

**Testimony of**  
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**INSPECTOR GENERAL**  
**U.S. DEPARTMENT OF COMMERCE**  
**before a hearing of the**  
**Appropriations Subcommittee on Commerce, Justice, Science, and Related**  
**Agencies,**  
**United States House of Representatives**  
  
*Wednesday, February 9, 2011*

*Department of Commerce*  
*Appropriations for Fiscal Year 2012:*  
*Top Challenges Facing the Department*

Chairman Wolf, Ranking Member Fattah, and Members of the Subcommittee:

I appreciate the opportunity to testify today as you consider fiscal year (FY) 2012 appropriations for the Department of Commerce. While the President's budget for FY 2012 has not yet been submitted, the budget submitted for FY 2011 was \$8.9 billion.

The mission of the Department of Commerce is complex, encompassing many important aspects of economic development and technological advancement—promoting innovation, providing opportunities for economic growth and trade, predicting the weather, ensuring the accuracy of standards of measurement, overseeing the census, and conserving and managing the oceans' resources, just to name a few. Today I will briefly summarize several challenges faced by Commerce that Congress may want to keep on its list of watch items. These areas are addressed in greater depth in our recent *Top Management Challenges Report*, which we prepare annually as required by the Reports Consolidation Act of 2000.<sup>1</sup>

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<sup>1</sup> 31 U.S.C. § 3516(d).

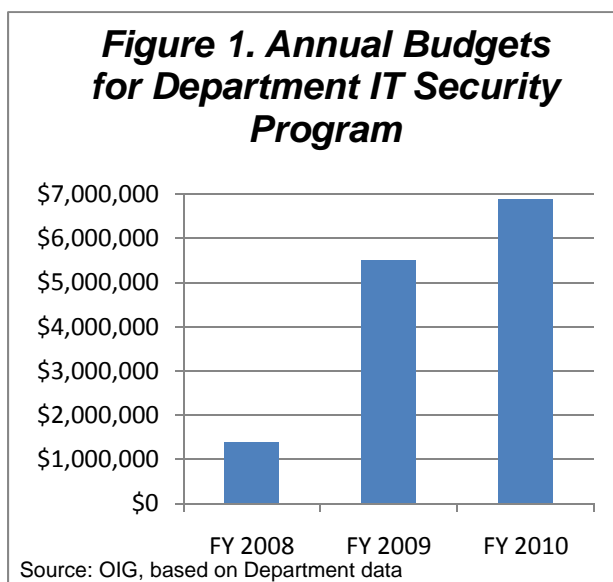
The challenges I will discuss focus on the following areas:

- **Information Technology (IT) Security:** Strengthening Department-wide information security.
- **NOAA Environmental Satellite Programs:** Effectively managing the development and acquisition of the National Oceanic and Atmospheric Administration's (NOAA's) environmental satellite programs.
- **Acquisitions and Contracts:** Managing acquisition and contract operations more effectively to obtain quality goods and services at reasonable prices and on schedule.
- **American Recovery and Reinvestment Act:** Enhancing the accountability and transparency of the Recovery Act's key technology and construction programs.
- **United States Patent and Trademark Office:** Improving USPTO's patent processing times, reducing its pendency and backlogs, and mitigating its financial vulnerabilities.
- **NOAA:** Effectively balancing NOAA's goals of protecting the environment and supporting the fishing industry.
- **Renovation of Department of Commerce Headquarters:** Protecting against cost overruns and schedule delays during the Commerce headquarters renovation.
- **Census Bureau:** Effectively planning the 2020 decennial.

First, however, it is important to note that the Secretary has initiated a number of management reforms designed to achieve a more integrated Department that leverages the strengths of its various bureaus to achieve its goals. The Department has often been called a "holding company of disparate bureaus" with many different goals, management methods, and operational approaches. These reforms counter that way of operating and are consistent with recommendations we have made regarding the need for strong and integrated departmental management.

## IT SECURITY

The federal government has long acknowledged IT security to be a concern, especially in light of the risks presented by system compromises, policy violations, and increasingly sophisticated cyber attacks. With over 300 IT systems used to perform tasks from processing census and economic data to controlling weather satellites, the Department recognizes the importance of protecting its systems and ensuring the integrity, confidentiality, and availability of its data. Figure 1 shows the increased resources the Department has applied to IT security.



OIG has identified IT security as a management challenge for Commerce since 2001, and accordingly the Department has made several improvements to its cyber defenses. Based on certain policy changes and on the Department's efforts to improve its security posture, we recently recommended the Department upgrade its assessment of its information security program from a material weakness to a significant deficiency.<sup>2</sup> And based on our September 2009 audit report on its IT security workforce, the Department took several steps to introduce stronger training policies and performance requirements, a development program for employees in IT security roles, and a professional-certification requirement for select IT security positions.

Despite recent improvements, our ongoing assessment of Commerce's progress toward implementing effective IT security shows there is more to be accomplished. Every year we conduct an independent review in accordance with the Federal Information Security Management Act of 2002<sup>3</sup> to evaluate the Department's IT systems and information security. In our FY 2010 report, we concluded that the Department's information security program and practices have not adequately secured its systems. During our audit, we conducted vulnerability assessments of Commerce IT systems, revealing thousands of potentially high-risk vulnerabilities that had not been identified by the Department's own efforts; these vulnerabilities increase the risk of a serious breach of IT systems. Also, weaknesses in contingency preparedness, security plans, and control assessments suggest that Commerce's systems are not sufficiently protected from cyber attack or other prolonged disruptions. Finally, the Department's process for reporting and tracking security weaknesses is deficient, affecting its ability to monitor operating units' corrective actions and potentially corrupting performance measures.

Our report recommended that the Department revise its IT security policy by providing specific implementation guidance that will ensure more effective and consistent practices Department-wide. Given the fragmented nature of the Department's IT operations—the 12 operating units each have their own CIO, IT staff, and internal processes—this is a particular challenge for Commerce.

In FY 2011, we will assess the effectiveness of the annual IT security awareness training program required for all Commerce employees. We will also evaluate the security features of various Web-based applications and assess the effectiveness of the security controls protecting the Department's systems and information.

