VIRGINIA COMMONWEALTH UNIVERSITY
BOARD OF VISITORS
ANNUAL RETREAT
October 27, 2023
DOMINION ENERGY CENTER
RHYTHM HALL
600 EAST GRACE STREET
RICHMOND, VA

MINUTES

VCU BOARD OF VISITORS MEMBERS PRESENT
Hon. Todd Haymore, *Rector*
Mr. Andy Florance, *Vice Rector*
Mr. Anthony Bedell
Ms. Rooz Dadabhoy
Hon. H. Benson Dendy III
Mr. Steven DeLuca
Hon. Peter Farrell
Ms. Ellen Fitzsimmons
Dr. V. Dale Jones
Ambassador Carmen Lomellin
Mr. Ed McCoy
Mr. Keith Parker
Dr. Tonya Parris-Wilkins
Dr. Clifton Peay
Mr. P2 Sandhu

VCU BOARD OF VISITORS MEMBERS ABSENT
Rev. Tyrone Nelson

OTHERS PRESENT
Dr. Michael Rao, *President*
Hon. Kirk Cox, *President, Virginia Business Higher Education Council*
Members of the President's Cabinet
Ms. Chelsea Gray, *Executive Director of Board and Executive Operations*
Ms. Stephanie Hamlett, *University Counsel*
Ms. Karen Helderman, *Executive Director for Audit and Compliance Services*
Staff and students from VCU
Members of the media

CALL TO ORDER

Rector Todd Haymore called the meeting to order at 8:03 a.m. at the Dominion Energy Center, located at 600 East Main Street, Richmond, Virginia. The public was able to view the meeting via livestream at https://mssvideo.vcu.edu/BOV.

RECTOR'S REMARKS

Rector Haymore began by welcoming everyone and thanking those who attended the VCU Board of Visitors/VCUHS Board of Directors reunion event the evening prior. He continued by reminding the board members that the items on the retreat agenda were specifically expressed as areas of interest by members at the September meeting and in discussions he had with individual board members.

Rector Hamore highlighted areas of the agenda such as hearing from Provost Sotiropoulos and a panel of experts on AI within the academic and administrative units. He continued by sharing that while enrollment is a national challenge, there are many positive trends and opportunities for VCU, which Provost Sotiropoulos and Interim Vice President Bucheli will further discuss. Much of student success – especially internships, scholarships and other support – depends on strong partnerships. He introduced The Honorable Kirk Cox, president of the Virginia Business Higher Education Council, to discuss important partnerships to create talent pipelines and internship opportunities.

Rector Haymore explained that another agenda item is to discuss the budget philosophy and reemphasized the board's commitment to keeping tuition flat as a starting point for budget development. Real estate processes and the board's related decision-making responsibilities will also be

He mentioned that the board would hear from two of its most recent scholarship recipients and the positive impact the scholarship has had in their lives. He shared that he would like for the board to be leaders in VCU's philanthropy – and student scholarships is a worthwhile investment.

Lastly, Rector Haymore thanked the staff for putting together today's retreat and managing the logistics of the day. He encouraged board members to ask questions and actively engage during the presentations.

PRESIDENT'S REMARKS

President Rao began by highlighting the incredible year that the university has experienced with many milestones and sharing his gratitude for the Board. He cited their shared focus on enrollment and improving graduation rates, and focusing on faculty, research, and fundraising. He also highlighted Massey Cancer Center receiving comprehensive status, as well as opening

the Children's Hospital, the largest gift in VCU's history - $104 million - for the liver institute, ensuring that the university has its mission-critical space, and the push for innovation and entrepreneurship – noting VCU's recognition as a Top 20 research institution and its significance.

To continue to reach milestones, it is critical to leverage the board members' different levels of expertise and experience in order to shape VCU's success moving forward. The most important thing in the world is human talent, which requires engaging more innovative pathways. VCU's goal is to launch careers before students graduate, through internships, international experiences, and service experiences. He shared Rector Haymore's enthusiasm for The Honorable Kirk Cox joining the group today to speak more about those opportunities. He mentioned that the group will also discuss the budget and keeping tuition low. It is important for the board to engage in these discussions and decisions. It is important for leadership and the board to work together to reach these milestones.

ARTIFICIAL INTELLIGENCE

Dr. Fotis Sotiropoulos, Provost and Senior Vice President for Academic Affairs, began by introducing the topic of artificial intelligence (AI). AI has been happening since the 1950s but is gaining attention now because of the emergence of the computing power that has brought to light the full potential of these algorithms. There are ethical concerns and questions about the applications for AI and how they can impact human jobs and the impact of AI's carbon footprint. But there is also excitement. The most exciting aspect of AI is that it will put human creativity on steroids, and will have a tremendous impact on the global economy.

Dr. Sotiropoulos then introduced the panel to discuss specific areas impacted by AI. The panel was composed of Dr. Preetam Ghosh, interim chair of the department of computer science; Ms. Nicole Stabb, a student in the Robertson School of Media and Culture; Mr. Alex Henson, chief information officer for the university; and Dr. Azim Eskandarian, dean of the college of engineering.

Dr. Sotiropoulos introduced Ms. Stabb, who had written about her experiences and thoughts about AI as a student. Dr. Ghosh spoke about his experience as an instructor working with students who are using AI in their assignments. And Dr. Eskandarian spoke about his use of AI in his research about autonomous vehicles. Mr. Henson spoke about the AI experience and access that incoming students bring with them to college, as well as the prevalence of AI usage in academia by students. Board members engaged the panel in discussions about the benefits (computational skill development, for example) and challenges of AI (not useful in helping students develop critical thinking skills), as well as how AI is impacting the workforce now and will continue to in the future. Dr. Sotiropoulos explained the work that Dr. Mangala Subramaniam is leading with the faculty to stay abreast of AI trends that are appearing in VCU's

classrooms, and also collaborating with colleagues at other institutions to share experiences and strategies related to dealing with AI in academia.

One board member suggested convening a joint commission with Virginia Tech and UVA to address AI across the commonwealth. The board requested that AI be incorporated in committee meetings identifying the vision, implementation, and progress updates. The board also asked that Mr. Alex Henson present further to the board in December.

A copy of the AI presentation is attached hereto as *Attachment A* and is made a part hereof.

GROWTH4VA UPDATE & 2024 STRATEGIES
Rector Haymore introduced the Honorable Kirk Cox, President of the Virginia Business Higher Education Council, to discuss the work of the Council and how VCU is engaging to increase internship opportunities for students. Hon. Cox began by noting that it is not known how many paid internships there are in the state of Virginia and asked what can universities and the state do to move the needle to provide more paid internship opportunities for Virginia's college students. The Virginia Business Higher Education Council seeks to get that information from colleges and universities and then works with regional partners to create a map that can assist students in identifying valuable internships to help them launch their careers. The collaboration with colleges and universities is key to this endeavor.

The group engaged in discussion about the strategic marketing efforts of the Council, and how that messaging is helpful to combat polling and media that appear to have soured on higher education. The Council seeks to be everywhere – connecting companies with students in spite of whatever is playing out in the media about college campuses. Hon. Cox stated that to date, there is not enough being done to partner with the K-12 environment to promote this early, and cited the southwest Virginia region as an example.

A copy of Mr. Cox's presentation is attached hereto as *Attachment B* and is made a part hereof.

ENROLLMENT UPDATE/STRATEGIES AND STUDENT SUCCESS
Dr. Hernan Bucheli, interim Vice President for Strategic Enrollment Management and Student Success, provided an update on enrollment and student success strategies. VCU was able to grow enrollment this year - 4,600 freshmen this year - along with the highest freshman retention rate and highest transfer rate. The enrollment cliff for southern states is a little further away than the rest of the country – looking at 2030 instead of 2025. Nationwide, there are 4 million adult learners with some college and no degree; these are people who started and stopped out. There are almost 1 million of these adult learners in Virginia. This creates a huge opportunity for VCU to engage with these adult learners and get them back to complete their degree. There are also opportunities to increase transfer students through partnerships with community colleges, and the

need to focus on international partnerships to increase VCU's international student population – the goal is to double that population. In order to achieve 3.5% growth in 5 years, VCU needs to maintain incoming freshman classes of at least 4,600-4,700 per year which is aspirant, but not impossible. Dr. Bucheli and Grant Heston, Vice President for Enterprise Marketing and Communications, also explained the Guaranteed Admissions program.

A copy of the Dr. Bucheli's presentation is attached hereto as **Attachment C** and is made a part hereof.

BOV SCHOLARSHIP
Ms. Izzy Diaz and Mr. Zion Seagars were introduced by Rector Haymore and President Rao to discuss their experiences as recipients of the 2023 BOV Scholarship. Mr. Seagars detailed his work as a member of the executive board with the Men of Color Initiative, as well as serving as a mentor to local middle school students. Ms. Izzy Diaz shared her experience as an intern at Lewis Ginter Botanical Gardens and her goal to work at the Martin Agency in Richmond. Mr. Jay Davenport, Vice President of Development and Alumni Relations also spoke about the incredible fundraising work that has been accomplished. He and President Rao emphasized the importance of board giving and reminded board members of the impact it has on the university and the students.

FY24 BUDGET UPDATE AND FY25 BUDGETING PROCESS
Ms. Karol Kain Gray, Senior Vice President and CFO, provided an update on the budget and the budgeting process for FY2025. Ms. Gray provided a calendar of what steps are taken with the board to plan for the following year's budget – always with the intention of keeping tuition flat. It is important to know that tuition is the last measure used to balance the budget. In the past, three scenarios have been requested and brought forward to the board to consider and vote on, to balance the budget in the spring. Ms. Gray explained the incentive model, which rewards units that grow their enrollment through the budgeting process, and noted that the budget staff meets with faculty, staff and student groups throughout the year to inform them of the process and answer questions. In the Tier III category, VCU has the least amount of "rich revenue" from out-of-state tuition, to balance the budget. Next, Ms. Gray explained the strategic cuts that have been made to date, and reviewed how the budget is composed of E&G and designated fund categories. She then provided an updated and detailed FY24 balanced budget since the state budget was finally approved. She then presented anticipated critical needs and inflationary impacts that will need to be considered for FY25. Ms. Gray then noted that VCU has virtually no unrestricted donor funds. Mr. Matthew Conrad, Vice President for Government and External Relations for Virginia Commonwealth University and the VCU Health System, also elaborated on the university's legislative budget priorities. The board shared its gratitude to the state. The board also asked that the legislative priorities be reshared with them and the Rector encouraged board members to work with Mr. Conrad on communicating with the state.

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A copy of Ms. Gray's presentation is attached hereto as **Attachment D** and is made a part hereof.

VCU FACILITIES CAPITAL PROCESS
Dr. Meredith Weiss, Vice President for Administration, and Mr. Rich Sliwoski, Associate Vice President for Facilities Management, spoke about the facilities capital process. The board approves a master plan for capital projects, and then projects are prioritized based on a six year capital plan – which includes a size, scope and cost analysis. No project moves forward without a business plan that is developed with the CFO. At times there are more complicated business projects – i.e. Gladding Residence Hall which was a private/public partnership. The board authorizes any capital project that is $3 million or more through the administration committee; and they also authorize any financial contract that is over $5 million through the finance committee. The board also authorizes project plans. Dr. Weiss explained that the health system process is different, and that Mr. Sliwoski has been assisting them over the past six months to work on their process.

Mr. Sliwoski explained that VCU facilities has project teams involved from the very beginning of every project. It is important that VCU projects align with the vision of Quest at several points. The university does not treat money that it receives from the state for capital projects as "house money"; VCU is very diligent to stay on time and under budget wherever possible. He stated that supply chain disruptions from COVID continue to be an issue, and impact cost and timelines. Mr. Sliwoski also noted that VCU contracts are vetted through the office of the attorney general.

WRAP-UP & ADJOURNMENT
There being no further business, the Hon. Todd Haymore adjourned the meeting at 1:04 p.m.

ATTACHMENT A

Higher education in the era of intelligent machines

Fotis Sotiropoulos, Ph.D.
Provost and Senior Vice President for Academic Affairs
Virginia Commonwealth University

October 27, 2023

VCU

Digital technologies are doing for human brainpower what the steam engine and related technologies did for human muscle power during the Industrial Revolution….

…It's a very big deal. But how exactly it will play out is uncertain

Andrew McAffee

1 billion

The number of ChatGPT web visits in the first two months after its launch on November 30, 2022.
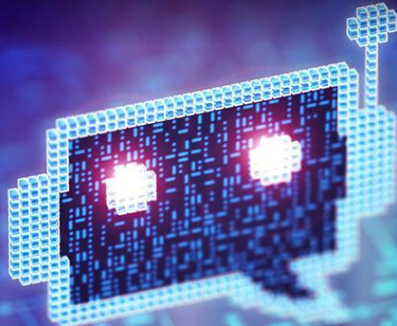
$900 billion

Global revenue from AI software, hardware, service and sales by 2026, compared with $318 billion in 2020.

$15.7 trillion*

The amount that AI could contribute to the global economy by 2030.

