE SUMMARY:

### Background:

The Intercollegiate Athletics program at Mason comprises participation in 22 intercollegiate sports programs involving more than 500 student-athletes. The sports programs participate primarily in the Atlantic 10 conference; Mason is also a member of the Eastern Intercollegiate Volleyball Association and the Eastern Wrestling League. Each program is governed by the NCAA through bylaws which address, among other areas, eligibility, financial aid, recruiting, and playing and practice seasons. Mason’s Athletics Compliance program supports Athletics in administering sports programs compliant with NCAA, Atlantic 10 Conference, and Mason rules and regulations.

FY17 funding for Intercollegiate Athletics totaled \$29.6 million. Primary sources of this funding were mandatory student fees (\$15.2 million, based on the \$552 full-time undergraduate mandatory fee); direct and indirect institutional support (\$7.1 million); and advertising and sponsorships (\$2.9 million). Expenditures were primarily directed to coach and support staff compensation (\$9.2 million); student-athlete financial aid (\$6.2 million); debt service (\$5.4 million); and equipment, travel, and game expenses (\$4.3 million). As a comparison, FY17 funding at Virginia Commonwealth University totaled \$34.3 million, sourced from mandatory student fees (\$19.9 million, based on the \$791 full-time undergraduate mandatory fee) and expended on higher levels of compensation (\$10.6 million) and lower total number of student-athletes (299) and lower levels of student-athlete financial aid (\$5.8 million) and debt service (\$1.2 million).

Brad Edwards, Assistant Vice President and Director of Intercollegiate Athletics, leads the 50 members of the coaching staff, and 70 support staff.

### Audit Conclusion:

In our view, Athletics is generally effective in contributing to the cultural vitality of the Mason’s student and local community through its support of student-athlete intercollegiate sports programs. The sports medicine and training program adequately provides for student-athlete health and well-being. Mason’s Athletics Compliance program is well-designed and, in our view, generally operating effectively to provide assurance related to compliance with NCAA rules and regulations. Staff and student-athletes receive compliance training, including related to Title IX. Data analysis of 2016-17 student-athlete course schedules and grades concluded that courses attended by student-athletes were legitimate. Business office processes, including cash handling procedures, are generally adequate, although they are reliant on manual processing and might benefit from streamlining and automation. Processes related to student-athlete usage of social media and administration of certain contracts should also be enhanced.

## **SUMMARY OF AUDIT MEMOS:**

Audit Memos are communications which provide assurance related to a narrow, targeted topic or provide interim updates on longer-term assurance activities.

### Monitoring Server Configuration Benchmarks and Implementations dated October 30, 2018

- Confidential – Restricted Data: Critical Infrastructure Vulnerability Assessment Information (Code of VA: 2.2-3705.2.4).

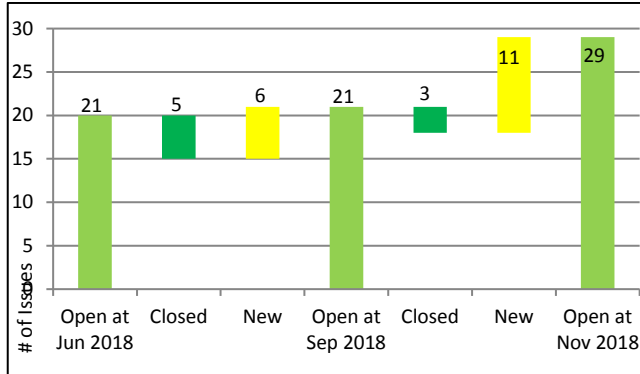
### College of Education and Human Development: Selected Processes dated November 19, 2018

- Targeted assessment of adherence to faculty workload policies; budget planning and management processes; oversight of academic programs and specialized accreditations; and certain other processes. Verified processes were effective; CEHD's tool for administering faculty workload assignments might be beneficial to other colleges.

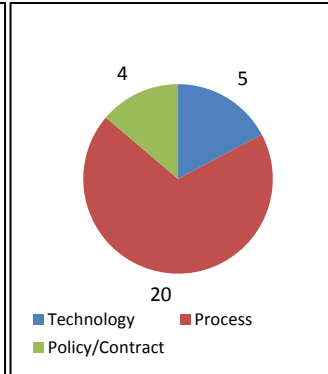
## SUMMARY STATUS OF AUDIT ISSUES AS OF NOVEMBER 20, 2018

There were 29 open audit issues as of November 20, 2018. Remediation of three audit issues was completed by management since September 2018.

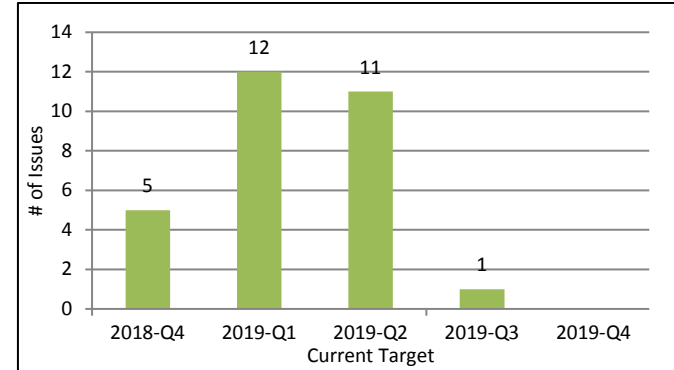
**Audit Issue Inventory Movement**



**Audit Issues by Type**



**Audit Issues by Current Target**



Audit Report	Report Date	Open at Jun 2018	New	Closed	Open at Sep 2018	New	Closed	Open at Nov 2018
College of Education and Human Development: Selected Processes	11/19/18	-	-	-	0	2	(1)	1
Intercollegiate Athletics	11/14/18	-	-	-	0	6	-	6
DHS CINA Cooperative Agreement	10/30/18	-	-	-	0	3	-	3
Supplemental Payroll Payments	9/5/18	-	4	-	4	-	(1)	3
Employee Remote Work Agreements	8/29/18	-	1	-	1	-	-	1
Employee Time Recordkeeping at INTO Mason	6/29/18	-	1	-	1	-	-	1
Conflict of Interest in Research Process	4/9/18	1	-	(1)	0	-	-	0
Office of the University Registrar	3/7/18	6	-	-	6	-	-	6
Athletics Travel Expenditure Documentation	2/10/17	1	-	-	1	-	(1)	0
Use of Wiley edu Employees to Process Certain Registration Transactions	10/16/17	1	-	-	1	-	-	1
Administrative Management of Sponsored Programs	10/11/17	1	-	-	1	-	-	1
IT Governance and Project Prioritization	8/7/17	3	-	-	3	-	-	3
College of Health and Human Services	5/11/17	3	-	(3)	0	-	-	0
Decentralized IT Management and Security: Office of the Provost	10/23/15	2	-	(1)	1	-	-	1
Information Security Management: Boundary Protection	9/9/13	1	-	-	1	-	-	1
Enterprise Project Management Framework and System	3/28/13	1	-	-	1	-	-	1
		20	6	(5)	21	11	(3)	29

## STATUS OF AUDIT PLAN AS OF NOVEMBER 20, 2018

The 3+6 Audit Plan as of November 15, 2018 (bottom bars) is compared with the status as of the prior report to the Committee (top bars). (Note: The status of work is shown as follows: completed = orange bars, in progress = green bars, and planned = yellow bars)

Topic	Description	6 30	9 30	12 31	3 31
<b>Aligned with University-Level Risk Areas</b>					
IT Vulnerability and Patch Management	<ul style="list-style-type: none"> <li>Assess processes for identifying and remediating IT vulnerabilities.</li> </ul>				
Major Research Project Initiation	<ul style="list-style-type: none"> <li>Assess processes and structures to stand up newly-awarded research project.</li> </ul>				
Controlled Unclassified Information (CUI) Data and Security Environment	<ul style="list-style-type: none"> <li>Monitor management's project to establish IT environment for handling CUI data and ensure compliance with federal regulations. Validate selected areas once established.</li> </ul>				
Information Security Program	<ul style="list-style-type: none"> <li>Monitor projects to further strengthen security of Mason's technology environment and co-develop regular updates to the Audit Committee.</li> </ul>				
Recruiting Processes	<ul style="list-style-type: none"> <li>Assess effectiveness and efficiency of processes for acquiring, recruiting, and hiring faculty and staff.</li> </ul>				
Data and Security Risk Assessment: Colleges – Validation Procedures	<ul style="list-style-type: none"> <li>Validate selected management assertions regarding information security risks in college-managed technology environments.</li> </ul>				
Academic Innovation and New Ventures Initiatives	<ul style="list-style-type: none"> <li>Monitor development and implementation of major academic innovation and ventures initiatives.</li> </ul>				
Faculty Workload Guideline Implementation	<ul style="list-style-type: none"> <li>Assess implementation of faculty workload guidelines across various colleges, including management's oversight processes.</li> </ul>				
Banner Improvement Upgrade Projects	<ul style="list-style-type: none"> <li>Monitor management's multi-year project to study and enhance Banner and suite applications. Assess potential project and process risks; communication.</li> </ul>				
Construction Payments and Change Orders	<ul style="list-style-type: none"> <li>Monitor and assess payments related to in-progress Robinson Hall and Utility Distribution Infrastructure construction projects.</li> </ul>				
<b>Additional Areas</b>					
Intercollegiate Athletics	<ul style="list-style-type: none"> <li>Assess business and compliance processes relevant to intercollegiate athletics programs.</li> </ul>				
Spending of Funding for Reserves and Strategic Initiatives	<ul style="list-style-type: none"> <li>Monitor and validate spending of FY19 budgets for institutional reserves (\$4 million) and strategic initiatives (\$4 million).</li> </ul>				
Travel Advances	<ul style="list-style-type: none"> <li>Assess travel advance settlement processes and controls.</li> </ul>				
Faculty Study Leaves	<ul style="list-style-type: none"> <li>Assess faculty study leave administrative processes and controls.</li> </ul>				
Issue Validation Procedures	<ul style="list-style-type: none"> <li>Validate management has remediated audit issues in a comprehensive and sustainable manner.</li> </ul>				
Hotline Investigations Referred by OSIG	<ul style="list-style-type: none"> <li>Investigate allegations of fraud, waste, or abuse received from the Commonwealth's Office of the State Inspector General.</li> </ul>				

## STATUS OF INVESTIGATIONS AS OF NOVEMBER 20, 2018

Two investigations were completed since the prior Committee meeting; they were isolated in nature with negligible impact to the University.

Nature of Allegation	Type	Status	Remarks
Potential conflict of interest related to outside employment	Abuse	Completed	
Potential payroll and leave calculation errors	Fraud	Completed	
Potential waste of State funds related to procurement activities	Waste	In Progress	
Potential contract compliance issues	Waste	In Progress	

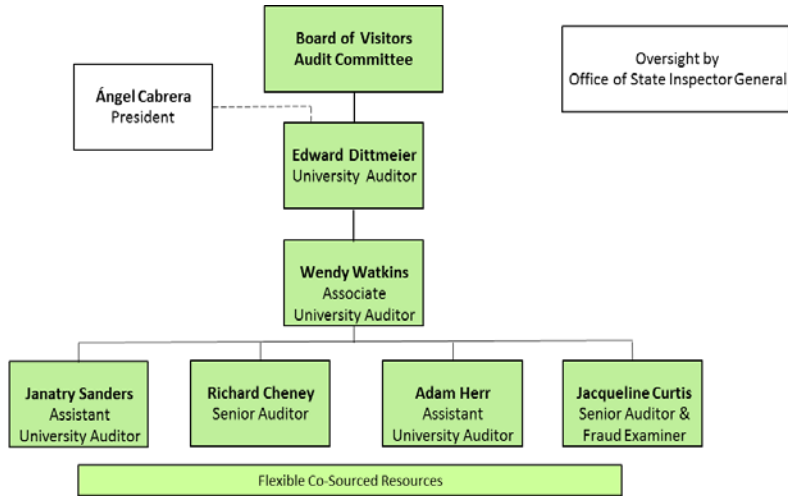
**Summary of Types:**

- **Fraud** = Intentional deception which could result in a benefit to the perpetrator, others, or the Commonwealth or could cause detriment to others or the Commonwealth. Fraud includes a false representation of a matter of fact, whether by words or by conduct, by false or misleading statements, or by concealment of that which should have been disclosed, which deceives or is intended to deceive. E.g., falsifying financial records to cover up theft.
- **Waste** = Careless expenditure, mismanagement, use, or squandering of Commonwealth resources to the actual or potential detriment of the Commonwealth. Includes unnecessary costs due to inefficient or ineffective practices, systems, or controls. E.g., unnecessary spending of state funds for no business purpose.
- **Abuse** = Excessive or improper use of something contrary to natural or legal rules for its use. Intentional destruction, diversion, manipulation, misapplication, mistreatment, or misuse of Commonwealth resources. Excessive use as to abuse one's position or authority. E.g., Use of state assets for non-state business.

# STAFFING

Audit staffing remains stable with no changes since the prior Committee meeting. Co-sourced resources remain available to provide supplemental skilled expertise when needed.

## Organization



## Staffing

	Plan	Actual	
		a/o July 2018	a/o Nov 2018
<b>Core Audit Team</b>			
Audit Leadership	2	2	2
Auditors by Expertise:			
Operational Audit	2	2	2
IT Audit	1	1	1
Fraud Audit	1	1	1
<b>Total Audit Professional Employees</b>	<b>6</b>	<b>6</b>	<b>6</b>
Cosourced FTE* Supported by Permanent Budget	0.8		0.2
<b>Total Audit Professionals Supported by Permanent Budget</b>	<b>6.8</b>	<b>6.0</b>	<b>6.2</b>
Cosourced FTE* Supported by FY19 Temporary Budget	0.5		
<b>Audit Professionals Supported by FY19 Budget</b>	<b>7.3</b>	<b>6.0</b>	<b>6.2</b>

Note: \* = Cosourced FTE are estimated based on actual hours provided by cosourced resources and a 1,500 hour/FTE rate.

## APPENDIX: AUDIT ISSUE DETAILS AS OF NOVEMBER 20, 2018

#	Audit Report	Audit Issue	Status of Management Action	Original Target	Current Target
1	<p><b>Report Name:</b> DHS CINA Cooperative Agreement</p> <p><b>Report Date:</b> 10/30/18</p> <p><b>Management:</b> Deborah Crawford, Vice President of Research, Office of the Provost</p>	<p><b>Finalize Identification and Implementation of Technical and Financial Oversight Controls</b> Monitoring and oversight procedures assist management in identifying and correcting problems timely. The CINA program makes use of several subrecipients and Mason's Subrecipient Monitoring policy (UP #4009) requires processes to establish effective monitoring of technical and financial performance.</p> <p>CINA management is actively working to establish a more robust monitoring process, in line with DHS expectations, to oversee individual research projects. Management should continue improving operational administration to ensure, at a minimum, oversight is established to include regular program and research project technical and financial status updates in line with DHS expectations, and independent project financial review and oversight.</p>	<p>Periodic program review will now be handled through monthly phone meetings between the Science Manager and each Principal Investigator. Monthly meetings with PIs will be supported with a shared, formalized matrix. DHS stakeholders and component end users will be invited to participate in monthly meetings to increase customer focus and oversight. The matrix will serve as a record of the meeting, and will be easily shareable with stakeholders and decision-makers.</p> <p>CINA's communications team will be directly involved in all events to provide oversight and ensure adherence with award terms and conditions (e.g., sponsor access to publications and recognition). This oversight will be a conditional requirement for all sponsored events.</p> <p>CINA's Financial and Administrative Specialist will monitor expenses from subcontractor invoices and compare to remaining funds by budget line. The Science Manager will assume responsibility for approval of subcontractor invoices, verifying there are sufficient funds remaining in the budget and confirming the work performed is in line with the agreed statement of work and relevant milestones.</p>	11/30/18	11/30/18
2	<p><b>Report Name:</b> Information Security Management: Boundary Protection</p> <p><b>Report Date:</b> 9/09/13</p> <p><b>Management:</b> Marilyn Smith</p>	<p><b>Review Firewall Configurations:</b> Firewall configurations are currently not being reviewed and re-authorized on a cyclic basis. Without a formal process to periodically review and re-authorize firewall configurations, the university cannot ensure that rule bases are adequate and/or still required.</p>	<p>After several attempts to appropriately structure and remediate firewall configuration management processes, including reviews and authorizations, ITS management committed to developing a new expanded policy and associated procedures to define baseline configuration standards, minimum password strength parameters, code upgrade schedules, and vulnerability scanning requirements. Firewall rules protecting Banner</p>	1/31/14	12/15/18

#	Audit Report	Audit Issue	Status of Management Action	Original Target	Current Target
	Vice President/Chief Information Officer, Information Technology Services		and non-Banner applications have been revalidated; by December 15, 2018, ITS will develop the plan to complete the revalidation.		
3	<p><b>Report Name:</b> College of Education and Human Development: Selected Processes</p> <p><b>Report Date:</b> 11/19/18</p> <p><b>Management:</b> Mark Ginsberg, Dean, College of Education and Human Development</p>	<p><b>Assess Purchase Card Assignments</b> Six faculty and staff purchase cards had limits exceeding \$10,000 per month. Approval structures for four cards need revision to ensure appropriate separation of duties.</p>	Management will review purchase card limits and reduce limits where not required for reasonable business need. Cardholder – approver relationships will be adjusted to ensure appropriate supervision and separation of duties.	12/15/18	12/15/18
4	<p><b>Report Name:</b> Office of the University Registrar</p> <p><b>Report Date:</b> 3/7/18</p> <p><b>Management:</b> Michelle Marks, Vice President for Academic Innovation and New Ventures, Office of the Provost</p>	<p><b>Implement Regular Family Educational Rights and Privacy Act Refresher Training:</b> Mandatory FERPA training has been a requirement to gain access to the Banner system since late 2016; the requirement was not made retroactive. As a result, there are users accessing student information that have never been trained on the expectations and requirements of FERPA.</p>	The Office of the University Registrar (OUR), with the approval of Human Resources, and the Office of Compliance, Diversity and Ethics, will create a Mason policy which requires mandatory FERPA training for all faculty and staff with access to personally identifiable student educational records, prior to establishing Banner and Microstrategy accounts. Mason employees will be required to complete the training once every two years. Training compliance monitoring is expected to be completed by December 31, 2018. In order to ensure that all required faculty, staff and employees have access and the ability to take the required FERPA training, OUR has developed the online FERPA training and is fully operational.	12/31/18	12/31/18
5	<p><b>Report Name:</b> DHS CINA Cooperative Agreement</p> <p><b>Report Date:</b> 10/30/18</p> <p><b>Management:</b> Marilyn Smith, Vice President/Chief</p>	<p><b>Develop Effective Reporting Capabilities for Multidisciplinary Efforts</b> CINA is a multidisciplinary agreement with program and project financial data recorded in multiple fund accounts housed in multiple colleges and schools. Administrative personnel access financial data through the university's main reporting tool, MicroStrategy. However, MicroStrategy's security architecture is based on unit-level access. As a result, compiling reporting to oversee</p>	Information Technology Services (ITS) has engaged the vendor, Ellucian, to perform an assessment of Banner, focusing on sponsored research reporting. Ellucian will provide a formal report based on their assessment, along with recommendations for improvements. This report, along with recommendations identified, will be discussed with several groups, including: Office of Sponsored Programs, Fiscal Services,	12/31/18	12/31/18



#	Audit Report	Audit Issue	Status of Management Action	Original Target	Current Target
	Information Officer, Information Technology Services	<p>financial data on multidisciplinary projects requires program administrative personnel to rely on central Office of Sponsored Programs personnel to provide individual fund-level data manually each time it is needed, prior to exercising oversight analysis. While this may be manageable for the current level of multidisciplinary projects, it is inefficient and is likely not scalable at higher levels of volume or complexity.</p> <p>For several years, the Office of Sponsored Programs has had an outstanding ITS Project request to develop and implement a solution for this enterprise-wide issue; this project has been on hold since at least December 2017. In our view, this project should be re-evaluated.</p>	and Office of the Provost. Management expects these discussions will result in identification of improvements that the university is willing to invest in, along with management plans for implementation, by December 31, 2018.		
6	<p><b>Report Name:</b> Office of the University Registrar</p> <p><b>Report Date:</b> 3/7/18</p> <p><b>Management:</b> Frank Strike, Vice President, Facilities and David Moore, Assistant Vice President Budgeting &amp; Planning and Chief Budget Officer, Office of Budget and Planning</p>	<p><b>Evaluate Classroom Capacity and Constraints to Meet Future Growth Requirements:</b> Mason course sections (and use of Mason classrooms) are not distributed across timeslots and days of the week to efficiently and effectively utilize campus resources. Fall 2017 course section data shows significant classroom underutilization on multiple days of the week and at certain times of day. Scheduling decisions are often made by individual colleges and departments in regards to their reserved classrooms and lacks transparency when university classrooms are requested. This approach may lead to future difficulties as campus resources are strained further with current and planned renovations, strategic initiatives are pursued.</p>	In June 2018, management engaged a consultant to benchmark the University's space allocations, identify and outline space utilization, and make recommendations. Interim findings were reported in September 2018. The consultant is scheduled to present additional findings by December 2018.	4/30/18	1/15/19

#	Audit Report	Audit Issue	Status of Management Action	Original Target	Current Target
7	<p><b>Report Name:</b> Employee Time Recordkeeping at INTO Mason</p> <p><b>Report Date:</b> 6/29/18</p> <p><b>Management:</b> Dr. Todd Rose, Executive Director, INTO Mason</p>	<p><b>Enhance Supervisory Approval of Timesheets:</b> University Policy requires supervisors (or designated approvers) to ensure the accuracy and completeness of hours worked and leave reported by deadlines published by Human Resources &amp; Payroll. 49% of timesheets submitted by an employee from January 1, 2016 through November 10, 2017 were not approved by the supervisor; these timesheets were approved via Payroll's override process to ensure the timesheets were included in the applicable payroll processing cycles. Management should ensure that employee timesheets are approved by designated due dates and consider designating an additional approver who has first-hand knowledge of employee work activities.</p>	<p>The organizational structure of the academic unit of INTO Mason will be reviewed to ensure all supervisors have an appropriate level of direct reports to give the necessary level of diligence and management oversight.</p>	1/15/19	1/15/19
8	<p><b>Report Name:</b> Supplemental Payroll Payments</p> <p><b>Report Date:</b> 9/5/18</p> <p><b>Management:</b> Renate Guilford, Associate Provost, Academic Administration, Office of the Provost</p>	<p><b>Clarify Supplemental Pay Guidelines for Contract Courses:</b> Supplemental Pay Procedures are not interpreted to cover contract course arrangements. Contract course arrangements are often informally documented (i.e., limited to certain Banner data and course budget information). Formal contractual arrangements are not made with course instructors, even though contract course arrangements fall outside the typically faculty contract. Lack of clarity or misinterpretation of Mason policy may result in irregularities or unjustified faculty workloads (i.e., where faculty or staff are over-extending with contract course work, to the detriment of other primary or secondary job roles) and inequitable or inappropriate pay practices.</p>	<p>The Provost's Office will revise and strengthen the language in the Supplemental Pay Procedures related to compensation for the various types of offerings associated with contract courses. In addition, the Provost's Office will update and standardize employment contracts for the activities that are associated with contract courses.</p>	1/31/19	1/31/19
9	<p><b>Report Name:</b> Supplemental Payroll Payments</p> <p><b>Report Date:</b> 9/5/18</p> <p><b>Management:</b> Renate Guilford, Associate Provost, Academic Administration, Office of the Provost</p>	<p><b>Ensure Units Identify All Instructors for Courses in Banner:</b> Three units had at least one instance where faculty instructing courses were not identified in Banner. When all instructors are not captured for a given course, the unit's and university's ability to provide efficient oversight is limited. Management's ability to gain insight from course data is also limited (comparing data from semester to semester or year to year). Furthermore, any reporting to outside entities may not be accurate, depending on the level of information provided.</p>	<p>The Provost's Office is working to strengthen the language in the supplemental pay procedures, as well as other institutional resources (e.g., the language on the Registrar's Site for scheduling coordinators) to ensure the appropriate instructor has been identified in a timely matter.</p>	1/31/19	1/31/19

#	Audit Report	Audit Issue	Status of Management Action	Original Target	Current Target
10	<p><b>Report Name:</b> DHS CINA Cooperative Agreement</p> <p><b>Report Date:</b> 10/30/18</p> <p><b>Management:</b> Deborah Crawford, Vice President of Research, Office of the Provost</p>	<p><b>Develop Infrastructure and Support Needs for Significant Research Programs</b>  The DHS CINA Center of Excellence was established by a ten year, \$38.5 million cooperative agreement. Successfully pursuing and executing large scale, complex, multidisciplinary research efforts such as CINA are critical to Mason’s strategic goals related to research. However, when initiating program management to execute on the cooperative agreement, several extensive delays occurred including: staffing turnover and recruiting delays; dedicated workspace delays; project management regimen and tool delays, which need to be developed prior to implementation; and delayed administrative approvals through the Office of the Provost (rather than typically through Dean’s Offices).</p> <p>Based on retrospective reviews of newly-established large scale research programs, management should develop repeatable practices to streamline the stand-up and establishment of future, large scale, complex, multidisciplinary research efforts.</p>	<p>Large scale research efforts, both in terms of dollar value and complexity, are becoming a larger part of the university’s research portfolio. Such programs will have certain operational and/or administrative similarities, but they will also have their differences. In an effort to learn from past experiences in establishing large or complex research programs at Mason, a best practices guide will be developed to provide direction to administrators and faculty for future research programs. The guide will be periodically reviewed, at least annually, for insights gained from the establishment of new research programs and updated, as necessary.</p>	1/31/19	1/31/19
11	<p><b>Report Name:</b> Office of the University Registrar</p> <p><b>Report Date:</b> 3/7/18</p> <p><b>Management:</b> Michelle Marks, Vice President for Academic Innovation and New Ventures, Office of the Provost</p>	<p><b>Align Mason Administration of Degree Programs with State Council of Higher Education for Virginia Administrative Requirements:</b>  Mason has degree and certificate programs that have not been established to conform to State Council of Higher Education for Virginia (SCHEV) requirements. SCHEV requirements limit one degree or certificate program at each level (certificate, bachelors, etc.) per classification of instructional programs (CIP) code. The purpose of the CIP code is to provide SCHEV with a classification scheme to track, assess, and report fields of study and program completion activities at the state and federal level. Prior to our audit, management in the Office of University Registrar and the Office of the Provost had identified this issue; they are working to identify impacted programs and developing solutions to align all programs appropriately.</p>	<p>The Office of Accreditation and Program Integrity (OAPI) has made substantial progress in resolving discrepancies in certificate program inventories. Resolution depends on actions by SCHEV subsequent to analyses provided by Mason. Such analyses have been provided to support 52 certificate programs; analyses for a further 13 certificate programs and seven undergraduate or graduate degree programs are in progress.</p> <p>SCHEV is in the process of evaluating and refining the certificate and program approval processes. While OAPI moves forward under the current state, SCHEV approval processes are anticipated to change in the near future. An update on changes to SCHEV’s approval processes will be provided by February 28, 2019.</p>	9/30/18	2/28/19

#	Audit Report	Audit Issue	Status of Management Action	Original Target	Current Target
			OAPI is overseeing future changes in program inventory. Going forward, the Office of the University Registrar will not activate or inactivate any certificate or degree program without the express written consent of the OAPI.		
12	<p><b>Report Name:</b> Intercollegiate Athletics</p> <p><b>Report Date:</b> 11/14/18</p> <p><b>Management:</b> Brad Edwards, Assistant Vice President and Director of Intercollegiate Athletics</p>	<p><b>Create Guidelines for Student-Athlete Social Media Usage</b></p> <p>The Mason Guidelines and Best Practices in Social Media describe how teams should use their official social media accounts. However, there are no specific guidelines governing student-athlete usage of social media. We compared Mason's current social media policy to policies of other Atlantic 10 universities and leading practices, and identified several areas where Mason's policies might be strengthened.</p>	Athletics Management will benchmark policies and practices related to student-athlete usage of social media accounts at selected Atlantic 10 Conference and Commonwealth of Virginia colleges and universities. Based on this analysis, policies and practices will be developed appropriate to Mason's environment. Prior to implementation, these policies and practices will be reviewed with certain Mason leaders to ensure alignment with the overall University community.	3/15/19	3/15/19
13	<p><b>Report Name:</b> Intercollegiate Athletics</p> <p><b>Report Date:</b> 11/14/18</p> <p><b>Management:</b> Brad Edwards, Assistant Vice President and Director of Intercollegiate Athletics</p>	<p><b>Streamline Travel Expense Procurement and Processing</b></p> <p>The Athletics Business Office had travel expenses of over \$2.2 million in fiscal year 2017. Processing of reimbursements and cash advances is highly manual, potentially prone to error, and requires significant amounts of administrative review to help ensure accuracy and compliance with complex Commonwealth travel requirements.</p> <p>Management has been working with Mason's Procurement Office to enhance processes to strengthen compliance with policies and Commonwealth requirements. This work is underway and continues. In our view, management should consider additional methods of potentially streamlining travel expense procurement and processing, including use of prepaid cards as opposed to cash, and a checklist of documentation that is required for each trip to ensure accuracy and completeness.</p>	Athletics Management will work with Fiscal Services Purchasing to evaluate additional methods of streamlining travel expense procurement and processing; appropriate improvements will be implemented.	3/15/19	3/15/19
14	<p><b>Report Name:</b> Office of the University Registrar</p>	<p><b>Update the Academic Course Catalog:</b></p> <p>Mason maintains a University Catalog of over 8,000 individual courses. In the Fall 2017, Mason had 832</p>	The Associate Provost of Undergraduate Education has coordinated with school representatives to inactivate approximately 100	4/30/18	3/31/19

#	Audit Report	Audit Issue	Status of Management Action	Original Target	Current Target
	<p><b>Report Date:</b> 3/7/18</p> <p><b>Management:</b> Bethany Usher, Associate Provost for Undergraduate Education, Office of the Provost</p>	<p>(11%) individual courses that have not been offered within the last four academic years (AY 2014-2018). Furthermore, there were 686 courses in the University Catalog which have never been offered to students.</p>	<p>undergraduate courses. Opportunities to inactivate additional courses will continue to be evaluated.</p> <p>The Associate Provost of Graduate Education is leading an effort involving the Faculty Senate and Graduate Council to revise the applicable policy to provide a more up-to-date course catalog.</p>		
15	<p><b>Report Name:</b> Office of the University Registrar</p> <p><b>Report Date:</b> 3/7/18</p> <p><b>Management:</b> Michelle Marks, Vice President for Academic Innovation and New Ventures, Office of the Provost</p>	<p><b>Evaluate and Implement Process and Oversight Efficiency and Effectiveness Enhancements:</b> Registration transactions that require OUR action (e.g., enrollment adjustments, selective withdrawals, and program and domicile changes) are manual in nature with no secondary review prior to entry in Banner. OUR processes several thousand manual transactions each semester which require faculty and staff approval prior to processing. These transactions included, but were not limited to: course enrollment adjustments; selective withdrawals; domicile appeal changes; and numerous program changes. The established Banner workflow does not provide for a secondary review to ensure data accuracy and appropriate approval. Furthermore, the ability for post-entry quality assurance is limited since underlying Banner data is often limited.</p>	<p>OUR management is continuing to evaluate internal and external, cost-effective solutions that offers better approval workflow and automation. OUR IT has a mix of MicroStrategy reports and other tools which may be appropriate for use. The Registrar has implemented manual quality control checks for select Banner transactions for the Spring 2018 term. A monitoring log was implemented in September 2018, and a monthly dashboard will be provided to the Registrar by January 31, 2019. It is anticipated that domicile appeals will be tracked as part of the scope of the larger Audit Vault initiative by March 2019.</p>	8/31/18	3/31/19
16	<p><b>Report Name:</b> Office of the University Registrar</p> <p><b>Report Date:</b> 3/7/18</p> <p><b>Management:</b> Michelle Marks, Vice President for Academic Innovation and New Ventures, Office of the Provost</p>	<p><b>Implement Banner Transactional and Activity Logging:</b> Mason's ability to monitor transactional data and log activity of staff and third party vendors at various levels within Banner is limited. OUR management identified areas where limited or no monitoring exists due to a lack of transactional and activity history, including: student attributes; registration permits and overrides; student holds; academic standing; visa status; segregation of duties or unauthorized transactions; grading activity; and the Banner tables that control the majority of student data where an erroneous or unapproved change can have a significant impact.</p>	<p>In preparation for the installation of "Audit Vault" software to capture Banner activity, the OUR has documented critical monitoring requirements for discussion and implementation with ITS. Even though the software will be installed, it will take many months to identify what will be monitored and develop the logic before the software can be fully deployed. In the interim prior to Audit Vault implementation and full usage, the Registrar has dedicated staff to quality control check and monitor select Banner transactions. A monitoring log was implemented in September 2018, and a monthly dashboard will be provided to the Registrar by January 2019.</p>	10/31/18	3/31/19

#	Audit Report	Audit Issue	Status of Management Action	Original Target	Current Target
			ITS has begun the process of implementing Banner logging capabilities at the database-level. Use cases have been developed to determine which database tables and records should be logged, and events that trigger alerts, in ITSO's Splunk tool. The OUR is monitoring ITS' progress toward implementing a technical solution and has determined that the remediation efforts are currently on track for March 31, 2019 completion.		
17	<p><b>Report Name:</b> Employee Leave Reporting and Remote Work Agreement</p> <p><b>Report Date:</b> 8/29/18</p> <p><b>Management:</b> Sue Tinsman, Assistant Vice President, Payroll, Human Resources/Payroll</p>	<p><b>Clarify Standard Remote Work Agreement on Allowable Reimbursable Expenses:</b> University Policy #2202, "Flexible Work" and University Policy #2113 govern the administration of telework and remote work programs offered by the university. Any financial arrangements associated with these agreements are at the discretion of the employee's work unit and do not require review and/or approval by Human Resources. University Policies #2202 and #2213 should be reviewed to determine if there are any provisions requiring additional guidance and clarification regarding allowable reimbursable expenses.</p>	Human Resources/Payroll will work with Fiscal Services to review and clarify these policies.	3/31/19	3/31/19
18	<p><b>Report Name:</b> Office of the Provost: Decentralized IT Management and Security</p> <p><b>Report Date:</b> 10/23/15</p> <p><b>Management:</b> Thomas Shifflett, Director, Information Technology Services Enterprise Applications</p>	<p><b>Design and Document Development Methodologies and Procedures:</b> The Provost IT Team has only recently begun to develop a framework of activities, documentation, and project management for system or software acquisition or development on behalf of Provost area units requesting their services. Project development life cycle or project management techniques have been executed <i>ad hoc</i> using informally communicated expectations of standards. While there are numerous development methodologies and none are one size fits all, good development and project management standards is the strongest control to help avoid primary causes of project failures.</p>	<p>The Provost IT Team's original intent was to leverage Information Technology Services' design documentation and methodology. The Provost IT assets and operations were merged with ITS in July 2016. As part of this transition, management is finalizing documentation and implementation steps for using the agile methodology and, for the Banner team, the waterfall methodology. Final comments on the draft standards and templates are being reviewed; revisions are due by November 30, 2018.</p> <p>Enterprise Applications is starting the process of developing a standard set of artifacts, processes and procedures. Mature processes and procedures are expected to be implemented by April 2019.</p>	4/30/16	4/30/19
19	<p><b>Report Name:</b> Use of Wiley edu LLP</p>	<p><b>Develop Comprehensive Plan to Strengthen Technology Environment:</b></p>	Management has initiated a number of projects to strengthen Mason's overall technology	7/15/18	5/15/19

#	Audit Report	Audit Issue	Status of Management Action	Original Target	Current Target
	<p>Employees to Process Certain Registration Transactions</p> <p><b>Report Date:</b> 10/6/17</p> <p><b>Management:</b> Marilyn Smith, Vice President &amp; Chief Information Officer, Information Technology Services</p>	<p>Management recognizes that Mason’s existing technology environment presents certain risks to the accomplishment of strategic objectives and to robustly controlling transaction processing.</p> <p>Management should develop and review with executive management a comprehensive plan, with timelines and resource needs, to improve the capability of the existing technology environment to respond flexibly to changes in business models, products and services, processes, and operations while robustly addressing the risks presented.</p>	<p>environment. These projects are in various stages of study, planning, execution, or implementation. They are designed to position ITS to support Smart Growth and are included in ITS’ FY19 operational goals. Major projects include the Banner 9 upgrade; Banner Cloud planning; WiFi assessment and planning; IT Security assessment and roadmap; implementation of a data integration platform; development of a robust, secure computing environment to support research; and new IT security policies and controls.</p> <p>By April 2019, ITS plans to update the IT strategy to support the refreshed Mason Strategic Plan. The revised IT Strategic Plan will include milestones, resource requirements, and a three year roadmap of major initiatives.</p>		
20	<p><b>Report Name:</b> Intercollegiate Athletics</p> <p><b>Report Date:</b> 11/14/18</p> <p><b>Management:</b> Brad Edwards, Assistant Vice President and Director of Intercollegiate Athletics</p>	<p><b>Evaluate University Oversight of Camps and Clinics</b></p> <p>University sports camps and instructional clinics are designed and operated to improve overall skills and general knowledge of the sport. Camps and clinics are governed by NCAA Bylaws which, among other things, allow athletics department personnel to serve in any capacity in a non-institutional, privately owned camp or clinic, provided the camp or clinic is operated in accordance with a number of requirements, including pricing discounts.</p> <p>Mason maintains a Camps and Clinics Manual, distributed by the Athletics Compliance Office to all coaches annually, which contains NCAA rules and interpretations regarding camp and clinics and provides answers to frequently asked questions. The Athletics Compliance Office also meets with camp directors and coaches to review rules and engage on specific situations. Even if a camp or clinic is run independently of Mason (such as owned by a coach’s own LLC), it is still considered an “institutional” camp by the NCAA and all applicable rules apply. In these situations,</p>	<p>Processes will be strengthened to ensure coaches operating camps or clinics adhere to Camps and Clinics Manual requirements and the provisions of Facilities Use Agreements, particularly related to the offering of discounts and treatment of potential prospects. Management will continue to communicate expectations to coaches operating camps or clinics. Documentation will be enhanced to ensure Mason’s ability to demonstrate comprehensive compliance.</p>	5/31/19	5/31/19

#	Audit Report	Audit Issue	Status of Management Action	Original Target	Current Target
		<p>coaches also sign a facilities use agreement, which states that “occupant (the coach) shall adhere to all applicable University policies and procedures”, which would include requirements in the Camps and Clinics Manual.</p> <p>Our review of two camps and clinics determined that certain participants received discounts different than those promoted as available in brochures. Also, certain documentation to support NCAA compliance and required by the Camps and Clinics Manual and executed Facilities Use Agreements was not always on file.</p>			
21	<p><b>Report Name:</b> Enterprise Project Management Framework and System</p> <p><b>Report Date:</b> 3/28/13</p> <p><b>Management:</b> Charles Spann, Executive Director, Information Technology Services</p>	<p><b>Metrics Based Project Management:</b> A cost estimation and tracking mechanism is not in place to determine and track time and costs to complete IT projects. Such a mechanism can support improved comparative analysis, decision making about future projects, and project monitoring and control.</p>	Information Technology Services management continues to re-assess the appropriate process for making decisions regarding sizing and undertaking IT projects, including the appropriate level of consideration for time and cost, and tracking and reporting actual performance. ITS management’s pilot for estimating project costs did not yield a viable solution; management will identify a new pilot in alignment with the updated project management framework once the update is completed.	9/30/13	6/30/19
22	<p><b>Report Name:</b> IT Governance and Project Prioritization</p> <p><b>Report Date:</b> 8/7/17</p> <p><b>Management:</b> Marilyn Smith, Vice President/Chief Information Officer, Information Technology Services</p>	<p><b>Update IT Project Management Policies and Procedures:</b> Mason’s university policies address the procurement, development, implementation, and management of IT projects. These policies need to be reviewed for potential revision as none of the three policies has been reviewed since 2014. Such a review should consider:</p> <ul style="list-style-type: none"> <li>• Distinguishing IT projects requiring technical solutions from projects that do not.</li> <li>• Identifying the SDLC methodologies to be used when developing technical solutions.</li> <li>• Aligning with the most current (2015) ISO 9000 Quality Management Principles standard rather than the 2000 version referenced in policy.</li> <li>• Developing approaches to manage and deliver projects relating to instructional programs, and research projects and initiatives.</li> </ul>	The Director-ITS Process and Planning has been affixed the responsibility for ensuring that all IT-related policies are reviewed annually, and updated as necessary. Non-substantive revisions have been made and more substantial changes are planned to be processed through the university’s standard policy update process during 2018. The Project Management Framework Refresh project (initiated in January 2018 and target completion in June 2019) will satisfy the IT governance audit issues.	12/31/18	6/30/19



#	Audit Report	Audit Issue	Status of Management Action	Original Target	Current Target
23	<p><b>Report Name:</b> IT Governance and Project Prioritization</p> <p><b>Report Date:</b> 8/7/17</p> <p><b>Management:</b> Marilyn Smith, Vice President/Chief Information Officer, Information Technology Services</p>	<p><b>Improve Governance of University IT Projects:</b> The university has several processes for evaluating and prioritizing IT projects for development.</p> <ul style="list-style-type: none"> <li>• Prioritization of Strategic and Capital projects that support strategic objectives, improve service capabilities, enhance customer satisfaction, or support new building construction or renovations should consider the capacity of development resources to support the timing and scheduling of the work effort in addition to the already-considered project impact and effort levels.</li> <li>• Prioritization of Maintenance and Mandate projects which are required by federal, state, or local governments, or university management, or are needed to continue daily operations should be formally documented. Portfolio Owners prioritize these projects within their respective portfolios and do not always document their prioritization decisions.</li> <li>• Management should evaluate the process for prioritizing IT projects that do not impact or involve ITS (i.e., Distributed IT projects); these are prioritized by individual departments.</li> </ul> <p>These gaps may result in a scarcity of resources that do not fully consider personnel and scheduling requirements, or the alignment of project resources with university strategic goals. Decentralized IT project spending and activities may not be approved, governed, and appropriately implemented by university management.</p>	<p>As part of ITS continuing to enhance, and strengthen compliance with, the Project Management Framework and the IT governance process, standard methods for ITS to track project resource usage will be implemented; this is expected to be completed by December 2018. Formal procedures to document Maintenance and Mandate prioritization efforts were implemented in March 2018.</p> <p>While IT Governance processes have been developed with an initial focus on projects that directly involve ITS, the processes can be broadly applied to other administrative and academic groups while also acknowledging that project control needs may vary depending on category and scale, and educating the university community will all be critical factors in the success of this effort; this effort is expected to be completed by June 2019.</p>	6/30/19	6/30/19
24	<p><b>Report Name:</b> IT Governance and Project Prioritization</p> <p><b>Report Date:</b> 8/7/17</p> <p><b>Management:</b> Marilyn Smith, Vice President/Chief Information Officer,</p>	<p><b>Complete Streamline of IT Project Management Framework:</b> The ITS Portfolio and Project Management Office (PPMO) is updating its methodology (last updated in May 2010) for managing IT projects to streamline project management and system development activities. Although not yet documented, the updated methodology is practiced when PPMO staff act as, or provide guidance to, functional project managers. Many aspects of well-recognized strong methodologies are included in</p>	<p>The PPMO began a project to formalize the refresh of the project management framework in September 2017. Updated templates and procedures, and revised approval processes for each phase gates will be phased-in through Q1 2018. The Project Management Framework Refresh project was initiated in January 2018. The new framework is targeted for implementation within ITS by June 2018, and</p>	6/30/19	6/30/19

#	Audit Report	Audit Issue	Status of Management Action	Original Target	Current Target
	Information Technology Services	<p>the updated methodology; however, there remain further opportunities to strengthen controls to reduce areas of inconsistency in how projects are planned, managed, and executed which may result in scope creep, planning enhancement, and insufficient support from the project sponsor or manager, among other things.</p> <p>Also, distributed IT projects are not subject to PPMO oversight which may result in projects being developed that do not adhere to the university's IT project management methodology.</p>	communicated and extended to the broader Mason community over the next year.		
25	<p><b>Report Name:</b> Supplemental Payroll Payments</p> <p><b>Report Date:</b> 9/5/18</p> <p><b>Management:</b> Renate Guilford, Associate Provost, Academic Administration, Office of the Provost</p>	<p><b>Evaluate Methods to Improve Unit Timeliness of Faculty Contractual Agreements and Banner Approvals:</b> Seventeen individual faculty members had contractual agreements where the unit and/or Office of the Provost's approval of the overload letter was delayed. 106 out of 186 (57%) of job assignments reviewed had Banner approvals (the last required approval) which occurred after the job assignment began (based on the job start date entered in Banner). Approvals should be in place prior to faculty or staff beginning their assignment. If approvals are significantly overdue, compensation may be delayed where work has been performed.</p>	<p>The Provost's Office will remind units three months prior to the start of the semester to submit requests for overloads and work with individual HR representatives in the academic units to provide guidance on the process.</p> <p>The Provost's Office is developing an electronic workflow system that should provide access to create these assignments and approvals done in a timely manner.</p>	6/30/19	6/30/19
26	<p><b>Report Name:</b> Intercollegiate Athletics</p> <p><b>Report Date:</b> 11/14/18</p> <p><b>Management:</b> Brad Edwards, Assistant Vice President and Director of Intercollegiate Athletics</p>	<p><b>Strengthen Process for Categorizing Countability of Financial Aid</b> During the 2016-17 academic year, the University distributed athletic financial aid to ~350 (75%) student-athletes, totaling over \$5.6 million. Among other things, NCAA Bylaws limit financial aid available to be provided to student-athletes through specific limits by sport. The Bylaws also require that any aid received from the institution must be considered countable aid on squad lists, unless the aid meets certain exception criteria.</p> <p>During the 2016-2017 academic year, Mason Out of State grant financial aid was categorized as countable aid for some student-athletes and as non-countable aid for other student-athletes. Mason's Financial Aid Office</p>	Processes will be strengthened to ensure that all types of aid are categorized correctly as either countable aid or non-countable aid so as to ensure that specific limits by sport are not exceeded.	6/30/19	6/30/19

#	Audit Report	Audit Issue	Status of Management Action	Original Target	Current Target
		<p>confirmed that such aid should be categorized as countable aid, as it represents institutional aid. Categorizing countable aid as non-countable aid impacts the ability to monitor compliance with specific limits by sport. We identified two student-athletes where Mason Out of State grant financial aid was erroneously categorized as non-countable; in each case, the specific count limit for the sport had not been exceeded.</p> <p>Management should strengthen processes to ensure that aid is categorized correctly and that specific limits by sport are not exceeded.</p>			
27	<p><b>Report Name:</b> Intercollegiate Athletics</p> <p><b>Report Date:</b> 11/14/18</p> <p><b>Management:</b> Brad Edwards, Assistant Vice President and Director of Intercollegiate Athletics</p>	<p><b>Evaluate Financial Aid Award Statement Distribution Process</b> Student-athlete financial aid awards are approved by Athletics personnel and the university's Financial Aid Office. Financial aid award statements, signed by both Athletics and Financial Aid Office personnel, are sent to student-athletes by Athletics personnel, rather than by the Financial Aid Office. While the NCAA does not prohibit Athletics from sending financial aid award statements, leading practice is to centralize the sending and retention of statements to enhance segregation of duties and record retention. Athletics and the Financial Aid Office were unable to locate the financial aid award statement for one of the 25 student-athletes sampled.</p>	Athletics Management will evaluate the benefits of centralizing the sending and retention of financial aid award statements. The Compliance Manual will be updated to describe the processes and responsibilities, including record retention.	6/30/19	6/30/19
28	<p><b>Report Name:</b> Intercollegiate Athletics</p> <p><b>Report Date:</b> 11/14/18</p> <p><b>Management:</b> Brad Edwards, Assistant Vice President and Director of Intercollegiate Athletics</p>	<p><b>Enhance Contract Administration Processes</b> We assessed management's processes related to vendor performance under contracts with Adidas, Learfield, and Mission Media. In our view, contract administrators understood the terms and obligations in the contracts, and managed overall performance adequately. These processes could be enhanced further by: evaluating usage of a tracking tool to document contract obligations; tracking spending data by sport team to support future negotiations; establishing an approved list of vendor subsidiaries and licensees to support Accounts Payable invoice processing; and documenting the contract revenue reconciliation process for use in future contract years.</p>	Athletics Management will review and enhance vendor management processes so as to further improve the management of contracts and better support future negotiations. Among other things, the review will consider tracking of spending data in relation to contract terms, clarifying invoice processing, and documenting the revenue reconciliation process for future use.	6/30/19	6/30/19

#	Audit Report	Audit Issue	Status of Management Action	Original Target	Current Target
29	<p><b>Report Name:</b> Administrative Management of Sponsored Programs</p> <p><b>Report Date:</b> 10/11/17</p> <p><b>Management:</b> Deborah Crawford, Vice President of Research, Office of the Provost</p>	<p><b>Plan for Scalable Research Administration to Enable Future Growth in Research</b></p> <p>In our view, Mason’s current research administrative processes are not adequate nor scalable to support the nature and extent of research administrative and compliance obligations likely to result from substantial future growth in the volume and value of research awards. A 50% growth of the overall research portfolio, to ~\$150 million, might require an additional \$2.4 million of expenditures (determined on a straight-line basis) to support research administration and compliance activities. As management plans for such growth and sustaining its R1-Highest Research Activity classification, we believe there should be concurrent, comprehensive planning for the appropriate mix of people, process, and technology resources to effectively satisfy the current and future nature and extent of research administrative and compliance obligations while enabling faculty and researchers to remain focused on conducting research. In conducting such planning, management should consider multiple areas, including:</p> <ul style="list-style-type: none"> <li>• Alignment, including ensuring that academic unit plans for growing research (and providing appropriate administrative support) are fully aligned with Mason’s strategic plans and goals.</li> <li>• Information technology, including systems, reporting capabilities, and interface automation which impact work process effectiveness and efficiency.</li> <li>• Organizational structures, including the appropriate mix of academic unit and centralized employees, job roles, workloads, time dedicated to research administration activities, and reporting relationships for academic unit research administrators.</li> <li>• Resourcing, including the appropriate level and mix of automation as well as academic unit and centralized employees.</li> </ul>	<p>Management continues to work to develop a comprehensive, scalable plan for research administration to accrue efficiencies offered by contemporary enterprise systems that support research, to adequately support the administrative needs of Mason researchers, and to provide research administrative support best delivered centrally. This plan is being developed in concert with the update of Mason’s Strategic Plan and by a working group of stakeholders that includes representatives from Mason’s Information Technology Services (ITS), Office of Sponsored Programs (OSP), Research Development, Integrity, and Assurance (RDIA), the Research Council, and the OSP Advisory Group.</p>	7/1/18	7/1/19

# Academic Programs, Diversity and University Community Committee – December 12, 2018

## George Mason University Board of Visitors

### I. Call to Order

- A. 2018-DEC-12 APDUC Agenda Revised.docx

### II. Approval of Minutes

- A. Approval of APDUC Committee Minutes from October 10, 2018

- 1. APDUC Meeting MInutes 2018-OCT-10.docx

### III. New Business

- A. Provost's Update

S. D. Wu

- B. INTO-Mason Joint Venture Update

M. Marks, D.  
Burge, R.  
Pascarell  
H. Butler, A.  
Price

- C. Law School Diversity and Inclusion Project

- D. Faculty Announcements

- 1. Appointment of Faculty

- a. 1- BOV Appointment of Faculty December 2018.pdf

- 2. Appointment of Administrative and Professional Faculty

- a. 2- BOV Appointment of Admin and Prof Faculty Dec 2018.pdf

- 3. Renewals and Reappointments

- a. 3- BOV RenewalsReappointments December 2018.pdf

- 4. Separations

- a. 4- BOV Separations December 2018.pdf

- 5. Other Announcements

- a. 5- BOV Other Announcements December 2018.pdf

- 6. Summary of Faculty Actions and Announcements

- a. 6- BOV Summary Sheet December 2018.pdf

### IV. Adjournment

**GEORGE MASON UNIVERSITY**  
**BOARD OF VISITORS**  
**Academic Programs, Diversity, and University Community Committee Meeting**  
**Wednesday, December 12, 2018**  
**A G E N D A**

- I. Call to Order**
  
- II. Approval of Academic Programs, Diversity and University Community Committee Minutes from October 10, 2018 (Action Item)**
  
- III. New Business**
  - A. Provost's Update (D. Wu)
  - B. INTO-Mason Joint Venture Update (M. Marks, D. Burge, R. Pascarell)
  - C. Law School Diversity and Inclusion Project (H. Butler, A. Price)
  - D. Faculty Announcements
    - 1. Appointment of Faculty
    - 2. Appointment of Administrative and Professional Faculty
    - 3. Renewals and Reappointments
    - 4. Separations
    - 5. Other Announcements
    - 6. Summary of Faculty Actions and Announcements
  
- IV. Adjournment**

**GEORGE MASON UNIVERSITY**  
**BOARD OF VISITORS**  
**Academic Programs, Diversity & University Community Committee**

**MINUTES**

Wednesday, October 10, 2018

9:30 AM – 10:25 AM

Merten Hall, Fairfax Campus

**PRESENT:** Rector: Tom Davis; Chair: Karen Alcalde; Vice Chair: Bob Witeck; Visitors: Horace Blackman, Dave Petersen, Nancy Prowitt, Paul Reagan, Edward Rice, Denise Turner Roth, and Lisa Zuccari; Faculty Senate Chair: Keith Renshaw; Student Representatives: Becca Keatinge and Bekah Pettine; Faculty Representatives: Reeshad Dalal and Christy Pichichero; Staff Representatives: Provost S. David Wu, Rose Pascarell and Julian Williams.

