



BOARD APPROVED
April 9, 2021

Janice Indrutz
Corporate Secretary

PURDUE'S NEXT

MOVES

PURDUE MOVES

Since 2013, Purdue University has advanced an ambitious agenda to place us among the great academic institutions of the world, a plan called Purdue Moves. The challenges we have encountered have been extraordinary, but our resolve has proven stronger, repeatedly investing in and progressing research areas, academic disciplines and educational transformations that have the greatest potential to propel our land-grant mission and solve today's toughest challenges. From adult learning to student affordability, from cybersecurity to drug discovery, and from preparing underrepresented minority high school students for future careers in STEM to feeding the world's growing population, Purdue University is persistent in its pursuit of building a better world together.

Through our steadfast commitment to these 5 strategic pillars — **AFFORDABILITY AND ACCESSIBILITY, ONLINE EDUCATION, STEM LEADERSHIP, WORLD-CHANGING RESEARCH AND TRANSFORMATIVE EDUCATION** — we have forged a path of innovation, achievement and growth, harnessed the power of Purdue, and achieved what we set out to do, in many cases surpassing expectations in both magnitude and speed. The discipline, results and impact that have come from these initiatives have become part of the fabric and culture of Purdue — as was intended — guiding our priorities, strategies, and efforts into the future.

THE RESULTS HAVE BEEN SIGNIFICANT

48 seniors from Purdue Polytechnic High School were recently admitted to Purdue University

#7 Best Value School in the U.S. for 2020 (Wall Street Journal/Times Higher Education)

10 years of tuition pegged at 2012-13 rates (through 2022-23)

Annual student borrowing **DOWN 32%** (\$59M) since 2012

First major U.S. research university to offer income share agreements (ISAs)

255 degree and non-degree programs now offered online

Purdue University Global enrollment reached **35,000** in 2020

4th most STEM degrees awarded annually in the US

#5 most innovative school in America (US News and World Report)

Largest engineering college among the top 10 in the nation with enrollment up **2,800 STUDENTS** since 2012

Computer Science undergraduate enrollment is **UP 270%** since 2012

Twice as many students now study abroad (before COVID-19) vs. five years ago

A year-round campus where nearly **12,000 STUDENTS** took classes in the summer of 2020

More than **55 MAJORS** within the Degree in 3 program across 11 colleges

Purdue faculty have **18 NEW DRUGS** in human trials, plus **78 MORE** in the pipeline

Purdue Institute for Drug Discovery members have launched **37 STARTUPS** since 2013

300 Purdue-affiliated startups since 2012

250 patents issued and 400 invention disclosures in the last year

PURDUE'S NEXT

MOVES

For the last 8 years, countless Boilermakers have left their mark, in small steps and giant leaps. And today, we continue in those footsteps because the world still faces immense challenges. Our opportunity still lies ahead, so we keep going, never stopping, relentlessly making major moves, again and again.

Moving forward, Purdue's Next Moves represent five new strategic imperatives, carefully studied and selected from a long list of worthy endeavors. Like the preceding initiatives, The Next Moves will leverage distinct strengths and harness the power and the people of Purdue today to advance our university, community and the world toward a safer, more sustainable and equitable place.

Purdue's Next Moves are:

- 1. PLANT SCIENCES 2.0**
- 2. NATIONAL SECURITY AND TECHNOLOGY INITIATIVE**
- 3. PURDUE APPLIED RESEARCH INSTITUTE**
- 4. TRANSFORMATIVE EDUCATION 2.0**
- 5. PURDUE EQUITY TASK FORCE**

Move Owner:
KAREN PLAUT
*Glenn W. Sample Dean of
the College of Agriculture*



PLANT SCIENCES 2.0

Each year, ~63,000 wildfires burn more than 7 million US acres with devastating loss and tolls on human health.

Chestnut blight has now killed over 4 billion chestnut trees on more than 200 million acres.

U.S. consumers spend \$1.8 trillion annually on food, while issues with food insecurity, malnutrition and obesity grow exponentially.

Purdue University possesses unique expertise and innovative technologies to develop plants with enhanced nutritional and sustainability attributes. These same tools will enable us to manage forests, mitigate wildfires and diseases.

By investing in plant sciences, Purdue University will be known for growing graduates, entrepreneurs and the Ag-Biotech industry to ensure a future where the environment and agriculture work hand-in-hand to both feed the world's population and strengthen our ecosystems.