Source: **Bank of America Research Institute**

*Size of global economy ~$105 trillion

Gen AI impact on the global economy

Additional reading: ***The economic potential of generative AI: The next productivity frontier***

VCU

Gen AI increases the potential for automation in jobs requiring higher level of educational attainment!
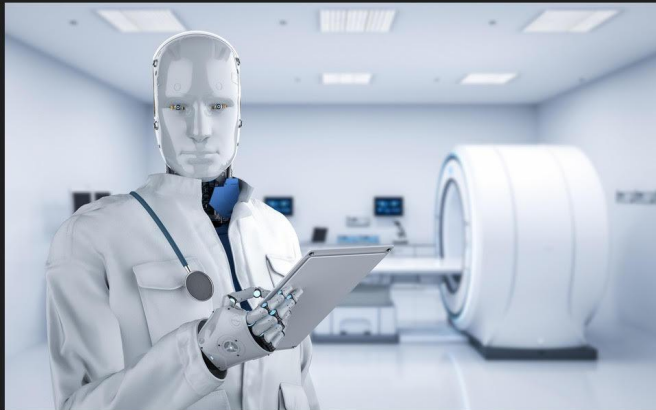
Impact of generative AI on technical automation potential in midpoint scenario, 2023

With generative AI
Without generative AI[1]

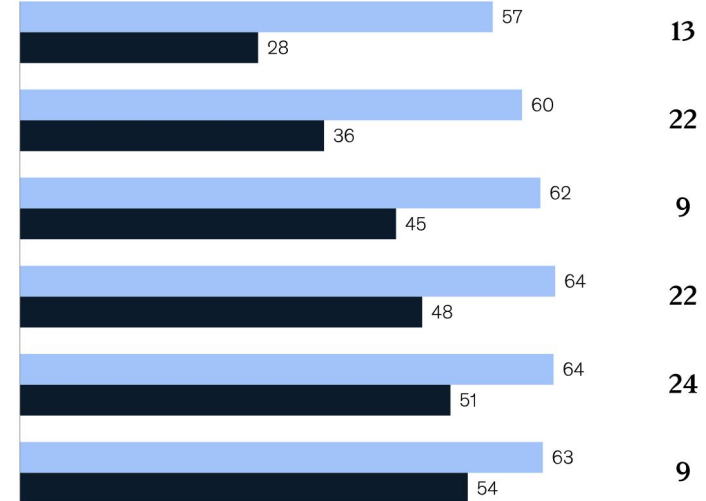| Education level	Overall technical automation potential, comparison in midpoint scenarios, % in the United States in 2023	Share of US employment, %
Master's, PhD, or higher	57 / 28	13
Bachelor's degree	60 / 36	22
Associate's degree	62 / 45	9
Some college	64 / 48	22
High school diploma or equivalent	64 / 51	24
No high school degree	63 / 54	9

[1]Previous assessment of work automation before the rise of generative AI.
Source: McKinsey Global Institute analysis

McKinsey & Company

How do we prepare students for the era of intelligent machines?

- Work and creatively co-exist with AI systems by cultivating higher-order human cognitive abilities, which are less likely to be soon surpassed.

- Critical thinking, the ability to work with complex interconnected systems, entrepreneurship, compassion, and cross-cultural understanding.

- Proficiency in computing for students across all disciplines will be as prerequisite as speaking a language.

- Innovative new degrees and programs that fuse computer science and engineering disciplines with humanities, social sciences, law, business and medicine.

After Shock

Foreword by Deb Westphal
Chairman of the Board of Toffler Associates

The world's foremost futurists reflect on 50 years of **Future Shock** and look ahead to the next 50

Edited by John Schroeter

T. Sejnwoski and F. Sotiropoulos, " Artificial Intelligence Shock," After Shock, Edited by John Schroeter, pp. 218-22, February 2020

VCU

Academic Affairs Priorities at VCU

- AI + x: Infuse competencies in emerging fields (e.g. AI, metaverse, etc.) in all disciplines

- Unique opportunity to re-imagine humanities education

- Metaverse design: Computer Science, Arts, Humanities and Social Sciences partner to develop cutting-edge curriculum

- Vertically integrated multi-disciplinary problem-based learning

- Retooling and reskilling for life long learning: Making learning fun with credit and non-credit micro-credentials for learners of ALL ages. VCU is all in!
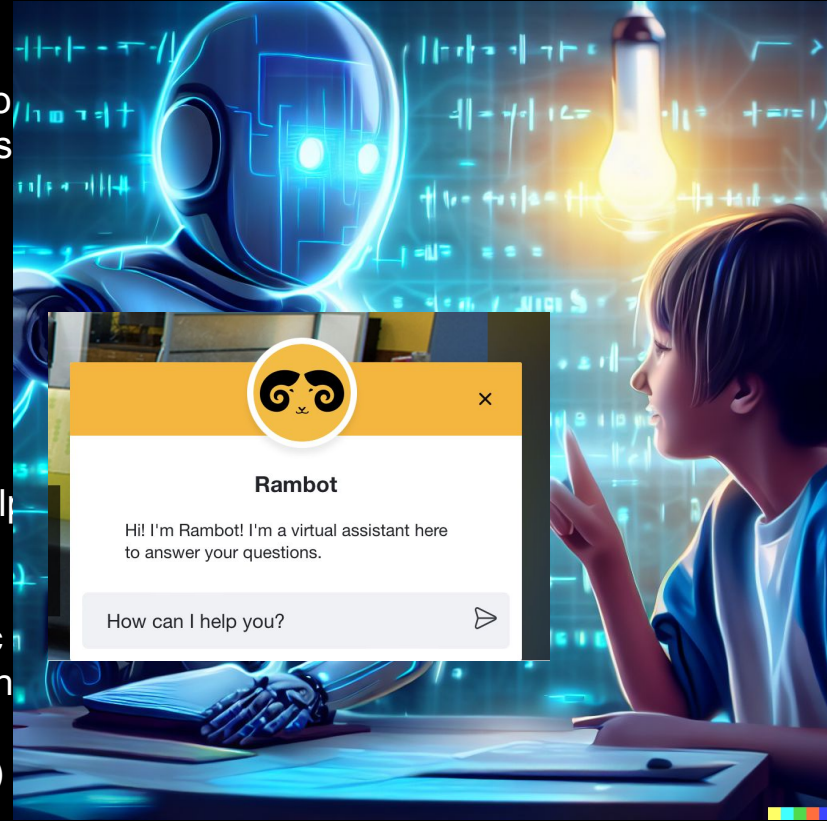
VCU

Faculty Affairs Initiatives at VCU: AI in the learning environment

- Organized multiple sessions, roundtables and breakouts engaging hundreds of faculty to discuss the emergence of AI in the learning environment.

- Several roundtables planned in the future to address unevenness in understanding among faculty: What is ChatGPT, DEI and ChatGPT, Plagiarism and copyright...

- **Resource tool** to support faculty made available in August 2023

- AI Faculty Advisory Group (launched in Oct. 2023) to stay at the cutting edge of AI evolution in teaching and learning

- **Here** you can read a recent article on AI written by VCU student Nicole Staab

VCU

AI for student success at VCU

- VCU's **Rambot** provides real-time information/resources for VCU students to navigate university policies and resources

- Financial Aid/Student Financial Management Center and Records & Registration were initial pilot offices, with expansion to University Advising and Career Services in Spring 2024.

- The da Vinci center and SEMMS are developing VCU's generative AI platform targeting undeclared students to help them persist

- Building on the **University Innovation Alliance** Academic Recovery Project, VCU is developing an AI academic brain geared toward academic success in courses with high DFW (courses where students receive a D, F or Withdraw) rates.

An Engineering & Computer Science Perspective

Preetam Ghosh

Professor and Interim Chair, Computer Science,
Virginia Commonwealth University

Azim Eskandarian

Dean, College of Engineering,
Alice T. and William H. Goodwin Jr. Endowed Chair & Professor,
Virginia Commonwealth University

VCU College of Engineering

Types of AI: We've Only Just Begun!

3 Types of Artificial Intelligence

Artificial Narrow Intelligence (ANI)

Stage-1

Machine Learning

▶ Specialises in one area and solves one problem

Siri   Alexa   Cortana

Artificial General Intelligence (AGI)

Stage-2

Machine Intelligence

▶ Refers to a computer that is as smart as a human across the board

Artificial Super Intelligence (ASI)

Stage-3

Machine Consciousness

▶ An intellect that is much smarter than the best human brains in practically every field

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ANI: "Weak/Narrow AI"
- Trained for specific tasks, cannot generalize.
- Lacks cognitive abilities/understanding of humans.
- Most common AI with well-defined algorithms/data

AGI: "Strong AI" with human-like cognitive abilities
- Can understand/learn/apply knowledge like humans.
- *Theoretical concept*; limited success with LLMs.
- *Features:* Learning and Adaptation, Reasoning and Problem Solving, Natural Language Understanding, Perception and Sensory Processing, Autonomy, Generalization.

ASI (hypothetical concept): surpasses human intelligence in problem-solving, creativity, emotional intelligence, and general cognitive abilities.
- *Features:* Superhuman Intelligence, Rapid Learning, Self-Improvement, Broad and Deep Understanding, Creativity, Emotional Intelligence, Societal Impact.

- *Further reading:* ANI, AGI, ASI

VCU College of Engineering

AI in Higher Education

Classroom/Behavior Management
- Realtime Monitoring (Face recognition, Emotion recognition, Voice Analysis),
- Parent Communication,
- Personalized Feedback
- Sentiment Analysis of students
- Social Network Analysis

Examples: ClassDojo, SkedPal, Teachmint

Smart Content
- *AI generated course modules?*
- Textbooks split into chunks of digestible guides: easy to read and understand.

Personalized/Adaptive Learning
- Personalized learning modules that adapt quickly to individual needs
- Track academic progress, modify course or learning pace
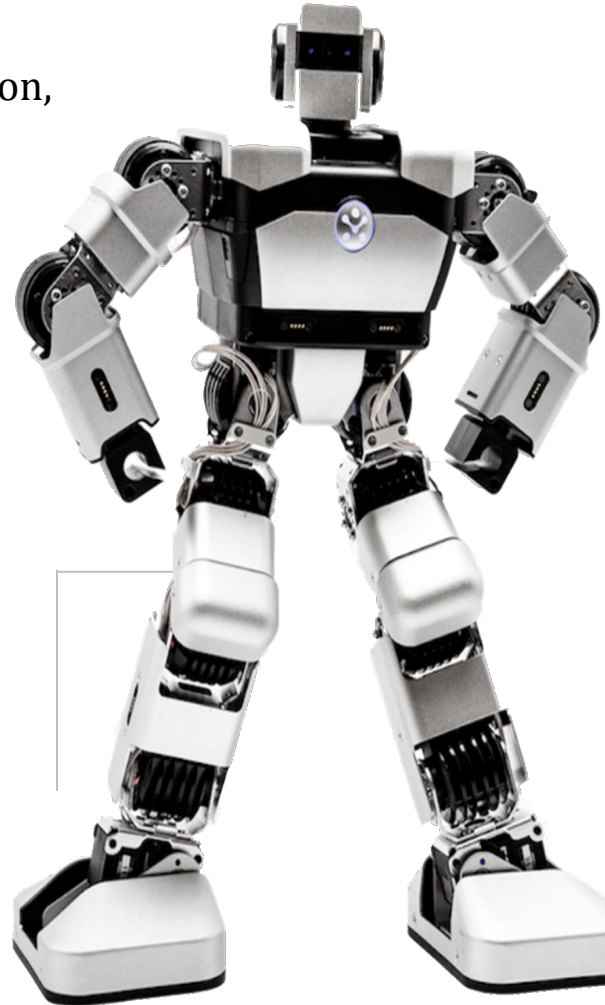
Learning Management System
- Automated Assessment,
- Intelligent Reporting,. Learning Analytics, Predictive Analysis
- Track Student Progress

Examples: Papershala

Virtual Advisor
- AI chatbots can think, act, and react to students' queries and act as an assistant for the teacher.
- Intelligent Tutoring

Chatbots for Enrollment and Retention
- Provide information,
- Application Assistance,
- Notification/Reminder,
- Virtual Campus tours

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# AI in Higher Education (Contd.)

Proctoring/ Plagiarism detection

AI-powered systems ensure the authenticity of the student to take the exam and prevent from cheating.. Facial Recognition, Proctoring, Content Monitoring, Biometrics, Data Analytics.

Automated Grader

Robo-graders replace a part of the grading system, and human grader is always there for further assessment.

Academic Research

- Lifelong learning, Computer Vision, Explainable AI, Trustworthy AI, Ethical AI etc.
- Applied AI has impacted virtually every domain of academic research
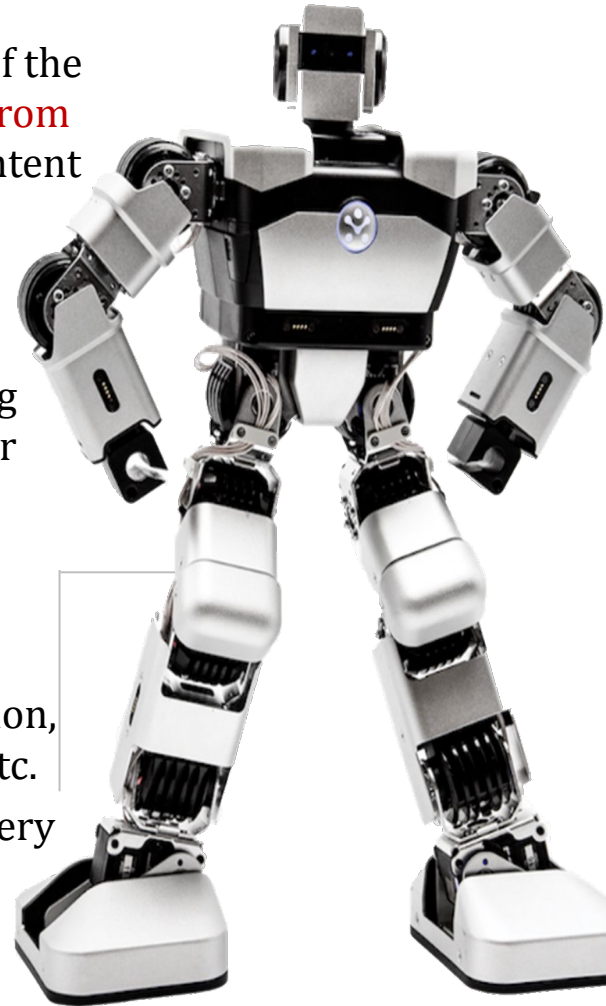
Role of teachers in the digital age:

- Instill curiosity
- Inspire critical & creative thinking for non-routine problems
- Encourage flexibility
- Reinforce collaboration
- Soft skills

Not what you know, but what you can do with what you know
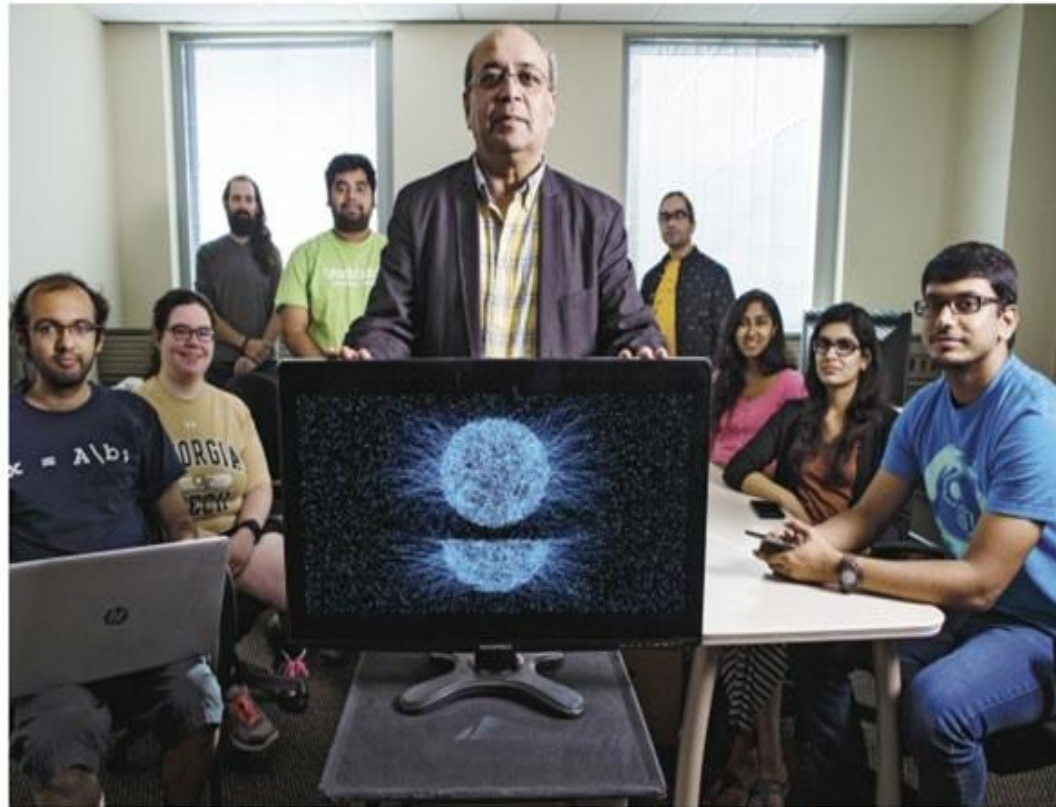
Classroom Chatbot Improves Student Performance, Study Says

MARCH 21, 2022

Research involving a Georgia State University course using a chatbot to keep students connected showed improved grades and retention rates.

