OFFICE OF THE SECRETARY

Top Management Challenges Facing the Department of Commerce

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UNITED STATES DEPARTMENT OF COMMERCE
The Inspector General
Washington, D.C. 20230

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INFORMATION MEMORANDUM FOR THE SECRETARY

FROM: David Smith
Acting

SUBJECT: *Top Management Challenges Facing the Department of Commerce in Fiscal Year 2016*

Attached is our final report on the Department of Commerce's top management challenges for fiscal year (FY) 2016. We have aligned our report with the Department's FYs 2014–2018 Strategic Plan—and, within each of the plan's strategic goals, we discuss the challenges we have identified.

1. **TRADE AND INVESTMENT: Expand the U.S. economy through increased exports and inward foreign investment that lead to more and better American jobs.**

   - *International Trade Administration (ITA) consolidation*. ITA must resolve challenges such as developing revised performance plans and providing appropriate training for affected employees, developing an employee engagement plan, and assessing the level of resources throughout ITA headquarters.
   - *Bureau of Industry and Security (BIS) export licensing functions*. BIS had originally planned to decommission its legacy export licensing system, Export Control Automated Support System (ECASS), and by 2012 migrate to the Defense Technology Security Agency's (DTSA's) USXPORTS. Migration to USXPORTS was required under the president's export control reform initiative. However, after project delays, in 2014 BIS determined that USXPORTS, in its current state of development, will not meet its operational needs. As a result, BIS implemented license processing capabilities in its existing systems, and thus was able to decommission ECASS. BIS and DTSA have entered into an agreement to enhance USXPORTS to allow other export control agencies to access BIS data in USXPORTS. BIS now needs to assess the

costs versus the benefits of this approach, as opposed to its original plan to fully migrate to USXPORTS.

- *Departmental and bureau grants oversight.* The Department and its bureaus with grant programs must incorporate the Office of Management and Budget's (OMB's) Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards—which went into effect during the first quarter of FY 2015—mandating how grants are awarded, administered, and audited.

2. ***INNOVATION: Foster a more innovative U.S. economy—one that is better at inventing, improving, and commercializing products and technologies that lead to higher productivity and competitiveness.***

- *U.S. Patent and Trademark Office (USPTO) patent examinations*. Last year, USPTO temporarily redirected its resources to reduce its backlog of requests for continued examination (RCEs). While USPTO has made progress in reducing the RCE backlog and pendency of unexamined patent applications, it still faces challenges in reducing the patent application backlog and improving patent examination quality.
- *Patent Trial and Appeal Board (PTAB) timeliness and quality*. Since September 2012, PTAB has been increasing the size of its staff to address both the appeals inventory and new proceedings under the America Invents Act. Despite the high rates of increase in PTAB personnel and spending on patent trials and appeals, USPTO is still facing challenges in reducing the ex parte appeal backlog and pendency.
- *First Responder Network Authority (FirstNet) network implementation.* FirstNet— tasked with implementing a nationwide interoperable public safety broadband network—is making progress in establishing an organizational structure and performing consultation and outreach. However, challenges remain concerning the adequacy of funding; statutory requirements for consulting; internal control; and staffing and other organizational issues.

3. ***ENVIRONMENT: Ensure communities and businesses have the necessary information, products, and services to prepare for and prosper in a changing environment.***

- *National Oceanic and Atmospheric Administration (NOAA) satellite acquisitions.* Acquisition and development delays could lead to gaps in NOAA's satellite coverage, potentially degrading its ability to produce

actionable environmental information. The Joint Polar Satellite System (JPSS) program's challenge is to keep the JPSS-1 satellite development on track to meet its launch commitment—while taking steps to implement a newly-proposed Polar Follow-On program. The Department must also ensure that the Geostationary Operational Environmental Satellite-R Series (GOES-R) program continues to meet requirements and manage development challenges. The launch of the first GOES-R satellite has been delayed to October 2016, increasing the potential for the GOES fleet to be without ensured coverage should an operational satellite fail.

- *NOAA observational data processing.* NOAA may need to defer or even eliminate planned operational capabilities as it completes complex integration testing for the GOES-R and JPSS-1 missions in order to launch both satellites as soon as possible and mitigate potential data gaps. Post-launch test activities, as well as validation of data flows and products, will need to be closely monitored to ensure timely processing for user availability.
- *NOAA National Marine Fisheries Service (Fisheries) data*. To increase efficiency and oversight, NOAA Fisheries has considered using emerging electronic technologies, such as video monitoring, to increase coverage and reduce human observer costs, as well as contribute to a more cost-effective and sustainable collection of fishing data. However, NOAA Fisheries has not yet developed a nationwide strategic plan and continues to have each region developing its own plan, with current objectives detailed across multiple policy documents.

4. ***DATA: Improve government, business, and community decisions and knowledge by transforming Department data capabilities and supporting a data-enabled economy.***

    - *2020 Census quality and cost.* The Bureau continues to face challenges in achieving cost savings goals while fully utilizing resources needed to achieve design decision and research and testing goals. Moreover, the Bureau still needs to develop a defined schedule for achieving key milestones in order to complete the operational development and systems testing phase and begin readiness testing and execution by FY 2019.
    - *Other Census Bureau challenges.* One of the Bureau's key challenges in preparation for the 2020 Census has been to effectively record, collect, and use financial data to guide programmatic decisions. Another

decennial challenge has been developing, testing, and implementing a cost-effective, secure 2020 Census IT infrastructure.

- *Departmental compliance with the Digital Accountability and Transparency Act of 2014 (DATA Act).* The DATA Act requires federal agencies to make available detailed information on their spending and use of federal funds and reporting it by specific categories, such as how much funding an agency receives from Congress and how much agencies spend on specific projects and awards. Due to the Department's legacy information systems, providing reliable and consistent agency program information and meeting the goals of the DATA Act will be a significant challenge.

5. ***OPERATIONAL EXCELLENCE: Deliver better services, solutions, and outcomes that benefit the American people.***

- *The Department's financial systems.* For each of the past 3 years, the independent auditor of the Department's annual financial statements reported general IT controls as a Department-wide significant deficiency. Despite the Department's ongoing efforts to implement corrective actions, the independent auditor found that weaknesses still exist and require management's attention. In addition, the lack of centralized and integrated financial management systems to replace Commerce Business Solutions creates challenges for the Department—including the ability to effectively report financial data and monitor financial activity across its operating units.
- Department-wide IT security issues. Addressing persistent IT security issues poses challenges for the Department. These include implementing basic security measures required by National Institute of Standards and Technology's (NIST's) risk management framework; remediating critical and high-risk vulnerabilities as it implements its enterprise cybersecurity monitoring and operations initiative; improving the quality and thoroughness of system security control assessments; and continuing to strengthen its incident detection and response capabilities through its Enterprise Security Oversight Center initiative.
- *Departmental contracts, acquisition workforce, and procurement data.* A government-wide initiative calls for federal agencies to reduce spending on high-risk contract types, such as time-and-materials and labor-hour, cost reimbursement, and noncompetitive contracts. The Department still faces challenges in contract oversight and administration of these

contracts. Also, during FY 2014, the Department enhanced its acquisition workforce recruitment efforts by attending college and job fairs, exploring recruitment incentives, and using special hiring authorities. Despite this aggressive recruitment effort, the Department still fell short of its staffing goal due to attritions and retirements. Finally, the Department needs to improve its process for entering accurate and reliable data into the Federal Procurement Data System-Next Generation. This will help provide a comprehensive view into the details of contract spending and increasing the transparency and accountability of the Department for how it spends taxpayer dollars.

- *Department-wide culture of accountability*. One major challenge arises from OIG hotline complaints: detecting and preventing time and attendance abuse, which OIG has investigated at several Departmental operating units. Another challenge involves ensuring that OIG independence and access is more strongly supported. To achieve this, the Department's senior leadership must create a culture that supports OIG's oversight function by encouraging all employees to cooperate with OIG audits, inspections, and investigations.

We remain committed to keeping the Department's decision-makers informed of problems identified through our audits and investigations so that timely corrective actions can be taken.

