

Research & Innovation White Paper

Posted: October 9, 2026

Working Group Members

Convener: Alyson Wilson, Vice Provost for Research

Cristiano Fanelli, School of Computing, Data Sciences & Physics

Shantá D. Hinton, College of Arts & Sciences

Saskia Mordijck, School of Computing, Data Sciences & Physics

Lisa Nickel, University Libraries

Dean: Derek Aday, Batten School of Coastal & Marine Sciences and Virginia Institute of Marine Science

Nicole Porter, W&M Law School

Deborah Steinberg, Batten School/VIMS

Elizabeth (Betsy) Talbott, School of Education

Andrea Wright, College of Arts & Science

1. Opportunity Statement

“How might the Alma Mater of the Nation lead a key set of high-impact areas that distinguish W&M in today’s most consequential areas?”

2. Community Engagement Summary

- Groups consulted: Associate Deans for Research, faculty, staff, students, alumni
- Methods used: community session discussion capture, on-campus stakeholder survey, cabinet unit survey, alumni survey, Associate Dean for Research discussion capture

3. Environmental Scan

If current trends continue, the next decade of research funding will be more concentrated and more conditional. Federal agencies are making fewer awards, routing more work through consortia and mission-directed centers, setting participation requirements — research security, demonstrated capacity to lead multi-institution teams. Indirect cost recovery is under sustained pressure, which means each new research dollar covers less of the total support costs. Universities that thrive in this environment will be the ones that can move quickly, partner reliably, and demonstrate public value in terms a non-academic audience finds persuasive.

William & Mary could be unusually well positioned for that world. We sit close to Jefferson Lab, NASA Langley, the Norfolk defense complex, and the federal policy community, at a moment when mission agencies are actively seeking a small number of agile, trusted university partners rather than defaulting to the largest research campuses. Over the next ten years, we expect W&M to grow into a materially larger research enterprise with strengthened doctoral programs, three or four nationally recognized research portfolios, and durable institutional partnerships.

Our current strengths are real and distinctive: coastal and marine science, where our long-term observational records, forecasting tools, and broad research strengths are matched by very few institutions; democracy, self-government, and the founding-era record, which no one else can claim as we can; applied policy and data science, where we have repeatedly built research ventures and grown them to national scale; statecraft and security, where our location and alumni network give us genuine advantage; and an undergraduate research culture that is rare among research universities. Building on these strengths and enhancing W&M's research enterprise will require significant investment.

4. Key Themes

- **Theme 1. The community is actively negotiating what kind of R1 W&M will be.** There is a genuine, unresolved debate about W&M's ongoing research identity. The strategic plan is the time to resolve this debate and clearly articulate W&M's position as an impactful research organization grounded in the liberal arts and sciences that retains its commitment to strong undergraduate research, teaching, and mentoring.
- **Theme 2. W&M's research ambitions require a more robust research operating system.** As an R1 institution, W&M's research ambitions now exceed the capacity of the systems built to support them. The university needs not only sufficient research administration capacity, but a research support enterprise designed to help faculty and staff compete successfully for increasingly large, complex, and collaborative awards. This could include substantially strengthened research-development capacity, proposal strategy and writing support, interdisciplinary team formation, pre- and post-award research support, research and data-sharing compliance, and improved infrastructure for lab space, lab equipment, high-performance computing, and studio facilities.
- **Theme 3. Volatility has made funding diversification existential rather than aspirational.** Continued changes in the federal research funding landscape require W&M to diversify our funding sources to place more emphasis on industry, foundations, non-competitive federal funding and earmarks, state partnerships, and philanthropy. Few units have the relationships or development capacity in place to fully leverage these opportunities. There is an opportunity to leverage existing infrastructure (e.g., W&M One Network, Corporate and Foundation Relations) to expand these opportunities.
- **Theme 4. W&M has an opportunity to grow capacity in our signature undergraduate research model.** A distinctive W&M research asset -- deep structural integration of undergraduates into active scholarship -- is at capacity. A variety of models warrant further exploration to determine the most effective approaches for W&M's distinctive undergraduate research culture.