Ethics, DEI, & Social Justice: Achilles' Heel in AI/ML

THIS IS YOUR MACHINE LEARNING SYSTEM?

YUP! YOU POUR THE DATA INTO THIS BIG PILE OF LINEAR ALGEBRA, THEN COLLECT THE ANSWERS ON THE OTHER SIDE.

WHAT IF THE ANSWERS ARE WRONG?

JUST STIR THE PILE UNTIL THEY START LOOKING RIGHT.

DATA

ANSWERS
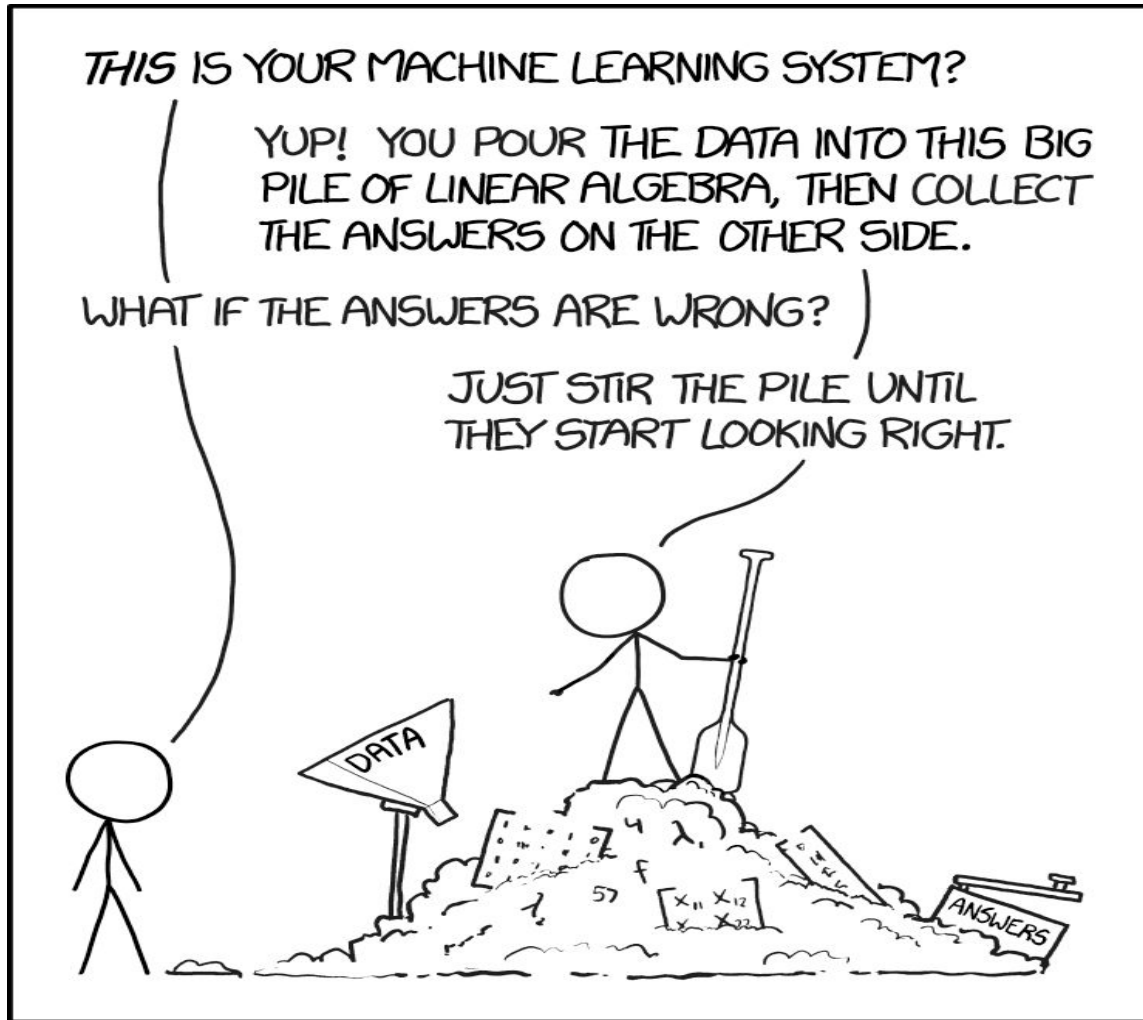
RESEARCH-ARTICLE

Jill Watson Doesn't Care if You're Pregnant: Grounding AI Ethics in Empirical Studies

ABSTRACT

Jill Watson is our name for a virtual teaching assistant for a Georgia Tech course on artificial intelligence: Jill answers routine, frequently asked questions on the class discussion forum. In this paper, we outline some of the ethical issues that arose in the development and deployment of the virtual teaching assistant. We posit that experiments such as Jill Watson are critical for deeply understanding AI ethics.

Further reading

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AI Research Applications: Representative Projects @ VCU

AI in Medicine

- Clinical Decision Support

- Electronic Health Records (EHR) Management

- Telemedicine, Remote Monitoring

- Robot-Assisted Surgery

- Healthcare Chatbots

- Mental Health Support

- Rehabilitation and Physica
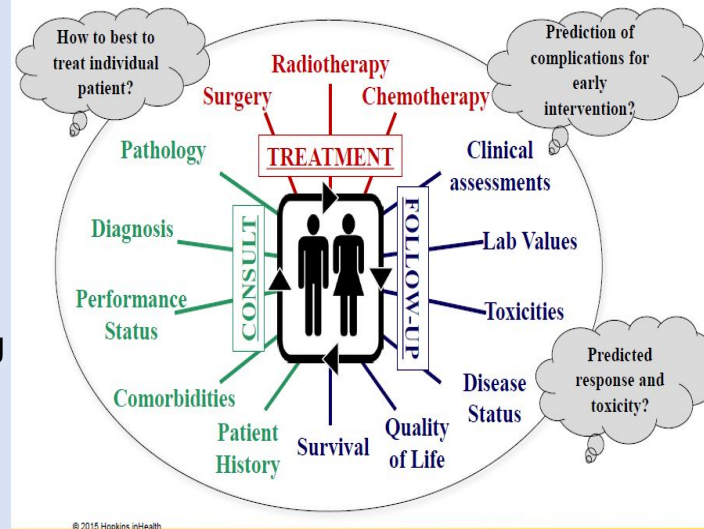
From Presentation by Todd McNutt, JHU @Target-Insight, Toronto Ca, 2015

Further reading

AI in Drug Discovery

- Drug Discovery, Safety, Repurposing

- Personalized Medicine, Multiomics

- Radiology/Radiotherapy Assistance

- AI Assisted Clinical Trials

Further reading

AI in Cyber Security

- Detecting new threats, malwares, anomalies

- Battling Bots, Fake news identification, Firewall and Network Security

- Phishing/Fraud Detection, password security

- Breach Risk Prediction/Vulnerability Assessment
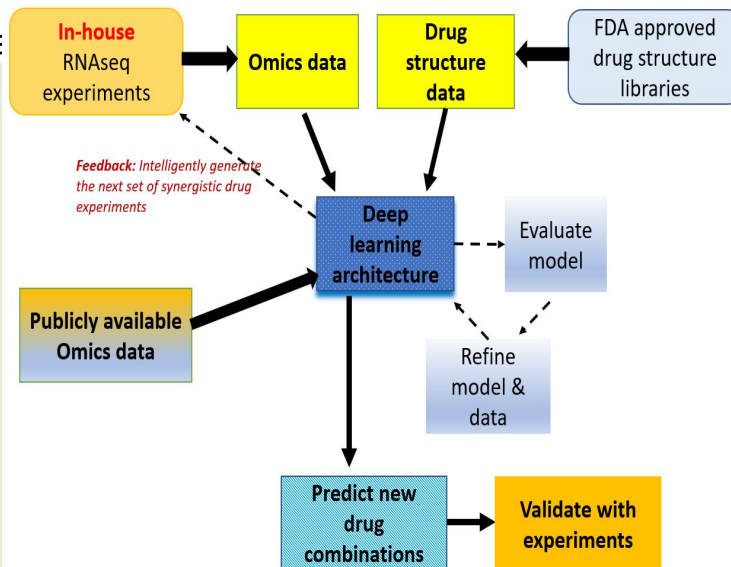
Further reading

AI in Autonomous Driving

- Navigation of autonomous vehicles (robots) without maps

- Forecast pedestrian trajectory

- Automatic object detection via cameras

- Fusing sensor data from multiple vehicles to cooperatively view surrounding area

Further reading

Tracking of Pedestrian
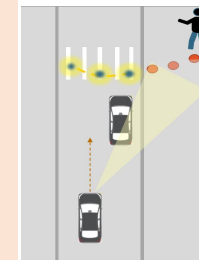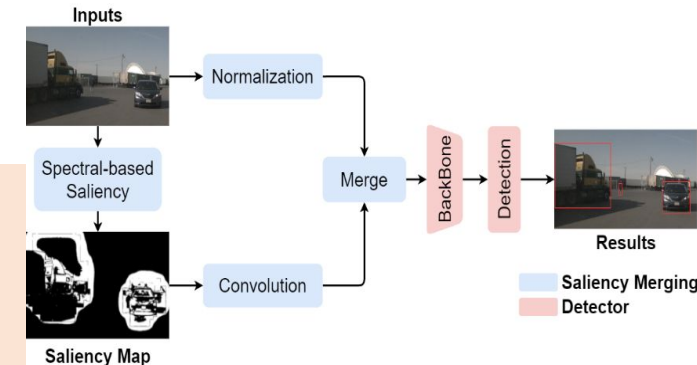
Appendix:

Additional AI-Related Academic Offerings

Data Science @ VCU

- VCU offers **Data Science (DS)** programs at many levels:

    - **Certificates**

    - **Minors, BS, Post-bac, MS**

    - **Experiential programs (internships, capstones)**

- VCU teaches "Data Science" across many knowledge domains

    - **College of Engineering**

        - **CS bachelors with a concentration in data science**

        - **PostBac in DS, MS in DS** *(proposed),*

        - **Minor in DS** *(proposed)*

        - *CoE vision: Every engineering student will have AI/ML literacy*

            - *Minor in AI for all undergraduate students in CoE: extra option of minor besides their own discipline*

            - *Possibly a general education course in AI*

    - School of Business: Masters in Data Analytics plus Data Science classes in all MS/MA degrees.

    - Department of Statistical Sciences and Operations Research: BS and MS in Statistics

    - Center for Biological Data Sciences: BS and MS in Bioinformatics

College of Engineering

VCU: Where should we go?

- Multi-university Hybrid MS in Data Science (link w/ GWP)

  - Core classes taught on-line, elective/lab courses taught on-site at partner universities.

- Multidisciplinary BS and MS in Data Science

  - Common core of classes, electives taught across different domains

  - Professional focus with company sponsored capstone experiences

  - Combination of on-line and on-site teaching modes

- Larger portfolio of credentials, certificates, minors

  - Courses tailored to complement existing programs and initiatives

  - Programs developed with input from corporate partners

- Leverage the Commonwealth Center for Advanced Computing

  - Add new infrastructures for teaching/research: neuromorphic computing, quantum computing etc.

