



*Science, Technology, and the
Federal Budget*

*Kei Koizumi
Office of Science and Technology
Policy
September 15, 2009*

for the ALLP Fellows

www.ostp.gov

**THE FEDERAL BUDGET: WHERE DOES
THE MONEY GO? AND WHY SHOULD YOU
CARE?**



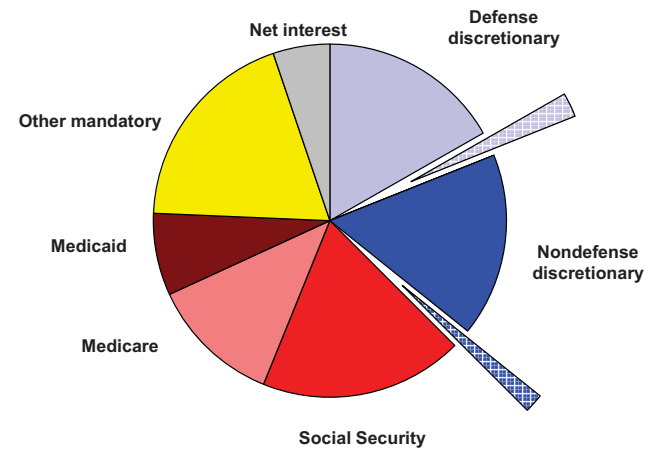
- It's a lot of money.
 - The federal government will spend \$3.7 trillion this year, more than 1/5 of the U.S. economy.
 - 85 percent of federal revenues come directly from individuals through income taxes and payroll taxes.
- You can't do POLICY in Washington without MONEY.
 - Money makes policies possible; without money, policies can't be implemented.
 - In these times of budget deficits, every policy has to be considered in terms of how it affects the budget.
 - The federal budget process decides how the money gets spent.



THE FEDERAL BUDGET: WHERE DOES THE MONEY GO? AND WHY SHOULD YOU CARE? (2)

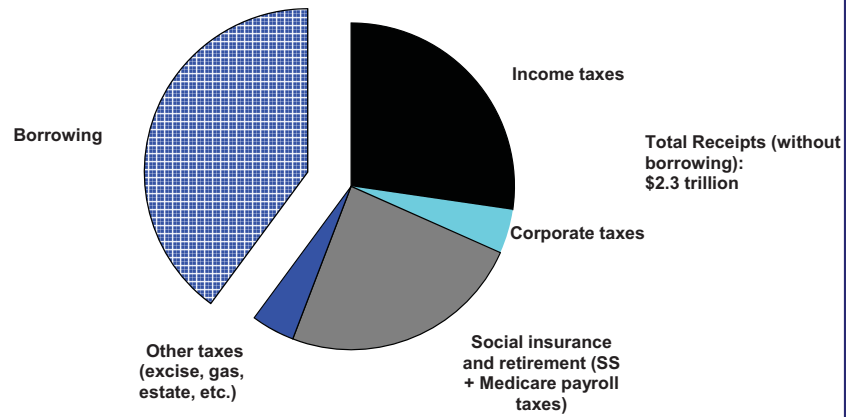
- The budget takes up a lot of time and effort on Capitol Hill and in federal agencies.
 - The budget has an annual cycle that affects nearly every decision in Washington.
- The federal budget determines the health of U.S. science and engineering education.
 - The federal government spends \$145 billion+ a year on R&D.
 - The federal government funds 60 percent of all university R&D, and also supports fellowships, scholarships, student loans, and other aid.
 - R&D funding decisions are part of the federal budget process.