A summary of this report will also be included in the Department's *Annual Financial Report*, as required by law.[1]

We appreciate the cooperation received from the Department, and we look forward to working with you and the Secretarial Officers in the coming months. If you have any questions concerning this report, please contact me at (202) 482-4661.

cc: Bruce Andrews, Deputy Secretary of Commerce
Kelly R. Welsh, General Counsel
Justin Antonipillai, Deputy General Counsel
Steve Cooper, Chief Information Officer
Ellen Herbst, Chief Financial Officer and Assistant Secretary for Administration
Jim Hock, Chief of Staff to the Secretary
Operating Unit Heads
Operating Unit Audit Liaisons

[1] 31 U.S.C. § 3516(d).

Contents

Departmental Strategic Goal 1: TRADE AND INVESTMENT

Expand the U.S. economy through increased exports and inward foreign investment that lead to more and better American jobs

The International Trade Administration (ITA), Bureau of Industry and Security (BIS), and Economic Development Administration (EDA) each have a role in supporting the infrastructure for U.S. economic growth. The top challenges we identify for this priority area are management and organizational issues at ITA following its recent consolidation; the continued BIS migration of export licensing functions to the Department of Defense's USXPORTS system; and Departmental and bureau oversight of grant recipient programs.

Promptly addressing remaining issues from ITA's consolidation

In October 2013, ITA initiated a reorganization to consolidate its operations from four business units to three.[1] The resulting major changes included

- combining ITA's export promotion, export policy, commercial advocacy, and investment activities under the new Global Markets unit;
- folding trade promotion and industry analysis functions into the new Industry and Analysis unit; and
- centralizing trade enforcement activities under the new Enforcement and Compliance unit.

Among the benefits of consolidation listed in the Department's November 2012 request to Congress were (1) better service to customers through a strategic realignment of expertise, (2) a reduction of redundancies and operating costs, and (3) the creation of a more flexible organizational structure that can adapt to changing priorities and new global realities. By streamlining its operations, ITA aimed to enhance its mission to assist U.S. companies with their export promotion needs, enforce U.S. trade laws, and increase foreign direct investment in the United States.

ITA's consolidation was an opportunity to improve its client services as it implements the Department of Commerce's and Administration's current export strategy, the National Export Initiative /NEXT.[2] However, in March 2015, we reported that because ITA management had not executed an effective organizational change management plan, ITA staff were unclear about their new roles and responsibilities and lacked the proper training for these roles.[3]

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[1] ITA's Executive Direction and Administration unit provides executive leadership to the bureau and manages ITA resources through the Offices of the Chief Financial and Administrative Officer and Chief Information Officer.

[2] Initiated in May 2014, NEI/NEXT is a government-wide trade initiative that aims to build on the accomplishments of the National Export Initiative and help U.S. businesses expand international sales to support U.S. jobs, economic growth and competitiveness. The initiative includes providing more focused trade information and assistance, streamlining export reporting requirements, working more closely with financing organization and service providers, and partnering with states and communities to empower local export efforts.

[3] U.S. Department of Commerce Office of Inspector General, March 25, 2015. *ITA Management Should Address Significant Challenges Related to Its Recent Consolidation*, OIG-15-021-I. Washington, DC: Department of Commerce OIG.

Consequently, ITA must resolve challenges that have arisen as a result of the consolidation, such as developing revised performance plans and providing appropriate training for affected employees, developing an employee engagement plan, and assessing the level of resources throughout ITA headquarters. This must be done while the bureau continues to deliver trade promotion and enforcement services to its clients and work effectively with federal trade partners.

Migrating export licensing functions to USXPORTS

In last year's *Top Management Challenges Report,* we identified the continued need for the Bureau of Industry and Security (BIS) to migrate its export licensing operations to the Department of Defense's USXPORTS system, in support of the President's Export Control Reform (ECR) Initiative. The project to migrate its licensing processing over to USXPORTS began in October 2010 with an agreement between BIS and the Department of Defense's Defense Technology Security Administration (DTSA) to enable the system to support BIS license processing.

BIS had originally planned to migrate to USXPORTS by 2012, because the legacy export licensing system, Export Control Automated Support System (ECASS), (a) was too costly, (b) lacked security, and (c) would no longer be supported after December 2014. However, because of USXPORTS project delays, BIS decided in 2014 not to migrate from ECASS to USXPORTS. According to BIS, in its current state of development, USXPORTS will not fully support required internal BIS processing. BIS decommissioned ECASS in 2014, after it enhanced its internal system—Commerce USXPORTS Exporter Support System (CUESS)—to provide the license processing capabilities that it asserts are not functioning in USXPORTS.

With the project now in its fifth year, BIS has not migrated to USXPORTS. However, in May 2015, it entered into a sixth amendment to its original memorandum of agreement with DTSA to develop a USXPORTS Interagency Referral Sub-System.[4] This will make it possible for the export licensing agencies to review and process applications referred from BIS in USXPORTS.

The Interagency Referral Sub-System—while it will enable transfer of dual-use referral data and documents from CUESS to USXPORTS—does not fulfill BIS' original commitment to use USXPORTS as its system for processing export licenses. Therefore, its challenge is to assess the costs versus the benefits of developing the sub-system, as opposed to its original plan to fully migrate to USXPORTS

[4] According to the memorandum of agreement, the estimated costs are approximately $768,000 to develop the sub-system and approximately $506,000 to operate it for 5 months.

Executing Departmental and bureau oversight of grant recipients

The Department and its bureaus with grant programs face several challenges this year. First, they must incorporate the Office of Management and Budget's (OMB's) Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (Uniform Guidance)—which went into effect during the first quarter of FY 2015—mandating how grants are awarded, administered, and audited. The Department and bureaus have begun the complex process of implementing this new guidance: the National Institute of Standards and Technology (NIST), National Oceanic and Atmospheric Administration (NOAA), and EDA are each implementing their own single audit review/audit resolution process and will provide the Department with status updates.

In addition, the Department and its bureaus have been tasked with implementing the Digital Accountability and Transparency Act of 2014 (DATA Act) by May 2017.[5] The timing of this implementation deadline may present difficulties in light of another development: the Department is currently transitioning the NOAA Grants Online (GOL) system requirements to handle the needs of two other grants data sources, the EDA Operations Planning and Control System and the NIST Grant Management Information System. The transition is expected to be completed in 2017. Affected Departmental bureaus will need to make decisions based on the costs of updating the three systems to meet DATA Act requirements while staying on schedule for transitioning to one system. If not handled effectively, implementing both OMB's Uniform Guidance and the DATA Act may affect the Department's grant programs, which in FY 2014 totaled approximately $1.3 billion in awards.

[5] The Digital Accountability and Transparency Act of 2014, Pub. L. No 113-101 (2014), requires the U.S. Department of the Treasury to establish common standards for financial data provided by all government agencies and to expand the amount of data that agencies must provide to the government website, USAspending.

Departmental Strategic Goal 2: INNOVATION

Foster a more innovative U.S. economy—one that is better at inventing, improving, and commercializing products and technologies that lead to higher productivity and competitiveness

The U.S. Patent and Trademark Office (USPTO) is responsible for protecting the work of innovators by ensuring the integrity of their intellectual property (IP) rights through the timely and quality review and issuance of patents and trademarks. It faces various challenges of improving the timeliness and quality of patent application examinations and appeal decisions. The USPTO also faces challenges in advocating for international agreements and policies to protect and enforce IP rights. The First Responder Network Authority (FirstNet) faces challenges in its efforts to implement a nationwide interoperable public safety broadband network.

Improving process time and quality of patent application examinations

While USPTO has made progress in reducing the request for continued examination (RCE) backlog and pendency of unexamined patent applications, it still faces challenges in meeting all of its pendency goals and improving patent examination quality. Over a 2-year period, through FY 2014, the RCE backlog decreased by 31,831. Over the same period, the RCE first-action pendency decreased by 1.6 months and the patent average total pendency decreased 1.7 months. Conversely, the patent application backlog increased during this same period by 20,648, or approximately 3 percent (see table 1, next page). Furthermore, USPTO has been unable to achieve some of its annual pendency targets, such as Patent Average First Action Pendency and Patent Average Total Pendency.

Although the patent quality composite score was a Departmental priority goal in FY 2015, USPTO experienced difficulties in meeting its own targets for patent quality. The patent quality composite score in FY 2014 was 75, an increase over the previous fiscal year but still short of the target range of 83 to 91. In the first three quarters of FY 2015, USPTO achieved quality scores of 76.9, 60.2, and 58.5.

