

# Current Budget Realities for Federal Funding of Basic Research:

**Econ 101– When “Soft” Science  
Trumps “Hard” Science**

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# Some background

## • The Executive Office of the President

- Office of the Vice President\*
- Chief of Staff\*
- Council of Economic Advisers
- Council on Environmental Quality
- Domestic Policy Council
- National Economic Council
- National Security Council
- Office of Homeland Security
- Office of Management and Budget\*
- Office of National Drug Control Policy\*
- Office of Science & Technology Policy
- Office of the United States Trade Representative\*
- Etc...

\* Cabinet rank members

# What does OMB do?

- Assists the President in the development and execution of his policies and programs.
- OMB has a hand in the development and resolution of all budget, policy, legislative, regulatory, procurement, e-gov't, and management issues on behalf of the President.

# Two Worlds

## **Political – make decisions**

- **Director** (Josh Bolten) & **Deputy Directors** (Joel Kaplan and Clay Johnson)
- **Program Associate Directors or PADs** (Marcus Peacock)

## **Career – make recommendations**

- **Deputy Associate Directors or DADs** (Mark Weatherly)
- **Branch Chiefs** (Rick Mertens)
- **Program Examiners** (me)

# OMB Jurisdictions

## The Sandbox Principle: Competing for Research Dollars at the White House

- **Natural Resource Programs**
  - **DOE**, NASA, NSF, USDA, EPA
- **Human Resource Programs**
  - NIH, DoEd
- **General Government Programs**
  - DHS, NOAA, NIST
- **National Security Programs**
  - DOD, **NNSA**

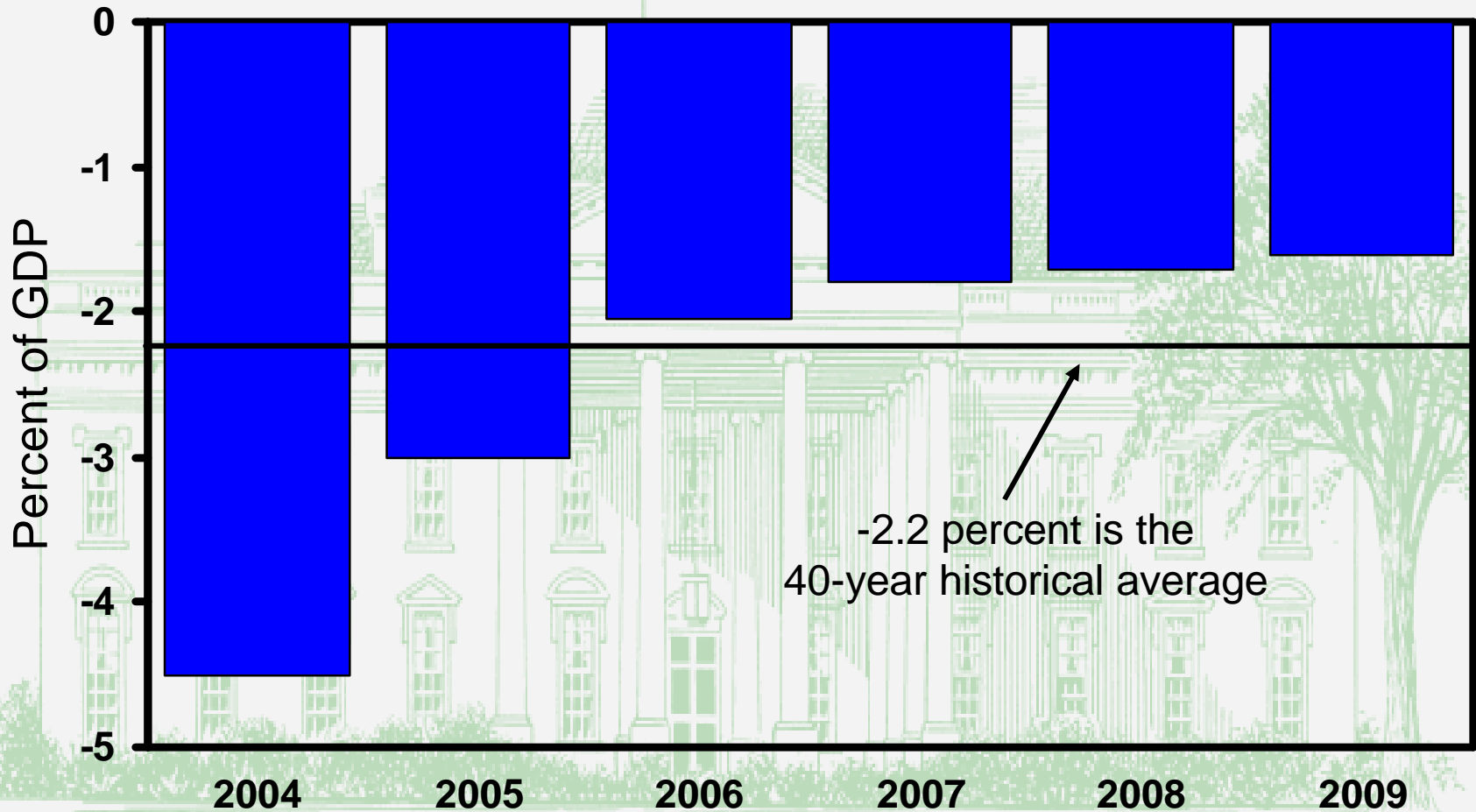
NB: Important differences with Congressional jurisdiction



