



STEM Graduate Education & Postdoctoral Training: The NIH Perspective

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What are the challenges?

- NIH is committed to the support of a stable and sustainable scientific workforce. NIH is concerned about:
 - the health of science pipeline
 - accurately predicting needs in specific fields such that policy can be responsive
 - the effects of the budget on pipeline

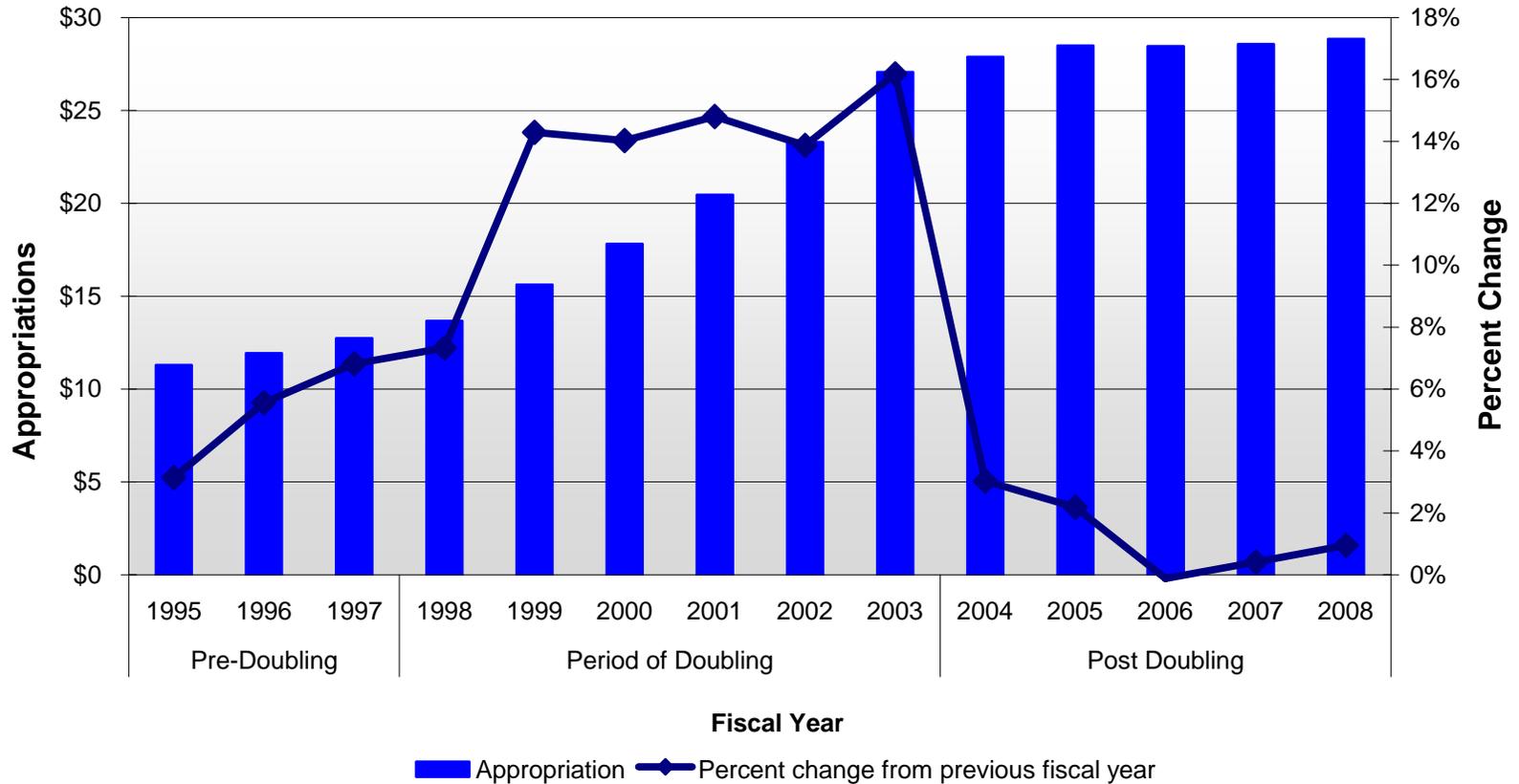




Change in NIH Appropriations, 1995-2008

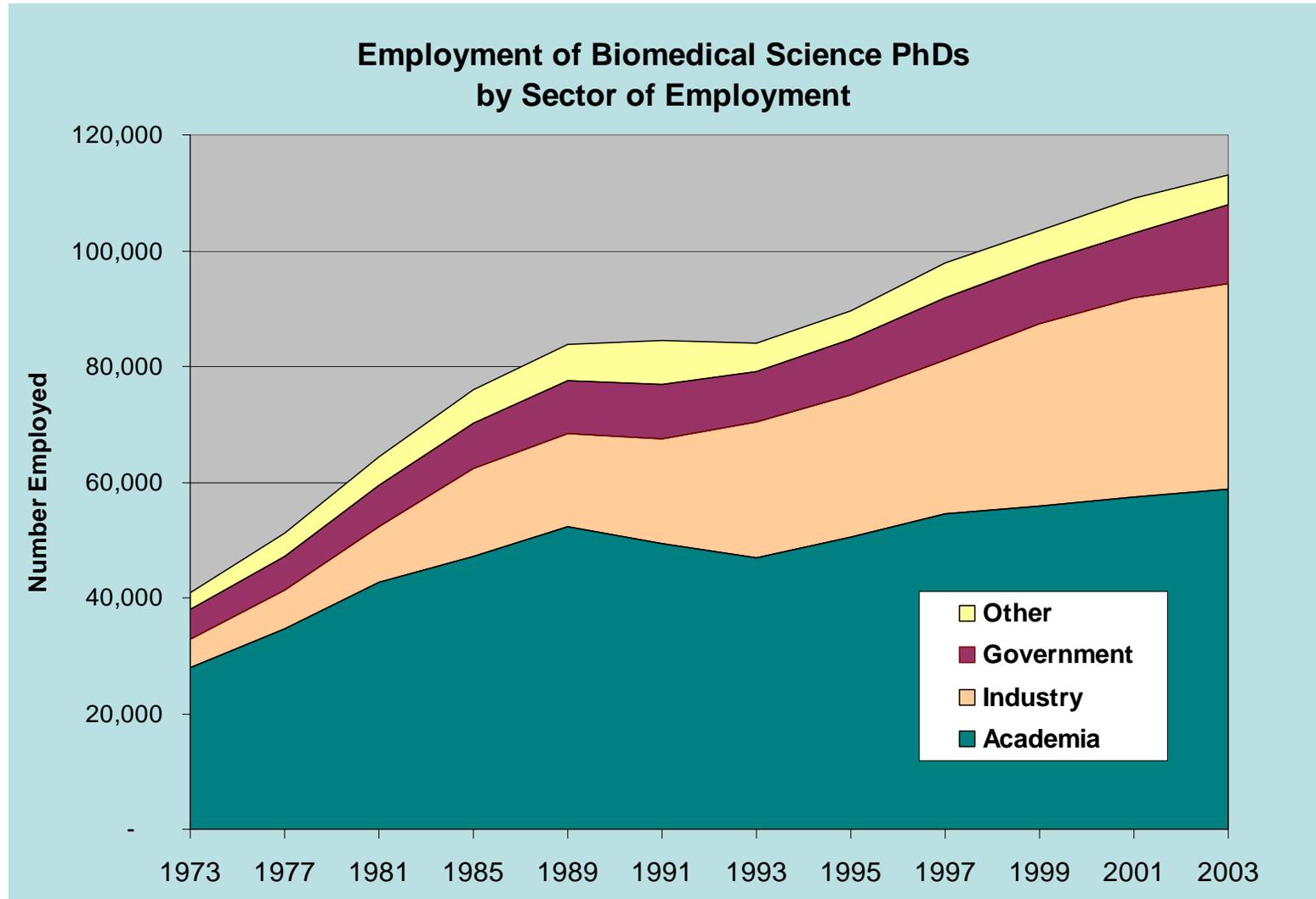
Billions

Source of Fiscal years 2007 and 2008 is FY 2008 President's Budget