In April 2015, OIG issued an audit report on patent quality issues.[6] The report found that: (a) USPTO's official quality metrics may underrepresent the true error rate on patent determinations; (b) USPTO's performance appraisal plan and related policies are ineffective in measuring whether examiners are issuing high-quality patents; and (c) USPTO is not collecting data that could improve patent quality.

Between FY 2010 and FY 2014, the number of USPTO patent examiners increased by 31.2 percent, from 7,447 in FY 2010 to 9,768 in FY 2014. Over the same period, actual budget obligations for patent examination increased by 50.1 percent, from $1.23 billion in FY 2010 to $1.84 billion in FY 2014. Despite the increase in the number of patent examiners and the growth in spending on patent examination, USPTO is still facing challenges in reducing the patent application backlog and improving patent quality.

[6] DOC OIG, June 30, 2014, *USPTO Needs to Strengthen Patent Quality Assurance Practices*, OIG-15-026-A. Washington, DC: DOC OIG.

Table 1. USPTO Patent Applications' Backlogs, Pendency, and Examination Quality, FYs 2010–2014

FY	Patent Application Backlog[a]	Patent Average Total Pendency (months)[b]	RCE Backlog[c]	RCE First Action Pendency (months)[d]	Patent Quality Composite Score[e]	Personnel (FTEs)[f]	Actual Obligations (dollars)[f]
2010	708,535	34.8	40,939	2.4	N/A	7,447	1,228,053,000
2011	669,625	33.7	63,487	4.0	30.7	8,039	1,371,907,000
2012	608,283	32.4	95,200	5.9	72.4	8,569	1,526,017,000
2013	584,998	29.1	78,272	7.8	71.9	9,218	1,656,032,000
2014	605,646	27.4	46,441	6.2	75.0	9,768	1,843,897,000

Source: USPTO
[a] The backlog of unexamined patent applications at the end of the fiscal year. It includes utility, plant, and reissue (UPR) applications only, excluding Design applications.
[b] A 3-month rolling average was used for the pendency (in months) between filing and issuance or abandonment of UPR applications.
[c] The backlog of unexamined RCEs, awaiting first action by examiner.
[d] A 3-month rolling average was used for the pendency (in months) between filing and issuance or abandonment of RCE applications.
[e] The USPTO used seven factors and a 12-month rolling average for the quality composite score.
[f] Patent examining only.

Improving decision timeliness and quality at the Patent Trial and Appeal Board

The Patent Trial and Appeal Board (PTAB) is a business unit within USPTO that decides patent appeals, conducts trials, and decides some petitions in patent-related cases. Since September 2012, the PTAB has been increasing the size of its staff to address both the appeals inventory and new proceedings under the America Invents Act (AIA). In FY 2014, the PTAB received about 1,500 petitions under the AIA while having a backlog of 25,658 ex parte appeals, with an average appeal pendency of 29 months. The pendency rate of the ex parte appeal backlogs shows how long appeals from adverse decisions of examiners in individual patent applications and reissue proceedings have been at the PTAB awaiting decision. In FY 2014, the ex parte average appeal pendency increased by 3 months, from 26 months in FY 2013 to 29 months in FY 2014.

For FY 2014, the PTAB set a goal to review for quality 5 percent of its appeal decisions issued that year. (The Board actually reviewed 8.6 percent of them.) The metrics used to measure the established quality goals included the number of appeal decisions reviewed and the qualitative feedback that resulted from the reviews. The Appeals Quality Task Force issued a report with qualitative feedback on appeal decision quality and the PTAB has taken steps to train administrative patent judges, patent attorneys, and paralegals accordingly.[7]

[7] We did not obtain or review the result of the quality metrics for appeal decisions in FY 2014.

From FY 2010 to FY 2014, the number of employees at the PTAB increased by 36.5 percent. During this same period, actual obligations for the board increased by 68.1 percent. However, over the same period, the ex parte appeal backlog increased 44.5 percent and the pendency increased 141.7 percent. Despite the high rates of increase in PTAB personnel and spending on patent trials and appeals, USPTO is still facing challenges in reducing the ex parte appeal backlog and pendency (see table 2).

Table 2. PTAB Ex Parte Appeal Backlog and Pendency, FYs 2010–2014

FY	PTAB Ex Parte Appeal Backlog[a]	PTAB Ex Parte Appeal Pendency (months)[b]	Personnel (FTEs)[c]	Actual Obligations (dollars)[c]
2010	17,754	12	192	30,046,000
2011	23,963	17	187	31,479,000
2012	26,484	23	199	36,301,000
2013	25,308	26	239	44,528,000
2014	25,658	29	262	50,518,000

Source: USPTO
[a] The number of patent appeals awaiting PTAB decision.
[b] The average number of pendency months from the EX Parte appeal to PTAB decision.
[c] Patent trial and appeals only.

Advocating for protection and enforcement of IP rights

The Office of Policy and International Affairs monitors IP developments internationally and works with other countries to promote the protection and enforcement of IP through international cooperation agreements and technical assistance. The IP rights attaché program advocates directly with host governments to improve IP policies, laws, and regulations for the benefit of U.S. stakeholders and provide support for U.S. companies abroad with IP issues.

For the IP policy protection and enforcement program, the number of personnel decreased by 9.7 percent between FY 2010 and FY 2014, from 145 in FY 2010 to 131 in FY 2014. Actual obligations increased by 1.5 percent, from $48.7 million in FY 2010 to $49.5 million in FY 2014. Critical challenges with carrying out the program to protect and enforce IP rights include: budget uncertainty, due primarily to fluctuations in fee revenue and external factors such as sequestration; international politics; regional instability in the Middle East; and the USPTO's lack of authority to rate the attachés' performance.

Implementing a nationwide public safety broadband network

The Middle Class Tax Relief and Job Creation Act of 2012 established the First Responder Network Authority (FirstNet) as an independent authority to implement a nationwide interoperable public safety broadband network. As FirstNet makes progress in establishing an organizational structure and performing consultation and outreach, the following challenges remain:

Adequacy of funding. The act authorizes FirstNet to (1) assess and collect fees from customers who have access to or use the Nationwide Public Safety Broadband Network (NPSBN); (2) establish cost efficiencies through synergies gained from partnerships; and (3) obtain revenue from the sale of excess network capacity. However, the amount of funding to be derived from these sources remains uncertain as FirstNet attempts to establish a sustainable network.

Effective consulting. Some state consultations remain unscheduled. In making progress toward scheduling and completing initial consultations (51 of 56 states and possessions as of June 19, 2015), FirstNet is fulfilling statutory consultation requirements. FirstNet plans to have all initial consultations scheduled by the end of fiscal year (FY) 2015.

Internal control. Reports issued by OIG,[8] the Government Accountability Office,[9] and an independent public accounting firm[10] have identified the need for FirstNet to strengthen its internal control. In addition, our recent audit identified that FirstNet is not consistently following internal control procedures it established to document adequate review and proper approval prior to the public release of information.

Staffing and other organizational issues. FirstNet continues to experience high vacancy rates and a concentration of knowledge with a few key staff members. FirstNet has shown vacancy rates of 30 percent or more in offices critical to the development of the NPSBN, including the Offices of the Chief Financial Officer, the Chief Technical Officer, the Chief Counsel, and the Chief User Advocacy Officer. As such, FirstNet continues to operate with ongoing gaps in specialized expertise and authority despite efforts to improve its hiring process.

Addressing the increasing demand for radio frequency spectrum

Freeing up radio frequency spectrum to enable the high-speed broadband services is essential to spurring the creation of innovative new businesses, promoting economic growth, improving public safety and healthcare, and enhancing government capabilities. In June 2010, the President directed the Department of Commerce, working through the National Telecommunications and Information Administration (NTIA), to make 500 megahertz (MHz) of federal and non-

[8] DOC OIG, December 5, 2014. *FirstNet Must Strengthen Management of Financial Disclosures and Monitoring of Contracts*, OIG-15-013-A. Washington, DC: DOC OIG.

[9] U.S. Government Accountability Office, April 2015. *FirstNet Should Strengthen Internal Controls and Evaluate Lessons Learned*, GAO-15-407. Washington, DC: GAO.

