



U.S. ENVIRONMENTAL PROTECTION AGENCY  
OFFICE OF INSPECTOR GENERAL

*Catalyst for Improving the Environment*

# **EPA Needs Workload Data to Better Justify Future Workforce Levels**

**Report No. 11-P-0630**

**September 14, 2011**

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## Abbreviations

EPA	U.S. Environmental Protection Agency
FTE	Full-time equivalent
FY	Fiscal year
GAO	U.S. Government Accountability Office
OAM	Office of Acquisition Management
OAR	Office of Air and Radiation
OB	Office of Budget
OCFO	Office of the Chief Financial Officer
OGD	Office of Grants and Debarment
OIG	Office of Inspector General
OMB	Office of Management and Budget
OPAA	Office of Planning, Analysis, and Accountability
OSWER	Office of Solid Waste and Emergency Response

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# At a Glance

*Catalyst for Improving the Environment*

## Why We Did This Review

We sought to determine whether the U.S. Environmental Protection Agency (EPA) has collected and used workload data to determine its workforce size, and whether there are workload models that EPA could use or benefit from when trying to determine workforce size.

## Background

During the 1980s, EPA conducted comprehensive workload analyses to determine appropriate workforce levels. Around the early 1990s, EPA discontinued these analyses and, since then, it has adjusted the size of its workforce via incremental shifts. The U.S. Government Accountability Office and the EPA Office of Inspector General have reported on the importance of basing workforce levels on workload.

For further information, contact our Office of Congressional, Public Affairs and Management at (202) 566-2391.

The full report is at:  
[www.epa.gov/oig/reports/2011/20110914-11-P-0630.pdf](http://www.epa.gov/oig/reports/2011/20110914-11-P-0630.pdf)

## ***EPA Needs Workload Data to Better Justify Future Workforce Levels***

### **What We Found**

EPA has not collected comprehensive workload data or conducted workload analysis in about 20 years. EPA does not require program offices to collect and maintain workload data, and the programs do not have databases or cost accounting systems in place to collect data on time spent on specific mission-related outputs. Federal guidance and standards emphasize the importance of planning work to determine staffing needs. Office of Management and Budget guidance states that agencies should identify their workloads to help determine the proper workforce size, and federal accounting standards require that agencies establish cost accounting systems to allow them to determine resources consumed for work performed. Without sufficient workload data, program offices are limited in their ability to analyze their workloads and justify resource needs, and EPA's Office of Budget must base budget decisions primarily on subjective justifications at a time when budgets continue to tighten and data-driven decisions are needed.

Organizations of varying sizes and missions have used workload models for years to justify resource needs. During our audit, we identified some basic concepts of workload modeling from which EPA could benefit. EPA would need to tailor such concepts to its own mission, structure, and culture.

### **What We Recommend**

We recommend that the Chief Financial Officer conduct a pilot project requiring EPA offices to collect and analyze workload data on key project activities. The Chief Financial Officer should use information from the pilot project, along with data from an ongoing contractor study, to issue guidance to EPA program offices on how to collect and analyze workload data, the benefits of workload analysis, and how the information should be used to prepare budget requests. EPA partially concurred with our recommendations in its response to our draft report. EPA stated that it needs time to collect more data and develop a final corrective action plan with milestones for completion. Therefore, our report recommendations will remain unresolved with resolution efforts in progress.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

THE INSPECTOR GENERAL

September 14, 2011

**MEMORANDUM**

**SUBJECT:** EPA Needs Workload Data to Better Justify Future Workforce Levels  
Report No. 11-P-0630

**FROM:** Arthur A. Elkins, Jr.  
Inspector General

A handwritten signature in black ink, appearing to read "Arthur A. Elkins, Jr.", is written over the printed name of the Inspector General.

**TO:** Barbara J. Bennett  
Chief Financial Officer

This is our report on the subject audit conducted by the Office of Inspector General (OIG) of the U.S. Environmental Protection Agency (EPA). This report contains findings that describe the problems the OIG has identified and corrective actions the OIG recommends. This report represents the opinion of the OIG and does not necessarily represent the final EPA position. Final determination on matters in this report will be made by EPA managers in accordance with established audit resolution procedures.

The estimated direct labor and travel costs for this report are \$451,155.

