



# Challenging Times Ahead

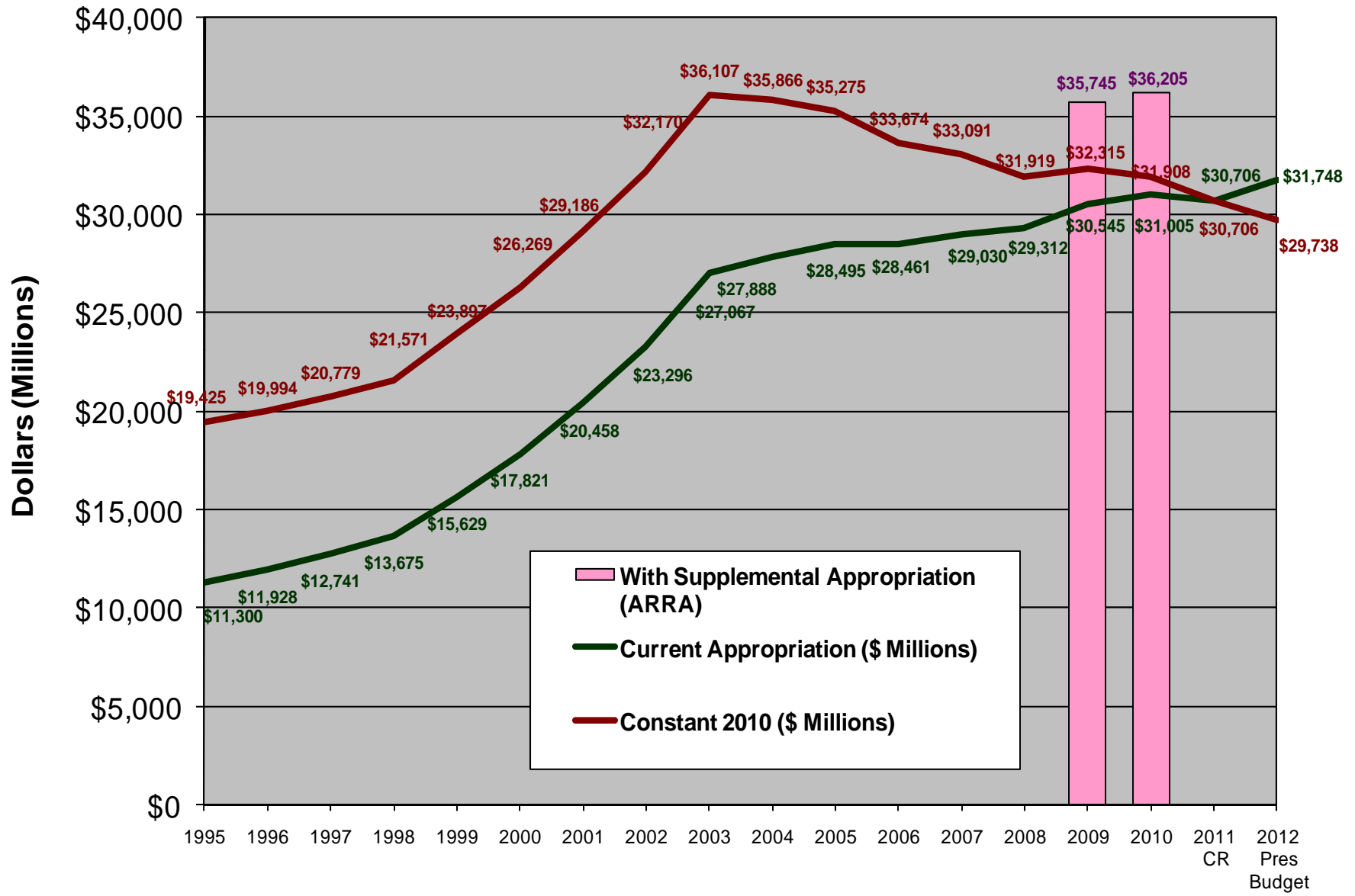
ACDP Annual Meeting 2011

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# NIH Budget in Current and Constant Dollars



# Current Situation

- 2012 budget is CR
  - Rumors suggest possible budget soon??
  - NIH budget somewhere between  $-.5\%$  to  $+3.3\%$
- Failure of JCDR (Joint Committee on Deficit Reduction)
- Sequestration occurs 1/1/2013
  - OMB won't issue sequestration order until 12/23/2011
  - BCA (Budget Control Act) means FY2013 =  $\sim 8\%$  cut from 2011 \$\$\$ according to Congressional Budget Office?
  - FY2013 cut  $\sim 2500 - 2700$  grants according to Dem House Appropriators
  - NSF cut by \$530 million

# October 2011 RFI from NIH Office of Extramural Research



## Options for Managing NIH Resources

### A. Current Way of Managing

- Bottom out success rates (doing nothing but letting the system correct itself)

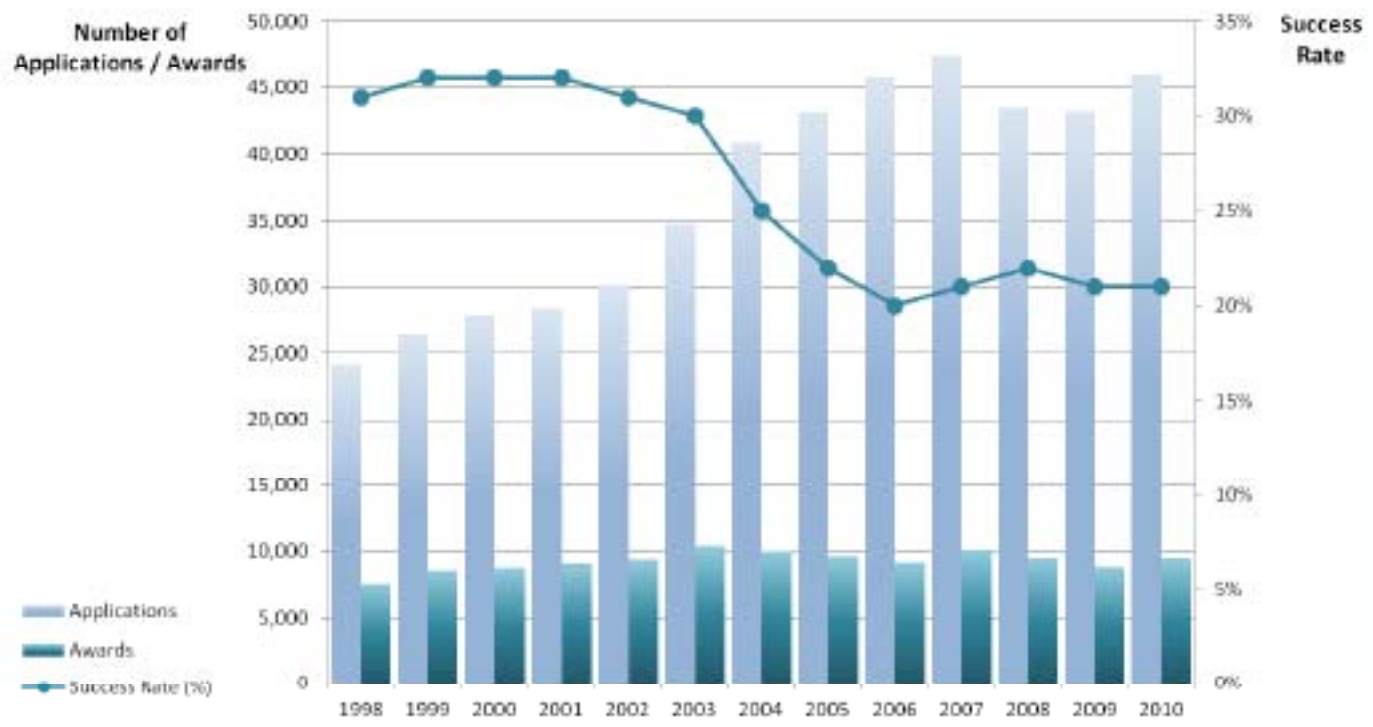
### B. Other Options

- Reducing or limiting size of awards
- Limiting number of awards held by an PI
- Limiting the amount of funds an PI can hold
- Limiting salaries of PIs