## **NOAA ENVIRONMENTAL SATELLITE PROGRAMS**

For the past 50 years, NOAA, in partnership with the National Aeronautics and Space Administration (NASA), has been responsible for developing and operating environmental satellite systems. Beginning in the 1960s, polar-orbiting satellites have provided data for global weather forecasting. And since the early 1970s, NOAA's geostationary satellites have provided

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<sup>2</sup>A material weakness is a management control deficiency that the agency head determines to be significant enough to be reported outside the agency (i.e., included in the annual Integrity Act report to the President and Congress, Federal Managers' Financial Integrity Act of 1982, Pub. L. No. 97-255 [codified as amended in scattered sections of 31 U.S.C.]). A significant deficiency is a deficiency, or a combination of deficiencies, that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

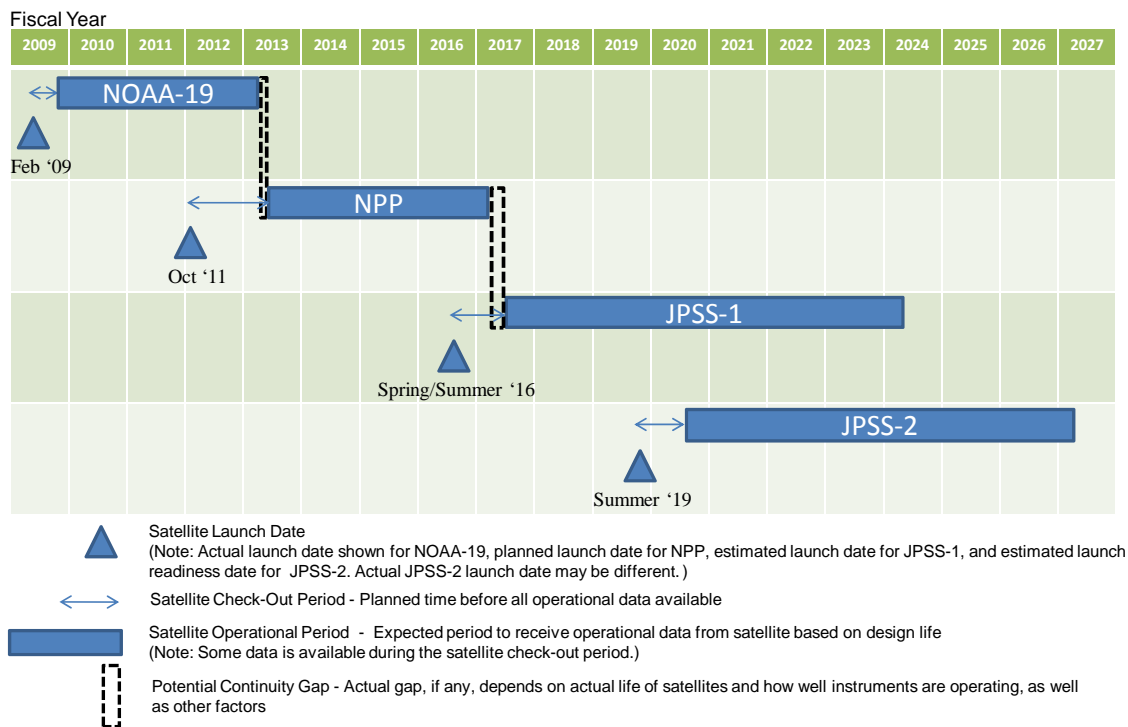
<sup>3</sup> 44 U.S.C. § 3545.

data for weather warning services by maintaining continuous watch over the Western hemisphere. Over time, the satellites have evolved to support additional monitoring of the environment, including oceans, volcanic ash, forest fires, and space. NOAA’s environmental satellite operations and weather forecasting are designated primary mission-essential functions of the Department of Commerce because they directly support government functions the President has deemed necessary to lead and sustain the nation during a catastrophic emergency.

But NOAA’s current constellation of operational environmental satellites is aging, and its capabilities will degrade over time. As a result, the risk of gaps in critical satellite data is increasing. Developing, launching, and operating these satellites are complex, costly, and lengthy endeavors; however, the continuity of the data they provide is vital for accurate weather and climate prediction and has national security and safety implications. Gaps in coverage could affect our ability to forecast catastrophic weather events, increasing the potential for loss of life or damage to property and infrastructure. To help prevent such an outcome, NOAA is engaged in two major acquisitions to modernize these critical satellite systems and their current capabilities.

The first, the Joint Polar Satellite System (JPSS), estimated to cost \$11.9 billion, will collect data for short- and long-term weather and climate forecasting through 2026. JPSS was introduced in FY 2010 (figure 2) after its predecessor program, the National Polar-orbiting Operational Environmental Satellite System (NPOESS), underwent significant restructuring to address major cost overruns, schedule delays, and performance shortfalls. NOAA must prevent further delays to this program in order to reduce the risk of degrading the accuracy of weather forecasting and losing the continuity of climate data.

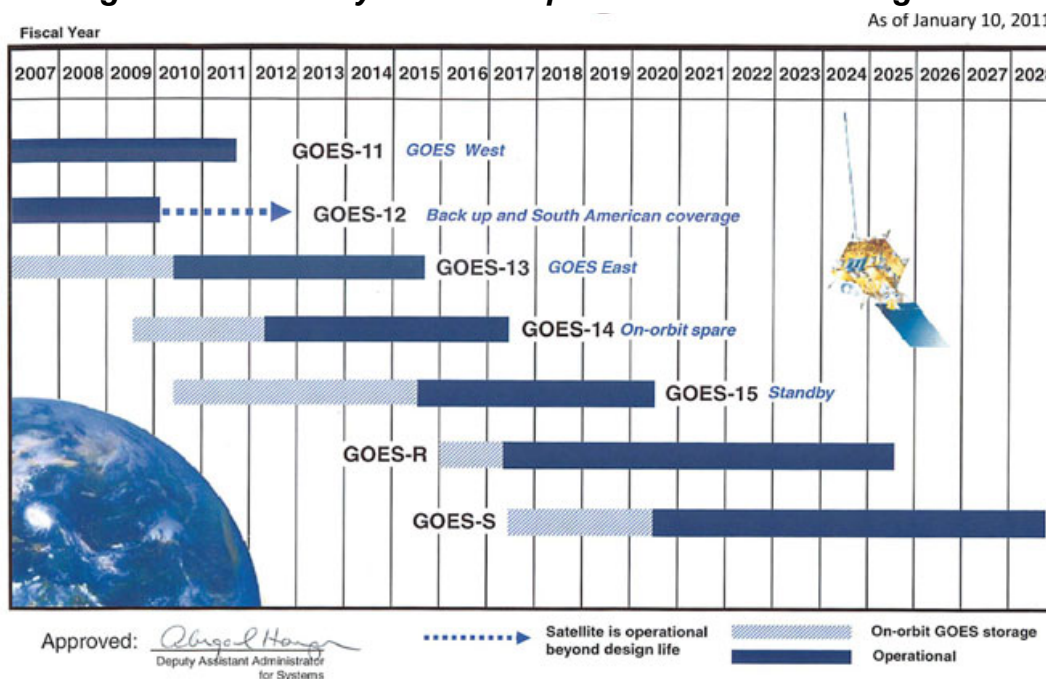
**Figure 2. Potential Continuity Gaps in NOAA’s Polar Operational Satellite Programs**