[10] KPMG LLP, July 24, 2014. *Independent Auditor's Report to the Secretary of Commerce and the FirstNet Board of Directors*.

federal spectrum available by 2020 to support wireless broadband needs.[11] In June 2013, federal agencies were further directed to expand the availability of spectrum by accelerating efforts to share federal spectrum with non-federal users.[12]

In 2010, NTIA issued a plan and timetable to achieve the 500 MHz goal by 2020.[13] As of April 2015, NTIA continued to investigate whether the potential spectrum it identified could actually be made available. The bureau also continues to conduct studies and undertake research and development (R&D) activities to better understand spectrum-sharing capabilities between federal and non-federal users. In addition, after investing millions of dollars in the Federal Spectrum Management System (FSMS)—a technology system intended to support federal spectrum management by identifying and managing spectrum for federal use and identifying and releasing spectrum for non-federal use—in 2015 NTIA terminated FSMS due to performance issues, escalating costs, and concerns with the strategy of developing software.

To meet the 2020 deadline, NTIA needs to incorporate the lessons learned from its R&D activities into actual strategies that lead to results, and to identify the availability of, and more efficient use of, radio frequency spectrum. Also, the termination of FSMS presents a challenge to NTIA's capability to manage spectrum, as it will still be in need of a technological system that can modernize, automate, and integrate key spectrum management functions.

[11] Presidential Memorandum, "Unleashing the Wireless Broadband Revolution," 75 Fed. Reg. 38387 (released June 28, 2010, published July 1, 2010).

[12] Presidential Memorandum, "Expanding America's Leadership in Wireless Innovation," 78 Fed. Reg. 37431 (released June 14, 2013, published June 20, 2013).

[13] NTIA, October 2010, "Plan and Timetable to Make Available 500 Megahertz of Spectrum for Wireless Broadband," available at http://www.ntia.doc.gov/files/ntia/publications/tenyearplan_11152010.pdf.

Departmental Strategic Goal 3: ENVIRONMENT

Ensure communities and businesses have the necessary information, products, and services to prepare for and prosper in a changing environment

The Department's objectives under this goal include advancing our understanding and prediction of changes in the environment; building a weather-ready nation; and fostering healthy and sustainable marine resources, habitats, and ecosystems. As the lead agency for addressing this goal, NOAA must meet several challenges, including costly, complex satellite system acquisitions and potential gaps in satellite data; preparation for processing next-generation satellite observational data; and the competing needs of fisheries stakeholders.

Keeping satellite acquisition programs on schedule

The Department must actively manage risks associated with the acquisition and development of NOAA environmental satellites, which are its largest investments and comprise more than 20 percent of its $9.8 billion FY 2016 budget request. Polar and geostationary satellites are essential components in understanding and predicting the environment: they provide data and imagery used to track severe storms, forecast weather, and study climate and other environmental conditions. However, acquisition and development delays could lead to gaps in NOAA's satellite coverage, potentially degrading its ability to produce actionable environmental information.

The Joint Polar Satellite System (JPSS) program's challenge is to keep the JPSS-1 satellite development on track to meet a second quarter FY 2017 launch commitment—while taking steps to implement a newly-proposed Polar Follow-On program, which is intended to mitigate potential coverage gaps in the afternoon polar orbit by providing additional satellites to make the constellation more robust over the longer term.[14] The Department must also ensure that the Geostationary Operational Environmental Satellite-R Series (GOES-R) program continues to meet requirements and manage development challenges. The launch of the first GOES-R satellite has been delayed from March 2016 to a date yet to be determined, increasing the potential for the GOES fleet to be without an "on-orbit" spare, which is needed to ensure coverage should an operational satellite fail. NOAA requested $809 million for JPSS, $380 million for Polar Follow-On, and $872 million for GOES-R for FY 2016.

Preparing the JPSS-1 satellite for launch. The JPSS program is responsible for the acquisition and development of two polar satellites (JPSS-1 and JPSS-2) and an upgrade to its ground system, which currently supports the operation of Suomi National Polar-orbiting Partnership satellite and provides data services for partner satellites. The program is estimated to cost $11.3 billion through FY 2025. In order to reduce the potential for a gap in polar satellite data, NOAA needs to keep JPSS-1 development on track for a FY 2017 launch. This effort is currently dealing with development, integration, and testing challenges in both the satellite and ground system. For example, completion of the JPSS-1 Advanced Technology Microwave Sounder (ATMS) instrument—which will provide critical data for weather prediction models—has been delayed

[14] The JPSS program has committed to launch no later than the end of March 2017 but is currently working toward a December 2016 launch. The JPSS-2 satellite is planned to be launch-ready in July 2021.

due to technical issues in components that were built under the JPSS predecessor program.[15] The components are being rebuilt and, as a result, its integration with the JPSS-1 spacecraft has been delayed from June 2015 to October 2015. If problems persist and the instrument is further delayed, the December 2016 planned launch of JPSS-1 may be postponed.

Building a fail-safe polar satellite constellation under the Polar Follow-On program. NOAA is formulating a robust polar satellite constellation—one that is tolerant of single satellite or instrument failures—beyond JPSS-2 to ensure longer-term continuity of observations and reduce the potential for gaps in key data.[16] The Department's FY 2016 budget request formally introduced the Polar Follow-On program, which includes plans for JPSS-3 and JPSS-4 satellites. Additionally, it includes an option to launch JPSS-3 early in the event of a premature failure of JPSS-2.[17]

The Polar Follow-On proposal addresses a recommendation we made in September 2012: that an acquisition strategy for JPSS-3 and JPSS-4 be determined, documented, and shared with the Department, OMB, and Congress.[18] Until NOAA implements a viable solution to build a more robust polar satellite constellation, the nation is at risk of a potential gap in environmental observations that are among the most significant contributors to the accuracy of weather forecasts.

Completing integration and test activities for GOES-R launch. The GOES-R program, consisting of four satellite missions (GOES-R, -S, -T, and -U), has an estimated cost of $10.8 billion spread over 37 years.[19] The program faces acquisition and development challenges that could further delay the launch of its first satellite in FY 2017 or its operational capabilities after launch. A lag in development progress prompted NOAA and NASA officials to postpone the launch date of first GOES-R satellite from October 2015 to March 2016.

In our May 2015 GOES-R audit report, we found that late delivery of some flight segment components led to the launch delay.[20] As a result, there was an increased potential for a gap in on-orbit backup satellite coverage for the GOES constellation. We noted that the GOES constellation could be without an on-orbit backup satellite for 29 months out of a 33-month period from April 2015 to January 2018. We also found that while the core ground system development—which is in the midst of a second costly re-plan—is not currently on the

[15] In 2010, the National Polar-orbiting Operational Environmental Satellite System (NPOESS) was discontinued by the Administration due to significant management problems leading to cost overruns and schedule delays. As part of that decision, JPSS was started as the civilian polar satellite program and made use of NPOESS-developed space and ground assets.

[16] Key data includes ATMS and Cross-track Infrared Sounder (CrIS) atmospheric temperature and moisture soundings, and Visible Infrared Imaging Radiometer Suite (VIIRS) imagery for latitudes greater than 60 degrees north in the Alaskan region.

[17] This contingency mission would fly only critical sounders most important for weather prediction.

[18] DOC OIG, September 27, 2012. *Audit of the Joint Polar Satellite System: Continuing Progress in Establishing Capabilities, Schedules, and Costs Is Needed to Mitigate Data Gaps*, OIG-12-038-A. Washington, DC: DOC OIG.

[19] FYs 2000–2036

[20] DOC OIG, May 28, 2015. *Audit of the Geostationary Operational Environmental Satellite–R Series: Leadership Must Proactively Address Integration and Test Risks to Maintain Revised Launch Schedule*, OIG-15-030-A. Washington, DC: DOC OIG.

program's critical path to launch, significant integration testing involving both the flight and ground segments remains to be completed.

Continuing development problems have prompted NOAA to delay the launch date from March 2016 to October 2016. On July 27, 2015, the NOAA Administrator approved the launch delay as a result of continued loss of schedule reserve, along with replacement of a critical spacecraft component. The revised launch schedule is expected to remain a challenge for the program, given past schedule performance and a complex integration and test process. It is imperative that NOAA and its contractors manage integration and test schedule progress to avoid repeating previous problems.