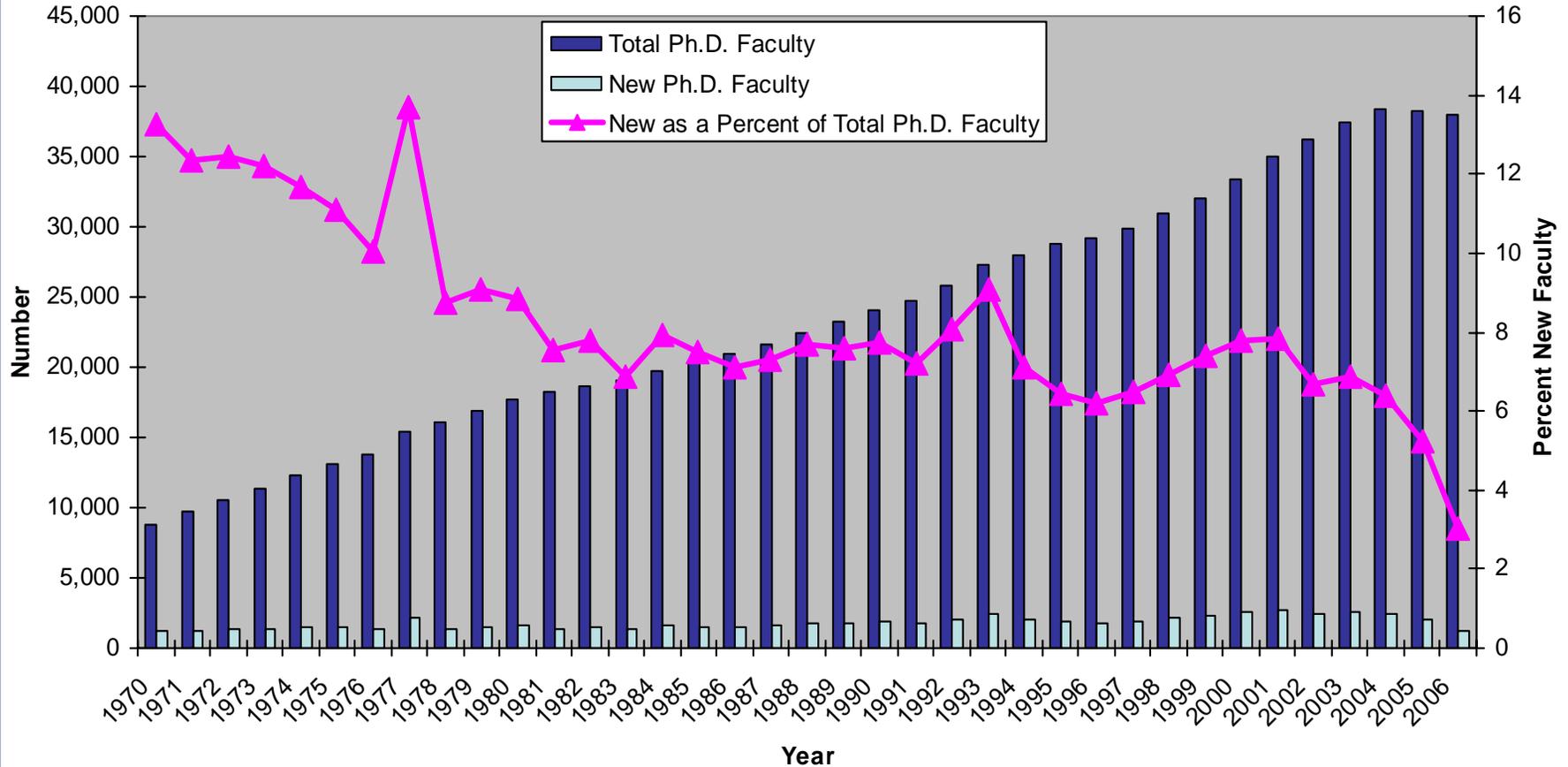
Changing face of employment in biomedical science





Changing face of employment in biomedical science: medical schools

Total and New Ph.D. Faculty 1970 to 2006 in U.S. Medical Schools
Association of American Medical Colleges