Source: OIG, derived from NOAA data

The second system, the Geostationary Operational Environmental Satellite-R Series (GOES-R), is intended to offer uninterrupted short-range warning and “now-casting” through 2028. Estimated to cost \$7.7 billion, this project experienced cost overruns, schedule delays, and reduced performance capabilities in an earlier phase and had to be re-planned. Working with NASA, NOAA is responsible for managing the entire program and for acquiring the ground segment, which is used to control satellite operations and to generate and distribute instrument data products. NOAA’s policy for its geostationary satellites is to have three satellites in orbit, two operational satellites (GOES-East and GOES-West) and one on-orbit spare (figure 3). As shown, just prior to the GOES-R planned launch in 2015 there would be two operational satellites but no spare. GOES-R is needed to maintain NOAA's policy, first as an on-orbit spare and soon after as an operational satellite.

**Figure 3. Continuity of GOES Operational Satellite Programs**



Source: NOAA

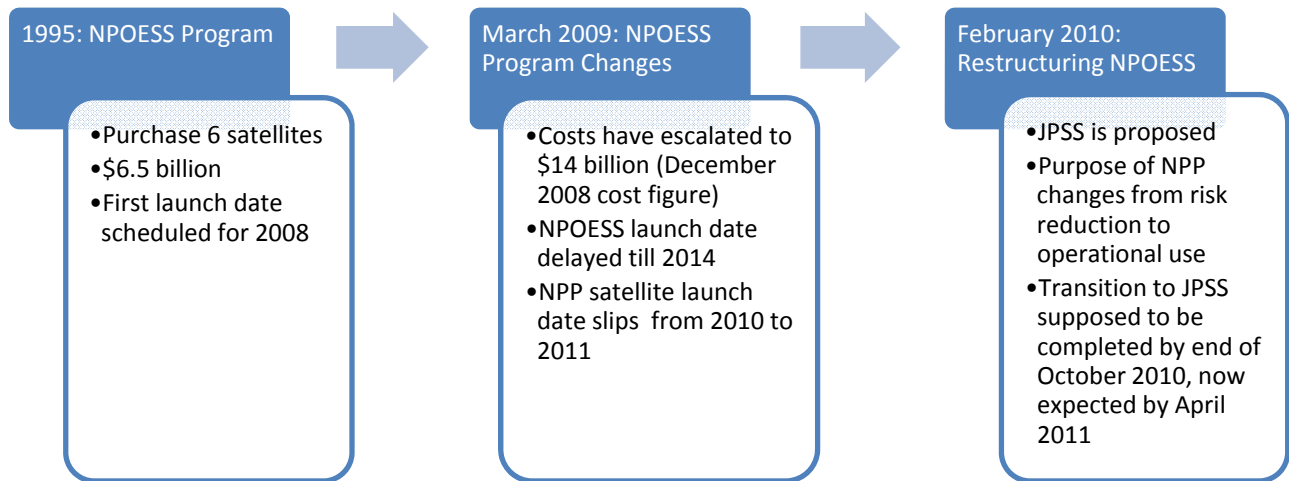
Given their histories, both programs require close oversight to minimize further delays and prevent any interruptions in satellite coverage. We believe NOAA has three near-term priorities for JPSS and GOES-R:

1. Complete the transition from NPOESS to JPSS without experiencing further delays.
2. Finish the development of JPSS’ ground system in time to support upcoming satellite launch readiness dates.
3. Ensure that GOES-R does not experience further schedule slips or cost growth.

**JPSS Transition.** A critical task for NOAA is to prevent further delays in the transition to JPSS from NPOESS. NPOESS, a joint project between NOAA, NASA, and the Department of Defense, was initiated in 1995. For years during its development, the program experienced significant setbacks that affected its budget, costs, capabilities, and launch dates—including the

launch date of the NPOESS Preparatory Project (NPP) satellite, a NASA-led risk reduction effort to test NPOESS' new instruments in flight. When NPOESS was restructured in 2010, JPSS was established as NOAA's component of the national polar environmental satellite capability (figure 4). As a result of the schedule delays, NPP will be used operationally to maintain continuity of climate and weather forecast data until the first JPSS satellite is operational.

**Figure 4. NPOESS/JPSS Timeline**



Source: OIG, based on information from NOAA

The transition to the restructured program was expected to be completed by the end of FY 2010, but the date has now been pushed to spring of 2011. Although the ground system and some of the instruments have been transferred, NOAA, NASA, and Defense are still negotiating with the NPOESS contractor for the transfer of physical property for the remaining instruments and settlement of intellectual property rights. The agencies' ongoing negotiations could create further delays and affect the launch readiness dates for JPSS satellites.

**JPSS Ground System Development.** While all of the instruments required for NPP have been integrated onto the satellite and are undergoing environmental testing, the ground system's development is later than originally planned. The NPP project team has recently focused on preparing for ground and spacecraft compatibility testing; successful testing will be crucial to keeping the program on schedule for NPP's October 25, 2011, launch readiness date.

NASA, as NOAA's acquisition agent, will continue to develop instruments, spacecraft, and the ground system for JPSS satellites 1 and 2. NOAA will manage the overall program with assistance from NASA. This program should leverage independent review team assessments, which have provided impetus for improvements on GOES-R. Defense continues to evaluate the best approach for maintaining the continuity of its polar satellites. It is critical that both NOAA and Defense implement their satellite programs on schedule to reduce the risk of gaps in coverage.