Composition of the Proposed FY 2010 Budget Total Outlays = \$3.8 trillion



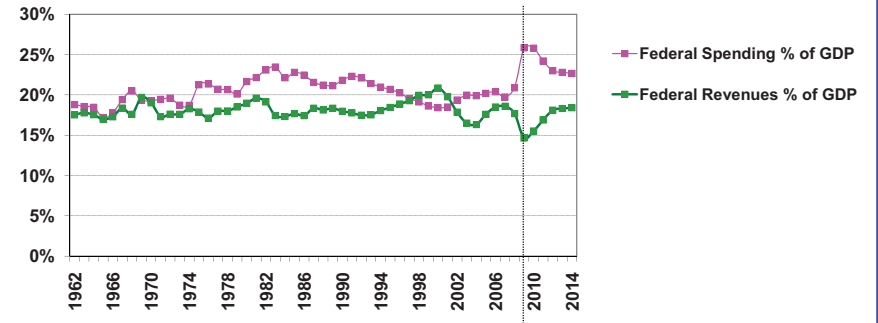
AUGUST '09 based on Mid-Session Review

Composition of the Proposed FY 2010 Budget by Source of Funds
Total Outlays = \$3.8 trillion



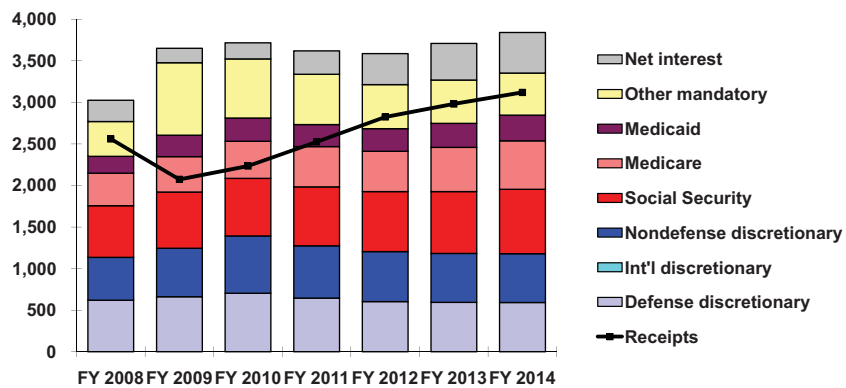
AUGUST '09 based on OMB Mid-Session Review

Federal Spending and Revenues as % of GDP
 1962-2014



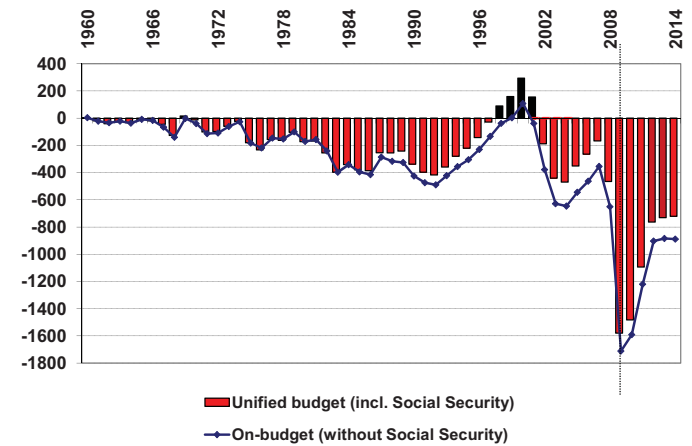
Source: Budget of the U.S. Government FY 2010 Historical Tables.
 FY 2009 data are estimates. FY '10-'14 data are budget projections.
 updated with OMB Mid-Session Review August 2009.

President's FY 2010 Budget Projections: outlays in billions of constant FY 2009 dollars



All years include effects of Recovery Act spending and tax cuts.
AUGUST '09 based on Mid-Session Review

Federal Budget Deficit (or Surplus), FY 1960-2014 in billions of CONSTANT FY 2009 dollars



FY 2009 data are estimates. FY '10-'14 data are budget projections
from the OMB Mid-Session Review, August '09

The New York Times



August 25, 2009

White House, CBO Debt Forecasts Challenge Obama

By REUTERS

Filed at 3:08 p.m. ET

WASHINGTON (Reuters) - The U.S. national debt will nearly double over the next 10 years, government forecasts showed on Tuesday, challenging President Barack Obama's economic and healthcare overhaul agenda.

