

VII. STANDING COMMITTEES

A. Academic and Student Affairs Committee

Research Update

INFORMATION ONLY

Update on Research Funding: 2012

Mary Lidstrom
Vice Provost for Research



Role of Research in our Academic Mission

- Funds experiential learning for graduate students and undergraduate students
 - Estimated to be \$200M in FY12
 - Impacts on the order of 5000 students each year



- Funds high-level discovery that contributes to our knowledge base and our reputation
 - One of our three core missions



Role of Research in our Instructional Mission



Myth: strong researchers are poor teachers

Fact: 1/3 of our distinguished teaching award winners are also strong researchers; over half of the Brotman awards have gone to programs with strength in research

Fact: strong researchers bring the excitement of their discoveries into the classroom

Fact: research enhances the instructional mission inside and outside the classroom

Organizational Improvement

Creating an outstanding Climate for Research



Unit-wide strategic and organizational improvement effort called iSTAR (“Improving Service to Advance Research”).

iSTAR goals are streamlining and creating efficiencies while at the same time, increasing service

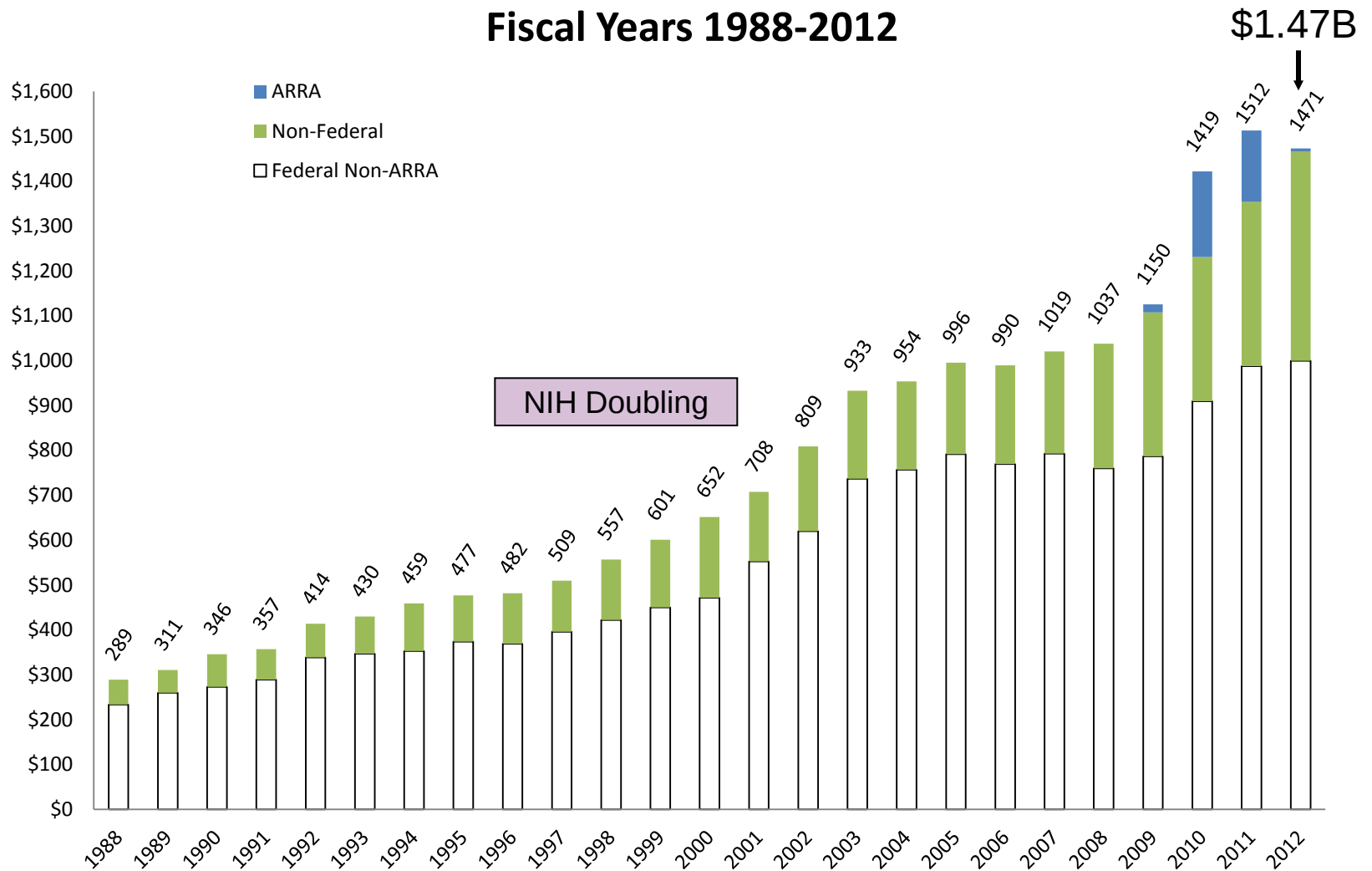
Research Roadmap

Researcher-centric IT initiative

RR goals are to provide personalized service for faculty and staff involved in research administration by the creation of a researcher-centric electronic portal for managing all research tasks.

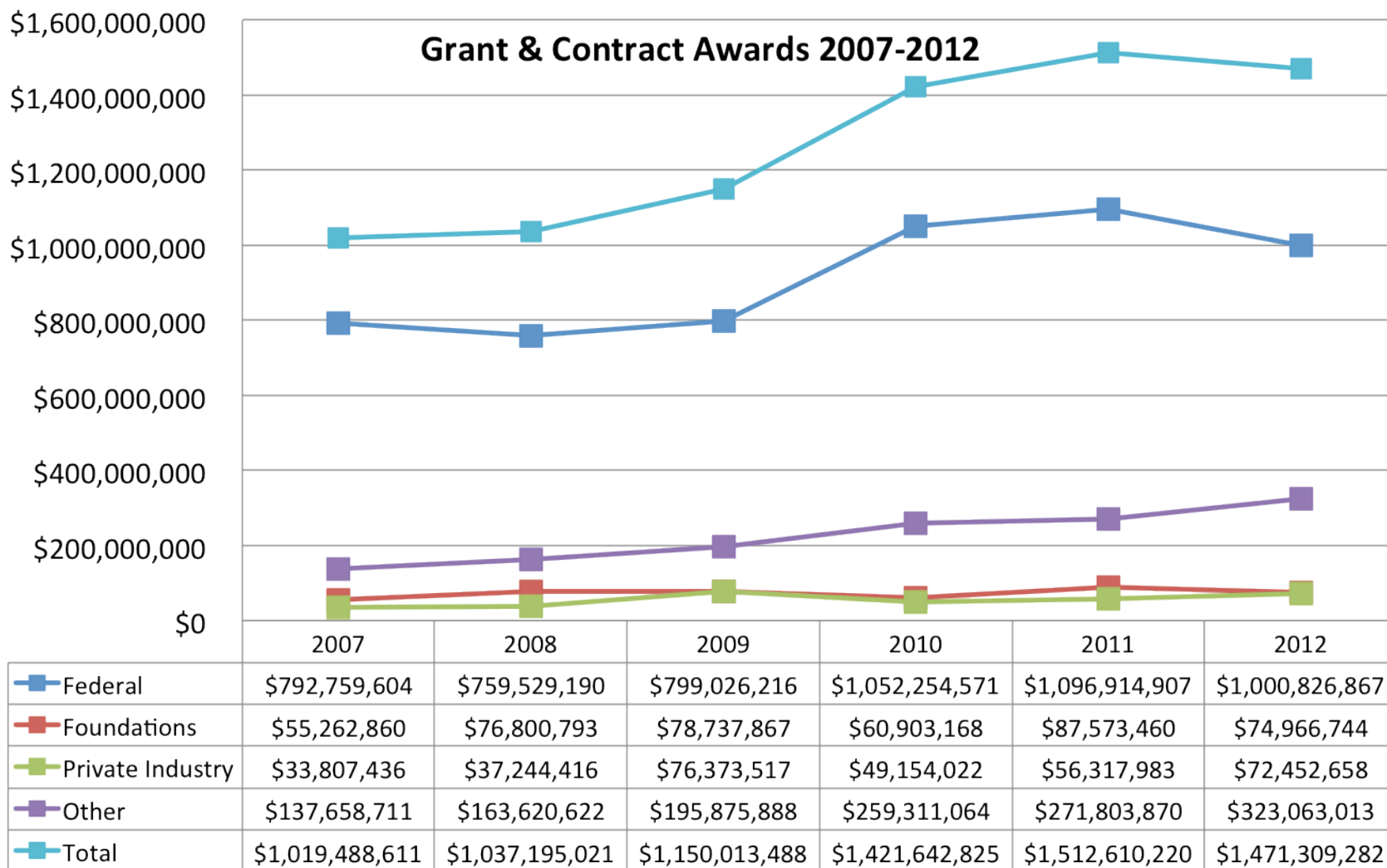
Total Grant and Contract Awards by Year (in Millions)