  - Data science is omnipresent across all VCU research activities

CAPITAL CoLAB
GREATER WASHINGTON PARTNERSHIP

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Sample AI Research in Autonomous Driving & Robotics at VCU

Azim Eskandarian, ASME Fellow
Dean, College of Engineering
Alice T. and William H. Goodwin Jr. Chair

VCU College of Engineering

Sample AI/ML Research: Applications in Vehicle and Robot Autonomous Driving

Deep Reinforcement Learning for Automatic navigation of autonomous vehicles (robots) without maps

- Zero-shot simulation to real-world Deep Reinforcement Learning (DRL) for mobile robot navigation without maps

In-house developed XTENTH-CAR AGV
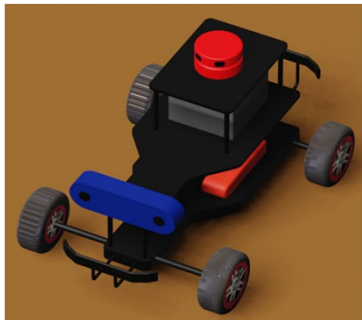
Digital Twin in in-house AutoVRL 3D simulator

Multidirectional Training Race Track in AutoVRL

Trained in simulation over 2 days and evaluated in real world racetracks

Generalized to obstacle avoidance in unknown environment w/o prior map

VCU College of Engineering

Azim Eskandarian
Robotics, Autonomy, & Mechatronics (RAMs) Group

Sample AI/ML Research: Applications in Vehicle and Robot Autonomous Driving

Deep Reinforcement Learning for Fusing/combining multiple sensor data from multiple vehicles to cooperatively view the surrounding area and make more informed trajectory decisions autonomously

- Multi-agent deep reinforcement learning to maximize perception for connected autonomous vehicles (CAVs)

CARLA simulation of two vehicles at an intersection
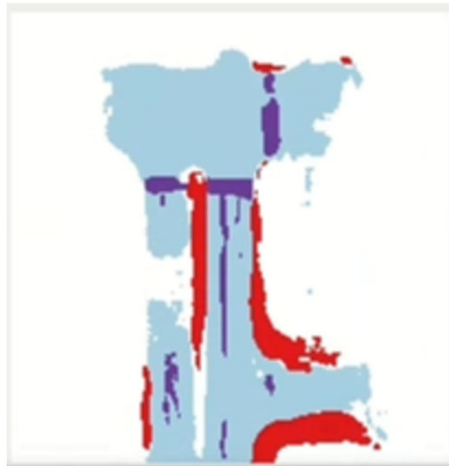
Overhead map for a single car or agent
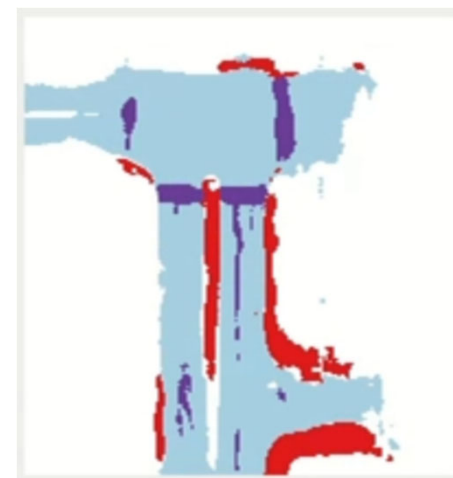
Fused overhead map from two cars

Deep Reinforcement learning allows the merging of two maps from two cars to create a more complete combined scene for each autonomous car.
In this case both camera (video) and Lidar data from two cars are fused from two maps to generate a more complete scene for each car.

Azim Eskandarian
Robotics, Autonomy, & Mechatronics (RAMs) Group

VCU College of Engineering

Deep Learning for Detecting Unlabeled Objects
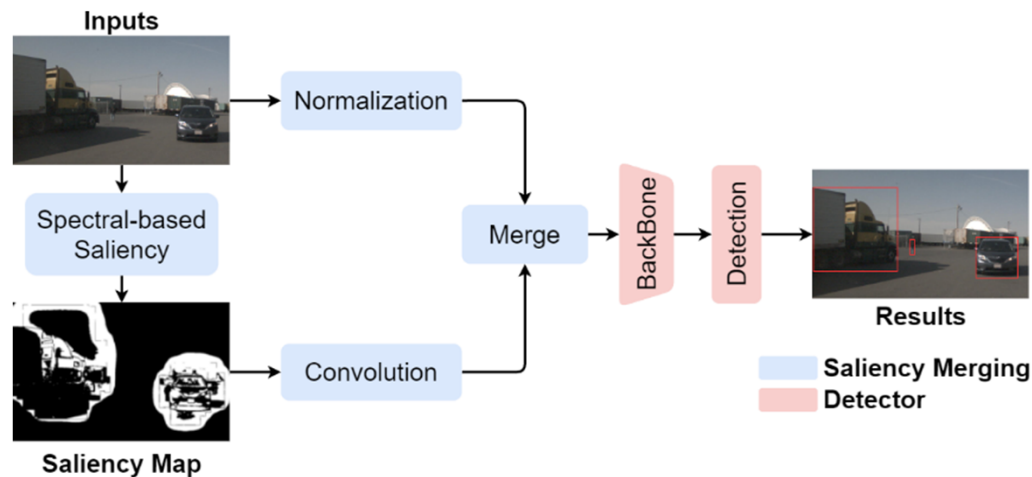
- Camera vision in autonomous cars needs to detect objects on the road

- The objects need to be labeled and classified based on either known templates or prior experience (trained data) when using AI learning

- Machine cannot identify not previously seen objects

- This deep learning method allows doing so with some success; it does it by using only previously known combined features

Our deep Learning Model is used to classify unlabeled objects (i.e., objects not present in training) from popular datasets such as Nuscenes (Left) and Berkley DeepDrive (BDD, on right)

Evaluate on nuScenes Dataset and BDD Dataset

nuScenes
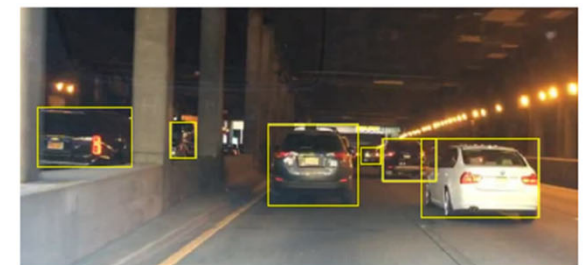
BDD

VCU College of Engineering

Azim Eskandarian
Robotics, Autonomy, & Mechatronics (RAMs) Group

Deep Learning for Pedestrian and Vehicle Immediate Future Trajectory Prediction

Traffic Scenario with occluded pedestrian

Tracking of Pedestrian

Deep Neural Network with probabilistic models

Uncertainty-aware Prediction
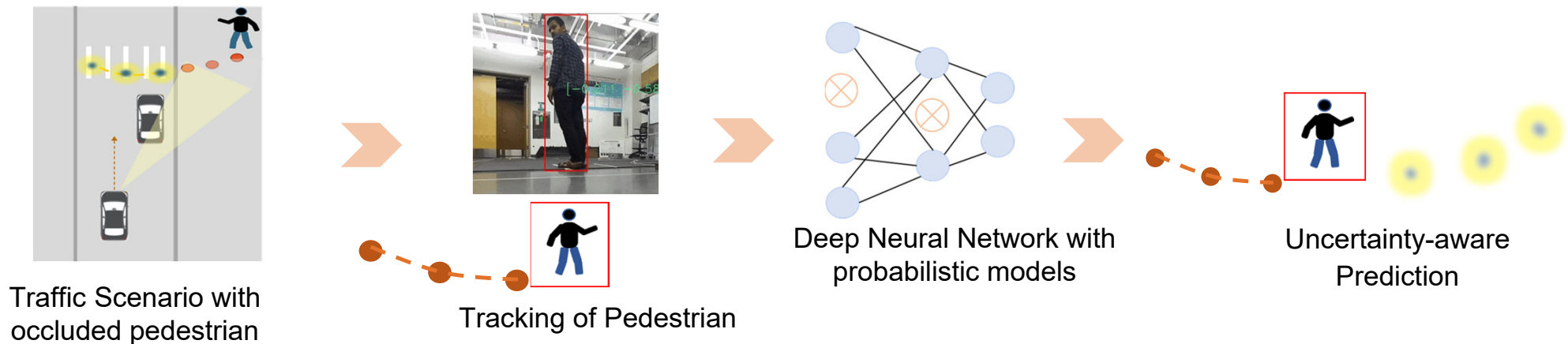
- Deep Neural Network can be utilized to predict and forecast the trajectory of pedestrians

- Especially, Probabilistic NN models have been used to quantify uncertainty with predicted states

VCU College of Engineering

Azim Eskandarian
Robotics, Autonomy, & Mechatronics (RAMs) Group

About VBHEC

- **The Virginia Business Higher Education Council (VBHEC)** is a nonprofit, nonpartisan partnership among VA's business and higher education leadership, **the most active such partnership in the 50 states**.

- Since our founding in 1994, VBHEC has been **led by business leaders** who recognize the crucial role our standout higher ed system plays in **growing VA's economy** and **creating good jobs for all Virginians**.

- Our top priorities include providing **paid internship opportunities for all students** and creating **affordable talent pathways** that cause students to stay in Virginia for full-time employment after graduation.

- **Our board's current membership**:

Business leaders: Dennis Treacy - Chair (Reed Smith); Nancy Agee - Vice Chair (Carilion Clinic); Todd Stottlemyer - Treasurer (CNSI); George Martin - Secretary (McGuireWoods); G. Robert Aston, Jr. (TowneBank); Robert M. Blue (Dominion Energy); Thomas J. Cosgrove (Newport News Shipbuilding); Clifford Fleet (Colonial Williamsburg Foundation); W. Heywood Fralin (MFA); Victoria Harker (TEGNA); Jennifer L. Hunter (Altria); Michael Karafotis (Bank of America); James B. Murray, Jr. (Court Square Ventures); Stephen Moret (Strada Education Network); Mark R. Pace (E.C. Pace Co.); Delbert Parks (Micron); Deborah L. Petrine (Commonwealth Care); Michael J. Quillen (Alpha Natural Resources, ret.); Mehul Sanghani (Octo); Becky Sawyer (Sentara Healthcare); Holly Sullivan (Amazon); Preston White (Century Concrete); John O. Wynne (Landmark Communications, ret.).

Higher education leaders: W. Taylor Reveley, IV - COP Chair (LU); James E. Ryan - COP Vice Chair (UVA); Makola M. Abdullah (VSU); Javaune Adams-Gaston (NSU); Jonathan R. Alger (JMU); David Doré (VCCS); Donna Price Henry (UVA Wise); Troy D. Paino (UMW); Michael Rao (VCU); Katherine A. Rowe (W&M); Timothy D. Sands (VT); Gregory Washington (GMU).

About GROWTH4VA

- Two recessions in the 2000s caused **per-student, constant-dollar state support of higher education in Virginia to be slashed by half**, shifting the burden to tuition-paying students and their parents, and jeopardizing the competitive advantage Virginia enjoys from having a top higher ed system.

- In response, VBHEC launched our major advocacy program — **GROWTH4VA** (formerly "Grow By Degrees") — to demonstrate the **economic value of higher education**, generate business and grassroots support for investments that will make Virginia the **Top State for Talent,** and make **paid internships** and **affordable talent pathways** broadly available to students in Virginia's colleges.

- **GROWTH4VA's core activities include:**
  - **Economic impact analyses** documenting VA higher ed's impact on economic growth, job creation, and tax revenues.
  - **Policy research and development** focused on making higher ed instruction and research a catalyst for greater economic growth, better alignment with workforce needs, improved affordability, and strengthened performance.
  - **Polling by national prominent bipartisan team** to measure public support for higher ed system and policy goals.
  - **Briefings for statewide and legislative candidates** to present policy recommendations and relevant data.
  - **Higher ed summits/other events** to foster policy collaboration by business, education, and government leaders.
  - **Digital communications program** to give grassroots Virginians a voice (37,000 expressions of support to date).
  - **Public relations program**, including op/eds by business and education leaders, to build support for key policies.
  - **National best practices research** to identify key initiatives, especially related to talent pathways, internships, etc.
  - **Direct advocacy by business leaders** with executive and legislative branch decision-makers.

We're Different

When it comes to developing talent, Virginia is unique . . .

Across the nation, support for higher education recently has shown signs of eroding . . .

Often-cited reasons:

- High tuition cost and uncertain return on investment (ROI)

- Students incur high debt yet fail to graduate

- Graduates can't find well-paying jobs in their field of study

- Students feel ideological pressure to conform and self-censor speech

- Colleges have bloated bureaucracies that drive up costs

THE WALL STREET JOURNAL
March 31, 2023

When it comes to getting a four-year college degree, which of the following statements comes closer to your point of view? A four-year college education is…

	2013	2017	2023
Worth the cost because people have a better chance to get a good job and earn more income over their lifetime	53%	49%	42%
Not worth the cost because people often graduate without specific job skills and with a large amount of debt to pay off	40	47	56

Other states are experiencing what happens to public support when colleges fail to deliver real value.

In Virginia, the story is completely different. Large majorities in both parties say a college education is still a good value.

This is even true when common criticisms of higher ed are highlighted in the question, such as some graduates' difficulty finding jobs and the increasing cost.

"In your opinion, is having a college education still a good value even though some college graduates have trouble finding work in their chosen fields of study these days?"
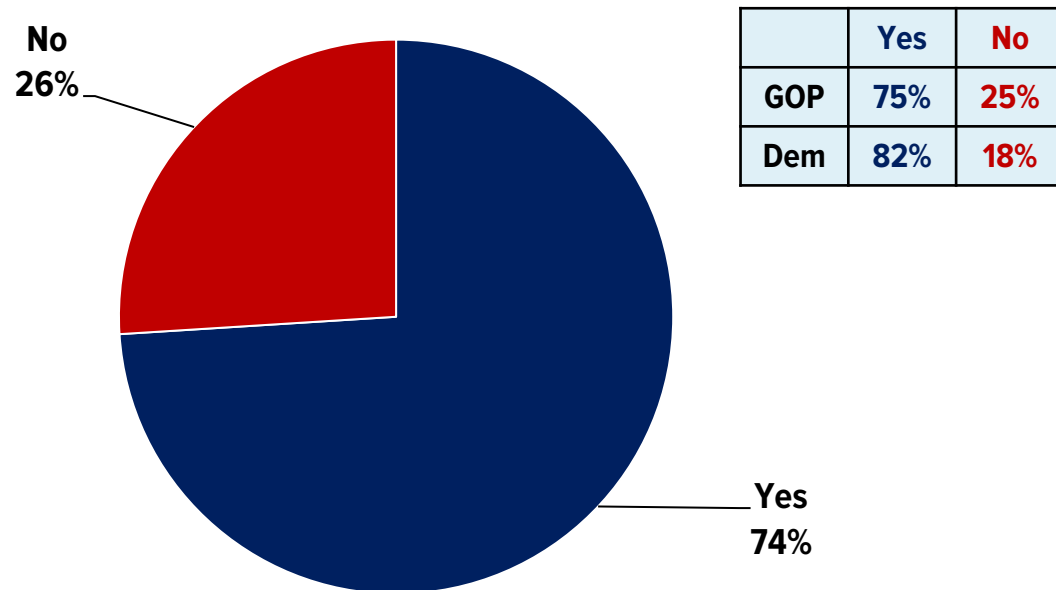
"In your opinion, is having a college education still a good value even though it has become more expensive?"