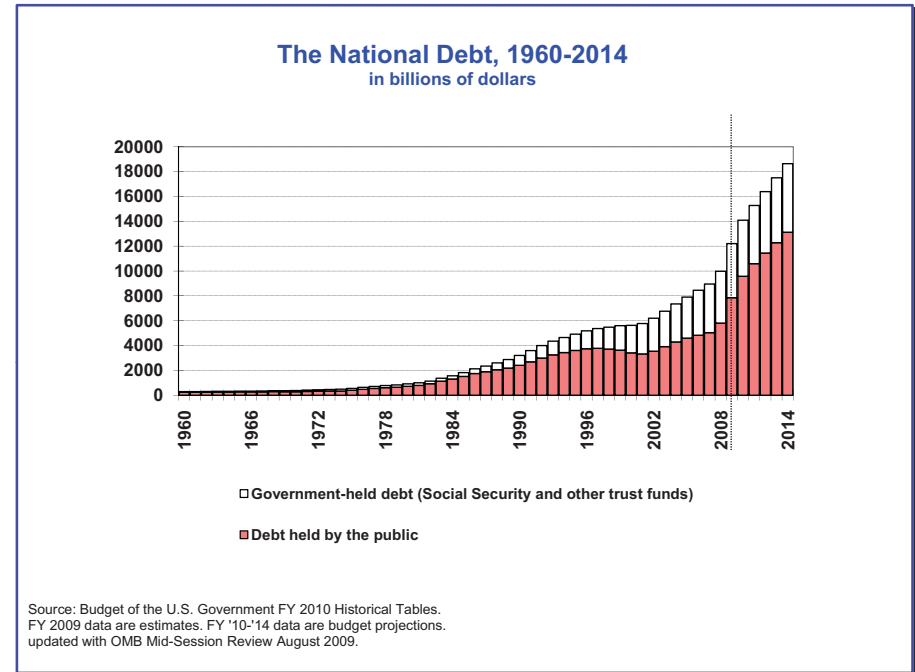
The White House midsession budget forecast and the non-partisan Congressional Budget Office both forecast that government revenues will be crimped by a slow recovery from the worst recession since the 1930s Great Depression, while spending on retirement and medical benefits soars.

The White House projected a cumulative \$9 trillion deficit between 2010 and 2019, while the CBO pegged the total at \$7.1 trillion because it assumed higher revenues as tax cuts expire.

The spending blitz could push the national debt, now more than \$11 trillion, to close to \$20 trillion. The debt is the total sum the government owes, while the deficit is the yearly gap between revenues and spending.

"If anyone had any doubts that this burden on future generations is unsustainable, they're gone," said Senate Republican leader Mitch McConnell, adding that economic stimulus funds should be diverted to pay down U.S. debt.

However, both the White House and CBO anticipate that the deficit, now at its highest level as a percent of economic output since World War Two, will decline relatively swiftly in the next three years as growth resumes and federal bailout programs shrink.



Does the federal government have a debt limit?

- Yes. Currently \$12.1 trillion, last raised in the Recovery Act Feb. 2009. The limit includes public debt and government debt.

have the same meaning for purposes of this section as when used in such section 45 or 48. Any reference in this section to the Secretary of the Treasury shall be treated as including the Secretary's delegate.

(i) APPROPRIATIONS. There is hereby appropriated to the Secretary of the Treasury such sums as may be necessary to carry out this section.