**Action Required**

The Agency partially concurred with recommendations 1 and 2, and these recommendations are considered unresolved with resolution efforts in progress. Therefore, in accordance with EPA Manual 2750 and ongoing resolution efforts, you are required to provide a written response to recommendations 1 and 2, including a proposed corrective action plan, within 90 calendar days of the report date. The response will be posted on the OIG's public website, along with our memorandum commenting on the response. The response should be provided as an Adobe PDF file that complies with the accessibility requirements of Section 508 of the Rehabilitation Act of 1973, as amended. Please e-mail your response to Patrick Gilbride at [Gilbride.Patrick@epa.gov](mailto:Gilbride.Patrick@epa.gov). The final response should not contain data that should not be released to the public; if the response contains such data, the data for redaction or removal should be identified. We have no objections to the further release of this report to the public. We will post this report to our website at <http://www.epa.gov/oig>.

If you or your staff have any questions regarding this report, please contact Melissa Heist, Assistant Inspector General for Audit, at (202) 566-0899 or [Heist.Melissa@epa.gov](mailto:Heist.Melissa@epa.gov); or Patrick Gilbride, Product Line Director, at (303) 312-6969 or [Gilbride.Patrick@epa.gov](mailto:Gilbride.Patrick@epa.gov).

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# Chapter 1

## Introduction

### Purpose

In June 2010, the Office of Management and Budget (OMB) issued guidance instructing each nonsecurity federal agency, such as the U.S. Environmental Protection Agency (EPA), to submit a budget request 5 percent below its discretionary spending total for fiscal year (FY) 2011. As federal budgets continue to tighten, the need for federal agencies to justify the size of their workforce is readily apparent. From 1999 to 2010, the number of full-time equivalent (FTE) positions that Congress authorized provided to EPA decreased over 5 percent, from 18,366 FTEs to 17,417.

The purpose of this audit was to determine whether EPA has collected and used workload data to justify the size of its workforce. We also sought to identify any workload analysis concepts or models from which EPA could benefit.

### Background

For an organization to operate efficiently and effectively, it must know what its workload is. While there is no one exact definition of workload, it is commonly thought to be the amount of work assigned to, or expected to be completed by, a worker in a specified time period. Workload that is set too high or too low can negatively affect overall performance. The main objectives of assessing and predicting workload are to achieve an evenly distributed, manageable workload and to accurately determine the resource levels needed to carry out the work.<sup>1</sup>

Workload data, for purposes of this report, consist of two components: (1) identified activities that must be conducted to complete a project or work effort, and (2) the actual or estimated time it takes to perform each of the identified activities. Workload data are a required component of workload analysis or modeling. Workload modeling is an analytical technique used to measure and predict workload. Because there is no one agreed-upon definition of workload, there is no one agreed-upon method of assessing or modeling workload.<sup>2</sup>

During the 1980s, EPA conducted comprehensive workload analyses to determine appropriate workforce levels. EPA used approximately 70 models, and each

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<sup>1</sup> EPA had not previously defined the term “workload.” As a result, we used common industry definitions pertaining to workload.

<sup>2</sup> EPA had not previously defined the term “workload modeling.” As a result, we used common industry definitions pertaining to workload data and workload modeling.

model used different factors and equations to estimate workload. The models focused on how regional offices implement programs. Because the workload was spread across all program elements, each region typically played a part in every model. EPA used the models each year to evaluate the need to adjust FTEs based on changes from the preceding year. EPA then went through a consensus call process to see whether the regions agreed on the results of the model. When the regions reached consensus, EPA allocated the resources.

According to EPA personnel, around the early 1990s, the Deputy Administrator decided that EPA would discontinue such analyses. EPA managers and staff thought that the consensus process had become overly burdensome and time consuming, and focused on small changes to FTEs. Another perception was that regions did not always use the personnel as allocated. As EPA's programs were maturing and becoming more established, budgets began to level off. Since the early 1990s, EPA has adjusted the size of its workforce via incremental shifts from prior-year levels (table 1).

**Table 1: Change in FTEs from 1999 to 2010**

Year	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
FTE	18,366	18,100	18,000	17,832	17,802	17,909	17,759	17,631	17,560	17,324	17,252	17,417

Source: EPA Office of the Chief Financial Officer.

### ***Many Offices Contribute to EPA's Budget Formulation and Execution***

The Office of Budget (OB) within the Office of the Chief Financial Officer (OCFO) is responsible for formulating and executing the budget, and issuing annual planning and budget memoranda. It also takes the lead on discussing and determining workforce levels, evaluating emerging issues, and determining administrative priorities.