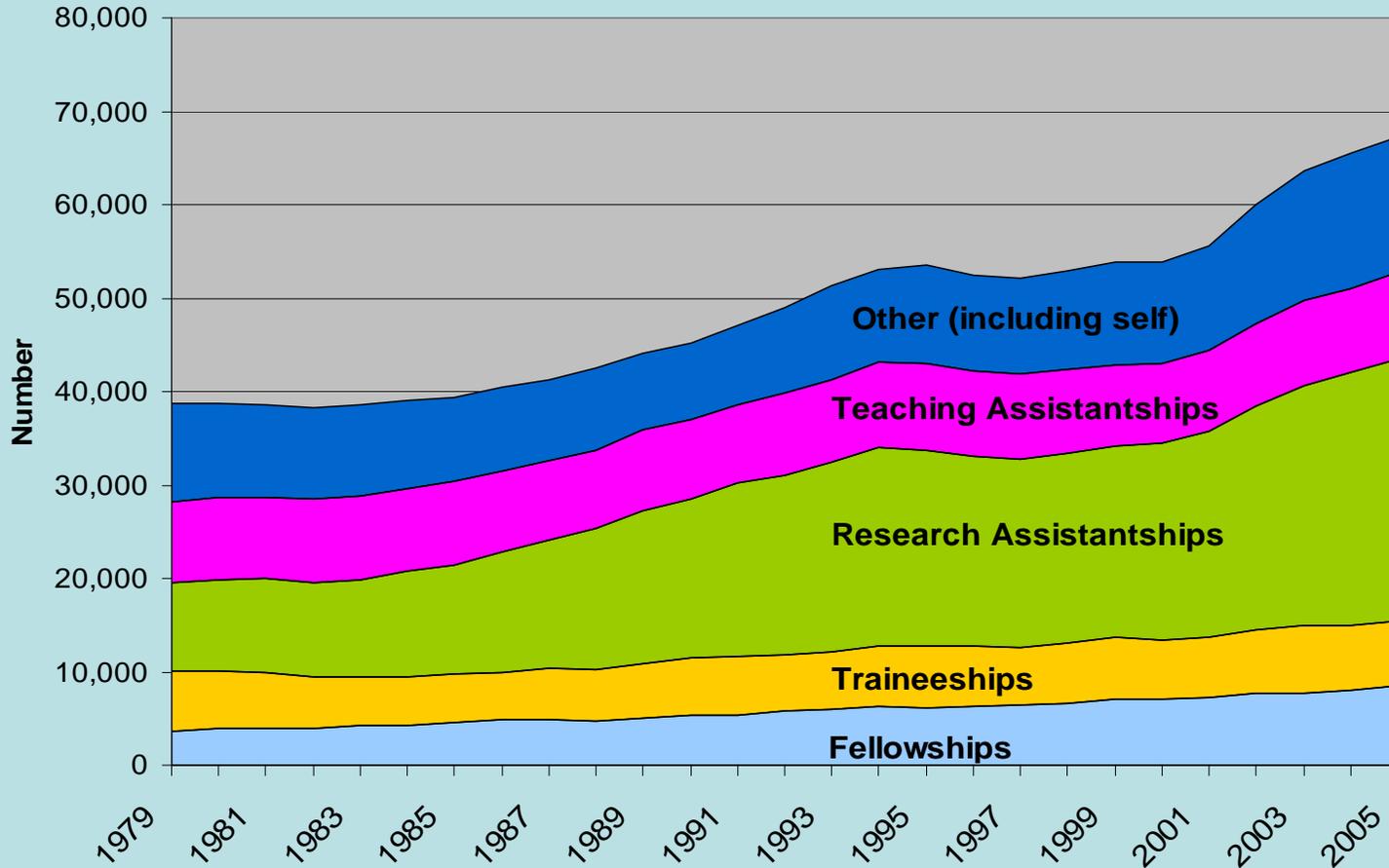
What are national needs?