No
26%

Yes
74%

	Yes	No
GOP	75%	25%
Dem	82%	18%

No
32%

Yes
68%

	Yes	No
GOP	69%	31%
Dem	76%	24%
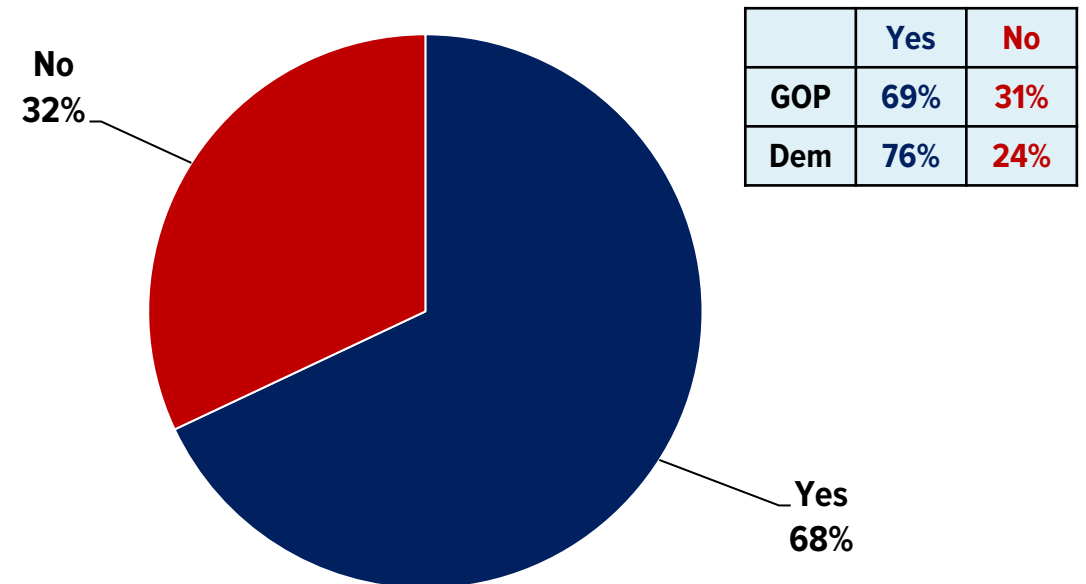
In contrast to national attitudes, Virginians overwhelmingly agree their colleges are a valuable asset, well run, and a sound place to invest.

This attitude dominates among Virginians in both political parties and has remained remarkably consistent over time despite the negative press coverage higher education recently has been receiving nationally.

Please read the following statement. After you read the statement, please indicate if you agree or disagree with that statement:

"Virginia's universities, colleges, and community colleges are a valuable public asset of the Commonwealth of Virginia, are well run, and are a sound place to invest public dollars."

	2017	2021	2023
Agree	88%	85%	83%*
Disagree	9%	15%	17%
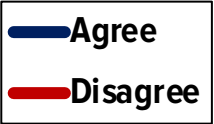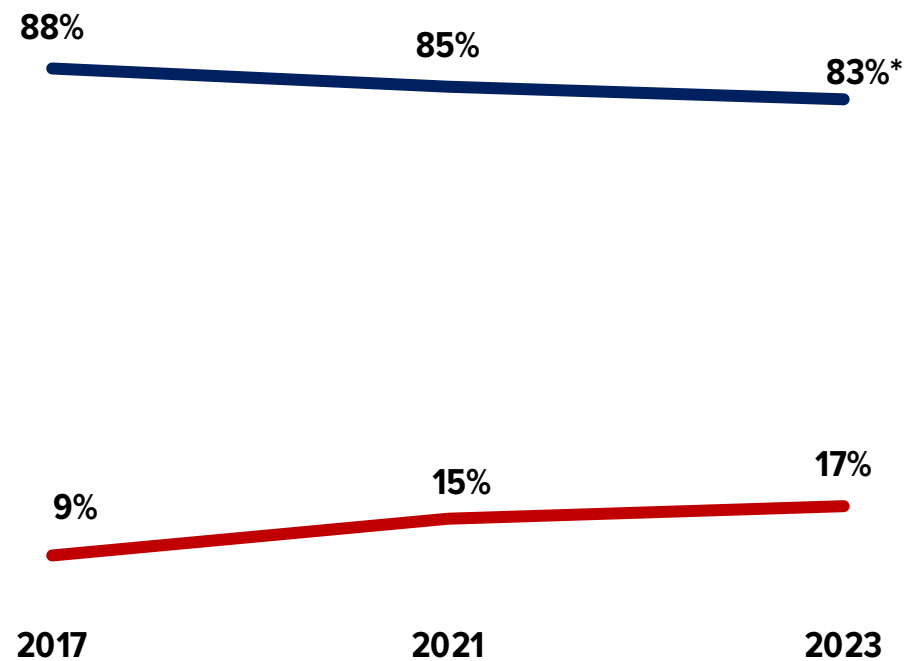
Agree
Disagree

Strongly Agree	36%
Strongly Disagree	7%

	Agree	Disagree
GOP	79%	21%
Dem	90%	10%

* Denotes Rounding

Why we're different:

Virginia's colleges earn top national rankings for performance and value, with some of the nation's highest graduation rates and most impressive returns on investment . . .

SmartAsset has ranked VA's higher education system **#1 or #2 nationally for seven straight years**, saying in its 2021 edition:

smartasset™

Top States for Higher Education

"Virginia ranks in the top 10 states for three of the metrics we considered: undergraduate graduation rate (72%), student-to-faculty ratio (less than 16 students per faculty member) and 20-year return on investment (about $403,200). Virginia also has the 19th-highest in-state attendance rate, with close to one in four high school graduates attending one of its four-year public colleges or universities."

TOP 10
States for Higher Education

1. VIRGINIA
2. NEW JERSEY
3. NORTH CAROLINA
4. CONNECTICUT
5. CALIFORNIA
6. WYOMING
7. MICHIGAN
8. INDIANA (TIE)
8. RHODE ISLAND (TIE)
10. PENNSYLVANIA

Note: Tie indicates that these states scored the same average ranking across all metrics analyzed.

smartasset
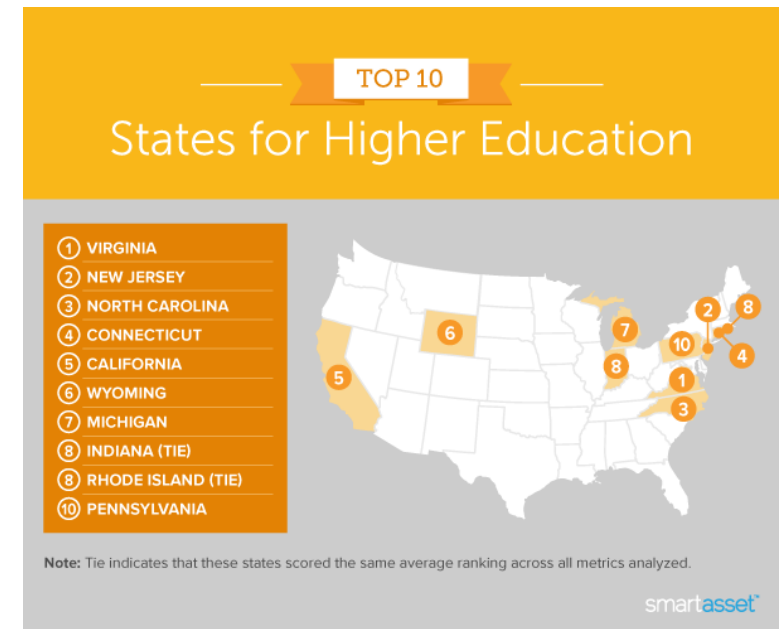
Competitive Advantage

Higher education is why Virginia wins on economic growth and job creation . . .

No investment produces a stronger ROI for the Commonwealth . . .

ECONOMIC IMPACT ANALYSIS

A comprehensive study completed by the Weldon Cooper Center for Public Service in 2023, the fourth of its kind since 2009, has documented the dramatic economic impact of Virginia's higher education system.

$52B
GSP

188K
Jobs

$3.8B
Revenue
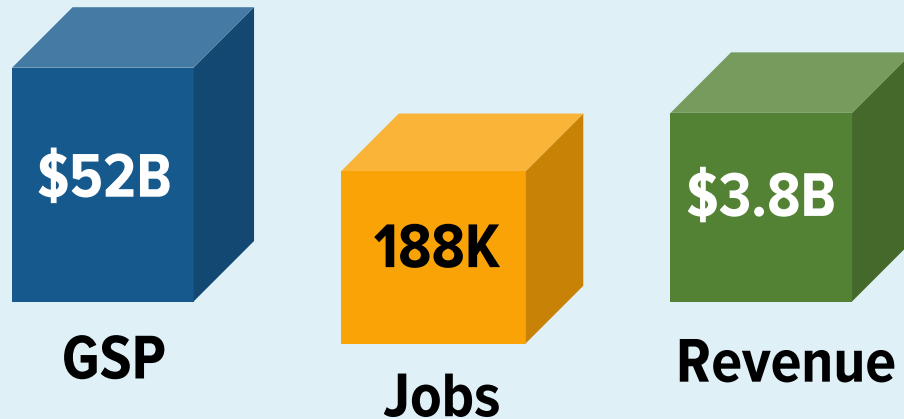
The investment more than pays for itself.

Each dollar spent on Virginia's public higher education system produces more than $25 in greater Gross State Product (GSP) and returns nearly $2 to the state treasury.

$25
GSP impact

$1.89
State tax revenue impact
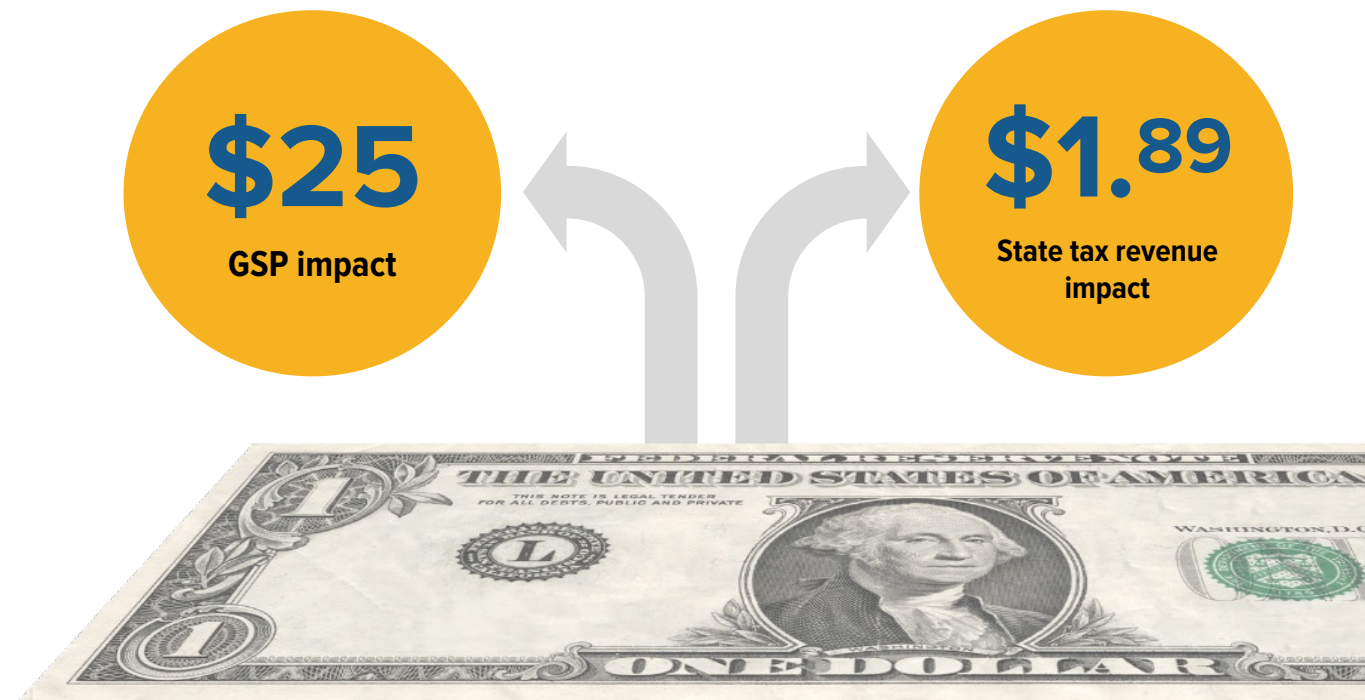
Virginia is the 2ⁿᵈ best state for business, according to CNBC, because we are the #1 state for education.

93% of Virginians say it is important to invest in higher education to maintain this competitive advantage.

More than half of Virginians say this investment is **very important**, indicating that voters' views on this issue are **especially intense**.

"For several years, Virginia has been ranked by CNBC as one of the best states for business, and a key reason given for these rankings has been our strong educational system, including our colleges, universities, and community colleges. Since these national business rankings have a big impact on where companies choose to locate their facilities and create jobs, how important do you believe it is for Virginia's Governor and the General Assembly to invest in our colleges, universities, and community colleges?"