Preparing to process observational data from new satellite missions

NOAA may need to defer or even eliminate planned operational capabilities as it completes complex integration testing for the GOES-R and JPSS-1 missions in order to launch both satellites as soon as possible and mitigate potential data gaps. Post-launch test activities, as well as validation of data flows and products, will need to be closely monitored to ensure timely processing for user availability.

In our May 2015 audit report, we also noted that any work the GOES-R program defers until after launch could similarly delay the operational use of GOES-R data and imagery. The challenge for NOAA, as we have recommended, is keeping observational data processing preparations on track and, should delays occur, efficiently informing its stakeholders of product availability issues. Likewise, NOAA must closely monitor efforts to transition the JPSS ground system into operations ahead of the JPSS-1 launch; its capabilities will be first utilized—in early 2016—to support on-orbit satellites.

Prioritizing national goals for more cost-effective collection of fishing data

Since 1972, NOAA's National Marine Fisheries Service (NOAA Fisheries) has used human observers to collect catch data and monitor fishing activity. The data collected through the observer programs aids fishery managers in conducting stock assessments, evaluating human impacts on protected species, measuring catch, and initiating enforcement actions. Over the years, the use of observers has grown into a nationwide program that in 2012 cost more than $69 million to monitor 47 fisheries. The total cost is shared between NOAA Fisheries and the fishing industry, but the portions paid vary widely depending on the observer program.

To reduce these costs and increase oversight, NOAA Fisheries has considered the use of emerging electronic technologies, such as video monitoring, to increase coverage and reduce the costs associated with a human observer, as well as contribute to a more cost-effective and sustainable collection of fishing data. For more than 12 years, NOAA Fisheries and the fishing community have been studying the potential use of electronic monitoring for fishery data collection. However, NOAA Fisheries has not yet developed a nationwide strategic plan and continues to have each region developing its own plan, with current objectives detailed across multiple policy documents. By developing and implementing a national strategic plan for electronic monitoring, NOAA Fisheries could prioritize national goals and streamline efforts among regions.

Departmental Strategic Goal 4: DATA

Improve government, business, and community decisions and knowledge by transforming Department data capabilities and supporting a data-enabled economy

The Department plays a key role in the 21st century information-driven economy, providing data that benefit businesses, governments, and the public. A major source of the Department's data, the Census Bureau, faces challenges as it prepares for the 2020 decennial census and continues to provide a stream of timely demographic, housing, social, and economic information for states and local areas. Also, the DATA Act compels federal departments and agencies to expand data capabilities and support a data-enabled economy.

Delivering a timely 2020 Census that maintains or improves data quality but costs less than the 2010 Census

During the decade leading up to (and during) the 2010 Census, the Census Bureau experienced several major cost drivers. For example, its plans to automate field data collection had to be greatly curtailed. Problems developing and implementing handheld computers and related automation compelled the Bureau to abandon its plan to use the devices during the nonresponse followup (NRFU) operation and forced it to make late-stage preparations for a pen-and-paper NRFU. The Bureau also rejected using the Internet and administrative records to contain costs and improve accuracy, and made a substantial investment to conduct a full, nationwide address canvassing operation to update its address list just prior to enumeration.

The Bureau's deadline for making preliminary design decisions for the 2020 Census is September 30, 2015.[21] These decisions, supported by the results of research and testing (R&T) during fiscal years (FYs) 2012 through 2014, will include several key design components, such as automating field data collection efforts, deploying a new operational control system, encouraging self-response, assessing the accuracy of administrative records, and updating the Bureau's address database.

Once design decisions are made, the Bureau must complete operational development and systems testing—which could use the American Community Survey (ACS) as a test environment—by FY 2018. Although R&T for the 2020 Census is progressing—for example, self-response enumeration via the Internet has been tested and will be used—the Bureau continues to face challenges in achieving cost savings goals while fully utilizing resources needed to realize these goals. Moreover, the Bureau still needs to develop a defined schedule for achieving key milestones in order to complete the operational development and systems testing phase and begin readiness testing and execution by FY 2019.

Effectively recording, collecting, and using financial data to guide programmatic decisions

The Bureau's FY 2013–2015 budget justifications for 2020 Census R&T were based on an estimated $5 billion in savings if design innovations can be implemented. Likewise, the regional office realignment was justified by an annual savings estimate of $14–17 million per year,

[21] This date was delayed by 1 year; the original decision date was September 30, 2014.

beginning in FY 2014. However, recently we identified issues with the Bureau's cost estimates, and the Bureau has not been able to demonstrate that actual cost savings can or will be achieved. We have also identified issues with the process used to charge salary costs to projects. To effectively manage a program of the size, complexity, and cost of the 2020 Census—and assess the return on investment of R&T—managers need to develop detailed and supportable cost estimates to use as benchmarks for success. The estimates should then be compared to actual costs to assess the return on investment of R&T. The Bureau must improve its cost estimation and accounting practices to provide stakeholders assurance that budget requests are justified and will yield expected results.

Developing, testing, and implementing a cost-effective, secure 2020 Census IT infrastructure

According to the Bureau, it spent over $1 billion to build and deploy four unique data collection, data capture, data processing, and management control systems for the 2010 Census. For the 2020 Census, the goal is to have mature, proven systems in place to avoid building one-time use applications. To accomplish this, the Bureau intends to deliver an integrated and standardized combination of systems, referred to as the Census Enterprise Data Collection and Processing (CEDCaP) initiative. CEDCaP aims to reduce or avoid costs by retiring many of the nearly 30 unique, survey-specific systems and by centrally managing IT expenditures across the Bureau. With CEDCaP, the Bureau intends to bring an enterprise-wide approach to survey and census data collection and processing through shared services. The Bureau expects this enterprise approach to be mature and proven well in advance of the 2020 Census. However, the Bureau has previously struggled with program management and meeting scheduled benchmarks for its IT development programs.

With less than 5 years remaining until Census Day (April 1, 2020), the timeline to successfully deploy an enterprise solution is unforgiving. Yet the Bureau faces the challenges of defining and integrating multiple requirements into an enterprise solution; developing the system solution—either in-house or using external expertise; deploying the solution in advance of the decennial census for its existing surveys (such as the 2017 Economic Census and the ongoing ACS); and ensuring scalability to meet workload demands of the decennial census. With the July 2015 departure of the Bureau's Chief Information Officer, this top priority will undergo a leadership change at a critical time—when decisions influencing the decennial census design occur.

Overcoming public resistance to the American Community Survey

During the 2000s, the Bureau followed through on its plans to transition the decennial "long form" to the ACS, leaving the entire decennial survey with only 10 short-form questions designed for easier response. Fully implemented in 2005, the ACS is an ongoing survey which provides updated information to numerous entities. However, there is public resistance to many of the questions included in the ACS: in addition to privacy and confidentiality concerns, some questions are viewed as intrusive.

Since 2009, six bills have been introduced in Congress (two in the Senate, four in the House) to make responding to the ACS voluntary and to remove penalties for non-response. According to the Bureau, a voluntary response will likely adversely affect data quality for small geographic

areas, low-population rural areas, and small population groups, and will result in higher costs due to increased sample sizes and non-response follow-up resulting from lower response rates. To counter these efforts, in 2013 the Bureau created a "respondent advocate" position to work with respondents who feel dissatisfied with their survey experience, Congressional offices that have direct interaction with respondents, and other major stakeholders. And, in 2014, the Bureau conducted an extensive review of ACS content, to ensure that only the information needed is requested and that the justifications provided by federal agencies for the ACS questions are current and valid. As a result of this review, five questions were proposed for elimination, garnering more than 2,000 comments from members of the public in support of keeping the questions. The challenge for the Bureau is to balance the federal need for quality data against the public's dissatisfaction with the intrusive nature of the survey. It remains to be seen if the Bureau's current efforts to meet this challenge—identifying opportunities to soften references to mandatory participation, asking some questions on a periodic basis, and asking some questions to a smaller subset of respondents—will suffice.

Achieving the mandate for government-wide data standards of the DATA Act

A year ago, Congress passed the DATA Act, which mandated the creation of a more data-driven government with federal data more transparent and available to the American people. The DATA Act requires federal agencies to make available detailed information on their spending and use of federal funds and reporting it by specific categories, such as how much funding an agency receives from Congress and how much agencies spend on specific projects and awards. The DATA Act also requires federal agencies to use common government-wide data standards when posting this information to USAspending.gov—standards that are not currently applied across all agencies for all uses.