**Avoiding Further Delays for GOES-R.** GOES-R, too, is a complex program that must be rigorously managed to ensure that the system reaches launch readiness as planned. Since its

inception, GOES-R's projected costs have increased; a major satellite sensor was removed from the program; the number of satellites to be purchased was reduced from four to two;<sup>4</sup> and the launch readiness dates for these satellites have slipped to October 2015 and February 2017. According to January 2011 program documentation, since the August 2009 revision to the launch schedule the overall program acquisition has remained within budget and on time. However, during two program reviews (during spring and summer of 2010), independent teams identified areas of concern for the GOES-R program office to address, including

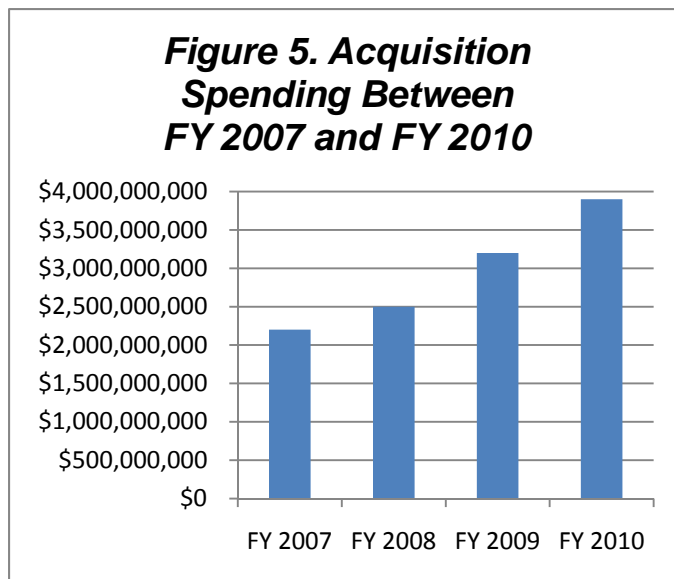
1. obtaining and maintaining adequate contractor staffing for spacecraft development;
2. ensuring the spacecraft design's suitability to the mission;
3. ensuring adequate end-to-end testing for program components (instruments, spacecraft, and ground); and
4. verifying satellite operational facility readiness.

Any further delays in the satellites' launch readiness will increase the risk of degraded weather- and climate-forecasting abilities. Our planned work for FY 2011 includes audits of select development activities for JPSS and GOES-R. We will assess the adequacy of development and program management activities supporting launch readiness and data continuity for these critical satellite programs.

## ACQUISITIONS AND CONTRACTS

In FY 2010, the Department of Commerce spent almost \$4 billion (figure 5) to acquire a wide range of goods and services to support such mission-critical programs as the 2010 decennial census, satellite acquisitions, intellectual property protection, broadband technology opportunities, management of coastal and ocean resources, information technology, and construction and facilities management. With such a high-dollar investment at stake, the Department needs effective acquisition guidance, management, oversight, and infrastructure so that it can meet its goals.

In June 2010, the Secretary directed the Department to conduct a comprehensive review of its acquisition processes and identify areas for improvement. This review was undertaken in response to significant acquisition missteps Commerce has experienced in recent years, including the decennial's handheld computers, the



<sup>4</sup> An option for two additional satellites is included in the contract. These would be designated GOES-T and GOES-U during their development.

NPOESS and GOES-R programs, and issues we identified with NOAA's problematic decision to award a 20-year operating lease to house its Marine Operations Center-Pacific (MOC-P) at the Port of Newport, Oregon. In response to the Secretary's direction, Commerce has identified opportunities to strategically strengthen and improve the quality of its acquisition functions, but acquisition has many inherent risks and will require continued attention and improvement.

A major challenge facing the Department is its lack of cohesive policies and procedures for program management and oversight of major systems acquisitions. The lack of effective oversight leaves the Department without adequate visibility into major system acquisition processes, which can result in costly delays while problems are corrected.

Despite Office of Management and Budget (OMB) guidance aimed at improving the use of award fees, our audits of two Census contracts found several areas for improvement. In one case, performance-based fees awarded to the contractors were often excessive, and the justification for the awards was not properly documented. The payment structure of the other contract allowed the contractor to claim awards even if performance levels fell below acceptable standards. Such practices could lead to the Department paying out millions of dollars in award fees that were not sufficiently designed or administered as required by regulations.

Commerce also needs to improve its policies and processes for making real property acquisition decisions, as demonstrated by NOAA's inadequate support for its decisions on MOC-P. Our review of this case revealed that NOAA limited its options without a documented analysis based on its preference for a consolidated facility; it did not, in our view, adequately consider the use of existing federal facilities, which may have been more cost effective.

The Department has policies and procedures in place to protect itself—and taxpayers' dollars—from contracting with disreputable parties, i.e., firms or individuals who lack satisfactory records of integrity and business ethics.<sup>5</sup> Overall, however, Commerce has not acted promptly to suspend or debar contractors when necessary, thus leaving the Department open to contractor fraud or impropriety.

Finally, in spite of a continuing need for skilled acquisition staff, the Department faces a very high turnover rate in the acquisition workforce due to attrition and retirement.<sup>6</sup> As experienced acquisition professionals leave the Department, and with nearly half of the acquisition personnel expected to retire within the next decade, Commerce must implement a strategy to keep its workforce at the needed size and skill levels to support its mission. As part of our FY 2011 work, we are assessing the adequacy of the strategic acquisition workforce plan Commerce completed in March 2010 as required by OMB. We are also reviewing the Department's progress on and implementation of an OMB-required plan to reduce spending and increase savings on acquisitions.

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<sup>5</sup> Suspension and debarment policy for the Department's acquisitions is codified in the Commerce Acquisition Regulations at 48 CFR Subpart 1309.4.