PURDUE'S NEXT

MOVES

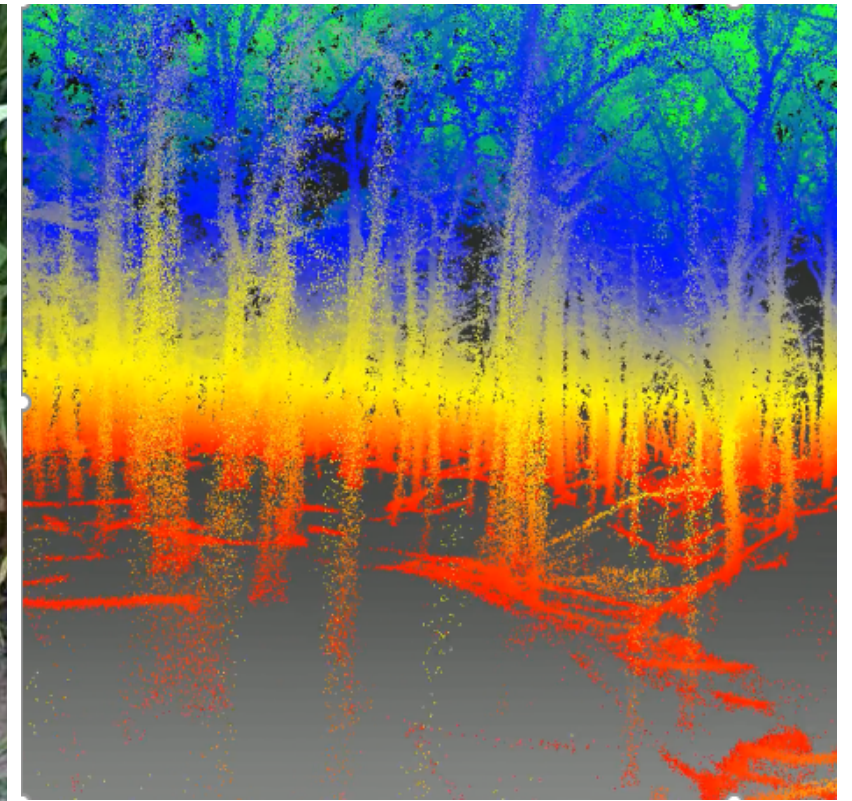
PLANT SCIENCES 2.0



**X-ray CT
of Roots**



**Unmanned Ground
Vehicle (UGV)**



**Image of Martell Forest
based on LiDAR**

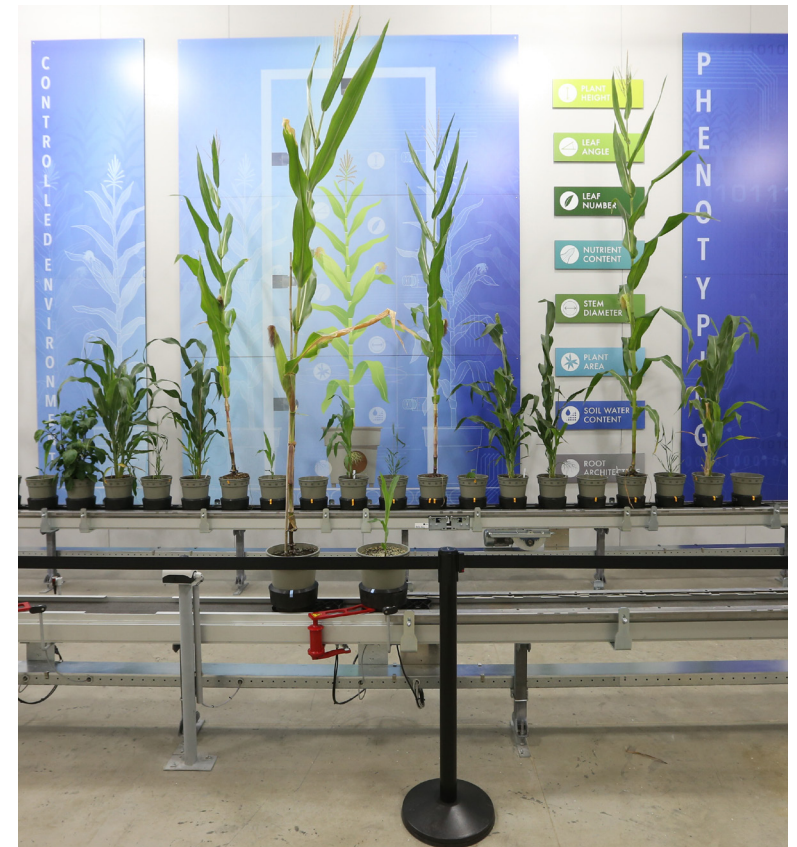
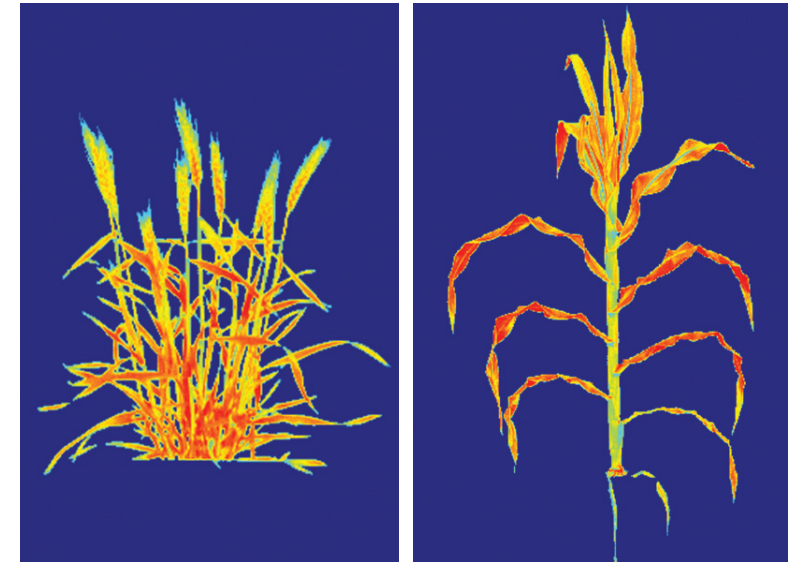
Purdue's investments in plant sciences include:

Digital Forestry

Phenotyping Facilities and Data Scientists

The Center for Food Demand Analysis and Sustainability

Commercialization through Ag-Celerator and an Impact Fund



PLANT
SCIENCES
2.0



MEASURES OF SUCCESS

for Purdue's Plant Sciences 2.0

PURDUE WILL ADVANCE ITS POSITION AS A GLOBAL LEADER BY:

- Producing graduates with the discipline expertise, data science skills, and entrepreneurial training desired by industry
- Designing, producing and delivering plants with added value that address nutritional concerns and food insecurity
- Evaluating and managing forests, preventing forest fires and tracking spread of invasive pests in forests
- Attracting companies to partner, invest and/or locate in the Discovery Park District



Move Owner:
**THERESA
MAYER**
*Executive Vice
President for
Research and
Partnerships*



NATIONAL SECURITY AND TECHNOLOGY INITIATIVE

■ OPINION

Opinion: A 'Cyber Pearl Harbor' Looms for America Amid Widespread Digital Complacency

by Colleen O'Connor March 10, 2021

Share this:     

SPACE NEWS[®]