Not Very Important 6%

Not At All Important 2%

Somewhat Important 37%

Very Important 56%
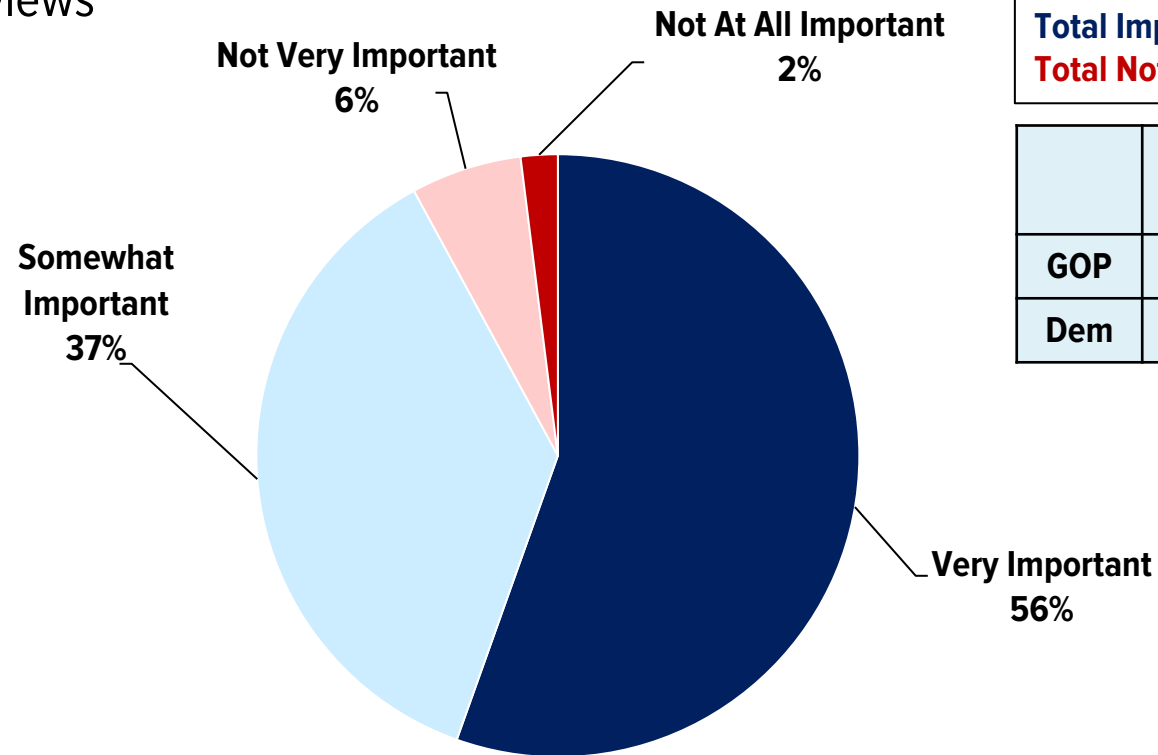
Total Important	93%
Total Not Important	7%*

	Important	Not Important
GOP	91%	9%
Dem	97%	3%

Virginians believe talent is what sets our state apart.

More than half strongly agree that broadening the talent pool through varied degrees and credentials that fit individual aspirations and abilities is **"the most important investment our state can make."**

"Virginia's future largely will be determined by our success in broadening the pool of talented individuals who are prepared to participate and lead in the new economy.
*Therefore, the most important investment our state can make is to ensure that every Virginia resident is able to achieve the highest level of education that suits their aspirations and abilities, whether that is a skilled trade certificate, an associate's or bachelor's degree, or a graduate or professional degree."^*

	Total	GOP	Dem	Ind	Child H.H.	No Child	Men	Women
Agree/ Disagree	94/6	92/8	98/2	90/10	94/6	94/6	91/9	97/3

^ *Split Sample A, N=400.*

Somewhat Disagree 4%

Strongly Disagree 2%

Strongly Agree 51%

Somewhat Agree 43%
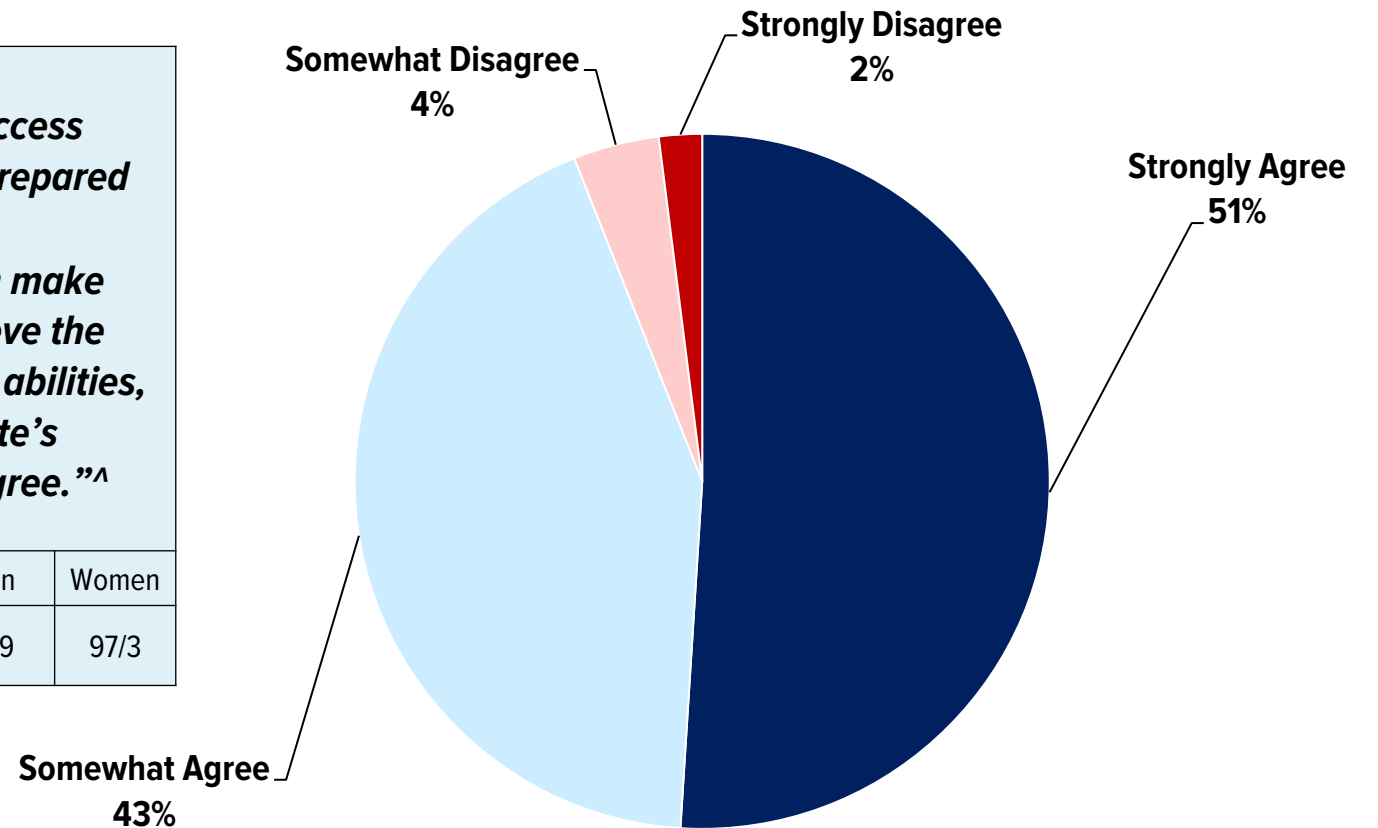
Virginians agree that college is a good investment because of the high rate of return received by graduates.

Please indicate if you agree or disagree with each of the following statements about higher education at Virginia's colleges, universities, and community colleges:

*"Since college graduates on average earn more than twice what non-graduates earn, attending and graduating from a Virginia college or university is a good investment."^*

42%	85%*
	15%

*"Since, in today's economy, the highest paying jobs generally go to the best educated workers, a greater state investment in Virginia's higher ed system will result in higher average incomes for Virginia workers and a stronger economy."^^*

37%	82%
	18%

Denotes Rounding; ^ Split Sample A, N=400; ^^ Split Sample B, N=400.

■ Strongly Agree   ■ Total Agree   ■ Strongly Disagree   ■ Total Disagree

13

Virginians give our colleges and universities high marks for preparing young people to succeed in the changing economy.

*"Would you say Virginia's universities and colleges are doing a good job or a bad job at making sure students are graduating with the skills they need to succeed in the changing economy?"^^*

Total Good Job	76%*
Total Bad Job	24%

	Good Job	Bad Job
GOP	74%	26%
Dem	84%	16%

* Denotes Rounding; ^^ Split Sample B, N=400.

Very Bad Job 8%

Very Good Job 24%

Somewhat Bad Job 16%

Somewhat Good Job 53%
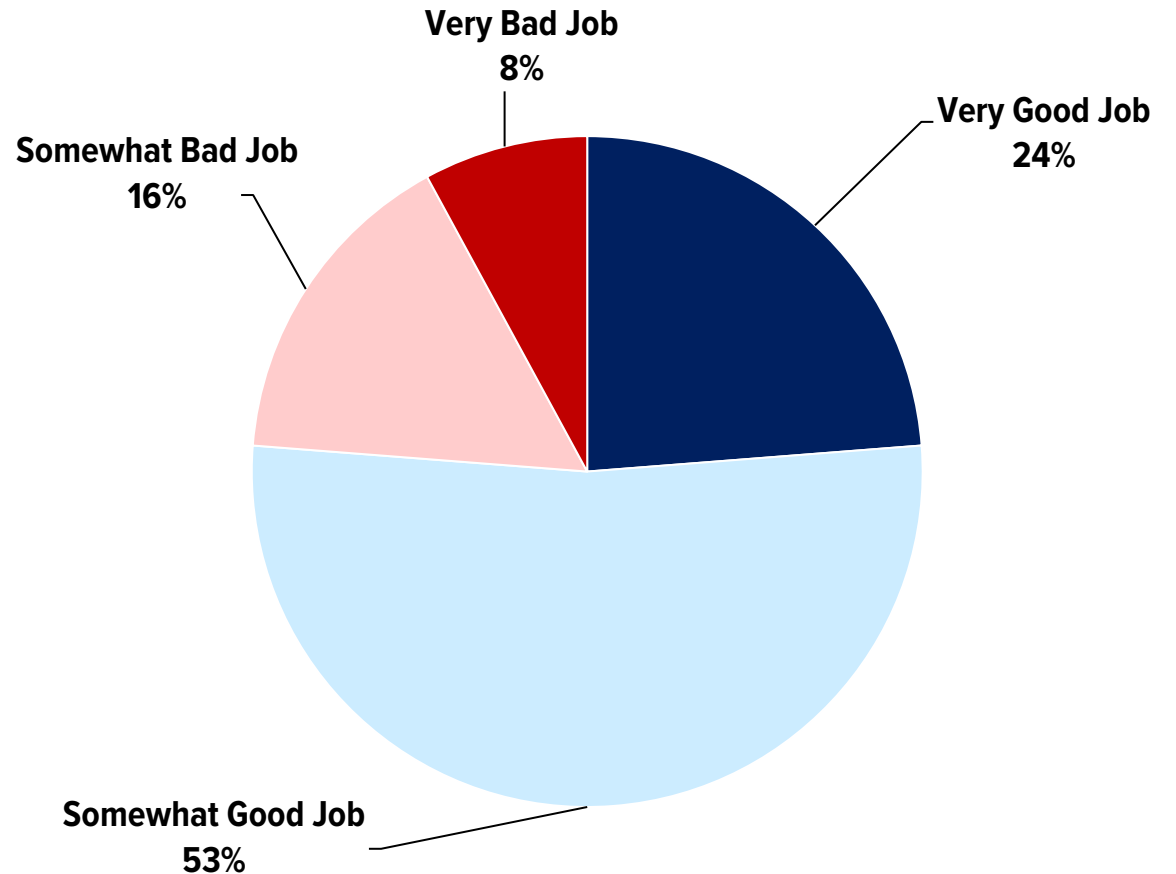
Talent Investments

**Virginians in both parties strongly agree
it's time for strategic higher ed investments . . .**

Virginians say it's time for the state to invest in talent . . .

And they are clear about the state investments they want:

8 PRIORITIES FOR STATE INVESTMENT STRONGLY SUPPORTED BY VIRGINIANS IN BOTH PARTIES

- ✓ Invest in internships that help students pay for college and get good jobs.
- ✓ Invest in reducing the tuition burden on students and their families.
- ✓ Invest in financial aid for low- and middle-income families.
- ✓ Invest in affordable access via HBCU's, TAG grants, VCCS dual enrollment.
- ✓ Invest in strategies to attract talent and keep students in VA after graduation.
- ✓ Invest in meeting the workforce needs of current and future VA businesses.
- ✓ Invest in educational opportunities for Virginians who serve in the military.
- ✓ Invest in mental health and other needed support services for students.

Virginians are especially strong in their support for expanding paid internships.

THE BIG GOAL: EVERY STUDENT WHO ATTENDS VIRGINIA'S COLLEGES AND UNIVERSITIES WILL HAVE THE OPPORTUNITY FOR AT LEAST ONE PAID INTERNSHIP IN THEIR FIELD OF STUDY WITHOUT EXTENDING THE TIME IT TAKES TO COMPLETE THEIR DEGREE.

*"Virginia should increase the paid internship opportunities available to students because it will help students pay for college as well as prepare them for their career."^^*

60%   **93%**

7%

*"It is important the state of Virginia invests in the Innovative Internship Program which increases the number of paid internships, co-op programs, and other work-based learning opportunities available to students attending Virginia's colleges and universities."^*

53%   **92%**

8%

■ Strongly Agree   ■ Total Agree   ■ Strongly Disagree   ■ Total Disagree

^ Split Sample A, N=400; ^^ Split Sample B, N=400.

17

Virginians understand that internships make college graduates more attractive to potential employers.

