Chapter 6

Special Exhibits

Summary by Appropriation

(Dollars in thousands)

Appropriation	2007 Actual	2008 Estimate	2009 Estimate	Increase (Decrease)
Operations, Research & Facilities (ORF)	$2,907,675	$2,856,277	$2,831,253	($25,024)
Procurement, Acquisition & Construction (PAC)	1,110,118	979,207	1,238,660	259,453
Coastal Zone Management Fund	3,000	3,000	3,000	0
Fisheries Finance Program Account	283	0	0	0
Pacific Coastal Salmon Recovery	66,638	67,000	35,000	(32,000)
Medicare-Eligible Retiree Healthcare Fund	1,820	1,802	1,934	132
TOTAL APPROPRIATION	4,089,534	3,907,286	4,109,847	202,561
Transfers:				
Operations, Research & Facilities				
FROM: Promote & Develop Fishery Products	79,000	77,000	79,000	2,000
Coastal Zone Management Fund	3,000	3,000	3,000	0
Pacific Coastal Salmon Recovery	67	67	0	(67)
Procurement, Acquisition and Construction	1,086	979	0	(979)
TO: Fisheries Finance Program Account	0	(235)	0	235
Subtotal, ORF	83,153	80,811	82,000	1,189
Coastal Zone Management Fund				
TO: ORF	(3,000)	(3,000)	(3,000)	0
Pacific Coastal Salmon Recovery				
TO: Fisheries Finance Program Account	(67)	(67)	0	67
Procurement, Acquisition & Construction (PAC)				
TO: ORF	(1,086)	(979)	0	979
Fisheries Finance Program Account (FFPA)				
FROM: ORF	0	235	0	(235)
Promote & Develop American Fishery Products (P&D)				
TO: ORF	(79,000)	(77,000)	(79,000)	(2,000)

Appropriation	2007 Actual	2008 Estimate	2009 Estimate	Increase (Decrease)
FROM: Department of Agriculture	82,817	84,594	84,594	0
Subtotal, P&D	(16,183)	7,594	5,594	(2,000)
TOTAL TRANSFERS	82,817	84,594	84,594	0
Unobligated balances, rescission				
Operations, Research & Facilities (ORF)	0	(5,108)	0	5,108
Procurement, Acquisition & Construction (PAC)	(24,000)	(6,264)	0	6,264
Fisheries Finance Program Account (FFPA)	(1,000)	0	0	0
TOTAL UNOBLIGATED BALANCES, RESCISSION	(25,000)	(11,372)	0	11,372
Mandatory Accounts				
Damage Assessment & Restoration Revolving Fund	3,788	1,000	1,000	0
Fisheries Finance Program Account	4,656	27,389	0	(27,389)
Environmental Improvement and Restoration Fund	8,650	8,060	8,656	596
CZMF mandatory offsetting collections	(1,659)	(1,500)	(1,500)	0
Federal Ship Financing Fund	(200)	(1,000)	(1,000)	0
NOAA Corps Retirement Pay	20,541	23,119	24,272	1,153
Limited Access System Administration Fund	6,911	7,444	7,444	0
TOTAL BUDGET AUTHORITY	4,190,038	4,045,020	4,233,313	188,293
Mandatory Funds	125,504	149,106	123,466	(25,460)
Discretionary Budget Authority				
Operations, Research & Facilities (ORF)	2,990,828	2,931,980	2,913,253	(18,727)
P&D Transfer	(79,000)	(77,000)	(79,000)	(2,000)
Procurement, Acquisition & Construction (PAC)	1,085,032	971,964	1,238,660	266,696
Medicare-Eligible Retiree Healthcare Fund	1,820	1,802	1,934	132
Fisheries Finance Program Account	(717)	235	0	(235)
Pacific Coastal Salmon Recovery	66,571	66,933	35,000	(31,933)
TOTAL DISCRETIONARY BUDGET AUTHORITY	4,064,534	3,895,914	4,109,847	213,933

Adjustments to Current Programs (Adjustments to Base) – requested $42,032,000:

Adjustments to Base (ATBs) are defined as increases or decreases to *specific object classes* that:

1. Represent the *same level of effort* as the current budget year,

2. Are *outside of the agency management's control*,

3. Are supported by *specific documentation*, and

4. Are a *known cost* (or fixed cost of doing business).

NOAA has requested the following increases for labor-related and non-labor ATBs:

ORF & PAC	(Salary & Benefits)	(Other Object Classes)	Total
NOS	4.6	0.4	5.0
NMFS	9.1	1.6	10.7
OAR	3.1	0.3	3.4
NWS	13.4	1.2	14.6
NESDIS	2.8	0.2	3.0
Program Support	3.3	0.3	3.6
OMAO	1.2	0.5	1.7
Total Discretionary - ATBs (Budget Authority)	37.5	4.5	42.0
Other Accounts - Mandatory Accts NOAA Corp Retirement	1.2		1.2
Total Appropriated - ATBs	38.7	4.5	43.2

These increases for ATBs will help fund the agency's overall anticipated adjustments to the current programs. Program totals will fund the FY 2009 Federal pay raise of 2.9 percent and annualize the FY 2008 pay raise of 3.5 percent. In addition, program totals will also fund inflationary increases for non-labor activities, including service contracts, utilities, field office lease payments, and rent charges from the General Services Administration.

NOAA MARINE AND AVIATION OPERATIONS

Planned Fiscal Year 2009 Operating Days of Ship Support for NOAA Programs

Operating days are days that a ship is away from home port and engaged in a project including days in any port other than home port or days transiting to or from a project. Days at sea are days that a ship is at sea engaged in a project or days transiting to or from a project.

The private sector and University National Oceanographic Laboratory System (UNOLS) ships generally track operating days rather than days at sea, so all days in the table below, including in-house ships days, are operating days. Operating days are typically 10 to 15 percent higher than days at sea.

	Operating Days	Dollars in Millions	
In-house	3,390	$ 113.5	O&M
	---	---	
In-house subtotal	3,390	$ 113.5	
Outsourced			
Private Sector	2,070	$11.5	
UNOLS	300	$ 5.0	
Contracts for hydro-graphic data *	780	$31.2	
	---	---	
	3,150	$47.7	
	====	=====	
Grand Total	**6,540**	**$161.2**	

*All hydrographic charters have been combined under contracts for hydrographic services. These contracts deal with area (square nautical miles), not operating days.

NOAA Research and Development

The National Oceanic and Atmospheric Administration's (NOAA) research **helps meet the evolving economic, social, and environmental needs of the Nation**. NOAA provides research leadership by conducting environmental research and transitioning mature research into products and services. NOAA is committed to maximizing the value of its research and ensuring successful transition of research to application. This commitment is demonstrated by NOAA's adoption of a Transition of Research to Application policy and implementation procedures. Under these procedures, NOAA research is annually reviewed to assess readiness for transition. Within the last few years, NOAA has successfully transitioned mature research, which has resulted in the following products and services for the Nation.

Air Quality Management

In FY 2004, NOAA began operational production of air quality forecasts as a result of NOAA's earlier Air Quality Forecast research. The initial operating capability provides next-day ground-level ozone predictions for the northeastern United States (U.S.). NOAA's Office of Oceanic and Atmospheric (OAR) is working with the National Weather Service (NWS) to extend these forecasts nationwide in the continental U.S.

Improved Quantity and Quality of Climate Information

NOAA has played a leading role in the international ozone assessment throughout the history of the 1987 U.N. Montreal Protocol. NOAA scientists have served as leading authors, coauthors, and reviewers in each of the International Panel on Climate Change Assessments Reports (1988, 1991, 1994, 1998, 2002, and 2006). In the current assessment, NOAA scientists are serving on the Scientific Steering Committee, as Chapter Lead Author, as coauthors and reviewers, and one NOAA scientist is serving as Coordinating Editor. The document is a major contribution to NOAA's portfolio of climate science products that meet the needs of NOAA's information customers in government, the private sector, and the public.

Tsunami Early Detection and Real-Time Reporting

Significant improvements have been made in the detection of tsunamis because of NOAA's Deep Ocean Assessment and Reporting of Tsunami (DART) buoys that sense deep-ocean waves that could generate tsunamis in the Pacific basin. These buoys were developed by OAR/PMEL and were transitioned in FY 2003 to the NWS/NDBC where they have been maintained in an operational status.