- **Theme 5. Graduate education creates opportunities to accelerate research growth.** Targeted new doctoral and research-master's programs, postdoctoral capacity, and competitive graduate student funding are pre-requisites for research growth. There is a straightforward formula for preeminence, and that is impactful, nationally visible research conducted by faculty with the support of their graduate students. Schools with the strongest research reputation have well-funded graduate programs that attract the best students.
- **Theme 6. W&M should amplify our research story.** There is an opportunity to expand research storytelling to support philanthropy, student and faculty recruitment, branding, and rankings. Research measurement should encompass a broad array of impact metrics that capture excellence across disciplines.
- **Theme 7. W&M can develop additional areas of national research preeminence.** W&M is a clear national leader in coastal and marine science. The university could develop similar research preeminence in areas where liberal arts breadth and cross-disciplinary collaboration create distinctive advantage: for example, early American history and culture, international development, resilience and sustainability, AI-enabled interdisciplinary research, democratic governance, statecraft and security, education, and public history. W&M is particularly well-positioned for translational research that bridges disciplines and connects academic work to consequential impact.
- **Theme 8: W&M can leverage artificial intelligence as an interdisciplinary research catalyst.** Success in the age of AI depends on the ability to ask questions, understand other perspectives, and recognize sound reasoning. One potential comparative advantage for W&M is the intrinsic interdisciplinarity of our Arts & Sciences tradition: AI can become an ampersand connecting the humanities, social sciences, natural sciences, and computing/data science. Rather than competing solely on the scale of an AI program, W&M could distinguish itself through research that combines advances in AI with deep disciplinary expertise, human judgment, and modes of inquiry.

5. Strategic Recommendations

Recommendation A: Invest in research administration, development, and compliance

- Research administration, development, innovation and entrepreneurship, and compliance require additional staff to allow W&M's faculty and staff to compete in the current research environment.
- Resource implications (rated "H" = high; "M" = medium; "L" = low)
 - Financial: M (staff salary)
 - People: M
 - Infrastructure: L

Recommendation B: Expand W&M's research PhD production by at least 10 students per year

- To retain Research 1 status, W&M needs to produce 70 research doctorates each year. Our current average PhD production is 70 per year. Short-term increases in PhD production must rely on current capability and capacity and short-term strategic investments. Longer term, there is the opportunity to consider creating new programs supported by strategic faculty hiring.
- Resource implications
 - Financial: M (staff salary)
 - People: M
 - Infrastructure: L

Recommendation C: Identify new centers or expanded investment in existing centers to grow W&M's research preeminence

- W&M has strong foundations in areas of current and potential research excellence. Strategic investments would grow and support current and potential areas of national research preeminence, such as coastal and marine sciences and early American history and culture.
- Resource implications
 - Financial: M (base funding)
 - People: M (targeted faculty, cluster hires)
 - Infrastructure: M (needs depend on the specific areas)

Recommendation D: Establish a dedicated research communication and strategic storytelling function

- The function would systematize research storytelling across multiple channels and audiences: philanthropy and advancement, graduate and faculty recruitment, rankings and institutional visibility, and disciplinary/interdisciplinary scholarship communities. The team would work across the research enterprise to identify high-impact research narratives, develop evidence of research outcomes and societal benefits, and position W&M's research leadership in its key areas of distinction.
- Resource implications
 - Financial: L-M (1-2 FTE salary; budget for content development and dissemination)
 - People: M
 - Infrastructure: L

Recommendation E: Create dedicated team supporting responsible AI integration into research.

- The team would provide practical resources addressing research-specific concerns around artificial intelligence: research integrity and reproducibility, ethical implications across disciplines, human subjects research and compliance considerations, AI-enabled research methods, and disciplinary variation in AI adoption. The goal is to equip faculty to integrate AI thoughtfully into their research, positioning W&M as a leader in responsible AI-enabled discovery.
- Resource implications
 - Financial: M (staff salary for 2-3 FTE; modest budget for resources development)
 - People: M
 - Infrastructure: L

6. Topics For Further Exploration

- **Topic 1: Models for strengthening the undergraduate research program.** The goal is to discover the most effective approaches to improve W&M's undergraduate research opportunities. One opportunity is to consider how programs following the model of UC Berkeley's Undergraduate Research Apprenticeship Program or MIT's Undergraduate Research Opportunities Program would enhance W&M's offerings.
- **Topic 2: Opportunities for faculty support across the research lifecycle.** The goal is to create programs incentivizing research growth and development. This could include creating research time, for example by reducing teaching loads during specific periods of high research activity, codifying how undergraduate mentoring is evaluated, and more explicit recognition of research excellence.
- **Topic 3: Expanding the researcher pipeline.** Expand opportunities for students to do graduate work at W&M, through approaches like direct admission to the PhD, 3+1+3 programs, and funded master's programs. One element of novelty is a guaranteed continuous path from a first-year research placement through the graduate degree.