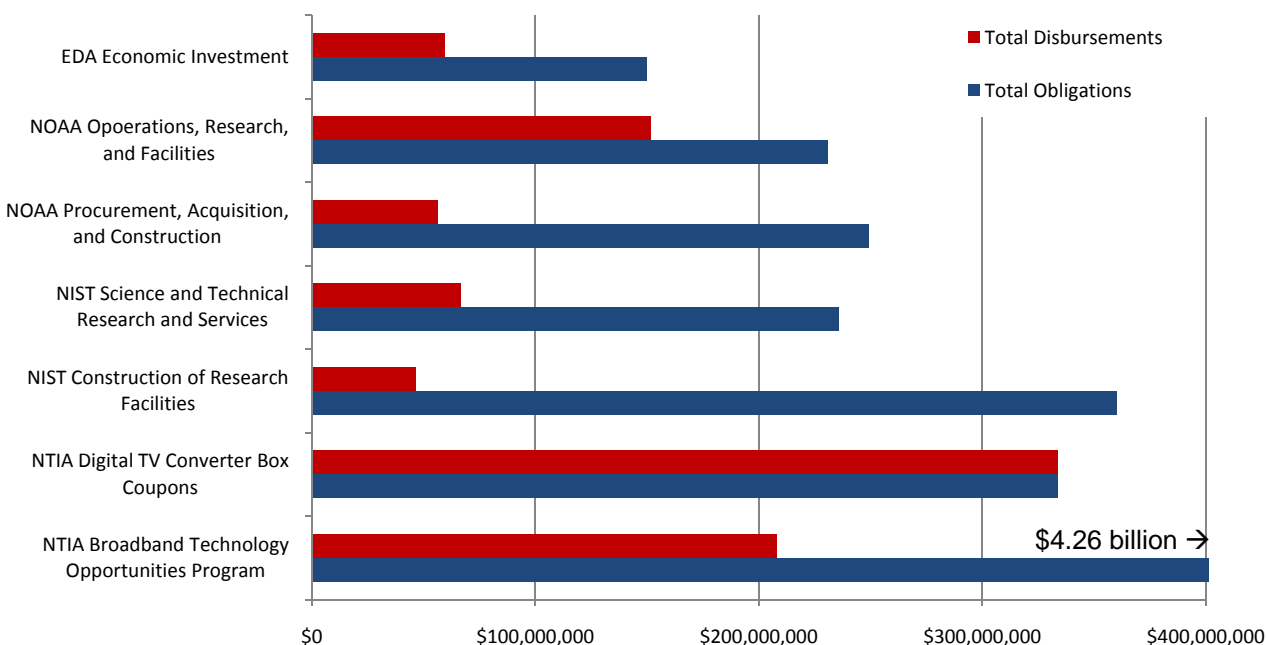
<sup>6</sup> Twenty-four percent of the current workforce is eligible to retire. The attrition rates for the GS-1102 contracting series and the GS-1105 purchasing series are 14 and 11 percent, respectively.



## AMERICAN RECOVERY AND REINVESTMENT ACT

The Department received \$7.9 billion through the American Recovery and Reinvestment Act of 2009. Of that amount, approximately \$6 billion was obligated in the form of grants or contracts for key technology and construction programs in four of the Department’s operating units: the Economic Development Administration (EDA), the National Institute of Standards and Technology (NIST), NOAA, and the National Telecommunications and Information Administration (NTIA). As of December 31, 2010, these operating units have spent about \$920 million (or approximately 16 percent of their obligated funds), leaving significant spending yet to be completed (figure 6).

**Figure 6. Breakdown of Obligations and Disbursements for Recovery Act Grant and Contract Activities<sup>a</sup>**



Source: OIG, derived from operating unit data.

<sup>a</sup> Amounts reflect a \$240 million rescission from DTV and a \$302 million rescission from the Broadband Technology Opportunities Program (BTOP). The “total obligations” bar for BTOP is not to scale; as of December 31, 2010, the total obligation for the program was \$4.26 billion. This includes both BTOP and mapping programs.

The Department faces considerable challenges as it manages the funds it received through the Recovery Act. NTIA must oversee and manage the funds awarded to BTOP grantees to expand broadband Internet access across the nation, and the almost 200 Recovery Act-funded construction and construction-related grants and contracts will also need careful oversight by Commerce and its operating units.

**BTOP Program Management.** In our view, of the Recovery Act programs being managed by the Department’s operating units, the one that presents the largest risk is NTIA’s BTOP. Between December 2009 and September 2010, BTOP awarded over 230 grants, totaling \$3.9 billion, but

as of December 31, 2010, only about 5 percent of obligated funds had been disbursed. In our November 2010 report on the program’s post-award processes, we noted that NTIA has made progress with its post-award operations. However, there are still several areas that can be strengthened, such as internal controls and IT program expertise in the BTOP office, documentation and training, and monitoring of awards and agreements.

Monitoring the largest and most complex grant program NTIA has ever overseen will be an ongoing challenge. The grant awards went to a diverse group of recipients, and conditions surrounding the awards themselves also vary widely. (Table 1 shows the composition of the BTOP awards.) NTIA staff will have to track the recipients’ compliance with grant terms and conditions, determine how well the recipients are monitoring any award subrecipients, and—most importantly—ensure that the recipients are on track to deliver the broadband capabilities to which they have committed. NTIA also will have to closely watch how its awardees manage the often complex process of drawing down federal funds.

**Table 1. BTOP Grant Award Composition**

AWARD TYPE		RECIPIENT	
Infrastructure	123	Government	89
Public Computer Center	65	Non-Profit	58
Sustainable Broadband Adoption	44	For-Profit	55
	<u>232</u>	Higher Education	25
		Tribal	5
			<u>232</u>
DOLLAR AMOUNT		OTHER INFO	
>\$100 Million	5	Largest Award <sup>1</sup>	\$ 154,640,000
\$25 Million-\$100 Million	46	Smallest Award <sup>2</sup>	\$ 176,400
\$10 Million-\$25 Million	42		
<\$10 Million	139		
	<u>232</u>		

<sup>1</sup> The largest BTOP grant is a \$154,640,000 award to Los Angeles Regional Interoperable Communications System Authority (LA-RICS) to deploy a 700 MHz public safety mobile broadband network across all of Los Angeles County.

<sup>2</sup> The smallest BTOP grant is a \$176,400 award to the Santa Fe Civic Housing Authority offering broadband access and computer training to low-income families, minorities, disadvantaged youth as well as disabled and elderly Santa Fe residents.

Source: OIG, derived from operating unit data.

Over the next 2 years, spending by BTOP grant recipients will increase substantially—which will in turn significantly increase the potential for fraud, waste, and abuse. Given this, we are currently conducting an audit of NTIA’s BTOP award monitoring and an inquiry relating to concerns associated with an infrastructure grant award to a San Francisco Bay area recipient. Our future work will include more risk-based reviews of individual grant recipient activity and periodic site visits to grant locations so that we can complete financial and operational reviews.