EPA's Office of Planning, Analysis, and Accountability (OPAA), along with OB, works to integrate goal-based decisionmaking into the allocation of Agency resources. The Agency does this through multiyear and annual planning in the budget process. OPAA staff designs, develops, implements, and maintains an Agency-level process for identifying, collecting, analyzing, and reporting performance and resource information as required by the Government Performance and Results Act.

The EPA Administrator and 12 Assistant Administrators in headquarters program offices are national program managers who control resources. National program manager responsibilities include planning, formulating, and justifying budgets for national and regional EPA programs, adjusting national program budgets (e.g., headquarters/regional splits) as needed, and preparing program operating guidance. EPA also has 10 Regional Administrators who are responsible for regional administration and budget execution for all programs in the states and

territories within their region. Regional Administrators coordinate with national program managers on budget formulation and execution.

### ***EPA Has Conducted Workload Studies in Last 5 Years***

Since 2005, EPA offices have studied workload issues at least six different times (table 2). However, for the most part, EPA has not used the findings resulting from the workload assessments. According to EPA, the results from the completed studies were not feasible to implement. These studies are discussed in greater detail in chapter 2.

**Table 2: EPA workload analysis studies since 2005**

<b>EPA office</b>	<b>Conducted by</b>	<b>Date completed</b>	<b>Outcome</b>
Office of Grants and Debarment	Contractor	April 2005	Report: <i>Management of Assistance Agreements at the Environmental Protection Agency: Workload Analysis and Models</i>
OCFO	Contractor	June 2006	Report: <i>Environmental Protection Agency: Workload Assessment and Benchmarking Options</i>
Office of Research and Development	EPA + Contractor	November 2006	Administrative Efficiencies Project
Office of Acquisition Management	EPA	June 2007	No report produced; project discontinued
Office of Solid Waste and Emergency Response	EPA + Contractor	December 2008	Report: <i>Superfund Workload Assessment Report</i>
OCFO	Contractor	Estimated completion September 2011	Contractor to provide suggestions on how EPA could develop a model

Source: Data obtained from EPA offices listed.

EPA paid contractors nearly \$3 million related to five of the six workload studies conducted since 2005. Contractors produced reports for EPA in each of those five instances, but EPA generally did not take action.

### ***OMB Requires EPA to Reduce Its 2012 Budget Request by 5 Percent***

On June 8, 2010, OMB issued guidance to federal agencies regarding FY 2012 budget submissions. OMB instructed each nonsecurity agency, such as EPA, to submit a budget request 5 percent below its discretionary spending total for FY 2011. Rather than reducing spending across the board, OMB informed agencies that they were to restructure operations by (1) eliminating programs that have a low impact on an agency's mission so that resources can be freed up to continue investments in priority areas even as overall budgets are constrained, (2) reengineering staffing plans and other processes to squeeze waste out of existing operations and produce better outcomes, and (3) focusing management

attention on high-priority performance goals to better deliver services to the American people using available resources. OMB's guidance also stated that the FY 2012 budget submissions should include analysis and evidence showing the effects of any reductions and explaining why reductions were warranted.

## **Noteworthy Achievements**

EPA has taken steps to improve workforce planning. In 2009, OCFO awarded a contract to study best practices for identifying appropriate workforce size based on workload. The study is targeting key EPA functions: (1) regulatory development, (2) scientific research, (3) enforcement, (4) financial management, (5) environmental monitoring, and (6) permitting. The results of this effort, however, have yet to be determined.

## **Scope and Methodology**

We conducted our audit from March 2010 to March 2011 in accordance with generally accepted government auditing standards. Those standards require that we obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our evaluation objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our objectives.

During our work, we reviewed:

- Laws, regulations, guidance, and other background data related to workload and workforce planning, including OMB circulars and Office of Personnel Management documents
- National program manager guidance from the program offices
- EPA's Annual Commitment System as well as some regional annual commitment documents
- Budget justification documents that the Office of Air and Radiation (OAR), the Office of Solid Waste and Emergency Response (OSWER), and the Office of Water (OW) submitted to OCFO for FYs 2009–2011
- Prior studies and reports on workload analysis that EPA and its contractors conducted
- Prior audit work performed by the U.S. Government Accountability Office (GAO) and EPA's Office of Inspector General (OIG)

During our audit, we interviewed managers and staff from seven headquarters offices and four regions. We also interviewed the Associate Administrator for OMB's Office of Federal Procurement Policy. See appendix A for further details on our scope and methodology, including a list of the offices we visited.