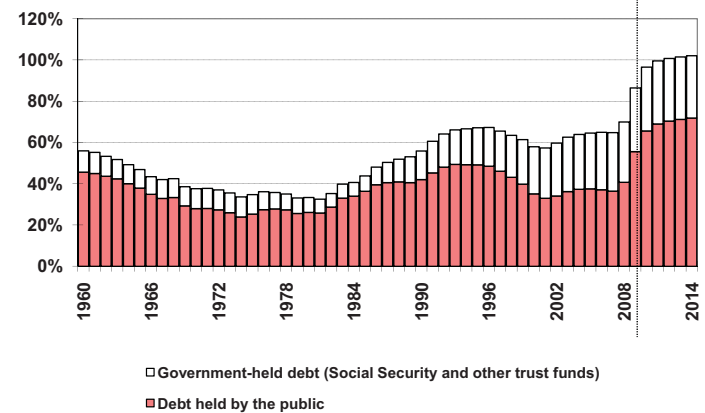
(j) TERMINATION.—The Secretary of the Treasury shall not make any grant to any person under this section unless the application of such person for such grant is received before October 1, 2011.

SEC. 1601. INCREASE IN PUBLIC DEBT LIMIT.

Subsection (b) of section 3101 of title 31, United States Code, is amended by striking out the dollar limitation contained in such subsection and inserting “\$12,104,000,000,000”.

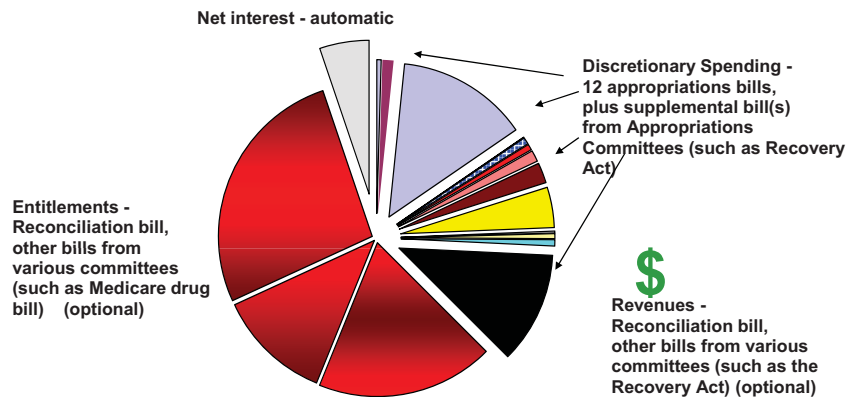
Subtitle H—Prohibition on Collection of Certain Payments Made Under the Continued Dumping and Subsidy Offset Act of 2000

The National Debt as % of GDP
1960-2014



Source: Budget of the U.S. Government FY 2010 Historical Tables. FY 2009 data are estimates. FY '10-'14 data are budget projections. updated with OMB Mid-Session Review August 2009.

How the Budget Becomes Law FY 2010 Proposal = \$3.8 Trillion



AUGUST '09

THE FY 2010 BUDGET PROCESS (1)



- SUMMER 2008 – Agencies formulate their FY 2010 proposals based on broad strategic guidance from OMB (Office of Management and Budget) (and OSTP for science agencies).
- September 2008 – Agencies deliver their budgets to OMB. (In FY 10 cycle, only bare outlines. FY 11 deadline is Sept. 14.)
- FALL 2008 – Agencies negotiate with OMB over their FY 2010 proposals. OSTP has an advisory role. (Delayed in FY 10 cycle to spring 2009.)
- January 2009 – Agencies finalize their requests (April 09 in FY 10 cycle).
- February 2009 – President releases his proposed FY 2010 budget and transmits it to Congress. (FY 10: Outline budget in late February, full budget in May.)



THE FY 2010 BUDGET PROCESS (2)



Spring 2009 – Agency officials and public witnesses testify at congressional budget and oversight hearings; authorizing committees try to write and pass authorization bills or offer formal 'views and estimates' on budgets. Appropriations committees also hold hearings.

Spring-Summer 2009 – Congress approves its FY 2010 budget resolution, its big-picture spending plan. (Normal deadline April 15, but delayed to April 29 this year.)

Appropriations committees receive 302(a) allocations: total discretionary spending of \$1.22 trillion, \$20 billion less than the President's budget.