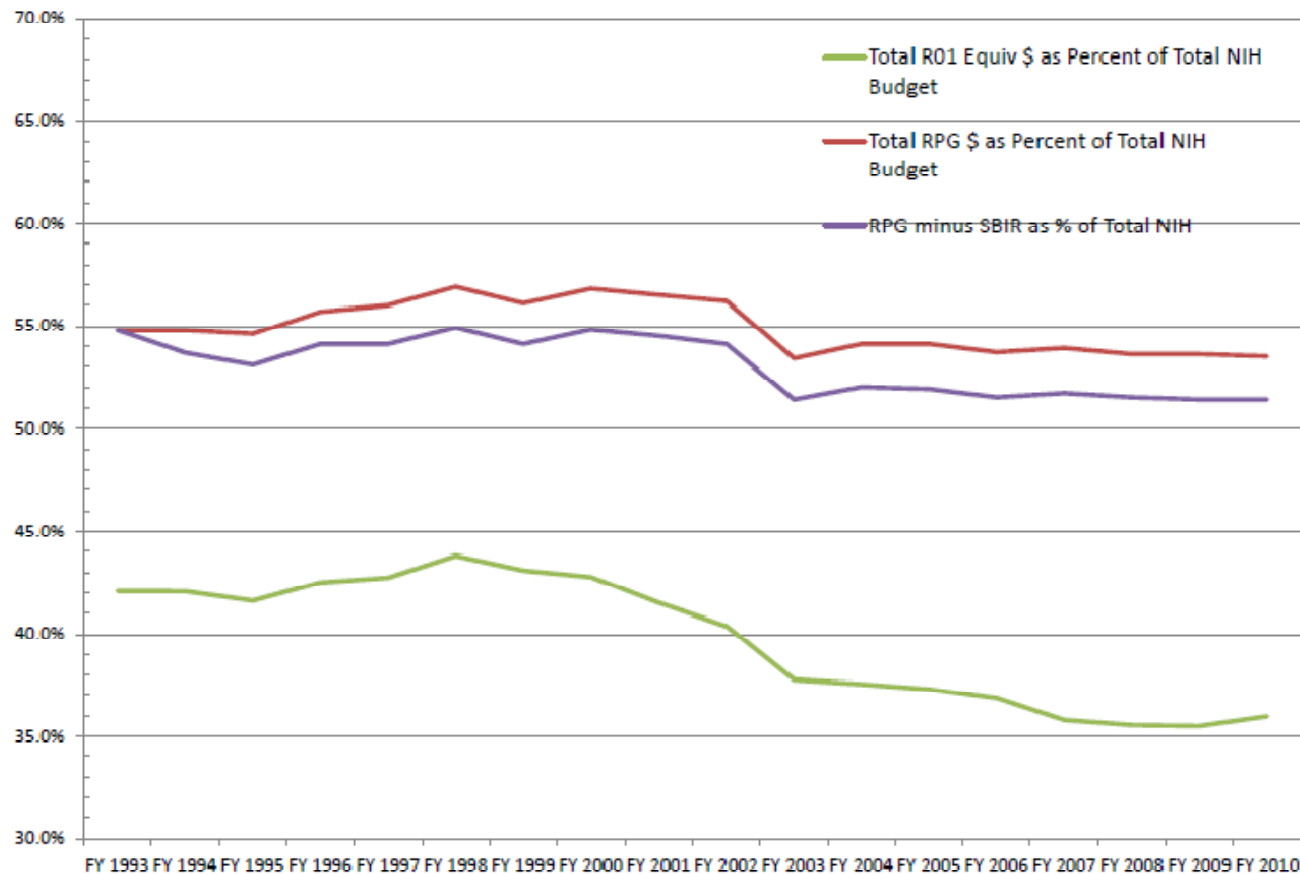
# Applications, Awards, and Success Rates Research Project Grants (RPG)



[Click for data table](#)

# 1. Reallocate dollars across budget mechanisms to provide more funding for RPGs

**Total RPG and R01 Funding as a Percentage of NIH Budget (1993-2010)**



# Success Rate Calculations

FY 2010 NIH Budget (1000s)	\$ 30,933,140
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2010 Actuals	RPG	R01 Equivalent
Competing Grant budget (1000s)	\$ 3,933,434	\$ 2,747,000
Competing grant budget as percentage of total FY2010 NIH budget	12.7%	8.9%
FY 2010 applications	45,983	27,850
FY 2010 awards	9,455	6,217
FY 2010 success rate	20.6%	22.3%
Average Grant Size	\$ 416	\$ 442

2010 Estimates	RPG	R01 Equivalent
Percentage of NIH budget going to competing grants in FY1994	13.3%	10.7%
2010 competing grant budget using 1994 percentage (1000s)	\$ 4,114,108	\$ 3,309,846
Added grant funds	\$ 180,674	\$ 562,846
Number of new grants fundable at 2010 average size	434.3	1274
Potential success rate	21.5%	26.9%

## 2. Guard against further erosion of the RPG budget

- SBIR
- Indirect Costs



3. Provide greater scrutiny of the amount of funding going to any single person or team

- E.g., NIGMS 750K plan

## 4. Phasing in limits to the percentage of investigator salaries charged to grants

- Phased to minimize loss of jobs, shrinkage of the workforce, and delays in the search for life saving innovations.

# 5. Reduction in overhead charges

- 30% of RPG Budget
- Reduce regulatory burden
- In higher education from 1976-2009, the number of full time administrators at degree-granting institutions of higher education grew by 129 percent and the number of full-time non-faculty (academic support) professionals grew by 345 percent.
- The number of full-time faculty positions grew by 68 percent during the same period.
- U.S. Department of Education, Digest of Educational Statistics: 2007, Table 347, 2008