## **Prior Audit Reports**

Prior reports by both GAO and the EPA OIG have highlighted the importance of managing resources and workload effectively, and identified instances in which inadequate resource management hindered EPA in fulfilling its mission. See appendix B for a detailed listing of such reports.

### **GAO**

In GAO-10-413, *Workforce Planning: Interior, EPA, and the Forest Service Should Strengthen Linkages to Their Strategic Plans and Improve Evaluation*, issued in March 2010, GAO found that EPA's process for allocating resources involved making annual incremental adjustments to prior-year allocations and did not directly link to workforce plans. GAO concluded that EPA has not comprehensively analyzed its workload and workforce to determine the optimal numbers and distribution of staff Agency-wide since the late 1980s.

In GAO-09-434, *Environmental Protection Agency: Major Management Challenges*, issued in March 2009, GAO reported that EPA had struggled for several years to identify its human resource needs and to deploy its staff throughout the country in the most beneficial manner. GAO found that EPA's process for budgeting and allocating resources did not fully consider the Agency's current workload, and that in preparing requests for funding and staffing, EPA made incremental adjustments largely based on an antiquated workforce planning system that did not reflect a bottom-up review of the nature or distribution of the current workload. Moreover, EPA's human capital management systems had not kept pace with changing legislative requirements and priorities, changes in environmental conditions in different regions of the country, and the much more active role that states now play in carrying out day-to-day-activities of federal environmental programs.

### **EPA OIG**

In OIG Report No. 11-P-0031, *EPA Needs to Strengthen Internal Controls for Determining Workforce Levels*, issued December 20, 2010, we concluded that EPA's policies and procedures do not include a process for determining employment levels based on workload as prescribed by OMB. We recommended, among other things, that OB amend its guidance to require that the Agency complete a workload analysis for all critical functions to support the Agency's budget request for FTEs.

In OIG Report No. 2005-P-00006, *Office of Acquisition Management Can Strengthen Its Organizational Systems* issued February 17, 2005, we concluded that EPA's Office of Acquisition Management (OAM) needed

to perform workload and workforce analysis to identify FTE and skill gaps. The report stated that OAM did not have data to measure its progress toward achieving its vision of being the preferred business partner for all EPA contracts. OAM also could not determine the percentage of EPA contracts managed by its own personnel.

## Chapter 2

# EPA Needs to Collect Workload Data to Conduct Workload Analysis

EPA has not collected comprehensive workload data or conducted workload analysis in about 20 years. EPA does not require program offices to collect and maintain workload data, and the programs do not have databases or cost accounting systems in place to collect data on time spent on specific mission-related outputs. Federal guidance and standards emphasize the importance of planning work to determine staffing needs. OMB guidance states that agencies should identify their workloads to help determine the proper workforce size, and federal accounting standards require that agencies establish cost accounting systems to allow them to determine resources consumed for work performed. Without sufficient workload data, program offices are limited in their ability to analyze their workloads and justify resource needs, and EPA's OB must base budget decisions primarily on subjective justifications at a time when budgets continue to tighten and data-driven decisions are needed.

### Federal Agencies Should Collect and Analyze Workload Data

We reviewed federal guidance and standards pertaining to preparing budgets. These documents address the importance of workload in determining resource needs. The Statement of Federal Accounting Standards No. 4 also contains information relating to the need for agencies to account for the cost of the services they provide, including the cost of labor (i.e., FTEs consumed).

OMB Circular A-11, *Preparation, Submission and Execution of the Budget*, issued July 2010, suggests that calculations should be made to convert workload estimates to required personnel. Those estimates should include available work hours per employee. The circular specifically states that budget submissions “must identify the human capital management and development objectives, key activities, and associated resources that are needed to support agency accomplishment of programmatic goals.”

OMB Guidance Memorandum M-09-26, *Managing the Multi-Sector Workforce*, issued July 2009, instructs agencies to determine the mix of skills and amount of labor needed for the agency to perform efficiently and effectively. Agencies should take into account the mission, functions, desired performance standards, and workload. The memorandum also states that each federal agency should conduct a pilot human capital analysis of at least one program, project, or activity for which the agency has concerns about the extent of reliance on contractors. The pilot will provide agencies with an opportunity to develop processes and practices that support the broader vision of multisector workforce management.