Appropriations committees determine 302(b) allocations dividing total discretionary spending among 12 bills.

The 2010 budget resolution allows for a reconciliation bill for health care reform and education this fall.



A Detour: Reconciliation Bill



A reconciliation bill is a special kind of budget bill that changes tax law or mandatory programs in accordance with a budget resolution.

Why the name? Because a reconciliation bill 'reconciles' differences between the budget resolution and current law.

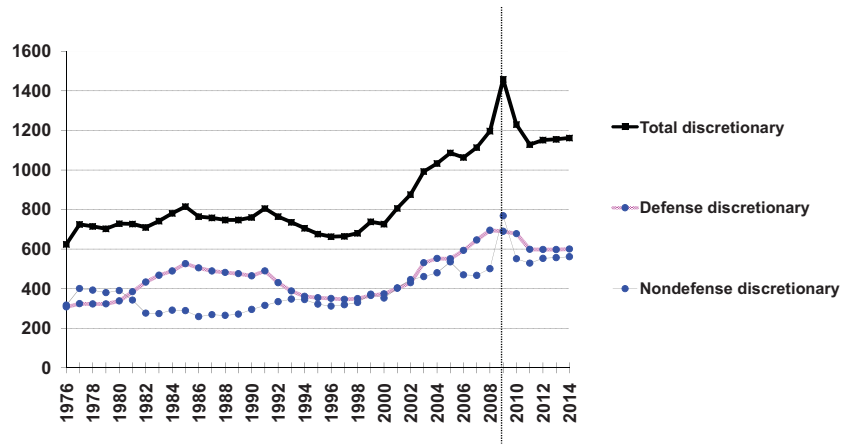
Reconciliation is optional: some budget resolutions contain reconciliation language, others don't. The FY 10 resolution allows reconciliation this fall for health care reform and education.

Why do reconciliation? Because there are special rules for reconciliation bills. The most important: a reconciliation bill can't be filibustered, so it only needs 51 votes in the Senate instead of 60.

So this fall, we might see health care reform in a reconciliation bill.

Trends in Discretionary Spending, FY 1976-2014

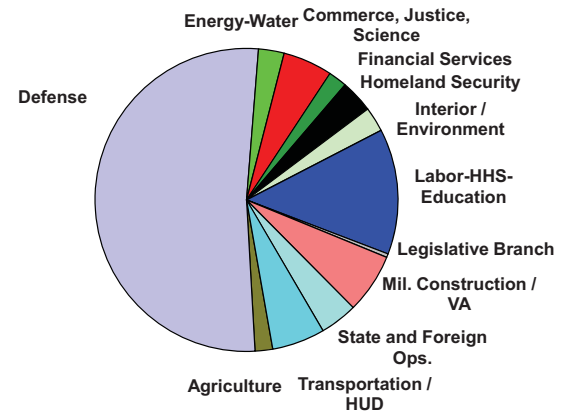
BUDGET AUTHORITY in billions of constant FY 2009 dollars



FY 2009 data are estimates including Recovery Act BA. FY '10-'14 data are budget projections. Updated 8/09 with OMB Mid-Session Review data.

Discretionary Spending by Appropriations Bill

FY 2010 House = \$1,220 billion



House Appropriations Committee July 2009. Defense includes overseas contingency operations.



THE FY 2010 BUDGET PROCESS (3)

Summer 2009 – Appropriations subcommittees write appropriations bills. The full committees try to get the bills through the legislative process.

SEPTEMBER 2009 – The House and Senate try to conference the 12 appropriations bills and send them to the President.

October 1, 2009 – FY 2010 begins. Discretionary programs must have a signed appropriations bill, or shut down. To allow more time, lawmakers pass continuing resolutions (CR's). (For FY 2009, 2 CR's were needed. The 1st CR extended to March 6, and also contained final versions of 3 bills. The 2nd CR extended to March 11.)