Op-ed | Talent gap jeopardizes space business, national security

by Bill Beyer and Mary Lynne Dittmar — August 20, 2018

PURDUE'S NEXT
MOVES

NATIONAL
SECURITY AND
TECHNOLOGY
INITIATIVE



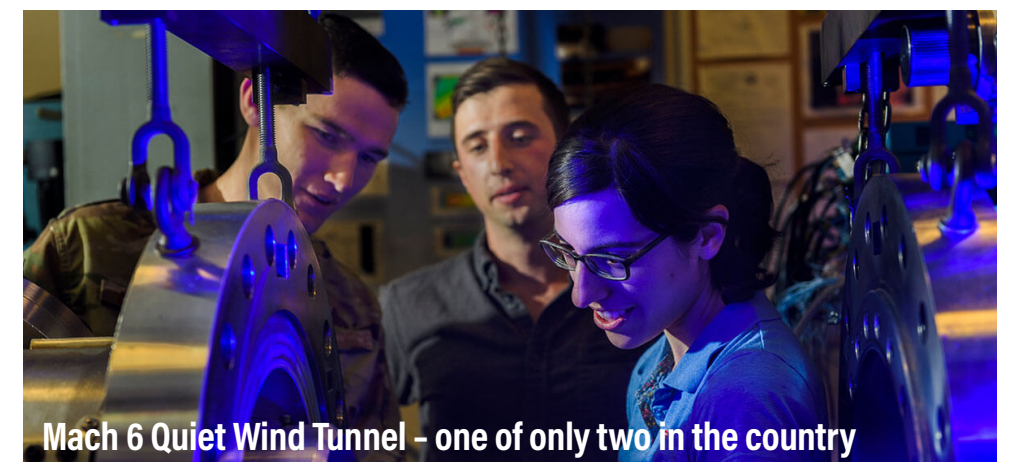
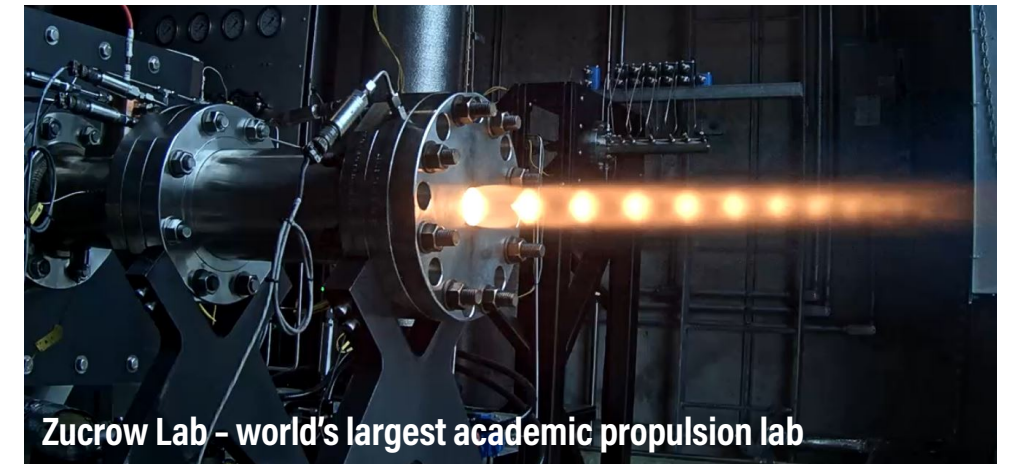
Strategic areas of focus include:

Hypersonic and Space Vehicles

Energetic Materials and Systems

Cybersecurity

Secure Microelectronics



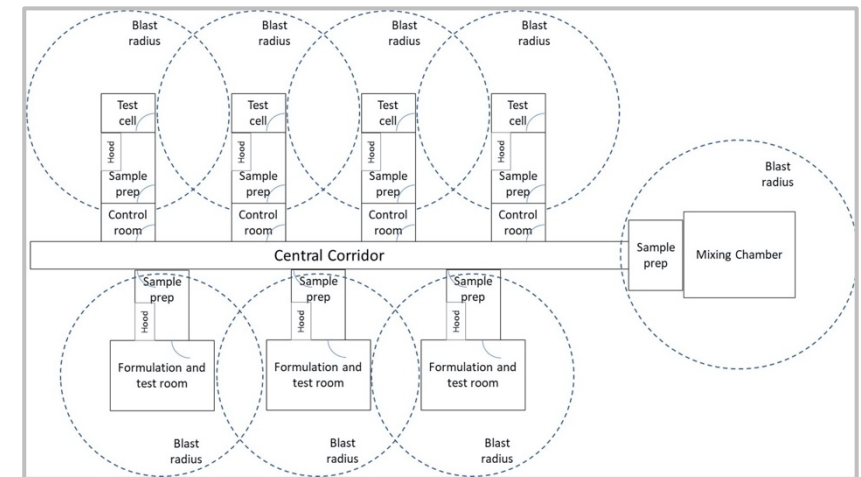
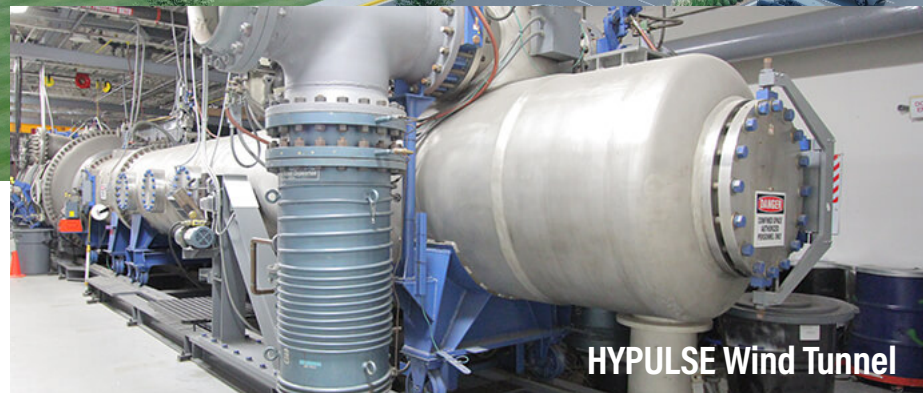
New World-Class Research and Testing Facilities at Scale