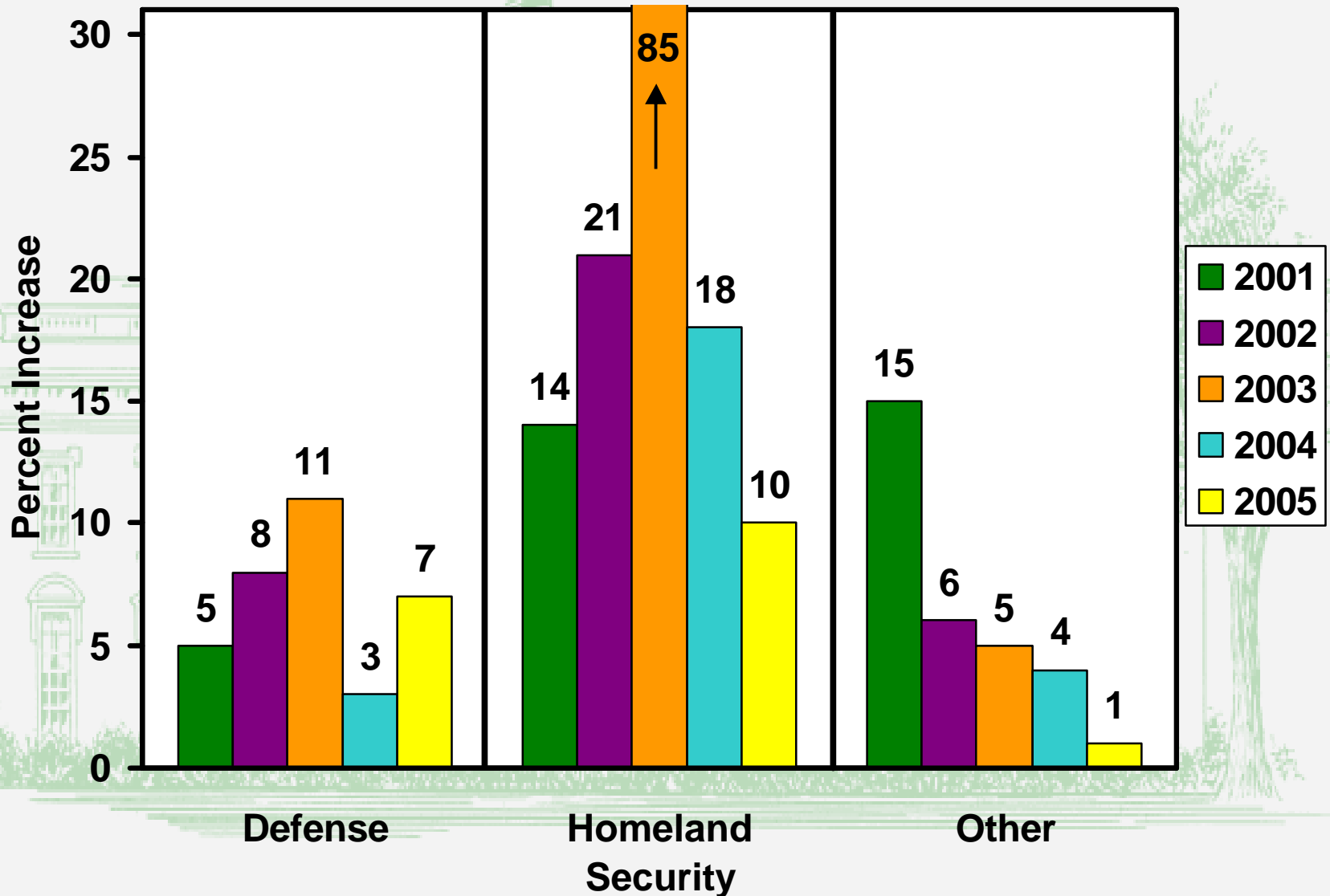
# President's FY 2005 Budget Reflects America's Priorities