Late fall 2009 (?) – Congress may pass an omnibus appropriations bill. (For FY 09, President Obama signed a 9-bill omnibus into law on March 11.)

The Library of Congress > THOMAS Home > Appropriations > Status of Appropriations Legislation for Fiscal Year 2010

Status of Appropriations Legislation for Fiscal Year 2010

Appropriations Legislation for Fiscal Year: 2010 | 2009 | 2008 | 2007 | 2006 | 2005 | 2004 | 2003 | 2002 | 2001 | 2000 | 1999 | 1998

302(b) suballocations: [House](#) | [Senate](#)

August 6, 2009

Appropriations	House Approvals			Senate Approvals			Conference Approvals			Public Law
	Committee Report	Comm. Vote	House Vote	Committee Report	Comm. Vote	Senate Vote	Conf. Report	House Vote	Senate Vote	
Budget Resolution H.R. 2646 S.Con.Res. 111	H.Rept. 111-60	3/25/09 24-15	4/2/09 rc	S.Rept. 111-16	3/26/09 15-10	4/2/09 rc	H.Rept. 111-89	4/29/09 rc	4/29/09 rc	President does not sign
Agriculture H.R. 2927 S. 1508	H.Rept. 111-181	6/18/09 vv	7/9/09 rc	S.Rept. 111-39	7/7/09 30-0	8/4/09 rc				
Commerce/Justice/Science H.R. 847	H.Rept. 111-149	6/9/09 vv	6/18/09 rc		6/25/09 30-0					
Defense H.R. 2328	H.Rept. 111-230	7/22/09 vv	7/30/09 rc							
Energy & Water H.R. 1844 S. 1438	H.Rept. 111-203	7/7/09 vv	7/17/09 rc	S.Rept. 111-42	7/9/09 30-0	7/29/09 rc				
Financial Services H.R. 3120 S. 1437	H.Rept. 111-202	7/7/09 vv	7/16/09 rc	S.Rept. 111-43	7/9/09 29-1					FREDRICK
Homeland Security H.R. 2892 S. 1228	H.Rept. 111-157	6/12/09 vv	6/24/09 rc	S.Rept. 111-31	6/18/09 30-0	7/9/09 rc				
Interior & Environment H.R. 2928	H.Rept. 111-160	6/18/09 vv	6/26/09 rc	S.Rept. 111-38	6/25/09 30-0					
Labor/HR/ID/Education H.R. 2924	H.Rept. 111-220	7/17/09 vv	7/24/09 rc	S.Rept. 111-58	7/30/09 29-1					
Legislative Branch H.R. 2918 S. 1225	H.Rept. 111-160	6/12/09 vv	6/19/09 rc	S.Rept. 111-29	6/18/09 30-0	7/6/09 rc				
Military/Veterans H.R. 2882 S. 1462	H.Rept. 111-188	6/23/09 vv	7/10/09 rc	S.Rept. 111-40	7/7/09 30-0					
State/Foreign Operations H.R. 2884 S. 1434	H.Rept. 111-187	6/23/09 vv	7/9/09 rc	S.Rept. 111-44	7/9/09 29-1					
Transportation/HUD H.R. 2888	H.Rept. 111-218	7/17/09 vv	7/23/09 rc	S.Rept. 111-69	7/30/09 30-0					

vv = voice vote; rc = unanimous consent; rc = roll call vote

A Detour: Supplemental Appropriations



Anytime – For unbudgeted needs, Congress and the President can pass supplemental appropriations bills outside the regular budget cycle in a compressed process. Usually for natural disasters and other emergencies.