**ABSENT:** Visitor: Anjan Chimaladinne

**I. vThe meeting was called to order by Chair Karen Alcalde at 9:30 AM.**

**II. Approval of Minutes (Action Item)**

It was **MOVED** by Visitor Witeck and **SECONDED** by Visitor Blackman that the minutes from the May 3 meeting be approved. **MOTION CARRIED UNANIMOUSLY.**

**III. New Business**

**A. Provost's Update**

*S. David Wu – Provost and Executive Vice President*

Provost Wu provided updates on key issues and framed the conversation for the meeting. Dr. Wu remarked that the University's enrollment is at its highest level, with over 37,000 students. As the university continues to grow, it will be vital to maintain Mason's academic quality while also supporting the mission of access. The ADVANCE Partnership and the Student Experience Redesign, along with the university's R1 research status, support our students' demand for quality and need for affordable access.

**B. ADVANCE Partnership Update**

*Michelle Marks – Vice President, Academic Innovation and New Ventures*

With an initial goal of providing 5 curricular academic pathways, we are pleased to report that there are 21 ADVANCE curricular pathways in Phase 1.0 of the project that launched Fall 2018 with 129 students currently enrolled. 189 students are in-process for Spring 2019. The average age of students in the first cohort is 22 – 37% are new NOVA students and 63% are continuing NOVA students. The average credits at time of enrollment in ADVANCE is 12. Top majors for the first cohort include: Management & Accounting, Cyber Security, Engineering, Biology and Criminology. Students receive both a Mason and a NOVA ID card upon entering the ADVANCE program so they are immersed in the Mason culture and opportunities from the very beginning of their academic journey. This week, 160 Mason and NOVA Faculty gathered in round-table discussions to design additional pathways and ADVANCE 2.0 anticipates increasing the number of programs offered to 50 pathways by Fall 2019. In the days ahead, the ADVANCE senior leadership team, including President Cabrera and President Ralls, will be meeting with area school superintendents to extol the benefits of the ADVANCE program.

**C. Student Experience Redesign**

***David Burge – Vice President, Enrollment Management***

Mason is engaged in enrollment planning to support strategic goal #4 of graduating 100,000 career-ready students, increasing VA and out-of-state enrollments by 2024 to 42,885 students, and assuming ADVANCE gains, online programs and new international students. Enrollment growth is bringing a more diverse student body to Mason, and the university's goal is to scale service to support all students, not just campus-based traditional residential students. Mason is investing in a 2-tiered Mason Care Network, as well as turnkey technology that will put the student in the center of a network of care that better connects students to essential offerings and provides support from the very beginning of the student's journey – whether they enter the university through the ADVANCE program; as a first-time freshman; or as a student transferring in from an institution other than NOVA. This will improve service, decrease service cost per student and improve retention and graduation rates.

**D. New Programs (Action Item)**

It was **MOVED** by Vice Chair Witeck and **SECONDED** by Visitor Rice to approve the following programs:

1. LLM in Cyber, Intelligence and National Security Law
2. MS in Climate Science
3. PhD in Business

The **MOTION CARRIED UNANIMOUSLY.**

**E. Faculty Actions (Action Item)**

Chairperson Alcalde called for a **MOTION** to approve the actions; Visitor Witeck **MOVED**; and Visitor Reagan **SECONDED** the following faculty actions:

1. Conferral of Emeritus/Emerita Status
2. Elections of New Tenured Hires

The **MOTION CARRIED UNANIMOUSLY.**

**F. Faculty Announcements**

Faculty announcements were acknowledged for the Committee's benefit. No further discussion was held.

**IV. Adjournment**

Chairperson Alcalde called for a **MOTION** to adjourn the meeting; Vice Chair Witeck **MOVED**; and Visitor Rice **SECONDED**. The meeting adjourned at 10:16 AM.

Respectfully submitted,



Amber Hannush  
Secretary Pro Tem



## ANNOUNCEMENT

### Academic Programs, Diversity, and University Community Committee

December 12, 2018

### APPOINTMENT OF FACULTY

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
<b>Arans</b>	<b>Olga R.</b>	8/25/2018	1 year

**Title:** Term Assistant Professor

**Classification:** Term - Instructional

**Local Academic Unit:** Modern and Classical Languages (CHSS)

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<b>Guo</b>	<b>Liying</b>	8/10/2018	1 year
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**Title:** Research Associate Professor

**Classification:** Term - Research

**Local Academic Unit:** Center for Spatial Information Science and Systems (COS)

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<b>Landoll</b>	<b>Christine</b>	1/10/2019	1 year
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**Title:** Term Instructor

**Classification:** Term - Instructional

**Local Academic Unit:** School of Business

**Note(s):** Additional Title: Professor of Practice and Director of Business Engagement

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<b>Lee</b>	<b>Steven</b>	1/10/2019	3 years
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**Title:** Term Professor

**Classification:** Term - Instructional

**Local Academic Unit:** College of Education and Human Development

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<b>Lehman</b>	<b>Caitlin</b>	10/10/2018	1 year
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**Title:** Research Associate (Instructor)

**Classification:** Term - Research

**Local Academic Unit:** National Center for Biodefense and Infectious Diseases (COS)

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## ANNOUNCEMENT

### Academic Programs, Diversity, and University Community Committee

December 12, 2018

#### APPOINTMENT OF FACULTY

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
<b>Mullen</b>	<b>Abigail</b>	10/10/2018	1 year

**Title:** Research Assistant Professor

**Classification:** Term - Research

**Local Academic Unit:** History and Art History (CHSS)

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<b>O'Connor</b>	<b>Sean M.</b>	1/10/2019	1 year
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**Title:** Term Professor

**Classification:** Term - Instructional

**Local Academic Unit:** Antonin Scalia Law School

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<b>Pudukotai Dinakarro</b>	<b>Sai Manoj</b>	9/25/2018	1 year
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**Title:** Research Assistant Professor

**Classification:** Term - Research

**Local Academic Unit:** Electrical and Computer Engineering (VSE)

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<b>Swenson</b>	<b>Erik T.</b>	9/25/2018	< 1 year
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**Title:** Research Assistant Professor

**Classification:** Term - Research

**Local Academic Unit:** Center for Ocean-Land-Atmosphere Studies (COS)

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## ANNOUNCEMENT

### Academic Programs, Diversity, and University Community Committee

December 12, 2018

#### **APPOINTMENT OF ADMINISTRATIVE AND PROFESSIONAL FACULTY**

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>
<b>Baird</b>	<b>Margaret</b>	10/10/2018

**Title:** Director of Donor Relations and Stewardship

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Advancement and Alumni Relations

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<b>Baker</b>	<b>Kayla</b>	10/1/2018
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**Title:** Project Manager/Business Analyst for Academic Innovation and New Ventures

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Office of the Provost

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<b>Bolno</b>	<b>Zachary</b>	9/4/2018
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**Title:** Deputy Athletic Director, External Affairs

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Intercollegiate Athletics

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<b>Bray</b>	<b>Laurence</b>	11/10/2018
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**Title:** Senior Faculty Fellow-Research, Graduate Education and Postdoctoral Training

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Office of the Provost

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<b>Brogdon</b>	<b>Laurie</b>	10/1/2018
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**Title:** Director of Alumni Relations

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Advancement and Alumni Relations

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December 12, 2018

#### **APPOINTMENT OF ADMINISTRATIVE AND PROFESSIONAL FACULTY**

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>
<b>Brumsey</b>	<b>Michele</b>	12/10/2018

**Title:** Director of Advancement

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Volgenau School of Engineering

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<b>Clemons</b>	<b>Crystal</b>	10/25/2018
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**Title:** Director, Classroom and Lab Technologies

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Information Technology Services

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<b>Cotton</b>	<b>Eboni S.</b>	10/10/2018
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**Title:** Project Manager, Student Experience Redesign

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Office of the Provost

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<b>Dufresne</b>	<b>Danielle</b>	10/17/2018
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**Title:** Assessment Supervisor

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Psychology (CHSS)

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<b>Eppert</b>	<b>Camden</b>	5/14/2018
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**Title:** Head Assistant Coach, Wrestling

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Intercollegiate Athletics

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#### **APPOINTMENT OF ADMINISTRATIVE AND PROFESSIONAL FACULTY**

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>
<b>Gott</b>	<b>Morgan</b>	8/22/2018

**Title:** Assistant Coach Women's Lacrosse  
**Classification:** At will - Admin/Professional  
**Local Academic Unit:** Intercollegiate Athletics

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<b>Hannush</b>	<b>Amber</b>	11/25/2018
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**Title:** Operations and Initiatives Manager  
**Classification:** At will - Admin/Professional  
**Local Academic Unit:** Office of the Provost

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<b>Holmes</b>	<b>Kimberly</b>	11/25/2018
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**Title:** Associate Dean of Student Affairs  
**Classification:** At will - Admin/Professional  
**Local Academic Unit:** College of Health and Human Services

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<b>Hundemer</b>	<b>Kellie</b>	11/5/2018
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**Title:** Assistant Director of Fitness  
**Classification:** At will - Admin/Professional  
**Local Academic Unit:** Mason Recreation (UL)

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<b>Julie</b>	<b>Trkula</b>	11/10/2018
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**Title:** Associate Director of Administration and Finance  
**Classification:** At will - Admin/Professional  
**Local Academic Unit:** College of Visual and Performing Arts

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#### **APPOINTMENT OF ADMINISTRATIVE AND PROFESSIONAL FACULTY**

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>
<b>Katopis</b>	<b>Chris</b>	10/25/2018

**Title:** Assistant Director

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Antonin Scalia Law School

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<b>Kentish</b>	<b>Shamika</b>	11/1/2018
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**Title:** Assistant Athletic Director, Compliance

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Intercollegiate Athletics

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<b>Leonhardt</b>	<b>Ayleen M.</b>	9/25/2018
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**Title:** Assistant Director of Student Involvement

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Student Involvement (UL)

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<b>Madigan</b>	<b>Kevin</b>	9/10/2018
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**Title:** Deputy Director

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Antonin Scalia Law School

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<b>Morris</b>	<b>Tellifer</b>	11/12/2018
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**Title:** Assistant Director of Divisional Operations and Planning

**Classification:** At will - Admin/Professional

**Local Academic Unit:** University Life

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<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>
<b>Morris</b>	<b>Bradley</b>	9/25/2018

**Title:** Assistant Director of Student Success and Retention

**Classification:** At will - Admin/Professional

**Local Academic Unit:** School of Business

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<b>Muñiz</b>	<b>Alvaro</b>	10/15/2018
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**Title:** Project Manager/Business Analyst for Academic Innovation and New Ventures

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Office of the Provost

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<b>Ninceheler</b>	<b>Stuart</b>	9/10/2018
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**Title:** Attorneys General Education Program Director

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Antonin Scalia Law School

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<b>Ogden</b>	<b>Jeffrey</b>	10/18/2018
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**Title:** Assistant Director

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Disability Services (UL)

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<b>Powell</b>	<b>Karla</b>	10/17/2018
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**Title:** Assistant Coach, Softball

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Intercollegiate Athletics

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### Academic Programs, Diversity, and University Community Committee

December 12, 2018

#### **APPOINTMENT OF ADMINISTRATIVE AND PROFESSIONAL FACULTY**

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>
<b>Quiles</b>	<b>Brandon</b>	9/25/2018

**Title:** Associate Director for International Programs

**Classification:** At will - Admin/Professional

**Local Academic Unit:** International Programs and Services (UL)

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<b>Railey</b>	<b>Angela</b>	11/25/2018
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**Title:** Associate Director of Financial Management

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Office of the Provost

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<b>Schait</b>	<b>Emma</b>	8/27/2018
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**Title:** Assistant Coach Women's Lacrosse

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Intercollegiate Athletics

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<b>Schlam</b>	<b>Eli S.</b>	4/30/2018
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**Title:** Associate University Counsel

**Classification:** At will - Admin/Professional

**Local Academic Unit:** University Counsel

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<b>Shaw</b>	<b>Cameron E.</b>	11/10/2018
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**Title:** Assistant Director, Orientation and New Student Programs

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Orientation and Family Programs and Services (UL)

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December 12, 2018

#### **APPOINTMENT OF ADMINSTRATIVE AND PROFESSIONAL FACULTY**

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>
<b>Smith</b>	<b>Jeffery T.</b>	9/10/2018

**Title:** Associate Director, Henry G. Manne Programs

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Antonin Scalia Law School

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<b>Thompson</b>	<b>Michelle</b>	10/19/2018
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**Title:** Director of Marketing and Communications

**Classification:** At will - Admin/Professional

**Local Academic Unit:** College of Health and Human Services

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<b>Vay</b>	<b>Peter</b>	12/3/2018
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**Title:** Research Services Librarian

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Antonin Scalia Law School

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<b>Woolsey</b>	<b>John M.</b>	1/10/2019
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**Title:** Director of Faculty and Curriculum Development

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Honors College

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## ANNOUNCEMENT

### Academic Programs, Diversity, and University Community Committee

December 12, 2018

### RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
<b>Avila</b>	<b>Kimberly</b>	8/25/2018	1 year

**Title:** Term Assistant Professor

**Classification:** Instructional

**Local Academic Unit:** College of Education and Human Development

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<b>Baker</b>	<b>Courtney K.</b>	8/25/2018	1 year
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**Title:** Term Assistant Professor

**Classification:** Instructional

**Local Academic Unit:** College of Education and Human Development

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<b>Barthold</b>	<b>Christine</b>	8/25/2018	1 year
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**Title:** Term Assistant Professor

**Classification:** Instructional

**Local Academic Unit:** College of Education and Human Development

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<b>Bean</b>	<b>Amanda K.</b>	8/25/2018	1 year
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**Title:** Term Assistant Professor

**Classification:** Instructional

**Local Academic Unit:** College of Education and Human Development

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<b>Berg</b>	<b>Scott</b>	8/25/2018	1 year
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**Title:** Term Associate Professor

**Classification:** Instructional

**Local Academic Unit:** English (CHSS)

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### Academic Programs, Diversity, and University Community Committee

December 12, 2018

### RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
<b>Birerdinc</b>	<b>Aybike</b>	10/10/2018	1 year

**Title:** Research Assistant Professor  
**Classification:** Research  
**Local Academic Unit:** Systems Biology (COS)

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<b>Blair</b>	<b>Virginia</b>	8/25/2018	1 year
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**Title:** Term Assistant Professor  
**Classification:** Instructional  
**Local Academic Unit:** College of Health and Human Services

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<b>Breno</b>	<b>Alex J.</b>	9/12/2018	1 year
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**Title:** Research Associate (Instructor)  
**Classification:** Research  
**Local Academic Unit:** Criminology, Law and Society (CHSS)

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<b>Brown</b>	<b>Stephen</b>	8/25/2018	1 year
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**Title:** Term Assistant Professor  
**Classification:** Instructional  
**Local Academic Unit:** Health Administration and Policy (CHHS)

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<b>Buckley</b>	<b>Martha</b>	10/20/2018	1 year
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**Title:** Research Assistant Professor  
**Classification:** Research  
**Local Academic Unit:** Center for Ocean-Land-Atmosphere Studies (COS)

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### Academic Programs, Diversity, and University Community Committee

December 12, 2018

### RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
<b>Burroughs</b>	<b>James</b>	8/25/2018	1 year

**Title:** Term Associate Professor

**Classification:** Instructional

**Local Academic Unit:** Schar School of Policy and Government

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<b>Chapman</b>	<b>Jeannette</b>	6/25/2018	1 year
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**Title:** Research Associate (Instructor)

**Classification:** Research

**Local Academic Unit:** Schar School of Policy and Government

**Note(s):** Additional Title: Deputy Director of the Stephen S. Fuller Institute/ Senior Research Associate

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<b>Chin</b>	<b>Lisa</b>	6/25/2018	At will
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**Title:** Research Assistant Professor

**Classification:** Research

**Local Academic Unit:** Rehabilitation Sciences (CHHS)

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<b>Chung</b>	<b>Yoo Sun</b>	8/25/2018	1 year
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**Title:** Term Associate Professor

**Classification:** Instructional

**Local Academic Unit:** College of Education and Human Development

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<b>Collins</b>	<b>John</b>	6/25/2018	1 year
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**Title:** Research Assistant Professor

**Classification:** Instructional

**Local Academic Unit:** Rehabilitation Sciences (CHHS)

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### Academic Programs, Diversity, and University Community Committee

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### RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
<b>Daigle</b>	<b>Delton T.</b>	8/25/2018	1 year

**Title:** Term Assistant Professor

**Classification:** Instructional

**Local Academic Unit:** Schar School of Policy and Government

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<b>Davis</b>	<b>Justin B.</b>	10/10/2018	1 year
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**Title:** Research Assistant Professor

**Classification:** Research

**Local Academic Unit:** Center for Applied Proteomics and Molecular Medicine (COS)

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<b>Deneva</b>	<b>Iulia S.</b>	9/2/2018	1 year
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**Title:** Research Assistant Professor

**Classification:** Research

**Local Academic Unit:** Physics and Astronomy (COS)

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<b>Dolci</b>	<b>Stefano</b>	11/10/2018	1 year
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**Title:** Research Associate (Instructor)

**Classification:** Research

**Local Academic Unit:** Collision Safety and Analysis (COS)

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<b>Edner</b>	<b>Sheldon M</b>	8/25/2018	1 year
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**Title:** Term Full Professor

**Classification:** Instructional

**Local Academic Unit:** Schar School of Policy and Government

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#### RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
<b>Fisher-Maltese</b>	<b>Carley</b>	8/25/2018	1 year

**Title:** Term Assistant Professor

**Classification:** Instructional

**Local Academic Unit:** College of Education and Human Development

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<b>Fyock</b>	<b>Marcie</b>	8/25/2018	1 year
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**Title:** Term Assistant Professor

**Classification:** Instructional

**Local Academic Unit:** College of Education and Human Development

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<b>Garrison</b>	<b>Victoria</b>	8/25/2018	1 year
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**Title:** Term Assistant Professor

**Classification:** Instructional

**Local Academic Unit:** Nursing (CHHS)

**Note(s):** Additional Title: Physician

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<b>Goodknight</b>	<b>Adrienne</b>	8/25/2018	1 year
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**Title:** Term Instructor

**Classification:** Instructional

**Local Academic Unit:** Nursing (CHHS)

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<b>Henderson</b>	<b>Thomas</b>	8/25/2018	1 year
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**Title:** Term Instructor

**Classification:** Instructional

**Local Academic Unit:** Health Administration and Policy (CHHS)

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### Academic Programs, Diversity, and University Community Committee

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#### RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
<b>Jerome</b>	<b>Marci B</b>	8/25/2018	1 year

**Title:** Term Associate Professor

**Classification:** Instructional

**Local Academic Unit:** College of Education and Human Development

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<b>Jones</b>	<b>Tina</b>	8/25/2018	1 year
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**Title:** Term Instructor

**Classification:** Instructional

**Local Academic Unit:** College of Education and Human Development

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<b>Jones</b>	<b>Rebecca</b>	6/25/2018	1 year
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**Title:** Term Associate Professor

**Classification:** Instructional

**Local Academic Unit:** College of Science

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<b>Kauzlarich</b>	<b>Richard</b>	8/25/2018	1 year
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**Title:** Distinguished Visiting Professor

**Classification:** Instructional

**Local Academic Unit:** Schar School of Policy and Government

**Note(s):** Additional Title: Co-Director of the Center for Energy Science and Policy and Director, Peace Operations

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<b>Kelly</b>	<b>Nancy</b>	8/25/2018	1 year
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**Title:** Term Assistant Professor

**Classification:** Instructional

**Local Academic Unit:** Nursing (CHHS)

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## ANNOUNCEMENT

### Academic Programs, Diversity, and University Community Committee

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### RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
<b>Knight</b>	<b>Kelly L.</b>	6/25/2018	1 year

**Title:** Term Assistant Professor

**Classification:** Instructional

**Local Academic Unit:** College of Science

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<b>Lerch</b>	<b>Jennifer</b>	7/25/2018	1 year
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**Title:** Research Associate (Instructor)

**Classification:** Research

**Local Academic Unit:** Criminology, Law and Society (CHSS)

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<b>Li</b>	<b>Sanmei</b>	8/10/2018	1 year
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**Title:** Research Assistant Professor

**Classification:** Research

**Local Academic Unit:** Geography and Geoinformation Science (COS)

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<b>Lin</b>	<b>MingKuan</b>	10/25/2018	1 year
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**Title:** Research Assistant Professor

**Classification:** Research

**Local Academic Unit:** Systems Biology (COS)

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<b>Magni</b>	<b>Ruben</b>	11/10/2018	1 year
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**Title:** Research Associate (Instructor)

**Classification:** Research

**Local Academic Unit:** Center for Applied Proteomics and Molecular Medicine (COS)

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## ANNOUNCEMENT

### Academic Programs, Diversity, and University Community Committee

December 12, 2018

### RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
<b>Malur</b>	<b>Michal J.</b>	6/25/2018	1 year

**Title:** Research Associate (Instructor)

**Classification:** Research

**Local Academic Unit:** Schar School of Policy and Government

**Note(s):** Additional Title: Director of External Programs

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<b>Nelson</b>	<b>George</b>	8/10/2018	1 year
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**Title:** Research Associate (Instructor)

**Classification:** Research

**Local Academic Unit:** Physics and Astronomy (COS)

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<b>Nelson</b>	<b>Mary</b>	6/25/2018	1 year
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**Title:** Term Associate Professor

**Classification:** Instructional

**Local Academic Unit:** College of Science

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<b>Nolan</b>	<b>Matthew</b>	8/25/2018	3 years
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**Title:** Term Assistant Professor

**Classification:** Instructional

**Local Academic Unit:** Computer Game Design (CVPA)

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<b>Norden</b>	<b>Luanne</b>	8/25/2018	1 year
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**Title:** Term Instructor

**Classification:** Instructional

**Local Academic Unit:** College of Education and Human Development

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## ANNOUNCEMENT

### Academic Programs, Diversity, and University Community Committee

December 12, 2018

#### RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
<b>O'Brien</b>	<b>Kristen Merrill</b>	8/25/2018	1 year

**Title:** Term Assistant Professor

**Classification:** Instructional

**Local Academic Unit:** College of Education and Human Development

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<b>Pamas</b>	<b>Roberto A.</b>	8/25/2018	1 year
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**Title:** Term Associate Professor

**Classification:** Instructional

**Local Academic Unit:** College of Education and Human Development

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<b>Parham</b>	<b>Candace</b>	5/25/2018	1 year
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**Title:** Term Assistant Professor

**Classification:** Instructional

**Local Academic Unit:** College of Education and Human Development

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<b>Perilla</b>	<b>German</b>	6/25/2018	1 year
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**Title:** Term Instructor

**Classification:** Instructional

**Local Academic Unit:** School of Business

**Note(s):** Additional Title: Center for Innovation and Entrepreneurship Fellow and Director of the George Mason University Honey Bee Initiative

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<b>Piccione</b>	<b>Eric</b>	8/25/2018	3 years
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**Title:** Term Assistant Professor

**Classification:** Instructional

**Local Academic Unit:** Computer Game Design (CVPA)

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## ANNOUNCEMENT

### Academic Programs, Diversity, and University Community Committee

December 12, 2018

### RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
<b>Ray</b>	<b>Sharon</b>	8/25/2018	1 year

**Title:** Term Assistant Professor

**Classification:** Instructional

**Local Academic Unit:** College of Education and Human Development

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<b>Rioux-Bailey</b>	<b>Carmen</b>	8/25/2018	1 year
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**Title:** Term Instructor

**Classification:** Instructional

**Local Academic Unit:** College of Education and Human Development

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<b>Secret</b>	<b>Nathan J.</b>	9/25/2018	1 year
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**Title:** Research Assistant Professor

**Classification:** Research

**Local Academic Unit:** Physics and Astronomy (COS)

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<b>Seubert</b>	<b>Angela K.</b>	9/25/2018	1 year
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**Title:** Research Associate (Instructor)

**Classification:** Research

**Local Academic Unit:** Criminology, Law and Society (CHSS)

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<b>Shafroth</b>	<b>Frank</b>	6/25/2018	1 year
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**Title:** Term Instructor

**Classification:** Instructional

**Local Academic Unit:** Schar School of Policy and Government

**Note(s):** Additional Title: Director of the State and Local Government Leadership Center

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## ANNOUNCEMENT

### Academic Programs, Diversity, and University Community Committee

December 12, 2018

### RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Stone	Deborah W.	8/25/2018	1 year

**Title:** Term Assistant Professor

**Classification:** Instructional

**Local Academic Unit:** College of Education and Human Development

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Stone	Victoria J.	8/25/2018	1 year
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**Title:** Term Assistant Professor

**Classification:** Instructional

**Local Academic Unit:** College of Education and Human Development

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Sweet	Colleen A.	6/25/2018	1 year
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**Title:** Term Assistant Professor

**Classification:** Instructional

**Local Academic Unit:** Modern and Classical Languages (CHSS)

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Talbot	Lee	8/25/2018	1 year
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**Title:** Term Professor

**Classification:** Instructional

**Local Academic Unit:** Environmental Science and Policy (COS)

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Taylor	Kevin	8/25/2018	1 year
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**Title:** Term Instructor

**Classification:** Instructional

**Local Academic Unit:** College of Education and Human Development

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## ANNOUNCEMENT

### Academic Programs, Diversity, and University Community Committee

December 12, 2018

#### RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
<b>Taylor III</b>	<b>Eugene A.</b>	8/25/2018	1 year

**Title:** Term Associate Professor

**Classification:** Instructional

**Local Academic Unit:** English (CHSS)

**Note(s):** Additional Title: Editor of the English Department Newsletter, Fall for the Book Marketing Director, and Director of the Creative Writing Program

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<b>Walker</b>	<b>Laura M.</b>	8/25/2018	1 year
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**Title:** Term Associate Professor

**Classification:** Instructional

**Local Academic Unit:** Schar School of Policy and Government

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<b>Wang</b>	<b>Zhi</b>	10/1/2018	1 year
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**Title:** Research Professor

**Classification:** Research

**Local Academic Unit:** Schar School of Policy and Government

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<b>Wilkins</b>	<b>Terry</b>	6/10/2018	1 year
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**Title:** Research Associate (Instructor)

**Classification:** Research

**Local Academic Unit:** Criminology, Law and Society (CHSS)

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<b>Wise</b>	<b>Sandra</b>	7/1/2018	1 year
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**Title:** Research Associate (Instructor)

**Classification:** Research

**Local Academic Unit:** Criminology, Law and Society (CHSS)

**Note(s):** Additional Title: Interviewer

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**ANNOUNCEMENT**

**Academic Programs, Diversity, and University Community Committee**

December 12, 2018

**RENEWALS AND REAPPOINTMENTS**

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
<b>Wolfe</b>	<b>James</b>	8/25/2018	1 year

**Title:** Term Assistant Professor

**Classification:** Instructional

**Local Academic Unit:** School of Business

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## ANNOUNCEMENT

### Academic Programs, Diversity, and University Community Committee

December 12, 2018

## SEPARATIONS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>	<u>EFFECTIVE DATE</u>
<b>Abdalla</b>	<b>Wagida</b>	Retirement	05/24/2018

**Title:** Executive Director, Health Services  
**Classification:** At will - Admin/Professional  
**Local Academic Unit:** Student Health Services (UL)

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<b>Ackley</b>	<b>Adriane</b>	Retirement	08/24/2018
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**Title:** Director of Alumni Operations  
**Classification:** At will - Admin/Professional  
**Local Academic Unit:** University Development and Alumni Affairs

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<b>Alisantosa</b>	<b>Tjandrawati (Bernadette)</b>	Resignation	10/12/2018
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**Title:** Attending Veterinarian  
**Classification:** At will - Admin/Professional  
**Local Academic Unit:** Office of Research Integrity and Assurance

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<b>Brower</b>	<b>Kelly</b>	Resignation	10/12/2018
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**Title:** Resident Director  
**Classification:** At will - Admin/Professional  
**Local Academic Unit:** Housing and Residence Life (UL)

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<b>Chin</b>	<b>Lisa</b>	Resignation	11/02/2018
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**Title:** Research Assistant Professor  
**Classification:** Term - Research  
**Local Academic Unit:** Rehabilitation Sciences (CHHS)

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## ANNOUNCEMENT

### Academic Programs, Diversity, and University Community Committee

December 12, 2018

## SEPARATIONS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>	<u>EFFECTIVE DATE</u>
<b>Cramton</b>	<b>Catherine</b>	Retirement	06/01/2018

**Title:** Professor without Term

**Classification:** Tenured (without term) - Instructional

**Local Academic Unit:** School of Business

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<b>Crone</b>	<b>Jamaal A.</b>	Contract expiration	04/12/2018
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**Title:** Counselor

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Counseling and Psychological Services (UL)

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<b>Danto</b>	<b>Gregory K.</b>	Resignation	05/08/2018
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**Title:** Assistant Coach Women's Lacrosse

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Intercollegiate Athletics

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<b>Davis</b>	<b>Claudette P.</b>	Resignation	02/23/2018
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**Title:** Term Assistant Professor

**Classification:** Term - Instructional

**Local Academic Unit:** Biology (COS)

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<b>Dissauer</b>	<b>Elizabeth</b>	Resignation	03/21/2018
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**Title:** Associate Director of Donor Relations and Stewardship

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Advancement and Alumni Relations

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## ANNOUNCEMENT

### Academic Programs, Diversity, and University Community Committee

December 12, 2018

### SEPARATIONS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>	<u>EFFECTIVE DATE</u>
<b>Ferrance</b>	<b>Christal</b>	Resignation	10/26/2018

**Title:** Term Instructor

**Classification:** At will - Admin/Professional

**Local Academic Unit:** University Libraries

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<b>Griesinger</b>	<b>Margaret</b>	Resignation	12/19/2018
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**Title:** Metadata Librarian

**Classification:** At will - Admin/Professional

**Local Academic Unit:** University Libraries

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<b>Hardy</b>	<b>Thomas W.</b>	Resignation	04/23/2018
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**Title:** Assistant Dean, Chief Housing Officer

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Housing and Residence Life (UL)

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<b>Hazen</b>	<b>Robert M.</b>	Retirement	05/24/2019
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**Title:** Clarence J. Robinson Professor

**Classification:** Tenured (without term) - Instructional

**Local Academic Unit:** Office of the Provost

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<b>Heller</b>	<b>Kristin A.</b>	Resignation	05/23/2018
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**Title:** Associate Campaign Director

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Antonin Scalia Law School

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## ANNOUNCEMENT

### Academic Programs, Diversity, and University Community Committee

December 12, 2018

### SEPARATIONS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>	<u>EFFECTIVE DATE</u>
<b>Hock</b>	<b>Stefan J.</b>	Resignation	05/24/2019

**Title:** Assistant Professor  
**Classification:** Instructional  
**Local Academic Unit:** School of Business

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<b>Huang</b>	<b>Fuxin</b>	Resignation	09/24/2018
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**Title:** Research Assistant Professor  
**Classification:** Term - Research  
**Local Academic Unit:** Physics and Astronomy (COS)

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<b>Hyatt</b>	<b>Sarana</b>	Resignation	09/05/2018
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**Title:** Assistant Coach, Men & Women Track & Field, Cross Country  
**Classification:** At will - Admin/Professional  
**Local Academic Unit:** Intercollegiate Athletics

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<b>Imran</b>	<b>Muhammad</b>	Resignation	04/20/2018
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**Title:** Research Associate (Instructor)  
**Classification:** Term - Research  
**Local Academic Unit:** Center for Excellence in Command, Control, Communications, Computing and Intelligence (VSE)

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<b>MacNeil</b>	<b>Bradly</b>	Resignation	12/07/2018
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**Title:** Senior Associate Director  
**Classification:** At will - Admin/Professional  
**Local Academic Unit:** Counseling and Psychological Services (UL)

---

## ANNOUNCEMENT

### Academic Programs, Diversity, and University Community Committee

December 12, 2018

### SEPARATIONS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>	<u>EFFECTIVE DATE</u>
<b>Mauck</b>	<b>Dixie</b>	Resignation	04/24/2018

**Title:** Lead Teacher

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Child Development Center

---

<b>McManus</b>	<b>Helen</b>	Resignation	12/31/2018
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**Title:** Public Policy, Government and International Affairs Librarian

**Classification:** At will - Admin/Professional

**Local Academic Unit:** University Libraries

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<b>Montoro</b>	<b>Mary Elizabeth</b>	Resignation	10/31/2018
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**Title:** Research Associate (Instructor)

**Classification:** Term - Research

**Local Academic Unit:** Communication (CHSS)

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<b>Murphy</b>	<b>Timothy</b>	Retirement	11/24/2018
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**Title:** Director, Classroom and Lab Technologies

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Classroom and Lab Technologies

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<b>Nagorsen</b>	<b>Ted W.</b>	Resignation	09/01/2018
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**Title:** Head Coach, Women's Rowing

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Intercollegiate Athletics

---

## ANNOUNCEMENT

### Academic Programs, Diversity, and University Community Committee

December 12, 2018

### SEPARATIONS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>	<u>EFFECTIVE DATE</u>
<b>O'Brien</b>	<b>Alyssa</b>	Resignation	10/12/2018

**Title:** Research Associate (Instructor)

**Classification:** Term - Research

**Local Academic Unit:** Criminology, Law and Society (CHSS)

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<b>Pope</b>	<b>Zachary T.</b>	Resignation	08/01/2018
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**Title:** Director of University Life Safety, Planning and Emergency Management

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Housing and Residence Life (UL)

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<b>Potter</b>	<b>Penny</b>	Resignation	09/24/2018
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**Title:** Interim Director, Executive Education Programs

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Center for the Advancement of Well-Being (CHSS)

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<b>Pullar</b>	<b>Robert B.</b>	Retirement	04/24/2018
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**Title:** Accounting and ERP Specialist

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Capital Connection

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<b>Quolas</b>	<b>Kiana</b>	Resignation	08/31/2018
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**Title:** Assistant Coach, Softball

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Intercollegiate Athletics

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## ANNOUNCEMENT

### Academic Programs, Diversity, and University Community Committee

December 12, 2018

## SEPARATIONS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>	<u>EFFECTIVE DATE</u>
<b>Rockwood</b>	<b>Jane</b>	Retirement	09/24/2018

**Title:** Pre-Medical Advisor

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Student Academic Affairs, Advising and Retention

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<b>Schneider</b>	<b>Edwin</b>	Resignation	12/10/2018
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**Title:** Research Professor

**Classification:** Term - Research

**Local Academic Unit:** Atmospheric, Oceanic and Earth Sciences (COS)

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<b>Shack</b>	<b>Fred</b>	Retirement	07/01/2018
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**Title:** Associate Professor

**Classification:** Tenured (without term) - Instructional

**Local Academic Unit:** College of Education and Human Development

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<b>Spooner</b>	<b>Daniel</b>	Resignation	08/20/2018
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**Title:** Research Assistant Professor

**Classification:** Term - Research

**Local Academic Unit:** Environmental Science and Policy (COS)

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<b>Storie</b>	<b>Hollie</b>	Resignation	09/28/2018
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**Title:** Prevention Program Manager

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Criminology, Law and Society (CHSS)

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## ANNOUNCEMENT

### Academic Programs, Diversity, and University Community Committee

December 12, 2018

## SEPARATIONS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>	<u>EFFECTIVE DATE</u>
<b>Strauss</b>	<b>Charlotte</b>	Retirement	02/01/2019

**Title:** Career Counselor

**Classification:** At will - Admin/Professional

**Local Academic Unit:** University Career Services (UL)

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<b>Tait</b>	<b>Tamika T.</b>	Resignation	09/07/2018
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**Title:** Resident Director

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Housing and Residence Life (UL)

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<b>Tsiounis</b>	<b>Dimitrios</b>	Resignation	09/01/2018
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**Title:** Research Associate (Instructor)

**Classification:** Term - Research

**Local Academic Unit:** Computer Science (VSE)

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<b>Urman</b>	<b>Anna</b>	Resignation	09/16/2018
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**Title:** Director of Procurement Technical Assistance Program

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Mason Enterprise Center

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<b>Webster</b>	<b>Dennis</b>	Resignation	05/24/2018
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**Title:** Associate Dean

**Classification:** At will - Admin/Professional

**Local Academic Unit:** University Life

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## ANNOUNCEMENT

### Academic Programs, Diversity, and University Community Committee

December 12, 2018

## SEPARATIONS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>	<u>EFFECTIVE DATE</u>
<b>Westcott</b>	<b>Stephanie</b>	Contract expiration	12/24/2018

**Title:** Research Assistant Professor

**Classification:** Term - Research

**Local Academic Unit:** History and Art History (CHSS)

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<b>Wheeler</b>	<b>Kathy</b>	Resignation	05/24/2018
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**Title:** President, Community Business Partnership

**Classification:** At will - Admin/Professional

**Local Academic Unit:** Mason Enterprise Center

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<b>Young</b>	<b>Peter</b>	Resignation	11/26/2018
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**Title:** Research Professor

**Classification:** Term - Research

**Local Academic Unit:** Physics and Astronomy (COS)

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## ANNOUNCEMENT

### Academic Programs, Diversity, and University Community Committee

December 12, 2018

## **OTHER ANNOUNCEMENTS**

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>
<b>Atienza</b>	<b>Lorenzo S.</b>	Title Change

**Title:** Assistant Director of Funds Management  
**Local Academic Unit:** Office of Student Financial Aid

**Note(s):** Previous Title:Financial Aid Accounts Manager

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<b>Billingham</b>	<b>Lisa</b>	Title Change
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**Title:** Director of Graduate Studies in the School of Music  
**Local Academic Unit:** Music (CVPA)

**Note(s):** Retained Title-Professor without Term

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<b>Bowdoin</b>	<b>Jessica J.</b>	Title Change
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**Title:** Head, Resource Licensing and Delivery  
**Local Academic Unit:** University Libraries

**Note(s):** Previous Title:Head of Access Services

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<b>Broeckelman- Post</b>	<b>Melissa</b>	Title Change
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**Title:** Associate Professor without Term  
**Local Academic Unit:** Communication (CHSS)

**Note(s):** Additional Title:Basic Course Director

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<b>Brown</b>	<b>Jacquelyn</b>	Title Change
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**Title:** Area Chair, Business Foundations  
**Local Academic Unit:** School of Business

**Note(s):** Retained Title-Term Instructor

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## ANNOUNCEMENT

### Academic Programs, Diversity, and University Community Committee

December 12, 2018

### OTHER ANNOUNCEMENTS

LAST NAME

FIRST NAME

TYPE

**Buchy**

**Jackie Sanders**

Title Change

**Title:** Senior Assistant Dean, Graduate Enrollment

**Local Academic Unit:** School of Business

**Note(s):** Previous Title: Assistant Dean for Graduate Enrollment

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**Collins**

**John**

Conversion

**Title:** Term Assistant Professor

**Local Academic Unit:** Rehabilitation Sciences (CHHS)

**Note(s):** Professor Collins is converting from Research Faculty to Instructional Faculty.

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**Ford**

**Meggan C.**

Title Change

**Title:** Assistant Dean, Undergraduate Academic Services

**Local Academic Unit:** School of Business

**Note(s):** Previous Title: Director, Undergraduate Programs

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**Freer**

**Jeremy**

Title Change

**Title:** Associate Director of Athletic Bands

**Local Academic Unit:** Music (CVPA)

**Note(s):** Previous Title: Assistant Director of Athletic Bands

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**Gallo**

**Sina**

Tenure Track Contract  
Extension

**Title:** Assistant Professor

**Local Academic Unit:** Nutrition and Food Studies (CHHS)

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## ANNOUNCEMENT

### Academic Programs, Diversity, and University Community Committee

December 12, 2018

### OTHER ANNOUNCEMENTS

LAST NAME

FIRST NAME

TYPE

**Garoupa**

**Nuno**

Title Change

**Title:** Associate Dean for Research Faculty Development

**Local Academic Unit:** Antonin Scalia Law School

**Note(s):** Additional Title: Faculty Director, Graduate Studies

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**Hess**

**Richard M.**

Title Change

**Title:** Director of Analytics, Assessment, and Accreditation

**Local Academic Unit:** School of Business

**Note(s):** Previous Title: Associate Director of Accreditation and Assessment

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**Jones**

**James B.**

Title Change

**Title:** Associate Director, Advising and Academic Services

**Local Academic Unit:** INTO Mason (Provost)

**Kelly**

**Anthony E.**

Title Change

**Title:** Associate Dean for Research

**Local Academic Unit:** College of Education and Human Development

**Note(s):** Retained Title-Professor without Term

---

**Kirkpatrick**

**Jesse L.**

Title Change

**Title:** Interim Director of the Institute for Philosophy and Public Policy

**Local Academic Unit:** Philosophy (CHSS)

**Note(s):** Retained Title-Assistant Director of the Institute for Philosophy and Public Policy

---

## ANNOUNCEMENT

### Academic Programs, Diversity, and University Community Committee

December 12, 2018

### OTHER ANNOUNCEMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>
<b>McDonald</b>	<b>Heather</b>	Title Change

**Title:** Writer-in-Residence

**Local Academic Unit:** Theater (CVPA)

**Note(s):** Retained Title-Professor without Term

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<b>Moorman</b>	<b>Barbara S.</b>	Title Change
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**Title:** Associate Director of Academic Services

**Local Academic Unit:** School of Business

**Note(s):** Previous Title:Assistant Director, Academic Services

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<b>Oetjen</b>	<b>Cheryl A.</b>	Title Change
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**Title:** Interim Director, School of Nursing

**Local Academic Unit:** Nursing (CHHS)

**Note(s):** Retained Title-Term Assistant Professor and Assistant Dean for MSN and DNP Programs

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<b>Robinson</b>	<b>Jennifer W.</b>	Title Change
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**Title:** Assistant Vice President, Advancement Initiatives and Engagement

**Local Academic Unit:** The Office of Advancement and Alumni Relations

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<b>Rowan</b>	<b>Carl</b>	Title Change
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**Title:** Assistant Vice President for Public Safety and Chief of Police

**Local Academic Unit:** University Police Department

**Note(s):** Previous Title:Chief of Police

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## **ANNOUNCEMENT**

### **Academic Programs, Diversity, and University Community Committee**

December 12, 2018

### **OTHER ANNOUNCEMENTS**

**LAST NAME**

**FIRST NAME**

**TYPE**

**Satyapal**

**Shobita**

Title Change

**Title:** COS Dean's Fellow

**Local Academic Unit:** Physics and Astronomy (COS)

**Note(s):** Retained Title-Full Professor without Term

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**Snow**

**Charles**

Leave without Pay

**Title:** Term Associate Professor

**Local Academic Unit:** Information Sciences and Technology (VSE)

**Note(s):**

Professor Snow will be on Leave without Pay for the 2018-2019 Academic Year to teach at Norwich University in Vermont.

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**Vadakkepatt**

**Gautham Gopal**

Tenure Track Contract  
Extension

**Title:** Assistant Professor

**Local Academic Unit:** School of Business

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Faculty and Academic Standards Committee						
SUMMARY OF FACULTY ACTIONS AND ANNOUNCEMENTS						
<b>APPOINTMENT OF FACULTY</b>						
	<b>Term</b>		<b>Tenure Track</b>			
	<b>9-month</b>	<b>12-month</b>	<b>9-month</b>	<b>12-month</b>	<b>Research</b>	<b>Grant Funded</b>
Instructor						
Assistant Professor						
Associate Professor						
Professor						
Administrative/Professional						
<b>Totals</b>						
<b>RENEWALS/REAPPOINTMENTS</b>						
	<b>Term</b>		<b>Tenure Track</b>			
	<b>9-month</b>	<b>12-month</b>	<b>9-month</b>	<b>12-month</b>		<b>Total</b>
Instructor						
Assistant Professor						
Associate Professor						
Professor						
Administrative/Professional						
<b>Totals</b>						
<b>SEPARATIONS</b>						
	<b>Resignation</b>	<b>Retirement</b>	<b>Contract Expiration</b>	<b>Deceased</b>		<b>Total</b>
<b>OTHER ANNOUNCEMENTS</b>						
	<b>Leave with pay</b>	<b>Leave w/o pay</b>	<b>Title Change</b>	<b>Conversion</b>	<b>Tenure Track Contract Extension</b>	<b>Total</b>

\*Summary Excludes Postdoctoral Research Fellows and Research Staff

# Meeting Book - Board of Visitors Development Committee Meeting - December 12, 2018

## George Mason University Board of Visitors

### I. Call to Order

- A. Board of Visitors Development Committee Agenda - December 12, 2018

### II. Approval of Minutes

- A. Board of Visitors Development Committee Minutes - Draft - October 10, 2018

### III. New Business

- A. GMUF Chair Report - Jay O'Brien
- B. Fundraising Needs and Priorities - Ken Ball, Dean, Volgenau School of Engineering
- C. Alumni Outreach Program - Chris Clark-Talley
- D. Annual Giving Report - Chris Clark-Talley
- E. Campaign and Advancement Report - Janet Bingham

### IV. Old Business

### V. Adjournment

**George Mason University  
Board of Visitors**

**Development Committee Meeting  
December 12, 2018  
11:00 a.m. – 11:50 a.m.  
Merten Hall, Room 1203, Fairfax Campus**

**A G E N D A**

**I. Call to Order**

**II. Approval of Development Committee Meeting Minutes from October 10, 2018  
(ACTION ITEM)**

**III. New Business**

- A. GMUF Chair Report – Jay O’Brien
- B. Fundraising Needs and Priorities – Ken Ball, Dean, Volgenau School of Engineering
- C. Alumni Outreach Program – Chris Clark-Talley
- D. Annual Giving Report – Chris Clark-Talley
- E. Campaign and Advancement Report – Janet Bingham

**IV. Old Business**

**V. Adjournment**

**George Mason University  
Board of Visitors**

**Development Committee Meeting  
October 10, 2018  
10:30 a.m. – 11:20 a.m.  
Merten Hall, Room 1202, Fairfax Campus**

**Meeting Minutes**

**Attendees:** Chairman Jimmy Hazel, Visitor Lisa Zucarri, Visitor Paul Reagan

**Absent:** Visitor Wendy Marquez

**Guests:** Visitor Steve Cumbie, President Ángel Cabrera, Vice President Janet Bingham, Faculty Senate Representative Keith Renshaw, Faculty Representative June Tangney, Faculty Representative Alan Abramson, Student Representative Becca Keatings, Board of Trustees Chairman Jay O'Brien, Dean Ann Ardis, Kathleen Diemer, Rob Riordan, Jennifer Robinson, Chris Clark-Talley

**I. Call to Order**

The meeting was called to order by Chairman Jimmy Hazel at 10:30 a.m.

**II. Approval of Development Committee Meeting Minutes from May 3, 2018 (ACTION ITEM)**

Chairman Hazel called for a motion to approve the meeting minutes from May 3, 2018. A **MOTION** was made, **SECONDED**, and the **MOTION CARRIED UNANIMOUSLY BY VOICE VOTE**.

**III. New Business**

**A. GMUF Chair Report – Jay O'Brien**

Mr. Jay O'Brien, Chairman of the George Mason University Foundation Board of Trustees, delivered an update regarding activities of the Board of Trustees.

Dr. Cabrera expressed his appreciation for Mr. O'Brien's leadership on the Board of Trustees and asked Mr. O'Brien and Dr. Bingham to provide a short overview on the status of the trial with Transparent GMU.



B. Introduction and Funding Priorities – Ann Ardis, Dean of the College of Humanities and Social Sciences

Ann Ardis, new dean of the College of Humanities and Social Sciences, gave an overview of her prior work experience and an update on her priorities for the college as well as the college's fundraising priorities.

C. Status Report on Final Campaign Communications and Events – Advancement staff

Kathleen Diemer, Rob Riordan and Jennifer Robinson delivered a presentation on the plans for the “Faster Farther” campaign closing communications and events. The campaign officially closes December 31, 2018.

D. Alumni Weekend Overview – Chris Clark-Talley

Chris Clark-Talley presented an overview regarding the upcoming Alumni Weekend, October 11-14, 2018, activities.

E. Campaign and Advancement Report – Janet Bingham

Dr. Janet Bingham provided an update on University Advancement and Alumni Relations activities. We have raised \$605 million to date for the Faster Farther campaign.

**IV. Old Business**

No old business was discussed.

**V. Adjournment**

There being no further business, the meeting was adjourned at 11:18 a.m.

**GEORGE MASON UNIVERSITY  
BOARD OF VISITORS**

**Research Committee Meeting  
December 12, 2018  
Merten Hall 1204**

**AGENDA**

- I. Call to Order
- II. Approval of Minutes (**ACTION ITEM**)
  - A. Meeting minutes for October 10, 2018
- III. Presentation, Dr. Deborah Crawford  
*Amazon HQ2, Tech Talent and the Tech Innovation Economy*
- IV. Presentation, Dr. Houman Homayoun, Associate Professor, Department of Electrical and Computer Engineering  
*Towards Energy-Efficient and Secure Computing*
- V. Adjournment

**GEORGE MASON UNIVERSITY  
BOARD OF VISITORS**

**Research Committee Meeting  
October 10, 2018  
Merten Hall 1204**

**DRAFT MINUTES**

Present: Provost S. David Wu; Chairman Horace Blackman; Vice President for Research Deborah Crawford; Visitors Edward Rice, Nancy Gibson Prowitt, and Bob Witeck; Student Representative Bekah Pettine; Faculty Representatives Christy Esposito-Smythers and Bijan Jabbari;; Guests: Edward Maibach

Absent: President Angel Cabrera; Rector Tom Davis; Visitors Shawn Purvis and Anjan Chimaladinne; Faculty Senate Chair Keith Renshaw; Student Representative Becca Keatinge

**I.** Meeting called to order by Chairman Horace Blackman at 10:30 am

**II.** Approval of Minutes (**ACTION ITEM**)

Approval of May 3 2018 meeting minutes motioned by Visitor Witeck, seconded by Visitor Rice, approved by Chairman Horace Blackman.

**III.** State of the Research Enterprise, Dr. Deborah Crawford (**Attachments 1 and 2**)

Dr. Crawford noted that she feels confident that Mason will remain an R1 university in the next cycle of review from Carnegie, but also noted that taking a strategic long view and think about how to grow research in alignment with Mason's growing academic programs, external funding opportunities and partners outside of the institution.

Dr. Crawford described the Knowledge Virtuous Circle in our faculty -- researchers, scholars, educators and practitioners -- are at the core. Our faculty's roles as research and scholars is what makes Mason a Research University and the Knowledge Circle includes *knowledge creation* through research and scholarship, *knowledge sharing* through education and learning, and *knowledge impact* through innovation and service. We can measure the quality of research and scholarship we create by metrics such as:

- Articles in Scholarly Literature
- Citations to Scholarly Literature
- Sponsored Awards
- Honors and Awards

Dr. Crawford then provided examples of these metrics from Mason's faculty.

Smart Growth in the context of Research Initiatives include the following initiatives that are funded through the university

- Provost Multidisciplinary Research Competitions
- Core Research Facilities (shared facilities and equipment used by multiple faculty and students)
- Centers for Advanced Studies Competition (two centers selected last year)

Investments made to ensure our faculty remain competitive.

Mason will also be standing up three multidisciplinary research institutes:

- Institute for Biohealth Innovation (IBI)  
Established in 2016; supports over 200 faculty; supports Core facilities such as the new MRI in Peterson Hall
- Institute for Digital InnovAtion (CoS; VSE; SoB, Law School)  
Planned for 2018-2019 at the Arlington Campus; will focus on innovations in computing; graduate education and research opportunities across campus  
Currently supported by the College of Science, Volgenau School of Engineering, School of Business, and the Law School.
- Institute for Sustainable Earth  
Planned for 2018-2019; advancing sustainable and resilient development  
Builds on a number of programs at Mason

Dr. Crawford then provided a brief review of the research enterprise at Mason describing the university's smart growth efforts to expand the size and impact of its research and scholarship. These smart growth efforts seem to be working well – sponsored research awards increased in value by almost 40% last year (over the year prior), and in Q1 of this year, we are on track to increase the dollar value of awards even more. These are the goals we need to maintain to meet our 2024 goals described in the Strategic Plan. The faculty is really making astonishing gains in ability to attract R&D funding for the benefit of our students. Mason's largest sponsors continue to be the Department of Defense and National Science Foundation.

We need to continue to recruit, support and celebrate our world-class, tenure-line faculty. We also need to continue to support multidisciplinary collaborations with seed funding so that faculty can obtain early results to make them more competitive for external funding.