Improved Detection, Understanding and Prediction of El Niño and La Niña

In FY 2005, NOAA's Tropical Atmosphere Ocean (TAO) buoys began transitioning from OAR/PMEL to operations at the NWS/NDBC. The TAO array, which consists of approximately 70 moorings in the tropical Pacific Ocean, was designed to transmit ocean and meteorological data in real time via the Argos satellite Monitoring. The TAO array reflects the success-

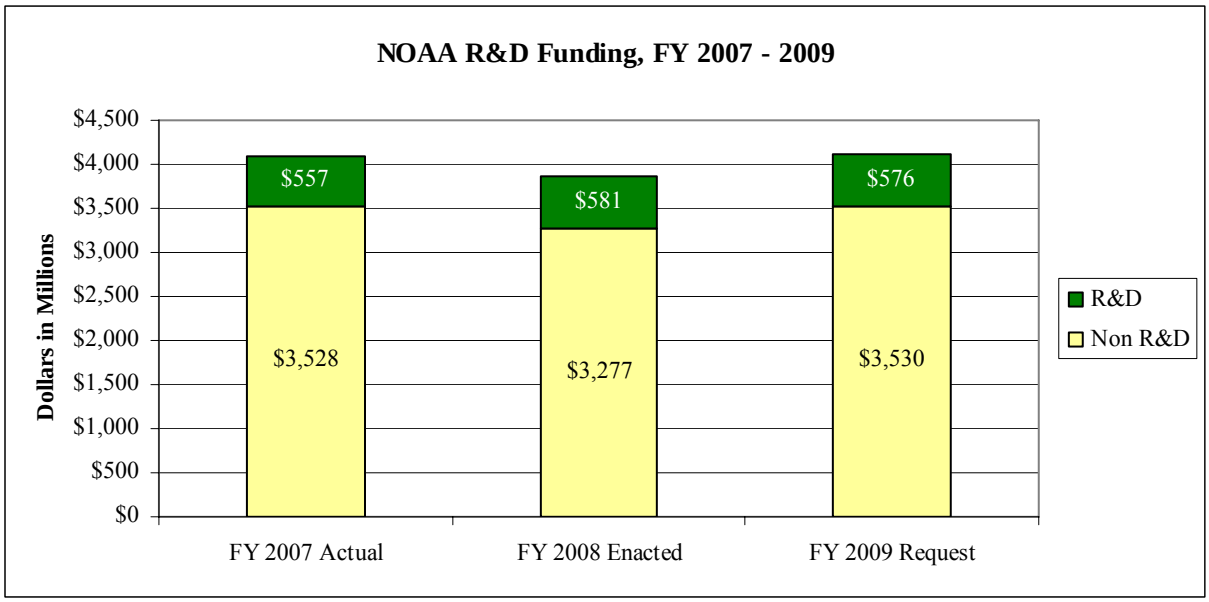
ful development of an ocean observing system that is a major component of the El Niño/ Southern Oscillation Observing System, the Global Climate Observing System, and the Global Ocean Observing System.