Internships are considered **very important**, not only for STEM majors, but especially for students gaining **liberal arts degrees.**

*"Liberal arts majors at Virginia's colleges and universities learn valuable skills that employers need, such as written and verbal communications, teamwork, critical thinking, and problem solving. To make these graduates even more attractive to employers, the college curriculum should include internships and other work-based learning opportunities that provide practical experience in the student's field of study."^^*

Strongly Disagree 5%

Somewhat Disagree 8%

Strongly Agree 47%

Somewhat Agree 39%

Total Agree	86%
Total Disagree	14%*

	Agree	Disagree
GOP	80%	20%
Dem	94%	6%
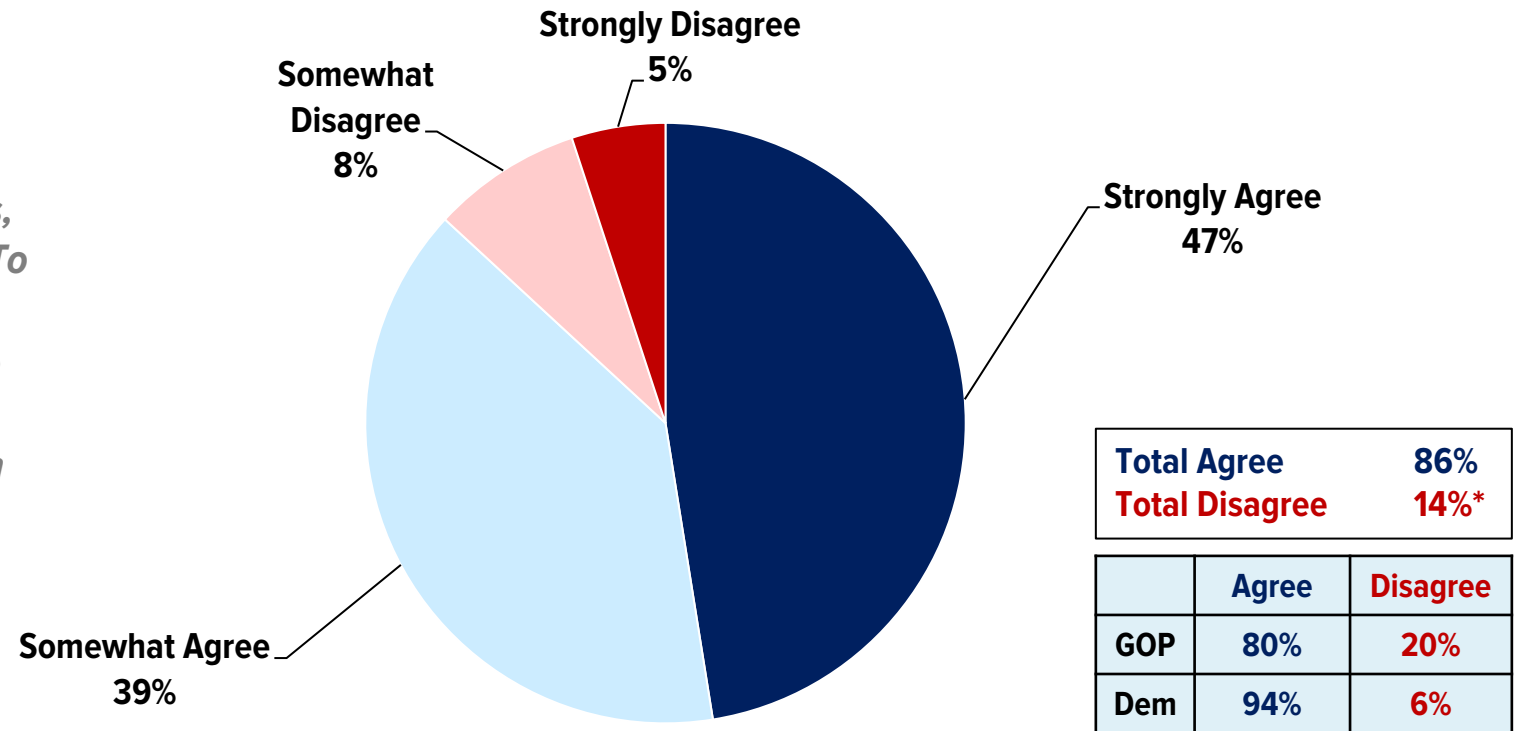
Denotes Rounding; ^^Split Sample B, N=400.

Internships play an especially important role in "talent pathways" that enhance affordable access and help keep students in Virginia for full-time jobs after graduation.

WHAT ARE TALENT PATHWAYS?

4 key elements:

- ✓ **Colleges collaborate with businesses and other employers.**
- ✓ **Curriculum is aligned to better address employer needs.**
- ✓ **Students have paid internship experiences or other valuable work-based learning.**
- ✓ **Leads to full-time job opportunities with a Virginia-based employer.**

*A candidate who says we need to invest in creating more talent pathways in Virginia because they are especially helpful for first-generation and low-income college students who otherwise have trouble getting needed work experience and being considered for well-paying jobs.^^*								
	Total	GOP	Dem	Ind	Child H.H.	No Child	Men	Women
More/Less Likely to Vote for ...	79/9	71/13	90/4	72/15	82/8	78/10	80/10	79/9

*A candidate who says we need to invest in creating more talent pathways in Virginia because the best way to keep talented young people from moving away from our state after graduation is to connect them to Virginia businesses while they are still in college, such as through internships and co-op programs that can lead to full-time employment in Virginia.^^*								
	Total	GOP	Dem	Ind	Child H.H.	No Child	Men	Women
More/Less Likely to Vote for ...	80/8	80/6	87/6	68/12	81/8	80/7	81/8	79/8

^^ Split Sample B, N=400.

Achieving the Big Goal

Virginians support multiple investment strategies to make paid internships available to all students.

Campus Internship Centers

"A candidate who says that colleges in Virginia need to work directly with businesses to help place students in paid internships with those businesses, so the state should invest in campus internship centers that focus on matching students with businesses for specific internship opportunities."

36% | 76%
12%

Internship Listings on Online Portal

"A candidate who says that because many businesses want to hire student interns but do not know how to go about it, the state should create a user-friendly online portal with internship information and market it to employers and students throughout the state."

37% | 75%
12%*

Small Business Matching Grants

"A candidate who says that because most jobs in our economy are created by small businesses and internship experiences with small businesses are especially valuable to students, the state should provide matching grants to small businesses in Virginia so more small businesses can afford to hire interns."

32% | 74%
13%

Financial Aid to Help with Expenses

"A candidate who says that because many students cannot afford off-campus internships because they have additional expenses for things like transportation and housing, the state should provide financial aid to help cover those expenses so internships are accessible to all students regardless of their family's income."

32% | 66%
22%

Denotes Rounding

■ Much More Likely   ■ Total More Likely   ■ Much Less Likely   ■ Total Less Likely

20

Providing educational opportunities for veterans and members of military families is extremely popular with Virginians.

Voters also support making it easier for working adults to upgrade their skills.

Here are a couple of statements about helping adult Virginians transition to new jobs and careers that are more in demand. Please indicate whether you support or oppose each of the following proposals:
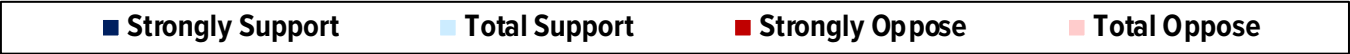
"Providing military veterans with affordable access to education and training programs, and giving them credit for advanced skills developed during their military service."

66% 94%

6%

"Setting up a new system that makes it easier for working adults in Virginia with partial college credit to take online classes to complete their degrees or gain new job skill certification so they have better opportunities for job advancement."

61% 96%*

4%

■ Strongly Support ■ Total Support ■ Strongly Oppose ■ Total Oppose

Denotes Rounding

Fall Events & Media

SCHEV + COP Joint Meeting

Harrisonburg Roundtable

Virginia FREE Leadership Luncheon

Fall Events & Media

Daily News-Record

Business Higher Education Council Discusses Internships At JMU Roundtable
September 19

NEWSRADIO WINA 1070AM 98.9FM

Virginia public colleges and universities account for nearly $4B in state revenue
September 20

Richmond Times-Dispatch

Treacy, Reveley: To bridge the workforce gap, Virginia must invest in higher ed
September 22

Growth4VA
September 19 at 10:00 AM · 🌐

What's the next big focus in Virginia higher education? Expanding paid internships and creating affordable talent pathways.

Earlier this week, VBHEC President Kirk Cox announced our new Growth4VA campaign focused on this issue. And, throughout the week, we are unveiling new economic impact & polling data showing support for it and Virginia's public higher education system.

Read more:

GROWTH4VA.COM
VBHEC Launches Growth4VA Campaign to Promote Internships for Virginia Students: From "Learning to Earning"

👍 63   3 comments 8 shares

Growth4VA
September 26 at 10:40 AM · 🌐

According to our new report by the Weldon Cooper Center for Public Service, investment in public #highered in Virginia more than pays for itself. Each dollar spent produces more than $25 in state GDP, and returns nearly $2 to the state treasury. Learn more:

WINA.COM
Virginia public colleges and universities account for nearly $4-billion in state revenue | NewsRadio WINA

👍❤️ 60   7 shares

Growth4VA
September 22 at 10:55 AM · 🌐

Did you read the article from our Chair Dennis Treacy and Longwood University President Taylor Reveley IV in today's Richmond Times-Dispatch? Read it below. 👇👇👇

In it, they agree: "the focus should be on mobilizing businesses and educators in each region and industry to work together to create affordable talent pathways that help students move efficiently from learning in Virginia to full-time earning in Virginia. ... Virginians agree it's time to invest in our talent. M... **See more**

RICHMOND.COM
Commentary: To bridge the workforce gap, Virginia must invest in higher ed
The commonwealth's return on its higher education investment is enormous. According to ...

👍❤️ 101   2 comments 9 shares
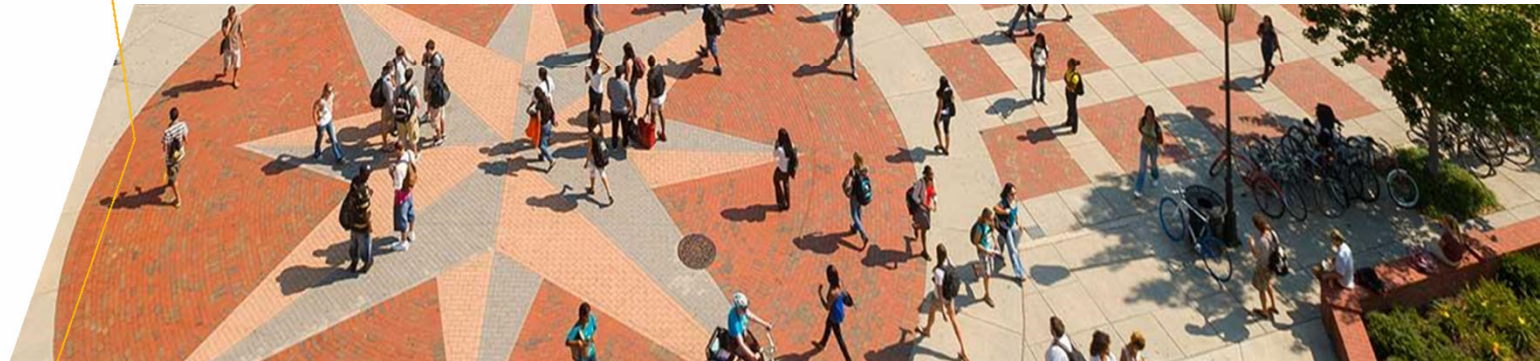
Board of Visitors Annual Retreat
October 27, 2023

Fall 2023
Enrollment Highlights

- Freshman class size: 4,600 (Tied with fall 2018 for the largest class)

- First-generation: 37% (Highest recorded)

- Pell-eligible: 35% (Highest recorded)

- URM: 44% (Highest recorded)

- Freshman 1-year retention: 85.6% (Highest since the fall 2015 cohort)

- Transfer 1-year retention: 87.9% (Highest percentage in 16 years)

- 1.2% increase in undergraduate enrollment and 0.7% increase in overall enrollment over Fall 2022

VCU

As of Census II

Environmental Scanning Takeaways

- Demographic cliff less pronounced in the southern United States through 2030

- Virginia is becoming more diverse

- Growth in graduate programs

- Adult learners/stop-outs (954K Virginians with some college and no degree)

- High impact community college partnerships

- Focus international enrollment efforts: top yielding countries, key partnerships, placed based approach, yield efficiencies

VCU
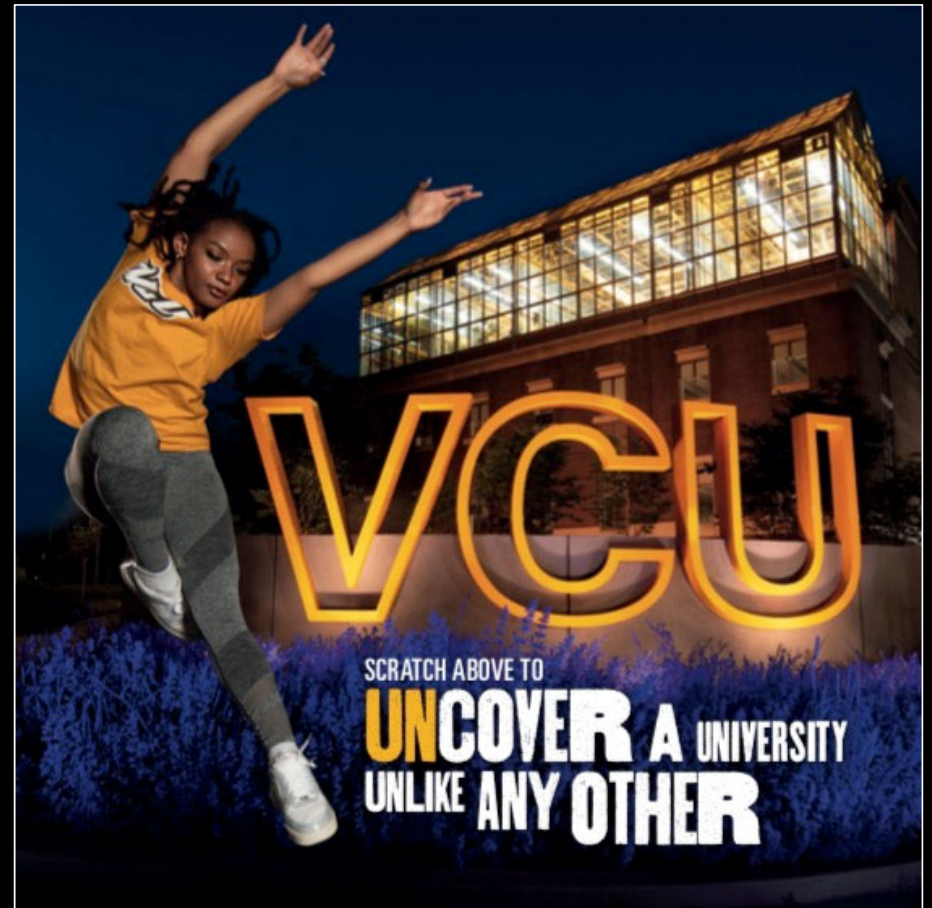
Quest 2028 Enrollment Goals

- First-year classes 4600 <> 4700

- Transfer enrollment of >1,600

- Increase graduate enrollment by 10%

- 90% 1st to 2nd year retention

- Shaping: 20% non-resident enrollment

- Double international enrollment

- Double online enrollment

- Total Enrollment 32K

Recent Recruitment Creative Assets

October 2023
Board of Visitors Retreat

Viewbook

TEAR OPEN A FUTURE OF

UNLIMITED POTENTIAL...

Explore our 200-plus programs.

From our world-renowned arts and advertising programs to our top-ranked hospital and health science schools, we have 200-plus academic programs to choose from. Can't pick just one? You don't have to. Our interdisciplinary collaborations encourage students to combine paths of study in intentional and innovative ways.