In May 2015, OMB and the Department of the Treasury issued guidance defining the initial data elements and reporting requirements that must be implemented within the next 2 years in order to comply with the DATA Act. Due to the Department's legacy information systems, providing reliable and consistent agency program information and meeting the goals of the DATA Act will be a significant challenge. The Department will need to dedicate resources in FY 2016 to continue implementation of the established data standards.

Departmental Strategic Goal 5: OPERATIONAL EXCELLENCE

Deliver better services, solutions, and outcomes that benefit the American people

Achieving operational excellence is essential for the Department to achieve mission-focused objectives and maximize value to its customers. This objective focuses on the high-priority, cross-cutting initiatives that the Department's leadership believes are the most critical to mission success. The top challenges we identify for this priority area concern the following:

- IT controls on the Department's financial data;
- a long-term replacement for Commerce Business Solutions;
- persistent IT security issues;
- system security control assessments;
- incident detection and response;
- high-risk contracts;
- acquisition workforce;
- procurement data reporting;
- premium-class travel; and
- a Department-wide culture of accountability.

Improving IT controls for financial data processed on the Department's systems

For each of the past 3 years, the independent auditor of the Department's annual financial statements reported general IT controls as a Department-wide significant deficiency. Despite the Department's ongoing efforts to implement corrective actions, the independent auditor found that weaknesses still exist and require management's attention. Specifically, the Department's financial systems continue to have deficient controls in the areas of access controls, configuration management, and segregation of duties within their financial management system. It is essential that the Department focus on improvements in these areas to ensure that financial data processed on the Department's systems has integrity, is securely maintained, and is only available to authorized users.

Identifying a long-term solution to replace Commerce Business Solutions (CBS)

The lack of centralized and integrated financial management systems creates reporting and oversight challenges for the Department, including the ability to effectively report financial data and monitor financial activity across its operating units. In addition, the lack of an integrated system will make it challenging for the Department to comply with the requirements of the DATA Act. The Department and most of its operating units use an outdated financial

management system that was developed with obsolete technology and augmented with in-house software; it has become increasingly difficult to maintain, as well as a resource challenge to implement new functions. Limited functionality, high support costs, lack of system integration, and lack of centralized reporting capability impede the Department's ability to oversee and manage Department-wide financial activities. The continued reliance on an outdated system carries immediate high risks and may prevent compliance with the Department's reporting requirements.

Plans are in progress to replace the CBS legacy financial management system. However, there have been significant challenges with this project, including delays in identifying a viable Federal Shared Service Provider solution for a replacement. As a result, CBS will need to be operational Department-wide through FY 2022. It will also be costly to maintain CBS, as it is not set up for data analytics, data archiving, or enterprise data warehousing—all of which will be provided by a new business application solution. In addition to the use of a Federal Shared-Service Provider, challenges include the need to interface separate component systems, and uncertainty of funding that will be adequate to bring the project to timely completion.

Addressing persistent IT security issues

Implementing basic security measures. Federal agencies are required to follow NIST's risk management framework (RMF), which includes a step to determine a system's security categorization based on the impact—high, moderate, or low—that a breach of security could have on the system's confidentiality, integrity, and availability. The RMF further requires selection and implementation of a set of security controls for a system based on its security categorization. System owners are expected to implement all applicable security controls.

However, since 2011, our IT security audits have found that the Department's operating units have not been implementing basic security measures that (1) control access so that a system is less vulnerable to unauthorized activity; (2) establish, implement, and enforce secure configuration of components so that systems are protected against attacks; (3) identify and fix security flaws before attackers can use them to compromise systems; and (4) detect and monitor for intrusions to lessen the impact of compromises. This relatively small set of basic security measures is essential for improving the security posture of IT systems Department-wide.

Remediating critical and high-risk vulnerabilities. As a result of these unaddressed security measures, we continued to find critical and high-risk vulnerabilities were not being remediated expeditiously. For example, all five high-impact systems we reviewed during FY 2014 Federal Information Security Management Act (FISMA) audits have a history of allowing high-risk vulnerabilities to persist significantly beyond the Department's 30-day remediation requirement, notwithstanding the readily available repairs. Furthermore, our ongoing security audit work continues to find problems with timely remediation of critical and high-risk vulnerabilities.

In recent years, the Department has made substantial progress toward implementing its Enterprise Cybersecurity Monitoring and Operations (ECMO) initiative, which provides timely information about vulnerabilities to system owners in the bureaus. However, the ECMO deployment on Department high-impact systems is still in the planning stage—and not likely to

be operational until the end of FY 2016. Because the high-impact systems are vital to supporting the Department's critical functions, the Department should assign a higher priority to expeditiously implementing ECMO solutions on its high-impact systems.

Improving the quality and thoroughness of system security control assessments

Federal agencies are required to establish a continuous monitoring program to manage information security risks on a continuous basis, including monitoring the security controls in their information systems. Security control assessments are an integral part of a continuous monitoring program because they provide a basis for authorizing officials to determine the extent to which controls are implemented correctly, operating as intended, and producing the desired outcome with respect to meeting the security requirements for the system. A recent audit report we issued determined that independent assessors did not conduct sufficiently rigorous assessments of critical security controls for five National Weather systems.[22] Our audit found that, regarding these assessments, (1) results lacked supporting evidence, (2) assessors drew conclusions that contradicted collected evidence, (3) all control requirements were not evaluated, and (4) not all types of IT products were assessed. Consequently, these assessments likely did not provide authorizing officials an accurate implementation status of these systems' security controls.

Continuing to strengthen its incident detection and response capabilities

In early FY 2015, NOAA was the victim of a serious cyber-attack resulting in an interruption of services that provide essential data for vital weather forecasts and warnings. As a result, we initiated an audit of NOAA's IT security practices related to this latest cyber-attack. The recent cyber incident at OPM once again highlights challenges that federal agencies face when detecting and responding to a cyber incident.

In the last 2 years, we reported that the Department has started implementing its Enterprise Security Oversight Center (ESOC) initiative. The goal of ESOC is to establish a facility to provide Department-wide security situational awareness to senior Departmental and operating unit managers. During FY 2015, the Department has begun to advance the ESOC initial operating capabilities. Currently, ESOC is receiving and analyzing cybersecurity related information covering approximately 30 percent of the Department's operating units. The ESOC initiative is critical to providing timely cyber situational awareness across the Department. Thus, the Department needs to ensure the required management commitment and strong cooperation from operating units to fully implement ESOC capabilities.

Finally, OIG has identified significant concerns with Department-wide cybersecurity. The Department must address persistent security deficiencies that make the Department vulnerable to cyber-attacks, improve the quality of security control assessments, and strengthen its incident detection and response capabilities.

[22] DOC OIG, July 15, 2014. *Significant Security Deficiencies in NOAA's Information Systems Create Risks in Its National Critical Mission*, OIG-14-025-A. Washington, DC: DOC OIG.

Managing high-risk contracts

Over the past couple of years, our audit work has identified opportunities for the Department to improve its management of high-risk cost reimbursable type contracts—and save taxpayer dollars.[23] A government-wide initiative calls for federal agencies to reduce spending on high-risk contract types, such as time-and-materials and labor-hour, cost reimbursement, and noncompetitive contracts. The Department still faces challenges in contract oversight and administration of these contracts.

For example, in a report issued in December 2014, we found that USPTO contracting and program officials did not follow best practices—Office of Federal Procurement Policy, Federal Acquisition Regulation, the *Commerce Acquisition Manual*, and relevant USPTO policies—to award and administer contracts and task orders for work performed.[24] Specifically, contract and task order awards lacked justifications and established ceiling prices; contractor monitoring and oversight was inadequate; surveillance personnel were not trained, certified, and appointed; and contract files lacked key documentation. Our work continues to identify that—without proper oversight of contractor performance in accordance with contract requirements—the risk of wasted government dollars increases.

Needing a sufficiently staffed and qualified acquisition workforce

In a September 3, 2013, memorandum, the Office of Federal Procurement Policy's Administrator acknowledged that the federal government needs talented and trained individuals who can plan, manage, and oversee acquisitions.[25] The Department considers the scarcity of talent a critical challenge in managing its acquisition workforce due to its procurement of a variety of products and services, such as highly specialized satellite equipment, broadband technology, and coastal and ocean resources. Budget cuts that drastically reduced training funds, a legislative hiring cap that limits the number of employees hired within some operating units, and limited career development and advancement opportunities are obstacles the Department faces in acquiring such talent.