**Construction Grants and Contracts.** While BTOP is the largest Commerce program funded by the Recovery Act, NIST, NOAA, and EDA also saw an increase of \$1.5 billion in Recovery Act funds for contracts and grants, including \$1.0 billion for construction and construction-related projects (table 2). To complete these projects successfully, the agencies will need to overcome the inherent risks associated with construction projects.

**Table 2. Construction-Related Recovery Act Awards by Agency<sup>a</sup>**

Agency	No. of Grants	Grant Amount	No. of Contracts	Contract Amount
NIST	16	\$179 million	28	\$202 million
NOAA	50	\$159 million	36	\$338 million
EDA	64	\$141 million	0	\$ 0
<b>Total</b>	130	\$479 million	64	\$540 million

Source: OIG, derived from operating unit data.

<sup>a</sup> Dollar amounts have been rounded to the nearest million.

The goal of any federally funded construction project is to achieve the objectives established for the project and to do so on time, within budget, and free from fraud. In addition to the challenges accompanying any acquisition or grant project, construction projects are also at particular risk of anticompetitive practices, substandard workmanship, defective materials, nonperformance, and fraud. Grants and procurement officials need to be alert to such problems as they manage the construction programs in their operating units. Currently, we are conducting audits of NIST’s construction grants and contracts to assess the policies and procedures developed for Recovery Act construction projects; determine whether NIST has personnel, processes, and systems in place to monitor the grants and contracts; and evaluate the effectiveness of NIST’s contract monitoring activities.

## U.S. PATENT AND TRADEMARK OFFICE

USPTO is responsible for ensuring that the United States’ intellectual property system contributes to a strong global economy, encourages investment in innovation, and fosters an entrepreneurial spirit. It accomplishes this mission by serving as the sole federal agency responsible for registering trademarks and granting patents.

Patents provide inventors with exclusive rights to their discoveries and contribute to the strength and vitality of the U.S. economy. But USPTO’s ability to support U.S. innovation has been hindered by a substantial backlog and increased processing times for patent applications. USPTO is also faced with the challenges of accurately projecting the patent fees it relies on for funding and updating its aging IT systems to support its operational requirements.

**Pendency and Backlog.** With a growing number of patent applications being filed, USPTO faces immense and complex challenges in addressing patent pendency and application backlogs while building a highly trained, stable workforce and improving patent quality. Since FY 2000, patent

pendency times have increased by an additional 10 months, and the backlog of unexamined applications has more than doubled (see table 3). The large numbers of applications in process and long waiting periods for patent approval create a significant risk to the innovation and economic competitiveness necessary to maintain the nation's position as a world leader in innovation.

**Table 3. Progression of Patent Pendency and Backlog, FY 2000 through FY 2010**

	FY 2000	FY 2005	FY 2010
<b>Patent Examiners</b>	2,900	4,300	6,200
<b>Total Time to Process (in months)</b>	25	29	35
<b>Application Backlog</b>	308,000	611,000	726,000
<b>Applications Filed</b>	312,000	410,000	509,000
<b>Patents Issued</b>	182,000	165,000	233,000

Source: USPTO's FY2010 *Performance Accountability Report* (PAR), 126-129 and 153; FY2005 PAR, 23 and 148; and OIG report IPE-15722, 4.

Since assuming office in August 2009, the Under Secretary of Commerce for Intellectual Property (who is also the Director of USPTO) has identified the state of patent pendency and backlog as a critical priority—as has the Secretary. USPTO's strategic plan for FYs 2010 through 2015 addresses this critical area with an overall goal to optimize patent quality and timeliness, including a specific goal to decrease the total processing time for patent applications to 20 months by FY 2015. We have begun a review of the status and effects of USPTO's multiple initiatives to decrease patent pendency and reduce the backlog of patent applications.

**Patent Fees and Financing Tools.** As a fully fee-funded agency, USPTO relies upon the patent and trademark fees it collects to fund its operations. These fees are used to support all segments of USPTO operations, including staffing, IT systems, and training. Congress, through statute, sets the majority of the patent fees. Congress also sets spending ceilings for USPTO through the annual appropriations process; USPTO's spending cannot exceed those ceilings (for FY 2010, approximately \$2 billion). With patent fees making up almost 90 percent of the fees collected by USPTO, patent activities account for most of its operations.

Our December 2010 audit examined USPTO's projection of patent fee collections and found a lack of documented management controls over patent fee forecasting operations. Further, while the aggregate differences between projections and collections appear to be within a generally acceptable margin of forecasting error, during FYs 2006 through 2009 USPTO consistently over- and underestimated—by tens of millions of dollars—some of its major patent fee revenue streams. Our recommendations to USPTO were aimed at strengthening its management controls over patent fee forecasting to provide increased accountability and transparency over these critical operations. USPTO agreed with our recommendations and is developing a corrective action plan to implement them.

USPTO is seeking legislative approval for new financing tools, such as greater authority to set patent fees, and is also taking management actions, such as establishing an operating reserve to protect its resources from unforeseen disruptions in revenue. According to USPTO, these tools are intended to enhance its ability to respond to changes in the economy and the fluctuating demand for its products and services. However, its ability to operate successfully will also depend on how effectively it can reduce pendency and backlog while maintaining operational efficiency.

***IT System Upgrades.*** As USPTO begins to implement initiatives to meet its strategic goals, it is simultaneously planning to address its outdated IT systems. The operating unit relies on aging, unstable legacy technology to support its current operations. According to USPTO, system maintenance requires long periods of down time, which prevents examiners from working on their patent applications. Therefore, it plans to redesign and implement end-to-end electronic patent processing so that most applications will be submitted, handled, and prosecuted electronically. In doing so, it faces the risks and challenges inherent in any major IT system change, such as management oversight; cost control; and ensuring that the new system is delivered on time, meets user needs, and supports USPTO in achieving its goals.

As part of our FY 2011 work, we are currently evaluating USPTO's readiness to successfully manage the end-to-end modernization of patent IT systems. This initiative is currently estimated to cost around \$277 million by FY 2015, and has been assessed by OMB as a high-risk project due to its high price and USPTO's past history with similar efforts.

## **NOAA'S STEWARDSHIP OF MARINE RESOURCES**

With an Exclusive Economic Zone of 3.4 million square nautical miles of ocean, the United States manages the largest marine territory of any nation in the world. According to NOAA's 2009-2014 strategic plan, the value of the ocean economy to the United States is more than \$138 billion, with \$47 billion attributable to the commercial and recreational fishing industry. Charged with protecting, restoring, and managing the use of living marine and coastal and ocean resources, NOAA has faced significant challenges in promoting the health of marine resources, especially in the areas of commercial fisheries and environmental restoration, while ensuring they sustain the vital economic benefits we derive from them.