- **Winning the War on Terror**
- **Protecting the Homeland**
- **Strengthening the Economy**

# Cutting the Deficit in Half



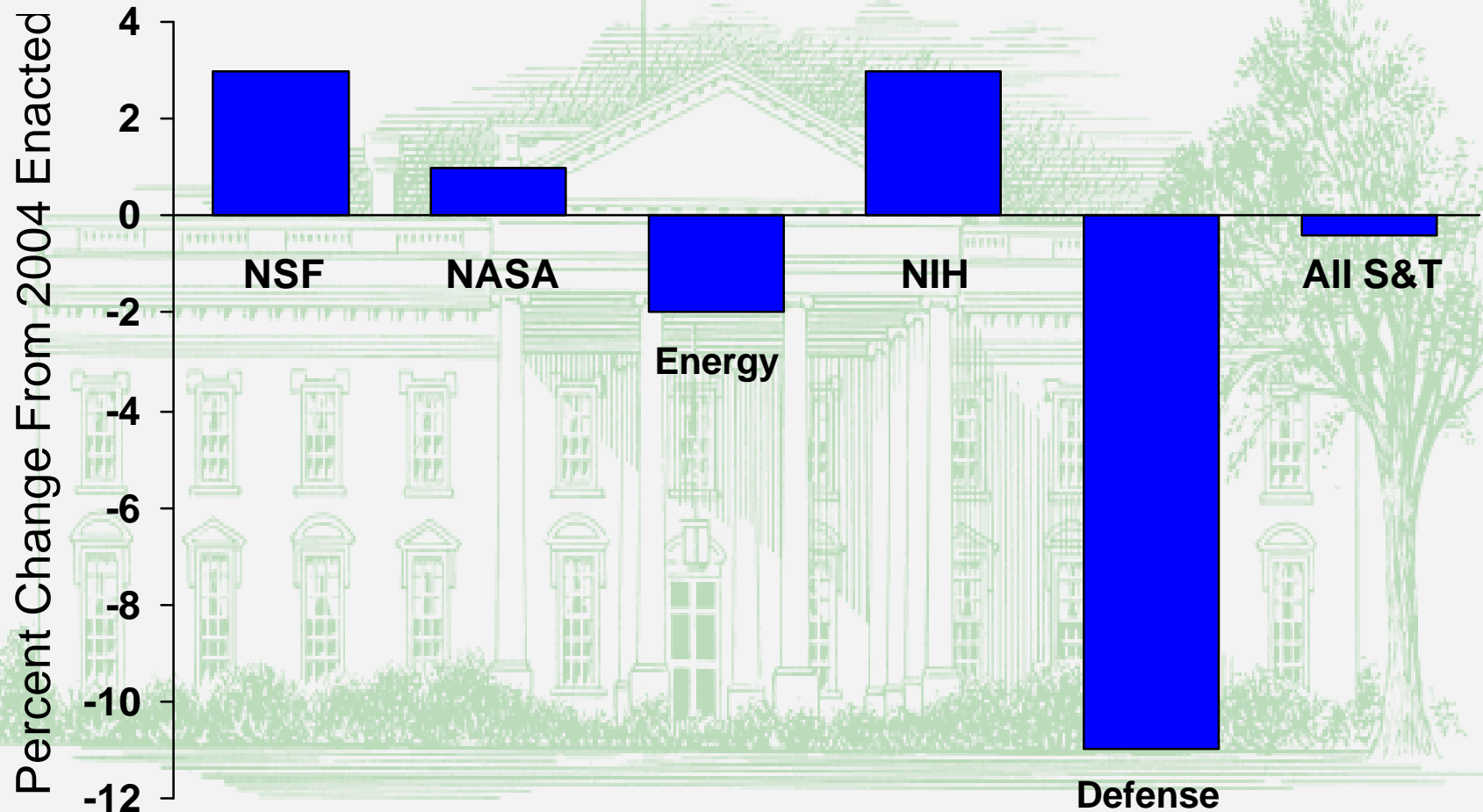
# Enhanced Security – Restraint Elsewhere