February 4, 2020

Purdue to develop world's first Mach 8 quiet wind tunnel

October 15, 2020

Purdue hypersonics receives boost from Northrop Grumman shock tunnel donation



Initial Plan for Energetic Materials and Systems Lab

MEASURES OF SUCCESS

for Purdue's National Security and Technology Initiative

PREEMINENT PROGRAMS

- Lead national centers of excellence with cross-sector participation
- Deliver new, one-of-a-kind research and test facilities that are national assets and further differentiate Purdue's capabilities

TOP TALENT

- Attract, recruit and retain diverse and leading talent committed to supporting NS&T research and education
- Narrow the talent gap by graduating students with NS&T experience and security clearances

HOLISTIC PARTNERSHIPS

- Build deeper relationships with federal agencies and industry that NS&T solutions that address critical needs
- Enhance the regional NS&T ecosystem by adding new companies, federal labs, and startups to the Discovery Park District

PURDUE APPLIED RESEARCH INSTITUTE

Purdue's federal sponsored research portfolio has strong support for basic research from the National Science Foundation (in the top-20 relative to peers)

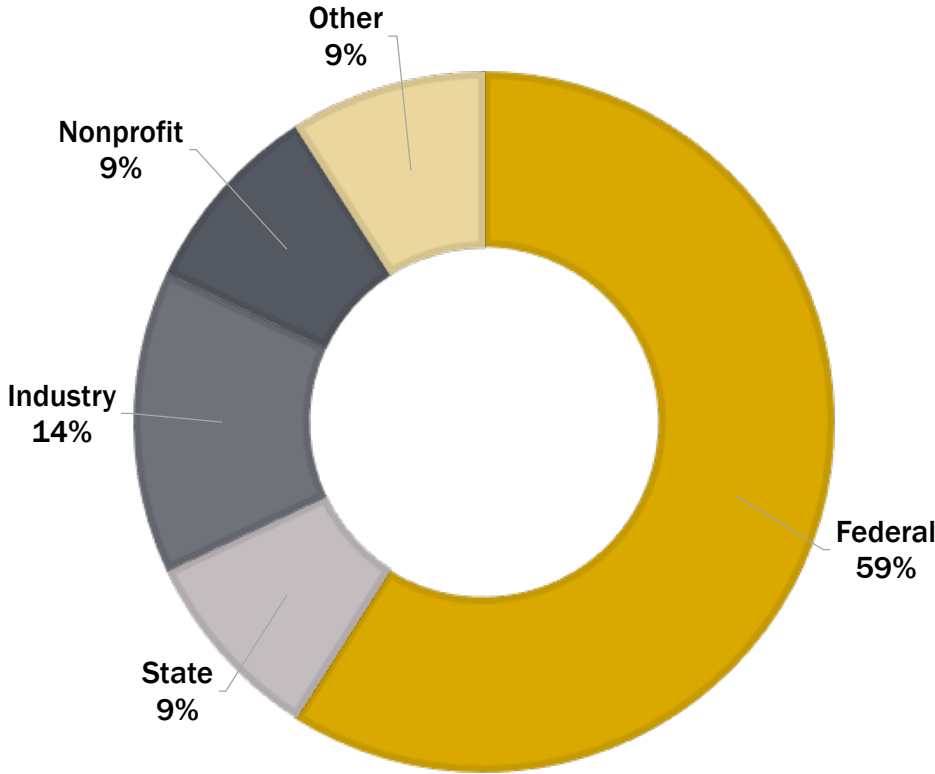
Move Owner:

**THERESA
MAYER**

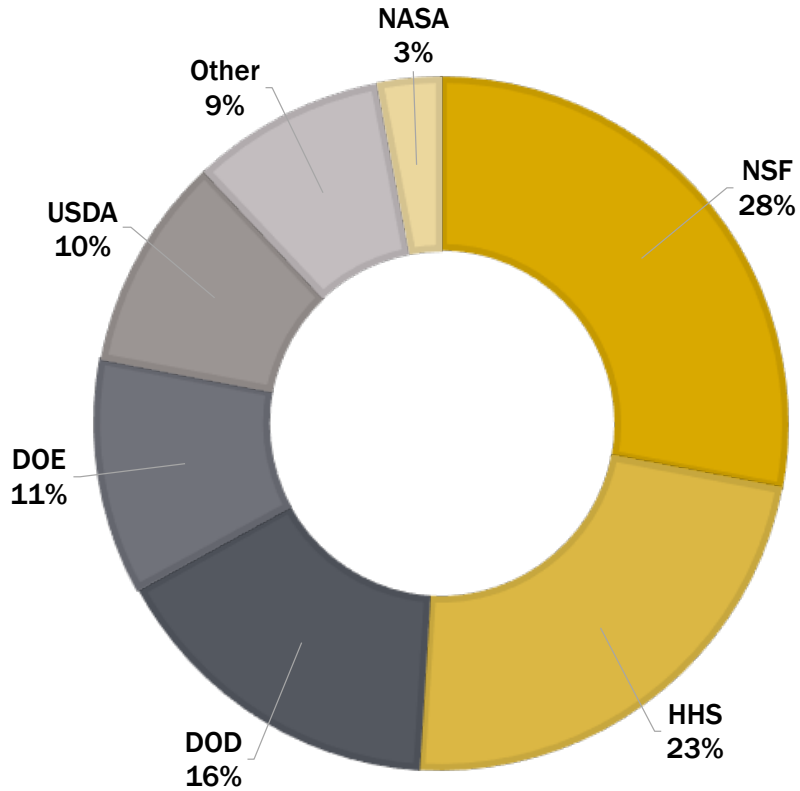
*Executive Vice
President for
Research and
Partnerships*