Fiscal Years 1988-2012

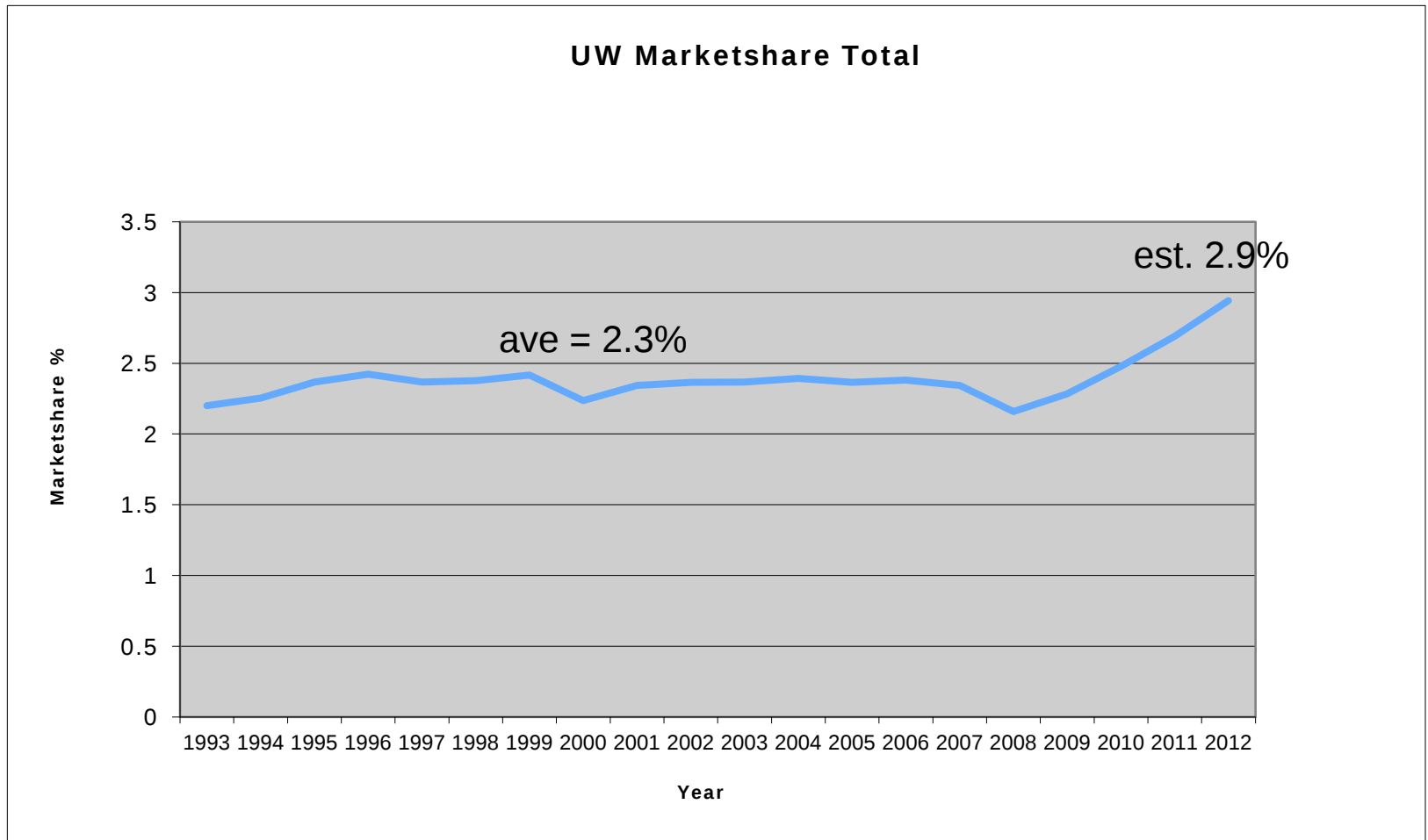


Research funding has doubled twice in the past 20 years

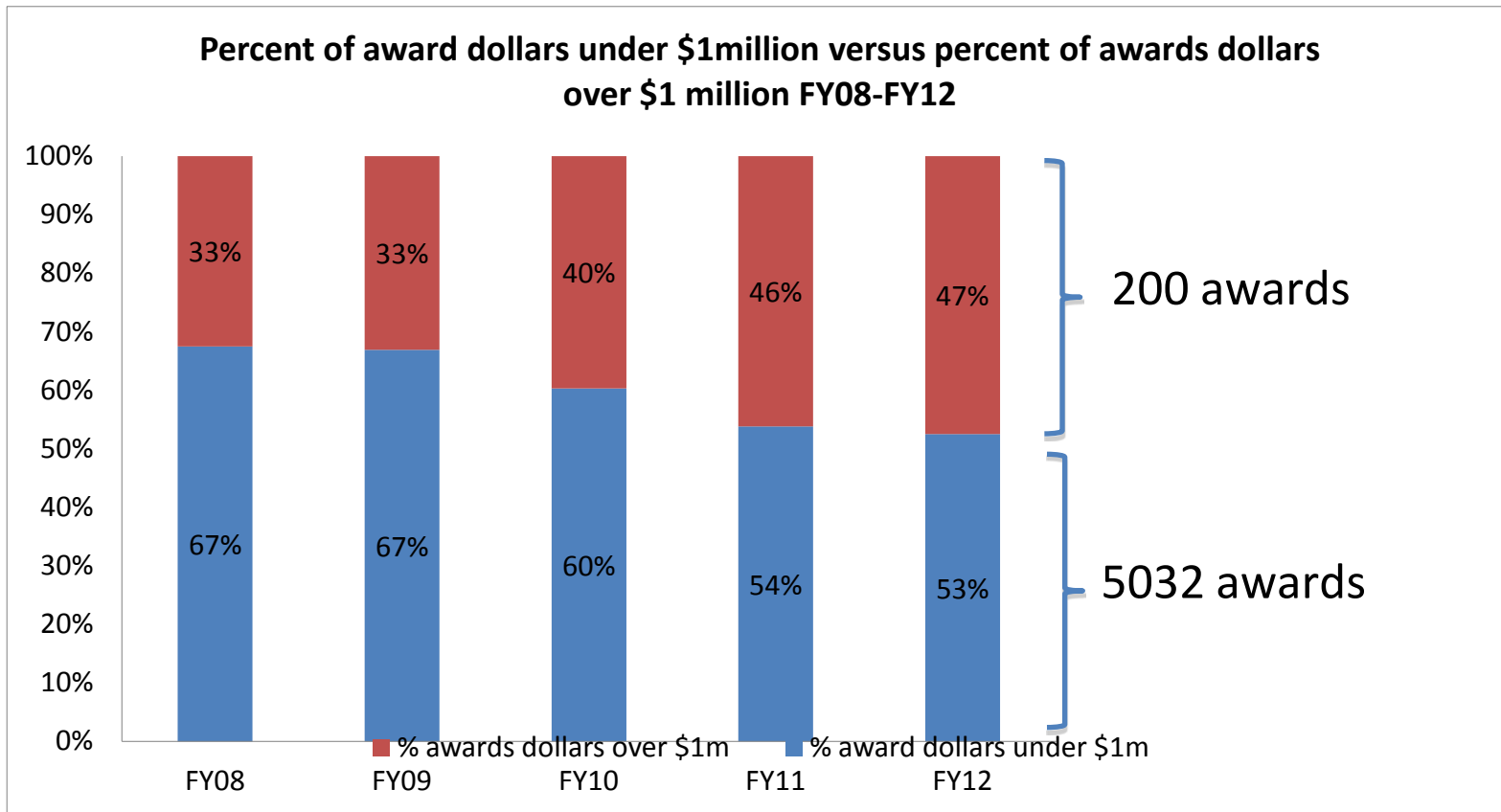
Funding Trends by Category



UW Marketshare of Federal Research Funding has Increased for the Past 5 Years



Numbers of Large Awards are Increasing



Awards over \$1M are 4% of the total awards

Faculty Collaborative Research is Strong

Total # of UW Research Centers	286
Number of Different Departments	164
Total # External Partners	100
Universities	57
Federal	16
Labs/Institutes/Centers/Hospitals/Clinics	14
State	5