# Education and Employment of Biological and Medical Scientists 2011

*Data from National Surveys*

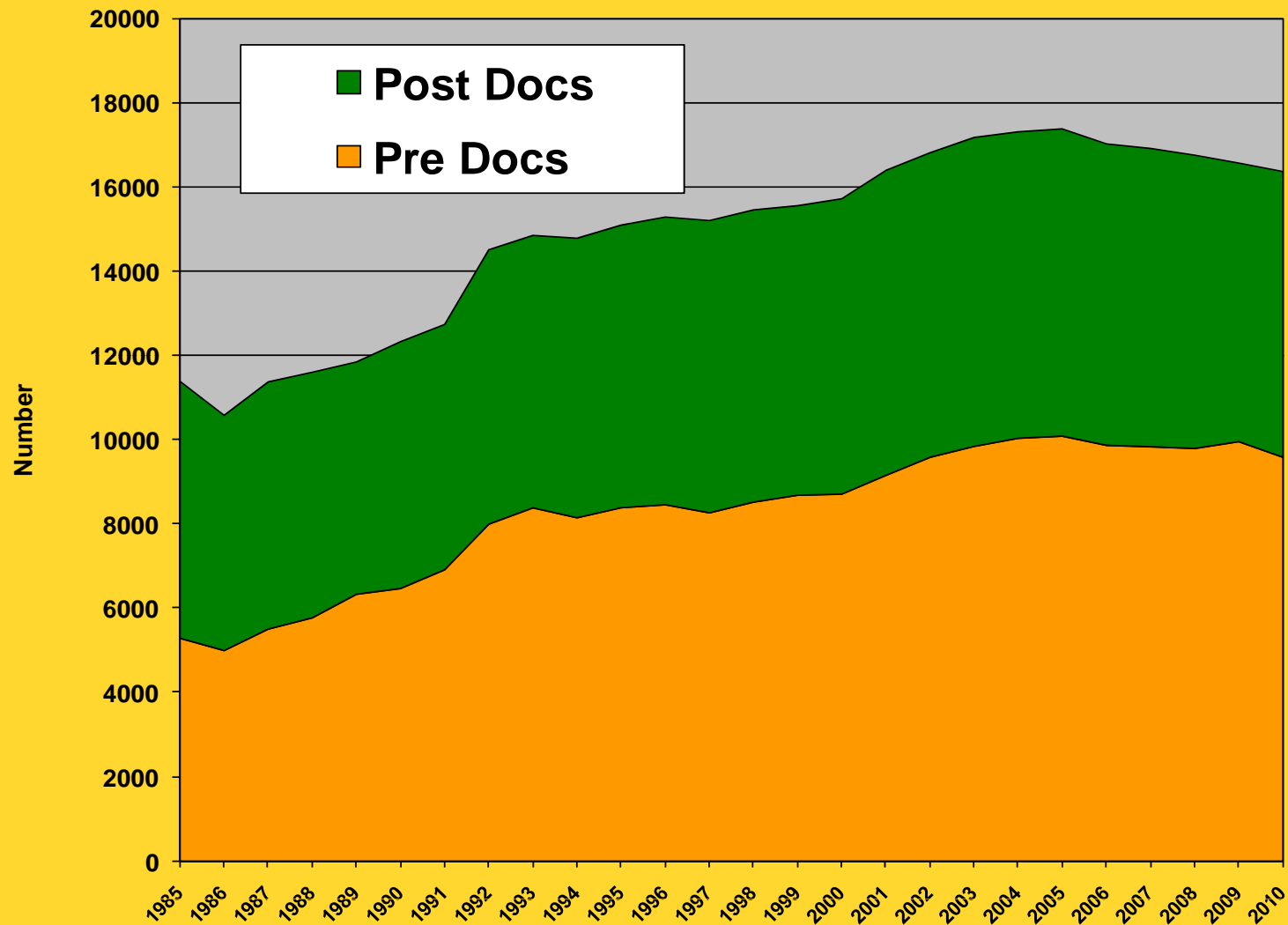


Howard H. Garrison

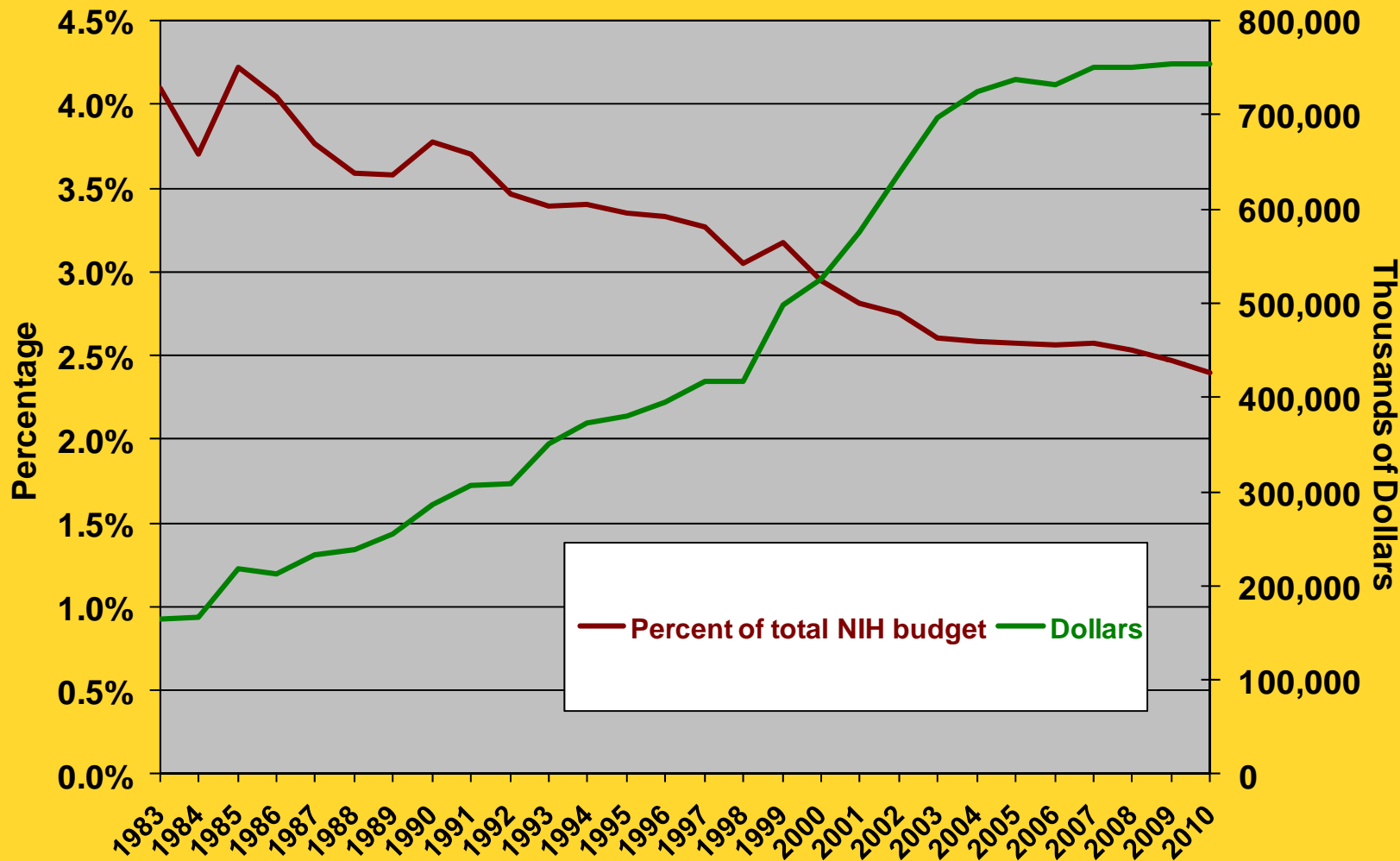
Kim Ngo

FASEB Office of Public Affairs