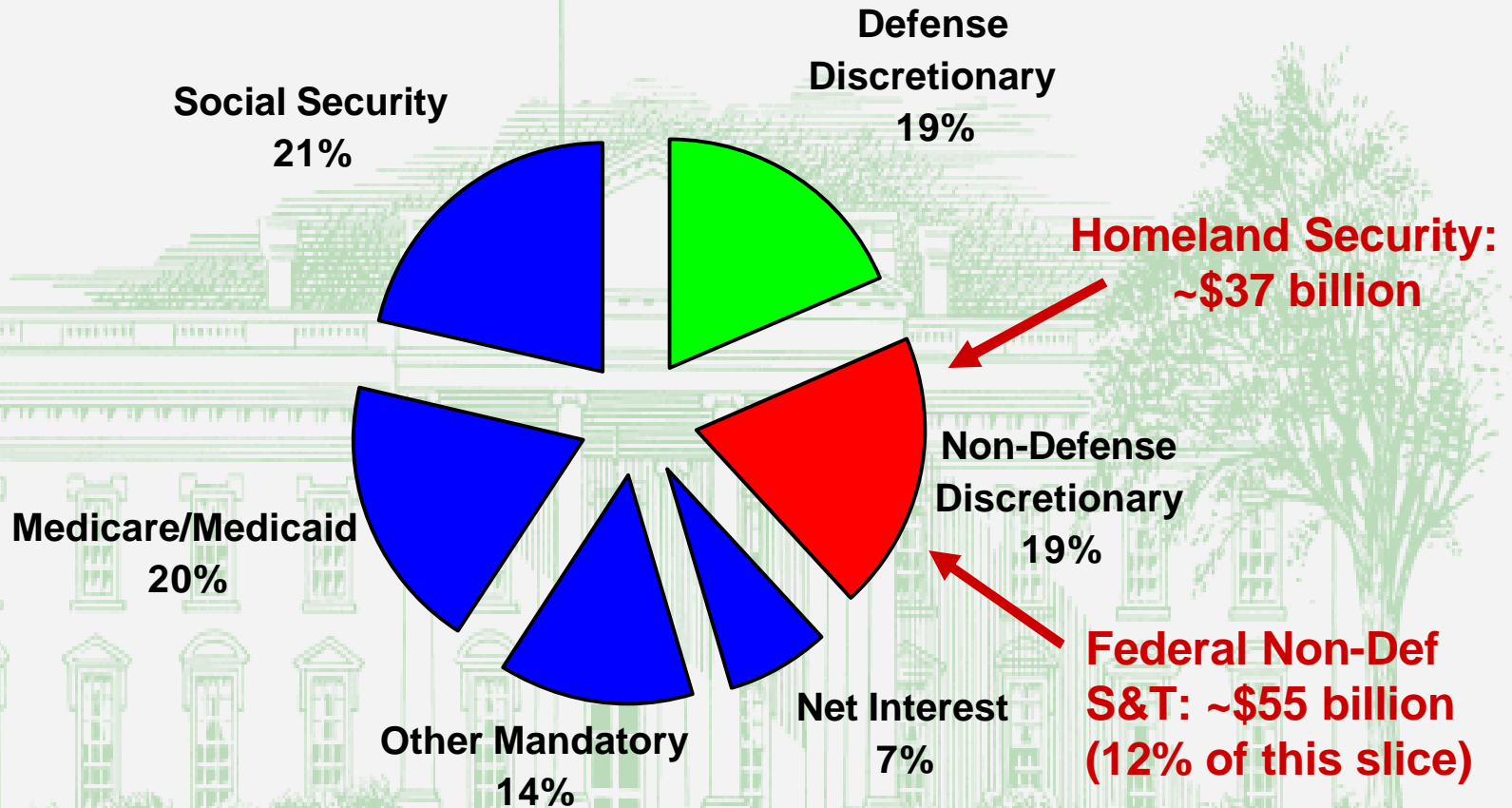
# The Big Five

## Percent Change in S&T Budgets



# Different colors of money

President's 2005 Budget (\$2.4 Trillion in Outlays)



OSTP's Mike Holland: "It helps to think of the government as an insurance company with an army." (*Science*, 4/11/03)