After the presentation, there was discussion regarding the timeline and process for the Carnegie R1 Review. We expect an announcement from the Classification Committee in January 2019, which will be based on the 2015-2017 academic year data. Mason continues to be focused on

the future rounds and the metrics that Carnegie uses to make that determination. We continue to celebrate the contributions of our social scientists and humanities faculty who have excelled at Mason and on whose work we continue to build. While much of the growth comes from our STEM programs, but the foundation of the R1 status comes from the work of our humanities and social scientist faculty.

Mason's multidisciplinary approach really sets us apart.

**III. Climate Change, Air Pollution, and Health Equity, Dr. Edward Maibach, University Professor and Director, Center for Climate Change Communication, College of Humanities and Social Sciences (**Attachments 3, 4, 5 & 6**)**

Professor Ed Maibach, Director of Mason's Center for Climate Change Communications, and a distinguished University Professor in the College of Humanities and Social Sciences presented the work in which his center has been engaged. Professor Maibach is one of Mason's most highly published and cited scholars.

Dr. Maibach reviewed the research portfolio of his impressive center and the work that he and his colleagues are doing with respect to climate change, air pollution and health equity and how to communicate climate science and health impacts to the American public and lawmakers. Dr. Maibach's research is at the forefront of efforts to address the warnings issued last week by the UN Intergovernmental Panel on Climate Change (IPCC) on the catastrophic impact of climate change on the planet and hundreds of millions of people within the next 10 years.

Dr. Maibach described the Center for Climate Change Communication. The Center really has four legs:

- Public Opinion Polling – in collaboration with Yale School of Forestry and Environment  
*Climate Change in the American Mind*: A nationally representative public opinion poll conducted every 6 months.  
Widely cited and used throughout the US  
Finding: American people trust TV weathercasters as a legitimate source of climate change information (3<sup>rd</sup> after scientists and family and friends)
- Building on that finding, Center is now working with 602 local weathercasters to pair local climate changes with their forecasts to help viewers understand climate change. Funded by NSF
- Former Congressman Bob Inglis (former congressman from South Carolina) – Runs a team called RepublicEn who tour the country to engage Republican thought leaders on the issue of climate change.
- Climate and Health  
Most Americans do NOT know that climate impacts our health and hurts those at the lowest end of the economic spectrum the most.

Surveyed public health professionals and found that health care professionals are already seeing the health implications of climate. Public health professionals understood that climate change was impacting the people they serve but did not have the resources to address the issue.

Dr. Maibach's team then surveyed additional physician groups (three different medical societies), 70% of which indicated that they were already seeing the effects of climate change on the health of their patients. From that, the Center launched Medical Society Consortium on Climate and Health, which now has 22 medical societies working with the Center at Mason to educate the American public on the health effects of climate change. Attachment #s 3-4 describe this work.

Finally, Dr. Maibach described the connection between fossil fuel and air pollution and neurological harm (Attachment #6)

## V. Adjournment

Chairman Blackman requested a motion to adjourn the meeting, motion provided by Visitor Witeck and seconded by Visitor Rice. Chairman Blackman adjourned the meeting at 11:12 am.

Respectfully submitted,



Rebekah K. Hersch  
Research Committee Secretary Pro Tem

Attachment #1: Presentation Slides by Dr. Deborah Crawford

Attachment #2: Crawford Handout – Sponsored Research Report

Attachment #3: Maibach Handout 1 - 2017\_Medical Society Consortium on Climate and Health  
\_Annual Report

Attachment #4: Maibach Handout 2 - Medical Society Consortium - Medical Alert

Attachment #5: Maibach Handout 3 - Virginia Clinicians for Climate Action

Attachment #6: Maibach Handout 4 - The Link Between Fossil Fuels and Neurological Harm



# The Mason Research Enterprise Taking The Long View

Deborah Crawford  
Vice President for Research

Research Committee  
October 10, 2018

# The Knowledge Virtuous Circle

**CREATION** thru  
research and scholarship



Faculty as Researchers.. Scholars..  
Educators.. Practitioners

**IMPACT** thru innovation  
and service

**SHARING** thru education  
and learning



# Knowledge Creation, Sharing & Impact Performance & Results



Andrew Peterson



Honors and Awards

Sponsored Awards



Jill Nelson



Ed Maibach



Robert Wood Johnson  
Foundation

Articles in Scholarly Literature

Citations to Scholarly Work



Ginny Espina



# SMART Growth

## Strategic Research Initiatives

### Institute for a Sustainable Earth (2018-2019)

*advancing sustainable and resilient development in support of a free, just, and prosperous society*



Provost's MDR Competitions

Core research facilities



### Institute for Digital InnovAtion (2018-2019)

*advancing innovations in computing in support of a free, just and prosperous society*

### Institute for Biohealth Innovation (2016)

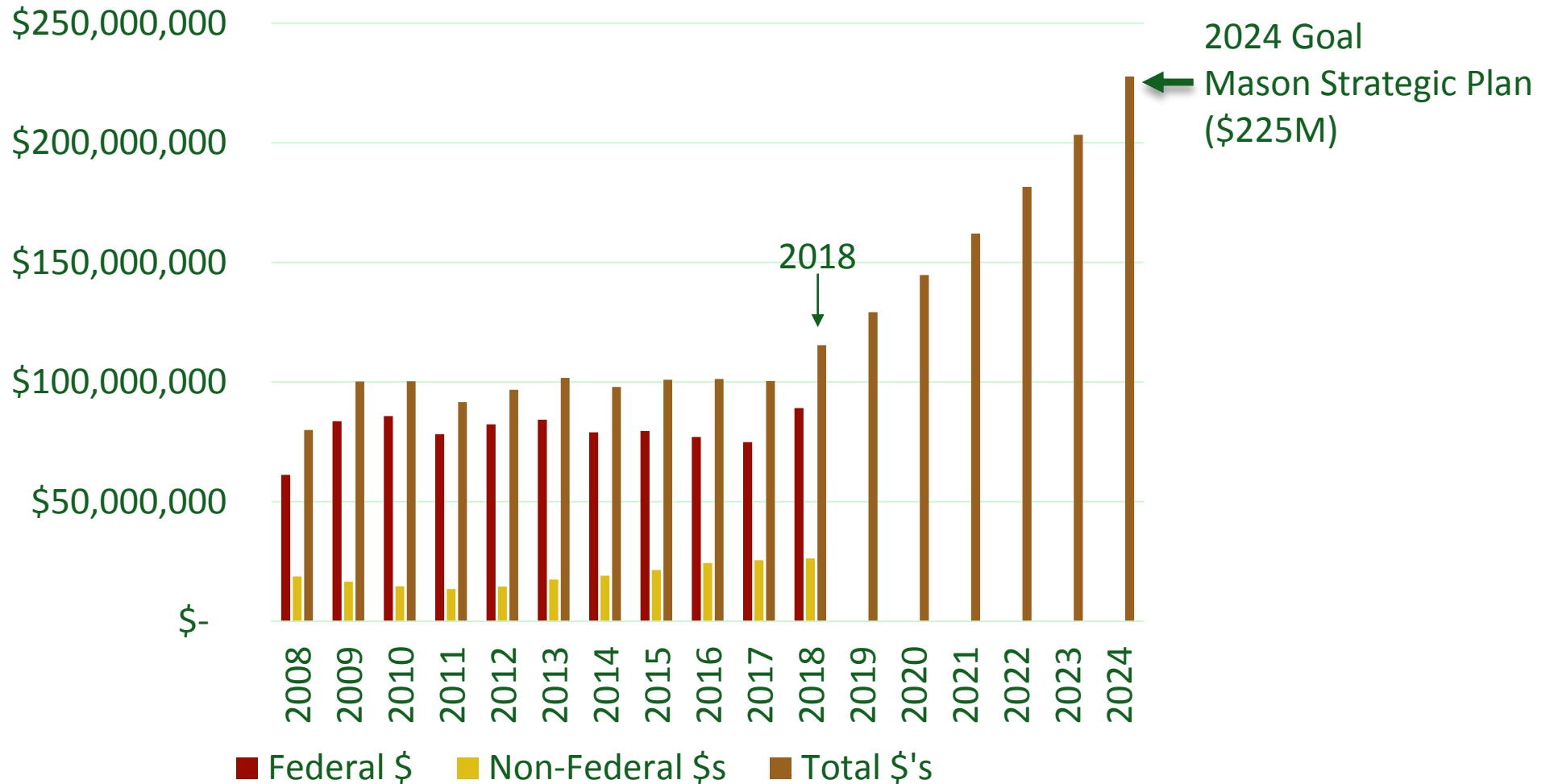
*advancing the health and wellness of humankind – individuals to populations – in support of a free, just and prosperous society*



Centers for Advanced Studies



# Mason Sponsored Projects Performance and Projections



# Mason Sponsored Projects Year over Year Comparisons

	FY17	FY18	Difference
Proposal No.	1172	1220	4.10%
Proposal \$	\$464,361,584	\$565,918,702	21.87%
Award No.	917	957	4.36%
Award \$	\$107,873,848	\$148,068,293	37.26%
Expenditure \$	\$100,364,096	\$115,380,986	14.96%
F&A \$	\$16,976,209	\$18,087,525	6.55%

	FY17 thru Sept	FY18 thru Sept	% change FY17 to FY 18	FY19 thru Sept	% change FY 18 to FY 19
Proposal No.	265	317	20%	300	-6%
Proposal \$	\$97,194,044	\$111,764,231	15%	\$124,089,398	11%
Award No.	301	309	3%	292	-6%
Award \$	\$36,774,808	\$46,106,248	25%	\$66,372,339	44%
Expenditures \$	\$31,924,834	\$32,727,648	3%	\$38,366,476	17%
F&A \$	\$5,693,873	\$5,931,645	4%	\$6,376,583	8%

# SMART Growth Fundamentals



- **Recruit, support and celebrate world-class (tenure-line) faculty**
  - competitive start-up and retention strategies
  - exceptional graduate students and postdoctoral fellows
  - state-of-the-art research infrastructure

**Great vision without great people is irrelevant**

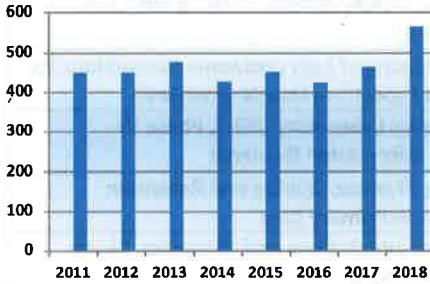
Jim Collins, *Good to Great*

- **Integrate research into education programs and support research impact**
  - develop innovative education programs leveraging research strengths
  - effect robust translational partnerships with non-academic partners
  - provide valuable community services leveraging research strengths
  - support an innovation ecosystem and advanced industries growth

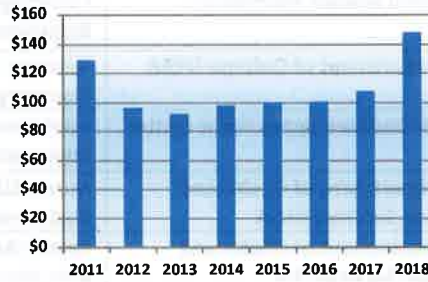
## GEORGE MASON UNIVERSITY SPONSORED RESEARCH REPORT, OCTOBER 2018

The University saw significant growth in sponsored research during FY18 with proposals increasing 21.9%, awards increasing 37.3% and expenditures increasing 15% over FY17 levels. The environment for sponsored funding remains highly competitive, but the faculty community is well positioned to see additional increases in FY19 and beyond.

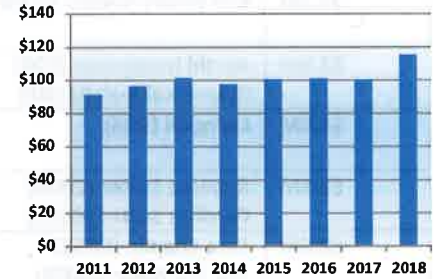
**Total Value of Proposals (Millions)**  
Increased by 21.9% FY17 to FY18



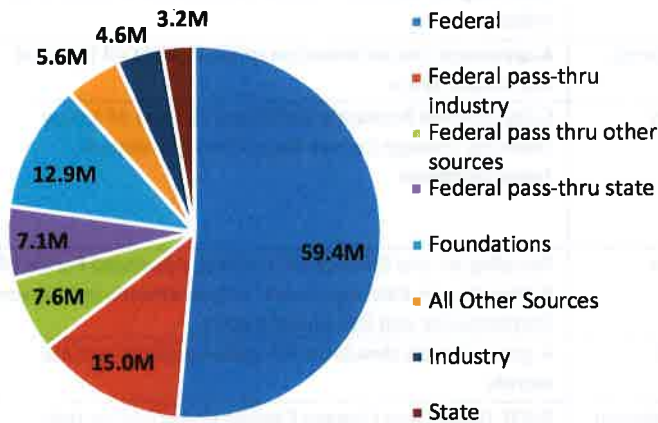
**Total Value of Awards (Millions)**  
Increased 37.3% FY17 to FY18



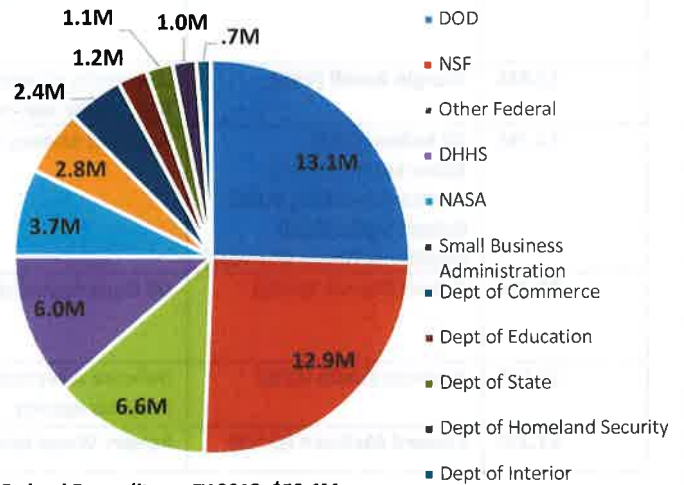
**Total Value of Expenditures (Millions)**  
Increased by 15% FY17 to FY18



**Expenditures by Funding Source FY2018 (Dollars)**



**Federal Expenditures by Agency FY2018 (Dollars)**



Total Expenditures FY 2018: \$115.4M

Total Federal Expenditures FY 2018: \$59.4M

**Expenditures by Academic Unit FY15 through FY18**

Academic Units	FY 15	FY 16	FY17	FY18
CEHD	16,752,027	12,696,912	9,131,515	9,022,384
CHHS	3,845,216	4,158,371	4,255,846	5,883,464
CHSS	18,829,878	18,209,905	16,840,726	19,250,360
COS	26,914,214	32,919,213	33,396,709	34,260,190
CVPA	2,589	765,000	750,001	839,545
S-CAR	1,266,846	1,052,916	570,918	459,379
Krasnow	4,617,851	3,357,822	427,201	0
Law	1,304,909	998,631	2,102,251	3,035,444
Business	280,161	597,114	770,117	506,631
Schar	2,931,426	2,275,471	2,322,498	3,071,016
VSE	16,793,161	16,674,400	22,080,734	30,417,227
TOTAL Academic Units:	\$93,538,278	\$93,705,755	\$92,648,516	\$106,745,640
TOTAL Admin. Units:	\$7,429,474	\$7,614,270	\$7,715,579	\$8,635,208
TOTAL Expenditures:	\$100,967,752	\$101,320,025	\$100,364,095	\$115,380,848

**Expenditures by Mason PI in FY18**

Pi Name	Academic Unit	PI Total Expenditures
Roeting	VSE	\$7,542,711
Keenan	MEC	\$3,553,657
Kinter	COS	\$3,318,421
Kan	COS	\$2,537,980
Stavrou	VSE	\$2,351,524
Jajodia	VSE	\$2,282,994
Agouris	COS	\$2,257,490
Cowen	CHSS	\$2,083,699
Di	COS	\$2,057,428
Nichols	CHHS	\$2,012,126
Thompson	CHSS	\$1,998,455
Peppard	CHHS	\$1,845,256
Taxman	CHSS	\$1,690,237
Maibach	CHSS	\$1,667,329
Tecuci	VSE	\$1,515,030

**EXAMPLES OF ACTIVE MAJOR RESEARCH AWARDS AT GEORGE MASON UNIVERSITY**

<b>Award Value</b>	<b>Investigator(s)</b>	<b>Sponsor</b>	<b>Description of Research</b>
\$60.5M	William Roeting (VSE) Mark Pullen (VSE) Sherry Crissman (VSE)	US Department of the Air Force	Support the Mobile Unmanned/Manned Distributed Lethality Airborne Network (MUDLAN) Enhanced Rapid Integration for Transition (MERIT)
\$7.5M	Sushil Jajodia (VSE)	US Department of the Navy	Generating Documents that are Consistent with a Knowledge Base
\$3.5M	Erin Peters-Burton (CEHD)	National Science Foundation	Fostering Student Computational Thinking with Self-Regulated Learning
\$3.5M	Aarthi Narayanan (COS) Kylene Kehn-Hall (COS)	US Department of Defense DTRA	Genome wide mapping of host proteome interactions for discovery of broad spectrum countermeasures
\$3.0M	Liping Di (COS)	NASA-Goddard Space Flight Center	Joint Geoinformatics Laboratory (JGIL), Phase VI Cooperative Geo Information Research
\$2.8M	Rebecca Sutter (CHHS) Caroline Sutter (CHHS)	US Department of Health and Human Services HRSA	Nurse, Education, Practice, Quality and Retention Registered Nurses in Primary Care
\$2.6M	Tara Chaplin (CHSS) Jim Thompson (CHSS)	US Department of Health and Human Services NIH	Parent-Adolescent Interactions and Substance Abuse Risk; Gender Differences
\$2.5M	Kylene Kehn-Hall (COS)	US Department of Defense DTRA	EGR1 regulation of neuronal survival and inflammation following Venezuelan Equine Encephalitis Virus (VEEV) infection
\$2.4M	Giorgio Ascoli (VSE)	University of Southern California (NIH prime sponsor)	Anatomical Characterization of Neuronal Cell Types of the Mouse Brain
\$1.7M	Jill Nelson (VSE) Jaime Lester (CHSS) Jessica Rosenberg (COS) Robert Sachs (COS) Stephanie Foster (Provost)	National Science Foundation	Collaborative Research: Building a Culture of Active Learning through Course-Based Communities of Transformation
\$1.6M	Robert Parnak (CHSS)	US Department of Education	Focusing on the Efficacy of Teaching Advanced Forms of Patterning on Kindergartners' Improvements in Literacy, Mathematics and Reasoning Ability
\$1.5M	Andreas Zuefle (COS)	Defense Advanced Research Projects Agency	A ground-truth simulator for socio-spatial alternate worlds
\$1.2M	Edward Maibach (CHSS)	Robert Wood Johnson Foundation	RWJF Health and Climate Change Coordinating Hub

*Award amounts are a projection of full project funding through the life of the project.*

10/7/18

# 2017 Annual Report



The Medical  
Society Consortium

ON CLIMATE & HEALTH

The mission of the Consortium is to organize, empower and amplify the voice of America's doctors to convey how climate change is harming our health and how climate solutions will improve it.





We are delighted to share this annual report with you. A year ago, several generous funders helped launch the Medical Society Consortium on Climate and Health, so we could pursue our mission of informing the American public and policymakers about the health harms of climate change and the health benefits of climate solutions. We identified and began pursuing our

priorities: namely, developing and implementing strategic communications to reach clinicians, the public and policymakers; increasing the capacity of national medical societies and their state chapters to engage their members in pursuing our joint mission; growing a network of physician advocates; and building and strengthening the Consortium infrastructure.

The Consortium will continue to help members of the public and policymakers better understand that our health is our most precious asset that is at risk as a result of climate change.

Please don't hesitate to contact me to learn more about what we're doing and the ways we can work together. The time for us to make a difference is now. Together, we will.

Thank you for your continued commitment to protecting the health of current and future Americans.

With appreciation and excitement,

*Mona Sarfaty, MD, MPH*  
*Executive Director*

The Medical Society Consortium publicly launched in 2017 and was created to achieve several aims: to share clinical practitioners' understanding of the health harms associated with climate change and the health benefits created by climate solutions; to increase public and health professional awareness of the climate change and health connections; and to encourage life-saving preventive and protective action. Three important findings from our research thus far include: (1) Most Americans are unaware of the health harms associated with climate change (and who is mostly likely to be harmed); (2) Conversely, most physicians are aware of the health harms, and many are convinced climate change is already harming some of their patients; and (3) People trust their physicians to provide them with information about climate and health. These findings strongly demonstrate that America's physicians have an important role to play by educating citizens and policymakers about the human health aspects of climate change.

## THANKS TO OUR FUNDERS



KRESGE FOUNDATION



GEORGE MASON UNIVERSITY



ENERGY FOUNDATION



JOHNSON & JOHNSON

**WE ARE  
GROWING FAST!**

**2017 WAS  
A YEAR  
OF RAPID  
PROGRESS.**

- The Consortium grew from 9 to 20 member societies
- Our member societies represent over half of U.S. physicians (>550,000 doctors)
- 23 health and climate science organizations have affiliated with the Consortium
- Our web resources have received over 35,500 views
- 1,015 subscribers from 47 states joined the mailing list to receive the monthly newsletter
- We added two notable Advisory Committee Members: Dr. Camara Jones and Dr. Ana Nunez
- Since the official launch, the Consortium has been featured in over 100 news media outlets, including NPR, MedPage Today, Medscape, NBC, CBS, Huffington Post, USA Today, International Business Times (Yahoo), JAMA, CNN, The Guardian, Scientific American, Smithsonian Magazine, and many state and local media outlets. News coverage has included national news, health and medicine, science and tech, environment, and trade publications
- Social media activity through Facebook and Twitter has gained traction; the most impactful month was March 2017, during the Consortium's launch, when our tweets earned 37,000 impressions, averaging 1,200 impressions per day



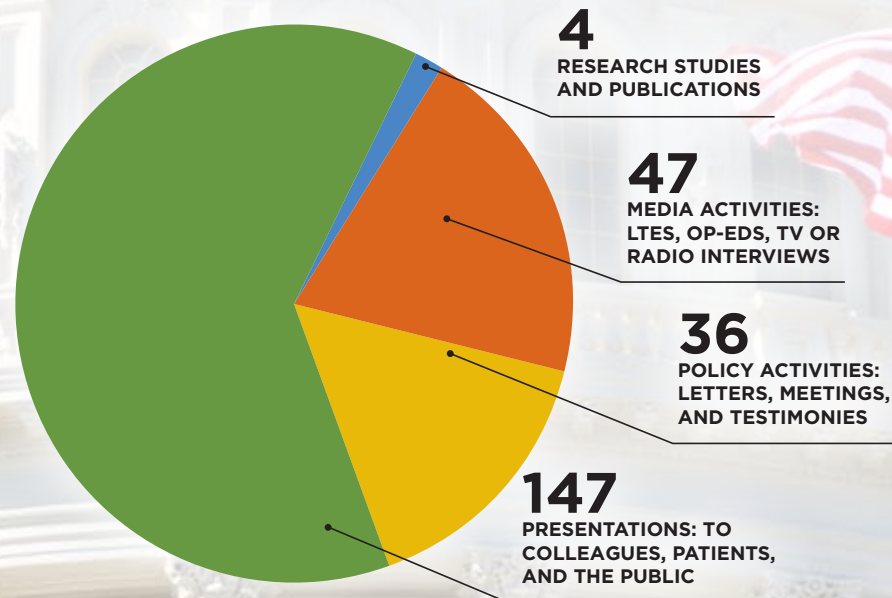
Director, Dr. Mona Sarfaty presenting at the Consortium's launch on March 15, 2017

# WE ARE MAKING OUR VOICES HEARD!



- We released the report, Medical Alert! Climate Change is Harming Our Health, in March 2017 to widespread press coverage that continued during the ensuing months. We sent the report to every member of Congress, the President and Vice President, Secretary of HHS, Administrator of the EPA, the US Conference of Mayors, the National Governors Association, every Fortune 500 company, and every RE100 Company, which is a group of companies pledged to switch to 100% renewable energy. The report is available on the websites of the Consortium and a number of medical societies and other medical groups, including the UN Office of Disaster Risk Reduction.
- For the first time, all, Consortium societies issued joint statements:
  - Endorsing the Lancet Countdown report
  - Opposing the President's decision to leave the Paris Climate Change Agreement
  - Opposing the Administration's decision to discontinue the Clean Power Plan
- For the first time, all Consortium societies sent joint letters to every US Senator:
  - Opposing weakening EPA ozone standards for ambient air
  - Opposing weakening auto emissions or fuel economy standards, decreasing the EPA budget, or discontinuing the waiver for California's stricter auto standards
- The Consortium Director testified at EPA hearings:
  - Opposing the decision to terminate the Clean Power Plan
  - Opposing weakening auto emission or fuel economy standards
- Many member societies spoke out for the first time about climate change and health with these letters and statements.
- Each monthly newsletter featured an active and engaged "Champion of the Month" physician.
- 370 physicians signed up to be Medical Advocates for Climate and Health and are logging their activities into our web portal.

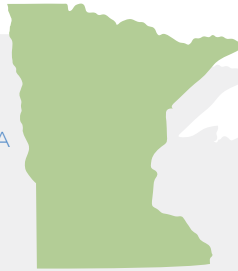
## ACTIVITIES BY MEDICAL ADVOCATES FOR CLIMATE & HEALTH





**WA**  
WASHINGTON

“The health impacts of climate change are real, and they are current. I see them every day in my practice. It’s time we come together as physicians to address this threat.”  
– Dr. Carlton Heine, Spokane, WA

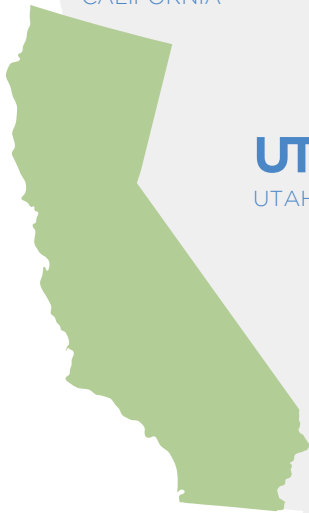


**MN**  
MINNESOTA

“Ohio Clinicians for Climate Action held an advocacy training day hosted by the Ohio Environmental Council that included engagement with legislators and a visit to the State House.”  
– Dr. Aparna Bole, Cleveland, OH

**VT**  
VERMONT

**CA**  
CALIFORNIA

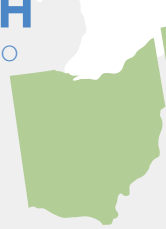


**UT**  
UTAH

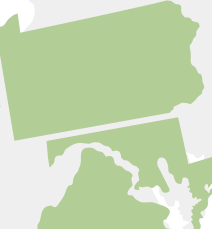


“  
**With Consortium support and encouragement, state activity is poised to take off in a substantial way.**  
– Dr. Mark Mitchell,  
Director for State Programs  
”

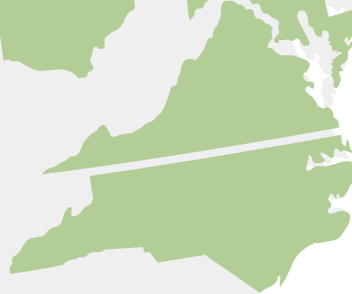
**OH**  
OHIO



**PA**  
PENNSYLVANIA



**MD**  
MARYLAND



**VA**  
VIRGINIA

“During the last year, Virginia Clinicians for Climate Action has held two medical education events at leading health systems and an advocacy day to focus attention on climate effects and solutions.”  
– Dr. Samantha Ahdoot, Alexandria, VA

**NC**  
NORTH CAROLINA

“The Consortium is really important to the work we are doing; this is a unifying concept for public health and healthcare providers.”  
– Dr. Seth Hawkins, Morganton, NC

## WE ARE BUILDING OUR STATE FOOTPRINT.

With Consortium support and encouragement, state activity is poised to take off in a substantial way. Critical mass has developed in several states, including Virginia, Maryland, Ohio, Minnesota, California, Utah, Washington, Pennsylvania, Vermont, and Florida; work has started in Georgia and Missouri. Coalitions with other major health groups, such as hospitals, city and state officials, clean energy advocates, and environmental networks in these states have become possible. We have provided an array of resources through our website, newsletters, and webinars to physician advocates as the basis for participating in climate and health education and advocacy activities.

“The Consortium is supporting the formation of the Florida Clinicians for Climate Action, which is working to address the health impacts of climate change, particularly among vulnerable populations.”  
– Dr. Cheryl Holder, Miami, FL



**FL**  
FLORIDA



Dr. Colleen Kraft, President of the American Academy of Pediatrics, speaks at the launch of the Consortium.

### 2014-16

Assessments of medical society members' views (ATS, NMA, AAAAI)

### Nov. 1, 2016

Support from the Kresge Foundation, the Energy Foundation, and Johnson & Johnson

### Feb. 2, 2017

Monthly newsletter begins

### July 29, 2017

The Consortium begins recording live interviews with doctors at their annual meetings

### Oct. 25, 2017

Membership reaches 20 societies



### April 29, 2016

Briefing for medical societies on the national report, *The Impacts of Climate Change of Human Health in the United States: A Scientific Assessment*

### Nov. 29, 2016

Webinar for member societies



### March 15, 2017

Public launch and release of *Medical Alert! Climate Change is Harming Our Health*; website goes live

### Sept. 20, 2017

Consortium exhibits at Johnson & Johnson Changemaker Expo on the UN Sustainable Development Goals, UN General Assembly week, New York City



We are optimistic that the Consortium will help members of the public and policymakers better understand that the health of all Americans is one of the most precious things at risk as a result of climate change. Financial support for Consortium activities has come from several sources over the last year and has been crucial in funding the staff that has shaped our success to date. More funding will be needed in order to maintain our current level of activity and realize the new opportunities that are possible based on the growth of Consortium activity. We would like to thank: The Kresge Foundation, George Mason University, the Energy Foundation, and Johnson & Johnson for generously supporting the Consortium's mission. Our work would not be possible without their generous support. We look forward to involving them more in our work over the coming months and years, while also working with additional philanthropic organizations who support the work of our Consortium.



## THANKS TO OUR FUNDERS



KRESGE FOUNDATION



GEORGE MASON  
UNIVERSITY



ENERGY FOUNDATION



JOHNSON & JOHNSON

## 2017 FINANCIAL SUMMARY

CY17 Total Revenue	\$393,438.35
CY17 Total Expenses	\$345,661.28





## LOOKING FORWARD TO 2018

Capacity building activities are needed to ensure that all medical societies participating in the Consortium can effectively inform the public and policymakers about the health risks of climate change and climate solutions. The Consortium's inaugural Annual Meeting, scheduled for April 8-10, 2018, will help build the capacity of the staff and members of each society and strengthen the Consortium by creating greater cross society connections.

To that end, at the Annual Meeting we will provide participants with briefings on the most up-to-date information about the current and potential near-term health harms of climate change and about a range of solutions—including options for enhanced energy efficiency, expanding production of clean renewable energy, putting a price on carbon, and fostering resilience and sustainability. The meeting will include communication training and visits to Congress.

Members of collaborating organizations like Health Care Without Harm, the American Lung Association, the Alliance of Nurses for Healthy Environments, the American Public Health Association, and many of our other 24 affiliated health and science-based organizations will join us at the meeting (see page 11).

Over the next year, the Consortium will also augment our strategic communication efforts to convey our key evidence-based messages, and to share stories about the efforts of our member societies, state-level physician coalitions, and individual doctors who are advocating on these issues. The overarching aim of this work is to help members of the public and policymakers understand that our health is the most precious thing that is at risk as a result of climate change.



# STEERING COMMITTEE MEMBERS



Beth Gillespie, MD, Society of General Internal Medicine



Kyle Bruce, DPM, American Podiatric Medical Association



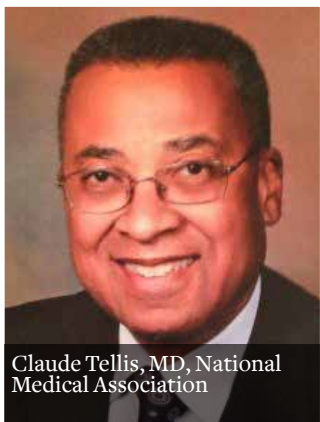
Carissa Caban-Aleman, MD, American Psychiatric Association



Julie Wood, MD, American Academy of Family Physicians



Mimi Guarneri, MD, Academy of Integrative Health and Medicine



Claude Tellis, MD, National Medical Association



Nitin Damle, MD, American College of Physicians



Jerome Paulson, MD, American Academy of Pediatrics



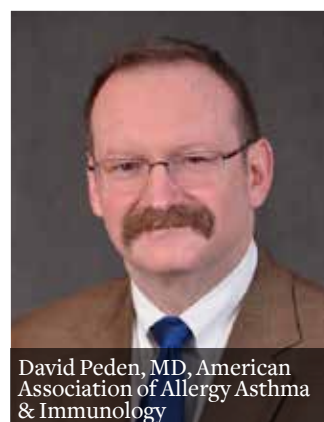
David Pollack, MD, American Association of Community Psychiatrists



Nate Denicola, MD, American College of Obstetrics and Gynecology



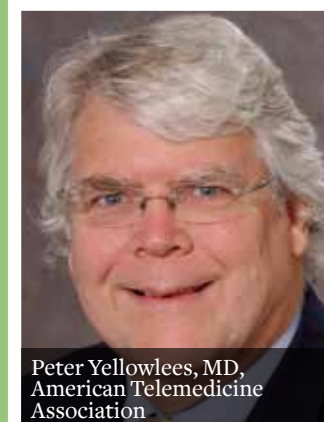
Shahnaz Fattah, MD, American Medical Women's Association



David Peden, MD, American Association of Allergy Asthma & Immunology



Linda Van Le, MD, Society of Gynecologic Oncology



Peter Yellowlees, MD, American Telemedicine Association



Valencia Porter, MD, American College of Preventive Medicine



# MEMBER SOCIETIES



American College of Physicians (ACP)



Academy of Integrative Health and Medicine (AIHM)



American Academy of Family Physicians (AAFP)



American Association of Community Psychiatrists (AACP)



American Academy of Pediatrics (AAP)



California Chapter of American College of Emergency Physicians



American Congress of Obstetricians and Gynecologists (ACOG)



American Telemedicine Association (ATA)



National Medical Association (NMA)



Society of Gynecologic Oncology (SGO)



American Academy of Allergy Asthma & Immunology (AAAAI)



American Medical Women's Association (AMWA)



American College of Preventive Medicine (ACPM)



American College of Lifestyle Medicine (ACLM)



American Podiatric Medical Association (APMA)



American Medical Association (AMA)



American Geriatrics Society (AGS)



American Psychiatric Association (APA)



Society of General Internal Medicine (SGIM)



American College of Osteopathic Internists (ACO-I)

Our member organizations are committed to working with officials at all levels to reduce emissions of heat-trapping pollution, as well as with health agencies to promote research on effective interventions and ways to strengthen public health infrastructure—all with the aim of protecting human health from climate change.

# AFFILIATE ORGANIZATIONS

	Allergy & Asthma Network		My Green Doctor
	Allergy and Asthma Foundation of America		Climate Psychiatry Alliance
	American Psychological Association (APA)		American Geophysical Union
	American Medical Student Association		American Meteorological Society
	Children's Environmental Health Network		Virginia Clinicians for Climate Action (VCCA)
	Physicians for Social Responsibility		Health Professionals for a Healthy Climate
	US Climate and Health Alliance		Utah Physicians for a Healthy Environment
	Health Care Without Harm		Citizen's Climate Lobby – Climate and Health
	Climate for Health / ecoAmerica		Association for Humanistic Psychology
	Alliance of Nurses for Healthy Environments		Union of Concerned Scientists
	Moms Clean Air Force		Vermont Climate & Health Alliance (VTCHA)
	National Association of Social Workers		

Affiliates of the Medical Society Consortium on Climate and Health are health and science organizations that are aligned with the Consensus Statement regarding the health threats of climate change and the health benefits of solutions.



## ADVISORY COMMITTEE

**John Balbus, MD, MPH**, National Institute of Environmental Health Sciences

**Richard H. Carmona, MD, MPH, FACS**, 17th Surgeon General of The United States and Distinguished Professor University of Arizona

**Mike Coburn**, Executive Vice President & Chief Operating Officer, Research!America

**Gary Cohen, MBA**, President and Founder, Health Care Without Harm, MacArthur Genius Award Winner

**Harvey Fineberg, MD**, President, Gordon and Betty Moore Foundation, Former President of the Institute of Medicine

**Howard Frumkin, MD, DrPH**, Professor and former Dean, School of Public Health, University of Washington

**Robert Graham, MD** Former CEO of the AAFP, and Advisory Board of the Robert Graham Center for Policy Studies

**Bob Inglis**, Director, RepublicEn, Energy and Enterprise Initiative

**Jay Lemery, MD**, Chief, Section of Wilderness & Environmental Medicine, University of Colorado

**George Luber, PhD**, National Center for Environmental Health, CDC

**Ana Núñez, MD** Associate Dean for Diversity, Equity, and Inclusion at Drexel University College of Medicine

**Camara Jones, MD, MPH, PhD**, Immediate Past President of the American Public Health Association

**Jonathan Patz, MD, MPH**, Professor and Director, Global Health Institute, University of Wisconsin



The Medical Society Consortium

ON CLIMATE & HEALTH



GEORGE MASON UNIVERSITY  
CENTER for CLIMATE CHANGE  
COMMUNICATION

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# MEDICAL ALERT!

## Climate Change Is Harming Our Health



The Medical  
Society Consortium  
ON CLIMATE & HEALTH



# EXECUTIVE SUMMARY

Most Americans understand that climate change is real and are concerned about it.<sup>1</sup> But most still see climate change as a faraway threat, in both time and place, and as something that threatens the future of polar bears but not necessarily people. **The reality, however, is starkly different: climate change is already causing problems in communities in every region of our nation, and from a doctor's perspective, it's harming our health.**<sup>2,3,4,5,6,7,8,9,10,11</sup>

Most Americans are not aware of the health harms of climate change. A recent survey showed that most Americans have not considered how global warming might affect people's health, and few (32%) can name a specific way in which climate change is harming our health. Few are aware that some groups of Americans—including our children, our elders, the sick and the poor—are most likely to be harmed by climate change.<sup>12,13</sup> None of these survey findings is surprising. There has been relatively little public discussion of the health harms of climate change. But we also know people are eager to hear from us. Most survey respondents said, in fact, that their primary care physician is a trusted source for information about this topic.<sup>14,15,16,17</sup>

**We—physicians in medical societies representing over half of the nation's doctors—see a need to share our growing understanding and concern about the health consequences of climate change with all Americans. We believe all Americans should know the following:**

**1. There is a scientific consensus about human-caused climate change.** The reality of human-caused climate change is no longer a matter of debate. Based on the evidence, more than 97 percent of climate scientists have concluded that human-caused climate change is happening. Many studies have proven this fact.<sup>18</sup>

**2. In communities across the nation, climate change is harming our health now.** Doctors know this because they're seeing the health of their patients being harmed. Public health professionals know this too, because they're seeing increasing rates of health problems associated with climate change in their communities. These harms include heat-related illness, worsening chronic illnesses, injuries and deaths from dangerous weather events, infectious diseases spread by mosquitoes and ticks, illnesses from contaminated food and water, and mental health problems.<sup>19</sup>

### 3. The health of any American can be harmed by climate change, but some of us face greater risk than others.

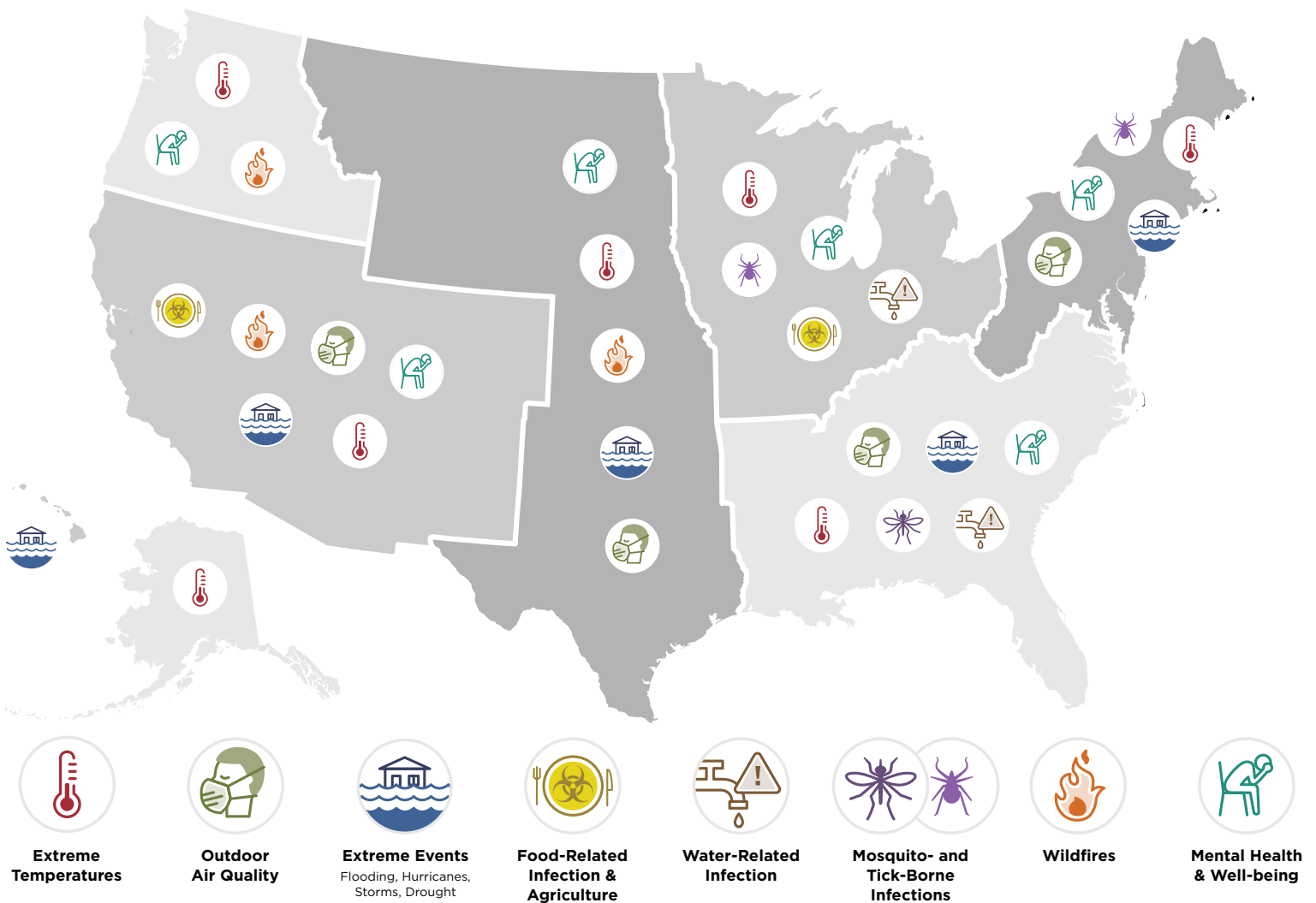
Children, student athletes, pregnant women, the elderly, people with chronic illnesses and allergies, and the poor are more likely to be harmed.<sup>20,21</sup>

### 4. Unless we take concerted action, these harms to our health are going to get much worse.

The sooner we take action, the more harm we can prevent, and the more we can protect the health of all Americans.<sup>22</sup>

## HOW OUR HEALTH IS HARMED BY CLIMATE CHANGE

Impacts Differ by Geographic Region



This graphic illustrates key impacts of climate change on health and is based on reports from the U.S. Global Change Research Program. For more information, visit [www.globalchange.gov](http://www.globalchange.gov).

**5. The most important action we can take to protect our health is to reduce heat-trapping pollution by reducing energy waste and accelerating the inevitable transition to clean renewable energy.** It is well within our power to accomplish this.

Efficient buildings, neighborhoods that support not just automobiles but many ways of getting around, and smart energy policies are all essential and achievable. In addition to limiting climate change, accelerating a transition to clean energy has the added benefit of immediately cleaning up our air and our water so that we can all *immediately* enjoy better health. Everybody wants clean air and water, and better health.<sup>23,24,25</sup>

This report will serve as a basis for our efforts to educate the public and policymakers in government and industry about the ways climate change is harming our health. In particular, this report—along with other materials produced by our Medical Society Consortium on Climate & Health and others—will highlight the urgency of this challenge and provide direction on how to respond to climate change to improve the health of Americans today and in the future. The health harms and risks from climate change vary from region to region, but all regions of the country are affected. As doctors, we have a unique role to play in issuing this alert and closing the gap in public recognition of this danger. Doctors and medical professionals are trusted voices on this issue, and we must do everything we can to make sure the public is aware.

**In sum, we are sounding the alarm that the ultimate danger of climate change is that it poses a danger to the health of every American now and in the future.**

# CLIMATE CHANGE IS HARMING THE HEALTH OF AMERICANS ACROSS THE NATION

## The Health Harms of Climate Change

Some of the physical changes in our climate—such as the increased frequency of extreme heat events, extreme weather events, and air pollution—are causing direct **harms to health**. The big physical changes in our climate are also contributing to the spread of disease and threats to our nutrition and mental health.

While these effects are experienced around the world, in the sections ahead we summarize what is happening to our climate, describe how these changes are harming our health, and identify the groups of Americans who are most likely to experience the harm.





## Extreme Heat

### WHAT IS HAPPENING?

Climate change is causing more very hot days; greater humidity; and longer, hotter, and more frequent heat waves.

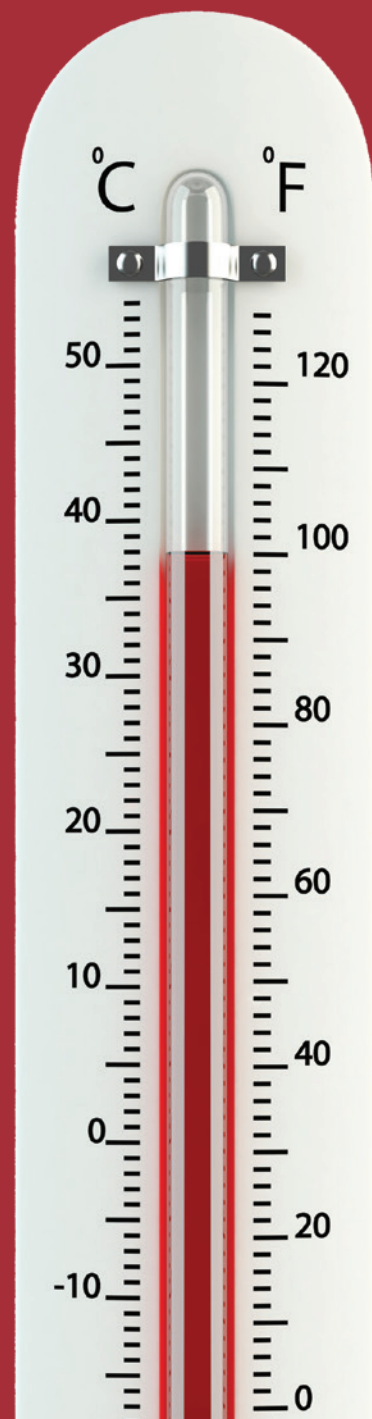
### HOW DOES THAT HARM OUR HEALTH?

Extreme heat can lead to heat-related illness and death from heat stroke and dehydration. It also can make some chronic diseases worse.

### WHO IS BEING HARMED?

Anyone can be harmed by extreme heat, but some people face greater risk. For example, outdoor workers, student athletes, city dwellers, and people who lack air conditioning (or who lose it during an extended power outage) face greater risk because they are more exposed to extreme heat. People with chronic conditions such as cardiovascular and respiratory diseases, and those who work or play outside, are especially vulnerable to extreme heat. Young children, older adults, and people taking certain medications are also more vulnerable because they are less able to regulate their body temperature. Pregnant women are vulnerable too, as extreme heat can cause premature birth.

*Children bear a greater burden of climate-associated health impacts—and they have the most at stake as temperatures continue rising.*





## Isaac's Story

By Dr. Samantha Ahdoot, Lead Author, American Academy of Pediatrics' Policy on Climate Change; Pediatric Associates of Alexandria

My nine-year-old son Isaac was attending his last day of band camp when I received a call from the emergency room. He had collapsed in the heat, and was rushed to the emergency room. When my husband arrived at the hospital, Isaac was on a gurney with an IV in his arm, recovering under the watchful eyes of nurses and doctors. It was a terrifying experience for him.

That day was part of a record-setting heatwave in Washington, DC, one of several days that summer when the heat index reached over 120 degrees.

As a pediatrician, I know that Isaac is not alone in his vulnerability to the heat. Emergency room visits for heat illnesses increased by 133 percent between 1997 and 2006. Almost half of these patients were children and adolescents.

In August 2010, another record hot summer, a colleague treated Logan, a young football player, in Arkansas. He showed initial signs of heat illness—weakness and fatigue—during practice in his un-air-conditioned gym, but he wasn't treated right away. He subsequently developed heat stroke, kidney failure and pulmonary edema. Fortunately, kidney dialysis saved him, but it was a close call.

Every summer, I see the impacts of increasing temperature and heat waves on children like Logan, and warn parents of the dangers of increasing heat waves.

I believe it's imperative that pediatricians on the frontlines of this urgent problem speak out for children on issues that will harm the health and prosperity of our youngest generations.



**FACT** Heat illnesses are a leading cause of death and disability in young athletes. Every year, some 9,000 high school athletes are treated for heat-related illnesses.

**FACT** Young men make up a third of all heat-related emergency room visits in the US.

**FACT** Football players may feel the most heat. They are 11 times more likely to suffer exertional heat illnesses than players of all other high school sports combined.



## Extreme Weather

### WHAT IS HAPPENING?

Climate change is causing increases in the frequency and severity of some extreme weather events such as heavy downpours, floods, droughts, and major storms.

### HOW DOES THAT HARM OUR HEALTH?

Extreme weather events can cause injury, displacement, and death. Extreme weather events can knock out power and phone lines, damage or destroy homes, and reduce the availability of safe food and water. They also can damage roads and bridges, impeding access to medical care and separating people from their medicines. Stomach and intestinal illnesses tend to increase following extreme weather and associated power outages.

### WHO IS BEING HARMED?

Anyone can be harmed by extreme weather events, but emergency evacuations pose extra health risks to children, older adults, the poor, and those with disabilities (if they are unable to access elevators and evacuation routes).

*When Baton Rouge was hit with a “thousand year flood,” it rained in sheets for days.*





## A Battered City

By Dr. Claude Tellis, Vice Chairman, Commission on Environmental Health, National Medical Association (NMA); Retired Pulmonologist

The damage from the deadly Louisiana flood of 2016, which struck my hometown of Baton Rouge and surrounding parishes in August, was still visible long after the rains stopped. Months later, homes were still gutted, and refrigerators, washing machines and armchairs remained piled high on roadsides.

When Baton Rouge was hit with this “thousand year flood”—a storm that has only a one-tenth of one percent chance of occurring in any given year—it rained in sheets for days. In the worst natural disaster since Hurricane Sandy, 13 people died, the coast guard rescued 30,000 people, and 10,000 people ended up in shelters. Some 180,000 homes and buildings were damaged.<sup>26</sup>

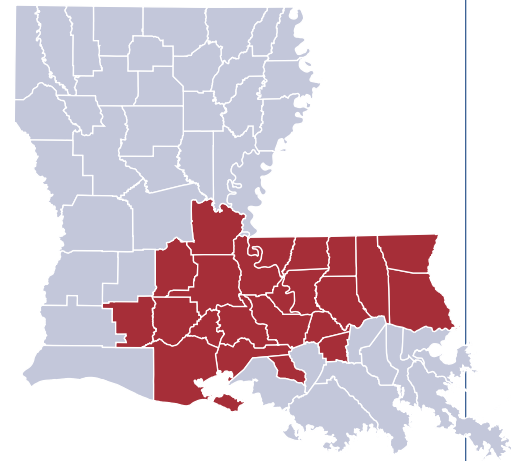
The storm also unleashed a health crisis on survivors. Some fleeing their flooding homes lost their medications for hypertension, diabetes, and heart problems. Others reported stress, depression and anxiety in the weeks and months that followed. And long after the storm passed, some teachers reported children who felt so anxious and afraid when it rained that they needed counseling.

In the weeks following the storm, pools of standing water provided the perfect breeding ground for mold and mosquitoes. This was a problem because mosquito born illnesses like West Nile Virus were already found in the area. In some homes, mold from water damage still makes the air less healthy. We continue to struggle with the aftermath of this historic flood.

I believe our lives in Louisiana may never be the same because we will see continued suffering from the physical and mental damage of extreme weather—which is happening more often and with greater strength due to climate change.



▼ 22 Louisiana parishes were designated as federal disaster areas by FEMA in the aftermath of the floods of 2016.



Source: <https://www.fema.gov/disaster/4277>.