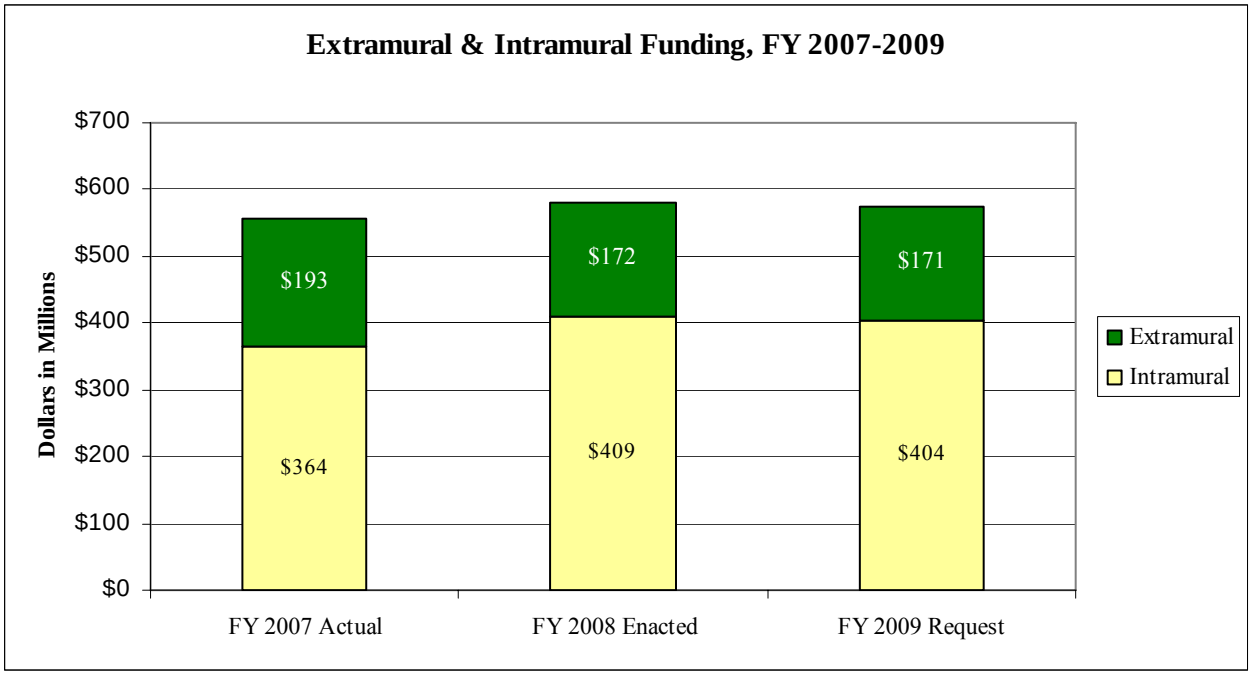
Forecasting Harmful Algal Blooms

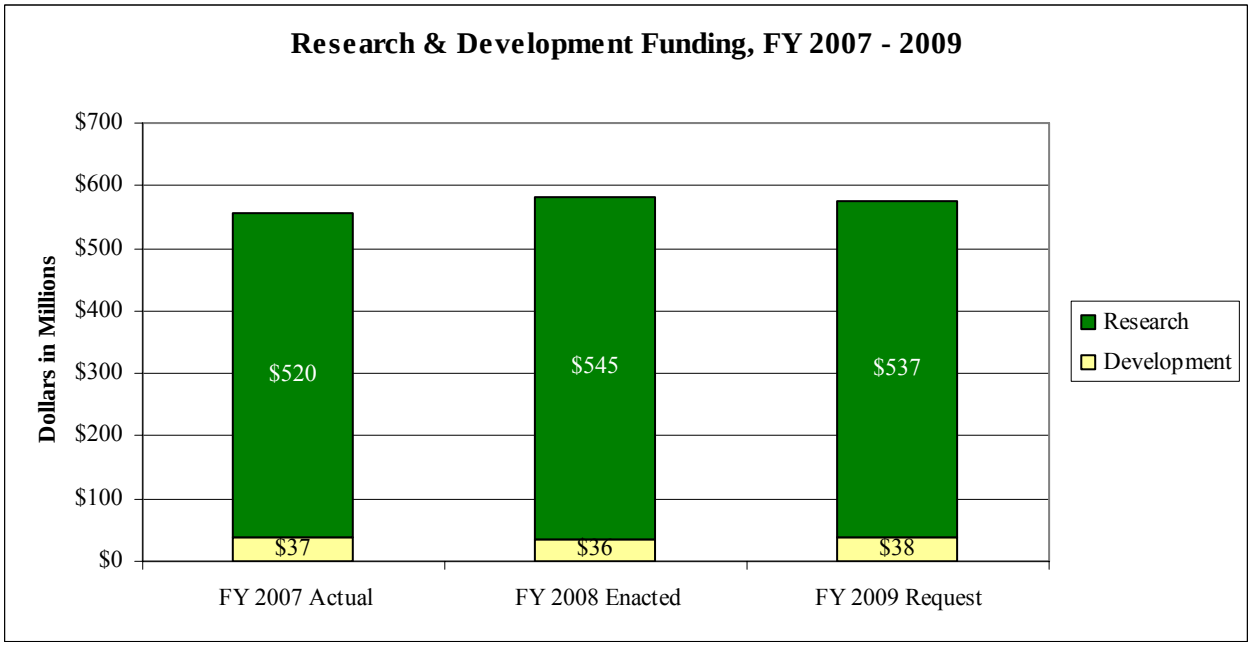
The rapid proliferation of toxic or nuisance algae is called a harmful algal bloom (HAB) which can be devastating to coastal resources and economies. Over the past 10 years, NOAA has invested significant resources on HAB research in order to understand the processes regulating HAB dynamics and to provide products to help managers mitigate bloom events and reduce the impacts of HABs. These research investments have begun to transition to applications. Currently, NOAA's HAB Forecasting System supplies information on the location, extent, and potential for development or movement of harmful algal blooms in the Gulf of Mexico.