- According to 2005 NRC report on US needs in biomedical, behavioral & clinical sciences:
 - numbers graduating currently in balance w/market needs
 - multidisciplinary training: greater need and opportunities for these trainees
- tension between need to see upcoming trends and policy timeline



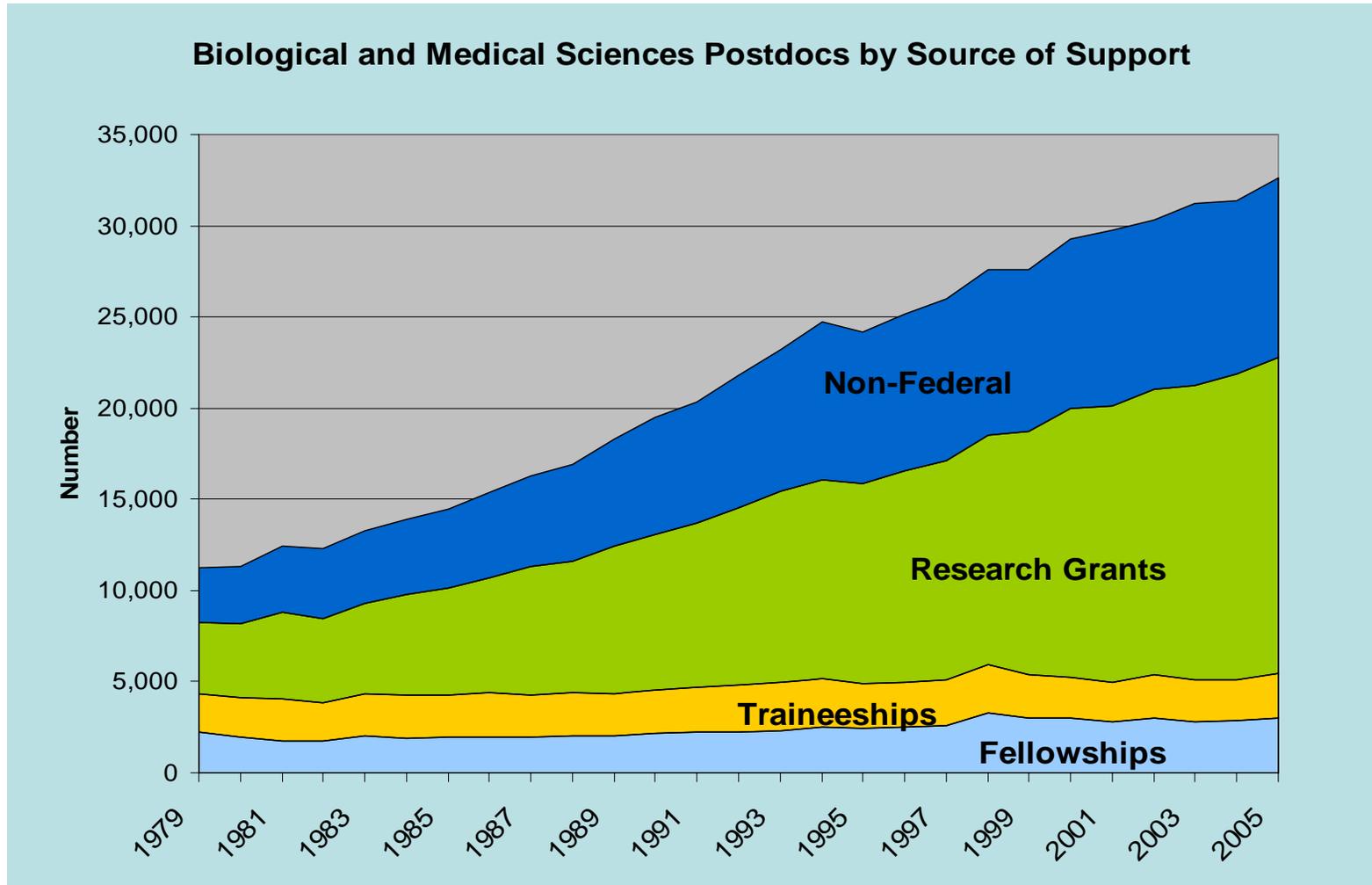
Support Mechanisms for Biomedical Grad Students

Full Time Biological and Medical Sciences Graduate Students in Doctorate Granting Departments by Mechanism of Support