During FY 2014, the Department enhanced its recruitment efforts to include attending college and job fairs, exploring available recruitment incentives, and utilizing special hiring authorities to aid in attracting and retaining highly qualified acquisition professionals to meet hiring projections for a staff of 260 contracting officers and specialists (see table 3, next page). Although this aggressive recruitment effort resulted in filling 64 positions for a total of 242 contracting officers and specialists, the Department still fell short of this goal due to attritions and retirements. To meet its FYs 2015 and 2016 projections of 262 and 269 respectively, the

[23] See DOC OIG, November 8, 2013. The Department's Awarding and Administering of Time-and-Materials and Labor-Hours Contracts Needs Improvement, OIG-14-001-A. Washington, DC: DOC OIG. See also DOC OIG, May 18, 2012. NOAA's Cost-Plus-Award-Fee and Award-Term Processes Need to Support Fees and Extensions, OIG-12-027-A. Washington, DC: DOC OIG.

[24] DOC OIG, December 3, 2014. The U.S. Patent and Trademark Office's Awarding and Administering of Time-and-Materials and Labor-Hour Contracts Needs Improvement, OIG-15-012-A. Washington, DC: DOC OIG.

[25] See Office of Federal Procurement Policy, September 3, 2013, "Increasing Efficiencies in the Training, Development, and Management of the Acquisition Workforce."

Department needs to continue its aggressive recruitment efforts to attract and retain the best-qualified acquisition workforce at entry- and mid-level positions.

Table 3. Acquisition Workforce Staff, Actual and Projected, by Fiscal Year

Acquisition Professionals GS 1102 Series	FY 2013 Actual	FY 2014 Projected	FY 2014 Actual	FY 2015 Projected	FY 2016 Projected
Number of employees	211	260	242	262	269
Number of attritions	35	30	48	38	36
Number of retirement eligible employees	30	24	19	26	27

Source: FY 2014 Department of Commerce Workforce Plan

Accuracy of reported FPDS-NG procurement data

The Department needs to improve its process for entering accurate and reliable data into the Federal Procurement Data System-Next Generation (FPDS-NG).[26] In FY 2015, we issued an audit report regarding the quality of the Department's procurement data reported in the FPDS-NG.[27] We found that 74 undefinitized contract actions were incorrectly coded in FPDS-NG. Most of the problems noted involved contracting officials inadvertently selecting the wrong code and poor internal controls, such as inadequate verification of entered information. Similar problems concerning FPDS-NG data accuracy were also reported in previous OIG audit reports (in May 2012 and November 2013).[28] The Department must ensure that accurate and reliable information is entered into FPDS-NG in order to provide a comprehensive view into the details of contract spending and increasing the transparency and accountability of the Department for how it spends taxpayer dollars.

Improving premium-class travel compliance with Federal Travel Regulation

The Department also faces challenges as it addresses operational issues related to the use of premium-class travel. Our office's recent audit identified that the Department does not implement effective controls over the management of premium-class travel, thus resulting in additional costs spent to upgrade travel to premium-class may not have been warranted. Our audit found there was insufficient support to justify the use of premium-class travel (e.g., for medical reasons, according to the 14-hour rule, or when coach class is unavailable). We also found that unauthorized officials approve the use of premium-class travel at the Department

[26] FPDS-NG is a computer-based data system for collecting, developing, and disseminating procurement data. The system leverages data the government uses to create reports for the President, Congress, GAO, federal executive agencies, and the public.

[27] DOC OIG, June 19, 2015. *Inaccurate Reporting of Undefinitized Actions in the Federal Procurement Data System–Next Generation*, OIG-15-033-A. Washington, DC: DOC OIG.

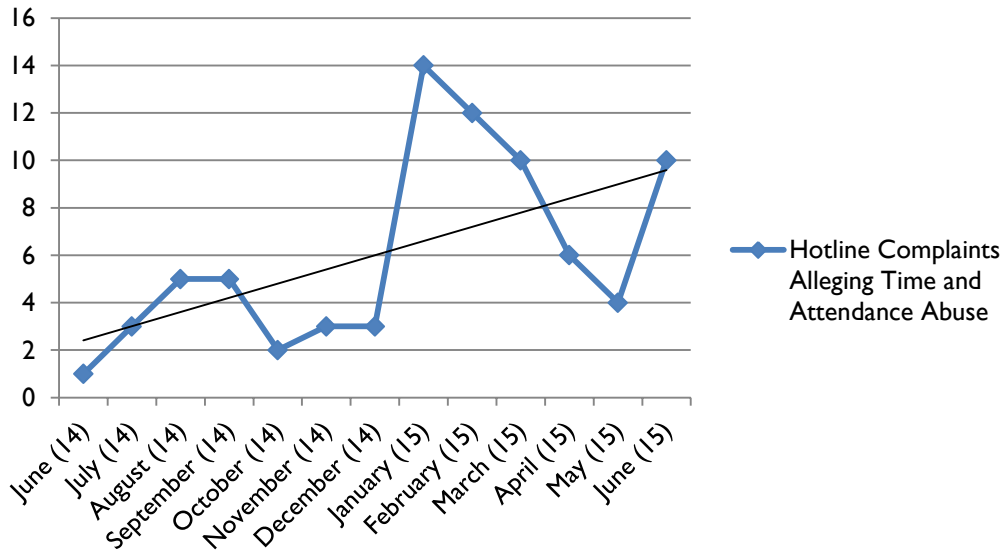
[28] See DOC OIG, May 18, 2012. N*OAA's Cost-Plus-Award-Fee and Award-Term Processes Need to Support Fees and Extensions*, OIG-12-027-A. Washington, DC: DOC OIG. See also DOC OIG, November 8, 2013. *The Department's Awarding and Administering of Time-and-Materials and Labor-Hours Contracts Needs Improvement*, OIG-14-001-A. Washington, DC: DOC OIG.

and bureaus, and that the Department reported inaccurate and incomplete premium-class travel data to the U.S. General Services Administration. The Department must take actions to address the reported deficiencies to ensure adequate controls over premium-class travel justification, approval, and reporting are in place and functioning in compliance with Federal Travel Regulation. To address earlier conditions, and take action on OIG's August 2015 recommendations, the Department has begun a series of process improvements related to premium class travel—including a new Travel Bulletin, an updated Travel Policy Handbook, and an improved travel reporting process. The Department should continue to monitor its progress toward these efforts.

Creating a Department-wide culture of accountability

Detecting and preventing time and attendance abuse. In FYs 2014–2015, OIG concluded several investigations involving time and attendance abuse by employees, with significant findings in several operating units. In addition, over the last year, OIG has received a growing number of disclosures from employees and agency representatives concerning time and attendance abuse, suggesting a concerning trend in the Department (see figure 1).

Figure 1. Hotline Complaints Alleging Time and Attendance Abuse, June 2014–June 2015



Source: OIG

Over a 4-year period at the Census Bureau, OIG found that a significant number of employees appeared neither to have worked nor been on paid-leave status a total of nearly 20,000 hours (or nearly 2,500 full 8-hour work days) for which they were paid, resulting in a loss of over $1.1 million to the government. More specifically, we found that numerous employees reported working full days that were unworked, as well as abused alternative work and telework schedules.

We have also investigated individual issues in several other Departmental operating units. We noted these issues to alert the Department and prompt improved controls over detecting and preventing such activity.

Supporting OIG independence, publication decisions, and access to records. On August 3, 2015, the current Acting IG, along with 67 other OIGs, signed a joint letter to the Senate Committees on Oversight and Government Reform and Homeland Security and Government Affairs requesting legislative relief from a July 20, 2015, Department of Justice Office of Legal Counsel opinion threatening OIG access to Department information. And in September 2015, we responded to a request from the House Committee on Oversight and Government Reform to provide a list and descriptions of instances within the last 2 years that raise our concerns about receiving appropriate access to documents, information, and agency employees. In order for OIG to provide effective oversight and ensure the integrity of the programs and operations of the Department, OIG staff require direct access to evidence, documents, and personnel. To achieve this, the Department's senior leadership must create a culture that supports OIG's oversight function by encouraging all employees to cooperate with OIG audits, inspections, and investigations. OIG continues to encounter issues with Department officials refusing access or claiming privilege over documents required to facilitate reviews:

- **OGC recommends refusing access to documents required for audit.** OIG previously initiated an audit of ITA's Enforcement and Compliance Program but was forced to cancel the work: ITA, upon the advice of the Department's OGC, is not providing access to its case files because they contain business proprietary information.