Industry/Corporations	4
International	2
Foundation/Non-profit organizations	2

Examples of FY12 Awards

- NSF-funded Science and Technology Center

“Center for Sensimotor Neural Engineering”

Engineering, Medicine, Arts & Sciences; MIT, SDSU, Morehouse, Southwestern, Tokyo, UBC
Focused on direct brain-machine and brain-computer neural interfaces.



- NSF-funded Chemical for Chemical Innovation (renewal)

“Center for Enabling New Technologies Through Catalysis”

12 partner universities (Berkeley, Santa Barbara, Texas, Indiana, Wisconsin, Michigan, Ottawa, Rochester, MIT, Rutgers, NC State, North Carolina)

Basic science focused on technological basis for sustainable production of chemicals, pharmaceuticals, and fuels.

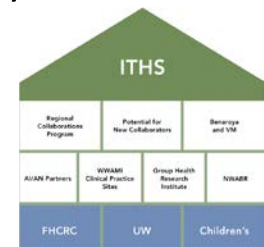


- NIH-funded Clinical and Translational Science Award (renewal)

“Institute for Translational Health Science”

Partnership between UW, FHCRC, Children’s, WWAMI institutions

Focused on innovation in biomedical research and training



Positive Signs of Strong Competitiveness

- Federal marketshare is increasing
- Competitive for large, collaborative projects and for single investigator grants