# The “M” in OMB

**“Government should be results-oriented—  
guided not by process but by performance.”**

**– *George W. Bush***

**In other words....**

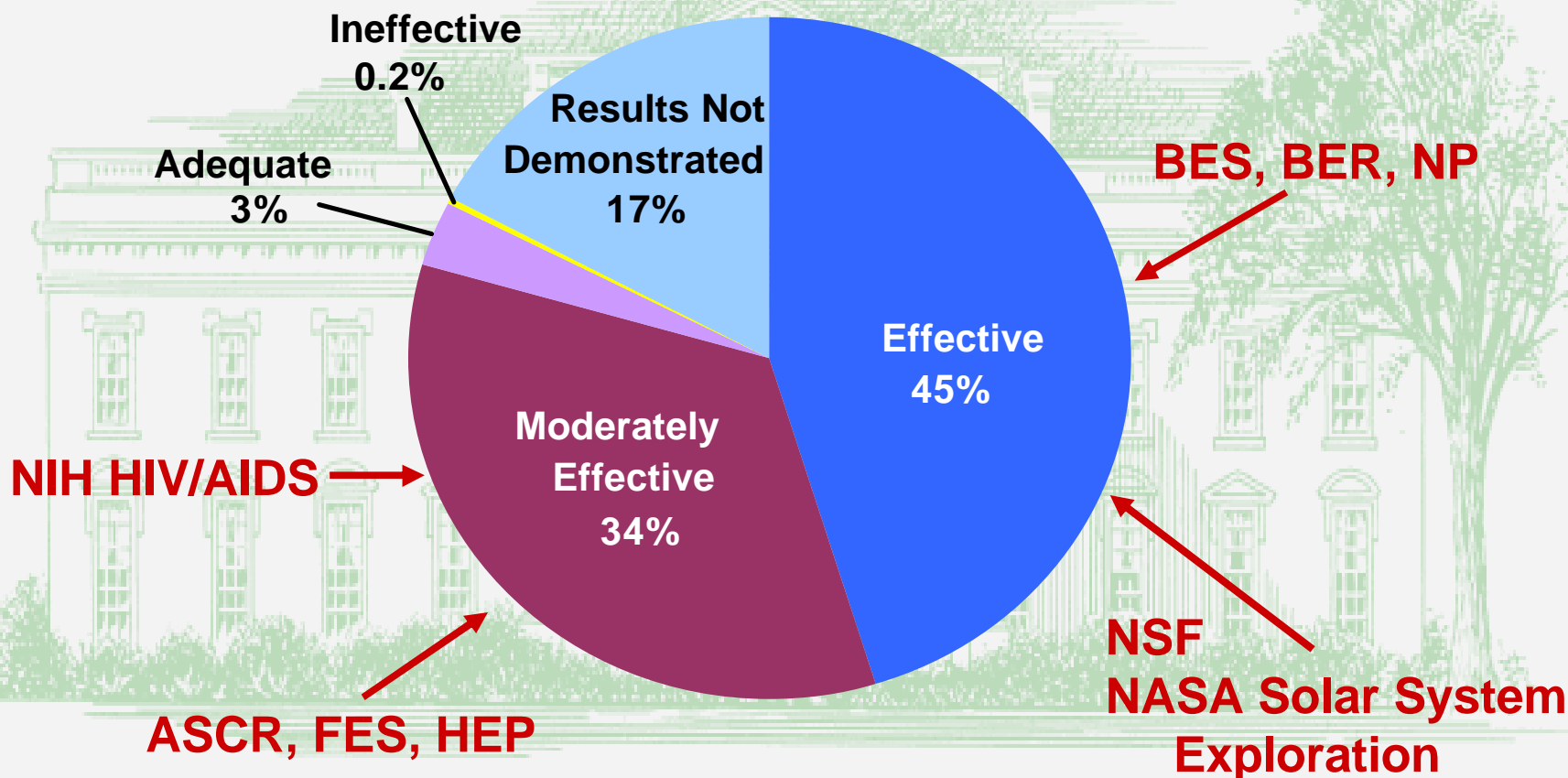
**Focus on results, not dollars.**

# Program Assessment Rating Tool (PART)

- **2<sup>nd</sup> year; sweeping assessment of federal programs to date - 400 programs (\$1 trillion); 58 were R&D**
- **Collaborative effort between OMB and the Agencies; 20% of programs to be added each year**
- **Formalized yes/no questions typically asked by examiners: program planning & design, strategic planning, program management, and program results/accountability**

**[\[www.whitehouse.gov/omb/budget/fy2005/part.html\]](http://www.whitehouse.gov/omb/budget/fy2005/part.html)**

# PART Assessments of 58 R&D Programs



# ASCR Outcomes

## Actions in response to PART findings:

- The 2005 Budget provides funds to continue operating the program's primary user facility at 100 percent of maximum capacity, and to begin a major new research activity in applied mathematics. (Total funding level also increased by \$2M.)
- The Department will develop an appropriate action plan in response to the findings and recommendations of the Committee of Visitors within 30 days of receipt of the report.
- The Department will meaningfully engage the ASCR advisory committee in thorough assessments of research performance and in regularly revisiting the strategic priorities for the program in order to help identify gaps in the research portfolio and suggest remedies.
- The Department will work with its advisory committee to develop research milestones [by September, 2004] against which future outside panels may judge interim progress toward achieving the long-term goals of the program.

