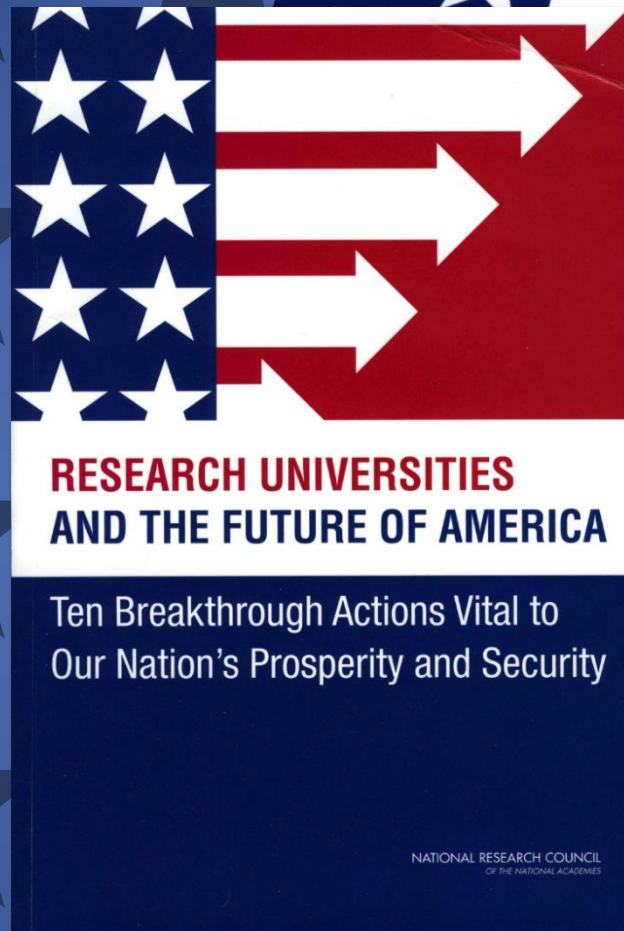


Research Universities and the Future of America

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What are the top ten actions that Congress, state governments, research universities, and others can take to maintain the excellence in research and doctoral education needed to help the United States compete, prosper, and achieve national goals for health, energy, the environment, and security in the global community of the 21st century?

Ecosystem of U.S. Research Universities

- U.S. has a large and diverse ecosystem of research universities
 - Expansive view: 200+ institutions that award doctorates and have > \$35m in annual R&D expenditures
 - Narrower view: 60 or so that are large and comprehensive, rank in top 100 globally, and conduct majority of academic R&D
- Characteristics:
 - Large and comprehensive
 - Culture of openness, intellectual freedom, and creativity
 - Competitive drive for excellence in students, faculty, and research
 - Residential undergraduate experience
 - Combine research and doctoral education
 - Faculty intensively engaged in research
 - High levels of scholarly research

THIRD WAVE

Ten recommendations in three areas to achieve the “Third Wave”:

1. Strengthen the Partnership
2. Improve productivity and performance
3. Produce talent

Partnership

Recommendation 1: Federal Government

- The federal government should adopt stable and effective policies, practices, and funding for university-performed R&D and graduate education so that the nation will have a stream of new knowledge and educated people ...

Recommendation 2: State Governments

- Provide greater autonomy for public research universities so that these institutions may leverage local and regional strengths ...
- Restore state appropriations for higher education to levels that allow public research universities to operate at world-class levels.

Recommendation 3: University-Industry Partnerships

- Strengthen the business role in the research partnership, facilitating the transfer of knowledge, ideas, and technology to society, and accelerate “time to innovation” in order to achieve our nation goals

Productivity

Recommendation 4: Improving University Productivity

- Increase university cost-effectiveness and productivity in order to provide a greater return on investment for taxpayers, philanthropists, corporations, and other research sponsors.

Recommendation 5: A Strategic Investment Program

- Create a Strategic Investment Program that funds initiatives critical to advancing education and research in areas of national priority

Recommendation 6: Full Funding of Research

- The federal government and other research sponsors should cover the full cost of research they procure in consistent and transparent manner.

Recommendation 7: Regulatory Burden

- Reduce or eliminate regulations that increase administrative costs, impede research productivity, and deflect creative energy without substantially improving the research environment.

Talent

Recommendation 8: Reforming Graduate Education

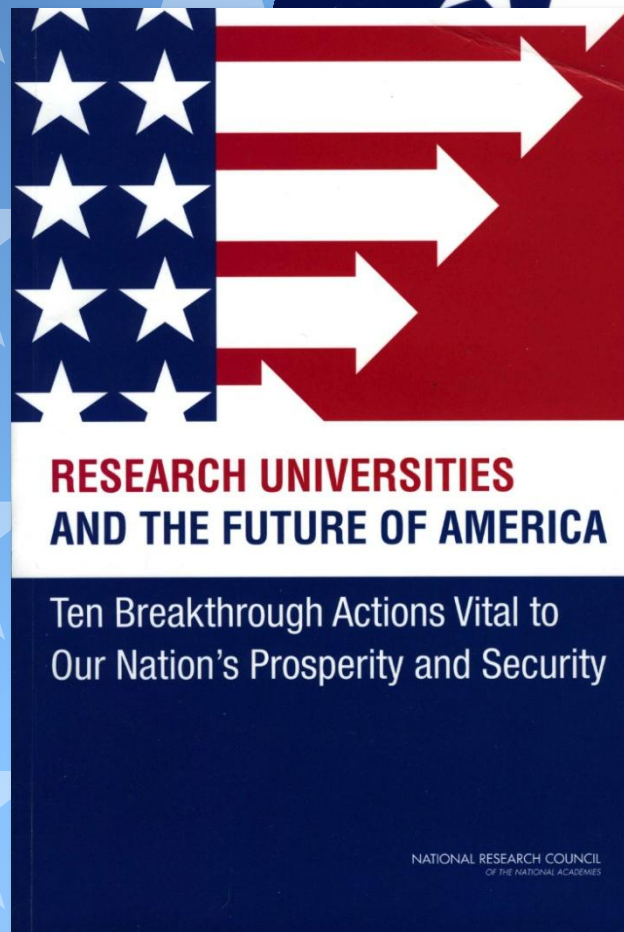
- Improve the capacity of graduate programs to attract talented students by addressing issues such as attrition rates, time-to-degree, funding, and alignment with both student career opportunities and national interests.

Recommendation 9: STEM Educational Pathways

- Secure for the United States the full benefits of education for all Americans, including women and underrepresented minorities, in science, mathematics, engineering, and technology (STEM).

Recommendation 10: International Students/Scholars

- Ensure that the U.S. will continue to benefit strongly from the participation of international students and scholars in our research enterprise.



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