## **Air Pollution**

### **WHAT IS HAPPENING?**

Climate change reduces air quality because heat increases smog, wildfires, and pollen production.

### **HOW DOES THAT HARM OUR HEALTH?**

Poor air quality increases asthma and allergy attacks, and can lead to other illnesses, hospitalizations, and deaths. For example, warmer and drier conditions lead to an increase in wildfires. Fire smoke, which can travel hundreds of miles downwind, exposes people to harmful pollutants and increases emergency room visits, hospitalizations, and treatments for asthma, bronchitis, chest pain, and other heart and lung conditions. Warmer temperatures lead to a longer pollen season, and increased carbon dioxide in the air leads to higher pollen levels and more potent pollen. These factors make allergies and asthma worse and more common. Higher humidity and flooding from heavy downpours can lead to dampness and growth of mold indoors, increasing allergies and worsening asthma.

### **WHO IS BEING HARMED?**

Anyone can be harmed by poor air quality, but people with preexisting respiratory conditions such as asthma or chronic lung disease are most vulnerable.

### **AIR POLLUTION GLOBALLY**

Health problems stemming from air pollution are a global problem, and the burning of coal and other fossil fuels is making it worse. Some seven million people worldwide die early from lung and heart disease and cancer due to pollution.<sup>27</sup> That's more people than the population of Arizona or Massachusetts. This air pollution crisis, made worse by climate change, isn't limited to foreign countries. The United States, especially the east coast and greater Los Angeles-area, has dangerously high levels of pollution, which leads to premature death, disability, and disease.





## Fire, Lungs and Hearts

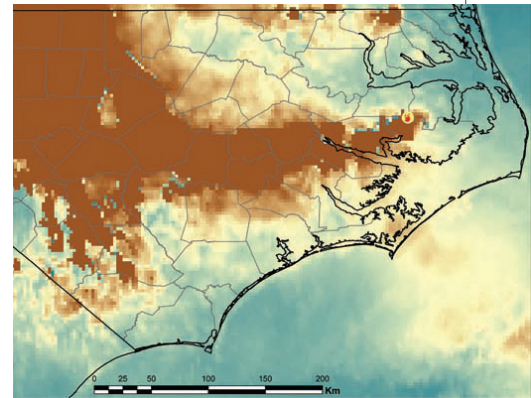
By Dr. John Meredith, Emergency Room Physician,  
East Carolina University

In June 2008, a wildfire devastated eastern North Carolina. The Evans Road Wildfire, which burned more than 45,000 acres and cost \$20 million to battle, started in the midst of the state's worst drought. As the fire burned for three long months that summer, plumes of smoke carrying dangerous particles covered the eastern side of the state and beyond.

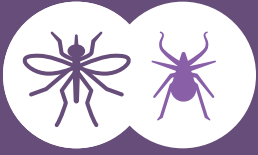
Researchers saw this fire as an opportunity to learn more about the harms to our health from air pollution resulting from wildfires. They studied two sets of counties in North Carolina: those that were affected by the smoke and those that were not. They tallied respiratory conditions, including asthma, pneumonia, and common respiratory infections, as well heart attacks and other cardiac conditions.

Here's what they found: Those living in counties affected by the plume had a 50 percent increase in the trips to emergency departments from respiratory illness like Chronic Obstructive Pulmonary Disease (COPD), pneumonia and bronchitis while the other counties did not. The smoke also caused a spike in emergency department visits for heart disease not seen in the other counties. People with heart disease are exceptionally sensitive to the particles from wildfires.

Blazing forests are just as damaging to human health as they are to homes and neighborhoods. Increasing temperatures and more frequent droughts caused by climate change are set to increase the number of wildfires in the US—and worldwide. It's clear that not only our lungs, but also our hearts, are at serious risk.



▲ Aerial map showing counties impacted by the Evans Road Fire at the Pocosin Lakes National Wildlife Refuge, North Carolina on June 10-12, 2008.



## Ticks and Mosquitoes

### WHAT IS HAPPENING?

Climate change is causing increasing temperatures, too much or too little rain, and severe weather events.

### HOW DOES THAT HARM OUR HEALTH?

Along with the direct harms we've described above, these changes can lead to an increase in the number and geographic range of disease-carrying mosquitoes, fleas, ticks.<sup>28</sup> Mosquitoes that carry diseases like West Nile virus and dengue fever thrive in conditions that are becoming more common, and there is concern that malaria could reemerge in the United States. Ticks that carry Lyme disease have become more numerous in many areas and have expanded their range northward and westward.<sup>29</sup> The tick that carries Lyme Disease is reported in 45.7% of U.S. counties, up from 30% in 1998.<sup>30</sup> As these insect carriers of infection move to new areas, diseases not normally found in those areas can spread.

### WHO IS BEING HARMED?

Anyone can be harmed by these diseases, but people who spend more time outdoors—where these insects and other disease-carriers live—are most vulnerable.





## Four Seasons of Ticks and Mosquitoes—and Their Diseases

By Dr. Nitin Damle, President, American College of Physicians (ACP); Founder, South County Internal Medicine, Inc.

It's not a surprise that over the past five years, my practice has seen a rise in the incidence of tick-borne diseases, including Lyme disease and other infections. My physician colleagues used to treat two or three cases a month during tick season; now each of us sees 40 to 50 new cases during each tick season.

Those blacklegged ticks, the carriers of Lyme disease, thrive in warm, muggy weather. In my home state of Rhode Island, where winters have gotten warmer and shorter, these tiny, sesame seed-sized insects have more time to bite humans and spread Lyme disease. Tick season used to be relegated to summer; it now spans spring and autumn. And this isn't limited to the typical tick hotspot states.

Across the country, doctors are seeing more patients struck ill by serious diseases like Lyme disease and West Nile fever. Because of the changing climate and the spread of vectors, we expect that Americans will continue to face new diseases and familiar diseases in new places. I know that doctors need to be ready for this and patients need to understand these dangers.

*Because of the changing climate and the spread of disease vectors, we expect that Americans will continue to face new diseases and familiar diseases in new places.*

*Doctors need to be ready for this and patients need to understand these dangers.*



▲ A bull's eye rash is characteristic of Lyme Disease.





## Contaminated Water

### WHAT IS HAPPENING?

Climate change is causing higher water temperatures, heavier downpours, rising sea levels, and more flooding because of sea level rise and heavy downpours.

### HOW DOES THAT HARM OUR HEALTH?

Each of these conditions can lead to contamination of drinking water, recreational waters, fish, and shellfish—all of which can make people sick. For example, heavy rains can cause fertilizers and animal waste from farms to be flushed into rivers, lakes, and oceans. There, the excess nutrients and warm waters promote the growth of algae, viruses, parasites, and bacteria such as *Salmonella*, *E. coli* and *Vibrio*. People get exposed to these pathogens by drinking or swimming in contaminated water, or by eating contaminated fish and shellfish. This can cause diarrhea and vomiting and, in severe cases, paralysis, organ failure, and death.<sup>31</sup> A 1993 *Cryptosporidium* outbreak in Milwaukee, which sickened more than 400,000 people, coincided with record high flows in the Milwaukee River, a reflection of the amount of rainfall in the watershed.<sup>32</sup> The toxic algae bloom in Lake Erie that required shutting down the water supply in Toledo, Ohio, in 2014 is another example.

### WHO IS BEING HARMED?

Anyone can be harmed by contaminated water, but some people—especially children, the elderly, people with weakened immune systems, people in remote or low-income communities with inadequate water systems, and people in communities that are dependent on fish and shellfish—are at higher risk.



▲ A couple paddle surfs as algae surfaces on Lake Erie in August 2014. Health officials sent samples to several laboratories for testing after finding Lake Erie was affected by a “harmful algal bloom.” The lake provides the bulk of the area’s drinking water.

▶ *E. Coli* bacteria.



## Contaminated Food

### WHAT IS HAPPENING?

Climate change is causing increases in temperature, humidity, and extreme weather events like heavy downpours and flooding.

### HOW DOES THAT HARM OUR HEALTH?

Each of these conditions can lead to food becoming contaminated by bacteria and toxins. For example, heavy downpours and flooding can spread fecal bacteria and viruses into fields where food is growing. Higher sea surface temperatures can lead to more pathogens and greater accumulation of mercury and other heavy metals in seafood. Foodborne illness has long been known to peak in summer due to the heat. Because pests, parasites, and bacteria thrive in warmer temperatures, farmers are using more pesticides on crops and drugs in livestock, which can cause health problems. The geographic range of mold and associated toxins is also expanding, affecting corn, peanuts, cereal grains, and fruit.<sup>33</sup>

▼ A flooded cornfield in Gladstone, Illinois.



### WHO IS BEING HARMED?

Anyone can be harmed by contaminated food, but infants, young children, pregnant women, the elderly, the poor, agricultural workers, and those with weakened immune systems are more susceptible.





## Threats to Mental Health

### WHAT IS HAPPENING?

Climate change is causing increases in the frequency and severity of some extreme weather events such as heavy downpours, floods, droughts, and major storms. These events and other changes are creating the direct and indirect physical harms we've described above.

### HOW DOES THAT HARM OUR MENTAL HEALTH?

Many people exposed to the worst extreme weather events experience stress and serious mental health consequences including depression, anxiety, post-traumatic stress disorder (PTSD), and increases in suicidal thoughts and behavior. Such disasters are also associated with increases in alcohol or drug abuse. Children may also experience prolonged separation from their parents. Beyond the well-known risks specific disasters pose to our mental health, the physical, social, and economic stresses created by climate change all increase our risk of mental health problems.<sup>35</sup>

### WHO IS BEING HARMED?

Anyone's mental health can be harmed by a disaster, but people at higher risk include children, the elderly, pregnant women and women in general, those with preexisting mental illness, the poor, homeless, and first responders. Farmers and other people who rely on the natural environment for their livelihoods are also at higher risk.



► Neighbors embrace after looking through the wreckage of their homes devastated by fire and the effects of Hurricane Sandy in Queens, NY on October 31, 2012.



▲ A woman shops for food in a shelter during Hurricane Sandy.

## What the Public and Doctors Think about Climate Change and Health

**FACT** Only about one in three Americans are aware that people in the US are being harmed “right now” by climate change.

**FACT** Yet, based on several surveys, two out of every three doctors think climate change has direct relevance right now to patient care.<sup>36,37,38</sup>

**FACT** Physicians say the most common ways in which climate change is harming their patients’ health are through poor air quality, worsening allergies, injuries due to storms, heat-related illness, and infections spread by mosquitoes and ticks.

Physicians in three medical societies\* were asked the following question: In which of the following ways, if any, do you think your patients are currently being affected by climate change? (N=1868-1908)<sup>39,40,41</sup>

Health Harms	Responded “Yes”
Air pollution-related	76%
Allergic symptoms	63%
Injuries due to storms, etc.	57%
Heat effects	45%
Vector-borne infections (e.g., infections spread by mosquitoes or ticks)	40%
Diarrhea from food or water infections	29%
Mental health**	40%

\* The societies are the American Academy of Allergy, Asthma, Immunology; the American Thoracic Society; and the National Medical Association.

\*\* Results from one medical society only.



## Threats to Nutrition

### WHAT IS HAPPENING?

The level of carbon dioxide in our air is increasing, and the resulting climate change is causing increases in temperature, drought, and extreme weather events like heavy downpours and flooding.

### HOW DOES THAT HARM OUR HEALTH?

Rising levels of carbon dioxide in the air decrease the nutritional value of important food crops such as wheat, rice, barley, and potatoes. This happens because in the presence of more carbon dioxide, these plants produce less protein and more starch and sugar, and they take in fewer essential minerals. Higher temperatures can also result in more food spoiling. Drought can damage or destroy crops, and extreme weather events can disrupt food production and distribution by knocking out power, damaging infrastructure, and delaying food shipments. As a result, food can be damaged, spoiled or contaminated, reducing the availability of and access to safe and nutritious food.<sup>35</sup>

### WHO IS BEING HARMED?

Anyone can be harmed by lack of food or malnutrition, but infants, young children, pregnant women, the elderly, and the poor are particularly vulnerable.



# RISK: THE CLIMATE FUTURE DOCTORS WORRY ABOUT

In the report *What We Know*, provided by the American Association for the Advancement of Science (the largest scientist organization in the US), climate scientists concluded:

*We are at risk of pushing our climate system toward abrupt, unpredictable, and potentially irreversible changes with highly damaging impacts.<sup>4</sup>*

The scientists tell us that, even if we somehow stopped adding greenhouse gases to our atmosphere tomorrow, more warming is now “baked in” to our climate. But the greatest risk is that at some point, warming will set abrupt and irreversible changes in motion. Such scenarios include the large-scale collapse of ice sheets in Antarctica, creating the potential for 23 feet of rise in sea level.<sup>5</sup> The truly disturbing thing is that scientists cannot tell us how much warming it would take to trigger such scenarios.

As one of our doctors put it, “Even our ‘best-case scenario’ means we’re going to be seeing more with demanding health problems. But the worst-case scenarios of climate change really worry me. It would mean a level of human suffering we can barely contemplate, much less respond to.”<sup>42,43</sup>



Wall Street, NYC after 4°C of warming

Wall Street, NYC after 2°C of warming

# WHAT WE CAN DO: PREPARE AND PREVENT

One of the key findings in the 2014 National Climate Assessment—the most comprehensive assessment to date of the impacts of climate change in the US—was the following:

*Public health actions, especially preparedness and prevention, can do much to protect people from some of the impacts of climate change. Early action provides the largest health benefits. As threats increase, our ability to adapt to future changes may be limited.*

*Prevention is a central tenet of public health. Many conditions that are difficult and costly to treat when a patient gets to the doctor could be prevented before they occur at a fraction of the cost. Similarly, many of the larger health impacts associated with climate change can be prevented through early action at significantly lower cost than dealing with them after they occur.<sup>44</sup>*

Doctors agree with climate scientists: the sooner we take action, the more harm we can prevent, and the more we can protect the health of all Americans.<sup>45</sup>

**We believe the most important action we can take to protect our health is to accelerate the inevitable transition to clean renewable energy. As explained in the 2014 National Climate Assessment:**

*Activities that reduce carbon pollution often also provide co-benefits in the form of preventive health measures. For example, reliance on cleaner energy sources for electricity production and more efficient and active transport, like biking or walking, can have immediate public health benefits, through improved air quality and lowered rates of obesity, diabetes, and heart disease. Reducing carbon pollution also reduces long-term adverse climate-health impacts, thus producing cost savings in the near and longer term.*

In addition to limiting climate change, accelerating the transition to clean energy has the added benefit of rapidly cleaning up our air and our water so that we can all enjoy better health. Who among us doesn't want clean air and water, and better health?

There are economic benefits that flow from better health. These are discussed in the next section on health benefits.

In response to this Medical Alert, there are many actions that can be taken. Below are specific actions that can be taken by different groups.

**DOCTORS** First and foremost, physicians need to provide care to patients who are experiencing climate-related health effects. Beyond this, doctors can educate the public and policymakers to assure they understand the importance of action. Reducing heat trapping pollution is a priority, and vital health infrastructure must be prepared so health is protected from the risks of climate change including floods and storms. Health institutions should focus on reducing energy use, relying on clean energy to the extent possible, and avoiding negative impacts on the environment. Doctors can also encourage medical education at all levels to incorporate climate change-related coursework into curricula.

**BUSINESS LEADERS** Business leaders can take this opportunity to transition their businesses to renewable energy. Many businesses that are already engaged in this transformative change are reaping benefits in cost savings, job creation, and enhanced reputation. They can share their successful experience with other businesses and governmental officials at the federal and state levels.

**PUBLIC HEALTH AND THEIR PARTNERS** Public health professionals are leaders in monitoring, prevention, preparedness, and public education on health issues. Climate change creates the imperative to do all of these. Examples include crafting early warning systems for heat and extreme weather events, advising hospitals and health system on preparedness, and collaborating with research institutions to enhance surveillance and community resilience in the face of inevitable climate-related disasters. Public health leaders collect the data and create the analyses and reports that keep other stakeholders apprised of how well we're doing, collectively, to prevent and respond effectively to the health harms of climate change.



**GOVERNMENT LEADERS** Leaders in local, state, and federal government should immediately begin focusing on preparedness, providing the support needed to build resilience against damaging climate change impacts. Government leaders must also take ambitious steps to prevent the worst health impacts of climate change, including fully embracing clean energy, walkable communities, public transportation, and green building design. In doing so, they will deliver immediate health benefits for their constituents.

**ALL OF US** We all should know our risks, especially if we live in areas that are particularly vulnerable to disastrous fires, floods, storms, and extreme weather events. Beyond that, we all have the opportunity to be part of the solution. We can reduce our emissions by reducing automobile use in favor of walking and cycling, taking steps toward a more plant-based healthy diet, reducing our energy consumption, and, as it rapidly becomes more affordable, opting for clean energy from state and local utilities. The good news is that taking such steps will improve our health and everyone else's. The final message for "all of us" is to get involved, not just as consumers, but also as citizens. Our health depends on it.

*We believe the most important action we can take to protect our health is to accelerate the inevitable transition to clean renewable energy.*



# THE HEALTH BENEFITS OF ACTING NOW

## Success: Reducing Air Pollution in the Northeastern States

In 2009, nine states in the northeast came together to reduce CO<sub>2</sub> emissions from fossil fuel power. They agreed to the Regional Greenhouse Gas Initiative (RGGI), which places a regional limit on the amount of carbon dioxide that power plants can emit and institutes a cap and trade policy.

In addition to reducing carbon dioxide emissions from fossil fuel use, the RGGI also reduces fossil fuels' well-known disease-causing pollutants: carbon monoxide, lead, ground-level ozone, nitrogen oxides, particulate matter, and sulfur dioxide.

A January 2017 study by Abt Associates looking at the environmental and public health impact of the RGGI found it “*created major benefits to public health and productivity, including avoiding hundreds of premature deaths and tens of thousands of lost work days.*”<sup>46</sup> Specifically, this report found that RGGI prevented the following:

- 300–830 early deaths among adults
- 39,000–47,000 lost work days
- 35–390 non-fatal heart attacks
- 8,200–9,900 asthma flare-ups
- 180–220 hospital admissions
- 200–230 asthma ER visits

**The total health cost savings from the Regional Greenhouse Gas Initiative to date is estimated to be \$5.7 billion.**

This is what US doctors want: fewer people going to hospitals, fewer people missing work, fewer people coming to our offices and emergency rooms suffering from serious health conditions including lung and heart conditions, premature labor, vector-borne diseases, mental health problems, and, of course, fewer people dying prematurely.

Along with reducing the health risks of future climate change, these are the immediate health dividends—including lower health costs—that moving quickly toward renewable energy will bring.

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*We are sounding the alarm that  
climate change poses a risk to the  
health of every American.*



# The Medical Society Consortium

ON CLIMATE & HEALTH

The mission of the Medical Society Consortium on Climate and Health is to inform the public and policymakers about the harmful health effects of climate change on Americans, and about the immediate and long-term health benefits associated with decreasing greenhouse gas emissions (i.e., heat-trapping pollution) and other preventive and protective measures.

**[medsocietiesforclimatehealth.org](http://medsocietiesforclimatehealth.org)**

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## **A REPORT FROM:**

Academy for Integrative Health & Medicine  
American Academy of Asthma, Allergy, Immunology  
American Academy of Family Physicians  
American Academy of Pediatrics  
American Congress of Obstetricians and Gynecologists  
American College of Physicians  
American College of Preventive Medicine  
American Geriatrics Society  
American Medical Women's Association  
American Podiatric Medical Association  
National Medical Association  
Society of General Internal Medicine





## *Virginia Clinicians for Climate Action*

### **Education**

VCCA is bringing educational events on climate and health to medical centers and hospitals throughout Virginia. Our first event at Inova Fairfax Hospital in April 2017 was entitled "What Climate Change Means for the Health of Virginians". This event drew over 50 attendees and featured speakers from Virginia Department of Health, USDA and University of Stonybrook Pediatric Infectious Diseases.

In the past year we have coordinated Internal Medicine and Pediatrics lectures at Inova Fairfax, University of Virginia and Virginia Commonwealth University Schools of Medicine, as well as a presentation at a conference for school nurses. Our second conference, "Health in A Changing Climate, Understanding the Impacts on Virginians", was held in Richmond on February 10, 2018 at St. Mary's Bon Secours Hospital and drew over 80 attendees. We are currently planning our third conference, to be held this October in Hampton Roads.

### **Advocacy**

VCCA is working to increase understanding of the public and state legislators on the critical intersections between health and climate. We are working with leaders from regions across the state to help ensure that policies are made with the health of our citizens and communities as the top priority. In alliance with the Virginia Chapter of the American College of Physicians, we coordinated the first ever Health and Climate Lobby Day for physicians during the 2018 legislative session. Our group of almost 20 physicians met with legislators as well as Virginia State Health Commissioner Dr. Marissa Levine to discuss how legislation that protects the climate is critical to protecting the health of our patients.

### **Community Outreach**

VCCA is working with community leaders to educate and empower the public around local and state climate-related policies that impact their health and welfare. We have published letters to the editor and participated in numerous public hearings. VCCA was recently invited by Virginia's Department of Environmental Quality (DEQ) to participate in their stakeholder group pertaining to Executive Order 6, a review of DEQ regulations to protect air, water and public health.



### STEERING COMMITTEE

*Chairperson:* **Samantha Ahdoot, MD, FAAP** is a practicing pediatrician at Pediatric Associates of Alexandria in Virginia and an Assistant Professor of Pediatrics at Virginia Commonwealth University School of Medicine.

**Muge Akpinar-Elci, MD, MPH** is the director of the Center for Global Health and the chair of the School of Community and Environmental Health, both at Old Dominion University, Norfolk VA.

**Gail Bush, BS, RRT-NPS** is currently a Clinical Manager of Respiratory Care Services at INOVA Health System for the Heart and Vascular Institute and IMC (long term care) areas.

**Janet Eddy, MD** is the Medical Director of the Bon Secours Care-a-Van, which is a mobile free clinic for uninsured low-income people in Richmond VA.

**Robert Kitchen, MD, FAAFP** is a family physician that retired in April 2018 after thirty-nine years of practice, most recently with Kaiser Permanente in No. Virginia.

**Susan Miller, MD, FAAFP, PSF** is a retired Family Physician who spent 39 years in both private and academic family medicine in Richmond, VA.

**Tim O'Mara, MD** has practiced general pediatrics in No. Virginia for 15 years.

**Jerome Paulson, MD, FAAP** is the medical director of the Pediatric Environmental Health Specialty Unit-East Program and of the Climate Change Initiative for the American Academy of Pediatrics.

**Kathleen Price, MD** retired from rheumatology practice after more than 30 years in private practice in Northern Virginia.

**Nila Rafiq, MD** is an internist who has practiced in the Inova system for over 10 years.

**Sergio Rimola, MD** is an Ob/Gyn and has been an attending physician at Inova Fairfax Hospital since 1997.

**Krupal Shah, MD, MPP** has been a member of the clinical faculty at Inova Fairfax Hospital since 2017 and practices as an inpatient Internal Medicine physician (Hospitalist) with additional part time responsibilities in Pediatrics. He also serves co-medical director of the Cardiac Telemetry Unit North in the Inova Heart and Vascular Institute.

**Homan Wai, MD, FACP** practices as an inpatient Internal Medicine physician at Inova Fairfax Hospital and joined the faculty in 2009. Dr. Wai also is the Internal Medicine Clerkship Director at the VCU School of Medicine – Inova Campus.

# The Link Between Fossil Fuels and Neurological Harm

## SUMMARY

Burning fossil fuels produces harmful air pollution and increases people's exposure to toxic chemicals that can harm their brains and nervous systems. There is an emerging scientific consensus that air pollution from fossil fuel use is harmful to children's developing brains and may also affect the cognitive functioning of older adults—although not all studies have found these results. In children, exposure to air pollution has been linked to development delays, reduced IQ, cognitive deficits and autism spectrum disorder. In adults, exposure to air pollution has been linked to higher rates of dementia and Alzheimer's Disease.

The very young, the elderly and people with low household income are especially vulnerable to the harmful impacts of exposure to toxic chemicals in the air.

## WHAT ARE FOSSIL FUELS AND HOW ARE THEY USED?

**Fossil fuels** – including **oil, coal and natural gas** – are **non-renewable resources** formed from the remains of prehistoric plants and animals buried deep in the Earth, subjected to immense pressure and heat over millions of years. The world's reliance on burning fossil fuels to produce electricity, heat, transportation and industry began during the Industrial Revolution.

Today, fossil fuels remain the world's primary energy source.

## WHAT IS THE LINK BETWEEN FOSSIL FUELS AND AIR POLLUTION?

Burning fossil fuel releases hundreds of toxic pollutants, including fine particulate matter (PM), black carbon, polycyclic

aromatic hydrocarbons (PAHs), mercury, lead, nitrogen oxides, sulfur dioxide and carbon monoxide. People breathe in these toxic chemicals when they are exposed to air pollution.

## MOST AIR POLLUTION IS CREATED BY THE BURNING OF FOSSIL FUELS.

According to the U.S. Department of Energy, over the past 20 years, **three-fourths of human-caused emissions were produced from burning fossil fuels.**<sup>1</sup>

Almost everyone in the world is affected by air pollution; only one person in 10 lives in a city with air clean enough to meet World Health Organization (WHO) air quality guidelines.<sup>2</sup>

**Fuel combustion creates 85 percent of airborne particulate pollution.**<sup>3</sup> Inhaling these tiny particles can be extremely harmful to human health and development, particularly early in life. An estimated 2 billion children live in areas exceeding WHO guidelines for fine particle exposure.

## HOW DOES EXPOSURE TO AIR POLLUTION HARM THE BRAIN?

While much is known about how polluted air affects the lungs and heart, we are just beginning to learn about how it can also harm the brain. **Over the past decade, many studies have linked exposure to outdoor air pollution to harmful impacts on the brain.**

Air pollution contributes to **neurodevelopmental** damage to the growth and functioning of the brain and nervous system. In addition, an emerging body of scientific evidence suggests that air pollution may also be a factor in **neurodegenerative** disorders that many older adults experience.<sup>4</sup>

**As the evidence mounts about the harmful effects of air pollution on people's brains, the world's health professionals and health organizations are becoming increasingly concerned.**

- In 2013, WHO cited emerging evidence of links between exposure to fine particles and problems with neurodevelopment and cognitive function. The report cited longitudinal cohort studies in Asia, Canada, Europe and the U.S.<sup>5</sup>
- In 2016, *Environmental Health Perspectives* published a joint public statement issued by 14 scientific or medical associations and 50 scientists representing the disciplines of pediatrics, toxicology, public health and neurobiology. The *Project TENDR* (Targeting Environmental

Neurodevelopmental Risks) *Consensus Statement* noted evidence of danger to children in the United States due to air pollution, listing fossil fuel-related air pollutants (including particulate matter, PAHs, and nitrogen dioxide) as “prime examples of toxic chemicals that can contribute to learning, behavioral, or intellectual impairment, as well as specific neurodevelopmental disorders such as ADHD [attention deficit hyperactivity disorder] or autism.”<sup>6</sup>

- In its 2017 report, the *Lancet Commission* on Pollution and Health stated that “pollution is now understood to be an important causative agent of many non-communicable diseases including ... neurodevelopmental disorders.” Specifically, it noted “emerging evidence” of causal associations from air pollution exposure to fine particulate matter and **decreased cognitive function, attention-deficit or hyperactivity and autism in children**, as well as **dementia in adults**.<sup>7</sup>

**THE VERY YOUNG, THE ELDERLY AND THOSE LIVING IN POVERTY ARE MORE VULNERABLE TO TOXIC EXPOSURES THAN OTHERS.**

Prenatal and early childhood exposures to air pollution and toxic chemicals in general can be especially damaging, as these are critical periods of development.

The overwhelming majority of brain development occurs during the prenatal period, when most of the brain's 86 billion neurons are formed.<sup>8</sup> Critical brain development continues from infancy through age 6. What's more, because of their smaller size, higher breathing rate and unique behaviors, children experience greater exposure to air pollutants than adults.<sup>9</sup> Neurological damage that occurs during childhood may continue to cause harm over the course of a person's lifetime.<sup>10</sup>

**CHILDREN IN LOW-INCOME POPULATIONS ARE ALSO DISPROPORTIONATELY HARMED BY EXPOSURE TO AIR POLLUTION.**

In the United States, people in low-income communities and communities of color experience disproportionately high exposure to particulate air pollution and air pollution from coal-fired power plants.<sup>11</sup> Poor children living in developing countries are also disproportionately exposed to air pollution.<sup>12</sup> The effects of toxic exposure may be further magnified by poor nutrition, lack of social support, and psychosocial stress due to poverty or racism.<sup>13</sup>

While children are especially vulnerable to toxic exposures from air pollution because they are still developing, the elderly may also be at increased risk from environmental exposures due to deterioration associated with the aging process.<sup>14</sup>



## EVEN EXPOSURES BELOW WHAT ARE CURRENTLY CONSIDERED “SAFE” LEVELS OF RESIDENTIAL AIR POLLUTION HAVE BEEN SHOWN TO CAUSE HARM.

A 2018 Dutch study published in *Biological Psychiatry* found that prenatal exposure to outdoor air pollution – even at levels currently considered safe in European Union policies – was associated with brain abnormalities later in childhood. Specifically, children exposed *in utero* exhibited a thinner outer layer of the brain (the cortex) at ages six to ten years. These abnormalities were associated with impaired impulse control.<sup>15</sup>

## MANY RIGOROUS STUDIES HAVE DOCUMENTED THAT AIR POLLUTION HARMS PEOPLE’S BRAINS.

- A longitudinal study of mothers and children in New York City’s North Harlem produced some of the earliest evidence linking PAH exposures in pregnant women to cognitive defects and behavioral disorders in their children at ages three and five. Three-year-olds exposed prenatally to high levels of PAHs exhibited lower mental development scores on standardized tests and a higher risk for cognitive delays.<sup>16</sup> At age five, they performed lower on IQ tests than children with lower exposure rates.<sup>17</sup>
- As these children grew older, they continued to exhibit adverse neurological impacts – including anxiety, depression and hyperactivity – compared to children less exposed before birth to PAHs.<sup>18</sup>
- A review of 31 studies published between 2006 and 2015 found that **traffic-related air pollution has been associated with cognitive impairment**. Pollution exposure in utero was associated with increased risk of neurodevelopmental delay. Exposure during childhood was associated with poor neurodevelopmental outcomes in younger children and decreased academic achievement and neurocognitive performance in older children. In older adults, exposure to traffic pollution was associated with cognitive decline.<sup>19</sup>
- In a study of 263 children ages 8 to 12, higher exposure to urban traffic pollution was linked to slower brain maturation.<sup>20</sup>
- Four studies investigating prenatal exposure to PAHs found links to delayed verbal, psychomotor and/or general development in children.<sup>21</sup>
- A 2014 cross-sectional study in the U.S. found an association between postnatal exposure to PAHs and special education needs in boys.<sup>22</sup>
- Three studies that investigated prenatal exposure to air pollutants found increased exposure was associated with an increased risk for autism spectrum disorder.<sup>23</sup>
- The 2013 Nurses Health Study II found an increased risk for autism disorder related to perinatal (late pregnancy and newborn) exposure to diesel exhaust, particulates, lead, manganese and nickel.<sup>24</sup>
- Four studies investigating pre- and postnatal exposure to nitrogen dioxide and fine particulates showed an association with autism spectrum disorder.<sup>25</sup>
- A study of 524 children enrolled in the Childhood Autism Risks from Genetics and the Environment study in California found exposure to traffic-related air pollution (nitrogen dioxide and fine particulate matter) during pregnancy and the first year of life was associated with autism.<sup>26</sup>
- While fewer studies have investigated the potential harms of outdoor air pollution on the brains of older adults, the evidence is growing stronger that air pollution experienced by many older adults is one cause of neurodegenerative problems.
- A 2017 study from the University of Southern California found living in areas where fine particle levels exceed EPA standards **increased the risks for global cognitive decline by 81 percent and all-cause dementia by 92 percent** in people with a genetic risk for Alzheimer’s Disease.<sup>27</sup>
- A large population-based study in Ontario, Canada found that living close to heavy traffic was associated with a higher incidence of dementia.<sup>28</sup>
- A 2017 meta-predictive analysis found increased air pollution levels may impact susceptibility to Alzheimer’s Disease.<sup>29</sup>

## CONCLUSION

Scientists and health professionals have long known that exposure to air pollution causes respiratory damage, such as asthma. A growing body of science now indicates that air pollution from burning fossil fuels is contributing to serious neurodevelopmental problems in the very young that may be life-altering, as well as to neurological decline in aging adults. These health consequences of fossil fuel use inflict major economic and societal costs that will continue to increase until we shift course toward clean energy sources.

## ENDNOTES

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# GEORGE MASON UNIVERSITY – THE COMMONWEALTH’S TECH GIANT

**Deborah Crawford, Vice President for Research  
Board of Visitors Research Committee  
December 12, 2018**



# Welcome, Amazon.

## We're Primed.

Congratulations, you've made a smart move.

Northern Virginia's booming knowledge economy brims with world-class talent, and Mason has been one of the architects, with **37,000 students**, three campuses, and a **top-tier research ranking**.

To make you feel at home, we'll more than double the number of computing students to 15,000. Mason is ready to deliver, right here on your doorstep.

Welcome, neighbor. We think you'll like it here.  
[amazon.gmu.edu](https://amazon.gmu.edu)



Washington Post, November 22, 2018

# Timeline





# Mason's TECH Talent

~5,000 computing undergraduates - in computer science, computer engineering, information technology, systems engineering, cybersecurity engineering, and information systems and operations management

Largest TECH cohort BY FAR of any Virginia public institution - 2,000 more students than VT

~1,100 masters students in computing programs, the largest cohort of any Virginia public institution

**Mason committed to create the Commonwealth's first School of Computing, with plans to double computing enrollment to 10,000 at the undergraduate level and increase enrollment at the masters level to 5,000**



**Amazon HQ Higher Ed Incentive Package** to support Mason in-state student enrollment & graduation growth in computing at BS and MS levels (faculty recruitment and start-up packages, operating dollars for in-state students)

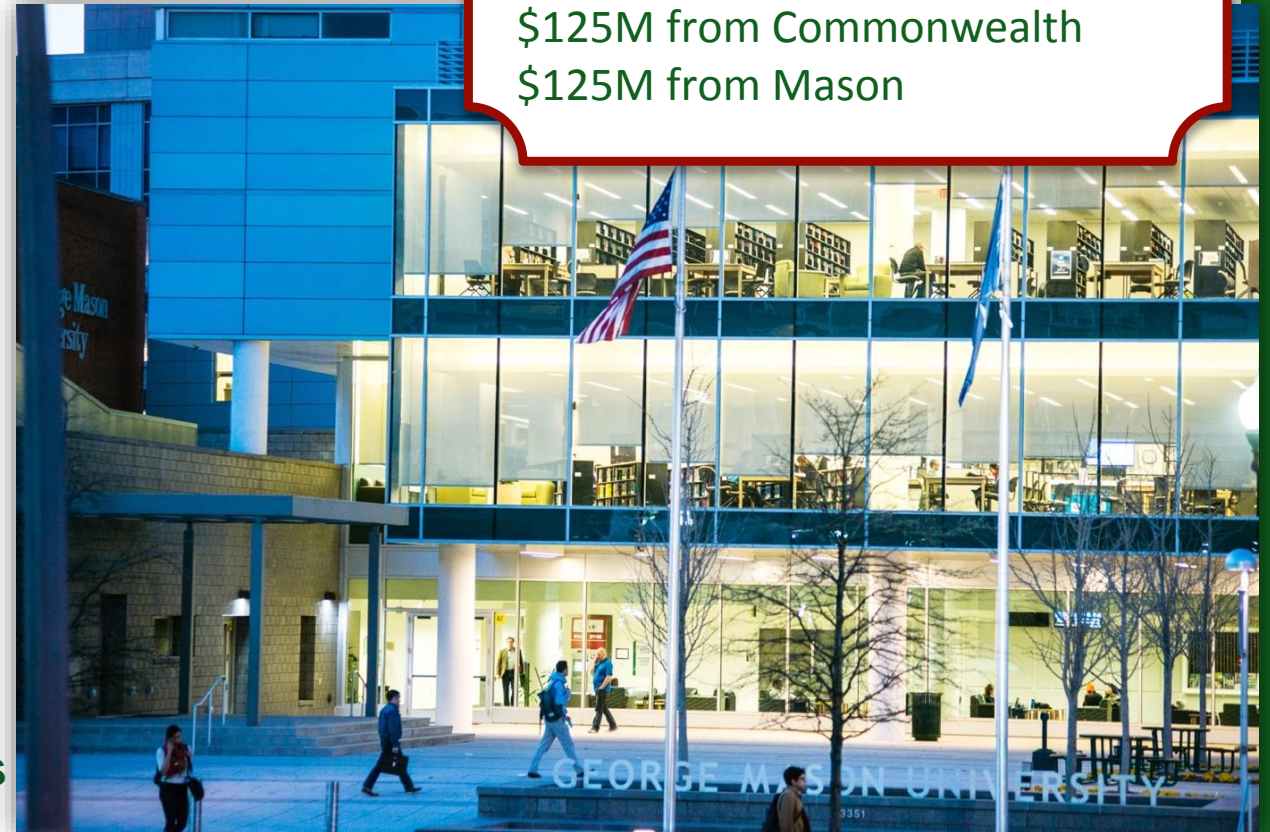
# Strategic Expansion of Arlington Campus

Launch new **Institute for Digital InnovAtion (IDIA)** and operate out of Arlington graduate campus a few miles from the new Amazon HQ

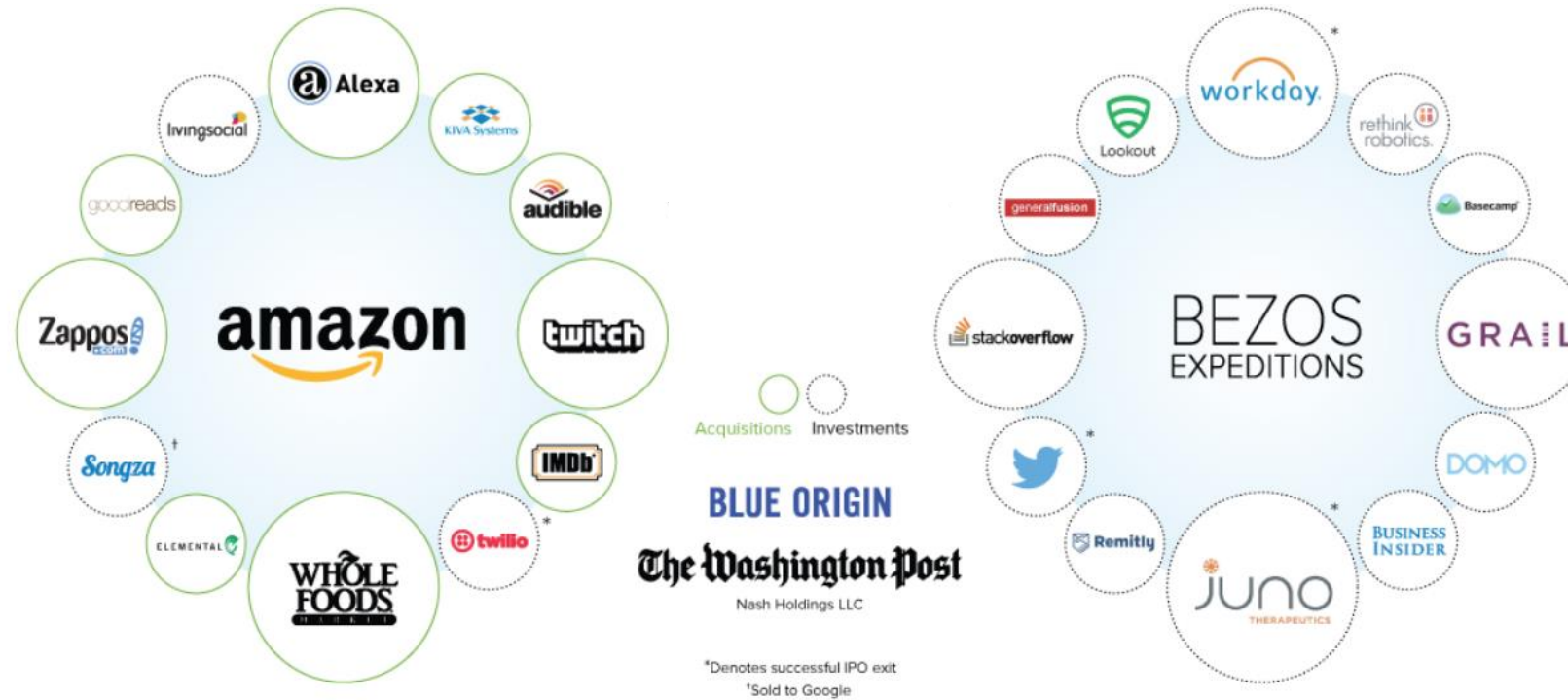
Add a 400,000+ SQF IDIA tower in Arlington to house graduate education programs for its new **School of Computing**, as well as the Schar School of Policy and Government, the School of Business and the Scalia Law School, **creating the largest (7,500+ student) graduate campus in the Greater Washington Region**

**IDIA tower to house tech business incubator/accelerator programs, tech start-ups and established businesses, venture capital firms, and Mason faculty and student researchers and innovators, turbo-charging the tech innovation economy in the Greater Washington Region**

**Amazon HQ Higher Ed Incentive Package For IDIA Tower**  
\$125M from Commonwealth  
\$125M from Mason



# Amazon - Bezos Portfolio



From Market Watch, 2018, <https://www.marketwatch.com/story/its-not-just-amazon-and-whole-foods-heres-jeff-bezos-enormous-empire-in-one-chart-2017-06-21>

# Planning for Strategic Growth

More than \$20 million annually in computing research expenditures in FY 19, with goal to reach \$50 million by 2024

Work with partners in the private sector to advance entrepreneurship and Virginia's high tech innovation economy

World class contributions in a range of fields, including Computer & Data Science, Internet of Things, Autonomous Vehicles, Cyber Security & Trust, etc.

as well as.....

Digital Economics, TECH Education and Learning, Smart Cities, Autonomous Organizations, Health IT, Computational Sustainability.....

## What is Computational Thinking?



# Partnership-Based Implementation

- Northern Virginia Community College (NOVA) - the Mason-NOVA ADVANCE partnership ensure Virginia students and their families have access to high quality, affordable education and high-paying tech career paths
- Partnerships with Marymount University, George Washington University, the University of Maryland College Park, the University of Maryland Baltimore Campus and our sibling institutions in Virginia to advance the tech innovation economy in the Greater Washington Region
- Coordination and collaboration with local and city government, community leaders, and the private sector, to enhance the quality of life for all Virginians



# *Working Together to Advance the Innovation Economy in Virginia and the Greater Washington Region*



# Towards Energy-Efficient and Secure Computing

**Houman Homayoun**

Accelerated, Secure, Energy-Efficient, Computing (ASEEC) Lab  
Center for Hardware and Embedded Systems Security and Trust (CHEST)  
George Mason University, Fairfax, VA

December 2018



# Accelerated, Secure, Energy-Efficient, Computing (ASEEC)

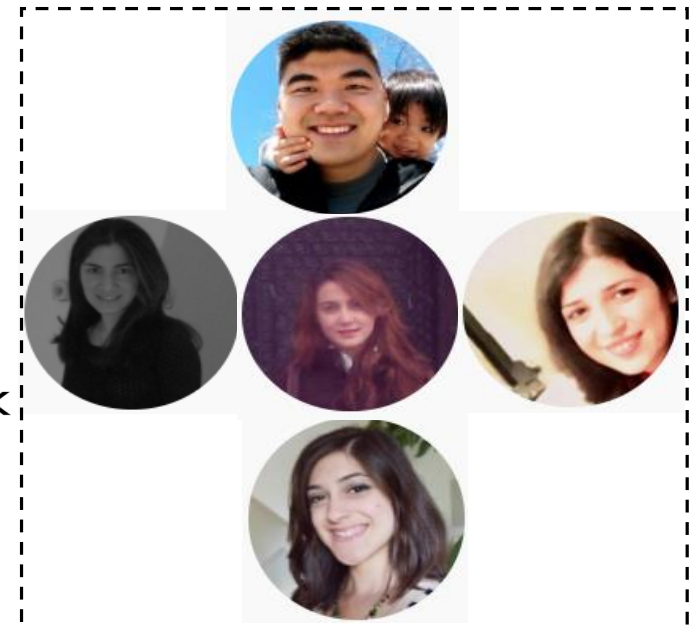
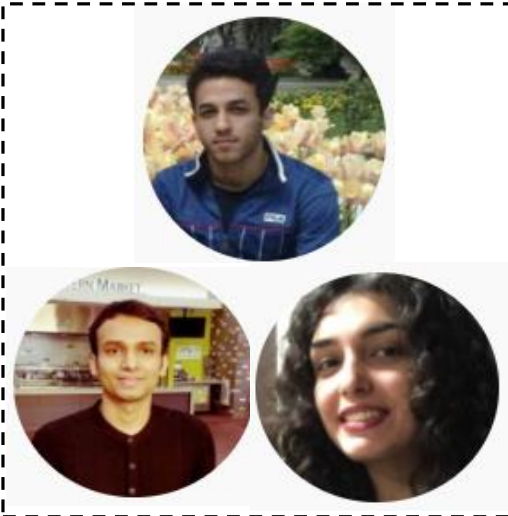
## Auto Tuning Big Data Frameworks



## HW Security – Reverse Engineering



## Adversarial Machine Learning LUT Obfuscation Fabrication



## Architecture and System Security

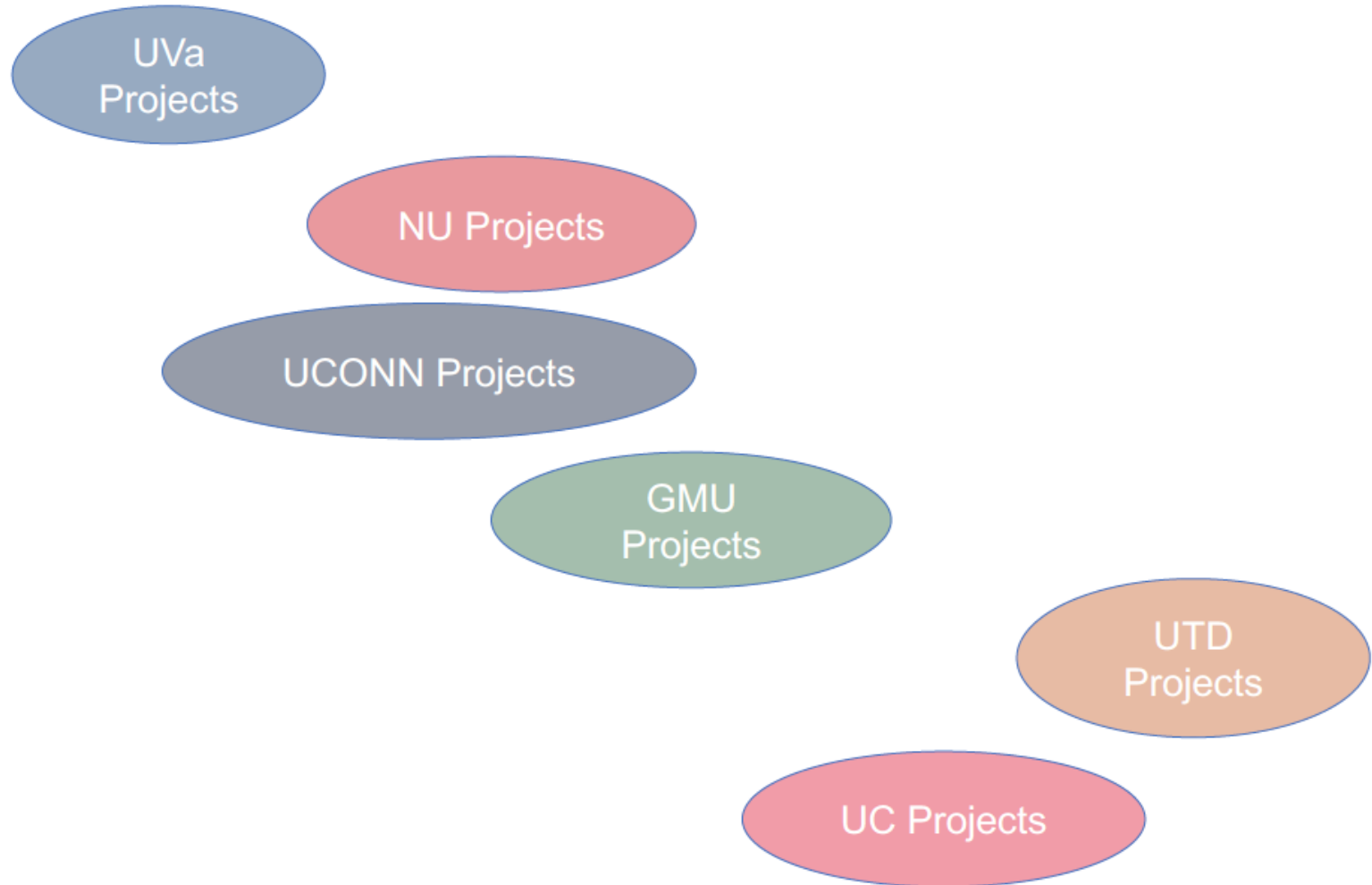


## Machine Learning Accelerator



# CHEST Research Topics

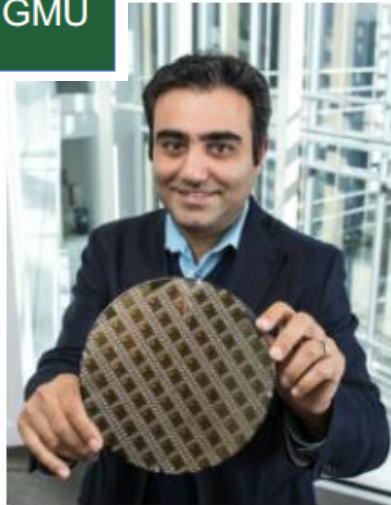
1. System/  
App
2. Arch/  
Board
3. Embedded  
Device
4. ASIC/  
FPGA
5. Circuit  
Dig / Analog / RF



# CHEST Team



Marty Emmert



Houman Homayoun



Yiorgos Makris



James Lambert



John Chandy



Yunsi Fei

# CHEST Planning Meeting (August 2018)



100+ participants

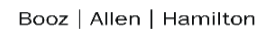
- 6 member universities
- 32 companies
- 4 government research labs
- 4 industry research labs



# CHEST Meeting Attendees



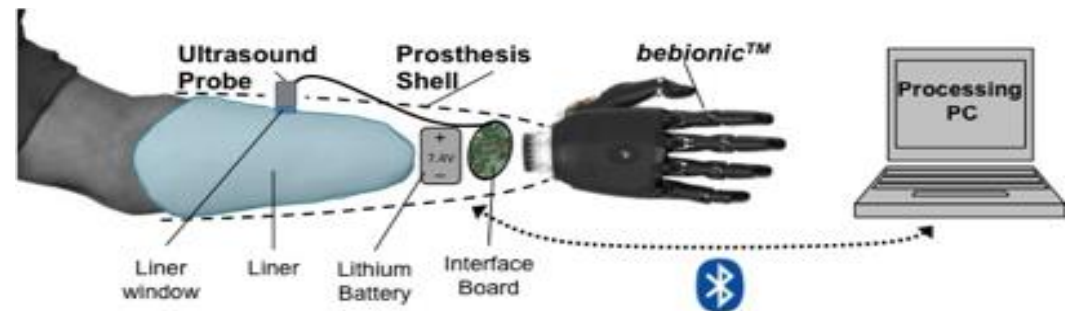
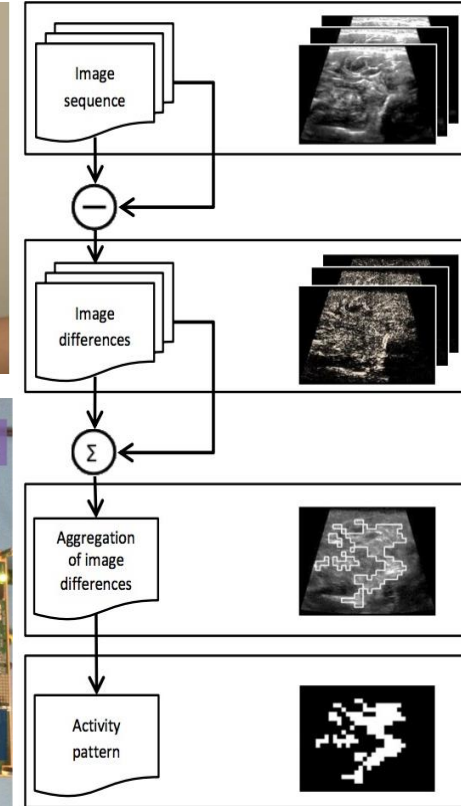
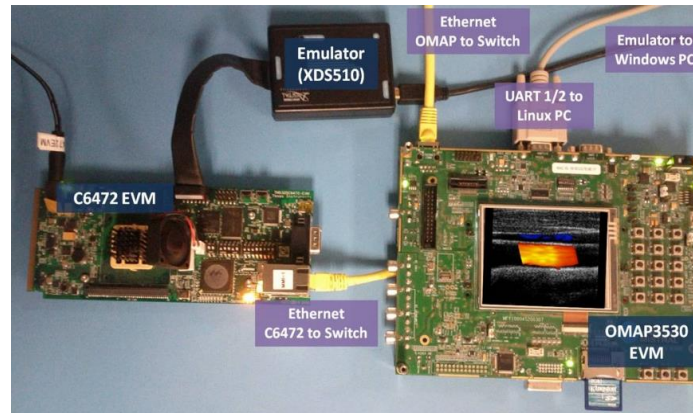
## NSF: CHEST IUCRC Planning Grant Meeting