ALL SPONSORED PROGRAMS



ALL FEDERAL SPONSORED PROGRAMS



FY19 Research Expenditures (NSF HERD)

PURDUE'S NEXT
MOVES

PURDUE
APPLIED
RESEARCH
INSTITUTE

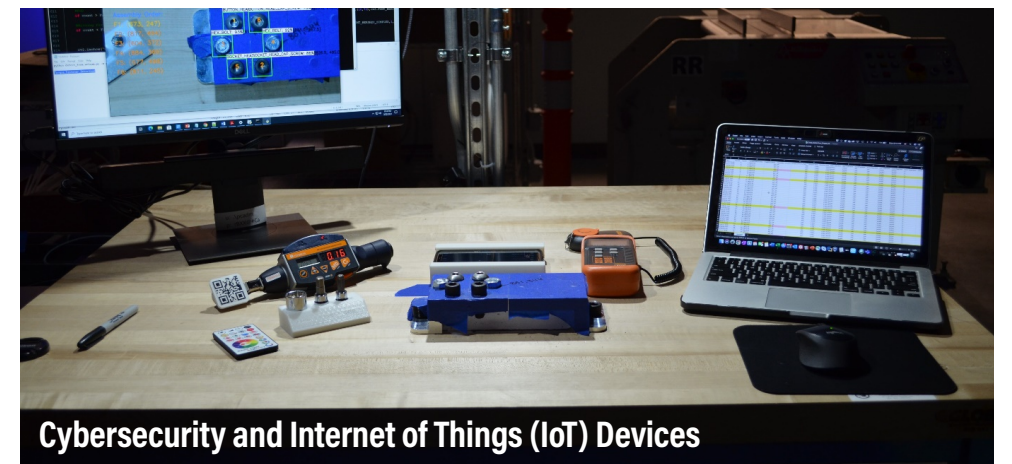


Initial areas of focus for the Purdue Applied Research Institute (PARI) include:

Digital Innovation in Agri-Food Systems

National Security and Technology

Global Development and Innovation



MEASURES OF SUCCESS

for the Purdue Applied Research Institute (PARI)

PREEMINENT PROGRAMS

- Reach Purdue's full potential to support a large and complex portfolio of applied and translational research with national and global impact
- Expand partnerships and programs in support of mission critical efforts of DOD, IC, NASA, USAID, NGOs, and industry

TOP TALENT

- Recruit and retain professionals with deep domain knowledge and agency relationships to build capacity to increase applied research in initial focus areas
- Provide new opportunities for faculty and students to participate in applied research by leveraging contracts that make it easy for sponsors to work with Purdue

HOLISTIC PARTNERSHIPS

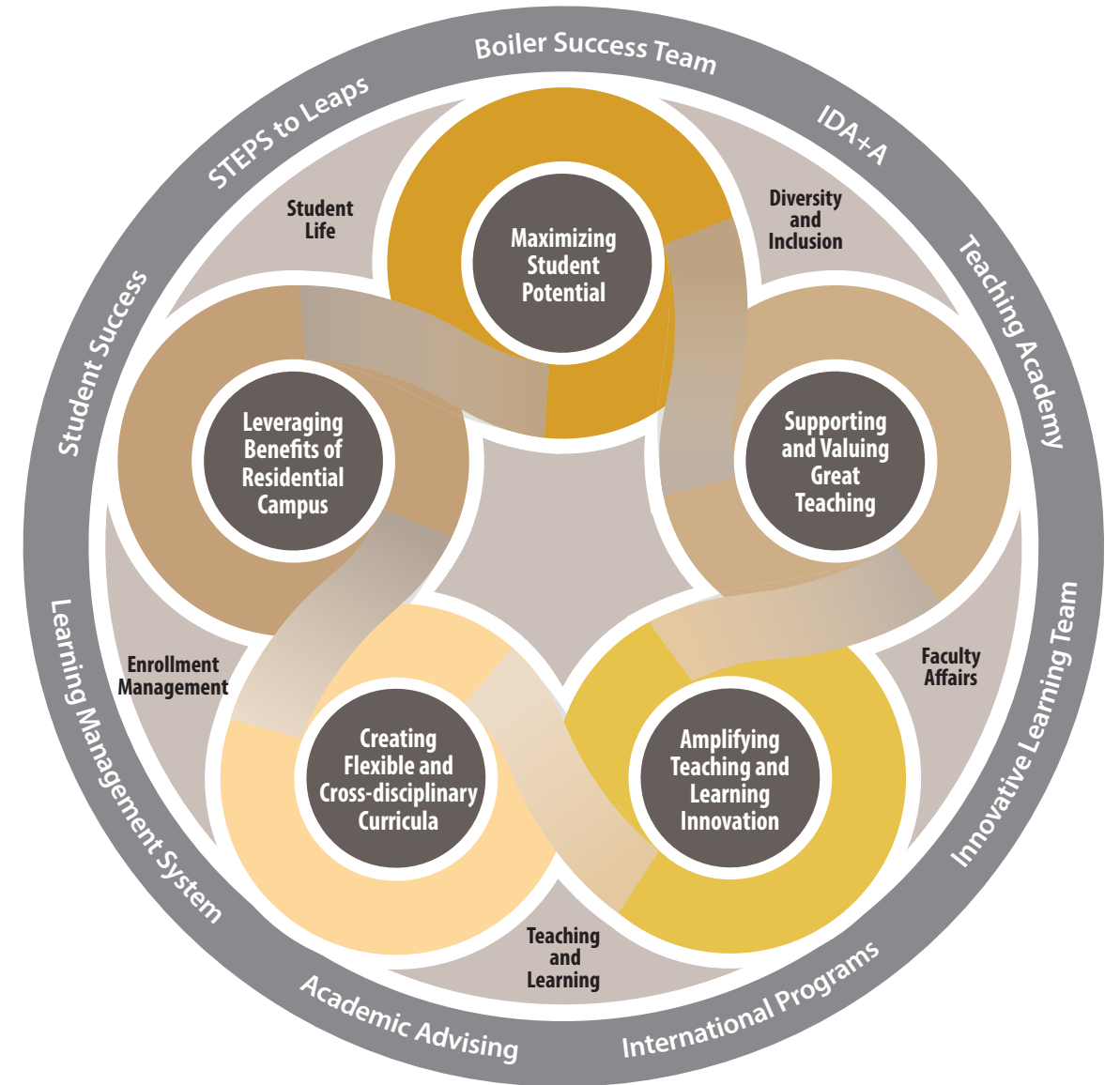
- Create new private-public-academic partnerships that co-locate Purdue, industry, and federal lab researchers to drive the ideation to transition process
- Grow relationships with strategic partners in developing nations with complex challenges that Purdue is uniquely positioned to support