The Statement of Federal Financial Accounting Standards Number 4—issued by the Federal Accounting Standards Advisory Board—relates to managerial cost accounting concepts and standards for the federal government. It states that information on the costs of program activities can be used as a basis to estimate future costs in preparing and reviewing budgets. The statement requires federal agencies to establish cost accounting systems to allow them to determine the full cost, in terms of resources consumed, of the services and products they provide.

## **EPA Does Not Collect Data to Conduct Workload Analysis**

Workload data generally do not exist within the program offices we reviewed. Although program offices were aware of overall work outputs they plan to accomplish in a given year, they were not able to determine resource needs at the task level based on quantitative analysis. For example, a program office may know the number of permits it needs to issue in a given year, but it does not have data relating to the resources used to issue specific types of permits in the past.

We reviewed budget documents for FYs 2009–2011 that OAR, OW, and OSWER prepared to support their budget requests. We found that those program offices submitted budget requests based on subjective estimates; we were not provided any form of quantitative support for the requests. We found little correlation between program office requests and OCFO’s budget recommendations. The lack of program office workload data contributed to the differences between the offices’ proposed estimates and the FTE levels that OB approved.

For example, in FY 2009 budget documents, OAR cited potential negative impacts that a reduction in funding would cause to its air toxics program. However, OAR did not provide any quantitative analysis of the program’s operations and FTE costs with its narrative. For FY 2010, OAR proposed increased funds and FTEs for the Agency’s homeland security program, one of the EPA Administrator’s top priorities. However, OAR again did not support the proposed increases with workload data or an analysis of the program’s costs. This lack of support was evident in all the budget documents we reviewed for OAR, OW, and OSWER. Without workload data, EPA cannot determine, and quantifiably support in budget documents, the resource needs for planned work.

EPA has prepared estimates in recent years to support budget requests for additional FTEs in some high-priority work areas, including energy permitting, Chesapeake Bay, and mountaintop mining. Those estimates were also based on subjective formulas developed by subject-matter experts. Relying solely on subject-matter experts, without using actual workload data, increases the likelihood for inaccurate resource projections.

For example, Region 8 experts initially determined that the region needed about 20 FTEs to alleviate a growing backlog of energy permits. In the end, however, Region 8 was able to eliminate the backlog with just six new FTEs that OCFO

provided to the region. Region 8 worked with OB and other experts nationally to develop its estimate; however, they had no quantifiable data on past resource needs for energy permitting from which to draw. Region 8 does not have a system in place to track the time and cost for energy permitting activities and could have developed a better national estimate if it and each region had actual data on resource availability and needs.

We also identified isolated examples of data systems that some EPA water programs could use for workload analysis. Region 3's Water Protection Division has been using a Permit Tracking System since 2000. While the system does not track the number of hours spent by Region 3 personnel on individual tasks, the system does track the different stages and milestones of the permit review process. The system contains comprehensive technical information on the water permits themselves, and identifies the permit reviewer and the review workloads and backlogs based on permit expiration dates. In another example, Region 4's Water Protection Division developed a pilot workload database that tracks resources assigned to projects for endangered watersheds. The database has been in use for about a year and contains information on staff and FTEs assigned to each watershed project. Region 4 Water Protection Division supervisors update this information every time they reach a project milestone. EPA personnel, however, told us that they did not use data from these systems to support the resource estimates we reviewed. According to EPA, while these systems were designed to track work progress, they do contain data that could be useful for conducting workload analysis.

## **EPA Has Attempted to Analyze Its Workload With Limited Results**

EPA has taken steps in recent years that indicate it understands the importance of having a workload analysis process. Various EPA offices have studied how to develop methods for analyzing workload. For the most part, however, EPA has not used the results of those efforts.

In 2005, EPA's Office of Grants and Debarment (OGD) contracted with a firm to identify the workload drivers that affect the work of grant specialists and project officers. EPA paid the contractor about \$220,000, and OGD took action on certain suggestions from that report. However, OGD did not adopt a comprehensive process for collecting and analyzing workload data as a result of the study. Although the OGD director placed some value in the study and the contractor's suggested workload model, he acknowledged during our field work that the study needs to be updated. One regional grants manager stated that he did not believe the numbers generated by the study's suggested model were reliable and that the model did not allow for changes, such as the addition of new programs. The OGD director told us that his office is currently working to develop updated alternatives for analyzing its workload.