**ASEEC Lab Research**  
**Energy-Efficient Computing**

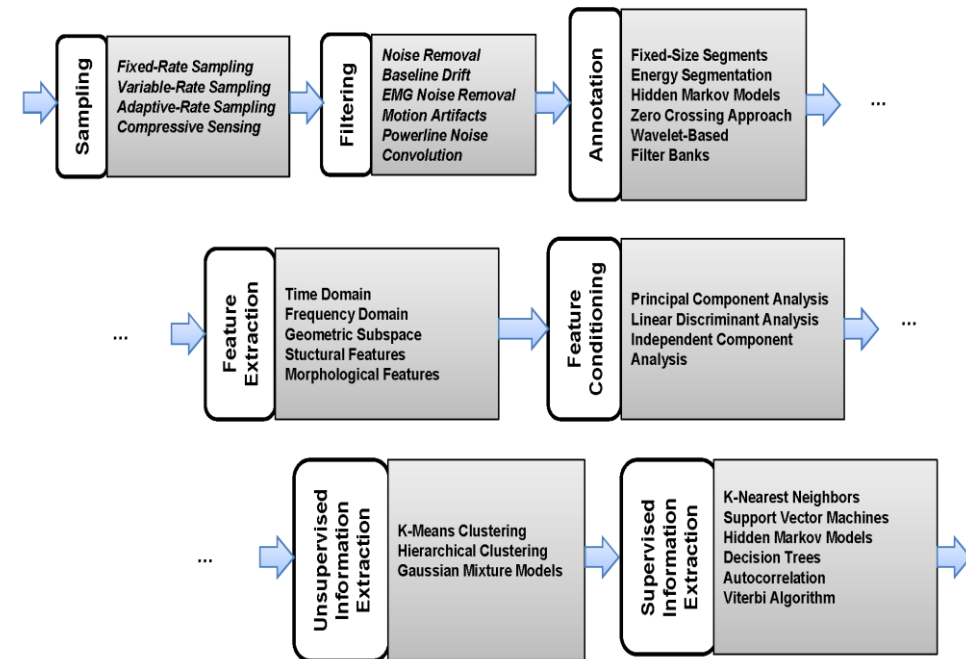
# NSF-CPS: A Novel Biomechatronic Interface Based on Wearable Dynamic Imaging Sensors

- Recognizing human functional activity & controlling prosthetic devices
  - Learn and predict different dexterous tasks based on sonographic patterns of muscle activity
  - Develop a wearable image-based biosignal sensing system by integrating multiple ultrasound imaging sensors with a low-power heterogeneous embedded processor



# NSF-CNS: Heterogeneous Accelerators for Biomedical Data Computing

- Build the foundation of the next generation of biomedical signal and imaging processing platforms
- Implement an accelerator architecture in hardware
- Power Efficient Nano Clusters (PENC)
  - multi-channel seizure detection, multi-physiological stress detection and stand-alone tongue drive system (sTDS)
  - 21 GOPs and energy efficiency of 4 GOP/J

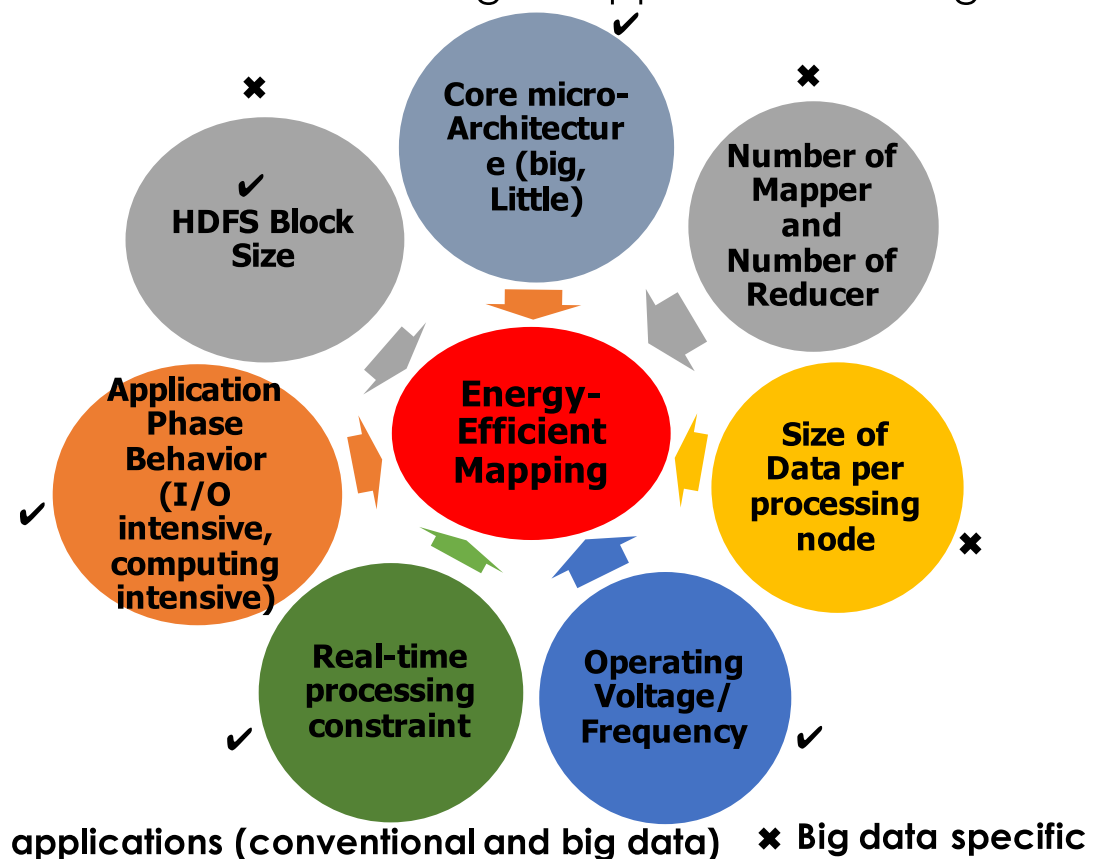


**Best Paper Award at GLSVLSI 2016**

# NSF: Auto-Pilot Computing: Auto Tuning, Mapping, and Co-scheduling Data-Intensive Applications for Energy-Efficiency

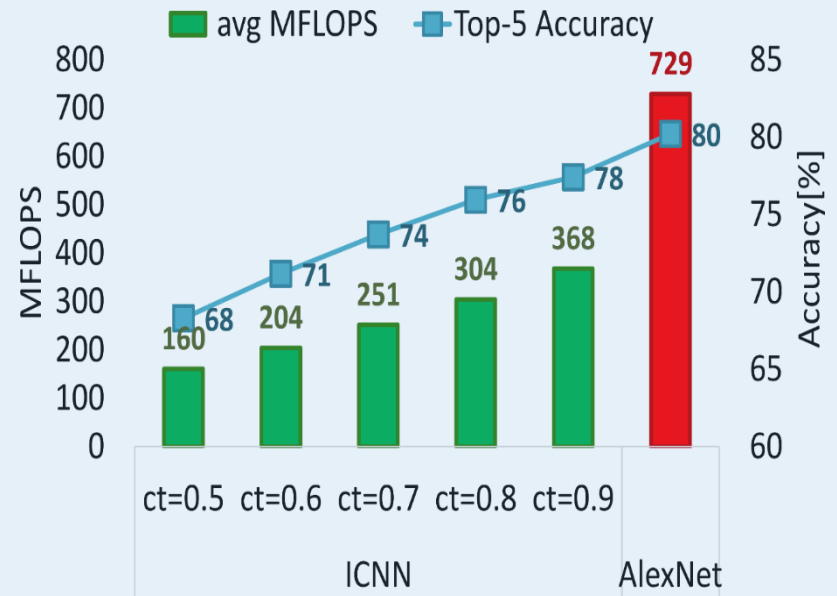
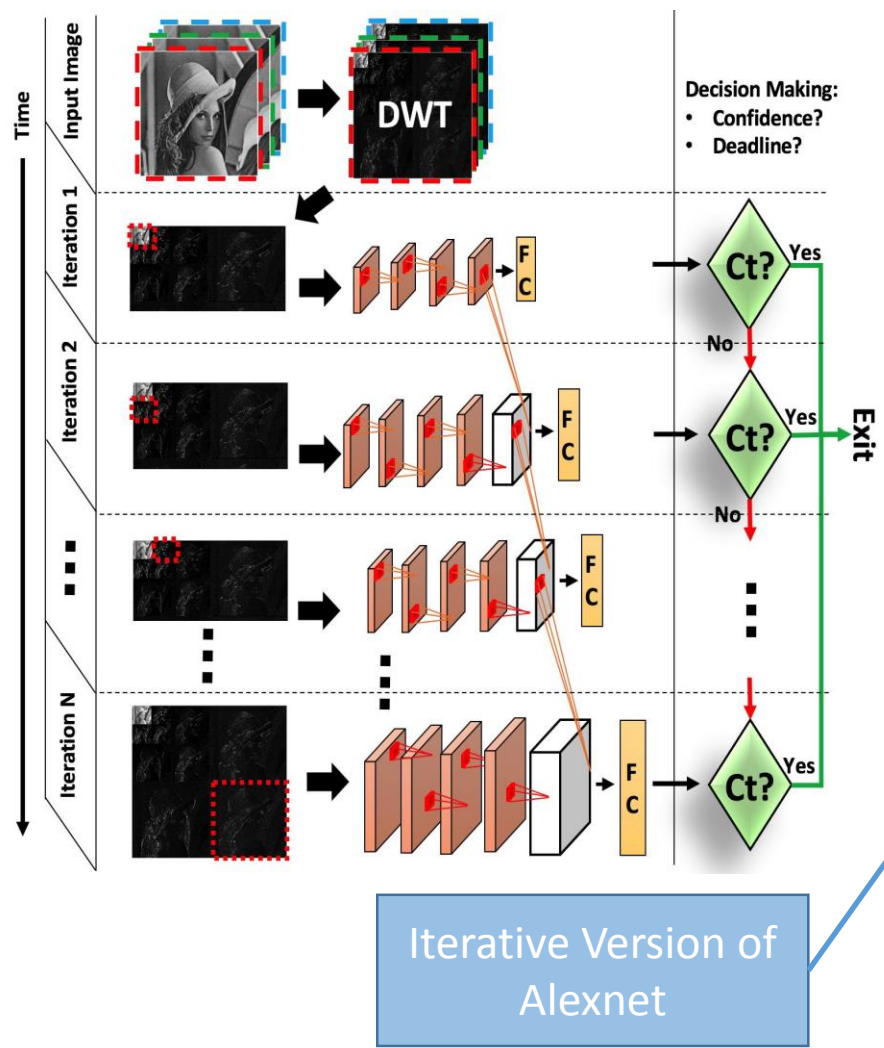
- Emerging big data frameworks such as Spark, Tez, Flink, and Petuum are complex
- Many tuning parameters at the software layer
- Interdependency with other tuning parameters at the system and architecture level

Parameters influencing ML applications Tuning





# NSF CNS: Evolution of Computer Vision for Low Power Devices, Breaking its Power Wall and Computational Complexity



Weights	u-CNN							
	AlexNet	1	2	3	4	5	6	7
CONV1	35K	8.7K	8.7K	8.7K	8.7K	8.7K	8.7K	8.7K
CONV2	307K	38K	38K	38K	38K	38K	38K	38K
CONV3	885K	55K	55K	55K	55K	55K	55K	55K
CONV4	663K	41K	41K	41K	41K	41K	41K	41K
CONV5	442K	13.8K	13.8K	13.8K	13.8K	13.8K	13.8K	13.8K
FC1	38M	1.2M	2.4M	3.5M	4.7M	11.8M	14.1M	32M
FC2	17M	1M	1M	1M	1M	4M	4M	17M
FC3	4M	1M	1M	1M	1M	2M	2M	4M
<b>Total</b>	<b>61M</b>	<b>3.4M</b>	<b>4.6M</b>	<b>5.8M</b>	<b>6.9M</b>	<b>19M</b>	<b>20M</b>	<b>54M</b>

DATE'18, FCCM'18 and '15, IEEE Big Data'15

**ASEEC Lab Research**  
**Computer System Security**

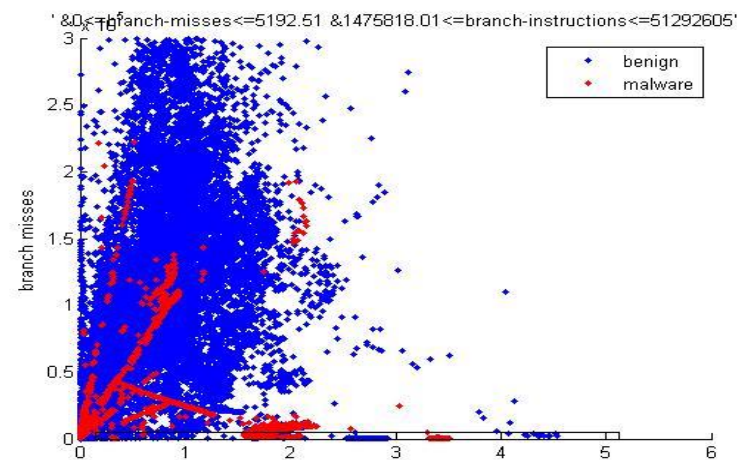
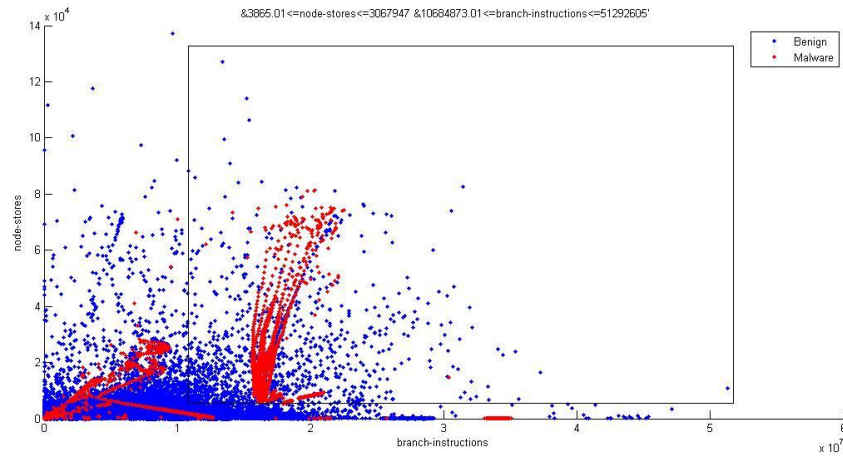
# GM: Enhancing the Security in Embedded Automotive Systems

- MirrorLink App Reverse Engineering
  - Decompiling DriveLink app to .Smali code and xml files (apktool)
  - Modification of DriveLink App, Head Unit accepts modification



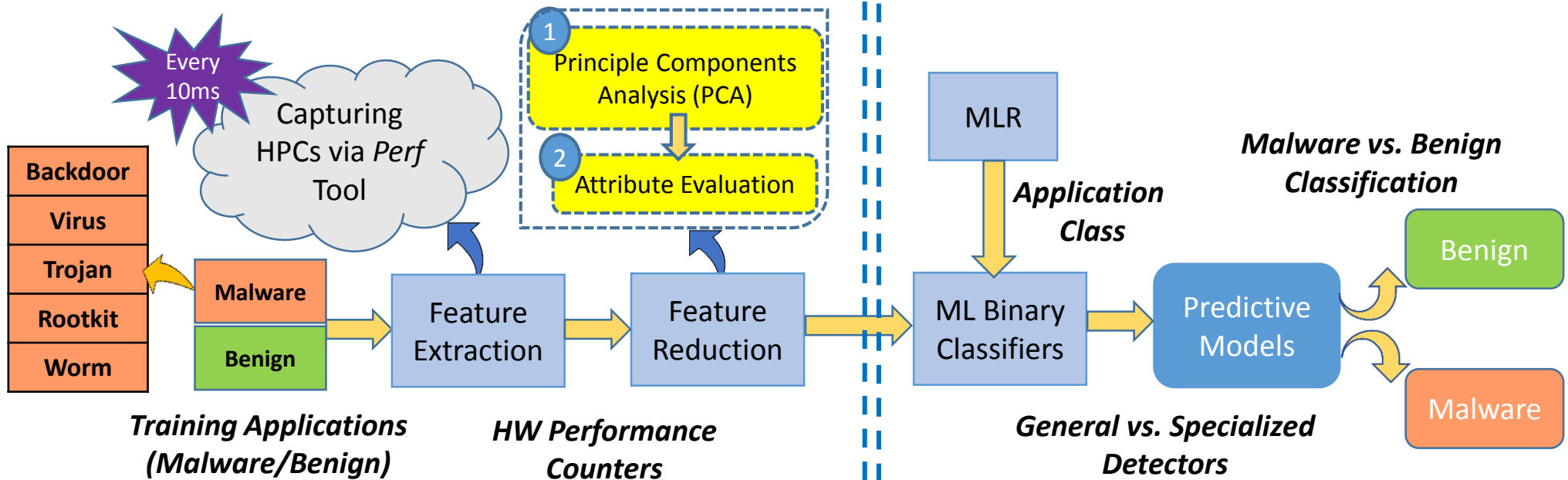
# DARPA SSITH: Detecting Malware Using HPC and Machine Learning

- Go back to the HW: Inspect the traces applications leaves on the HW



## Data Collection Process

## Malware Detection Process

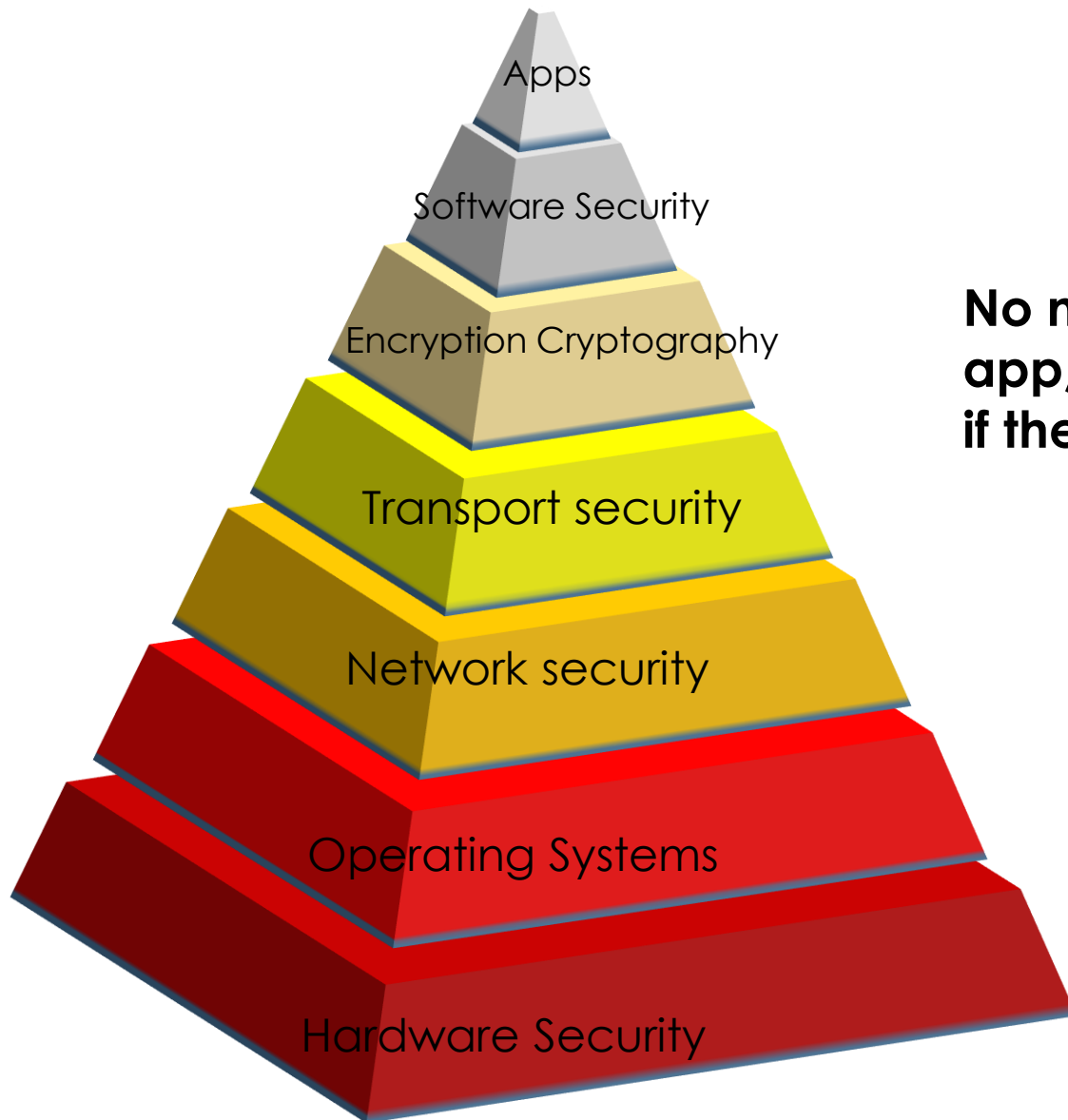


**ASEEC Lab Research**

**Hardware Security**

# Why Hardware Security?

- Security is built as multilayer foundation encompassing a protected asset
- Hardware is at the foundation

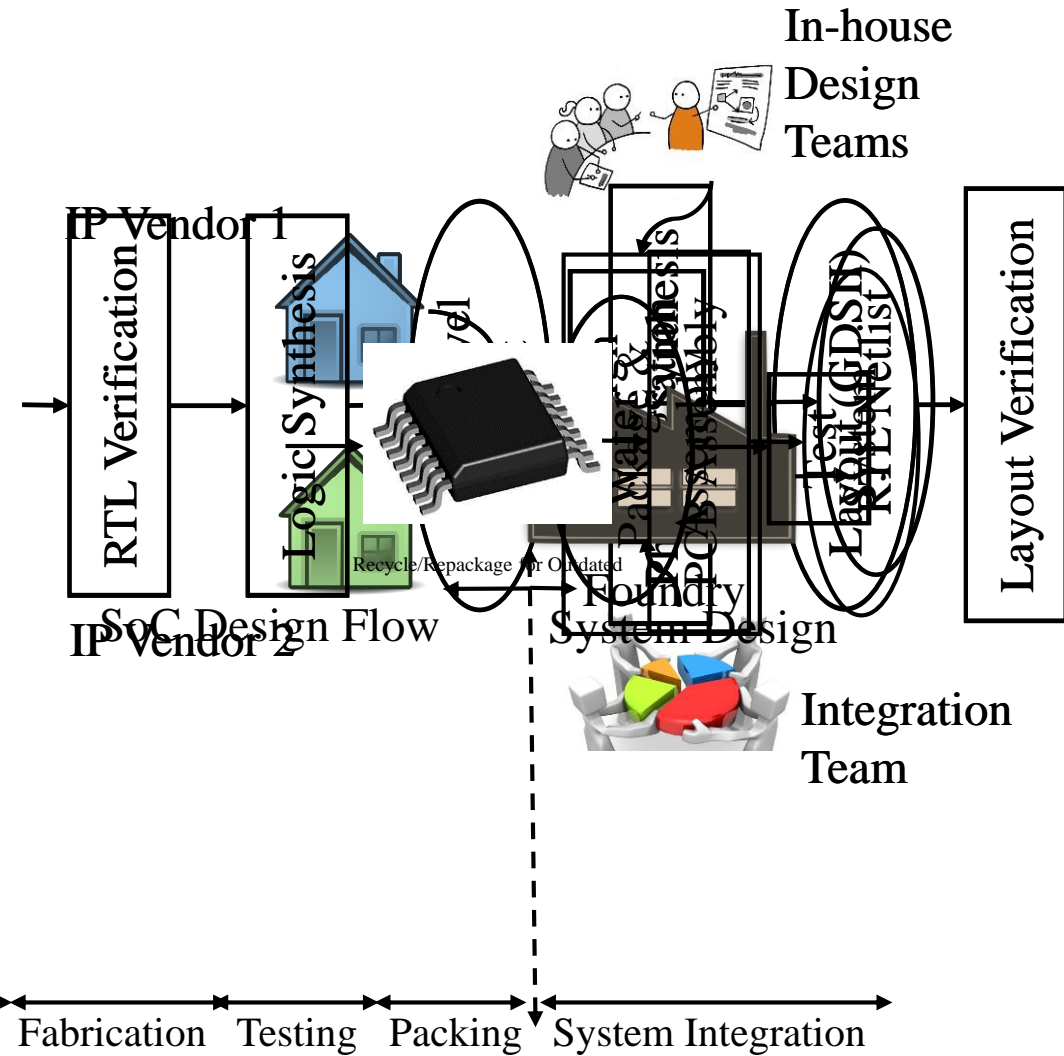


**No matter how secure your system is at app, software, network and other layers, if there is no secure hardware**



# Hardware Security – IC Design Flow

- ▶ IC (SoC) Design Flow
  - ▶ Design
  - ▶ Synthesis & Verification
  - ▶ Fabrication
  - ▶ Testing
  - ▶ Packing
  - ▶ System Integration



# Hardware Security – Why Today?

- ▶ ICs become more complex compared to decades ago
  - ▶ In the past, IC design and fabrication typically handled by the same entity, not anymore!
- ▶ Fab cost 5~10+billions, third party fab facilities
- ▶ High Cost of Manufacturing in ASIC<sup>1,2</sup>
  - ▶ Making Major U.S. High-Tech Companies Fabless!
    - ▶ AMD, Broadcom (Avago), Marvell, Nvidia, Qualcomm, ...

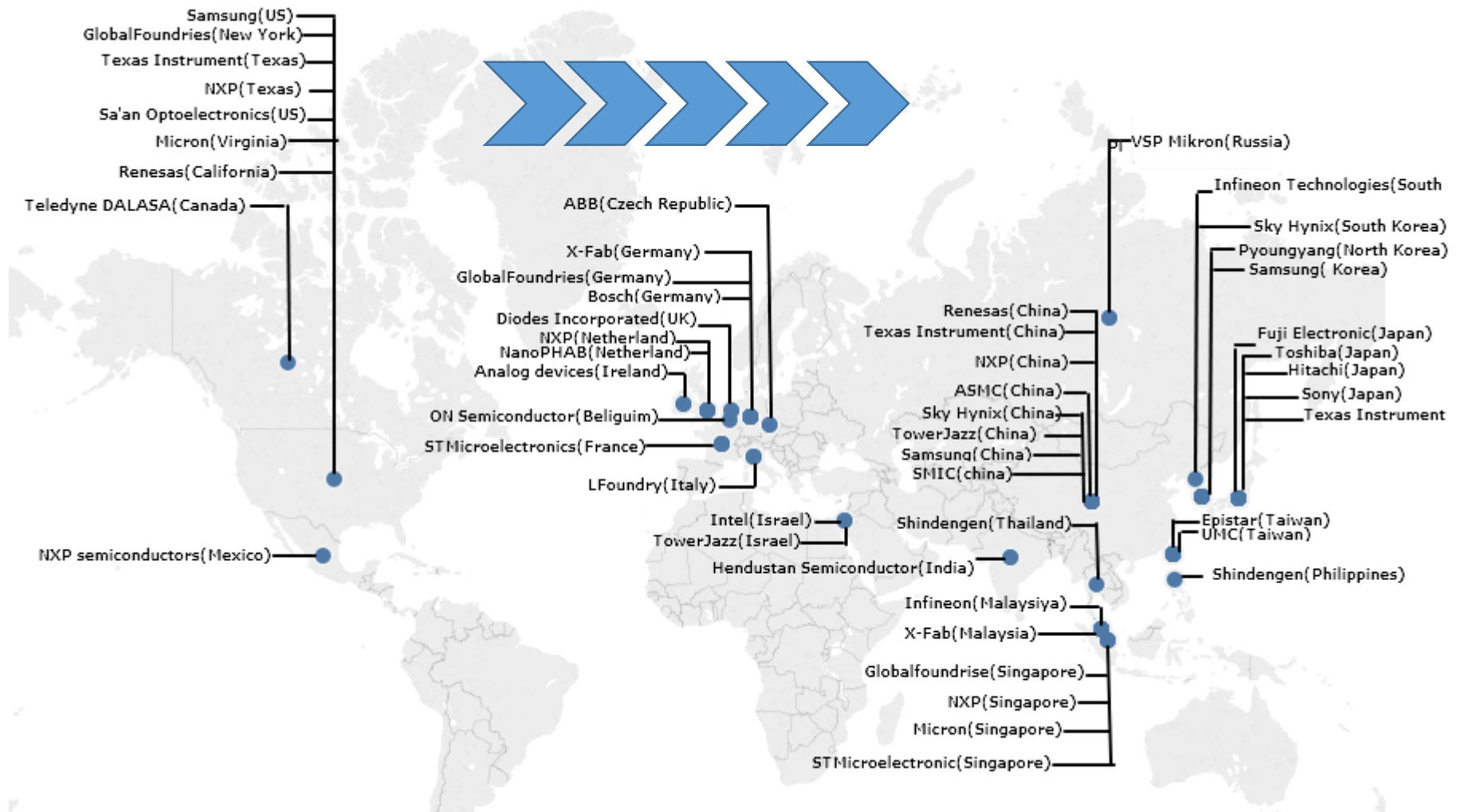
**Using untrusted facilities technology including  
fab, third party designs, test and etc**

[1] DIGITIMES, “Trends in the global ic design service market,” online <http://www.digitimes.com/news/a20120313RS400.html?chid=2>

[2] U. Guin, D. Forte, and M. Tehranipoor, “Anti-counterfeit techniques: From design to resign,” in *2013 14th International Workshop on Microprocessor Test and Verification*, Dec 2013, pp. 89–94.



# Global Foundry Map



# Intel and Apple Fab-Assembly-Test map

## Apple

Created on June 2, 2013 by bradyhicks36 on free.sourcemap.com: The electronics company Apple' supply chain will be broken down, specifically focusing on their iPhone production.



From the SourceMap Archive created 5 years ago



powered by sourcemap

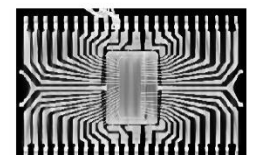
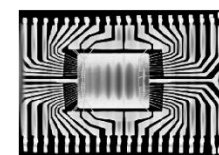
Search



© Mapbox © OpenStreetMap

# Hardware Security Threats

- ▶ **Huge Shift in Design Paradigm - Globalization Came to Rescue**
- ▶ Using Untrusted Off-shore Fabrication
- ▶ Introducing Security Threats into the Supply Chain
  - ▶ Trojan Insertion
  - ▶ Overproduction & Intellectual Property (IP) Theft
  - ▶ Reverse Engineering (RE)
  - ▶ Counterfeiting

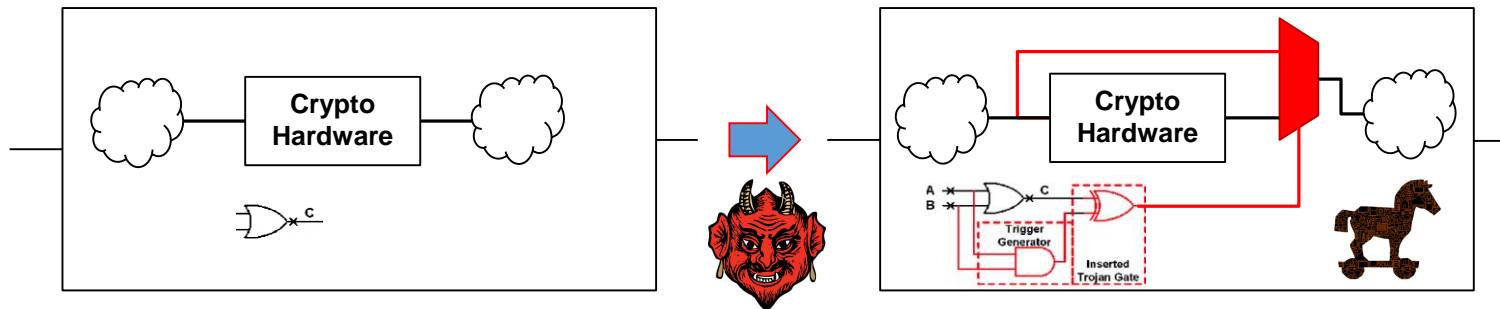


Is this real!?

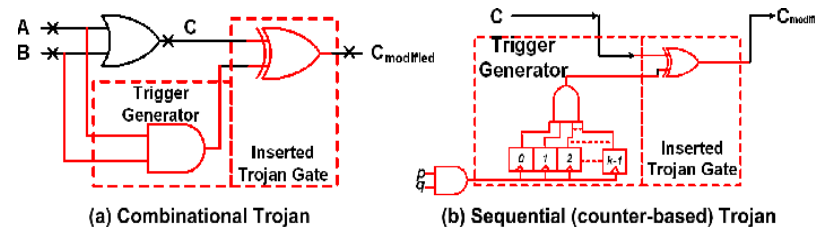
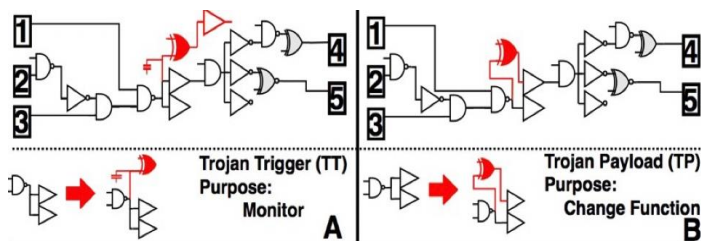


# DARPA OMG: HW Trojan Detection

- **Definition:** a malicious addition to modify or observe a circuit's functionality.



- **Trojan Trigger:** a set of combinational signals, or a sequence of events that activated the Trojan
  - By relying on rare events, the Trojan could skip detection at functional test time.

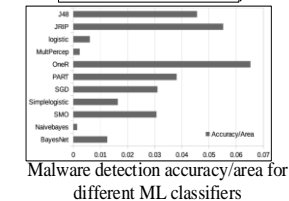
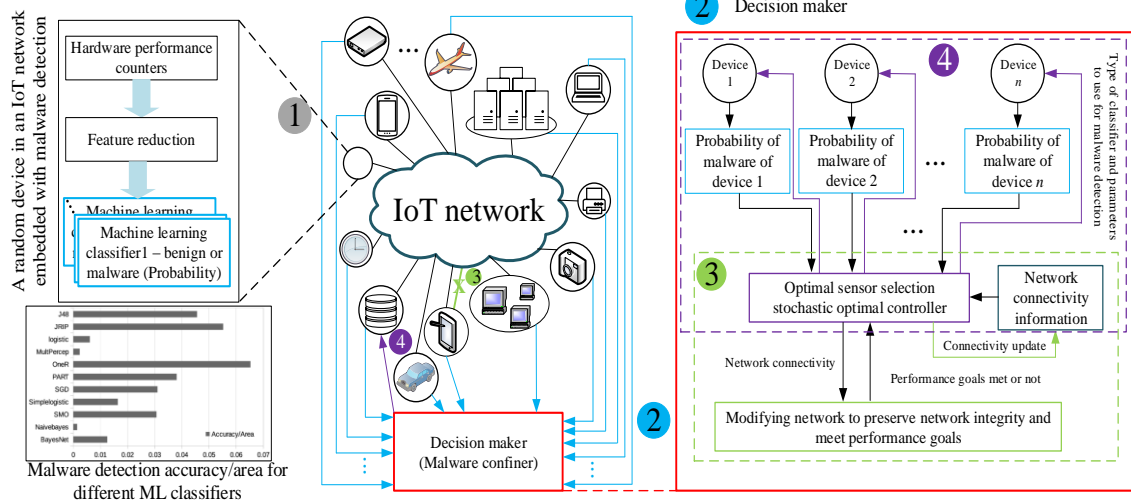
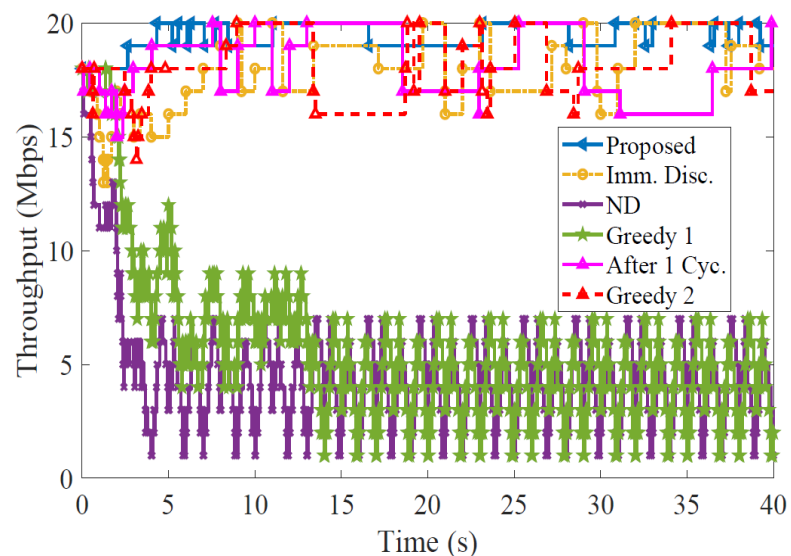


## Detection Methods:

- Functional Testing
- Side Channel Testing (Delay, Dynamic Power, Leakage Power)
- Our solution: Using Convolutional Neural Networks

# DARPA SSITH: IoT Malware Propagation and Confinement

- An infected node in IoT can infect whole network
- In addition to detection, confinement is non-trivial
- Isolating infected node is not effective and can hobble performance
- **Challenges:** a) None of the epidemic control works consider performance constraint; b) No malware detection works consider confinement and has no perfect yield
- **Solution:** Depending on the malware propagation estimate and node-level infection information are combined and formulated as a stochastic optimal control problem and solved



Technique	Proposed	Imm. disc	After 1 cycle	No disc	Greedy 1	Greedy 2
Throughput (Mbps)	596.05	460.96	418.9	182.14	310.63	243.22
# of infected nodes (avg)	1.27	2.48	3.32	-	14.79	2.71

- Proposed technique keeps performance under bounds when confining malware
- Throughput as well as infected nodes are reduced

# DARPA SHEILD: Logic Obfuscation to Prevent Reverse Engineering

## Defenses!

### EPIC, 2009

- Adding Random-based XOR/XNORs gates

### FPGA Barriers, 2010

- Hiding inside FPGA (SRAM) LUTs

### Strong Locking (SLL), 2012

- Using Interference Graphs + less observable/Controllable

### STT-based LUTs, 2016

- Using Non-Volatile STT-based LUTs
- No Overhead

### SARLock, 2016

- using Flip-based Structure
- At-most one Wrong Key for each DIP

### Anti-SAT, 2016

- Adding Custom Logics to Flip Outputs
- At-most one Wrong Key for each DIP

### And-Tree Insertion, 2016

- Adding And-Trees for Flipping the Outputs!
- At-most one Wrong Key for each DIP

### Cyclic Obfuscation, 2016

- Adding Loops in the Circuit

### Camoperturb, TTL, 2017

- Adding Custom Logics to Flip Outputs
- At-most one Wrong Key for each DIP

### HARDCycle Obfuscation, 2018

- Adding Hard Cycles + Non-removable Cycles
- No Vulnerable against Attacks!

### STT-based LUT Specified

### Placement Obfuscation, 2018

- Using Placement Methodologies for defending against Different Attacks
- No Vulnerable against Attacks!

## Attacks!

### Attacks to Outsourced Fabricated ICs

- Before 2008
- IP Piracy
- Overproduction
- Counterfeiting
- Reverse Engineering

### Sens/Justif, 2012

- Using Sensitization + Justification

### SAT, 2015

- SAT-based De-obfuscation
- SAT-based De-camouflaging

### SPS, 2016

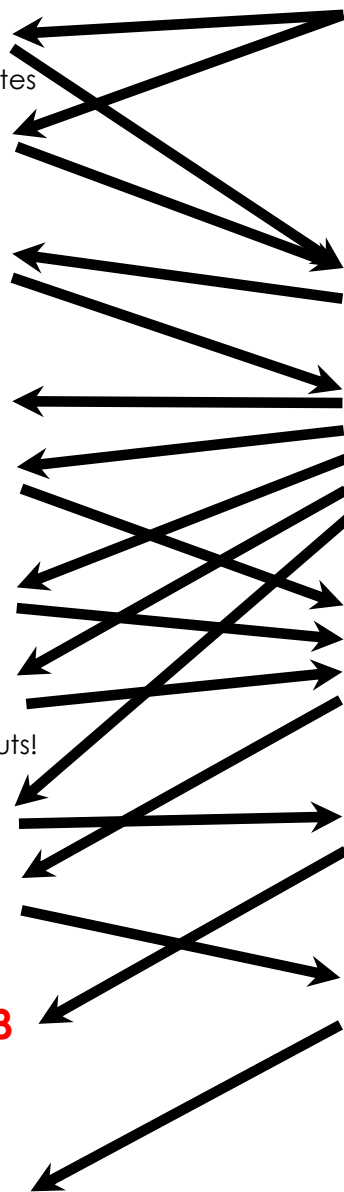
- Using Signal Probability Skew (SPS)
- Can detect Flip-based Circuit + remove it
- Obtain Original Circuit

### CycSAT, 2016

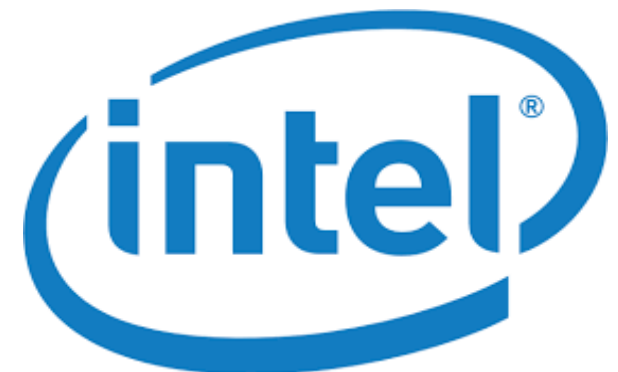
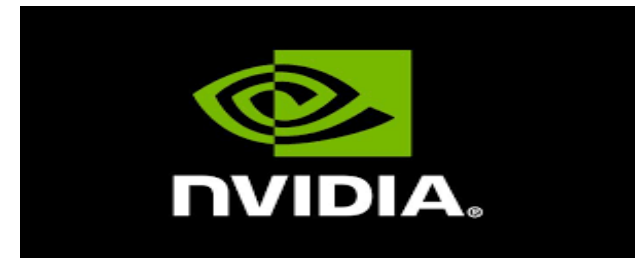
- Modifying SAT for Detecting Loops
  - Delete or Ignore the Loops

### Approximate-based Attacks, 2016-2017

- Appsat, Double-DIP, Approximate Investigation
  - Finding the application of Keys
    - SAT keys or Traditional keys
  - Find Traditional Keys! then SPS or Bypass!



# Sponsors





**GEORGE MASON UNIVERSITY  
BOARD OF VISITORS**

**Finance and Land Use Committee Meeting  
December 12, 2018**

**AGENDA**

- I.** Call to Order
- II.** Approval of Minutes for October 10, 2018 (**ACTION**)
- III.** Strategic Matters
  - A. FY 2020 Financial Outlook
  - B. Room and Board Rates Preview
- IV.** Operational Issues
  - A. Schematic Design Review for IABR Clean Room (**ACTION**)
  - B. Core Campus Project Update
- V.** Police and Public Safety Update
- VI.** Adjournment

APPENDIX                      Capital Projects Review (Stoplight)

GEORGE MASON UNIVERSITY  
FINANCE & LAND USE COMMITTEE  
BOARD OF VISITORS

**MINUTES**

October 10, 2018

11:25 a.m. – 12:20 p.m.

Merten Hall, Room 1201, Fairfax Campus

**PRESENT:** Rector Davis; Chairman Petersen; Vice Chairman Blackman; Visitors Alcalde, Cumbie, Hazel, Moreno, Reagan, Rice, Turner Roth; President Cabrera; Senior Vice President Davis; Vice President for Facilities Strike; Faculty Senate Chair Renshaw; Faculty Representatives Gallay and Thompson; Student Representatives Keatinge and Pettine; Secretary *pro tem* Lagos.

**I. Call to Order**

Chairman Petersen convened the meeting at 11:25 a.m.

**II. Approval of Minutes**

Chairman Petersen requested a **MOTION** to approve the minutes of the May 3, 2018 Finance and Land Use Committee as presented. It was so **MOVED** by Visitor Hazel. **MOTION CARRIED UNANIMOUSLY** with the exception of Visitor Moreno who **ABSTAINED** noting that she was not a member of the Board in May 2018.

**III. New Business**

**A. Financial Overview**

Chairman Petersen turned the meeting over to Jennifer (J.J.) Wagner Davis, Senior Vice President for Administration and Finance, who provided an update on FY 2019 budget. Overall operating appropriations are ~\$136M, which is positive relative to last fiscal year. Senior Vice President Davis reported Mason has a diverse set of revenues, with tuition and fees being the primary component. We officially received approval for Robinson and the Utility Infrastructure Project plus funding for Bull Run IIIB at SciTech Campus. Philanthropic activities are up to ~\$65M annually and Sponsored Research continues an upward trend.

Senior Vice President Davis gave an update on Compensation and Benefits, which continue to be a critical issue for Mason's faculty and staff. We recently announced an all-employee bonus of \$1,500 for full-time employees. In addition, we are working on a base pay increase in June 2019. The Gallop Strengths Finder will be continued, and we are launching Burn Along, a new fitness app promoting well-being. Mason is now a lead institution of HERC and will have a half-time administrator devoted solely to looking at recruitment of diverse and inclusive talent.

Senior Vice President Davis then provided a campus update noting that "The Core Campus Project" is fully underway on the Fairfax campus. The project will be

ongoing for the next four and a half years and will result in a transformative state-of-the-art facility by 2021. The student apartments, which housed 309 students, were recently demolished. Visitor Hazel inquired about the land-use plans for that space. Senior Vice President Davis reported it will be the landing ground for the Core Campus Project and temporarily used by the construction engineers. Fairfax County is pursuing a housing/retail development across Ox Road adjacent to the Field House. Senior Vice President Davis shared that Mason received additional funds for Bull Run IIIB, but less than planned, thus will require some planning and value engineering.

Chairman Petersen introduced Vice President Lisa Kemp who briefed the committee on the results of the FY 2018 Unaudited Financial Statements. New rules require recording net postemployment benefits other than pension's liability (OPEB) which resulted in a prior year net position restated downward \$122.5 million; Net OPEB liability at June 30, 2018 is \$119 million. Highlights include: total operating revenues increased by \$55.1 million; total operating expenses increased by \$55.4 million; and net position for FY18 operations increased by \$93.9 million.

Vice President Kemp highlighted key financial ratios and reported that from an operating perspective Mason is doing substantially better from five years ago, resulting in a Moody's ratings increase to "A1." Referencing Slide 11, the Debt Service Coverage (Operating Surplus/Debt Service) ratio is good. The Debt Service to Operations ratio shows Debt Service is high relative to our operating expenses.

Our annual Debt Service Burden Ratio was 7.0% in FY 2018. The A1 rating debt service burden median is 4.8% and an Aa3 rating is 4.3%. At our current rate of payment, and with issuing no additional debt, Mason would reach our target range in FY 2029.

In July of 2016 we entered into a 5-yr pilot authority in conjunction with JMU, which provided us more autonomy in the areas of financial management operations as well as capital outlay and real property. Achieving an AA rating would help get us to Tier III – the highest level of autonomy. Chairman Petersen inquired about other institutions currently at Tier III. Vice President Kemp responded VCU, Virginia Tech, UVA and W&M. She also opined that as we have exercised sound fiduciary responsibility and our numbers are trending in the right direction, receiving legislative authority via Pilot participation in areas of Finance and Capital Outlay is very much within reach.

#### **B. 9d Debt Resolution – Utility Infrastructure Project (ACTION)**

Chairman Petersen requested a **MOTION** to recommend the Board of Visitors approve the financing resolution on the Utility Infrastructure Project. The University is hereby authorized to enter into the Loan Agreements and Promissory Notes with the Virginia College Building Authority (VCBA) for the aggregate principal amount of \$24.1M and the financing costs which shall in no event exceed \$25M for the Utilities Distribution Infrastructure capital project; and, to authorize the Senior Vice President to approve, execute and deliver all documents necessary to achieve this

Bond Financing. It was so **MOVED** by Visitor Cumbie. **MOTION CARRIED UNANIMOUSLY.**

**C. State Six Year Operational Plan (ACTION)**

The Commonwealth requires a BOV-approved comprehensive six-year operational plan be submitted annually. Mason's priorities align with the goals of the Virginia Plan. This year we are requesting: Undergraduate and Graduate financial assistance (an additional \$6.5m of general funds); salary compensation increases (\$18m of general funds); Increase for enrollment growth and degree awards for Virginia undergraduate and graduate residents (an additional \$17m of general funds); and, funding for Multidisciplinary Institutes (asked for an additional \$2.75m of general funds).

Chairman Petersen requested a **MOTION** to recommend the Board of Visitors approve the University's 2018 Six-year Operating Plan. It was so **MOVED** by Visitor Blackman. **MOTION CARRIED UNANIMOUSLY.**

**D. DHRM Succession Planning**

Chairman Petersen introduced Acting Vice President of Human Resources and Payroll, Shernita Rochelle Parker, who briefed the committee on specific workforce metrics as they pertain to the DHRM Succession Plan. In response to DHRM's requirement - identify essential employees that are key to the function of the university and have a strategy in place for the succession of these positions - we have identified 34 essential employees (making up VPs, Deans and other senior leadership positions) and, of those 34 essential employees 62% are over 55 years of age. Mason will continue to identify areas of risk and develop plans of action.

Chairman Petersen requested a **MOTION** to recommend the Board of Visitors approve the University's Succession Plan as outlined in the Board Book. It was so **MOVED** by Visitor Rice. **MOTION CARRIED UNANIMOUSLY.**

**IV. Operational Issues**

**A. Accounts Receivable Write-Off**

Senior Vice President Davis reported Student Account billings increased 8% this year due to more students and a higher tuition rate. The collection rate remains at a very high at 99.7%. After write-off, we continue to pursue payment, and achieve approximately 39% recovery.

**B. Parental Leave Policy**

Senior Vice President Davis thanked Faculty Senate Representative Renshaw and the team of faculty and HR that worked on the New Parental Leave Policy for 12-Month Faculty. It has been very well received. It is a more robust parental leave policy for the birth or adoption of children.

**C. Investment Planning Committee Update**

The annual report to the Board showed \$473.9 million under asset management in our optional retirement plans from TIAA and Fidelity. We do have options for

hardships and loans against those assets. There are 289 active loans. Fidelity merged several of their money market funds and reduced their expenses on index funds.

**D. Investment Policy Resolution (ACTION)**

Next item covered by Senior Vice President Davis was the University Investment Policy 2116. The policy applies to the investment and management of all University's funds not held by the State Treasury, which includes both Non-State Funds and Donated Funds. The most important highlight: Donated Funds are transferred to the George Mason University Foundation, Inc. to manage and invest on the University's behalf as the University's agent. As a new requirement and in compliance with the APA audit, the Senior Vice President of Administration and Finance will periodically monitor investment results for both Non-State Funds and Donated Funds.

Chairman Petersen requested a **MOTION** to recommend the Board of Visitors approve the 2019 Investment Policy as found in the Board Book. It was so **MOVED** by Visitor Cumbie. **MOTION CARRIED UNANIMOUSLY.**

**V. Capital Matters**

**A. Land Use Certification (ACTION)**

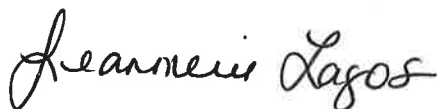
Senior Vice President Davis reported on one capital matter: Land Use Certification 2018. Each year we annually certify to the state that we want to continue to have all of the land holdings within our purview, either developed or undeveloped.

Chairman Petersen requested a **MOTION** to recommend the Board of Visitors approve the University's Land Use Certification as found in the Board Book. It was so **MOVED** by Visitor Moreno. **MOTION CARRIED UNANIMOUSLY.**

Senior Vice President Davis announced that it was her last Board meeting and closed by thanking everyone. Chairman Petersen thanked her, and Vice President Kemp, for their outstanding dedication and countless contributions to George Mason University.