Move Owner:
JAY AKRIDGE
*Provost and Executive
Vice President for
Academic Affairs
and Diversity*



TRANSFORMATIVE EDUCATION 2.0

- There is an urgent need to make the value proposition of a 'residential learning experience' crystal clear and that requires rethinking the experience
- We are at an inflection point with respect to how data analytics, experiential education, and advanced technologies are expanding and redefining our concepts of a classroom, course modality, content delivery, learner engagement, and student success
- While there is an abundance of student data, institutions are struggling to translate demographic, social, and educational information into actionable insights
- Given the focus on teaching and learning at Purdue, we have an opportunity for national leadership



PURDUE'S NEXT

MOVES

TRANSFORMATIVE
EDUCATION 2.0



Purdue will offer the most innovative residential learning program in the U.S. among large research universities through:

Deep investment in high touch experiential learning opportunities, such as undergraduate research, internships, study abroad and other programs and instructional approaches that engage students in deliberate ways

Creative use of advanced technologies and online learning to enhance residential courses and improve student success (i.e. time to degree; graduation rate; etc.)

Flexible cross-disciplinary degree and credential options

Integrated student life experiences and multiple work/learn options for paths to graduation

A data-driven ecosystem that improves retention, progression, graduation, and satisfaction

TRANSFORMATIVE
EDUCATION 2.0

MEASURES OF SUCCESS

for Transformative Education 2.0

ROADMAP FOUNDATIONS: PROPELLING STUDENT SUCCESS

- Improved student success metrics and academic Key Performance Indicators (KPIs) such as 4- and 6- year graduation/ completion rates for all cohorts, specifically transfers, CODOs, and STEM students
- Streamlined processes with transparent guidelines for both transfer and CODO students
- Real-time data dashboards allowing “just-in-time” student actions and support as well as visualization of degree plans for both students and advisors

STRATEGIC EXPANSION OF EXPERIENTIAL EDUCATION - Innovation College

- Expanded set of experiential learning opportunities across campus, including robust work-school program
- Evaluation and tracking of experiences to identify most impactful experiences and beneficial use of resources
- Enhanced student ability to present benefits of professional/residential experiences, becoming more attractive candidates: jobs, graduate/professional schools, fellowships, etc.

ENHANCING STUDENT LEARNING AND CLASSROOM ENGAGEMENT AT SCALE - Innovation College

- An increasing number of advanced learning projects brought to scale each year with an increasing number of students and instructors impacted by projects
- Evidence of improved student learning, engagement, retention, and achievement from advances
- Number and scale of external partners engaged in innovation projects

Move Owner:
JAY AKRIDGE
*Provost and Executive
Vice President for
Academic Affairs
and Diversity*



PURDUE EQUITY TASK FORCE

OVERVIEW

The Purdue Equity Task Force is charged with **developing a plan with specific actions** to ensure all members of the university community have the opportunity to experience all Purdue has to offer equitably, **focusing on structural and environmental barriers to success** of students, faculty, and staff of color and **initially focusing on the specific experience of Black Boilermakers**. Past investments, initiatives, and work by many have attempted to help the Purdue system make progress in becoming more diverse and inclusive. That said, this progress has been slow for people of color, and is especially lacking for Black faculty, staff and students. The charge of the task force is to **review the current state of equity on the Purdue West Lafayette Campus** and the past and present investments and initiatives designed to support more equitable experiences and opportunities across the campus. The task force is also charged with **ensuring that past initiatives remain the right ones while simultaneously recommending new or alternate strategies** if its findings so suggest.