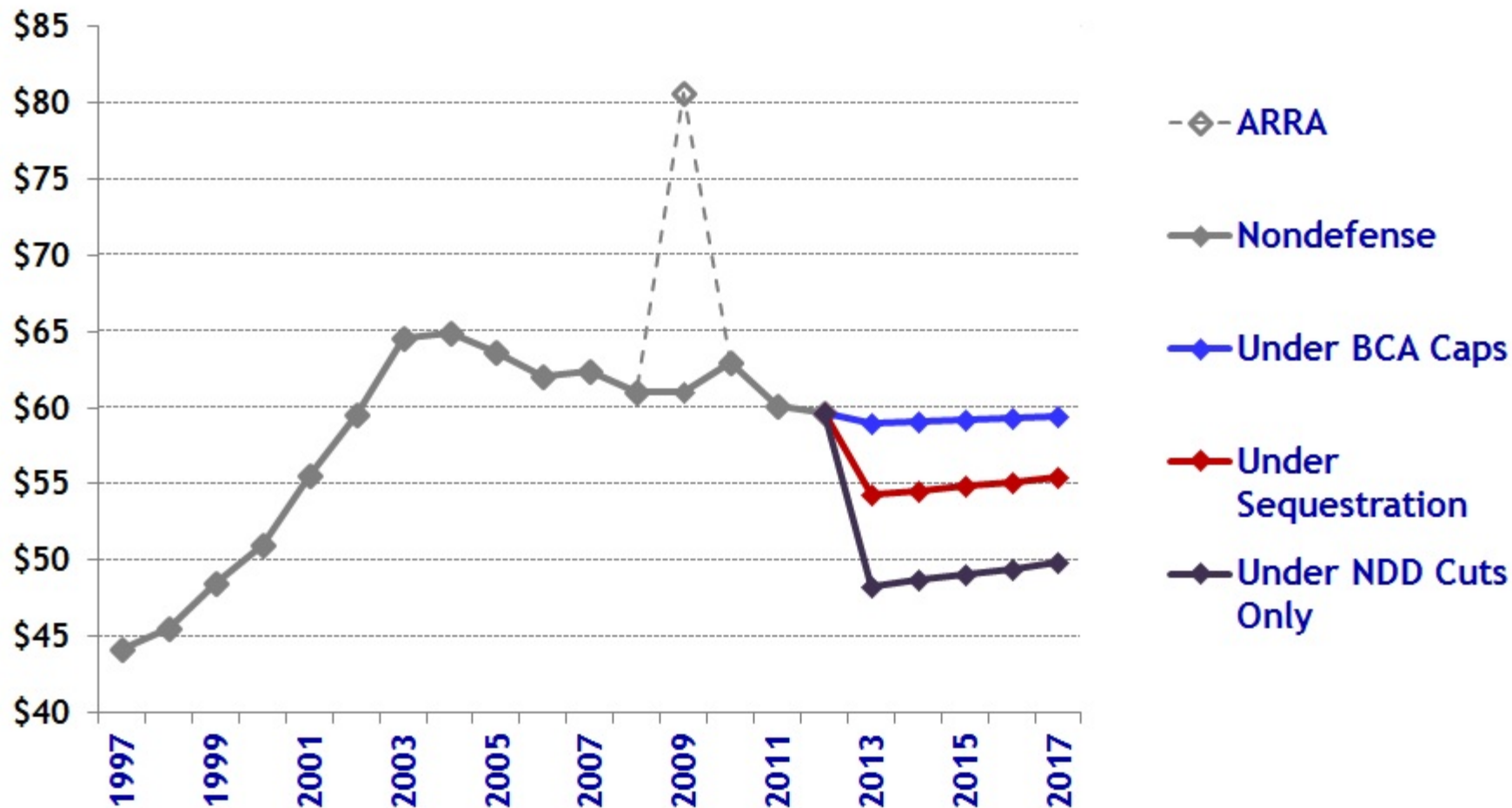
Why are we so competitive?

Main drivers:

- New research space that has come online in the past few years
- High quality faculty do well in a tight funding climate
- We have both breadth and depth