NOAA's management of commercial fisheries and its enforcement of fair, transparent, and effective regulations is a critical component of the successful execution of its mission. In one policy, for example, NOAA endorsed a "catch share" strategy allocating a specific portion of a total allowable fishery catch to individuals, cooperatives, communities, and other entities. Each recipient of a catch share is required to stop fishing when its limit is reached, although catch share recipients would no longer be constrained by fishing seasons. Some fishing communities have expressed concerns about the quality of the data used to develop this strategy and the potential negative economic effects of its implementation on small-business fishermen, while other stakeholders view it as an effective strategy to achieve long-term ecological and economic sustainability of the nation's fishery resources. In its strategies and policies, NOAA must address both the environmental and economic performance of fisheries while considering the impact of its decisions on the nation's fishing communities.

There are additional critical aspects of NOAA's environmental stewardship. NOAA responds each year to over a thousand natural and human-induced incidents threatening life, property, and marine resources. For example, when the April 2010 explosion on Deepwater Horizon, a semisubmersible mobile offshore oil-drilling well in the Gulf of Mexico, resulted in the largest oil spill in U.S. history, NOAA provided spill response support and damage assessment. As of early February 2011, NOAA has dedicated approximately \$175 million to these efforts. In December 2010, we surveyed NOAA's processes for tracking the costs associated with its oil spill activities; we found that it needs to ensure that all costs charged to oil spill projects are properly recorded in the financial system; supported by sufficient, appropriate documentation; and reflect the full cost of oil spill response, damage assessment, and restoration activities.

To help the Gulf—and the people who earn their living from it—recover from the spill, NOAA must continue to devote resources to monitoring and restoration for years to come. Since serious threats to wildlife and the fishing community still exist, NOAA's National Marine Fisheries Service must track conditions along the coastal areas of Louisiana, Mississippi, Texas, Alabama, and Florida to ensure seafood is safe for consumption. NOAA, as the lead agency for the damage assessment process and the nation's lead science agency covering oil spills, will also continue to assess what environmental resources have been harmed. Finally, federal, state, and local governments and affected communities will rely on NOAA to provide continued monitoring and accurate data so responders can react to the oil's effects on our ecosystem. In short, the Gulf oil spill highlights the dual nature of NOAA's mission to promote environmental health while maintaining the commercial viability of the nation's marine resources.

## **RENOVATION OF THE DEPARTMENT OF COMMERCE HEADQUARTERS**

The Herbert C. Hoover Building (HCHB), Commerce's Washington, D.C., headquarters, is undergoing a comprehensive renovation. With a current cost estimate of approximately \$922 million,<sup>7</sup> this project will be the first major upgrade to the over 1.8 million-gross-square-foot building since its completion in 1932. The project will upgrade mechanical, electrical, and life-safety systems; increase usable space; improve energy and environmental efficiency; and incorporate security improvements.

The renovation, which began in January 2008, has been divided into eight phases, each of which is planned to take approximately 18 months. Phase 2 (the current phase) and Phase 3 will be financed by some \$185 million in Recovery Act funds. The project is scheduled for completion by 2021 (table 4).

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<sup>7</sup> HCHB renovation project funding sources: GSA's Federal Building Fund and Recovery Act funds, \$794 million; Commerce's estimated contribution, \$128 million.

**Table 4. HCHB Renovation Scope of Work**

<b>Phase<sup>a</sup></b>	<b>Activities</b>	<b>Timeframe</b>
<b>1</b>	Replace air-conditioning system cooling towers. Build the swing space to house staff while future phases of the building renovation are in progress.	1/2008 – 1/2010 (complete)
<b>2</b>	Interior and exterior renovations, <sup>b</sup> Corridor 1 (along Constitution Avenue). Phase 2 also includes building facade restoration and site utilities replacement around the entire building, as well as development of a staging area for moving construction materials.	7/2009 – 11/2011
<b>3</b>	Corridor 2 (second corridor north of Constitution Avenue)	11/2011 – 6/2013
<b>4</b>	Corridor 3	6/2013 – 1/2015
<b>5</b>	Corridor 4	1/2015 – 7/2016
<b>6</b>	Corridor 5	7/2016 – 2/2018
<b>7</b>	Corridor 6	2/2018 – 9/2019
<b>8</b>	Corridor 7	9/2019 – 3/2021

Source: OIG, based on information from the General Services Administration (GSA).

<sup>a</sup> All phases are subject to schedule changes.

<sup>b</sup> Renovations include new mechanical, electrical, and plumbing systems; interior renovations; roof repairs; and architectural finishes.

GSA owns the building and is managing the renovation. However, to its credit, the Department is also taking an active management role. It should continue to work closely with GSA as an advocate for the operating units housed at HCHB since the project has the potential to disrupt Commerce’s operations and affect its workforce. So far, the renovation project has experienced some operational issues, as well as matters that could have proved disruptive—or even harmful—to the building’s tenants.

In August 2010, we issued a report on the Department’s HCHB project management activities. In it, we identified two areas that could adversely affect the project’s operation: Commerce did not routinely track or reconcile the project invoices it received from GSA; also, GSA and the Department disagreed on how to calculate the rental rate for the building. Since our report was issued, the Department’s Office of Administrative Services has implemented new invoicing procedures and made progress in resolving the rental rate calculation. A conservative simple calculation shows that our involvement in resolving the rental rate issue saves the Department an estimated \$37 million a year in lease payments over the next 5 years.

Several incidents at HCHB have highlighted the potential for disruptions during the project. During work on our initial project report, OIG became aware of health complaints from Commerce staff occupying the renovation swing space; an inspection conducted by an Occupational Safety and Health Administration (OSHA) compliance safety officer found that the

complaints were related to indoor air quality and temperature (being too hot or too cold), which are not regulated by OSHA. And in another incident, a fire broke out at HCHB after normal working hours on Thursday, October 7, 2010, in an area undergoing renovation. Everyone was accounted for and there were no reports of injuries, but the building had to remain closed the next day for hazardous materials testing. All areas of the building were cleared for occupancy on October 12 (the next scheduled workday after the Columbus Day holiday); however, this unexpected closure affected approximately 3,500 employees—a clear example of the disruptive effect the renovation can have on Commerce’s operational efficiency and employee productivity and safety.