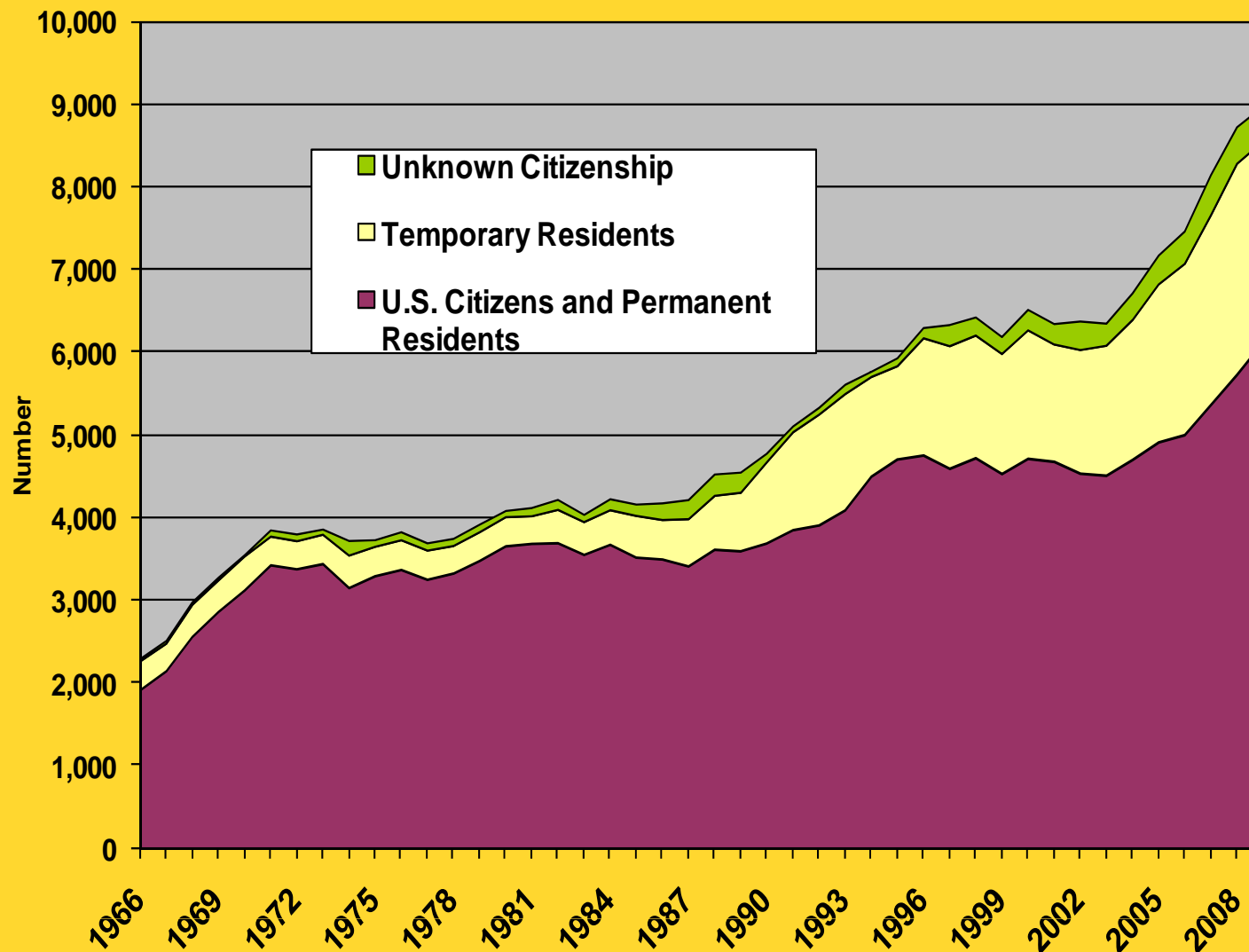
# Pre-Doctoral and Post-Doctoral Full-Time Positions Awarded on NIH Training Grants and Fellowships



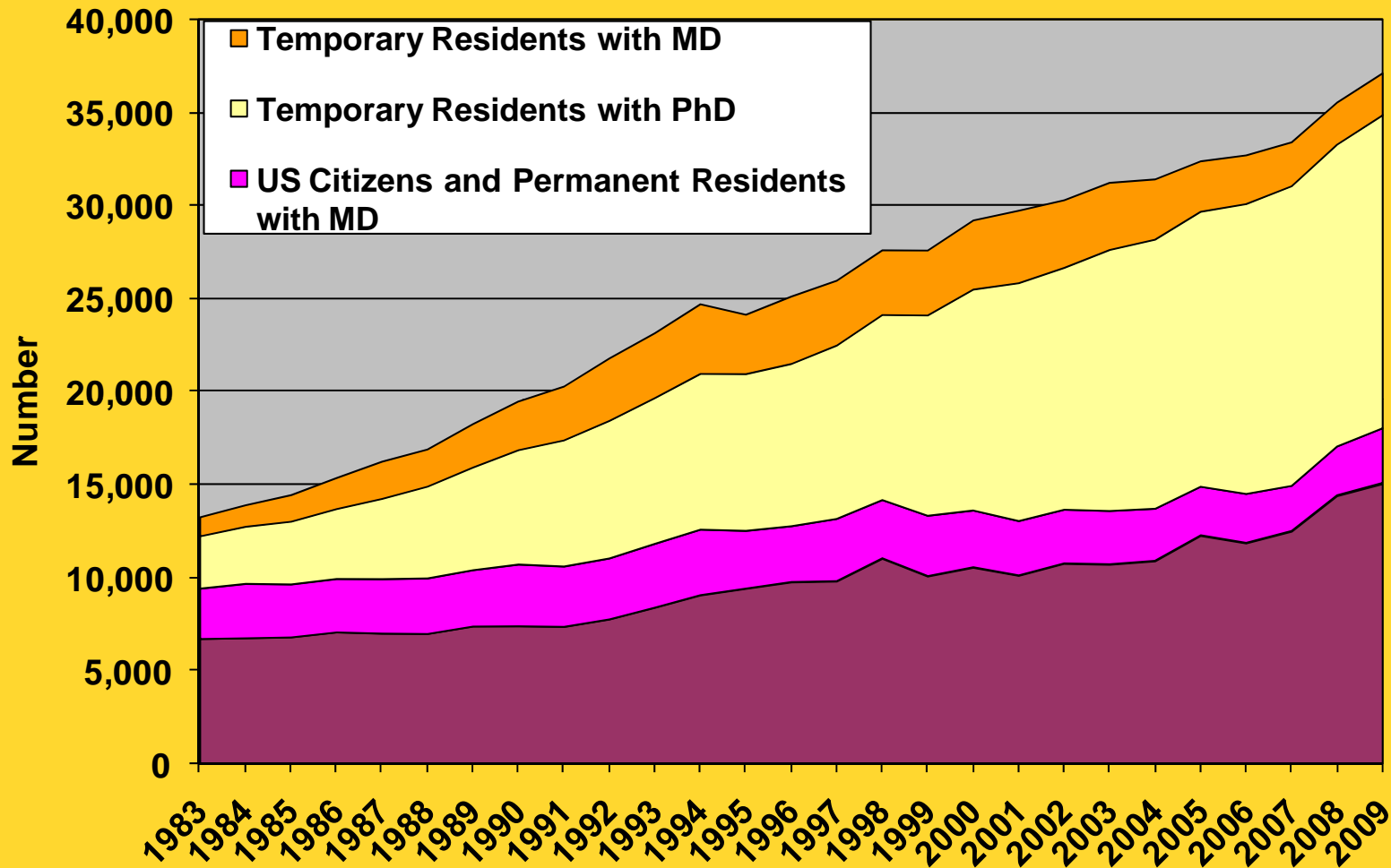
# NIH Spending on Training Grants and Fellowships