In 2006, OCFO contracted with a firm that issued a report to EPA on workload and workforce planning methods used by nine federal agencies. The contractor, which EPA paid \$92,000, recommended that EPA draw from the ideas and methodologies in the study to develop its own approach for assessing staffing in relation to workload. OCFO did not take action on that report recommendation. The OB deputy director told us that her office felt additional information was needed to make any decisions on this matter. As a result, OB contracted in 2009 with another firm for an additional study.

In 2006, OSWER began a 2-year effort involving over 200 EPA managers and staff to study its workload, issuing a report in December 2008. OSWER paid a contractor over \$1.7 million for assistance with the study, in addition to the time and cost of over 200 EPA employees who participated. The study found that regional staffing levels were not proportional to future workload demands. OSWER ultimately did not take action on the results of the study. The Superfund board of directors decided that moving or rebalancing personnel resources across regions would likely produce substantial disruption. The board stated that such a disruption could cause a decrease in national output, at least in the short term, and was inadvisable.

In 2007, OAM spent about a year trying to develop a workload model for its contracting staff, but was unsuccessful and abandoned the effort. OAM informed us that its attempted model was too cumbersome to use because there were too many variables, and that it would not have provided reliable output.

In 2009, OCFO contracted with a firm to summarize the pros and cons of different processes and issues relating to workload analysis. The basic contract has a value of \$607,024, with options that can be exercised that would raise the total to \$713,369. According to EPA, the contractor will be summarizing the pros and cons of different processes and issues relating to workload analysis. EPA hopes to better understand some of the variables (functions, techniques, structures, etc.) related to workload analysis not currently being used at EPA during work planning. The contractor is about 6 months behind schedule, and EPA currently expects the work to be completed by September 2011.

## **EPA Needs Processes or Systems to Track Time Spent on Projects**

Systemic workload data do not exist at EPA because most of the Agency's programs either do not have or do not use databases or cost accounting systems for employees to charge their time to specific activities. To meet federal financial accounting standards, EPA tracks costs at a high level—the program/project level. EPA currently tracks costs for about 140 program/projects. A program is defined as what EPA does based upon specific statutory authority, and a project is defined as a significant task or problem the Agency is addressing. Examples of current program/projects include Indoor Air: Radon Program, Superfund: Enforcement, and Research: Water Quality. Within most of these 140 program/projects, EPA

personnel are engaged in many activities, resulting in many significant outputs and deliverables. EPA's tracking of costs at the program/project level is at too high a level to be useful for workload analysis.

EPA managers indicated that doing a comprehensive workload analysis like those done decades ago, including tracking the hours that people work on specific activities, would be an inefficient use of limited EPA resources. We found, however, that when required, the Agency tracked and accounted for each hour spent by over 240 employees on the Deepwater Horizon oil spill response effort in the Gulf of Mexico in 2010. In June 2010, the Region 6 Comptroller's office issued guidance to employees on how to charge time spent on the oil spill response. EPA's funding to respond to the oil spill came from a reimbursable authorization that the U.S. Coast Guard provided. According to the Region 6 guidance, the authorization established allowable tasks and a site identification code to enable the region to capture costs associated with the oil spill response. The guidance stated the importance of being able to track and account for all expenditures for potential cost recovery from responsible parties. According to data that the Region 6 Comptroller provided us, as of the end of August 2010, over 240 employees had charged approximately 32,067 hours, or 15.4 FTEs, to the oil spill response. This example indicates EPA's ability to track time spent on projects and activities when it is required.

## **EPA Cannot Assure Resources Are Planned or Allocated in the Most Efficient and Effective Manner**

Without sufficient workload data, program offices have limited ability to analyze workload and determine adequate FTE levels to carry out their mission. Program offices also cannot analytically justify the need for more resources or assure existing resources are used in the most efficient and effective manner. As a result, OB has to rely primarily on subjective justifications at a time when budgets continue to tighten and data-driven decisions are needed.

Sound workload analysis based on sufficient and reliable data can help assure that the highest-priority work is completed. Workload analysis could also highlight areas where EPA could use resources more effectively.