**VI. Adjournment**

There being no further business, Chairman Petersen declared the meeting adjourned. Meeting adjourned at 12:22 p.m.



Jeanmerie Lagos  
Secretary *pro tem*

**ITEM NUMBER III.A.:**

**FY 2020 FINANCIAL OUTLOOK**

**PURPOSE OF ITEM:**

To brief the Board of Visitors on updates to the FY 2019 operating budget as well as to update the Board of Visitors on key budget assumptions that will be included in the development of the FY 2020 financial plan.

**APPROPRIATE COMMITTEE:**

FINANCE AND LAND USE

**BRIEF NARRATIVE:**

The Interim Senior Vice President for Administration and Finance will provide an update on the FY 2019 operating and capital budget. Primarily those updates will be a review of the Commonwealth General Funds and Capital support.

In addition, the presentation will include key budget development assumptions that will be shared and discussed with the Board of Visitors. These key assumptions will be included in the development of the FY 2020 financial plan.

Further, there will be a discussion regarding upcoming financial matters that will come before the Board of Visitors for consideration and deliberation in the February 2019 – May 2019 timeframe.

**STAFF RECOMMENDATION:**

For Board information only.

**ITEM NUMBER III.B.:**

**ROOM AND BOARD RATES PREVIEW**

**PURPOSE OF ITEM:**

To brief the Board of Visitors on the process and proposed changes to room and board rates for FY 2020.

**APPROPRIATE COMMITTEE:**

FINANCE AND LAND USE

**BRIEF NARRATIVE:**

The Board of Visitors will be provided an overview of the process of setting room and board rates for fall 2019 and spring 2020. Final proposed room and board rates will be provided in their entirety to the Board for discussion and approval at the next meeting on February 27, 2019.

Students are provided proposed rates prior to Board approval so that they may determine their level of interest in living on-campus, and the type of room and meal plan they would like to select. Room and board rates are user specific and not mandatory for all students.

The room and board rates reported to SCHEV are for a freshman Traditional Double room with Independence meal plan. Combined, these will be between 2.0%-3.0% increase over the FY 2019 rates. The full range of proposed rates will be provided at the February meeting.

**STAFF RECOMMENDATION:**

For Board information only.

**ITEM NUMBER: IV.A.:**

**SCHEMATIC DESIGN REVIEW (ACTION)**

**PURPOSE OF ITEM:**

This item requests BOV approval of the Schematic Designs for one capital project.

**APPROPRIATE COMMITTEE:**

FINANCE AND LAND USE

Under delegated capital authority procedures adopted by the BOV, staff shall present all capital projects to the Board at conclusion of the Schematic Design phase. At this stage, the Board will assure themselves that each project remains on track to deliver the project previously authorized.

Under the procedures adopted by the board, staff is to present a detailed review of each project to two members of the Finance and Land Use Committee. Staff will then make a shortened, summary presentation at the next scheduled full board meeting.

The capital project that has progressed through the Schematic Design phase. Project data sheet follows.

**IABR Third Floor Fit-Out (Life Sciences Lab Building) Clean Room**

Prior to the December BOV meeting, staff will have presented project as outlined above. At the December meeting, staff will summarize the renovation project.

**STAFF RECOMMENDATION:**

After reviewing the respective schematic design, staff recommends Board approval of the above listed project to proceed through design and into construction.





**Title:** IABR Third Floor Fit-Out (Life Sciences Lab Building) Clean Room

**Brief Description:** Mason is currently in the process of fitting out the 3<sup>rd</sup> floor of the Institute for Advanced Biomedical Research on the Science & Technology campus.

Approximately 15,000 SF of space was completed in May 2018 providing BSL-2 wet labs, shared lab support spaces, offices, and collaboration areas to support life sciences research. This area supports the work of the Institute and its partners provides functionalities such as light organic/synthetic chemistry. The newly completed area also provides additional space to support the co-location of bio-based bioengineering with CAPMM and other life sciences research.

In October of 2017 the Board of Visitors approved a major modification to the project that added a 3<sup>rd</sup> floor clean room solution to meet programmatic needs for a Nanofabrication Clean Room capable of supporting the fabrication of micron and sub-micron microelectronic, photonic, micromechanical and microfluidic devices and systems. The 2,785 SF Clean Room Solution includes the following programmatic areas:

- 960 SF Class 1,000 (ISO 6 Equivalent) Non-sterile clean room with four (4) fume hoods
- 95 SF Class 100,000 (ISO 8 Equivalent) vestibule with gowning/lockers
- 587 SF characterization lab
- 507 SF of support spaces

The clean room location on the 3<sup>rd</sup> floor of the Institute for Advanced Biomedical Research and within the footprint of the 3<sup>rd</sup> floor fit-out project means there will be directly adjacent wet lab bench space that may be used as shared open lab space to support clean room or compatible activities and research.

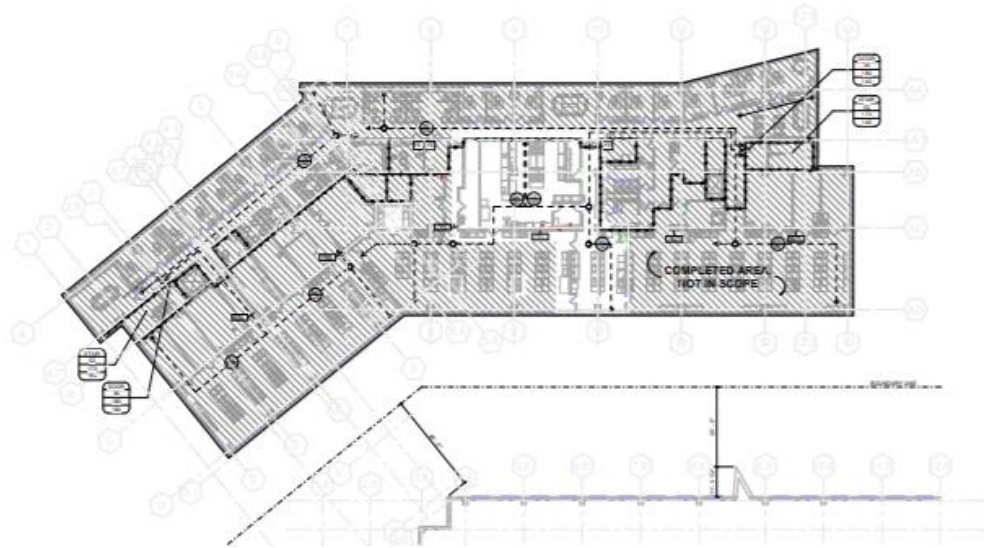
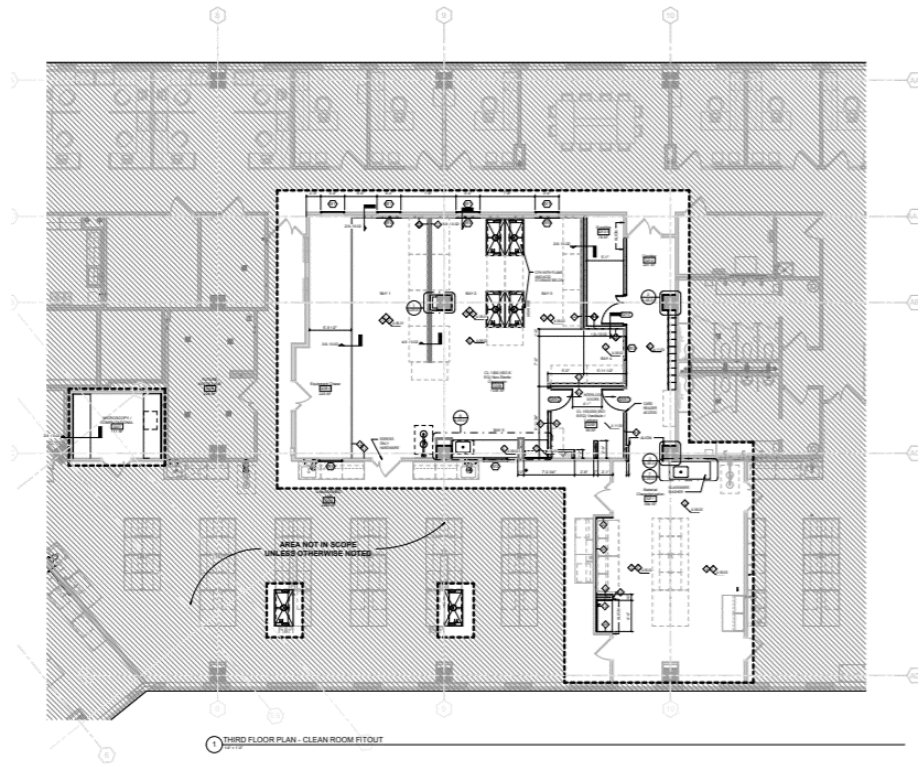
**Scope SF:** 2,785 SF

**Total Project Cost:** \$3,256,930.00

**Funding Sources:** \$848,431 General Funds  
\$716,069 Base Building Funds  
\$1,692,430 Institutional Funds

<b>Schedule:</b>	Contractor Prequalification Submission Due	December 2018
	Issue for Bid	December 2018
	Notice to Proceed	February 2019
	Occupancy	February 2020

**Justification:** The clean room function is critical to support the research that will be performed within the Third Floor Finish Out project area.



**ITEM NUMBER IV.B.**

**CORE CAMPUS PROJECT UPDATE**

**PURPOSE OF ITEM:**

This item updates Core Campus Project.

**APPROPRIATE COMMITTEE:**

FINANCE AND LAND USE

**BRIEF NARRATIVE:**

Construct/Renovate Robinson Hall, New Academic and Research Facility and Harris Theater - Phase 1B work which includes Robinson B and Harris Theater enabling projects, asbestos abatement and demolition of Robinson A, site utility relocations and mass excavation and sheeting and shoring for the new academic building site, is about 30% complete and will be complete by March 1, 2019. Phase 2/3 working drawings is in the permit process with DEB (formerly BCOM), permit approval is anticipated prior to start of Phase 2 construction in spring 2019. Full GMP is trending within 1% of approved budget and we anticipate award of full GMP by December 19, 2018. We anticipate construction work on Phase 2 will begin March 1, 2019.

Improve Utility Distribution Infrastructure Fairfax - Construction work is approximately 50% complete on phases 1A (near Thompson Hall), 1B (south of Johnson Center) and 1C (Patriot Circle to Eagle Bank Arena). Phase 1A is slightly behind schedule due to unforeseen underground utility conflicts which requires revised pipe alignment. We are currently assessing schedule impacts for Phase 1A. Phases 1B and 1C is projected to be completed by end of this calendar year. Fencing has been erected for start of work in phase 2A (south of College Hall and Buchanan Hall). Phase 2B (south of West Building) work will be started and substantially completed during winter break 2018/2019. Fencing for Phase 3 (Wilkins Plaza extension from clock tower to Southside) will be erected over winter break 2018/2019. Work in Phase 3 is targeted for completion in late 2019.

**STAFF RECOMMENDATION:**

For Board information only

**ITEM NUMBER V.:**

**POLICE AND PUBLIC SAFETY UPDATE**

**PURPOSE OF THE ITEM:**

To highlight the programs, achievements and goals of the George Mason University Police and Public Safety Department.

**APPROPRIATE COMMITTEE:**

FINANCE AND LAND USE

**BRIEF NARRATIVE:**

The George Mason University Police and Public Safety Department continues to enhance its training, technology, and outreach to the Mason community in order to increase our professional capabilities and to help us improve our effectiveness and transparency within the campus community.

**STAFF RECOMMENDATION:**

For Board information only.

## Appendix: Capital Projects Review

This section provides the regular report on the status of capital construction projects on all three university campuses. The project “stoplight” chart provides a summary review. For purposes of black and white printing, all stoplights are “Green” unless otherwise noted. Scoring definitions:

- “Red”: Likely to exceed approved budget, schedule, or scope
- “Yellow”: At risk to exceed approved budget, schedule, or scope, but can still recover
- “Green”: Within approved budget, schedule, or scope
- “White”: on-hold

Changes/updates since the October 2018 report include:

- Health Sciences – Academic VII –We are currently in the closeout phase of the main project. The construction of the MRI suite is completed and is in the close-out phase.
- Construct/Renovate Robinson Hall, New Academic and Research Facility and Harris Theater - Phase 1B work which includes Robinson B and Harris Theater enabling projects, asbestos abatement and demolition of Robinson A, site utility relocations and mass excavation and sheeting and shoring for the new academic building site, is about 30% complete and will be complete by March 1, 2019. Phase 2/3 working drawings is in the permit process with DEB, permit approval is anticipated prior to start of Phase 2 construction in spring 2019. Full GMP is trending within 1% of approved budget and we anticipate award of full GMP by start of winter break 2018/2019. We anticipate construction work on Phase 2 will begin late February 2019.
- Improve Utility Distribution Infrastructure Fairfax - Construction work is approximately 50% complete on phases 1A (near Thompson Hall), 1B (south of Johnson Center) and 1C (Patriot Circle to Eagle Bank Arena). Phase 1A is slightly behind schedule due to unforeseen underground utility conflicts which requires revised pipe alignment. We are currently assessing schedule impacts for Phase 1A. Phases 1B and 1C will be completed by end of this calendar year. Fencing has been erected for start of work in phase 2A (south of College Hall and Buchanan Hall). Phase 2B (south of West Building) work will be started and substantially completed during winter break 2018/2019. Fencing for Phase 3 (Wilkins Plaza extension from clock tower to Southside) will be erected over winter break 2018/2019.
- PPEA Discovery Hall Ph. II & Fit-out/Clean Room –The Certificate of Occupancy for the Fit-out project was received May 2018. The Clean Room Project is in design. Occupancy is estimated for February 2020.
- Into Phase II–The project was completed by the Fall 2018 semester.
- Eagle Bank Arena – The lighting replacement and scoreboard projects have been completed and closed. The roofing replacement project is under construction but the schedule has been hampered by weather delays. The media and dressing rooms renovations are substantially complete. The locker room replacement is under construction and is expected to be complete during December 2019.

- Hylton Performing Arts Center Addition – Construction is in progress and is scheduled to be completed by August 2019.
- Telecom Infrastructure – The University has selected an Architect/Engineer for this project specializing in IT infrastructure projects and is in the negotiation phase of procurement. Design work should commence soon.
- Bull Run Labs (Mech and BioChem) – Mech Lab is complete and operational. BioChem Lab renovations will be completed for the Spring 2019 semester.
- Life Sciences Bull Run Hall IIIB – The University anticipates issuing an RFP for Architect/Engineer selection in early 2019. The funding amount approved by the Commonwealth is \$58,946,302 which is significantly below the \$67M estimate of probable cost developed by Mason based upon DEB historical project costs.

## Facilities Projects Listing

Project #	Project Name	Scope(sf) New	Scope(sf) Reno	Total Budget	Budget Status	Schedule	Scope	Construction Start date	Occupancy date	Construction % Complete
<b>Construction</b>										
17999-000	Health Sciences - Academic VII (Peterson Hall)	164,880		\$ 74,163,039	Ⓡ	●	●	6/2/2015	1/8/2018	99%
A6247-020	Into Phase II		16,555	\$ 3,400,000	●	●	●	12/15/2016	7/15/2018	99%
Varies	Bull Run Labs (Mech and BioChem)		7,204	\$ 3,000,000	Ⓡ	●	Ⓡ	3/15/2017	1/15/2019	80%
Varies	Eagle Bank Arena Upgrades		82,000	\$ 4,845,000	●	Ⓡ	●	12/1/2016	12/15/2018	90%
18011-000	Hylton Center Addition*	17,082	360	\$ 13,481,383	●	●	●	8/1/2018	8/1/2019	25%
18207-000	Renovate Robinson Hall and Harris Theater (Phased)*	217,726	23,161	\$ 119,631,000	●	●	●	7/1/2018	12/31/2021	11%
18208-000	Improve Utility Distribution Infrastructure Fairfax (Phased)*			\$ 51,539,000	●	●	●	8/1/2018	12/31/2021	9%
<b>Design</b>										
17848-000	PPEA Discovery Hall Ph II & Fitout/Clean Room	18,000		\$ 6,115,000	●	●	●	3/15/2019	2/15/2020	N/A
<b>Planning</b>										
18000-000	Life Sciences - Bull Run Add DPB*	100,000	5,000	\$ 58,946,302	○	○	○	TBD	TBD	N/A
18339-000	Telecom Infrastructure*			\$ 10,053,000	○	○	○	TBD	TBD	N/A
A8247-027	Johnson Center HVAC Repairs			\$ 3,049,500	○	○	○	TBD	TBD	N/A
A8247-024	Hylton Center HVAC Repairs		112,352	\$ 4,025,000	○	○	○	TBD	TBD	N/A
<b>Grand Total This Report</b>		<b>517,688</b>	<b>246,632</b>	<b>352,248,224</b>						

Data as of November 2018

\* Pool Funded Project; will require DPB/BCOM approval for release of funds after Preliminary Design

FUND SOURCE KEY
RB: Revenue Bond
GF: General Fund
VDOT: Virginia Dept of Transportation
CNTY: Fairfax County
SGR: Self Generated Revenue
SF: Student Fee
UM: University Mall
GIFT: Private Gifts
MR: Maintenance Reserve
ICR: Research Indirect Cost Recovery

STOPLIGHT KEY	
Ⓡ	Red: Likely to exceed approved budget/schedule/scope
●	Yellow: At risk to exceed approved budget/schedule/scope
●	Green: Within approved budget/schedule/scope

# Board of Visitors

## Finance and Land Use Committee George Mason University

*Office of the Senior Vice President*

*December 12, 2018*





# Happening @ MASON!



**RESEARCH:** The Chronicle of Higher Education recognized George Mason University as a **Top 10** recipient of funding from the *National Endowment for the Humanities* in the past decade, receiving funding for **37** projects amounting in a total of **\$5,801,343**.

**EXCELLENCE:** Thousands of hours of practice paid off when **College of Visual and Performing Arts** student **Crystal Golden** placed first in the graduate/advanced college women category of the 2018 National Association of Teachers of Singing vocal competitions.



**SUSTAINABILITY:** Ranked in the **Top 25** dining programs in the country by the Daily Meal, Mason Dining has emphasized composting and recycling, as well as **strawless** dining halls, vegan and vegetarian options, an on-campus greenhouse, and local farmers market events.

**We're Primed!**

**amazon**



**&**



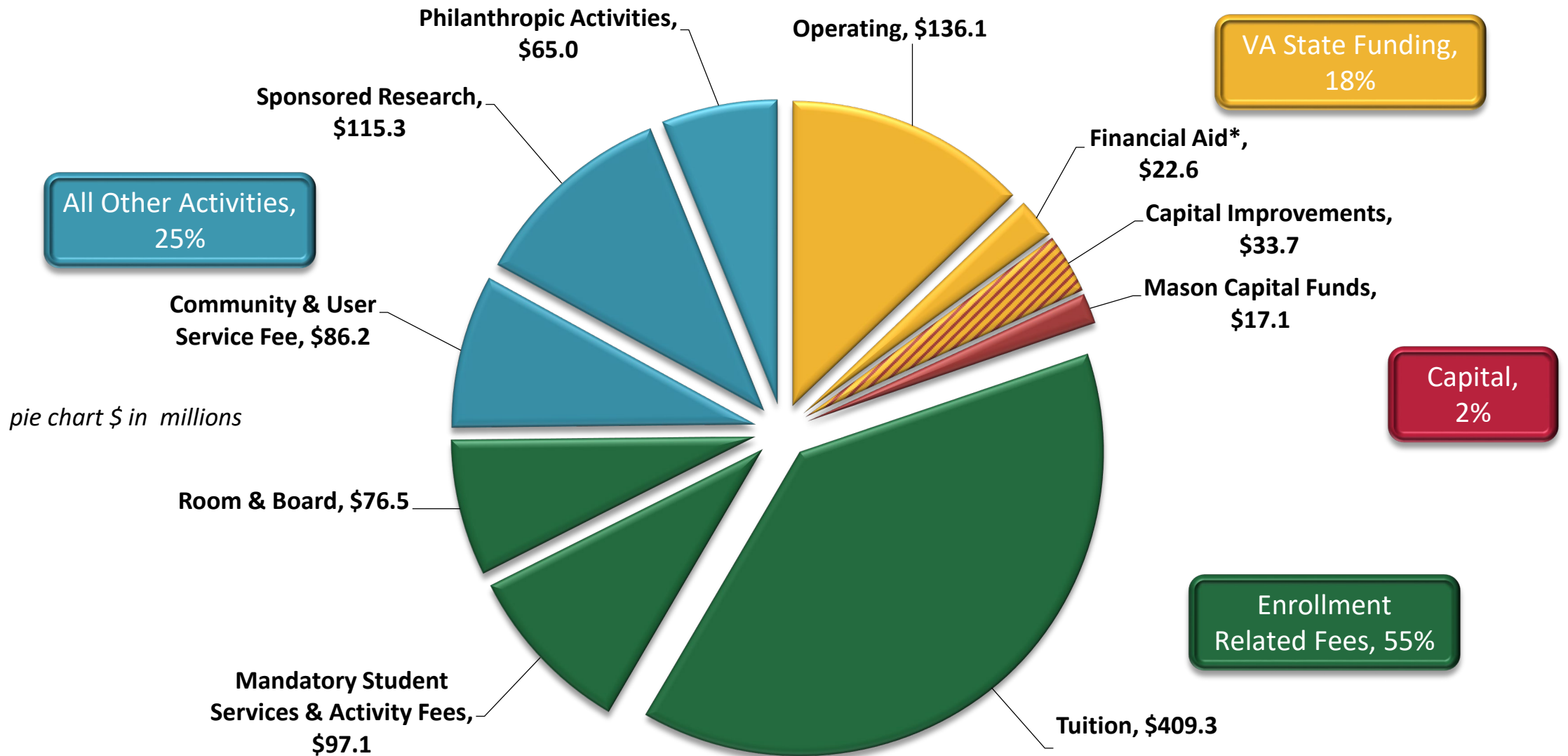
# FY 2020 Financial Outlook

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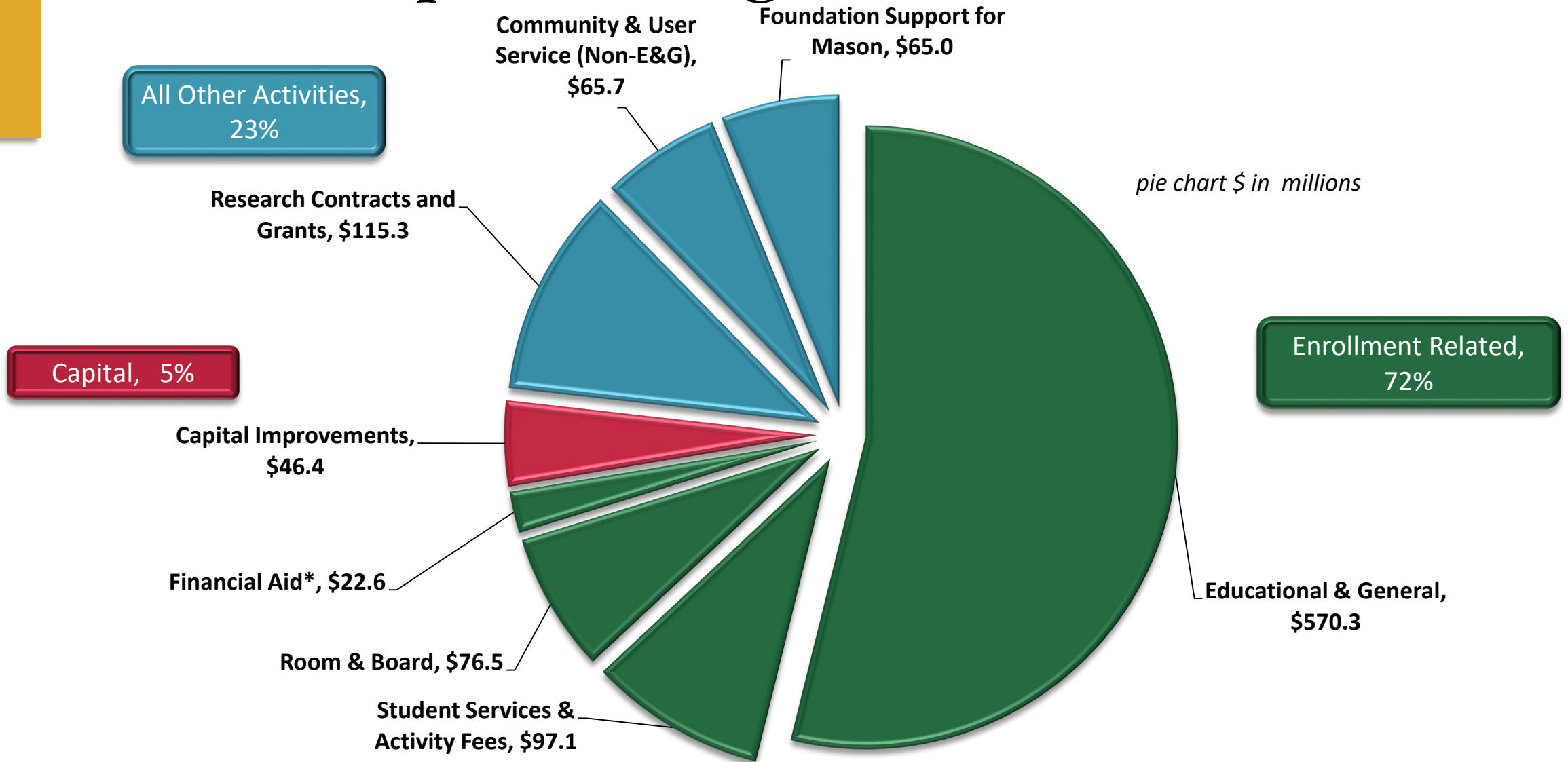
Tom Calhoun

Interim Senior Vice President

# FY 2019 Revenue Budget \$1.06B



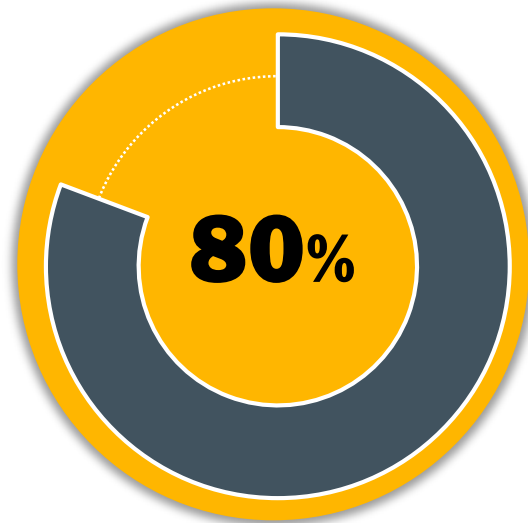
# FY 2019 Expense Budget \$1.06B



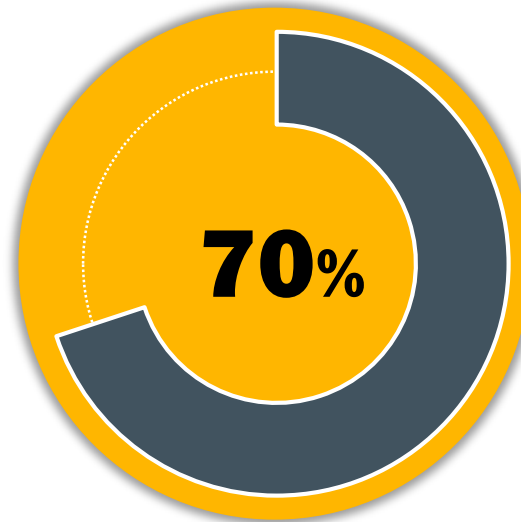
# Mason Student Demographics

## Fall 2018 Head Count ~37,000

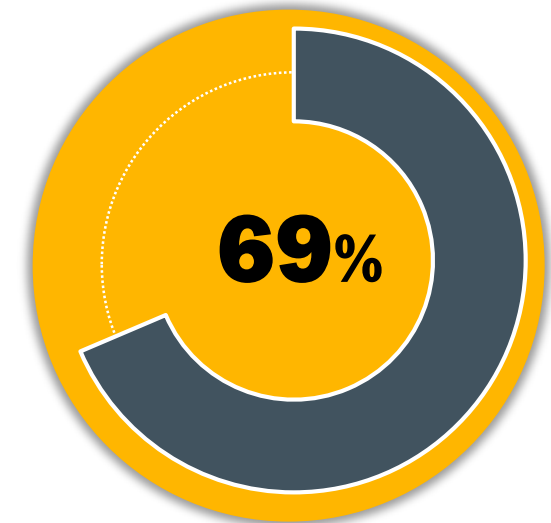
In-State



Undergraduates



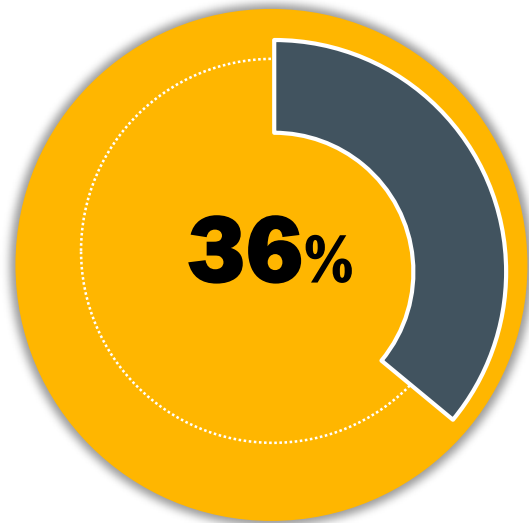
Full Time



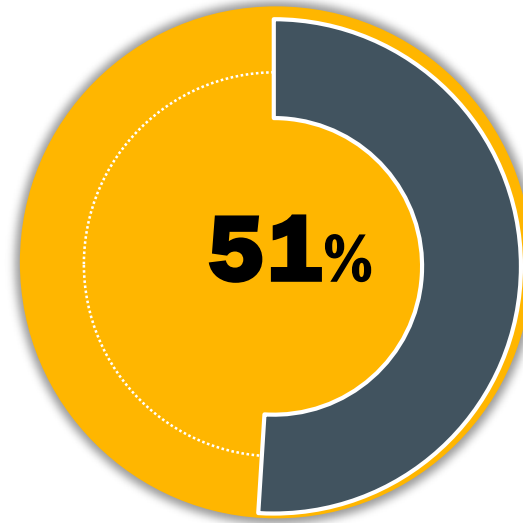
# Mason Student Demographics

## Fall 2018 Undergraduates ~26,000

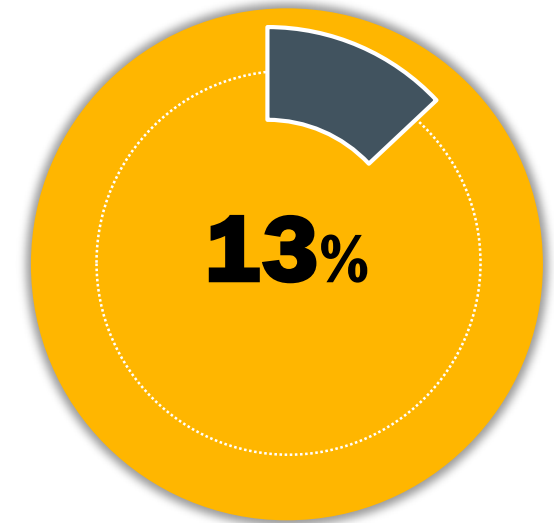
First  
Generation



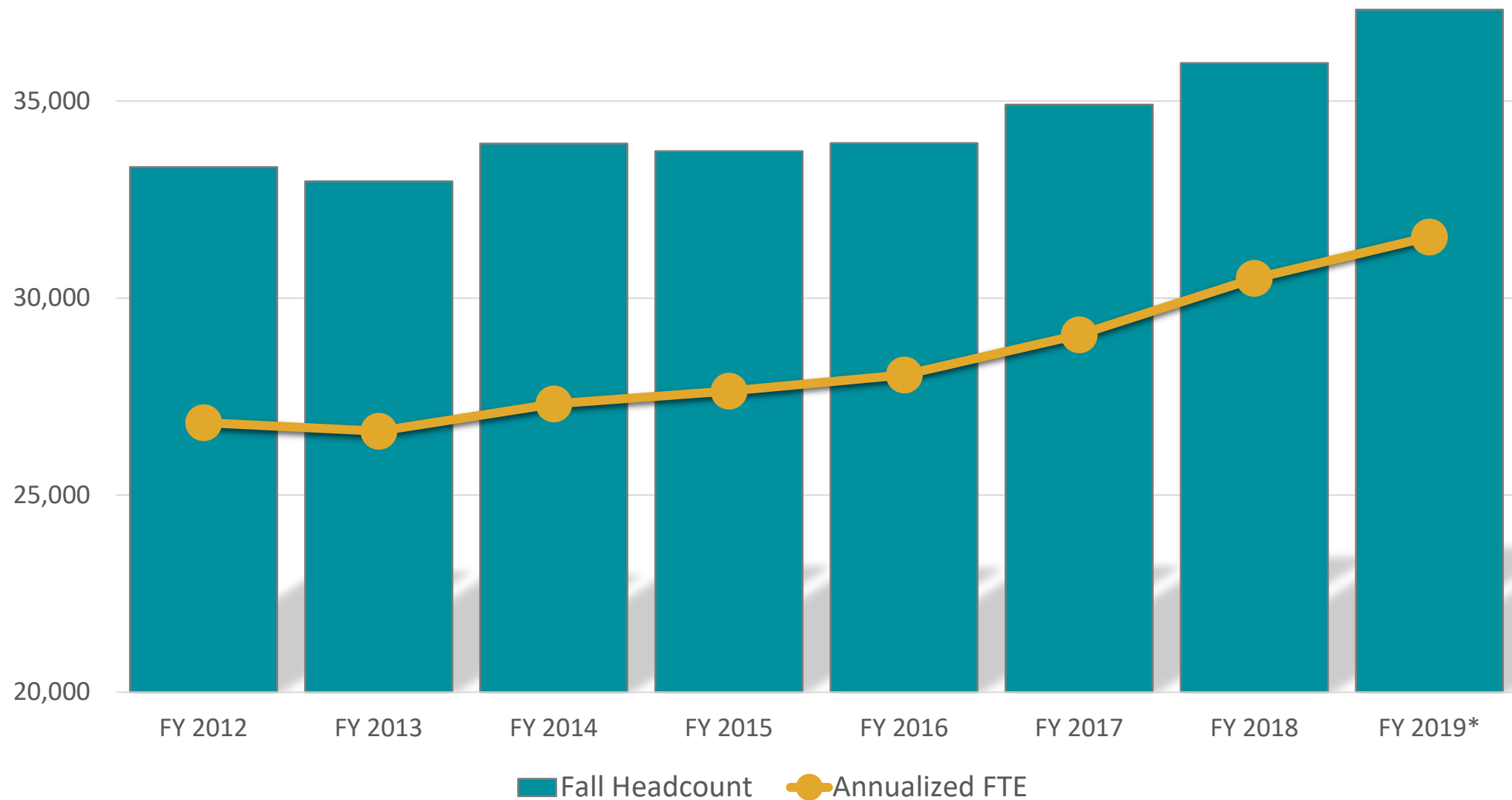
Underrepresented  
Racial/Ethnic



Age 25 or older  
At Entry

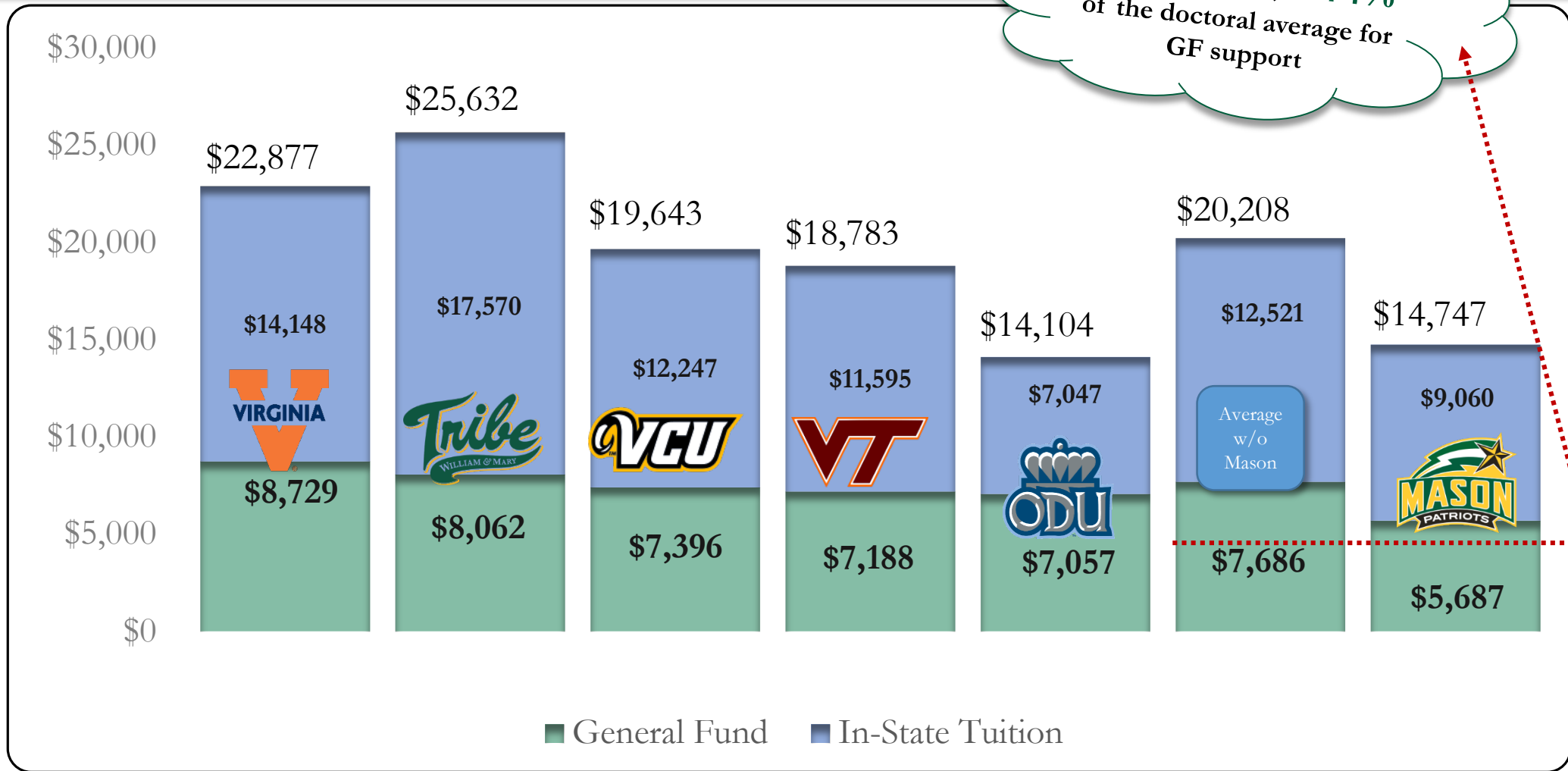


# Growing Student Enrollment





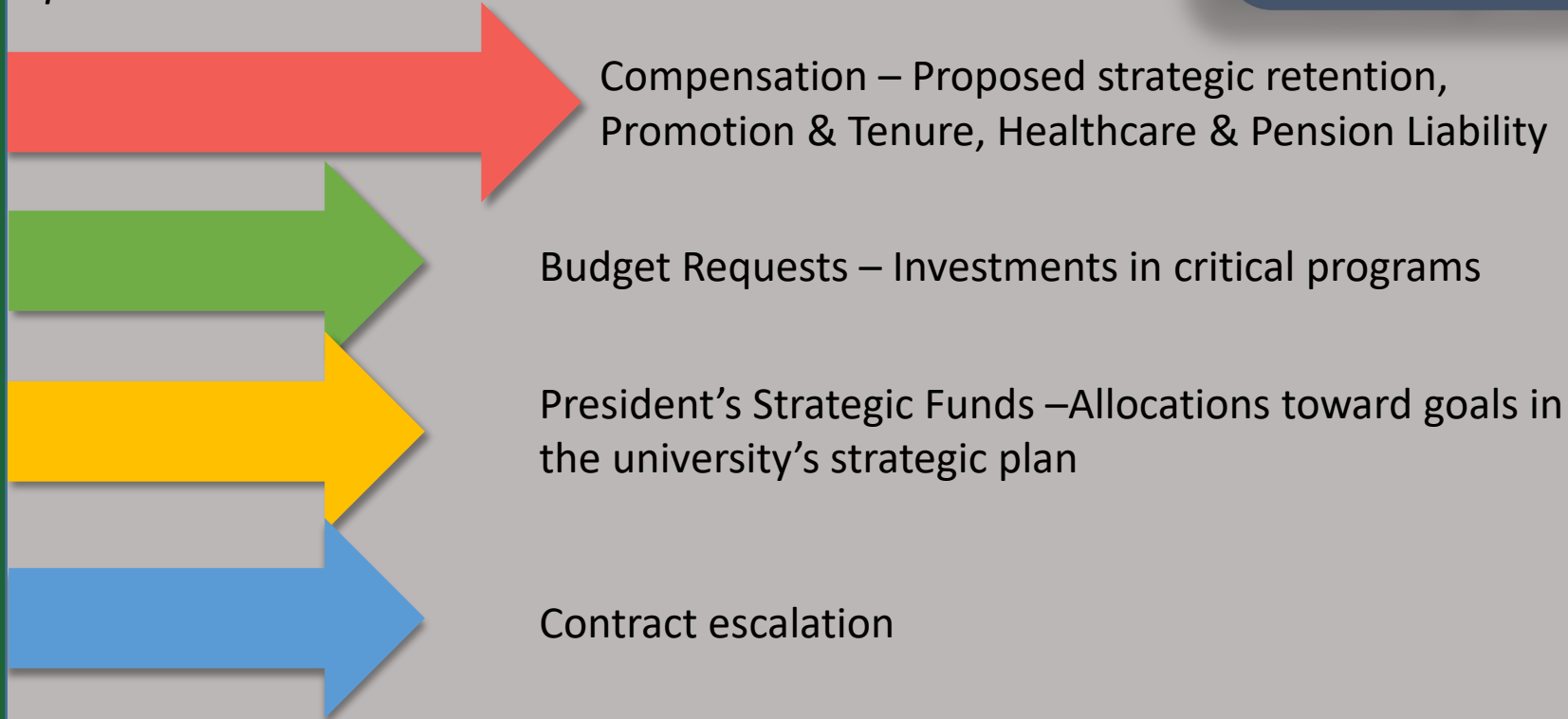
# FY 2019 Financial Disparity



Note: Enrollment numbers per Submission Summary, 2017 Enrollment Projections & Degree Estimates (<http://research.schev.edu/enrollment/projections/submissionsummary.asp>) and General Fund Appropriations Per Chapter 2. Due to a strong demand, George Mason University has exceeded its original enrollment projections.

# FY 2020 Macro Expense Outlook

Mason needs to make investments to attract and retain students, faculty and staff and to advance its strategic priorities...



Door Openers	~\$32 - 35M
Estimated GF FY2020	~\$11 - 13M
Estimated Budget Gap	~\$21 - 24M

# FY 2020 Macro Budget Drivers

Mason prioritizes **accessibility**, **affordability** and **quality** for our students.

## INCREASING INVESTMENTS

Compensation  
Promotion & Tenure  
Health Care  
Pension  
Operating Expenses

Critical Retention  
Strategic Initiatives  
IT Infrastructure  
Student Experience  
Undergrad Financial Aid  
Research

## REVENUES

COMMONWEALTH  
SUPPORT

TUITION

OTHER ACTIVITIES  
Philanthropy  
Research  
Auxiliary Enterprises  
Self Supporting Activities

# Budgeting for College



Books & Supplies



Tuition & Fees



Room & Board



Life

# Finance & Land Use Committee Meetings

## WEDNESDAY

February 27, 2019

**\*Room & Board Rates**

Commonwealth Budget Update

Human Resources & Payroll Annual Report

FY 2020 Financial Plan

## WEDNESDAY

April 3, 2019

**Informational Only**

Commonwealth Budget Update

FY 2020 Financial Plan

Tuition Strategy

## THURSDAY

May 2, 2019

**\*Operating Budget, Tuition & Fees**

**\*Six Year Capital Plan**

**\*Span of Control**

Audited Financial Statements

\*Action Items require Board Approval

# Room & Board Rates

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# Mason Housing & Dining Fast Facts

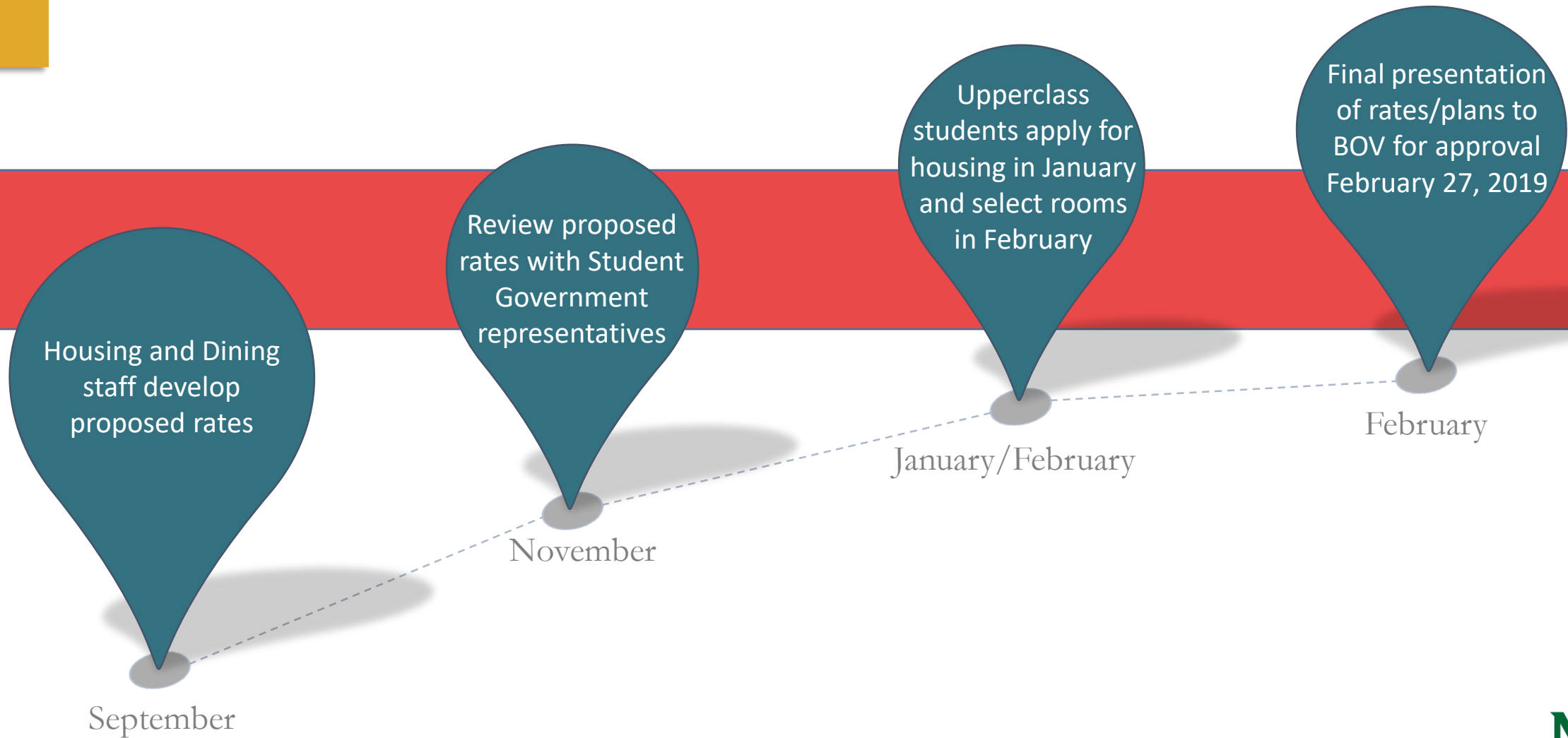


38 residence halls  
Over 6,350 beds @ ~100% occupancy  
762 students in 13 Living Learning Communities  
Grad housing at SciTech



More than 6,750 student meal plans  
Over 3.6 million meals served  
Three Fairfax dining halls, one SMSC dining hall  
24 hour dining available  
27 retail dining options  
Locally sourced food including Mason Greenhouse  
Sustainable dining

# Setting Room & Board Rates





# Guiding Principles



Affordability



Accessibility



Involvement



Sense of Community



Well-Being

# Rising Cost Pressures

**Housing & Residence Life and Mason Dining**  
are self-sustaining entities without any Commonwealth or Tuition Support

## INCREASING COSTS

OPERATING EXPENSES  
Contractual Food & Labor Costs  
Compensation Increases  
Health Care & Pension  
Deferred Maintenance  
Materials & Grounds  
Debt Service

## REVENUES

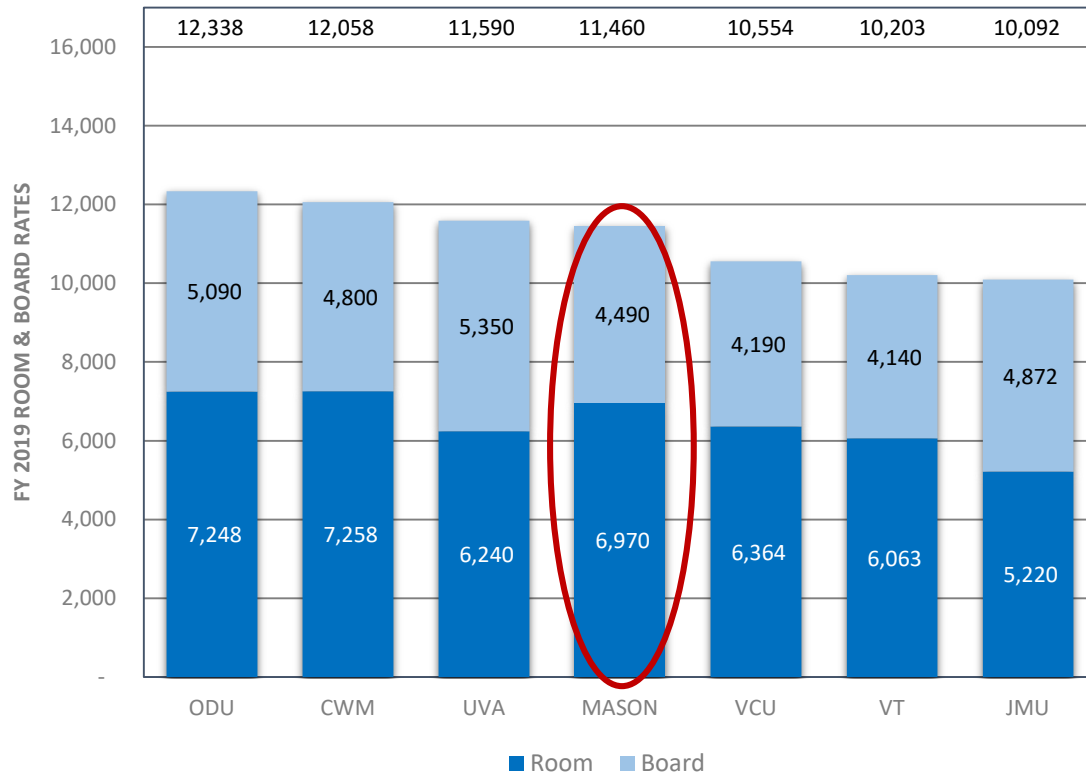
HOUSING RATES  
DINING PLANS

*Fees are user specific and  
not mandatory.*

# FY 2019 Room & Board Rates Comparison

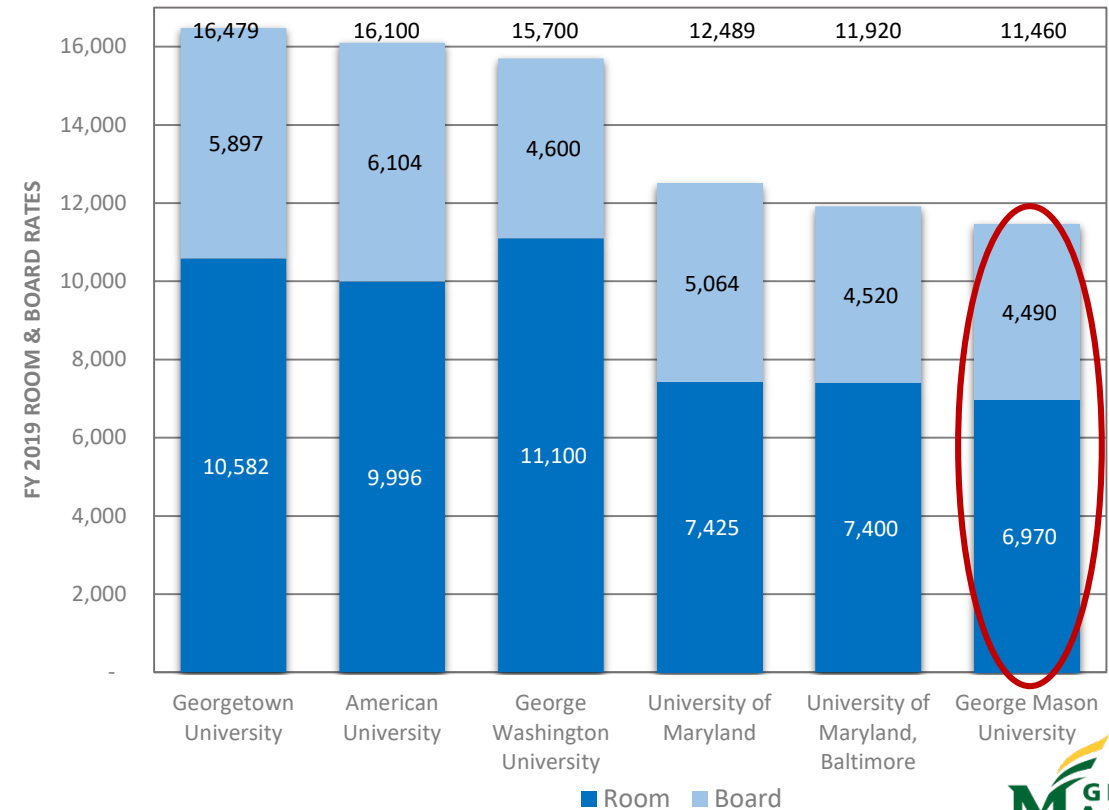
## Some Commonwealth of Virginia Universities

FY 2019 Room & Board Rates  
Freshmen Traditional Double and  
Independence Plan



## Some Regional Universities

FY 2019 Room & Board Rates  
Freshmen Traditional Double and  
Independence Plan



# Operational Issues

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Frank Strike

Vice President, Facilities

# Schematic Design Review

## Institute for Advanced Biomedical Research (IABR) Third Floor Fit-Out (Life Sciences Lab Building) Clean Room – Schematic Design

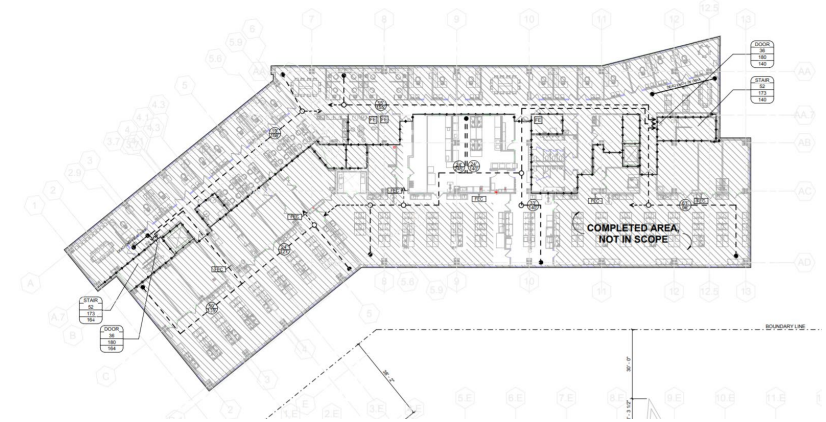
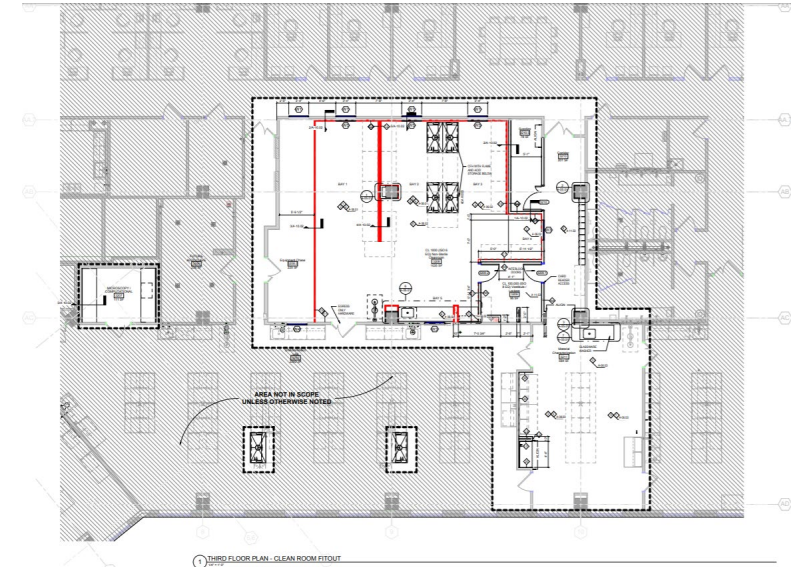
**Brief Description:** Nanofabrication Clean Room capable of supporting the fabrication of micron and sub-micron microelectronic, photonic, micromechanical and microfluidic devices and systems.