# Doctorate Degrees Awarded in the Biological and Medical Sciences by Citizenship/Visa Status



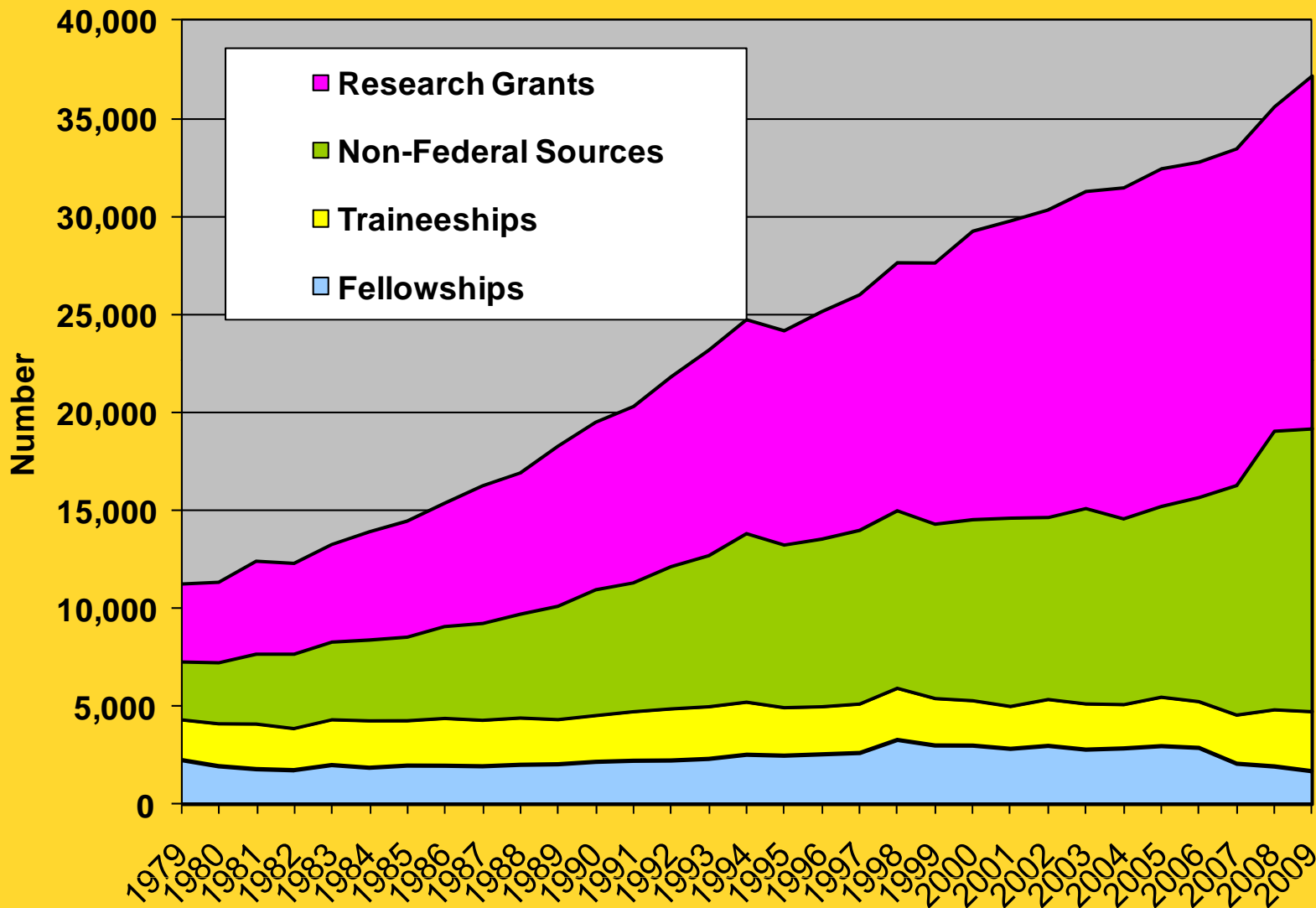
# Biological and Medical Sciences Postdocs by Degree and Citizenship/Visa Status





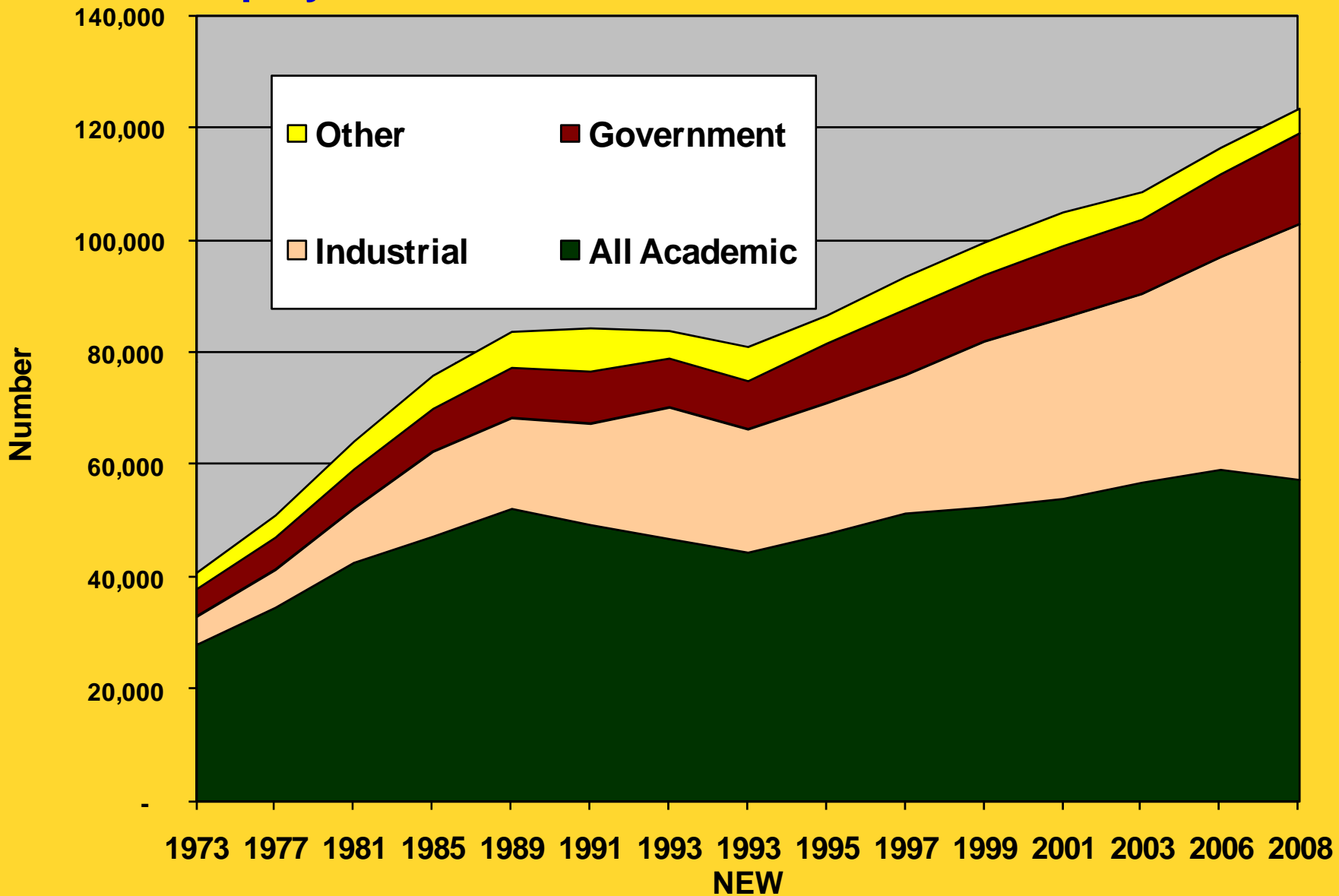
# Biological and Medical Sciences Postdocs by Source of Support