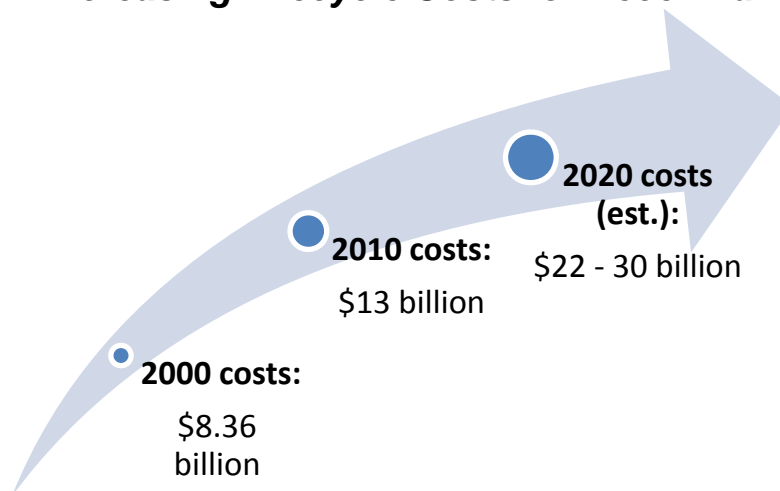
OIG will continue to monitor project cost schedules, performance, and any health or safety issues that may emerge as the renovation continues.

### CENSUS BUREAU – 2020 DECENNIAL PLANNING

The 2010 census was an immense undertaking that encompassed more than a decade of planning, testing, and implementing dozens of operations aimed at accurately counting the more than 308 million people living in the United States.

The lifecycle cost for the decennial was approximately \$13 billion. Considering the current trends in population and cost growth, the U.S. Government Accountability Office (GAO) recently estimated that if 2010 is used as a model for designing the next census, the total price of the 2020 decennial could rise as high as \$30 billion; the bureau’s own estimate is \$22 billion (figure 7).

**Figure 7. Increasing Lifecycle Costs for Decennial Census<sup>a</sup>**



<sup>a</sup> Amounts have been adjusted to 2010 dollars. OIG calculations of 2000 costs are based on CPI inflation data from the Bureau of Labor Statistics.

By either estimate, such cost growth is simply unsustainable. Census must make fundamental changes to the design, implementation, and management of the decennial census in order to obtain a quality count for a reasonable cost—and in order to decide on, design, and implement



these changes, it has to start now. FYs 2011 and 2012 are critical years that will set the course for how well the 2020 count is performed and how much it will ultimately cost.

In order to develop an innovative, flexible, cost-effective, and transparent approach to the 2020 census, the bureau needs to apply the lessons it has learned from the 2010 process. These lessons have been highlighted by Congressional oversight as well as reviews by GAO and OIG; in addition, Census is currently engaged in a comprehensive review of the 2010 census. The bureau plans to use the results of this review, which include over 80 assessments and evaluations of various decennial activities, to modify 2020 census operations as needed.

Alternative approaches to the labor-intensive end-of-decade address list improvement and nonresponse follow-up operations must also be explored and tested early in the decade. Both operations were major 2010 cost drivers—address canvassing, an effort to update the bureau’s address list, cost \$444 million and employed approximately 140,000 temporary staff. And the nonresponse follow-up operation, which used more than three times that number of staff in attempts to interview residents who had not responded to the initial mailed or hand-delivered Census questionnaire, cost \$1.7 billion.

To reduce costs and risk, and to increase the accuracy of its information, the bureau’s 2020 census planning approach needs to leverage existing surveys, field operations, and data assets. Census should especially focus on enhancing operations by integrating the following into its decennial planning efforts:

- *Administrative Records.* These records are collected for the administration of programs and provision of services by federal, state, and local governments and commercial entities. Administrative records include, for example, address and population information from housing assistance, health services, and tax forms. Census can use administrative records, in conjunction with U.S. Postal Service files, to continually update the address list.
- *Continual Map Updates.* Rather than an intensive effort to update its maps and address list just before the decennial, Census should continually update its information throughout the decade—using the existing trained workforce in both office and field operations—to further reduce cost and risk, and likely increase quality. Moreover, maintaining current maps and address lists benefits the American Community Survey (ACS) and all other nationwide data collection and production efforts.
- *Internet Response.* Census should explore the use of Internet and other electronic response options for the decennial census, which will potentially provide data more quickly and cost effectively than mailed-out paper forms. Electronic data gathering improves efficiency, provides management with near-real-time reporting, and reduces the amount of paper in the field—2010 personnel handled over 164 million paper questionnaires; electronic response options could substantially reduce that number.
- *IT Systems.* Census must reduce the costs and risks associated with IT systems by limiting the deployment of one-time-use technology. A less risky and more economical

approach would be to build IT systems for use in various Census demographic surveys throughout the decade—systems that could also be used for decennial operations.

- *The American Community Survey.* The decennial is not the bureau's only means of measuring the population characteristics of the United States. The ACS is a large ongoing nationwide survey supported by a permanent field workforce. The bureau could use the ACS as a replacement for its decennial content and data collection tests throughout the decade. Carrying out smaller, focused field tests early through existing surveys allows more testing that is easier to plan, modify, and implement.
- *Project management.* While the bureau made significant strides in project management this last decade, it must implement management practices that integrate planned budget and expenditure information with scheduled activities to better track the status of available funds, forecast impending overruns and underruns so that funds can be reallocated promptly, and improve the transparency of the decennial status to oversight and stakeholders. The bureau should also develop a robust and transparent process to document significant management decisions and their impact on costs.

In FY 2011, we will assess the success of the bureau's 2010 update of the address and map database, and evaluate the ACS' program management, operations, and constituent satisfaction. Throughout the decade, we will continue to follow Census's 2020 decennial planning to ensure this vitally important, constitutionally mandated operation runs smoothly and cost-effectively.

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In conclusion, Mr. Chairman, in FY 2012 the Department of Commerce faces important and challenging work related to the essential programs I have discussed here—and this work will require diligent, proactive monitoring by OIG to help achieve success. This concludes my prepared statement, and I will be pleased to respond to any questions you or other Subcommittee members may have.

(OIG-11-018-T)