RANKED AMONG THE
TOP 20%
of best global universities
(U.S. News & World Report)

VCU INTERNSHIP FUNDING PROGRAM
can cover up to $5,000 in costs associated with an unpaid or underpaid internship

TOP 50 PUBLIC RESEARCH INSTITUTION
(National Science Foundation)

VCU guarantees an experiential learning opportunity for every undergraduate. See what that could look like for you.

RTB Recruitment Postcard

Welcome Brochure

GAP Out-Of-Home

Recent Recruitment Creative Assets

October 2023
Board of Visitors Retreat

Fall 2024 Enrollment Focus

Positioning, Pricing, Product, Place

- Guaranteed University Admission program

- Direct admissions pilot

- Access, academic excellence, research, rankings

- Promote 5 fully online UG degree programs

- Non-resident pricing strategy (discovery)

- New or repackaged academic programs with market demand commensurate with gainful employment

- Urban destination institution

Geo-markets

- Domestic: VA, Mid-Atlantic, WV
- International: India, Saudi Arabia, Kuwait, Vietnam

Graduate Enrollment

- Enrollment Services org. structure (centralized vs. decentralized)

- Admissions process mapping – operational efficiencies

- Master's revenue generating focus

- School of Business and College of Engineering

VCU

Fall 2024 Enrollment Focus

Student Success

- Paid internships (College to Career)

- Career Audit (College to Career)

- Develop student engagement plan

- Develop institutional culture focused on Student Success (University Innovation Alliance)

- National Institute for Student Success Diagnostic

- Scale academic recovery programs

Transfer Strategy

- Adult learners

- Reactivation campaign

- Enhance community college partnerships

- Re-engage stop-outs

Enrollment Plan

- Multi-year enrollment plan

- Three-year plan by May 2024

- School and College enrollment plans

VCU

ATTACHMENT D

VCU Board of Visitors

FY24 Budget Update and FY25 Budgeting Process

KAROL KAIN GRAY
Senior Vice President & CFO
October 27, 2023

Board Meetings and Actions

December
- Update on Governors Budget for FY25
- Final Review of Fall Enrollment Performance
- Initial Budget Planning with the Intention of Keeping Tuition Flat

March
- Legislative Update
- Review of Spring Enrollment

April Budget Workshop
- Review of Legislative Outcomes
- Discussion of Enrollment Projections
- Review of New Needs
- Initial Financial Scenarios

May
- Vote on Tuition & Fee Rate Changes
- Vote on New Fiscal Year Budget

Resident Undergrad Tuition & Mandatory Fees 2023-2024

	LU	VSU	NSU	RU	ODU	JMU*	GMU*	UMW	VT*	VCU*	UVA*	CNU	W&M*
Total	$7,600	$9,755	$9,910	$12,286	$13,140	$13,576	$13,815	$14,365	$15,478	$16,233	$16,351	$18,828	$25,040
Fees	3,270	4,215	3,984	3,885	1,350	5,662	3,720	5,465	2,780	3,383	3,492	7,950	6,788
Tuition	4,330	5,540	5,926	8,401	11,790	7,915	10,095	8,900	12,698	12,850	15,324	15,418	18,252

■ Tuition ■ Fees

Tier III Universities
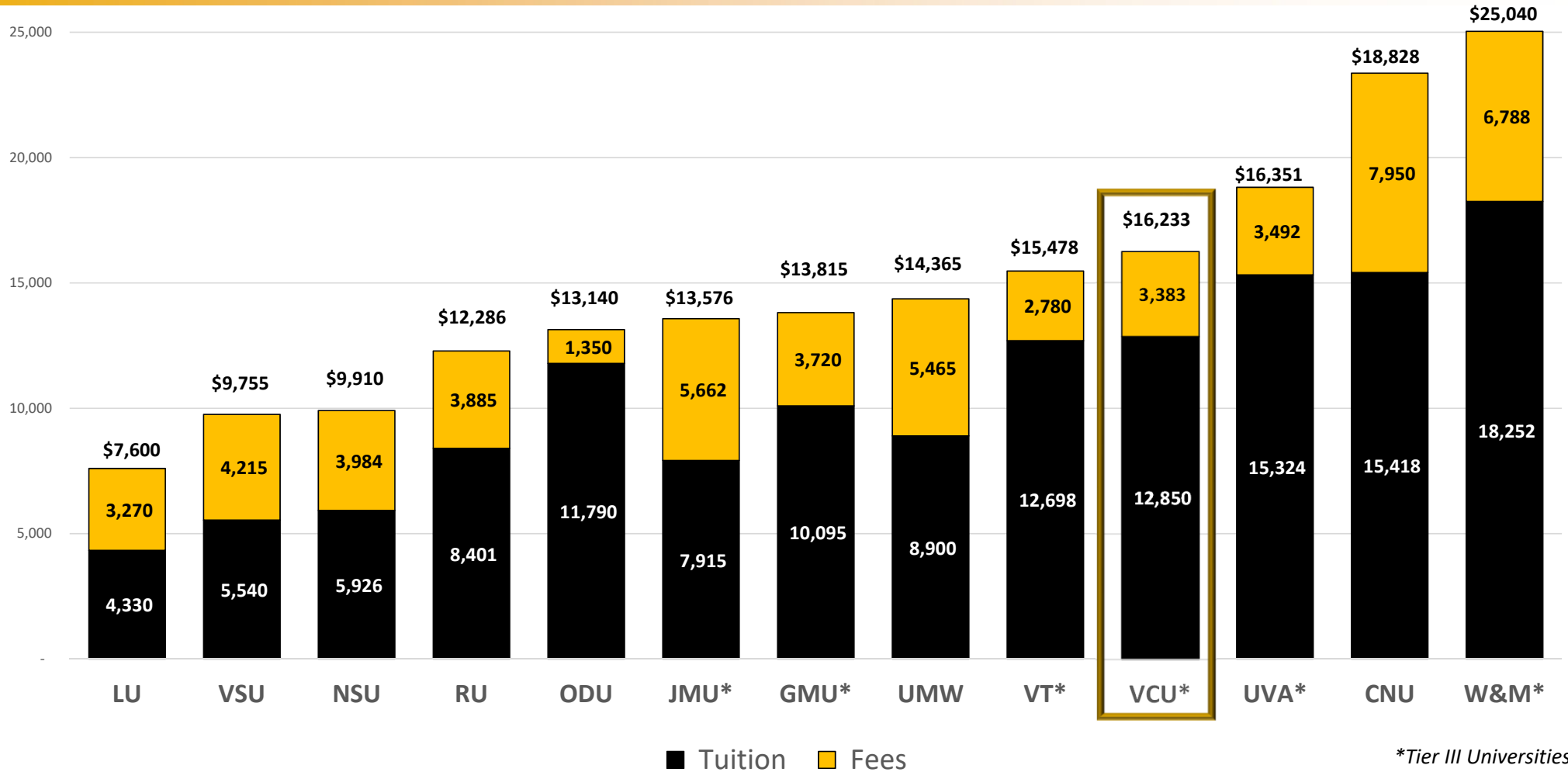
Fall 2022 Undergraduate Fall FTE by Residency

	VMI	UVA-Wise	LU	UMW	VSU	CNU	NSU	RU	W&M	UVA	ODU	JMU	VCU	GMU	VT
Non Resident	548	192	252	371	1,166	263	1,516	520	2,363	5,679	1,647	4,348	1,872	4,173	9,781
In State	964	1,545	2,902	3,122	3,134	4,186	3,821	5,488	4,434	11,655	16,728	15,998	19,335	23,346	20,653

■ In State ■ Non Resident
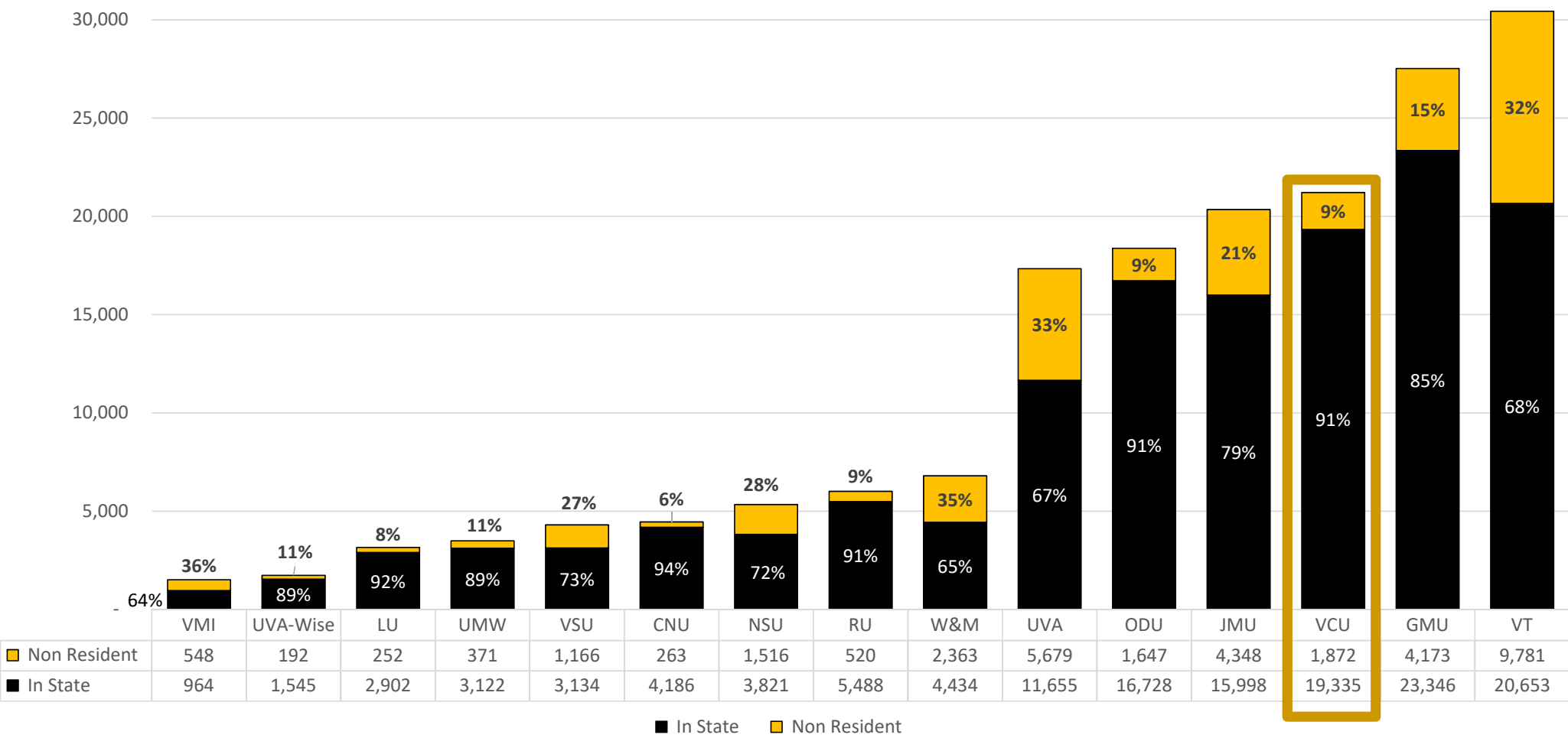
Deferrals and Reallocations

Reallocations 2015-2024

Virginia Military Survivors and Dependents Education Program (VMSDEP)

Impacting student and faculty success

- Defer investment in faculty recruitment and retention
- Evaluate existing positions and contract renewals
- Continued salary inequities for tenure and non-tenured faculty
- Defer funds to enhance online program growth
- Defer funds for strategic cluster hires
- Academic Repositioning Task Force
- Program Productivity Analysis

Administrative Impacts

- No increased funding to support IT security needs
- Eliminated positions in Finance & Administration
- No permanent funds identified to support the marketing communications plan
- Unable to close a funding gap for the research strategic plan

Chart data (Reallocations 2015-2024):

Fiscal Year	Total
FY2015	$4M
FY2016	$8M
FY2017	$13M
FY2018	$14M
FY2019	$14M
FY2020	$19M
FY2021	$43M
FY2022	$43M
FY2023	$64M
FY2024	$89M

Legend: ■ Cumulative Total Reallocations ■ Fiscal Year Reallocations

FY24 All Funds Budget

State & Tuition Supported (E&G) (49%)

Designated Funds 51%

Committed for E&G Utilities, Maintenance, Contracts, Services

Committed for E&G Scholarships

Committed for E&G Personnel

Restricted for Grants & Contracts Sponsored Programs , 23%

Restricted for Housing, Dining, Athletics - Auxilary Funds , 11%

Restricted for Student Finanical Assistance , 6%

Restricted for Qatar, Hospital, & Univ. Funds ,…

Total FY24 Budget $1,490,560

E&G Components
Personnel – 74%
Scholarships – 8%
Utilities, Operations, Contracts Other – 18%

Updated 2024 Budget

	Revised Adopted Budget
Tuition Increase	**3%**
	7% Salary Plan (Dec. 10)
New Tuition & Fees	$ 12,285
New State Support	10,394
State 49% Salary Match	16,059
Tuition and Salary Revenue Growth	**38,738**
July 1 Budget Expense Needs	(50,216)
New 2% Salary Increases	(5,406)
Military Waviers Overage	(2,100)
New Custodial Contract & New Needs	(5,600)
5% Budget Cut	24,584
2024 Balanced Budget	**$ -**

2024 Needs
$31M - 7% Salary Increases
$9.6M - Waivers and Other Mandates
$13M - Inflation & Utility Costs
$9.7M - Debt & Other Operational Needs

2025 and Beyond Key Expenditure Costs

New Critical Needs & Historical Inflationary Costs Per Year

- VMSDEP cost projected to growth **($4.4M)**

- Potential Future Salary Increase (1% Salary Increases Cost **$5.1M**)

- Continued Investment in Financial Aid (**$3M**)

- Inflation & Contractual Cost (**$4-5M**)

- Utility Rate Inflationary Costs (**$2M**)

- Academic and Student Success (**$2M**)

- Faculty Cluster Hires (**$2-3M**)

VMSDEP (Projected 2025 Growth - $4.4M)

	2017	2018	2019	2020	2021	2022	2023	2024*
Military Waivers Budget	1,194,993	1,359,029	2,230,037	2,473,759	5,965,324	6,500,903	11,417,116	17,150,790
Military Waivers Actual	2,618,392	3,902,380	5,066,210	6,992,565	10,111,944	12,564,291	16,842,660	19,263,995