# Misc. Topics

- **Necessary, but not sufficient conditions for receiving [new and ongoing] funding**
  - Demonstrate proper stewardship of taxpayer \$\$
  - Maximize scientific return on existing facilities
  - Address the R&D investment criteria & PART
    - Quality, relevance, and performance  
[[www.ostp.gov/html/ombguidmemo.pdf](http://www.ostp.gov/html/ombguidmemo.pdf)]
  - **Strategic planning:**
    - Develop measurable long term goals
    - Lead with the science: tell us what you want to learn, not what you want to build
    - Priority setting is critical, including identifying offsets in existing program
    - Must recognize budgetary constraints & process
    - Appropriate interagency coordination and cooperation
    - International context is critical
  - **Office of Science and Technology Policy support**

- **Cheerleading and parochial advocacy diminishes the impact of advisory committees.**
- **The ASCAC letter on topical centers was appreciated at OMB. Implementation?**
- **DOE has yet to provide adequate scientific justification for a “leadership” machine within the context of other scientific facilities and grants programs.**
  - **CS and math folks shouldn’t make the arguments since these investments aren’t made for CS or math reasons.**
- **Need is not self evident to most people, and there is a lack of credible analysis that justifies a given scale and breadth of investment. Existence of the Earth Simulator is not an adequate justification.**
- **Open, meaningful competition is important. As a matter of practice, President’s budgets do not propose to continue earmarked projects/facilities.**