FASEB

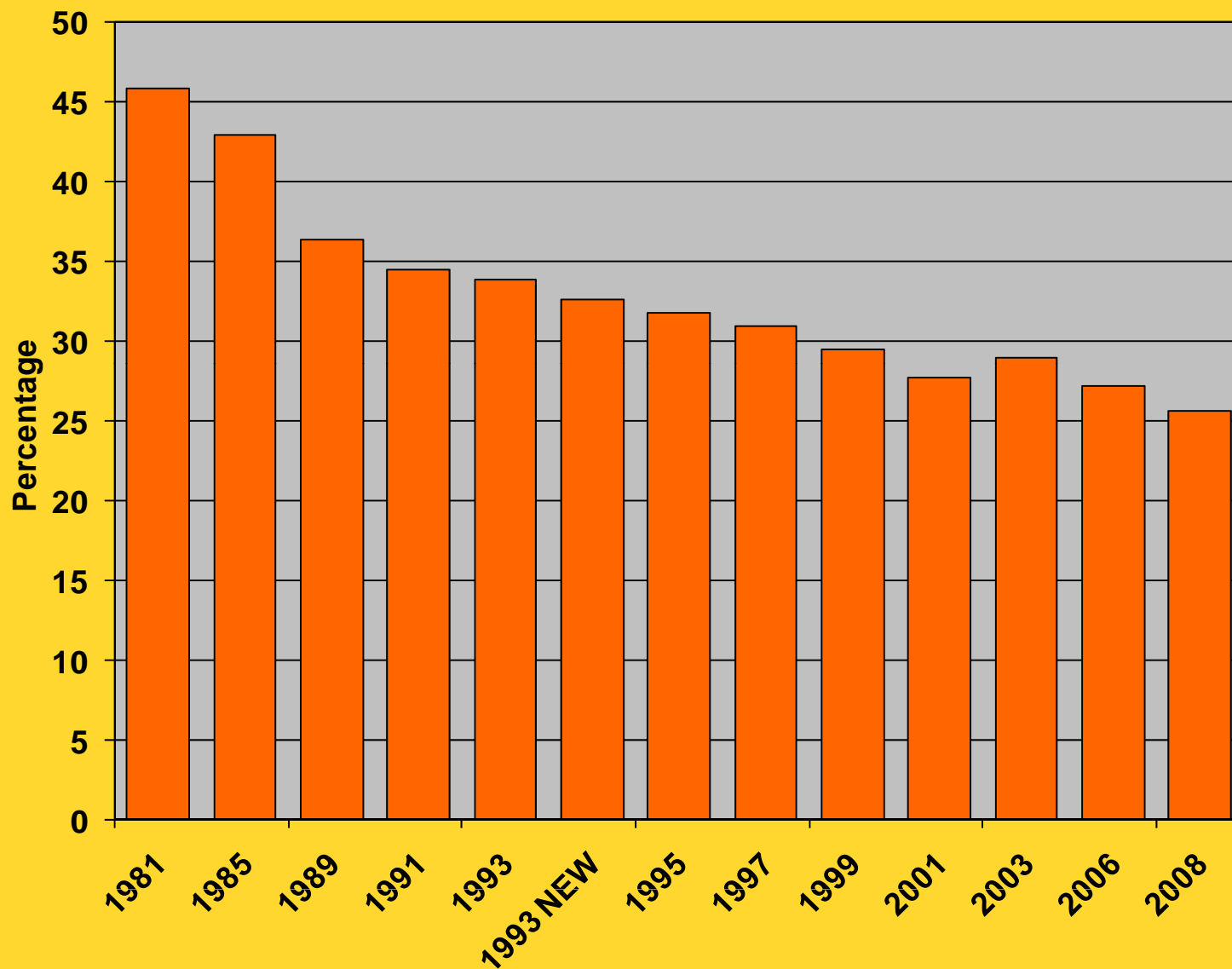


Source: <http://www.nsf.gov/statistics/gradpostdoc/>

# Employment of Biomedical Science PhDs by Sector of Employment

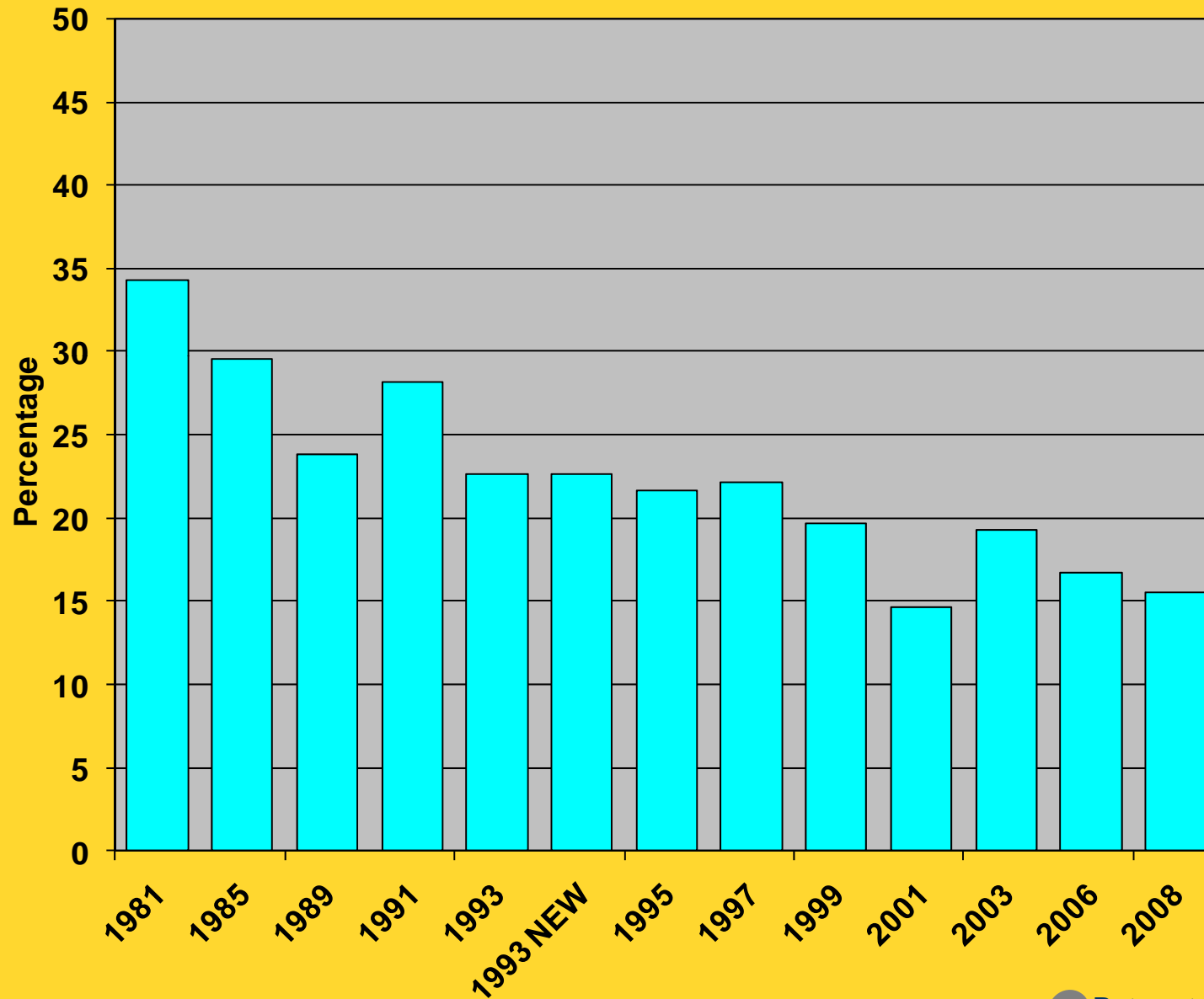


# Percent of US Biomedical Science PhDs Holding Tenure or Tenure-Track Positions, Total



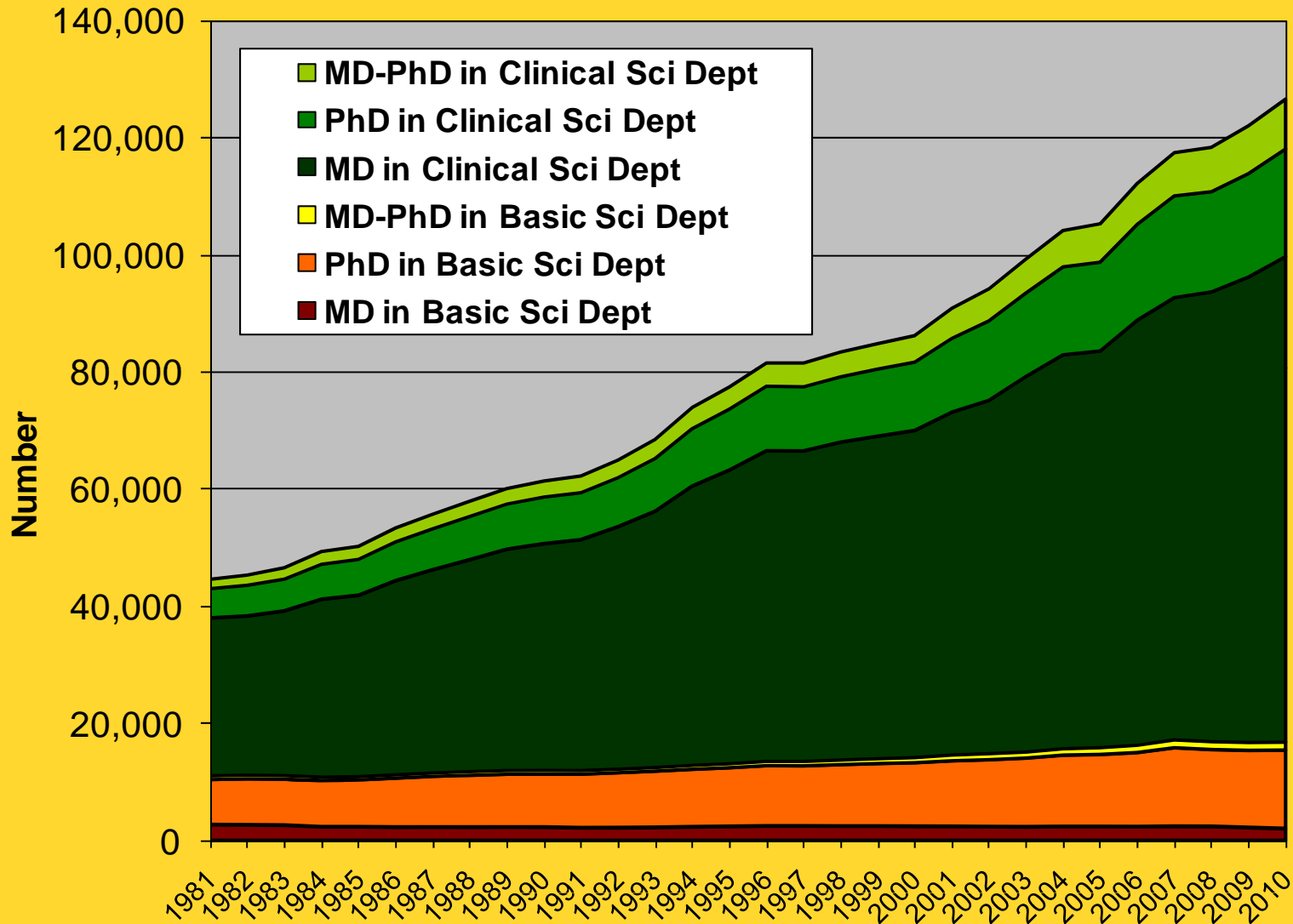
Source: <http://sestat.nsf.gov/>

# Percent of US Biomedical Science PhDs Holding Tenure or Tenure-Track Positions 5-6 Years Post-PhD

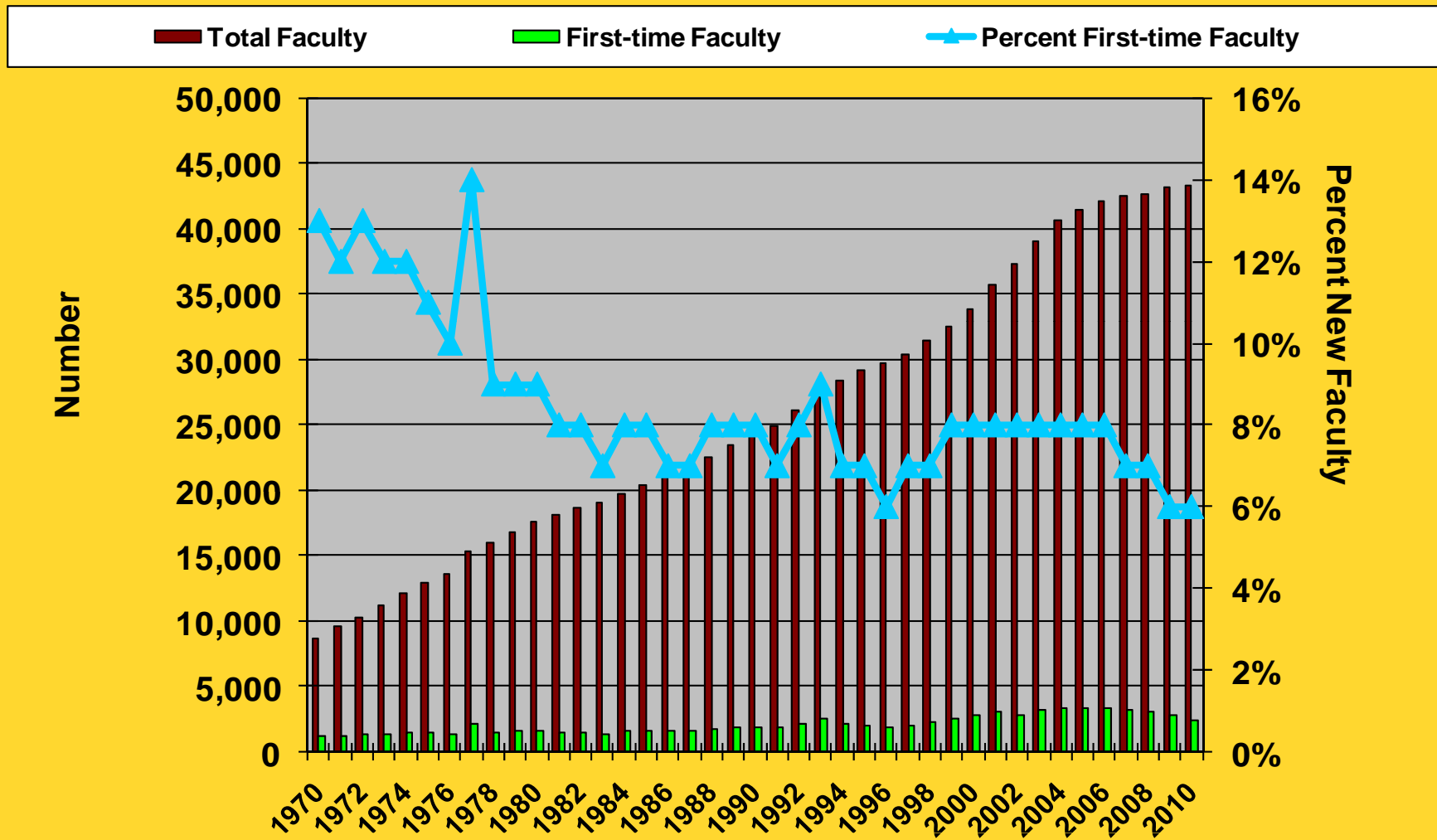