**Scope SF:** 2,785 SF

**Total Project Cost:** \$3,256,930

**Funding Sources:** \$848,431 General Funds  
\$716,069 Base Building Funds  
\$1,692,430 Institutional Funds

<b>Schedule:</b>	Prequalification's Due	December 2018
	Issue for Bid	December 2018
	Notice to Proceed	February 2019
	Occupancy	February 2020



# Board Recommendation

---

The Finance & Land Use Committee recommends approval by the Board of Visitors of the University's schematic design for the Institute for Advanced Biomedical Research (IABR) Clean Room as outlined in the Board Book.

**MOTION:** \_\_\_\_\_

**SECOND:** \_\_\_\_\_

# Core Campus Project

---

Cathy Pinsky, AIA  
Program Director, Facilities

# Fast Facts

- The new building, to be constructed on the site of the existing Robinson Hall, **will be a state-of-the-art, six-story, 218,000-square-foot structure with classrooms, workplaces, meeting rooms, community space and the Mason Innovation Exchange.** It also will be the central academic center for the Colleges of Humanities and Social Sciences.
- The Harris Theater will become a standalone building. A **terraced courtyard/amphitheater** will sit between the theater and the new building.
- **Classrooms**, equipped with white boards and video screens, will hold between 27 and 120 students.
- The largely state-funded \$170 million undertaking, which also includes the **rebuilding of the Wilkins Plaza** and much-needed underground utility work, started on schedule in the summer of 2018 with the **vacating and demolition of Robinson Hall A to be complete by Spring of 2019.**
- The **utility work will upgrade the university's heating and cooling systems**, and some IT infrastructure.
- The **new building is to be completed in the spring of 2021.**





**Robinson Hall Replacement**

# Budget and Schedule – Robinson Hall Replacement

	July 2016 - Capital Budget Request	March 2017 - BCOM Target	July 2017 - BCOM Approved Schematic	June 2018 - BCOM Approved Final Budget
<b>SCOPE SF:</b>	241,000 GSF	241,000 GSF	240,887 GSF	242,918 GSF
<b>Budget</b>	\$112,000,000	\$108,337,000	\$113,040,000	\$119,631,000
<b>Schedule</b>				
<b>Design Complete:</b>		Phased	Fall 2018	January 2019
<b>Construction Start:</b>	April 2018	October 2018	Fall 2018	Summer 2018
<b>Occupancy:</b>	Summer 2021	January 2021	Spring 2021	Spring 2021
<b>Demo &amp; Harris Complete:</b>	May 2022	Fall 2021	Spring 2022	Spring 2022



**Notes:**

- 98% State Funded – about \$2M funded by Mason
- Phase 1B GMP was awarded August 30, 2018
- Full GMP to be awarded within established budget by December 19, 2018

# Major Milestones – Robinson Hall Replacement



2015

2016

2017

2018

2019

2020

2021

- Capital Project Approval – Target Budget Established
- Design Team Procurement
- Construction Manager Procurement
- Contract Execution

- Building Committee Established
- Open Invitation Planning Workshops Conducted
- Programming and Conceptual Design Completed

- Schematic Design Completed and Approved
- Art & Architecture Review Board Approval
- Preliminary Design Submitted

- Full budget approval
- Construction Documents Completed
- Building Permits Obtained
- A Building Demolition Starts
- Harris Theater Utility Work
- Utility Relocations

- New Building Construction Commences
- Classes continue to occur in Robinson B through 2019 and 2020.
- Harris Theater remains in operation through 2019 and 2020

- New Building Construction Continues
- Furniture and AV Installation planned for last quarter of 2020
- Classes will be held in Robinson B until end of Fall 2020
- Harris Theater Renovation starts after Fall 2020 semester ends

- New Building Open for Classes Spring 2021
- Robinson B Demolition
- Harris Theater Renovations Complete by end of Fall 2021
- Plaza, Amphitheater and site work complete by start of Spring 2022

Southeast view





***Relocation of site utilities at new building footprint***



***New Transformer and Generator for Harris Theater***



***New Chilled Water, High Temp Hot Water and Domestic***



***Construction Laydown area in site of removed Student Apts.***



# Utility Infrastructure Improvements



# Budget and Schedule – Utility Infrastructure

	July 2016 - Capital Budget Request	March 2017 - BCOM Target	July 2017 - BCOM Approved Schematic	Mason Scope Change to add HTHW at Housing May 2018	May 2018 - BCOM Approved Final Budget
<b>SCOPE SF:</b>	N/A	N/A	N/A	N/A	N/A
<b>Budget</b>	\$49.3M	\$46M	\$48.8M	\$2.4M	\$51,539,000
<b>Schedule</b>					
<b>Design Complete:</b>	June 2019	June 2019	Fall 2018	Fall 2018	Summer 2018
<b>Construction Start:</b>	August 2018	Phased	Phased	Phased	Phased
<b>Construction Complete</b>	September 2021	Phased	Phased	Phased	Phased
<b>Final Completion:</b>	December 2021	December 2021	December 2021	December 2021	December 2021



**Notes:**

- 43% State Funded – 57% funded by Mason
- Phase 1 Early Release GMP was awarded August 2018
- Full GMP was awarded within established budget September 28, 2018



# Major Milestones – Utility Infrastructure



2015

2016

2017

2018

2019

2020

2021

- Capital Project Approval – Target Budget Established
- Design Team Procurement
- Construction Manager Procurement
- Contract Execution

- Infrastructure Committee Established
- Utility Masterplan Update
- Survey of Existing Conditions and Underground Investigations

- Schematic Design Completed and Approved
- Art & Architecture Review Board Approval
- Preliminary Design Submitted

- Full budget approval
- Construction Documents Completed
- Building Permits Obtained
- Clock tower Removed for Storage – approx. 16 months
- Phases 1 and 2 substantially completed

- Phase 3 – Plaza Extension completed by end of 2019
- Clock tower returns to Wilkins Plaza in it's final location.
- Phases 4 and 5 started and substantially completed
- Trees removed on Wilkins Plaza – Summer of 2019

- Summer of 2020 Commons, Commonwealth and Dominion Halls Closed for HTHW and CW work – Phase 6
- Phase 7 starts Fall of 2020 – George Statue moves to temporary location on Holton Plaza for one year.

- Phases 7 and 8 completed.
- Statue placed in final location
- New Wilkins Plaza Fountain Completed late Fall 2021.
- Aquia Lane work completed including new finished paving by end of Fall 2021.







***Phase 1A – New Chilled Water loop at Aquia Lane***



***Phase 1B – New Chilled Water Alignment to EBA***



***Phase 1C – Existing Chilled Water S/R replaced to EBA***



***Phase 2A – New Chilled Water Alignment to EBA***

# Core Campus Project - Challenges

- **Safety of Faculty, Staff and Students** – extensive construction site radiating from middle of campus – very large fenced perimeter.
- **Clear communication** is essential - especially as coordinated between the two projects - with the university marketing & communications department and all stakeholders.  
Website established: **construction.gmu.edu**
- Tight construction footprint throughout the campus, **impacting pedestrian paths**, fire access and service/repair.
- High likelihood of encountering unknown conditions in conjunction with **underground utilities** (= budget and reliability risk)
- Complicated schedule with a **multitude of phases** and sub-phases.
- Campus growing **fatigued** with ongoing construction activities – 3 years of construction – working with Events Management to schedule activities around project milestones.

# Police & Public Safety

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Carl Rowan, Jr.

Chief of Police and Assistant Vice President for Public Safety

# George Mason Department of Police & Public Safety



**Established 1981**

**Staffing:**

52 Sworn Officers

45 Civilian Positions

**Jurisdiction:**

Fairfax, Arlington, and  
Prince William Counties

**Annual Budget: \$7.6M**

# New Community Policing & Safety Initiatives



We have placed a priority on obtaining Crisis Intervention Training (CIT) for officers to stress the value of de-escalation strategies when interacting with students and staff in challenging situations.



Emergency first aid training is also a priority because we are often the first to respond to the scene of an injury or illness.

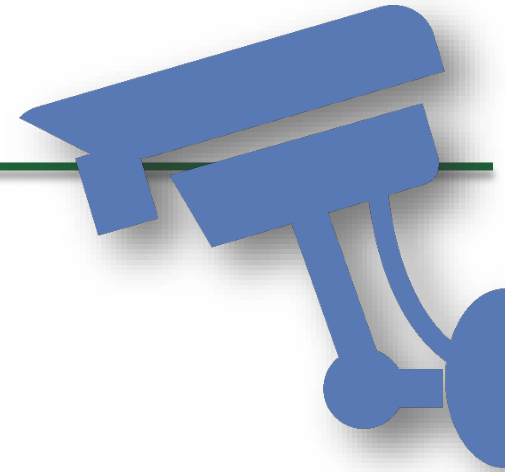


I am working with University Life to create the Community Policing Council (CPC) comprised of key campus stakeholders to improve communications with the Mason Police and help us get candid feedback on our programs.





# Security Technology Updates



The entire communications infrastructure is being replaced (radios, CAD, phones) with upgraded digital equipment that should serve us well for the next 15 years or more.



Officer-worn body cameras have been issued, providing additional data for officer training and accountability.



The Mason Police continue to take a leadership role in developing new strategies for the effective use of drones in support of law enforcement.

# Enhanced Capabilities & Recognitions

## Training Hub

GMU is becoming known as a training hub for the region's law enforcement agencies such as VSP, Metro Transit, Arlington County PD, FBI HRT. Intense, realistic Active Threat training has also included students from GMU's Forensics Program.

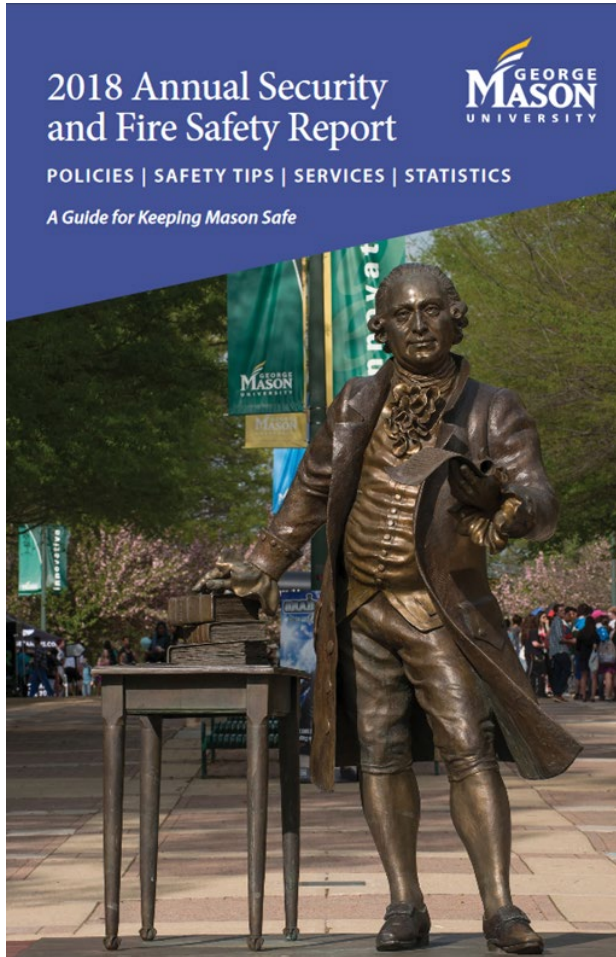
## K9 Teams

We now operate three K9 Teams, one explosives dog and two patrol dogs. Numerous agencies have sent their K9 teams to train at Mason. Over Spring Break, we will host the Iron Dog program at the Fairfax campus.

## FBI Select

Captain Emily Ross recently became the first-ever Mason Police Officer to be selected by the FBI to attend the FBI National Academy, a residential 10 week program that is the global gold standard for law enforcement executive training.

# Crime Report Data



<https://police.gmu.edu/central-records/annual-security-report/>

FAIRFAX CAMPUS	On-Campus			On-Campus Student Housing <sup>1</sup>			Noncampus Property			Public Property			Unfounded Crimes <sup>2</sup>		
	2015	2016	2017	2015	2016	2017	2015	2016	2017	2015	2016	2017	2015	2016	2017
<b>CRIMES REPORTED</b>															
Murder/Nonnegligent Manslaughter	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Negligent Manslaughter	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rape (Sexual Assault)	13	20	18	11	18	17	1	0	0	1	1	1	0	0	0
Fondling (Sexual Assault)	12	6	11	7	6	3	0	0	0	0	0	0	0	0	0
Statutory Rape (Sexual Assault)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Incest (Sexual Assault)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Robbery	2	2	0	0	1	0	0	0	0	0	0	0	0	0	1
Aggravated Assault	2	2	1	2	1	1	1	1	0	0	0	1	0	0	0
Burglary	13	14	10	8	3	4	0	0	0	0	0	0	0	0	0
Motor Vehicle Theft	2	0	2	0	0	0	0	0	0	0	0	0	4	1	0
Arson	4	0	0	1	0	0	0	0	0	0	0	0	0	0	0
<b>VIOLENCE AGAINST WOMEN ACT (VAWA) OFFENSES</b>															
Domestic Violence	2	2	3	0	2	1	0	0	0	0	0	0	0	0	0
Dating Violence	21	13	7	14	10	6	0	0	0	0	0	0	0	0	0
Stalking <sup>3</sup>	45	69	70	11	15	15	0	0	0	0	0	0	0	0	0
<b>ARRESTS AND DISCIPLINARY REFERRALS</b>															
Liquor Law Arrests	38	57	66	18	31	23	0	0	0	0	11	5	0	0	0
Liquor Law Referrals	408	363	387	299	302	321	0	0	0	3	4	9	0	0	0
Drug Arrests	52	82	111	24	48	47	2	0	1	9	14	15	0	0	0
Drug Referrals	110	87	105	58	55	77	0	0	0	11	2	3	0	0	0
Weapons Arrests	0	0	2	0	0	0	0	0	0	1	1	0	0	0	0
Weapons Referrals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>HATE CRIMES</b>															
Larceny/Theft	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Simple Assault	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intimidation <sup>4</sup>	4	1	1	1	0	0	0	0	0	0	0	0	0	0	0
Vandalism	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Bodily Injury	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



**Thank You!**

## **Winter Graduation**

Thursday, December 20, EagleBank Arena

## **Winter Break**

**Last Day in Office:** Friday, December 21, 2018

**Return to Office:** Monday, January 7, 2019

# Appendices

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# Capital Projects Review – Stoplight Chart

## Facilities Projects Listing

Project #	Project Name	Scope(sf) New	Scope(sf) Reno	Total Budget	Budget Status	Schedule	Scope	Construction Start date	Occupancy date	Construction % Complete
<b>Construction</b>										
17999-000	Health Sciences - Academic VII (Peterson Hall)	164,880		\$ 74,163,039	Ⓡ	●	●	6/2/2015	1/8/2018	99%
A6247-020	Into Phase II		16,555	\$ 3,400,000	●	●	●	12/15/2016	7/15/2018	99%
Varies	Bull Run Labs (Mech and BioChem)		7,204	\$ 3,000,000	Ⓡ	●	Ⓡ	3/15/2017	1/15/2019	80%
Varies	Eagle Bank Arena Upgrades		82,000	\$ 4,845,000	●	Ⓡ	●	12/1/2016	12/15/2018	90%
18011-000	Hylton Center Addition*	17,082	360	\$ 13,481,383	●	●	●	8/1/2018	8/1/2019	25%
18207-000	Renovate Robinson Hall and Harris Theater (Phased)*	217,726	23,161	\$ 119,631,000	●	●	●	7/1/2018	12/31/2021	11%
18208-000	Improve Utility Distribution Infrastructure Fairfax (Phased)*			\$ 51,539,000	●	●	●	8/1/2018	12/31/2021	9%
<b>Design</b>										
17848-000	PPEA Discovery Hall Ph II & Fitout/Clean Room	18,000		\$ 6,115,000	●	●	●	3/15/2019	2/15/2020	N/A
<b>Planning</b>										
18000-000	Life Sciences - Bull Run Add DPB*	100,000	5,000	\$ 58,946,302	○	○	○	TBD	TBD	N/A
18339-000	Telecom Infrastructure*			\$ 10,053,000	○	○	○	TBD	TBD	N/A
A8247-027	Johnson Center HVAC Repairs			\$ 3,049,500	○	○	○	TBD	TBD	N/A
A8247-024	Hylton Center HVAC Repairs		112,352	\$ 4,025,000	○	○	○	TBD	TBD	N/A
<b>Grand Total This Report</b>		<b>517,688</b>	<b>246,632</b>	<b>352,248,224</b>						

Data as of November 2018

\* Pool Funded Project; will require DPB/BCOM approval for release of funds after Preliminary Design

Page 1 of 1

STOPLIGHT KEY	
Ⓡ	Red: Likely to exceed approved budget/schedule/scope
●	Yellow: At risk to exceed approved budget/schedule/scope
●	Green: Within approved budget/schedule/scope

**BOARD OF VISITORS  
GEORGE MASON UNIVERSITY**

**Meeting of the Executive Committee  
October 10, 2018  
MINUTES**

**PRESENT:** Rector Davis and Vice Rector Hazel; Visitors Blackman and Petersen; President Cabrera; and Secretary pro tem Cagle.

**ABSENT:** Secretary Purvis.

**ALSO ATTENDING:** Visitors Moreno, Reagan, Roth, and Zuccari; and Student Representatives Keatinge and Pettine.

I. Rector Davis called the meeting to order at 8:00 a.m.

II. **Closed Session**

Rector Davis recognized Vice Rector Hazel for a motion to go into Closed Session. It was **MOVED** by Vice Rector Hazel and **SECONDED** by Visitor Petersen that the Executive Committee go into a Closed Session under the provisions of Section 2.2-3711.A.29 to discuss a Public Contract, Section 2.2-3711.A.9 to discuss Gifts, Bequests and Fundraising Activities, Section 2.2-3711.A.7 for consultation with Legal Counsel pertaining to actual or probable litigation, Section 2.2-3711.A.8 for consultation with Legal Counsel regarding specific legal matters requiring the provision of legal advice, and Section 2.2-3711.A.1 to discuss a Personnel Matter.

Rector Davis opened the floor to discussion. There was none.

**MOTION CARRIED UNANIMOUSLY BY VOICE VOTE**

It was **MOVED** by Vice Rector Hazel and **SECONDED** by Visitor Petersen that the Executive Committee go back into public session and further moved that by **ROLL CALL VOTE** affirm that only public business matters lawfully exempted from the open meeting requirements under the Freedom of Information Act were heard, discussed or considered in the Closed Session, and that only such business matters that were identified in the motion to go into a Closed Session were heard, discussed or considered in the Closed Session.

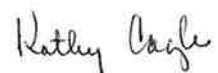
Roll call was taken with all present members responding in the affirmative.

**Board of Visitors  
Executive Committee  
October 10, 2018  
Page 2**

**III. Adjournment**

With no other business matters to come before the Executive Committee, Rector Davis adjourned the meeting at 8:26 a.m.

Respectfully submitted,



Kathy Cagle  
Secretary pro tem



**BOARD OF VISITORS  
GEORGE MASON UNIVERSITY**

**Meeting of  
October 10, 2018  
MINUTES**

**PRESENT:** Rector Davis and Vice Rector Hazel; Visitors Alcalde, Chimaladinne, Cumbie, Moreno, Petersen, Prowitt, Reagan, Rice, Roth, Witeck, and Zuccari; Faculty Representative Renshaw; Student Representatives Keatinge and Pettine; President Cabrera; and Secretary pro tem Cagle.

**ABSENT:** Secretary Purvis; Visitors Blackman and Marquez.

I. Rector Davis called the meeting to order at 1:04 p.m.

**II. Resolution Approval**

Rector Davis called on Vice Rector Hazel to present the Naming Resolution. Vice Rector Hazel recognized the members of the Van Metre family and Van Metre Companies in the gallery and thanked them for attending the meeting. The Board responded with applause. Vice Rector Hazel read the resolution (Attachment 1) and **MOVED** approval of the Resolution to rename Founders Hall on the Arlington campus to Van Metre Hall in honor of the Van Metre Companies longstanding support of George Mason University. Visitor Cumbie **SECONDED** the motion. Rector Davis provided additional comments and accolades for the legacy and generosity of Albert Van Metre. President Cabrera thanked the Van Metre family for their generosity of their original gift of land and for their ongoing advice.

Rector Davis opened the floor for discussion. There was none.

**MOTION CARRIED UNANIMOUSLY BY VOICE VOTE**

The Board responded with applause. Several members of the Van Metre group expressed their appreciation for the recognition, shared background of their work with Mason, and their continued support of the University.

(Attachment 1 - Resolution: Van Metre Naming of Founders Hall)

**III. Approval of the Minutes**

Rector Davis called for any corrections to the minutes of the Planning Conference of July 26, 2018 and Annual Board meeting of July 27, 2018. Hearing none, the minutes stood approved as written.

**IV. Rector's Report**

Rector Davis reported that he attended the Scalia Law School's unveiling of the Scalia statue the previous week, noting there were five Supreme Court Justices present at the event.

Rector Davis reported the 2018 General Assembly changed in the statute regarding electronic participation in Board meetings, noting the Board is not

required to host any public meetings that allow electronic participation. He cited the two kinds of electronic meetings:

- ordinary noticed meetings that plan for electronic attendance of members and members of the public; and
- electronic attendance by one or more BOV members for last-minute reasons, such as medically unable to attend.

Rector Davis explained that for last minute electronic attendance by BOV members, the Board must have in place a written policy to govern that participation. He noted that the Board does not have such a policy and asked for unanimous consent to ask University Counsel to write such a policy for the Board's consideration at the December 2018 meeting.

Rector Davis recognized and thanked Jennifer "J.J." Davis, Senior Vice President for Administration and Finance, for her service to Mason. He noted her positive impact on the financial stability of the University while gaining the respect of the Board of Visitors and a diverse group of stakeholders. Rector Davis congratulated Ms. Davis on her new position at the University of Virginia. He read the Commendation of Appreciation (Attachment 2) and asked for a motion to approve the Commendation. It was **MOVED** by Vice Rector Hazel and **SECONDED** by Visitor Alcalde to approve the Commendation for Jennifer "J.J." Davis. Rector Davis opened the floor for discussion. There was none.

**MOTION CARRIED UNANIMOUSLY BY VOICE VOTE**

Rector Davis presented the Commendation to Ms. Davis and the Board responded with applause.

(Attachment 2 – Commendation of Appreciation for Jennifer "J.J." Davis)

**V. President's Report**

President Cabrera referred to the President's Report (Attachment 3). He noted the Faculty and Student Highlights sections and corrected Christianne Esposito-Smythers' title, explaining it should have been Psychology Professor, not Associate Professor. President Cabrera asked her to stand be recognized while he noted she is working with Fairfax County to better identify and treat potentially suicidal students by introducing an integrated training effort. President Cabrera highlighted the following: Michael Hayden, former CIA and NSA head and distinguished visiting professor, headed a panel event of intelligence experts for a discussion about relations between the president and the intelligence community; Danielle Rudes and Faye Taxman of Mason's Criminology, Law and Society Department were recognized by the American Society of Criminology. He encouraged the Board to read all the faculty and student accomplishments in his report. President Cabrera highlighted the report section on Access to Excellence and noted the current University enrollment of more than 37,000, an increase of almost 4% over last year, and a total undergraduate enrollment of almost 26,600, approximately 5% over last year. He reported that this year's freshman class is

the largest, strongest, and most diverse class in school history. President Cabrera provided background on the ADVANCE program and noted the official launch would take place later in October to welcome the first class in the program. He reported research activity continues to be strong and highlighted the chart on page 3 of his report. President Cabrera noted the strong numbers in Development heading to the campaign close in December 2018 and reported the campaign has already exceeded the goals previously set. He highlighted the Scalia Law School unveiling of the Scalia statue, the successful Biennial Scalia Tribute Dinner, and the participation of Supreme Court Justices, alumni, and leaders in the community at both of these events. He noted that a reading room was dedicated to Maureen Scalia. President Cabrera provided comments on the Campus for the Future and Rankings, noting the Mason's place in the 2018 Academic Rankings of World Universities (in the top 300 in the world and 95<sup>th</sup> in the United States). President Cabrera provided an update on his visits with state legislators in their districts and referred to the list of his legislative trips. He noted his New York trip to the U.N. General Assembly meeting and explained he had been working with the American Association of Public and Land-grant Universities to create a global network of universities to support the development of sustainable development goals and reaffirm their commitment to global engagement.

President Cabrera shared his appreciation for Jennifer "J.J." Davis and thanked her for making a big difference at Mason. He also recognized Lisa Kemp, Vice President of Finance and Budget, and thanked her for her work at Mason.

President Cabrera commented that the recent judiciary committee hearings in the U.S. Senate for the confirmation of Justice Kavanaugh had been difficult for the survivors of sexual violence. He reported that he asked Julian Williams, Vice President of Compliance, Diversity and Ethics, and Rose Pascarell, Vice President of University Life, to see if reports of sexual violence had increased in the current context and they reported a significant increase in those reports. President Cabrera noted that receiving these reports indicates that survivors of sexual violence are finding the courage to speak up. He reported that he sent a message the University community to remind everyone that the effort to eradicate sexual violence from the campuses continues and that Mason remains committed to combatting sexual violence, to serving survivors, and helping them while dealing in a fair way with those accused of sexual violence.

President Cabrera framed Provost Wu's presentation on the Gift Agreement Review. He provided background on the gift agreements, noting that the previous Spring some old gift agreements had been identified that raised concerns about excessive influence from donors in academic affairs of the University. He reported those practices were not used currently and that the gift agreements in question had expired. President Cabrera noted this raised questions as to whether there might be other gift agreements that provided similar rights to donors. He

reported that, with the support of the Board of Visitors, he created a review committee and asked Provost Wu to chair that committee. President Cabrera recognized the following people for their participation on this committee: Visitors Alcalde and Witeck; Keith Renshaw, Chair of the Faculty Senate; Student Representatives; a member of the Advancement team; and two elected faculty members. He reported the committee met 11 times over the summer and hired external experts to help them in their work resulting in a robust report. President Cabrera noted his gratitude for the committee members and was pleased to report that no major deficiencies were identified by the committee; however, the committee did find areas where improvements could be made. He expressed his commitment to continue working with his management team and the broader community and the faculty to determine how to start adopting additional practices. President Cabrera recognized members of the Advancement team noting they had been under scrutiny through this process. He reiterated that the agreements that triggered this review were old agreements and the practices employed in recent years are fully consistent with the recommendations of the report and with the desire for academic independence and transparency.  
(Attachment 3 – President’s Report)

**VI. Provost’s Report**

Provost Wu noted his pleasure that the review process was complete. He reported this report was a formal response to the Board’s resolution on May 3, 2018. Provost Wu recognized the following members for their time and efforts while serving on the review committee: Visitors Alcalde and Witeck; Keith Renshaw, Chair of the Faculty Senate; two elected faculty members from the Faculty Senate; Kathleen Diemer from Advancement; two student representatives; and Julian Williams, Vice President of Compliance, Diversity and Ethics. Provost Wu reported Baker Tilly, a third-party firm, had been engaged to work with the committee to establish a rigorous process of the entire review and validate the findings. He referred to his power point presentation (Attachment 4) and noted the review was about trust and transparency, and the issue of academic freedom and independence. He reported that at the same time, the University is very grateful for the philanthropic support that help to advance the mission of the University. Provost Wu explained the effort to achieve a balance between the high standard of academic freedom and engaging the donors with appreciation for their support of the University’s mission. He reported the committee set its sights on the future with the goal of doing better by living up to the leading practices in the United States, but to use this opportunity to leap forward to become a national model of how to balance these two important objectives. He reiterated that the report did not reflect negatively on any current practices or members of the Advancement team. Provost Wu noted the principle of identifying what is the leading practice and how does Mason improve on existing practices to achieve that.

Provost Wu explained that Baker Tilly helped set up a process for the review beginning with a set a selection criteria. He reported the committee followed the financial system to find any accounts coming through the Foundation that supported faculty positions in any way, resulting in identifying 155 related accounts. He noted that some of the 155 accounts had multiple gift agreements and some had none. In partnership with the Foundation, Provost Wu reported 393 documents were provided, noting that some of those were research grants. He explained that there were 314 gift agreements remaining after the research grants were removed from the study. Provost Wu explained that at this point in the review, specific criteria areas were identified as noted on page 3 of the power point presentation. He noted that the criteria was to assist in finding potential issues that deserved further attention and did not mean that gift agreements that met the criteria were necessarily problematic. Provost Wu reported that of the 314 documents, 29 were identified that met one or more of the 8 criteria areas. He reported that the committee reached consensus and felt comfortable with the recommendations in the report. Provost reviewed the committee's analysis and recommendations on page 3 of the power point. He concluded by stating that the committee did not find any egregious practices, but noted the committee identified some issues that require further action, specifically in the area of policy improvement including the need for further consideration of the implications of certain gift agreements. Provost Wu explained this process was evolutionary and hoped that by going through this exercise, Mason is putting itself in a position to become the national model with a set of policies and practices that the University can take pride in.

(Attachment 4 - Report of the Review of Gift Agreements)

Rector Davis opened the floor for questions and thanked Visitors Alcalde and Witeck for their participation and guidance on the committee. The Board responded with applause. He thanked Keith Renshaw and the faculty participation in the process. Visitor Alcalde thanked everyone on the committee for their work and noted the committee's charge for looking for transparency. She noted there were no agreements that were incorrect, but the review was done so Mason could be a leader in this area. Visitor Alcalde commended and thanked Provost Wu for his leadership of the committee. Visitor Witeck noted the members of the committee were smart and committed to the principles that make Mason special, and the work was guided by that common value. He commended Provost Wu on his management of the complex process of this review.

Rector Davis called for a motion to approve the resolution regarding the Report of the Review of Gift Agreements. Visitor Witeck read the resolution (Attachment 5) and Vice Rector Hazel **MOVED** approval. Rector Davis opened the floor for discussion. There was none.

**MOTION CARRIED UNANIMOUSLY BY VOICE VOTE**

(Attachment 5 - Resolution: Report of the Review of Gift Agreements)

Rector Davis thanked Provost Wu and the committee members and noted he would like all the committee members to attend the December Board meeting for appropriate recognition. Rector Davis recognized Keith Renshaw for comments. Dr. Renshaw acknowledged all the work that went into to the committee and specifically recognized June Tangney and Chris Kennedy, faculty who served on the committee. He commented that the committee did a nice job of addressing the importance of academic freedom and independence, acknowledging that bringing philanthropy and public education together is fairly new and requires something different. Dr. Renshaw commented that philanthropy often involves a lot of donor involvement and donor engagement while in public higher education there is the essential nature of academic independence and freedom where the people who generate and disseminate the knowledge are the ones who determine what is taught. He noted there are still issues, earmarked in the report, and strongly encouraged the Board to take a strong look at those areas that are earmarked as beyond the scope of review, but very important. Dr. Renshaw highlighted that the committee did not review any existing agreements on student scholarships or academic programs, two areas that he strongly recommended review. He also cited the need to review Mason's affiliated groups that are not governed by policy, but are part of the Mason community.

**VII. Board of Visitors Continuing Education (per HB1952)**

Frank Neville, Chief of Staff and Vice President of Communications and Marketing, explained the Continuing Education requirement for the Board members. He noted this time is used to provide strategically relevant University information and useful background information for the members.

Mr. Neville discussed Mason branding and the challenges of communicating the duality of Mason's identity as a top tier research university that is also committed to diversity and access. He presented a video created by the Creative Services team that will be shown during commercial breaks for the A10 basketball games, highlighting the theme "Dare to be Different".

Mr. Neville called on David Burge, Vice President of Enrollment Management, to provide a Continuing Education presentation. Mr. Burge presented information from the Lumina Foundation, the Chronicle of Higher Education, and Western Interstate Commission on Higher Education (WICHE) (Attachment 6). He reviewed the Lumina Foundation information and highlighted that three quarters of college students commute to class while juggling working, parenting or both. Mr. Burge explained that there is an aging population within higher education that universities need to figure out a how to serve. He cited the reports from the Academic Programs, Diversity, and University Community Committee on the ADVANCE initiative and the Student Experience Redesign are targeting this type of student. He also noted on the Lumina report that the growth among college students since the mid-1990's has come largely from underrepresented groups.

Mr. Burge reviewed the Chronicle of Higher Education document highlighting what the demographics of future students and what these changes will bring to higher education. He reported there is a boom in Texas due to the largest projected growth in the number of high school graduates and noted that Mason placed a recruiter in the Dallas area two years ago in anticipation of this trend. Mr. Burge reviewed the WICHE information, specific to Virginia that outlined the trends in Virginia over the next several years. He highlighted the information on the top 10 states with a majority of high school graduates and reported that Mason has regional admissions representatives either hired or in the process of being hired in 5 of those states. Mr. Burge responded to questions from the Board. President Cabrera recognized and thanked Mr. Burge and his team for the enrollment results Mason is enjoying.

(Attachment 6 – Continuing Education Materials on Enrollment Trends)

### **VIII. Committee Reports**

#### **A. Development Committee**

Rector Davis called on Chairman Hazel to provide a report from the Development Committee. Chairman Hazel reported the Development Committee received a report from Ann Ardis, Dean of the College of Humanities and Social Sciences (CHSS), noting her distinguished background. He reported the Dr. Ardis shared her reason for coming to Mason was the Mason vision, the R1 status with the belief that graduate education drives research which strengthens undergraduate education, and the liberal arts program. Chairman Hazel noted that Dr. Ardis shared her goals for CHSS that included building the faculty, create more Ph.D. student support, create a graduate pipeline program, build the undergraduate education experience, provide more merit-based scholarships, study abroad, and to pursue an NEH Challenge grant to renovate the communications center in the Johnson Center. He recognized her in the audience and thanked her for coming to the committee meeting.

Chairman Hazel reported the committee received a report from Jay O'Brien, Chair of the Foundation, who reported the endowment has grown to \$91.8 million; the YTD return on investments in 2018 is 8% which exceeds the Foundation's benchmarks. He reported that in 2016 34% of the accounts were above water; in 2018 92% of the accounts are above water, thanks to the hard work and leadership of the Foundation. The committee received a presentation by members of the Advancement staff (Rob Riordan, Jenn Robinson, and Kathleen Diemer) about the Faster Farther Campaign celebration on December 8, 2018. He encouraged the Board members to RSVP as soon as possible. Chairman Hazel reported the committee received a report from Chris Clark-Talley on the upcoming Alumni Weekend. Chairman Hazel reported that against a campaign goal of \$500 million by the end of the calendar year, Mason is currently at \$605 million with the potential for close

to \$650 million by the close of the campaign. He thanked the Advancement team and all the officers in the various schools who have helped make the campaign successful.

**B. Audit Committee**

Rector Davis called on Chairman Rice to provide a report from the Audit Committee. Chairman Rice reported the committee approved minor edits to the Committee Charter, ensuring the charter continues to fully align with the Board's Bylaws. He reported the committee also approved the Office of University Audit Charter which has the same mission, independence, responsibility, and authority requirements as the existing October 2017 charter; President Cabrera remains fully supportive of University Audit and the Charter and provides University Audit with the necessary independence, stature, access, and resources to accomplish its responsibilities to the Audit Committee. Chairman Rice reported the committee received the University Auditors annual confirmation of the organizational independence of the office of University Audit and the committee concurred with the conclusion. He reported the committee reviewed the Audit status report and the internal audit materials provided in the Board materials.

**C. Academic Programs, Diversity, and University Community Committee**

Rector Davis called on Chairman Alcalde to provide a report from the Academic Programs, Diversity, and University Community Committee. Chairman Alcalde reported the committee received updates from Provost Wu on several key initiatives including: the University's enrollment is at its highest level with over 37,000 students, noting it will be vital to maintain Mason's academic quality while supporting the mission of access; the ADVANCE partnership and the Student Experience Redesign, along with Mason's R1 research status support the students' demand for quality and need for affordable access. Chairman Alcalde reported the committee received an update from Michelle Marks, Vice President of Academic Innovation and New Ventures, on the ADVANCE program, noting there are currently 21 curricular pathways in Phase 1 of the project which launched in Fall 2018 with 129 students; 189 students are in process for Spring 2019. She provided the demographics and majors of the cohort and noted that 160 Mason and NOVA faculty met recently in a roundtable discussion to design additional pathways with the goal of increasing the number of pathways to 50 by Fall 2019. Chairman Alcalde reported the committee received an enrollment report from David Burge that included: Mason is currently engaged in enrollment planning to support Strategic Goal #4 of graduating 100,000 career-ready students, increasing Virginia and out-of-state enrollments by 2024 to 42,885 students, and assuming ADVANCE gains, online programs and new international students; enrollment growth is bringing a more diverse group of students to Mason and the University's goal is to scale services to



support all students; Mason is investing in a 3-tiered network as well as turn-key technology that will put the student in the center of a network of care that better connects students to essential offerings and provides support from the beginning of the student's journey in an effort to improve service, decrease service cost per student, and improve retention and graduation rates.

Chairman Alcalde reported the committee reviewed and approved the Action Items presented in the Board materials for submission to the Board.

It was **MOVED** by Chairman Alcalde and **SECONDED** by Visitor Petersen to approve all Action Items in block as presented in the Board materials. Those Action Items were:

- Faculty Actions:
  - Election of New Tenure Hires
- New Program Approvals:
  - LLM in Cyber Intelligence and National Security
  - MS in Climate Science
  - Ph.D. in Business

Rector Davis opened the floor for discussion. There was none.  
**MOTION CARRIED UNANIMOUSLY BY VOICE VOTE**

#### **D. Research Committee**

Rector Davis called on Vice Chairman Prowitt to provide a report from the Research Committee. Vice Chairman Prowitt reported the committee received an update from Deb Crawford, Vice President for Research, on the research enterprise at Mason and was pleased to report that sponsored research awards increased in value by almost 40% over the previous year. She reported the committee recognized with appreciation the hard work of the world class faculty, researchers and scholars who are committed to seeing Mason remain a Research 1 university for the foreseeable future. Vice Chairman Prowitt reported the committee received a report from Edward Maibach, Director of the Center for Climate Change Communications, who reviewed the research portfolio of the Center that includes climate change, pollution, and health equity and how to communicate climate science and health impacts to the American public and lawmakers, noting that people are not reacting as much to climate change information unless it impacts them directly. Vice Chairman Prowitt noted that Dr. Maibach's research was at the forefront of the efforts to address the warnings that were issued the previous week by the U.N. Intergovernmental Panel on Climate Change and the creation of the Medical Society Consortium on Climate and Health. She reported that 22 medical societies are working with Mason's Center to educate the American public on health effects of climate change and commented that Mason is leading in the research of climate change.

**E. Finance and Land Use Committee**

Rector Davis called on Chairman Petersen to provide a report from the Finance and Land Use Committee. Chairman Petersen reported the committee received briefings on the following:

- Mason's 2019 operating and capital budget
- Mason's 2018 unaudited financial statements
- State Six-Year Operational Plan
- Accounts receivable write-off
- Parental Leave Policy
- Investment Planning Committee update

Chairman Petersen reported the committee reviewed and approved the following five Action Items:

- The State Six-Year Operational Plan
- Authorizing the University to enter into a loan agreement and promissory notes for the aggregate principal amount of \$24.1 million and to authorize the Senior Vice President to approve, execute and deliver all documents necessary to achieve this bond financing (related to the Utilities Infrastructure Project)
- The Department of Human Resources Management Succession Plan
- The annual approval of the University Investment Policy 2116
- The annual Land Use Certification.

It was **MOVED** by Chairman Petersen and **SECONDED** by Visitor Moreno to approve the five Action Items in block. Rector Davis opened the floor for discussion. There was none.

**MOTION CARRIED UNANIMOUSLY BY VOICE VOTE**  
(Attachment 7: 9d Debt Resolution – Utility Infrastructure Project)  
(Attachment 8: Investment Policy 2116)

Chairman Petersen recognized and thanked Lisa Kemp, Vice President of Finance and Budget, for her service to Mason. He read her Commendation of Appreciation (Attachment 9) and presented it to her. The Board responded with applause. Rector Davis called for unanimous approval of the Commendation and thanked Ms. Kemp for her service.

(Attachment 9: Commendation of Appreciation for Lisa Kemp)

**IX. Closed Session**

It was **MOVED** by Vice Rector Hazel and **SECONDED** by Visitor Cumbie that the Board go into a Closed Session under the provisions of Section 2.2-3711.A.29 to discuss a Public Contract, Section 2.2-3711.A.9 to discuss Gifts, Bequests and Fundraising Activities, Section 2.2-3711.A.7 for consultation with Legal Counsel

pertaining to actual or probable litigation, Section 2.2-3711.A.8 for consultation with Legal Counsel regarding specific legal matters requiring the provision of legal advice, Section 2.2-3711.A.1 to discuss a Personnel Matter, and Section 2.2-3711.A.10 to discuss Honorary Degrees and Special Awards.

**MOTION CARRIED UNANIMOUSLY BY VOICE VOTE**

It was **MOVED** by Vice Rector Hazel and **SECONDED** by Visitor Cumbie that the Board go back into public session and further moved that by ROLL CALL VOTE affirm that only public business matters lawfully exempted from the open meeting requirements under the Freedom of Information Act were heard, discussed or considered in the Closed Meeting, and that only such business matters that were identified in the motion to go into a Closed Meeting were heard, discussed or considered in the Closed Meeting.

Roll call was taken with all present members responding in the affirmative.

As a result of the Closed Session, it was **MOVED** by Visitor Cumbie that pending the acceptance of the speaker invitation by the candidates reviewed in the Closed Session, the Board approve Honorary Degrees for those persons to be awarded at a future Graduation or Commencement. The motion was **SECONDED** by Visitor Petersen. Vice Rector Hazel opened the floor for discussion. There was none.

**MOTION CARRIED UNANIMOUSLY BY VOICE VOTE**

**X. Adjournment**

Vice Rector Hazel adjourned the meeting at 3:13 p.m.

Respectfully submitted,



Kathy Cagle  
Secretary pro tem

- Attachment 1: Resolution for the Van Metre Naming of Founders Hall (1 page)
- Attachment 2: Commendation of Appreciation - Jennifer "J.J." Davis (1 page)
- Attachment 3: President's Report (10 pages)
- Attachment 4: Provost's Report – Report of the Review of Gift Agreements (4 pages)
- Attachment 5: Resolution Regarding the Report of the Review of Gift Agreements (1 page)
- Attachment 6: Continuing Education Materials on Enrollment Trends (5 pages)
- Attachment 7: Debt Resolution – Utility Infrastructure Project (3 pages)
- Attachment 8: Investment Policy Resolution (3 pages)
- Attachment 9: Commendation of Appreciation - Lisa Kemp (1 page)

**George Mason University Board of Visitors Resolution**

**WHEREAS**, the Van Metre Companies is a business founded in 1955 by Albert Van Metre that builds residential, commercial, and recreational facilities in the Washington, D.C. region; and

**WHEREAS**, in 2009 the George Mason University Foundation received from Broadlands Commercial Development, a subsidiary of the Van Metre Companies, a gift of 37 acres of land located in Ashburn, Virginia; and

**WHEREAS**, this gift will now be worth more than \$20 million to the university; and

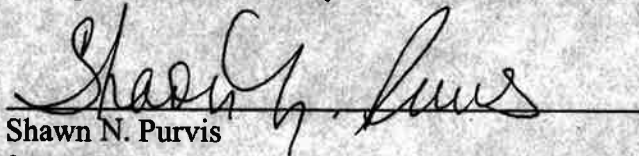
**WHEREAS**, the Van Metre Companies have supported George Mason University regularly for the past two decades, with gifts in support of the School of Business, the Schar School of Policy and Government, and the Volgenau School of Engineering, among others; and

**WHEREAS**, the Van Metre Companies and the Van Metre family, through their respective foundations, have an outstanding record of community citizenship and support for local and regional charities, focusing on causes including health, poverty, veterans, education, youth, the arts, and animal welfare; and

**WHEREAS**, Founders Hall on the Arlington Campus is one of the university's major academic buildings, hosting programs of the School of Business, the Schar School of Policy and Government, the School for Conflict Analysis and Resolution, and the College of Visual and Performing Arts, among others;

**BE IT THEREFORE RESOLVED THAT** the building known as Founders Hall on the George Mason University Arlington Campus be renamed Van Metre Hall, in honor of the long-standing support of the Van Metre Companies for George Mason University.

**BE IT FURTHER RESOLVED** that this resolution be entered into the minutes of the George Mason University Board of Visitors this day, October 10, 2018.



Shawn N. Purvis  
Secretary  
Board of Visitors  
George Mason University

**Board of Visitors  
George Mason University  
Commendation of Appreciation for  
Jennifer "J.J." Wagner Davis**

**Whereas**, Jennifer "J.J." Wagner Davis during her five-and-a-half years as George Mason University senior vice president for administration and finance has been a trusted colleague and strategic leader; and

**Whereas**, through her expertise and leadership, Ms. Davis enhanced the financial health and prosperity of the largest and most diverse public university in the Commonwealth of Virginia; and

**Whereas**, Ms. Davis took a high-energy, people-first approach with a willingness to listen, keeping the lives and well-being of Mason students, faculty, and staff at the heart of her financial decisions; and

**Whereas**, Ms. Davis's leadership style and method to productive problem-solving can be summed up with her oft-repeated request: "Let's get everybody in a room together," facilitating important and often difficult conversations to move the collective forward; and

**Whereas**, Ms. Davis, at a time of tremendous growth at George Mason University, improved efficiency and effectiveness by seeking public-private partnerships, restructuring the university's debt, and repurposing university assets, resulting in bond rating upgrades that secured the institution's financial future; and

**Whereas**, Ms. Davis led the planning and implementation of an incentive-based budget model that offers Mason academic units greater autonomy in how they attract and allocate resources; and

**Whereas**, Ms. Davis worked with state lawmakers and government officials to achieve a greater level of financial and administrative autonomy for George Mason University and worked to close the longstanding funding gap between Mason and the state's other doctoral universities; and

**Whereas**, Ms. Davis in handling a \$1 billion budget oversaw the financing, construction, and expansion of George Mason University facilities, including the Peterson Family Health Sciences Hall, Core Campus Project, and Bull Run Hall as well as enhancements in information technology, safety, emergency and risk management, campus police, and other departments; and

**Whereas**, Ms. Davis, in the absence of state raises, in the true Mason entrepreneurial spirit found innovative ways to reward faculty and staff through retention bonuses and other means, and;

**Whereas**, throughout her tenure Ms. Davis clearly – and cheerfully -- communicated the university's financial status and challenges to Mason students, faculty, staff, Board of Visitors, and others to keep all stakeholders engaged and well informed; and

**Whereas**, Ms. Davis worked to implement – and participate in – well-being initiatives that helped Mason earn a No. 54 national ranking from Forbes magazine for best mid-sized employer, while cultivating and supporting a strengths-based culture providing opportunities for faculty and staff to thrive;

**Now, therefore**, the Rector and Visitors of George Mason University unanimously congratulate and commend Ms. Jennifer "J.J." Wagner Davis for her dedication, service, and contributions to George Mason University.



Tom Davis, Rector  
George Mason University

**President's Report**  
**October 10, 2018**

[Goals and activity updates since the May 3, 2018 BOV meeting.]

**Faculty Highlights:**

- Psychology associate professor Christianne Esposito-Smythers is helping Fairfax County better identify and treat potentially suicidal students by introducing an integrated training effort, the Fairfax Consortium for Evidence-Based Practice: A Training Collaborative, partnering with Healthy Minds Fairfax and Inova Kellar Center.
- Former CIA and NSA head Michael Hayden, a distinguished visiting professor, assembled an esteemed panel of intelligence experts for a wide-ranging discussion about relations between the president and intelligence community. C-SPAN televised the event.
- The American Society of Criminology recognized two members of Mason's Criminology, Law and Society Department for their scholarship. Danielle Rudes won the ASC Teaching Award and Faye Taxman was named an ASC Fellow.
- Mason economist Stephen S. Fuller received the 2018 NOVAForward Award from the Northern Virginia Chamber of Commerce for his long-time contributions to the area's economic development.
- A team of researchers, led by electrical and computer engineering associate professor Jill Nelson, has received a \$1.75 million National Science Foundation grant to introduce a more active-learning approach that would improve student understanding, increase retention, and boost the numbers of women and minorities in STEM fields.
- School for Conflict Analysis and Resolution professor Tatsushi Arai was selected from a global pool of 400 candidates as a United Nations Senior Mediation Adviser.
- College of Health and Human Services researchers Farrokh Alemi and Sanja Avramovic have published a study in *Big Data* that could help clinicians predict unreported opioid abuse by their patients.
- Rehabilitation science professor Andrew Guccione and his graduate students have combined exercise science and neuroscience to prove that patients with incomplete spinal cord injuries can experience fuller recoveries than previously thought.
- In research funded by the National Endowment for the Humanities, religious studies assistant professor Garry Sparks has gathered remnants of an ancient text that will provide information on how the first Spanish missionaries shared their faith in the New World in the 1500s.
- A nine-person FCC team predominantly composed of Mason faculty and alumni, including systems engineering and operations research professor Karla Hoffman, received the 2018 Franz Edelman Award for Achievement in Operations Research and the Management Sciences for their work in repurposing 84 megahertz of low-frequency electromagnetic spectrum.
- College of Health and Human Services professors, including Janusz Wojtusiak, analyzed data from GPS trackers to predict if individuals with dementia are wandering, using machine learning methods to identify movement patterns.