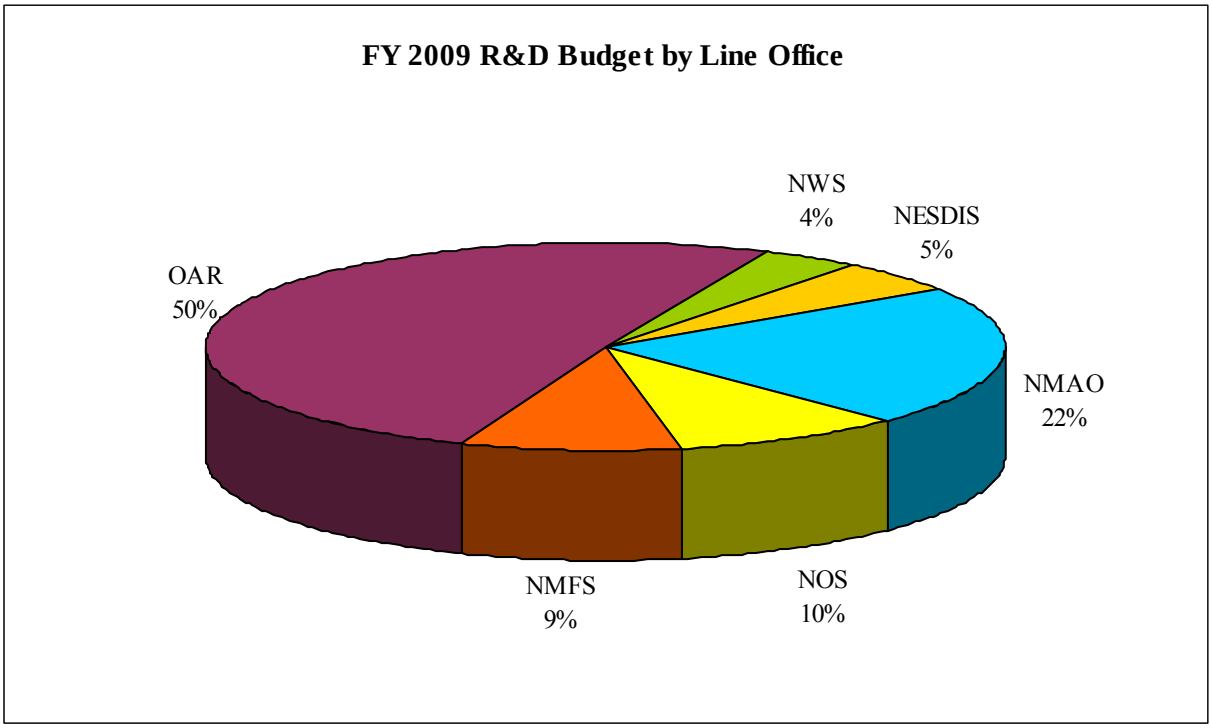
The following charts display the scope and nature of R&D at NOAA. Key elements include the following for FY 2009:

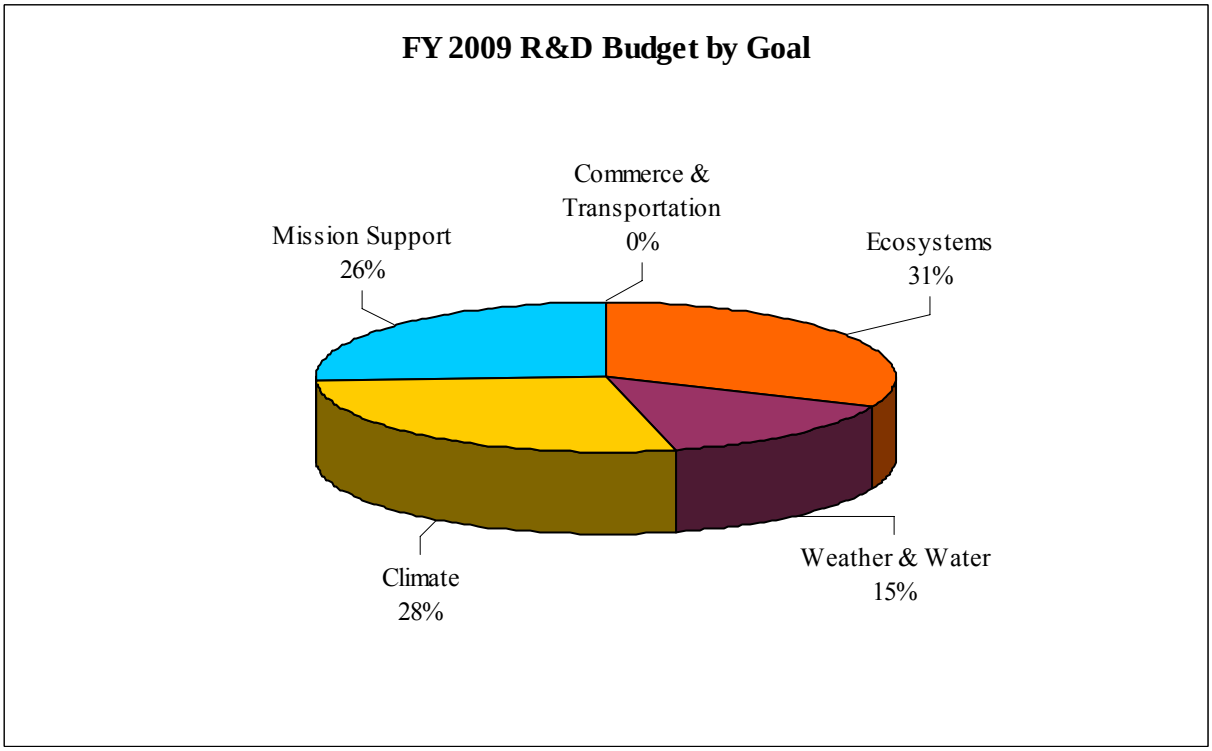
- R&D represents 14 percent of total NOAA funding in FY 2009.
- Seventy percent of NOAA's R&D is intramural and 30 percent is extramural.
- NOAA's R&D budget is 93 percent research and 7 percent development.
- NOAA's Office of Oceanic and Atmospheric Research (OAR, also known as "NOAA Research") manages 51 percent of NOAA's R&D. The remainder is distributed among NOAA's operational units.
- Major R&D efforts are supported by three of NOAA's mission goals: Ecosystems (31 percent), Climate (28 percent), and Weather and Water (15 percent). Zero percent is focused on Commerce and Transportation. The 26 percent conducted for "Mission Support" primarily provides research vessels for research.




Extramural & Intramural Funding, FY 2007-2009
$700
$600
$500
$400
$300
$200
$100
$0
Dollars in Millions
$193
$364
$172
$409
$171
$404
FY 2007 Actual
FY 2008 Enacted
FY 2009 Request
Extramural
Intramural


Research & Development Funding, FY 2007 - 2009
$700
$600
$500
$400
$300
$200
$100
$0
Dollars in Millions
$520
$37
$545
$36
$537
$38
FY 2007 Actual
FY 2008 Enacted
FY 2009 Request
Research
Development


FY 2009 R&D Budget by Line Office
NWS
4%
NESDIS
5%
OAR
50%
NMAO
22%
NMFS
9%
NOS
10%


FY 2009 R&D Budget by Goal
Commerce &
Transportation
0%
Mission Support
26%
Ecosystems
31%
Climate
28%
Weather & Water
15%

A NOTE ON TERMINOLOGY:

The reader should be aware of the specific meaning of several terms as they are used throughout this budget summary:

"FY 2007 Enacted" is:

Fiscal Year (FY) 2007 Appropriations,
less rescissions,
plus Supplemental funds

"FY 2008 Enacted" is:

FY 2008 Omnibus

"FY 2009 Request" is:

FY 2008 Enacted, less Terminations,
plus Adjustments to Base, and Program Changes

"Adjustments to Base" include:

the estimated FY 2009 Federal Pay raise of 2.9% and the annualized FY 2008 pay raise of 3.5%. Program totals will provide inflationary increases for non-labor activities, including service contracts, utilities, field office lease payments, and rent charges from GSA. In addition, ATBs include unique/technical adjustments to base program