Source: <http://sestat.nsf.gov/>

# Medical School Faculty Members by Degree and Department Type

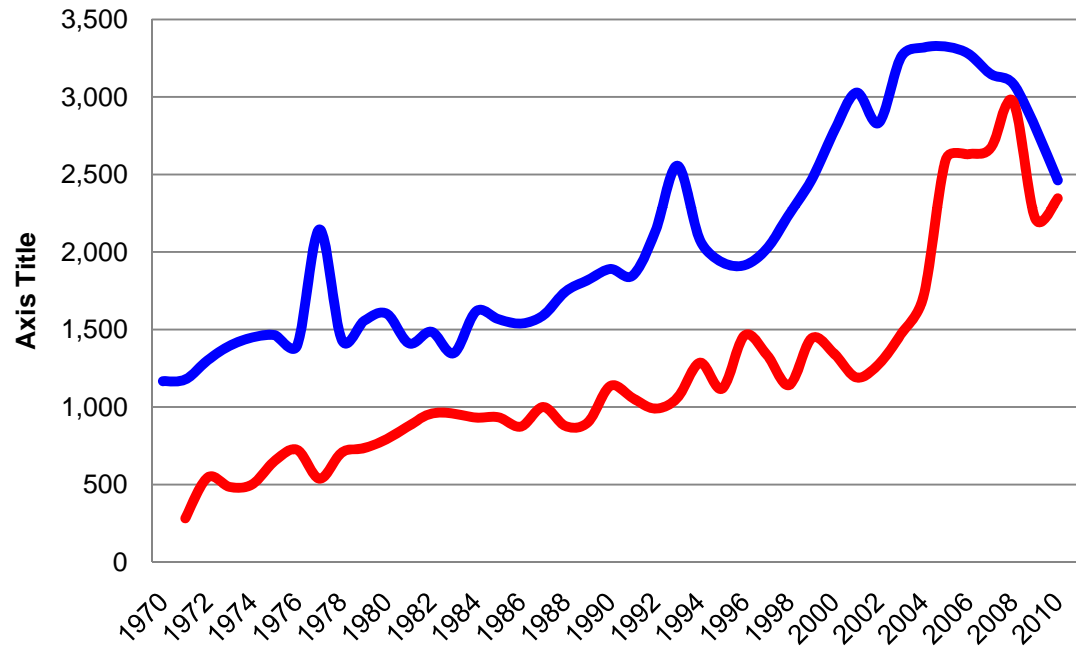


# Total and New Full-Time Faculty 1970 to 2010 in US Medical Schools with Ph.D. or equivalent degree (includes M.D./Ph.D.)



Source: <http://www.aamc.org>

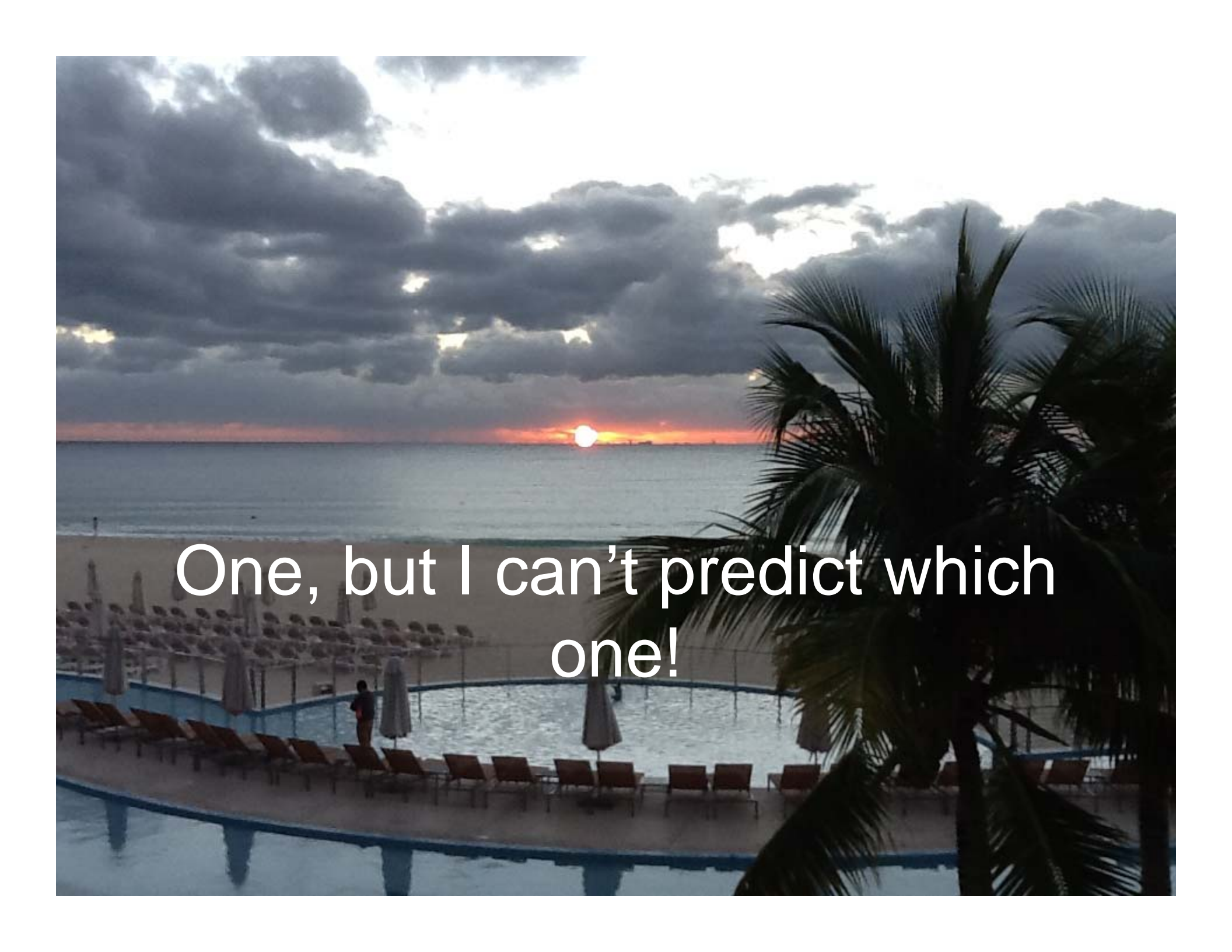
## Medical Faculty New and "Lost"



# What's Ahead

- Do Nothing
- Predator / Prey model
- Limit the Denominator ?
- Workforce issues:
  - How many
  - What role
- How many scientists does it take to turn on the light bulb?



A tropical beach scene at sunset. In the foreground, a swimming pool with lounge chairs and closed umbrellas is visible. The middle ground shows a sandy beach with more lounge chairs and umbrellas. The background features the ocean with a bright sun setting on the horizon, creating a colorful glow. The sky is filled with dark, dramatic clouds. A large palm tree is silhouetted on the right side of the frame.

One, but I can't predict which one!