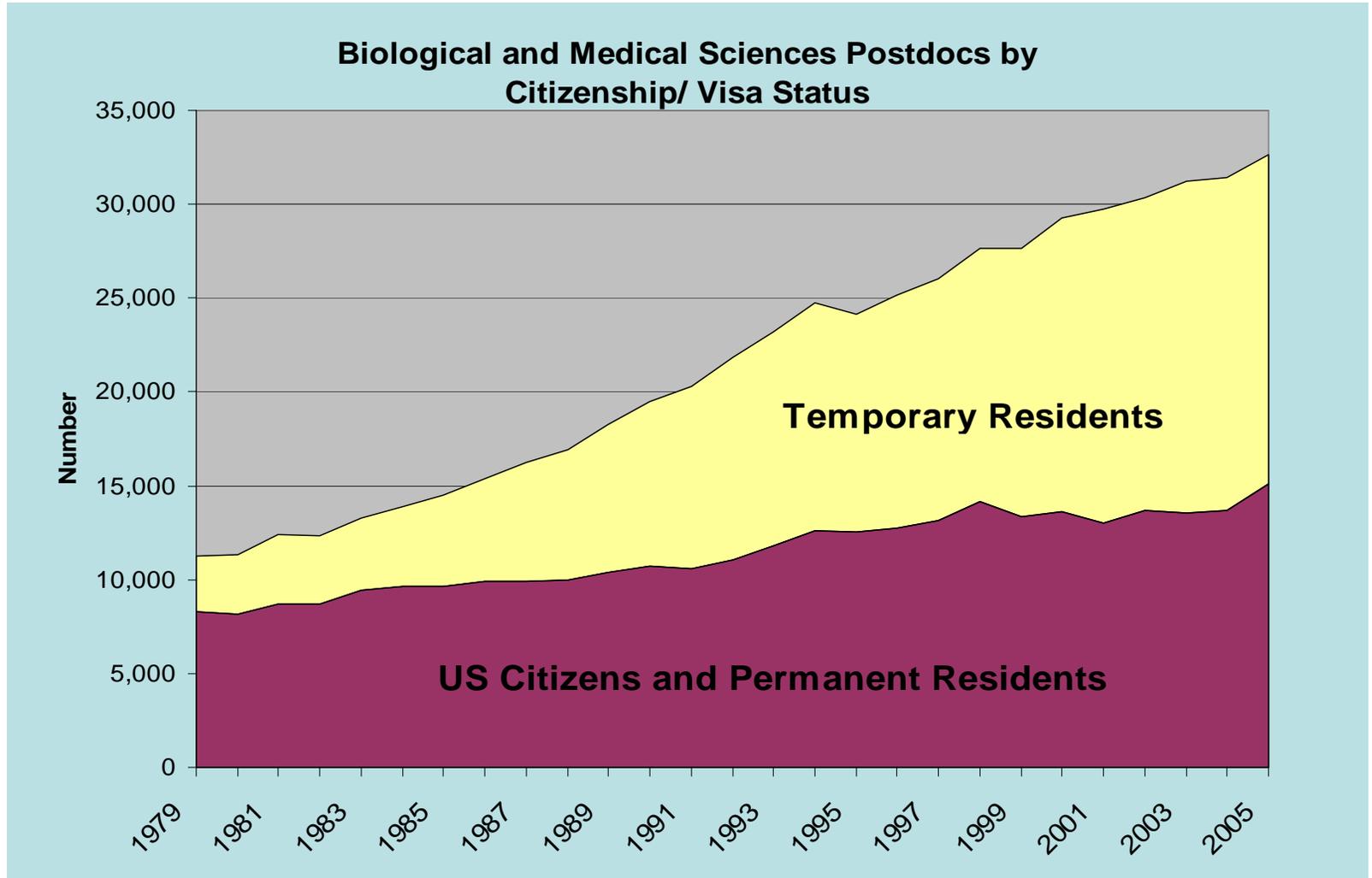


Support Mechanisms for Biomedical Postdocs





Increasing Biomedical Postdocs with Temporary Visas





What are the roles of NIH in shaping graduate education and postdoctoral training?

- NIH can influence via:
 - Career awards/traineeships/fellowships:
 - Emphasis on multidisciplinary work (eg. biomedical engineering, expansion of NRSA)
 - Control quality of education and training
 - Conduct evaluations to assess that quality & outcomes
 - Control stipends (de facto income standards): increasing \$ stipends may result in decreasing #s of funded students
- Cannot control:
 - Research assistantships associated with grants to investigators
 - Cannot control quality or quantity

