

Roles and Opportunities for Staff Scientists in Biomedical Research

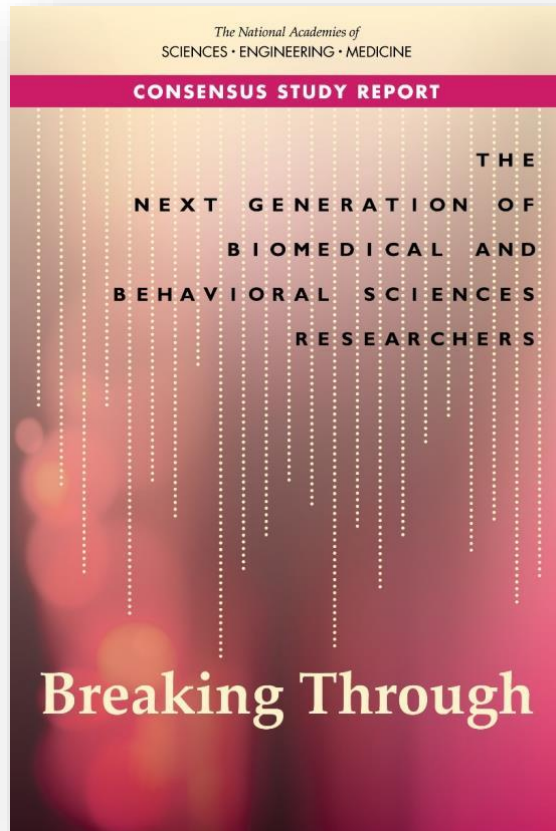
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A National Academies Workshop



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The Next Generation of Biomedical and Behavioral Researchers: Breaking Through



- Chaired by Ron Daniels, President, Johns Hopkins
- Released in April 2018
- **Funders:** National Institutes of Health (NIH) and Bloomberg Philanthropies

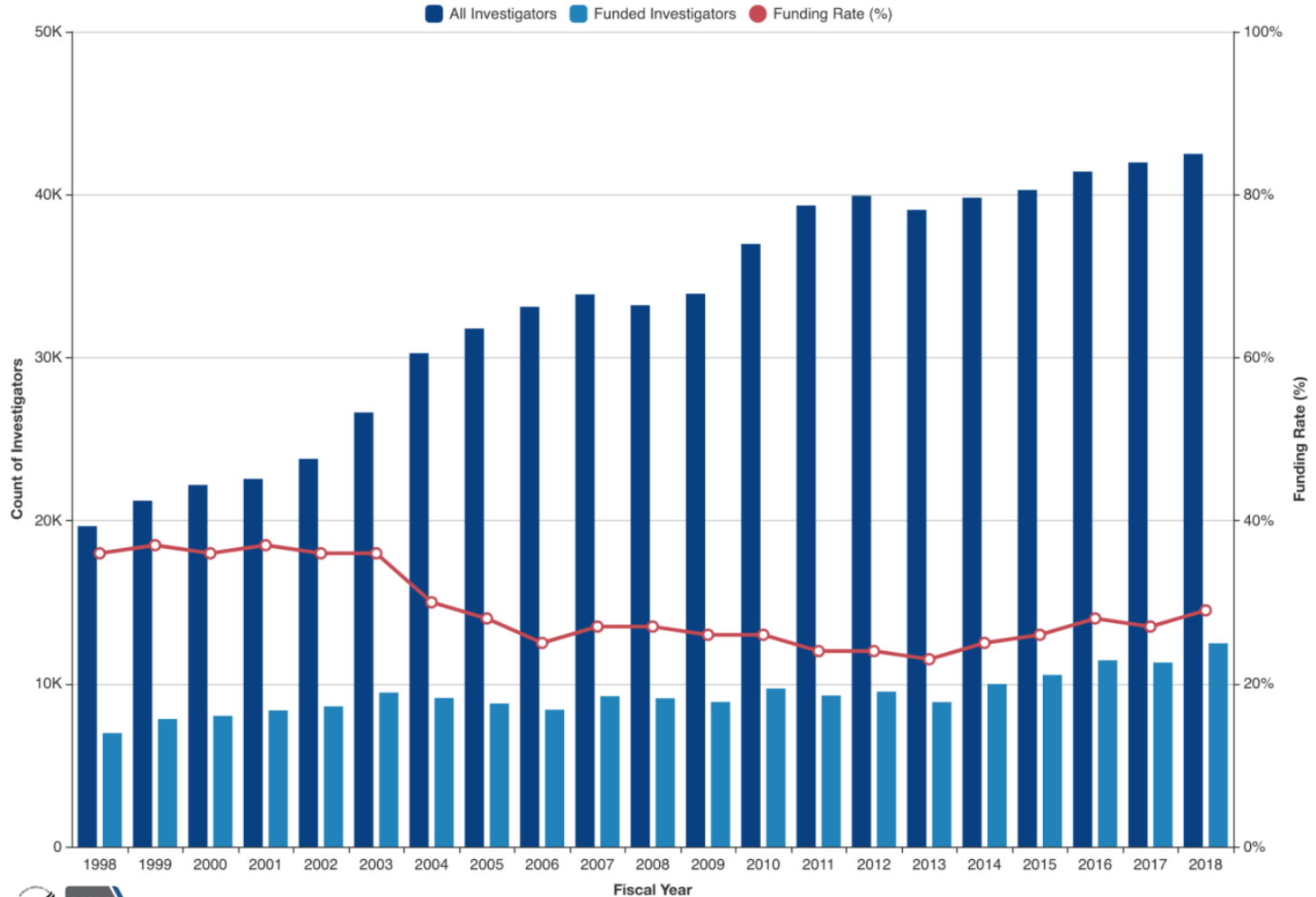
The Next Generation of Biomedical and Behavioral Researchers: Breaking Through