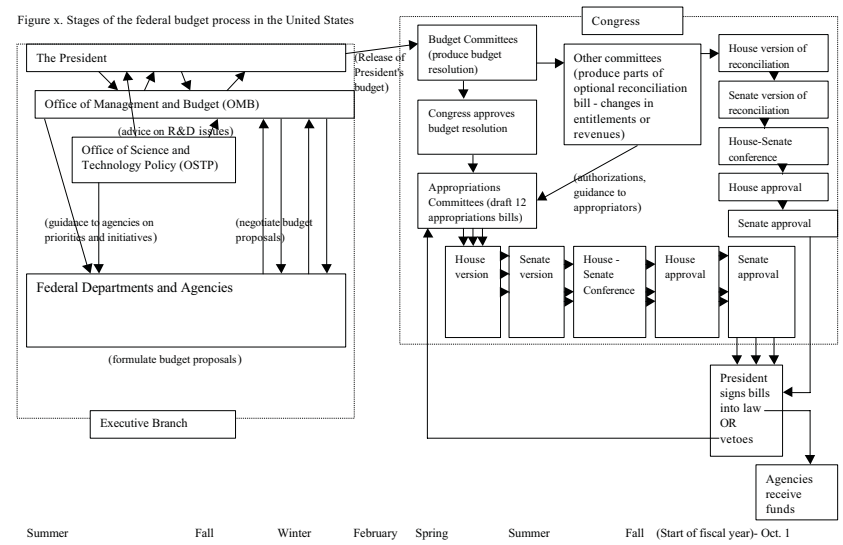
January and February 2009 - The \$787 billion American Recovery and Reinvestment Act (ARRA) is a (FY 09) supplemental appropriations bill (\$311b), but also a tax bill (\$212 b) and mandatory appropriations bill (\$270b). (Enacted February 17.)



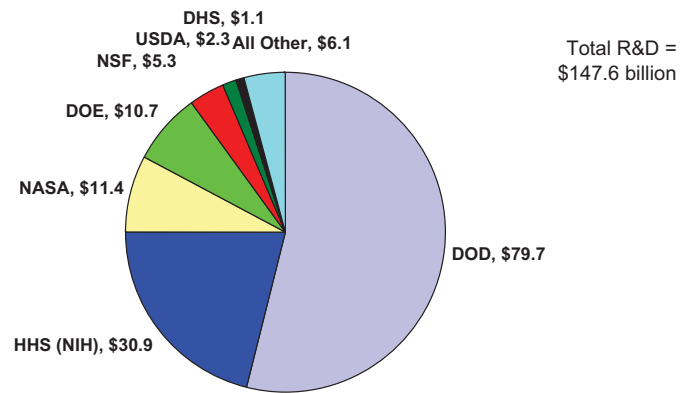
June 2009 – \$106 billion FY 2009 supplemental bill, mostly for ongoing war operations but also for flu preparations and other needs, was enacted on June 26.

August 7, 2009 – A \$2 billion FY 2009 supplemental bill in additional funding for the 'cash for clunkers' program.

Figure x. Stages of the federal budget process in the United States

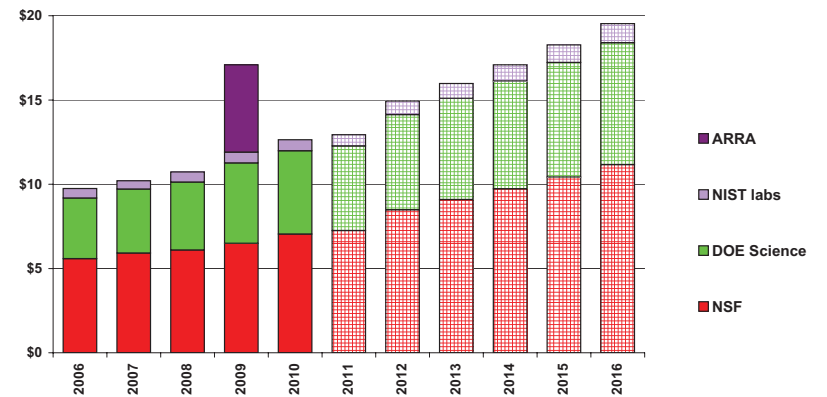


Total R&D by Agency: 2010 Budget
Budget Authority in billions of dollars



MAY '09 OSTP

President's Plan for Science and Innovation, FY 2006-2016
(basic research doubling)
(budget authority in billions of current dollars)



2006-2009 figures are enacted budget authority; 2011-2016 figures are projections in the 2010 budget.
MAY '09 OSTP



NEXT...