Federal Nondefense R&D Under BCA Caps With and Without Sequestration

in billions of constant FY 2012 dollars

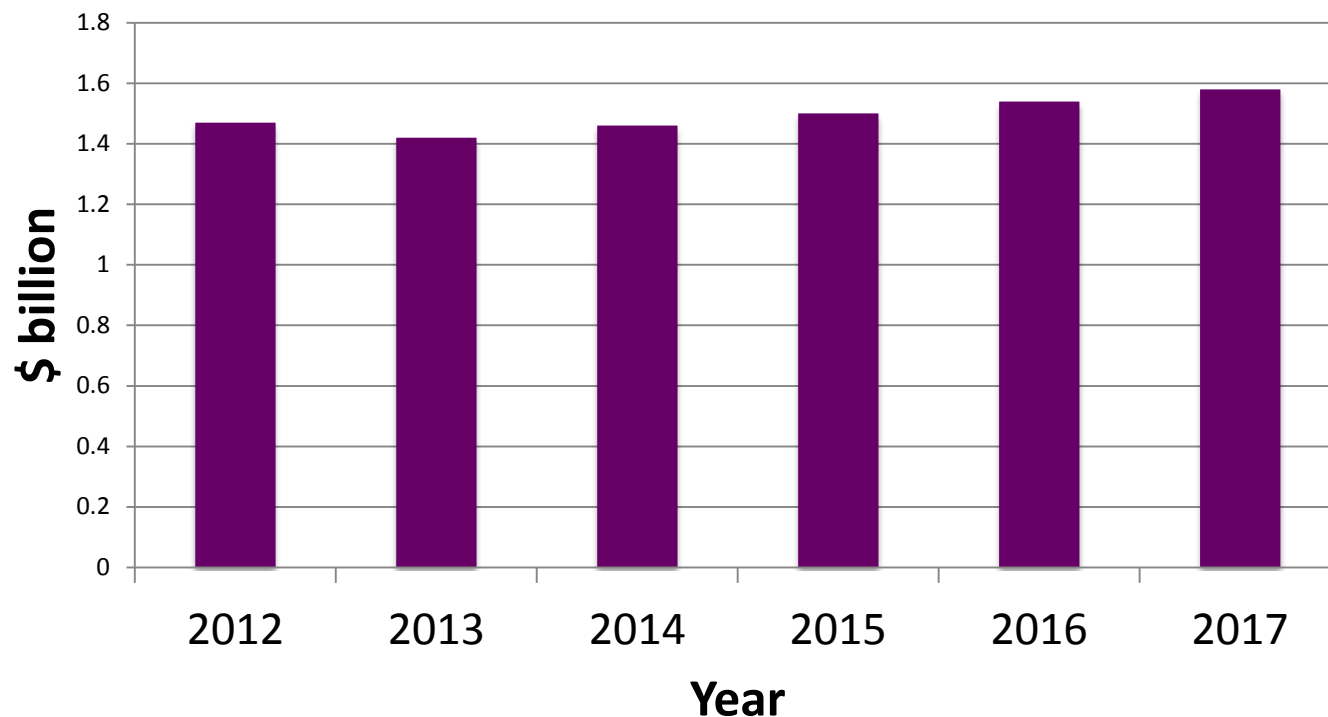


Source: Based on AAAS estimates of R&D funding and the FY 2013 budget, and CBO analyses of the Budget Control Act.

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We predict an increasing marketshare will largely counterbalance decreases in total funding

Predicted Research Funding



FY12	FY13	FY14	FY15	FY16	FY17
\$1.47B	\$1.42B	\$1.46B	\$1.5B	\$1.54B	\$1.58B
	-3.5%	+3%	+2.5%	+2.5%	+2.5%

Modeling a 5% Decrease Over 3 years

shrinkage of the research enterprise

5% decrease of federal funding = \$52.5M
Decreased funding for graduate students
Fewer research-related employees
Fewer publications and research breakthroughs

In the state:
Loss of jobs and tax revenue

How is the UW responding?

Response if Research Funding Declines 5%

Awards forecast expenditures the next year

Timing provides a year for a planned and phased response

Fixed costs cannot be mitigated (mainly debt service)

All other costs can be phased down over a few years

- Fewer graduate students admitted
- Fewer post-docs hired
- Some projects carried out in leased space could move to UW space
- Support infrastructure phased down through attrition

Proactive Steps to Maintain Competitiveness

- Focus on recruiting and retaining top faculty
- Targeted investment in key research facilities
- Targeted investment in infrastructure for increasing our marketshare

SUMMARY

Increasing competitiveness suggests impacts of decreased federal research funding at UW as a whole will be relatively minor

Specific areas may have a very difficult time

Nevertheless, we know how to downsize the research enterprise and have considered steps to take