Committee's Focus

- Ensure the nation's successful **launch and sustainment of careers** among the next generation of researchers
- Evaluate **the barriers** that prospective researchers encounter
- Evaluate the extent to which **employers can facilitate smooth transitions** into **independent research careers**

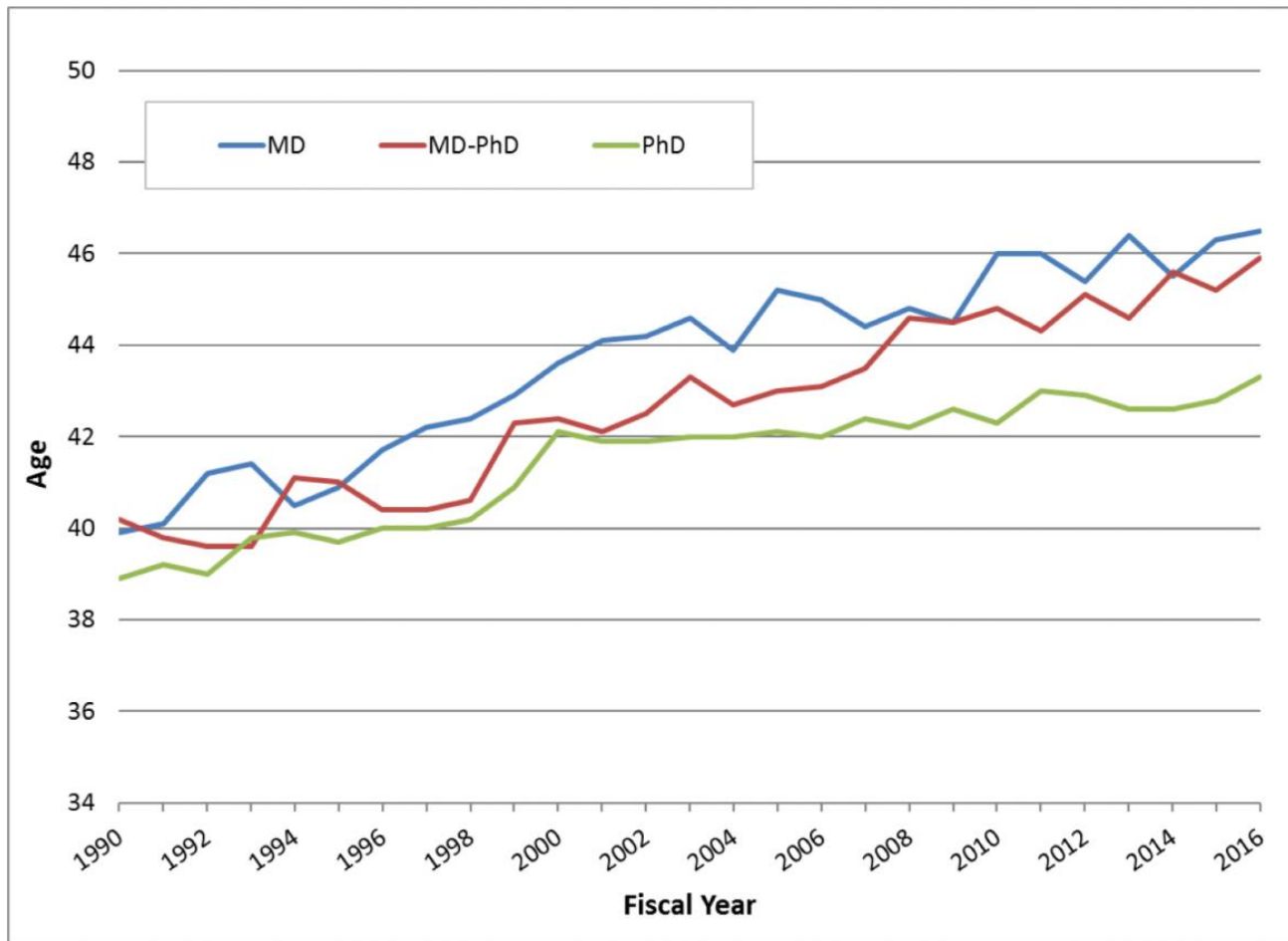
Problem: Rise in Applicants, Not in Awardees

Research Project Grant Investigators: Competing Funded and Unfunded Investigators and Funding Rates