- A short story written by English professor Art Taylor was a finalist for three mystery writing awards.
- Associate electrical and computer engineering professor Peter Pachowicz secured the use of a discarded 30-foot satellite dish on the Fairfax Campus and partnered with information solutions and services company CACI to make the dish available for CACI engineers and students to receive signals, data, and images from satellites as well as signals from missions to the moon.
- Kylene Kehn-Hall, associate systems biology professor, is heading a scientific team that has received a five-year, \$2.5-million Department of Defense grant to combat the threat of a South American disease that can cause long-term neurological problems and death.
- Louise I. Shelley, director of Mason's Terrorism, Transnational Crime and Corruption Center, and Naoru Koizumi, associate professor and director of research in the Schar School, received a National Science Foundation grants to focus on dismantling illicit supply networks.
- Four Mason professors are among the 127 historians and scholars requesting that the U.S. Department of Treasury place former slave and abolitionist Harriet Tubman on the new \$20 bill.

#### **Student Highlights:**

- Cyber security engineering major Doreen Joseph, from the Honors College, was named Mason's Black Scholar of the Year, was a Truman Scholarship finalist and received Honorable Mention recognition for the Goldwater Scholarship.
- Business management major David Erinle started his own independent record label, interned with producer Javon Gant-Graham, produced a track for model Ashley Graham's new swimsuit line commercial, and produced his own album.
- Five Mason students received Boren Awards to undertake intense study abroad to develop their language and international skills.
- Junior Veronica Lewis's viral tweet warning how the movie "Incredibles 2" could affect audience health because of scenes with strobe and flashing lights prompted Disney/Pixar to request that theaters post signs advising of those scenes.
- Coren Jonathan Allen, who enrolled in S-CAR at age 46 after a 22-year Army career, has developed a peace-building curriculum based on the foundations he laid out in a book he wrote.
- Computer game design majors Ryan Kennedy and Noah Bowden were finalists in a college game competition and showcased their creation, called "Turbolance," at one of the largest annual gaming events in the world, the Electronic Entertainment Expo (E3).
- Schar School senior fellow Ruta Aidis created a website that provides verified information about venture capital firms founded by women and that invest in women-led companies to bring "visibility and transparency" to the VC field.
- Women's soccer team member and Honors College student Emily Littell has been named to 13 academic honor rolls, including the 2017 Google Cloud Division I Academic All-America Second Team.

**Access to Excellence:**

**Overall Enrollment:** Overall university enrollment is 37,721, which is up by 3.9% over last year. Total undergraduate enrollment is 26,590, which up by 4.9% over last year while total graduate enrollment, at 10,531, is 0.9% higher than last Fall.

**Entering Class:** The 2018 entering freshman class is the largest in school history, totaling 3,718 (representing a 6% increase, and almost 7% increase in out-of-state students). The 2018 entering freshman class is also the strongest in school history, with an average SAT of 1218 (vs. 1197 the prior year) and a high school GPA of 3.70 (vs. 3.66). Finally, the 2018 freshman class is the most diverse in school history, with minority students surpassing 50% for the first time, driven mostly by growth in Asian and Hispanic students. We also expect the 2018 transfer class to be the largest in school history, totaling 3,139 students. The number of incoming transfer students has increased by 25% over the past three years.

**Transformative Learning:**

**ADVANCE:** The Mason-NOVA ADVANCE partnership launched this Fall with 129 students enrolled. We began the program with 20 pathways and are currently working to add 30 additional pathways for 2019.

**Adult Learners:** We continue to explore possible partnerships which would expand our ability to serve adult learners through online education. This Fall we have held multiple campus conversations on this topic. We will update you on our progress in a separate briefing.

**Wiley Partnership:** We vastly exceeded our Fall 2018 goal with 211 enrollments in our portfolio of Wiley online offerings. The biggest increases came in Special Education and the MBA program.

**Research:**

After an exceptional strong performance last year, research activity continues to grow rapidly. In addition to large increases in expenditures, rapid growth in the value of new awards bodes well for sustained growth.

	FY18 thru Aug	FY19 thru Aug	Difference
<b>Proposals No.</b>	204	225	10.3%
<b>Proposals \$</b>	\$71,943,853	\$90,723,069	26.1%
<b>Awards No.</b>	221	231	4.5%
<b>Awards \$</b>	\$31,887,662	\$45,347,177	42.2%
<b>Expenditures*</b>	\$21,775,648	\$28,925,687	32.8%
<b>F&amp;A*</b>	\$4,071,156	\$5,049,259	24.0%

\*5 payrolls through Aug 19 vs 4 payrolls thru Aug 18



**Development:**

As of October 8, we had raised \$10.9M (compared to \$7.3M as of 10/08/17). Endowment giving is \$878k this year compared to \$982k at the same time last year. The total number of alumni donors stands at 661 compared with 907 at the same time last year; the focus of alumni outreach so far this year has been on cultivating new donors and we should see an increase over the next few weeks as we begin reaching out to repeat donors.

Campaign giving to date is \$605M, which means we have exceeded both our original goal of \$500M as well as our revised goal of \$600M by the December 2018 campaign close date.

The Gift Review Committee, which I charged with reviewing all active donor agreements supporting faculty positions, and providing recommendations on gift acceptance policies and practices, has completed its report. The Provost will brief you on the details following my report.

The Scalia Law School celebrated a successful Biennial Scalia Tribute Dinner in the Reagan building, dedicated a new statue of Justice Antonin Scalia and dedicated a reading room to Maureen Scalia. Five Supreme Court Justices were in attendance in what became another historic moment for the University.

**Campus for the Future:**

Construction started as scheduled this Fall on a replacement for Robinson Hall and associated major upgrades to the Fairfax campus utility infrastructure. Completion is scheduled for 2021.

Conversations continue on concepts for the next stage development of West Campus, SciTech, and Arlington. For West Campus, the county has completed an RFP and has identified a possible partner who would develop student housing and related amenities near the current Field House site. For SciTech, academic planning is underway in order to finalize the design of the Bull Run Hall addition. For Arlington, a team is evaluating options for the replacement of the original building.

**Rankings:**

In the 2018 Academic Rankings of World Universities, Mason was ranked 95<sup>th</sup> in the United States and in the top 300 in the world, with the Antonin Scalia Law School (18<sup>th</sup> in the world), economics (30<sup>th</sup>), and public administration studies (40<sup>th</sup>) among the individual leaders.

Mason jumped 82 spots in the annual Center for World University Rankings, which lists the top 1,000 institutions worldwide. Mason checked in at 322<sup>nd</sup> in the world and 109<sup>th</sup> in the United States, up 22 spots from a year ago.

Money magazine ranked Mason 30<sup>th</sup> nationally among institutions that admit more than 50 percent of applicants and No. 34 as a transformative college. Mason also tied for 97<sup>th</sup> as a best value college out of the 727 institutions evaluated.

Washington Monthly ranked Mason sixth nationally as a best four-year college for adult learners. Mason ranked ninth in loan repayment and 20<sup>th</sup> in mean earnings 10 years after college, and 59<sup>th</sup> overall.

Forbes ranked Mason 49<sup>th</sup> nationally among public universities. The Wall Street Journal/Times Higher Education College Rankings rated Mason 231<sup>st</sup> nationally, up 43 positions from the previous year.

U.S. News & World Report ranked Mason 25<sup>th</sup> nationally in campus diversity, 28<sup>th</sup> for educational innovation, and one of 96 national institutions listed as an "A+ School for B Students." U.S. News ranked Mason 136<sup>th</sup> overall nationally and 67<sup>th</sup> nationally among public universities.

Affordable Colleges Online recognized Mason as one of the most inclusive campuses for LGBTQ students.

### **Media:**

Mason faculty, staff, and students continue to feature prominently in national and international media. Please read the weekly digest for the latest.

### **Legislative Update – Federal:**

Participated in the opening of the 2018 Department of Homeland Security's Centers of Excellence Summit at Founders Hall on the Arlington Campus. Summit remarks featured innovative R&D tools and solutions to homeland security challenges from all current U.S. DHS Centers of Excellence. The event also highlighted Mason's Center on Criminal Investigations and Network Analysis, which develops tools and technologies, as well as innovations in education and training to advance the nation's abilities to counter transnational criminal activities. Mason's Center also played an important role in helping the sponsor of the event, the DHS Science and Technology Directorate (S&T) Office of University Programs, organize the program. Welcomed the keynote speaker, Mr. Christopher Krebs, then the nominee for Under Secretary for the DHS division that oversees these important programs, noting that Mr. Krebs was a Scalia Law School alum. A few days after the event, Mr. Krebs was confirmed by the Senate.

Rector Tom Davis opened an event on Capitol Hill, providing a briefing for Congressional staff on the crucial role that the Department of Homeland Security's Centers of Excellence play in solving critical homeland security challenges. The session was held as a follow up to the Summit (previously noted). The program is operated by the DHS Office of University Programs through Congressional appropriations. Rector Davis explained that the Centers of Excellence program serves a critical responsibility of advancing the nation's technical capabilities in protection against terrorism, securing the borders, and responding to natural disasters. He also noted that the session was made possible through the generous assistance of Rep. Barbara Comstock. Staff from several key committees and offices attended. Representatives of eight of the Centers, including Mason's Center for Criminal Investigations

and Network Analysis, made brief presentations highlighting their contributions to DHS and the country. Staff then engaged in a series of questions and answers.

### Legislative Update – State:

In keeping with past years, I spent considerable time with legislators in the late summer and early fall—mostly in their home districts. Mark Smith and Sarah Huang coordinated a full schedule providing opportunities to promote the university and emphasize the funding needs for Mason.

- The meetings were grouped during four multi-day trips:
  - Trip 1 was Fredericksburg to Richmond to Lynchburg to Roanoke to Christiansburg to Charlottesville. In addition to meeting with the Editorial Board for the Roanoke Times, I met with 3 cabinet secretaries, a deputy secretary, the Governor’s deputy chief of staff and the Governor’s policy director. In terms of legislators, I met with 6 House members and 5 Senate members.
  - Trip 2 was Montross to Richmond to Norfolk to Suffolk to Chesapeake to Virginia Beach to Mechanicsville. In addition to serving as the keynote speaker at the Old Dominion University Hispanic Heritage Month banquet, I met with a number of legislators – 6 House members and 3 Senate members.
  - Prior to my third trip, Beth and I hosted 4 members of the House and their spouses at the Mathy House. It provided a wonderful opportunity to build on our relationships with legislators in Northern Virginia.
  - Trip 3 was Richmond to Williamsburg to Clifton to Middleburg. We met with 4 House members and 3 Senate members.
  - Trip 4 will be executed later this month. My legislative meetings have been scheduled around my participation as a panel member at SCHEV’s annual Board of Visitors’ Orientation. I am scheduled to meet with 2 House members and 2 Senate members.
  - Of the 20 House members on this itinerary, 12 are on House Appropriations. Of the 11 Senate members on this itinerary, 9 are on Senate Finance.
  - During my time in Richmond, I was also able to meet with key staff with House Appropriations and Senate Finance to discuss budget and policy matters that are important to Mason.

### Looking forward:

- November 13: House Appropriations Retreat (Harrisonburg)
- November 15: Senate Finance Retreat (Williamsburg)
- December 18: Governor releases budget proposal
- January 9: General Assembly convenes

**External Activities & Speaking Engagements:**

- Attended the Life with Cancer event hosted by Carolyn and Milt Peterson, longtime friends and supporters of Mason.
- Hosted an Economic Club of Washington Member Dinner at the Mathy House.
- Accepted an invitation to an Economic Club of Washington member-hosted dinner at the home of Alan Dabbieri.
- Along with other members of the VBHEC board, attended dinner with Governor Northam and his staff in Richmond.
- Provided welcome remarks at the US Department of Homeland Security Centers of Excellence Summit at the Arlington campus. Additional details available in the Federal Legislative Update section.
- At the invitation of H.E. Emanuel Gonzalez-Revilla, Ambassador of Panama to the United States, attended a dinner in honor of Ambassador Roman Macaya.
- Participated as keynote speaker at the Prince William Chamber of Commerce Economic Development luncheon which featured Governor Northam.
- At the invitation of Long and Kimmy Nguyen, attended their annual Pragmatics Scholarship Award Ceremony.
- Attended the National Geographic Explorers Festival dinner.
- At the invitation of Mike Ulica, Interim President and CEO of National Geographic Society, attended a dinner in recognition of environmental leadership by President Michelle Bachelet, Minister Heraldo Muñoz, and Minister Marcelo Mena, of Chile.
- Participated in the APLU Summer Council of Presidents Meeting in Guadalajara, Mexico.
- Met with J. Stephen Jones, new CEO of Inova.
- Attended the Economic Club of Washington Annual Meeting of the Board of Directors.
- At the United Nations, participated in several meetings and on a panel with Ms. Cara Smyth, Vice-President and Founding Director of the Fair Fashion Center, Glasgow Caledonian New York College and Bruce Stiffler, Professor and Chair, Georgia Tech School of City and Regional Planning (USA). Topic of all engagements was specific to the Higher Education Sustainability Initiative.
- Along with Dr. Scott Ralls, President of Northern Virginia Community College; Dr. Karen A. Stout, President & CEO of Achieving the Dream & President Emerita, Montgomery County Community College; and Dr. Carl J. Strikwerda, President of Elizabethtown College participated in an Aspen Institute panel to discuss concrete ways to increase community college transfer opportunity to colleges and universities with high graduation rates.
- Attended an event hosted by the City of Manassas and the Commonwealth of Virginia Economic Development. Governor Northam announced a \$3 billion expansion of the Micron plant in Manassas.
- At the invitation of Sergio Amaral, Ambassador of Brazil, attended the screening of "Wild Amazon, Savage Realm" hosted by National Geographic.
- Participated as the keynote speaker at an event at ODU recognizing Annual Hispanic Heritage Month.
- In cooperation with APLU, UNITAR and UNESCO, moderated a roundtable discussion focusing on strategy to action; determining the goals and activities of APLU and the UN that each organization can commit to. Also participated in a ceremonial declaration signing.
- Served as primary speaker for a Lifelong Learning session at the Hylton Performing Arts Center. The course covers challenges facing U.S. higher education, including the steep and

steady decline in public financial support, the increasing necessity of philanthropy and public-private partnerships, the traditional college student, questioning the value of a college degree, and the loss of the international student population.

- Attended and continued to Chair (through June 2018) the Virginia Council of Presidents meetings (including GPAC/SCHEV sessions).
- Along with Tim Sands, coordinated and participated in the Growth4VA Presidents Working Group Activities.
- Participated in various development activities/cultivation dinners and visits with donors and business CEOs.
- Attended 123 Club sessions.

**Internal/Campus-Related Activities & Speaking Engagements:**

- Hosted the annual SCHEV Outstanding Faculty Luncheon at the Mathy House recognizing this year's nominees and recipient, Fred Bemak.
- Provided congratulatory remarks to the MasonLIFE program graduates.
- Joined members of the Alpha Phi Alpha Fraternity for a congratulatory lunch as winners of the Strengths Finder Team competition.
- Following remarks by Thomas Barkin, Chair of the Richmond Federal Reserve Board, participated in a fire side chat with Tom and School of Business Dean, Maury Peiperl.
- Attended and provided remarks at the annual Mason Athletics Senior Salute event.
- Joined a Coffee & Conversation session with three-year employees of Mason, providing an update on the state of the university and other current initiatives.
- Provided remarks at the 7<sup>th</sup> Annual Celebration of Student Scholarship, an event to showcase an expanding set of students and projects, along with honoring the OSCAR student and faculty award winners.
- Attended and provided remarks at the annual Taste of Arts By George event hosted by Carolyn and Milt Peterson.
- Participated in the Alumni Association Golden Anniversary Gala, which provided an opportunity to honor Mason's Alumni Exemplars and celebrate the 50<sup>th</sup> Reunion of the Class of 1968.
- Along with NOVA President Scott Ralls, co-hosted a dinner with local business leaders seeking their support for the ADVANCE partnership.
- Presided over the 51<sup>st</sup> Commencement Ceremony.
- Attended Board of Trustees Full Board and Executive Committee meetings.
- Participated in a 4VA Management Board meeting.
- Along with Anne Altman, co-hosted a School of Business dinner at the Mathy House.
- Participated in various A10 Presidents meetings and conference calls.
- Attended the Mason Wine Release celebration hosted by Susan Soza at her home.
- Participated in several Growth4VA conference calls.
- Presided over a two-day Executive Council Retreat.
- Provided a university welcome at the OVN Board Meeting and also attended the group's luncheon.
- Provided welcome remarks at the Excelencia in Education HIS Institute. Presidents for Latino Student Success (P4LSS) is a diverse group of college and university presidents and chancellors who are a part of the *Excelencia* in Action network and collaborate

with *Excelencia* in Education to leverage collective expertise and resources, foster partnerships, and amplify current efforts at the national level.

- Attended the annual EIP Summer Academy lunch.
- Along with Wendy Marquez, co-hosted a Community Leaders Dinner at the Mathy House.
- Hosted the annual Planning Conference with the Board of Visitors, President's Council, and members of the Board of Trustees.
- Lectured Mason's Men's Basketball team on Spain's culture, history and relevant background prior to their trip.
- Participated in Freshmen Move-In and spoke at the New Student Convocation welcoming the largest-ever incoming class.
- Along with Provost Wu, hosted the Fall Faculty Conversation, which provided an opportunity for dialogue on recent successes with enrollment, access and diversity and current university initiatives.
- Introduced the Hayden Center Event "Secrets, Presidents and Dissents" the first in a series of events that will examine Accountability of Intelligence. The panel examined the relationship between the President and the Intelligence Community. Nicole Wallace, host of MSNBC's Deadline White House served as moderator. Participating panelists were Michael Hayden, James Clapper, Michael Rogers, and Philip Mudd.
- Met with Student Government officers and other senior administrators to discuss ongoing initiatives and the new academic year.
- Hosted over 200 new faculty members at the Mathy House for the annual welcome reception.
- Attended and provided remarks at the Grand Piano Celebration and dinner hosted by the Friends of Music.
- Participated in the fall semester President's Student Advisory luncheon meeting. Topics of conversation included Inclusivity vs. Diversity, the National Coalition Building Institute, and the Arlington Shuttle.
- Attended and provided remarks at the Scalia Law School Biennial Scalia Tribute Dinner and the Dedication and Statue Unveiling.
- Hosted a reception at the Mathy House for the Faculty Senate, along with providing remarks and taking questions at one of their fall sessions.
- Attended and provided remarks at the Athletics Annual Hoops and Heels event, which kicks off the women's basketball season.
- Kicked off the academic year with an ongoing series of one-on-one meetings with the academic deans followed by town hall sessions with unit faculty and staff. These sessions will continue throughout the fall.
- Met individually with the majority of Board of Visitor members. These sessions will continue throughout the fall.
- Attended various Mason sporting events.
- Attended the inauguration of Harvard's new president.

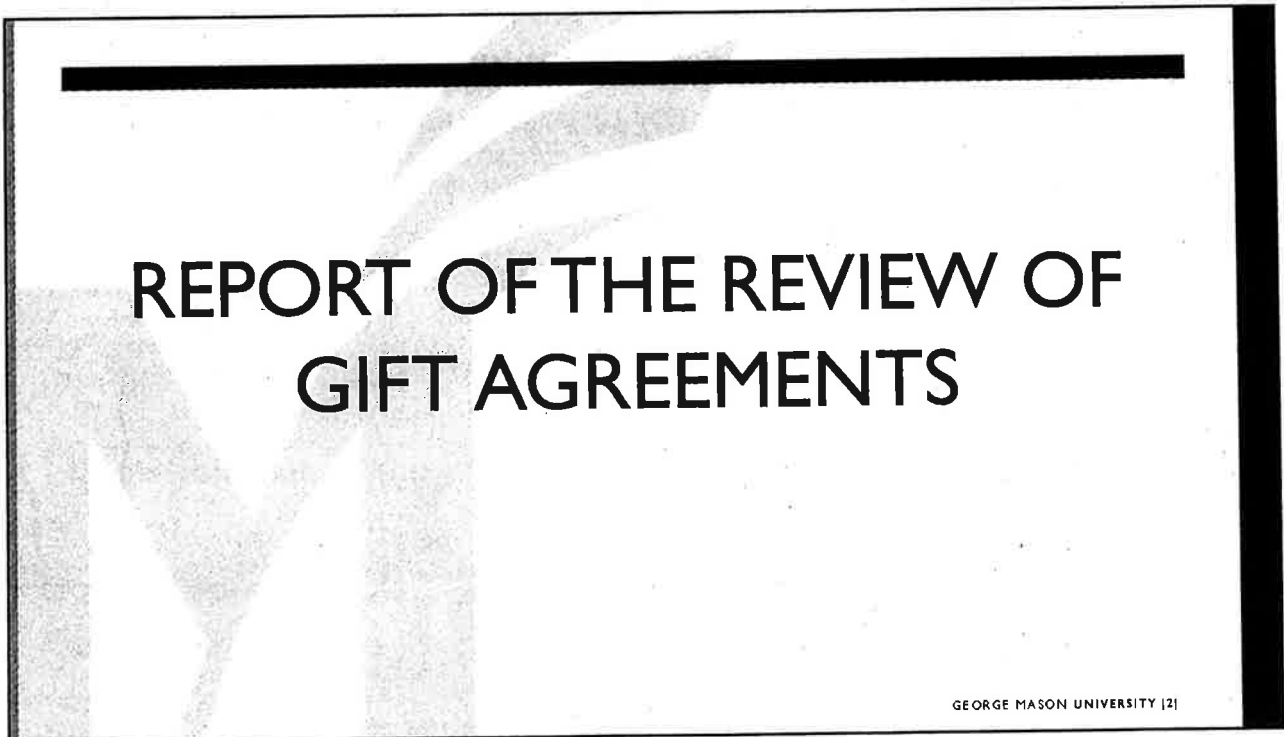
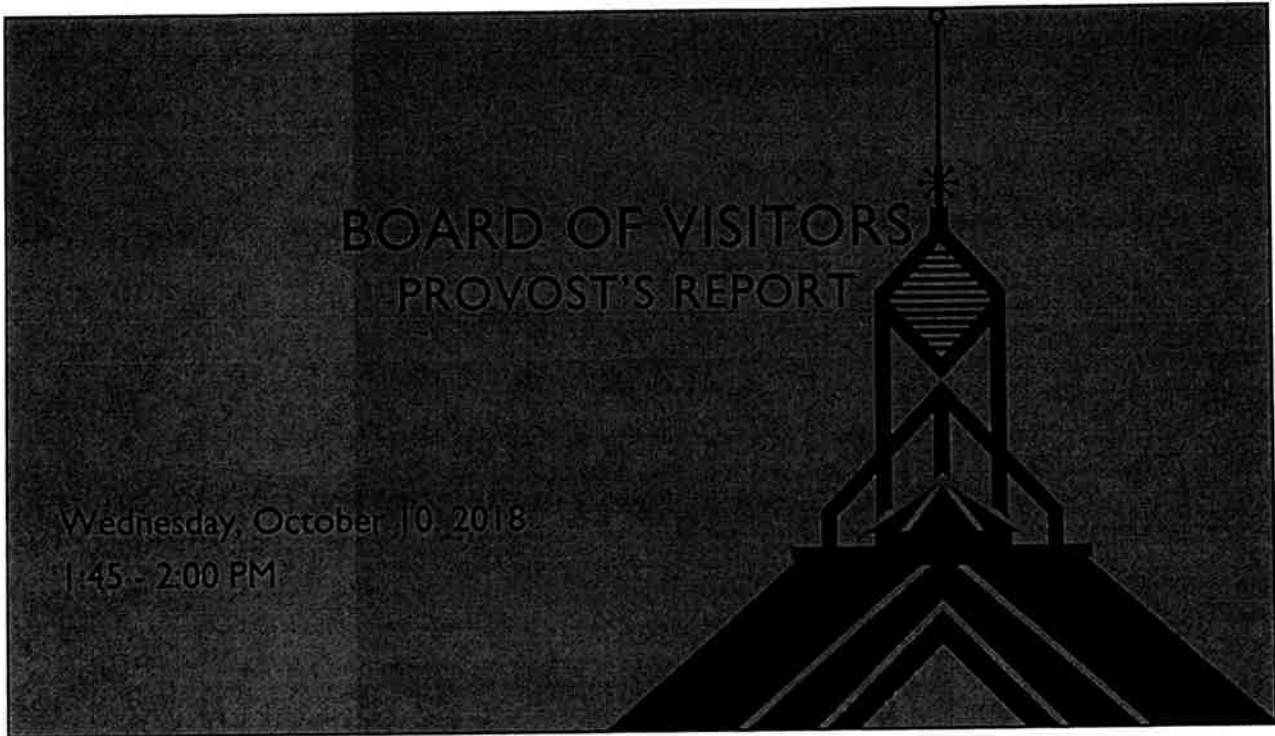
#### **Outside Board Service:**

- Inovio (NASDAQ:INO) (telephonic/in-person meetings).
- Georgia Tech Advisory Board (meeting in Atlanta).
- Bankinter Foundation of Innovation, Madrid, Spain (no meeting attendance this period).
- Northern Virginia Technology Council.

- Consortium of Universities of the Washington Metropolitan Area (telephonic meetings).
- Tec de Monterrey, Mexico, Academic and Research Board (videoconference meeting).
- Institute of International Education/Council for International Exchange of Scholars Advisory Board (no meeting participation this reporting period).
- Washington Airport Task Force (no meeting attendance this period).
- National Geographic (telephonic/in-person meetings in DC).
- Richmond Federal Reserve Board (telephonic/in-person meetings in Richmond).
- Economic Club of Washington Board (in-person meeting).
- Center for Innovation Technology (CIT).

**Select Upcoming Events:**

- Fall for the Book Activities – October 10-13
- Alumni Weekend – October 11-14
- Mason Madness – October 12
- BOV Annual Recognition Event – October 17
- Wilkins Lecture featuring James Forman, Jr. – October 25
- National Leadership Council – November 2-4
- Thanksgiving Holiday/University Closed – November 21-25
- Faster Farther Campaign Celebration – December 8
- Next BOV Meeting – December 12





## BACKGROUND

- Trust and transparency are indispensable to academic freedom and independence for academic institutions. As a public institution, George Mason University is bound to fulfill its obligations to the Commonwealth of Virginia.
- As a recipient of philanthropic funds, the University must fulfill its obligations to generous donors and benefactors, provided that no terms are found to conflict with our public commitment to protect the scholarly freedom of the University and to ensure an open academic climate.
- The University is embarking on an effort to enhance transparency and ensure academic independence in the gift acceptance and agreement process.

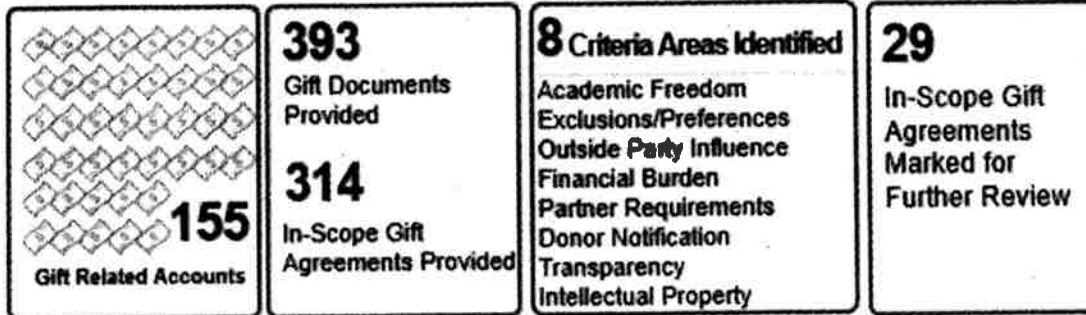
GEORGE MASON UNIVERSITY |3|

## VISION

- Mason strives to become a national model for upholding core principles of academic independence while maintaining quality donor cultivation and stewardship activities.
- To achieve that balance, Mason should continue its commitment to academic freedom and donor engagement, and engender public trust by increasing transparency related to gift agreements.
- We are mindful and deeply grateful to the thousands of donors who make it possible to deliver on Mason's mission of excellence and affordability, particularly as public funding for higher education has not kept pace with costs.
- We must ensure trust and accountability to these benefactors, and above all, to all of the University and Commonwealth stakeholders.

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## SCOPE AND APPROACH



- The Committee reviewed all identified gift agreements with regard to the eight *Gift Review Criteria* areas to mark any that had language related to the criteria.
- In fiscal year (FY) 2018, 16,000 gifts were received by the George Mason University Foundation, Inc. (Foundation), on behalf of the University.

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## ANALYSIS AND RECOMMENDATIONS

For each *Gift Review Criteria* area, the Committee:

- Identified key factors to be considered during the analysis of gift agreements.
- Noted examples of past gift agreement language posing potential challenges.
- Noted representative leading practice language from past gift agreement language and from the benchmarking review of other institutions.
- Recommended policy principles.

The Committee organized recommendations into three categories:

- (1) specific recommendations that arose during the review of gift agreement language based on *Gift Review Criteria*;
- (2) broader recommendations to improve University gift acceptance policies, procedures, and protocols; and
- (3) recommendations related to issues beyond the formal scope of the Committee's charge.

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## CONCLUSION

- Based on this process, the Committee did not find any egregious practices.
- Of the 314 agreements reviewed, the Committee marked language in 29 agreements, representing approximately nine percent of reviewed agreements.
- The Committee did identify some issues that require further action and policy improvements, including the need for further consideration of the implications of certain gift agreement provisions.
- Relatedly, the Committee identified opportunities to evolve Mason’s gift agreement-related policies to include a number of leading practice provisions.
- It is the Committee’s hope that the review criteria and recommendations will not only prove relevant to Mason, but could also serve as a touchstone for other public higher education institutions in evaluating their own processes.

GEORGE MASON UNIVERSITY [7]

RESOLUTION OF THE BOARD OF VISITORS  
REGARDING THE REPORT OF THE REVIEW OF GIFT AGREEMENTS

WHEREAS, the University is committed to the principles of academic freedom and independence; and

WHEREAS, in April of 2018, President Cabrera initiated a review of all active donor agreements supporting faculty positions, and gift acceptance policies and practices of the University, to ensure compliance with such principles; and

WHEREAS, on May 3, 2018, the Board of Visitors endorsed the review initiated by President Cabrera and requested that faculty, students and visitors be included in the review process; and

WHEREAS, President Cabrera appointed a committee (the "Committee") comprised of administrators, faculty, students and visitors and chaired by Provost David Wu to perform this review; and

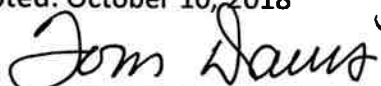
WHEREAS, the Committee has completed its review, and reported its findings to the President and to the Board of Visitors in its Report of the Review of Gift Agreements (the "Report"), dated October 9, 2018; and

WHEREAS, President Cabrera has recommended that the Report be made public and posted online, and

NOW, THEREFORE, be it resolved:

1. The Board agrees with President Cabrera that the Report shall be made available to the public and directs him to make it so.
2. The Board directs President Cabrera to evaluate the recommendations contained in the Report and to provide regular updates to the Board on any proposed changes in policy.
3. The Board expresses its gratitude to Provost Wu and the members of the Committee for their work to strengthen a culture of trust and transparency in the University.
4. This resolution shall take effect immediately.

Adopted: October 10, 2018



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Tom Davis  
Rector

# TODAY'S COLLEGE STUDENTS ARE...

## BALANCING MULTIPLE RESPONSIBILITIES

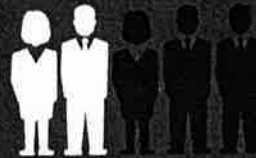


**THREE-QUARTERS  
OF COLLEGE STUDENTS**  
COMMUTE TO CLASS WHILE JUGGLING PARENTING,  
WORKING AND BOTH.

**40 PERCENT**  
ATTEND SCHOOL ONLY  
PART-TIME.



STUDENTS WORK ON AVERAGE  
**19 HOURS  
PER WEEK**



ABOUT  
**40 PERCENT**  
OF COMMUNITY-COLLEGE STUDENTS  
WORK 20 OR MORE HOURS  
PER WEEK.

## OLDER AND MORE RACIALLY DIVERSE

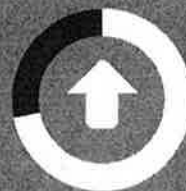


**38 PERCENT**  
OF ALL TODAY'S UNDERGRADUATES  
ARE OLDER THAN 25.

THE VISION THAT MOST OF US HAVE OF  
COLLEGE STUDENTS – 18- TO 21-YEAR-OLDS  
WHO ATTEND SCHOOL FULL-TIME – ONLY  
MAKE UP ABOUT A THIRD OF THE  
COLLEGE POPULATION.



ENROLLMENT AMONG  
HISPANIC STUDENTS  
**TRIPLED**  
SINCE THE MID-1990'S,



**AND BLACK STUDENT  
ENROLLMENT GREW BY  
72 PERCENT.**

AND THOSE TRENDS ARE EXPECTED TO CONTINUE THROUGH 2021, WITH BLACK ENROLLMENT PROJECTED TO GROW BY 25 PERCENT, HISPANIC STUDENTS PROJECTED TO INCREASE BY 42 PERCENT, AND ONLY A 4 PERCENT INCREASE IN WHITE STUDENTS FORECASTED.



# FINANCIALLY SUPPORT THEMSELVES... AND OFTEN STRUGGLE TO MAKE ENDS MEET

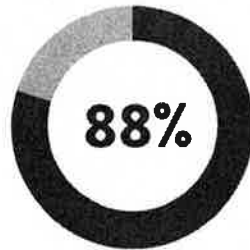
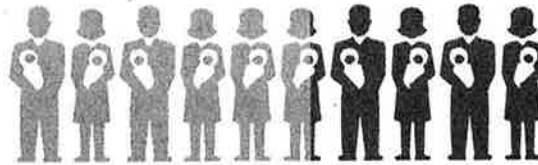


## 4.8 MILLION

POSTSECONDARY STUDENTS ARE PARENTS, AND OF THOSE, 61 PERCENT HAVE NO MONEY TO CONTRIBUTE TO THE COST OF COLLEGE.

## ALMOST HALF OF TODAY'S STUDENTS

ARE ON THEIR OWN FINANCIALLY. HALF OF THOSE STUDENTS (25%) HAVE FINANCIAL DEPENDENTS OF THEIR OWN.



## 88 PERCENT

OF SINGLE STUDENT-PARENTS HAVE INCOMES BELOW 200 PERCENT OF THE POVERTY LINE.

## LESS LIKELY TO GRADUATE



STUDENTS WITH ADDITIONAL FINANCIAL, WORK AND FAMILY OBLIGATIONS ARE **TWICE AS LIKELY TO DROP OUT OF SCHOOL** IN THEIR FIRST YEAR AS STUDENTS FRESH OUT OF HIGH SCHOOL – **38 PERCENT COMPARED TO 16 PERCENT.**



NO MORE THAN **A QUARTER OF PART-TIME STUDENTS** MAKE IT TO GRADUATION, EVEN WHEN GIVEN **TWICE AS LONG TO COMPLETE.**



# THE CHRONICLE OF HIGHER EDUCATION®

## The College Student of 2025

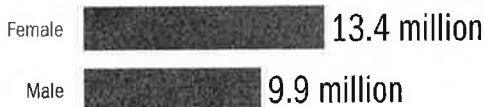
# How changing demographics will impact higher ed

The college student of 2025 will be different from today's, forcing colleges and universities to rethink admissions and academic programs. Some of these changes reflect longstanding trends, like the increase in female students, while others are new. Regardless, each will have a profound effect on the future of higher ed.



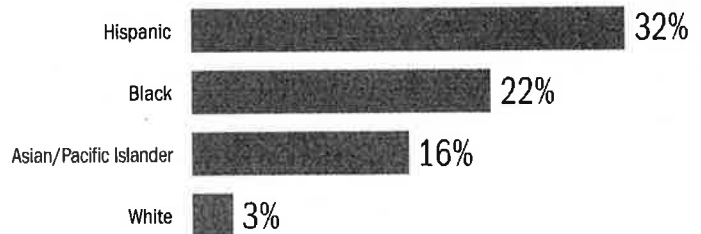
## Compared With Today, a Student in 2025 Will More Likely Be ...

### Female



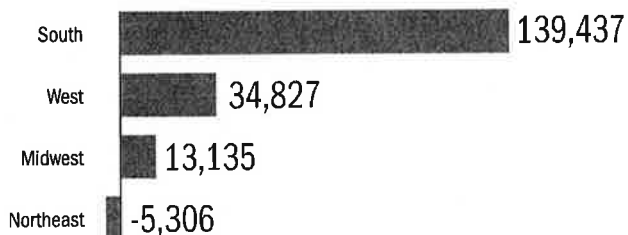
Estimated number enrolled in degree-granting postsecondary institutions in fall 2025.

### From a Minority Group



Estimated percent increase in enrollment for degree-granting postsecondary institutions between fall 2014 and fall 2025.

### From the South



Estimated changes in number of high-school graduates in 2025 compared with 2015.

### And Older Than 24



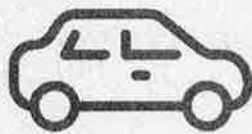
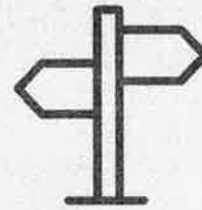
Estimated percent increase in enrollment for degree-granting postsecondary institutions between fall 2014 and fall 2025.

# For Higher Ed, These Changes Will Likely Lead to:



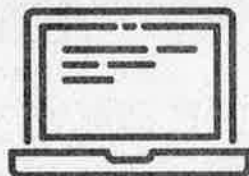
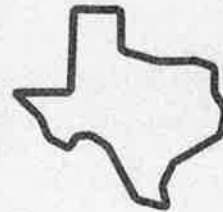
**A Push to Recruit Male Students ...**  
... to shrink the growing gender gap.

**An Expansion of Pathways for Minority Students ...**  
... to make sure they have access to and can succeed in college.



**A Decline in Student Migration ...**  
... because Hispanic students historically are least likely to go out of state for college.

**A Boom in Texas ...**  
... where the largest growth in the number of high-school graduates is projected.



**A Focus on Flexible Online or Blended Courses ...**  
... to attract busy nontraditional-age students.

SOURCES: Western Interstate Commission for Higher Education; National Center for Educational Statistics.

*The College Student of 2025, How changing demographics will impact higher ed* was written by Ian Wilhelm. The Chronicle is fully responsible for the report's editorial content. ©2018 by The Chronicle of Higher Education, Inc. All rights reserved. This material may not be reproduced without prior written permission of The Chronicle. For permission requests, contact us at [copyright@chronicle.com](mailto:copyright@chronicle.com).

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## Top 10 States with a Majority of U.S. High School Graduates

	In 2013	From 2013 to 2025	From 2025 to 2032
CA	456,000	-25,000	-37,000
TX	314,000	61,000	-6,000
NY	212,000	2,000	-14,000
FL	176,000	17,000	-16,000
IL	153,000	-10,000	-18,000
PA	146,000	-6,000	-8,000
OH	135,000	-16,000	-9,000
MI	111,000	-14,000	-10,000
NJ	109,000	-6,000	-12,000
NC	101,000	9,000	-8,000

**RESOLUTION OF THE BOARD OF VISITORS OF  
GEORGE MASON UNIVERSITY  
VIRGINIA COLLEGE BUILDING AUTHORITY FINANCING AUTHORIZATION**

**WHEREAS**, pursuant to and in furtherance of Chapter 12, Title 23.1 of the Code of Virginia of 1950, as amended (the “Act”), the Virginia College Building Authority (the “Authority”) developed a program (the “Program”) to purchase debt instruments issued by public institutions of higher education in the Commonwealth of Virginia (“Participating Institutions” and each a “Participating Institution”) to finance or refinance projects of capital improvement (“Capital Projects” and each a “Capital Project”) included in a bill passed by a majority of each house of the General Assembly of Virginia (the “General Assembly”);

**WHEREAS**, under the Program the Authority from time to time issues its Educational Facilities Revenue Bonds (Public Higher Education Financing Program) (“Pooled Bonds”) to finance the purchase or refunding of debt instruments issued by Participating Institutions to finance or refinance Capital Projects;

**WHEREAS**, if a Participating Institution desires to finance or refinance a Capital Project through the Program it must enter into a loan agreement with the Authority, under which: (i) the Participating Institution will issue its promissory note pursuant to Chapter 12, Title 23.1 of the Code of Virginia of 1950, as amended, to evidence a loan to it by the Authority; (ii) the Authority will agree to issue Pooled Bonds and use proceeds thereof to purchase the promissory note; (iii) the Participating Institution will agree to use proceeds of Pooled Bonds, loaned to it and received in exchange for its promissory note, to finance or refinance the Capital Project and to not take actions that may jeopardize any federal tax-exempt status of interest on Pooled Bonds allocable to financing or refinancing the Capital Project; and (iv) the Participating Institution will agree to make payments under the promissory note in sums sufficient to pay, together with certain administrative and arbitrage rebate payments, the principal of, premium, if any, and interest due on such Pooled Bonds;

**WHEREAS**, the Board of Visitors (the “Board”) of George Mason University (the “Institution”) from time to time desires to finance or refinance Capital Projects for the Institution as a Participating Institution under the Program, and now proposes that the Institution issue its promissory note or notes (collectively, the “Note”) to be sold to the Authority in accordance with a loan agreement or loan agreements between the Institution and the Authority (collectively, the “Loan Agreement”), under which proceeds of Pooled Bonds will be loaned to and received by the Institution in exchange for the Note, to finance or refinance costs of the following Capital Projects authorized for bond financing by the General Assembly: the Utilities Distribution Infrastructure (Project Code 247-18208) (collectively, the “Project”); and

**WHEREAS** the Board desires to designate certain Institution officer (i) delegated the authority to approve the forms of and to execute and deliver the Loan Agreement, the Note and any amendments thereto, and any other documents necessary or desirable in connection with financing or refinancing costs of the Project through and participation in the Program; and (ii)

responsible for monitoring post-issuance compliance with covenants of the Institution related to maintaining any federal tax-exempt status of interest on Pooled Bonds.

**NOW, THEREFORE, BE IT RESOLVED BY THE BOARD:**

**Section 1.** The Project is hereby designated to be undertaken and financed or refinanced by the Authority and, accordingly, the Senior Vice President for Administration and Finance (the “Authorized Officer”) are each hereby delegated and invested with full power and authority to approve the forms of the Loan Agreement, the Note and any amendments thereto (in connection with any refunding of Pooled Bonds financing or refinancing the Project or otherwise), and any pledge to the payment of the Note and any amendment thereto of total gross university sponsored overhead, unrestricted endowment income, tuition and fees, indirect cost recoveries, auxiliary enterprise revenues, general and non-general fund appropriations and other revenues not required by law or previous binding contract to be devoted to some other purpose, restricted by a gift instrument for another purpose or excluded from such pledge as provided in the Loan Agreement, subject to the provisions of Section 3 hereof.

**Section 2.** Subject to the provisions of Section 3 hereof, the Authorized Officer are each hereby delegated and invested with full power and authority to execute, deliver and issue, on behalf of the Institution, (a) the Loan Agreement, the Note and any amendments thereto (in connection with any refunding of Pooled Bonds financing or refinancing the Project or otherwise), with approval of such documents in accordance with Section 1 hereof evidenced conclusively by the execution and delivery of the respective document, and (b) any other documents, instruments or certificates as may be deemed necessary or desirable to finance or refinance costs of the Project through and participate in the Program, and to further carry out the purposes and intent of this resolution. The Authorized Officer are authorized and directed to take such steps and deliver such certificates in connection with delivery of the Note, and any amendment thereto, as may be required under any existing obligations, including bond resolutions relating to any outstanding general revenue pledge bonds, and to notify Virginia Department of Treasury representatives serving as Authority staff at least 60 days in advance of a pledge of any amounts pledged to the payment of the Note in accordance with Section 1 hereof to, or as security for, the payment of any other Institution obligations issued or entered into after the date hereof for so long as the Note and any amendments thereto remain outstanding.

**Section 3.** The authorizations given above as to the approval, execution, delivery and issuance of the Loan Agreement, the Note and any amendments thereto (in connection with any refunding of Pooled Bonds financing or refinancing the Project or otherwise) are subject to the following parameters: (a) the principal amount to be paid under the Note allocable to any component of the Project, together with the principal amount of any other indebtedness with respect to such component, shall not be greater than the amount authorized for such component by the General Assembly plus amounts needed to fund issuance costs, original issue discount, other financing (including without limitation refunding) expenses and any other increase permitted by law; (b) the aggregate principal amount of the Note shall in no event exceed \$25,000,000 as the same may be so increased; (c) the aggregate interest rate payable (i) under a tax-exempt Note shall not exceed a “true” or “Canadian” interest cost more than 50 basis points higher than the interest rate for “AA” rated securities with comparable maturities, as reported by Thomson Municipal Market Data (MMD) or another comparable service or index for

tax-exempt yields, as of the date that the interest rates are determined, taking into account any original issue discount or premium and (ii) under a taxable Note shall not exceed a “true” or “Canadian” interest cost more than 50 basis points higher than the interest rate for “AA rated securities with comparable maturities, as reported by MMD or another comparable service or index for taxable yields, as of the date that the interest rates are determined; (d) the weighted average maturity of the principal payments due under the Note shall not exceed 20 years after the original issue date of the Note; (e) the last principal payment date under the Note shall not extend beyond the reasonably expected weighted economic life of the Project; and (f) subject to the foregoing, the actual amount, interest rates, principal maturities, and date of the Note shall be approved by an Authorized Officer, as evidenced by the execution thereof.

**Section 4.** The Board acknowledges that if there is a failure to make, as and when due, any payment of the principal of, premium, if any, and interest on any promissory note issued by the Institution as a Participating Institution to the Authority under the Program, including without limitation the Note and any amendments thereto, the State Comptroller is authorized under the Program and Section 23.1-1211 of the Code of Virginia of 1950, as amended, to charge against appropriations available to the Institution all future payments of principal of, premium, if any, and interest on such promissory note when due and payable and to make such payments to the Authority or its designee, so as to ensure that no future default will occur on such promissory note.

**Section 5.** The Board agrees that if the Authority determines the Institution as a Participating Institution shall be subject to continuing disclosure obligations under Rule 15c2-12 of the federal Securities and Exchange Commission with respect to any Pooled Bonds, (a) an Authorized Officer shall, and is hereby authorized and directed to, enter into a continuing disclosure undertaking in form and substance reasonably satisfactory to the Authority, and (b) the Institution will comply with the provisions and disclosure obligations contained therein.

**Section 6.** The Board designates the Senior Vice President for Administration and Finance to be responsible for implementing procedures to monitor post-issuance compliance with covenants in any loan agreement between the Institution as a Participating Institution and the Authority, including the Loan Agreement and any amendments thereto, related to maintaining tax-exempt status for federal income tax purposes of interest on any Pooled Bonds, including without limitation monitoring the use of any portion of all Capital Projects for the Institution financed or refinanced with such Pooled Bonds and compliance with any applicable federal income tax remedial action requirements in connection with certain changes in such use. Such officer shall review such post-issuance compliance at least annually for so long as such Pooled Bonds remain outstanding.

**Section 7.** This resolution shall take effect immediately upon its adoption.

Adopted: October 10, 2018




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Tom Davis  
Rector  
Board of Visitors  
George Mason University

**RESOLUTION  
OF THE  
BOARD OF VISITORS OF GEORGE MASON UNIVERSITY**

**WHEREAS**, Investment management is a key component of the University's success and ability to achieve its mission, including supporting its value of being careful stewards.

**WHEREAS**, the George Mason University Board of Visitors has reviewed the attached Investment Policy.

**NOW, THEREFORE, BE IT RESOLVED** that the University hereby adopts the attached Investment Policy, effective immediately.

Adopted: October 10, 2018



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Tom Davis  
Rector  
Board of Visitors  
George Mason University



# University Policy 2116: Investment Policy

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**Responsible Office: Senior Vice President for Administration and Finance**

**Related Law & Policy:**

State Depositories, Virginia Code § 2.2-1813 et seq.

Virginia Security for Public Deposits Act, Virginia Code § 2.2-4400 et seq.

Investment of Public Funds Act, Virginia Code § 2.2-4500 et seq.

Uniform Prudent Management of Institutional Funds Act, Virginia Code § 64.2-1100 et seq.

University Policy 1123: Gift Acceptance

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## **I. Scope**

This policy applies to the investment and management of George Mason University's funds not held in the State Treasury.

## **II. Policy Statement**

Investment management is a key component of the University's success and ability to achieve its mission, including supporting its value of being careful stewards.

## **III. Investment of Funds**

- A. Non-State Funds shall only be invested in Authorized Investments in a manner to ensure that the current spending requirements of the University are supported and the University's daily cash flow demands are met.
- B. Donated Funds may be transferred to the George Mason University Foundation, Inc. to manage and invest on the University's behalf as the University's agent in compliance with agreement(s) between the University and the Foundation.

## **IV. Definitions**

- A. **State Funds:** State Funds include tuition and fees, auxiliary enterprises and federal and other monies used for current operations which are deposited into the State Treasury.

- B. **Non-State Funds:** Funds held by the University that do not meet the definition of State Funds and are not transferred to the Foundation. These are also known as local funds.
  - C. **Donated Funds:** Endowment funds, bequests, or gifts made payable to the University.
  - D. **Authorized Investments:** Certificates of deposits, U.S. Treasury Bonds and Money Market Funds
- V. **Compliance:** The Senior Vice President shall routinely monitor and evaluate investment results of all Non-State Funds and Donated Funds.
- VI. **Dates:**
- A. **Effective Date:**  
This policy will become effective upon the date of approval by the Board of Visitors.
  - B. **Timetable for Review**  
This policy shall be reviewed every three years or more frequently as needed.

**Board of Visitors**  
**George Mason University**  
**Commendation of Appreciation for**  
**Lisa G. Kemp, MBA, CPA**

**Whereas**, Lisa G. Kemp has more than twenty years of providing transformational financial solutions and business practices with measureable, positive results in the private, not-for-profit and public settings, most notably as the Vice President of Finance and Budget at George Mason University; and

**Whereas**, Ms. Kemp earned a Bachelor's Degree in Business Administration-Accounting from Mount St. Mary's College, a Master's Degree in Business Administration - Finance from American Public University, and is a Certified Public Accountant in the Commonwealth of Virginia; and

**Whereas**, after being hired as Controller and Associate Vice President of Fiscal Services in 2015, Ms. Kemp was promoted to Vice President, Finance & Budget and has served the university with distinction; and

**Whereas**, Ms. Kemp provided leadership and accountability across the breadth of Mason's financial operations in General Accounting, Financial Reporting, Treasury, Budget, Fixed Assets, Debt Management, Analyst Ratings, Procurement and Accounts Payable, Student Accounts, Cashier's Office, Surplus Property, Central Receiving/Warehouse, Financial Accounting Systems, Policy & Fiscal Training, Internal Controls, and PCI Compliance; and

**Whereas**, Ms. Kemp recognized the rapid growth of the University necessitated a transformational change in the control and management of financial information, and collaborated across the university to achieve Tier 2.5 pilot authority for increased autonomy, increase controls over ratio analysis and reporting that resulted in an elevated bond rating of A+, implemented an electronic travel work flow that eliminated 25k paper forms, negotiated an F&A increase of 5% for Sponsored Research, led annual successful financial audits, and instituted additional compliance measures for multiple revenue generating activities; and

**Whereas**, Ms. Kemp was a key thought leader and participated on many leadership committees, including President's Council, Academic Committee, Dean's Council, Technology & Data Governance, Enterprise Risk Management, Gift Acceptance, Conflict of Interest, and Retirement Investment Policy; and

**Whereas**, Ms. Kemp's vision, financial acumen and focus on excellence helped the University serve its students, faculty, staff, and the Commonwealth with excellence during a period of extraordinary growth;

**Now, therefore**, the Rector and Board of Visitors of George Mason University unanimously congratulate and commend Lisa G. Kemp for her dedication, service and contributions to George Mason University.



Tom Davis, Rector  
George Mason University