PURDUE'S NEXT

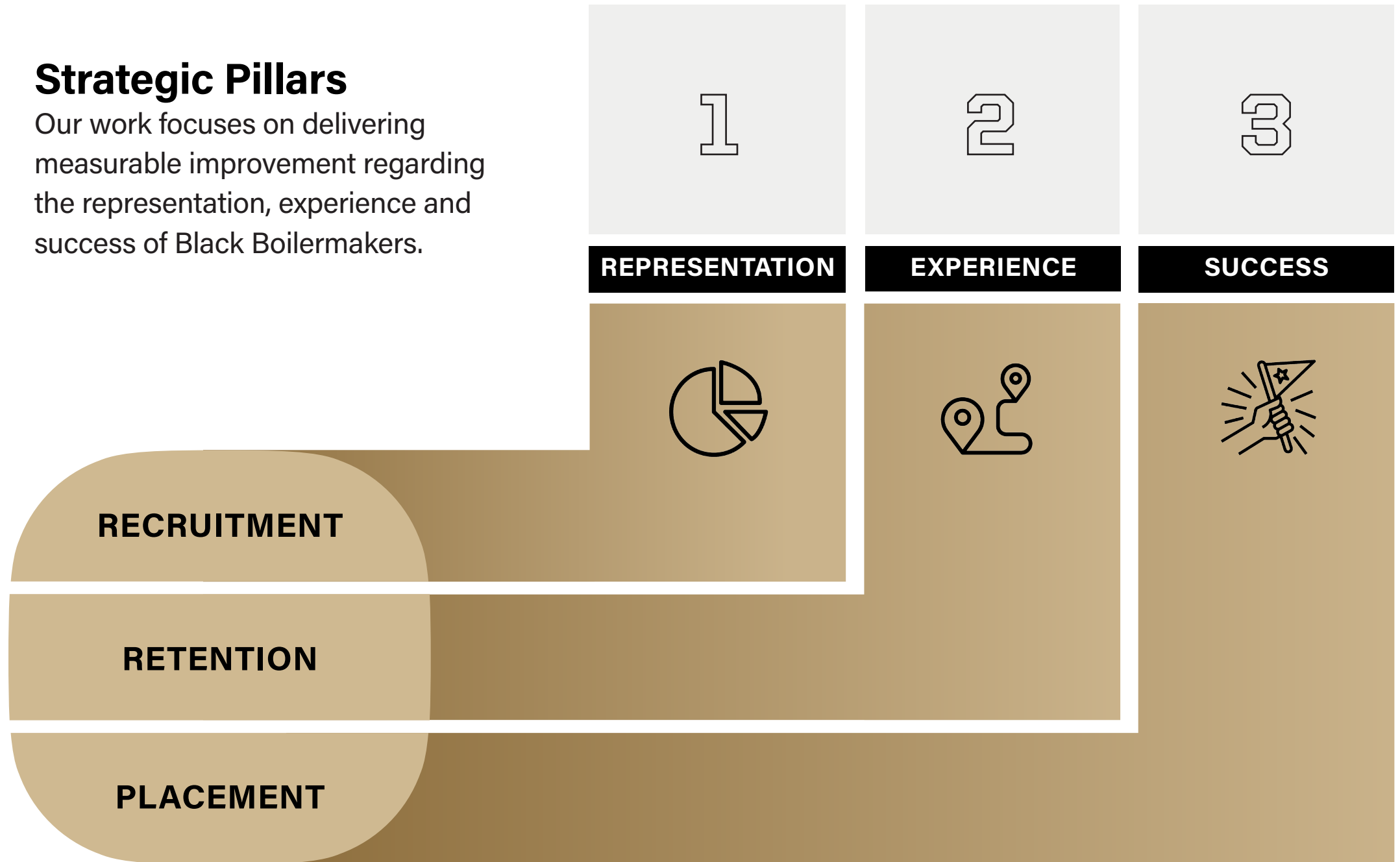
MOVES

PURDUE EQUITY TASK FORCE



Strategic Pillars

Our work focuses on delivering measurable improvement regarding the representation, experience and success of Black Boilermakers.



1. REPRESENTATION

UNDERGRADUATE STUDENTS

- Launch new scholarship programs and increase participation in existing programs
- Develop recruiting plan and hire recruiters/ high school relationship managers, build family and community connections
- Leverage Black alumni to support recruiting efforts

GRADUATE STUDENTS

- Expand research and academic partnerships with HBCU/other institutions, develop recruitment pipelines with current students and alumni
- Increase participation in Summer Research Opportunity Program
- Expand Graduate Diversity Visitation Program

FACULTY

- Develop faculty recruitment plans; plan and implement cluster hire program to recruit Black faculty
- Implement 'post-doc to faculty' program to grow talent pipeline
- Expand African American Studies through new faculty positions in the School of Interdisciplinary Studies

STAFF

- Develop a staff recruiting plan to diversify the candidate pool - local, regional, national
- Participate in Indiana Black Expo and other like events to create high-touch opportunities with Black candidates

2. EXPERIENCE

UNDERGRADUATE STUDENTS

- Enhance student onboarding programs and resources
- Enhance/expand mentoring /professional development programs that will leverage faculty, staff, and alumni
- Invest in existing and new college-level programs (BOP, MEP, etc.)

GRADUATE STUDENTS

- Expand early entry academic bridge programs
- Expand and support career pathway, networking and professional development opportunities
- Create opportunities to connect Black graduate students with Black graduate alumni

FACULTY

- Increase number of named and distinguished professor positions recognizing Black scholars
- Expand faculty mentoring and professional development programs
- Support activities that strengthen faculty professional networks

STAFF

- Increase staff involvement in professional development programs
- Promote and expand career planning / mentoring / professional networking opportunities
- Add 'Diversity at Purdue' module to new hire onboarding curriculum

3. SUCCESS

UNDERGRADUATE STUDENTS

- Number of Black undergraduates at Purdue WL
- Black student awards and recognitions
- SERU student experience data
- Black student success metrics (4- and 6-year graduation rates, etc.)
- Placement of Black undergraduate students

GRADUATE STUDENTS

- Number of Black graduate students
- Student success metrics for Black graduate students (graduation rate, time to degree, etc.)
- Graduate SERU experience data
- Placement of Black graduate students

FACULTY

- Number of Black faculty
- Retention and promotion of Black faculty
- Black faculty awards and recognitions
- Number of Black faculty who hold named and distinguished professorships
- COACHE results on Black faculty experience