Data for this report are available at NIH Data Book - <https://report.nih.gov/nihdatabook/report/164>

Problem: Increasing Age to Independence

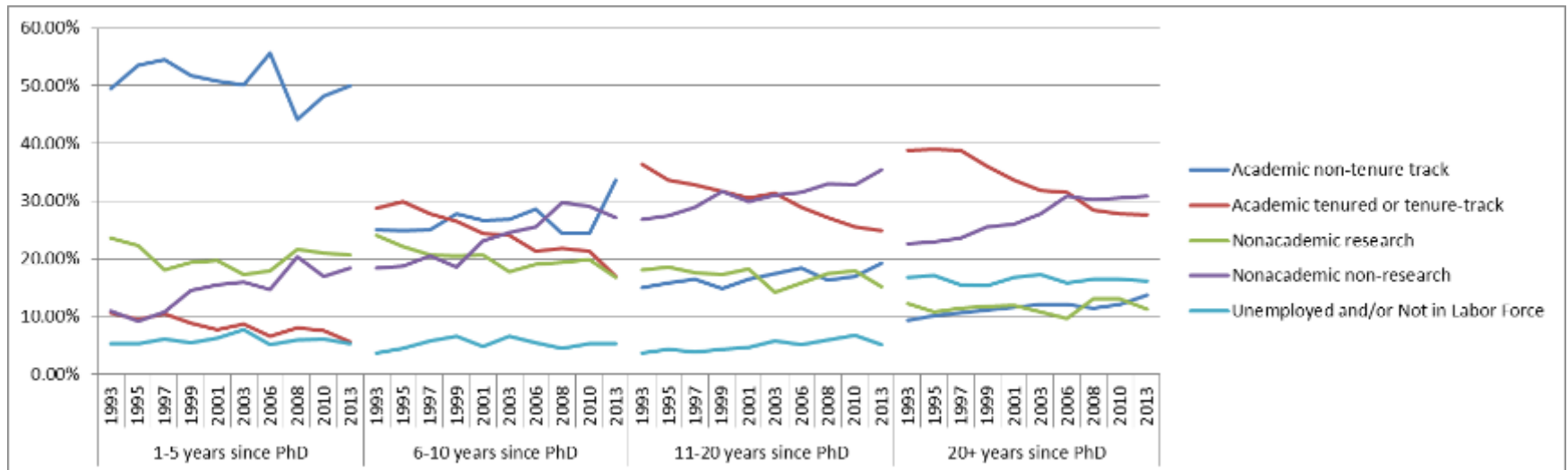


Age at first-R01 equivalent by degree type, Data provided courtesy of NIH

Problem: The High Costs to Becoming a Biomedical Researcher

The Numbers:

- ~12 years of post-baccalaureate training
- ~80% of US biomedical PhD's enter postdocs
- Later age for research independence (~43-46 yrs old)
- 18% secure tenured or TT positions within 10 years of doctorate



Percentage of U.S. trained biomedical individuals living in the United States, sector of employment by cohort and position, 1993-2013. Prepared by Donna Ginther, University of Kansas,

Review Of Prior Work Relevant To Study Appendix B

This report will only make an impact if we examine why recommendations of the past have not improved circumstances

- **Support staff scientists:**
 - NIH should encourage study sections to urge institutions to create position categories reflecting the value and stature of staff scientists
 - The research community should employ more staff scientists

Deeper Dive: Increase Staff Scientist Positions

- Few established paths exist for non-faculty researchers/staff scientists
- Can manage technologies in core or shared facilities, train graduate and undergraduate researchers, provide collaborative support, and increase research transparency and stability.
- Little clarity about how to secure these position and advance professionally, but some promising testimony about job satisfaction
- Could these positions address the backlog of postdoctoral researchers and bring greater equilibrium to the research system?

Increase Staff Scientists

Report Recommendation 5.3

- Staff scientist positions could provide more stable, non-faculty research opportunities
- Research institutions and NIH should develop mechanisms to **increase staff scientist positions**
- Research institutions should experiment with providing career tracks with **clearly defined review and promotion processes**, as well as opportunities for professional development
- Staff scientists should receive a **salary and benefits commensurate with their experience and responsibilities**

Key Takeaways: More Information is Needed on Staff Scientists in Biomedical Research

- Stakeholders are interested in increasing staff scientist positions to alleviate the supply-demand imbalance and make important contributions
- Very little data or evaluations available about staff scientist positions, experiences, or impact on research
- Well suited for pilot projects that provide appropriate evaluation criteria and position tracking
- The National Academies of Sciences plans to host a workshop in **2019** to discuss potential roles, responsibilities, sources of funding, and career progressions

Topics for the National Academies Workshop

- **Recognize and Define** - What does the position entail and what are the paths for professional advancement?
- **Evaluate** - What are relevant metrics and how can they be assessed? How do we avoid mirroring the standard academic track?
- **Fund** - Are there opportunities for independent funding? Should they be considered NIH key personnel? How should they be included in grant applications?
- **Current programs**- Learn about current staff scientist roles at a variety of research institutions.



Eva Guinan, MD



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Questions?



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