Write your own appropriations bill!

BILL LANGUAGE (legal text in the bill itself)

19 OFFICE OF SCIENCE AND TECHNOLOGY POLICY
 20 For necessary expenses of the Office of Science and
 21 Technology Policy, in carrying out the purposes of the Na-
 22 tional Science and Technology Policy, Organization, and
 23 Priorities Act of 1976 (42 U.S.C. 6601-6671), hire of
 24 passenger motor vehicles, and services as authorized by

•HR 2847 RH

67

- 1 5 U.S.C. 3109, not to exceed \$2,800 for official reception
- 2 and representation expenses, and rental of conference
- 3 rooms in the District of Columbia, \$7,154,000.

REPORT LANGUAGE (explanatory statements in an accompanying report)

EXECUTIVE OFFICE OF THE PRESIDENT	
OFFICE OF SCIENCE AND TECHNOLOGY POLICY	
Fiscal Year 2009 enacted	\$5,303,000
Fiscal Year 2010 request	6,154,000
Recommended in the bill	7,154,000
Bill compared with:	
Fiscal Year 2009 enacted	+1,851,000
Fiscal Year 2010 request	+1,000,000

The Office of Science and Technology Policy (OSTP) is essential to the restoration of science to its proper place in the formulation of policy and the operations of the federal government. The Committee recommendation is \$1,851,000 above the amount appropriated for fiscal year 2009 and \$1,000,000 above the budget request. This increase is provided to ensure that OSTP has adequate staff to fulfill key requirements in the coming year. OSTP is directed to develop a plan for achieving and sustaining global Earth observations in collaboration with NOAA, NSF, NASA, USGS, the Department of Energy and other appropriate

agencies and in consultation with the Earth science community, and to direct implementation of this Earth observations plan as called for in the National Academy of Sciences report *Earth Science and Applications from Space: National Imperatives for the Next Decade and Beyond*. This plan should include satellite, suborbital, ground- and ocean-based observations and be delivered to the Committees on Appropriations of the House and Senate no later than April 1, 2010. The Committee anticipates that OSTP will need to provide leadership and active coordination on hydrology research and water resources, understanding terrestrial managed and unmanaged ecosystems and their role in climate change, nanotechnology, including its societal dimensions, and science, technology, engineering and mathematics (STEM) education. Each of these areas involves significant activities of multiple departments and agencies.

HOMEWORK?



U.S. Senate Committee on Appropriations

PRESS RELEASE

For Immediate Release: June 25, 2009
Contact: Senate Appropriations Committee, (202) 224-7363
Rachel MacKnight w/Mikulski, (202) 228-1122

Summary: FY 2010 Commerce, Justice, Science and Related Agencies

2009 enacted: \$57.7 billion
President's Request: \$64.7 billion (including overseas contingencies)
Subcommittee Mark: \$64.9 billion (including overseas contingencies)

The Subcommittee mark totals \$64.9 billion in discretionary budget authority for fiscal year 2010, \$7.27 billion above fiscal year 2009, excluding supplemental funding provided in the American Recovery and Reinvestment Act and the Supplemental Appropriations Act, 2009.

Priorities for the bill include:

- (1) Keeping America safe from terrorism and violent crime;
- (2) Investing in America's scientific infrastructure to create new technologies and new jobs; and
- (3) Ensuring a timely and accurate 2010 Census

Note: FY 2009 Figures Do Not Include Supplemental Funding

Keeping America Safe from Terrorism and Violent Crime:

How do your choices compare with the real Senate's?

THANK YOU



Kei Koizumi
www.ostp.gov

Kei_Koizumi@ostp.eop.gov