STAFF

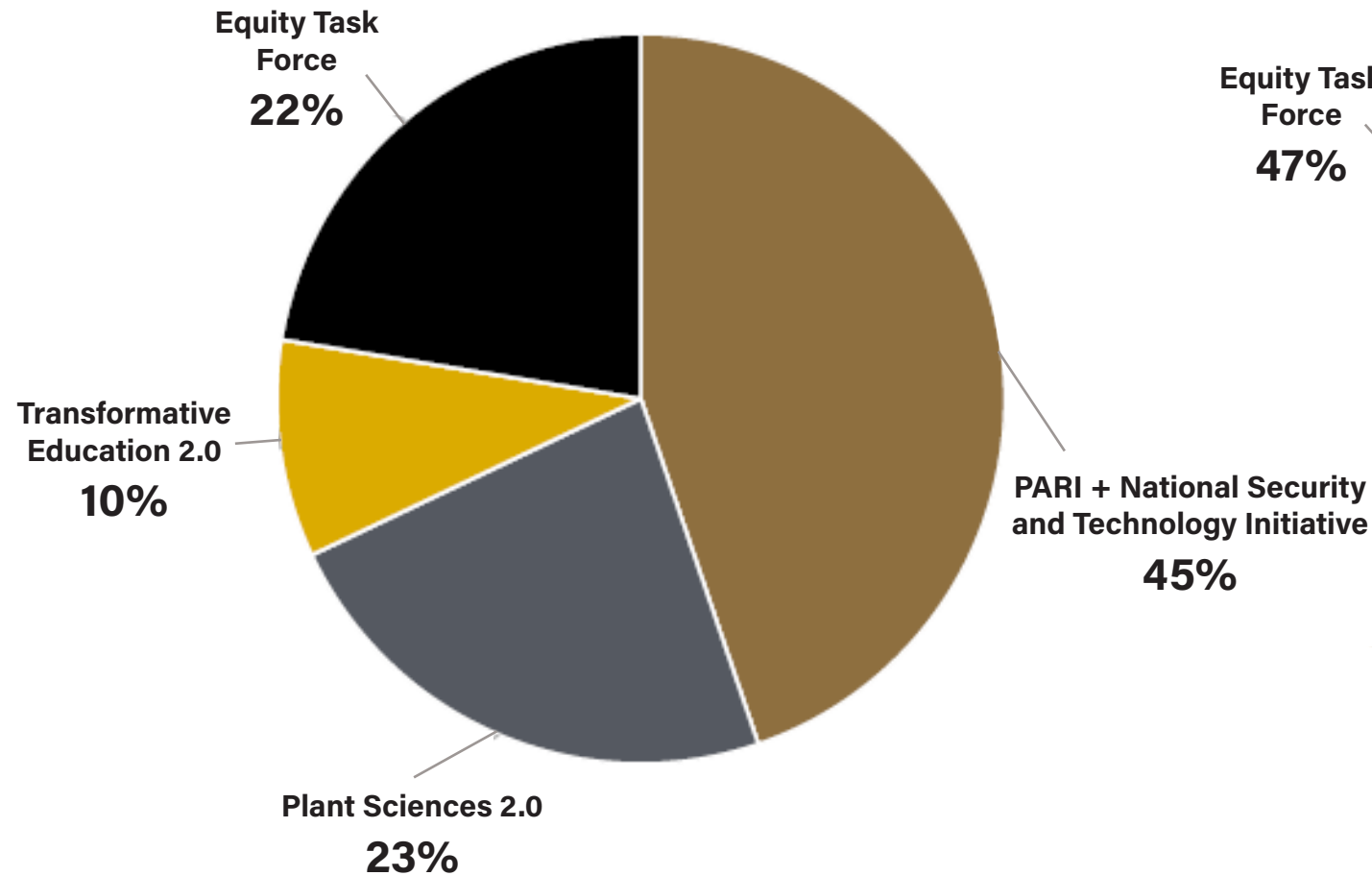
- Number of Black staff
- Retention and promotion of Black staff
- Increased participation of Black staff in development / networking programs
- Staff Engagement Survey results for Black Staff

Financials:
CHRIS RUHL
*Treasurer and
Chief Financial Officer*

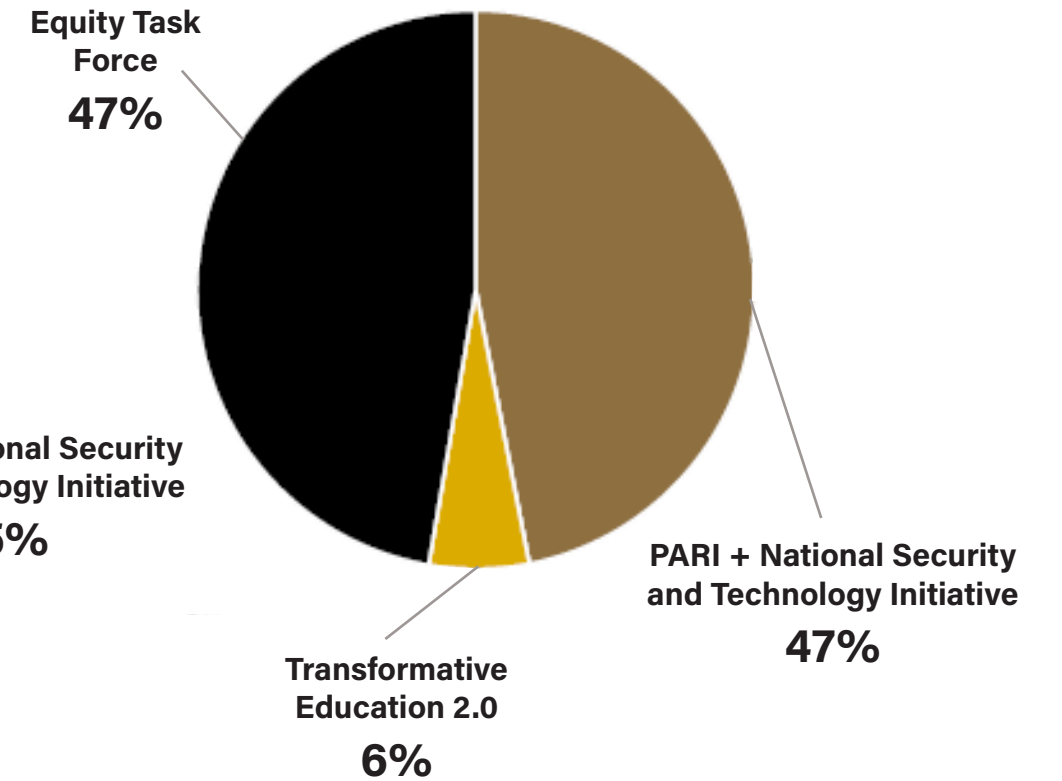


\$260M OVER 5 YEARS

BY 'NEXT MOVE' - UNIVERSITY FUNDS (\$182M)



BY 'NEXT MOVE' - EXTERNAL FUNDS (\$78M)



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