- **NOAA attempts to prevent release of OIG IT security audit findings.** On July 15, 2014, OIG issued a report on significant IT security deficiencies concerning eight high- and one moderate-impact systems that support NOAA's National Environmental Satellite Data and Information Service and National Weather Service. The issuance of this report followed established procedures allowing for NOAA's review and comments on our draft report. In NOAA's written comments by memorandum, which we included in the final report, the agency concurred with each of our recommendations. After the final report was issued, NOAA requested additional time to comment on it—and raised a concern that the report contained classified information because it discussed the Defense Meteorological Satellite Program, an unclassified system that NOAA maintains and operates on behalf of the U.S. Air Force. NOAA immediately began coordinating with the Air Force to address this concern. Within a week, we were advised that the Air Force had reviewed our report and confirmed that the information contained in it was unclassified. We then met with NOAA senior officials to discuss additional concerns NOAA had about the report. After carefully considering NOAA's concerns, we decided not to make any changes to the final report that was issued.

- **Blocked access to Census Bureau badging records.** In March 2014, following several cases of employee time and attendance abuse at the Census Bureau, OIG attempted to initiate a proactive project to detect potential time and attendance abuse. However, our attempts to obtain these records from employees who "badge in and out" from the Suitland, Maryland, headquarters have been met with substantial

resistance, as Census and the Department's OGC have raised legal questions about OIG's access and use of these records for investigative and disciplinary purposes.[29]

[29] The Computer Matching and Privacy Protection Act of 1988 places restrictions on computer matching that could result in any adverse financial, personnel, disciplinary, or other action against federal personnel. Unless a limited exception applies, the Act's requirement of a departmental review and approval process results in a department's ability to stop, delay, or compromise an investigation through its knowledge of an OIG's intent to use computer matching.

Appendix A: Related OIG Publications

This list presents OIG's past and current work related to FY 2014's top management challenges. These products can be viewed at www.oig.doc.gov. If the product contains information that cannot be released publicly, a redacted version or an abstract will be available on the website.

Challenge 1: Trade and Investment

- *Nonfederal Audit Results for the 6-Month Period Ending June 30, 2015* (OIG-15-042-M; September, 2015)
- *EDA Faces Challenges in Effectively Monitoring Its Revolving Loan Funds* (OIG-15-031-A; June 05, 2015)
- *ITA Management Should Address Significant Challenges Related to Its Recent Consolidation* (OIG-15-021-I; March 25, 2015)
- *Nonfederal Audit Results for the 6-Month Period Ending December 31, 2014* (OIG-15-018-M; February 26, 2015)
- *Nonfederal Audit Results for the 6-Month Period Ending June 30, 2014* (OIG-15-003-M; October 03, 2014)

Challenge 2: Innovation

- *Audit of USPTO's Management of Unliquidated Obligation Balances* (OIG-15-041-A; September 4, 2015)
- *Audit of NIST Quality System for Measurement Services* (OIG-15-038-M; August 14, 2015)
- *USPTO Needs to Strengthen Patent Quality Assurance Practices* (OIG-15-026-A; April 13, 2015)
- *FirstNet Must Strengthen Management of Financial Disclosures and Monitoring of Contracts* (OIG-15-013-A; December 05, 2014)
- *The U.S. Patent and Trademark Office's Awarding and Administering of Time-and-Materials and Labor-Hour Contracts Needs Improvement* (OIG-15-012-A; December 03, 2014)
- *Patent and Trademark IT Modernization Is Progressing, but Improvements Are Needed* (OIG-15-004-A; October 30, 2014)

Challenge 3: Environment

- *Cost Estimates, Long-Term Savings, Milestones, and Enterprise Architecture Policy Are Needed for Common Satellite Program* (OIG-15-032-I; June 11, 2015)
- *Audit of NOAA's Geostationary Operational Environmental Satellite-R Series* (OIG-15-030-A; May 28, 2015)
- *Letter to Representative Jones re: Alleged Conflict of Interest Involving the Atlantic States Marine Fisheries Commission* (14-0761; February 12, 2015)

Challenge 4: Data

- *Control Deficiencies Related to the Overtime Approval Process at a Census Bureau Regional Office* (OIG-15-040-M; August 19, 2015)
- *Inaccurate Reporting of Undefinitized Actions in the Federal Procurement Data-Next Generation* (OIG-15-033-A; June 19, 2015)

Challenge 5: Operational Excellence

- *The Office of Inspector General's Investigation into Alleged Time and Attendance Abuse by Patent Examiner A* (15-0076; August 17, 2015)
- *IG Letter to Senate Regarding FOIA Requests* (OIG-15-037-M; August 14, 2015)
- *The Department Must Strengthen Controls over Premium-class Travel Justification, Approval, and Reporting* (OIG-15-034-A; August 06, 2015)
- *Cost Estimates, Long-Term Savings, Milestones, and Enterprise Architecture Policy Are Needed for Common Satellite Program* (OIG-15-032-I; June 11, 2015)
- *Review of Sole Source Award for Executive Search Services* (14-0408; June 3, 2015)
- *The Office of Inspector General's Investigation into Alleged Contracting Misconduct and Exertion of Improper Influence Involving a Senior National Weather Service Official* (12-0447; June 2, 2015)
- *FY 2014 Compliance with Improper Payment Requirements* (OIG-15-029-I; May 15, 2015)
- *Incorporating Audits into Contract Administration Planning* (OIG-15-027-M; April 29, 2015)
- *Annual Letter to OMB re: Government Charge Card Abuse Prevention Act of 2012* (OIG-15-015-M; January 30, 2015)
- *FY 2014 USPTO Financial Statements Audit: Assessment of Information Technology Controls Supporting Financial Management Systems* (OIG-15-005-A; November 3, 2014)

- *FY 2014 DOC Financial Statements Audit: Assessment of Information Technology Controls Supporting Financial Management Systems* (OIG-15-006-A; November 12, 2014)
- *FY 2014 USPTO Financial Statements* (OIG-15-007-A; November 14, 2014)
- *FY 2014 Consolidated Financial Statements Audit* (OIG-15-008-A; November 14, 2014)
- *Audit of the Department's Cloud Computing Efforts Identified Contractual Deficiencies* (OIG-15-001-M; October 14, 2014)

Appendix B: List of Acronyms

ACS	American Community Survey
AIA	Leahy-Smith America Invents Act of 2011
ATMS	Advanced Technology Microwave Sounder
BIS	Bureau of Industry and Security
CBS	Commerce Business Solutions
CEDCaP	Census Enterprise Collection and Processing
CUESS	Commerce USXPORTS Exporter Support System
DATA Act	Digital Accountability and Transparency Act of 2014
DTSA	Defense Technology Security Administration
ECASS	Export Control Automated Support System
ECMO	Enterprise Cybersecurity Monitoring and Operations
ECR	Export Control Reform Initiative
EDA	Economic Development Administration
ESOC	Enterprise Security Operations Center
FirstNet	First Responder Network Authority
FISMA	Federal Information Security Management Act of 2002
FMC	Fishery Management Council
FPDS-NG	Federal Procurement Data System-Next Generation
FSMS	Federal Spectrum Management System
FY	fiscal year
GAO	Government Accountability Office
GOES	Geostationary Operational Environmental Satellite
IP	intellectual property
IT	information technology
ITA	International Trade Administration
JPSS	Joint Polar Satellite System
MHz	megahertz
NEI	National Export Initiative
NIST	National Institute of Standards and Technology
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPSBN	Nationwide Public Safety Broadband Network
NRFU	nonresponse follow-up
NTIA	National Telecommunications and Information Administration
OGC	Office of General Counsel
OIG	Office of Inspector General
OMB	Office of Management and Budget
PTAB	Patent Trial and Appeal Board
R&D	research and development
R&T	research and testing
RCE	Request for Continued Examination
RMF	risk management framework
USPTO	U.S. Patent and Trademark Office