## **Conclusions**

EPA is basing its resource needs primarily on subjective data. It does not have the systems to collect and maintain quantifiable workload data. Program managers believe they cannot influence budget allocations and believe developing models or data systems would not be a wise use of time. Therefore, programs continue to depend on experienced staff and subject-matter experts to estimate workload and resource needs. We acknowledge the high value of experienced staff and subject-matter experts, and believe their input should always be an important component

of workload analysis. However, discretionary budget allocations are better justified when supported by accurate, timely, and complete data.

In the examples we reviewed, EPA's efforts to identify its workload were too broad, resource intensive, and/or complex. For example, the current contract that OCFO is using is designed to provide feedback that will broadly look at EPA as a whole from a top-down management perspective. We believe EPA would benefit from a bottom-up approach. Workload should be collected and analyzed first at the level at which it is conducted. That information can then move upward through management until a budget request is submitted. We also believe that a broad, one-size-fits-all approach is unrealistic for a diversely structured agency like EPA. We believe that this broad approach is a primary reason prior attempts were unsuccessful and ultimately discontinued.

In addition, we learned that workload models containing too many variables (workload drivers) were complex and did not provide reliable data. Therefore, workload analysis may be more useful if the process is simplified and carried out at a project level within the larger programs. However, EPA cannot undertake workload modeling without workload data.

Considering the current economic climate and declining budgets, workload analysis and resource estimates must be as accurate as possible. Further, when EPA's expert employees retire or leave for other reasons, substantial workload knowledge is potentially lost. Therefore, EPA programs should develop systems to collect and maintain quantifiable workload data. This information, combined with input from EPA's experts, will substantially improve the accuracy and transparency of workload analysis.

## Recommendations

We recommend that the Chief Financial Officer:

1. Conduct a pilot project requiring EPA organizations to collect and analyze workload data on key project activities.
2. Use information learned from the pilot and the ongoing contracted workload study to issue guidance to EPA program offices on:
  - a. How to collect and analyze workload data
  - b. The benefits of workload analysis
  - c. How this information should be used to prepare budget requests

## Agency Comments and OIG Evaluation

EPA partially concurred with both of our recommendations. Regarding recommendation 1, EPA stated that it is following up on recent air and water workload pilot projects conducted by Regions 1 and 6, and it is continuing to look at how other organizations collect and analyze workload data and use workload methodologies.

Regarding recommendation 2, EPA stated that the ongoing workload survey/benchmarking study, to be completed in September 2011, will include input from over 1,000 managers, informational interviews with other agencies that manage similar functions, and discussions with over a dozen similar agencies about what workload tools they employ. EPA also said that it would explore the use of external variables such as population, land area, gross domestic product, and/or other reliable and available environmental or public data to help better understand major drivers for EPA's geographic workload.

EPA also stated that it would use perspectives gained from the pilots, its contractor study, and geographic analyses to develop intelligent, cost-effective options for strengthening its planning processes. EPA stated that its paramount goal is to consider how to best use increasingly limited resources when making decisions and conducting evaluations. However, OCFO also stated that it cannot commit to issuing detailed guidance to the rest of the Agency on collecting and using workload data until it has developed or found viable methodologies for EPA's functions.

We recognize that EPA is in the process of studying this issue and is taking steps, including its recent pilots in Region 1 and Region 6, that will help the Agency make decisions regarding how best to allocate its resources in the future. We also believe, however, that EPA should fully commit to analyzing the Agency's workload, since EPA has revisited this issue with various studies over the last 6 years. EPA must provide the OIG a specific plan within 90 days after issuance of this report that includes milestone dates for completing its corrective actions. Until EPA does so, we will consider our recommendations to be unresolved.

# Chapter 3

## Various Workload Modeling Concepts and Workload Models Used by Other Organizations

Organizations of varying sizes and missions have used workload models for years to analytically justify resource needs. Federal and state agencies, such as the U.S. Department of State, the Internal Revenue Service, the U.S. Army, and the Washington State Department of Ecology, have used workload models to help determine resource needs.<sup>3</sup> Private-sector entities such as hospitals, academic institutions, and firms in other industries have also used workload models. Based on concepts used by other organizations, EPA could benefit from using a model or models tailored to its own mission, structure, and culture.

### Basic Workload Modeling Concepts

We reviewed examples of workload analysis from external sources, including the State Department and the Washington State Department of Ecology. We also looked at EPA's prior efforts to study its own workload. Finally, we consulted various publications on the subject of workload analysis. As a result, we identified the following key concepts that EPA should consider as it decides how best to develop a model or models for its use:

- Workload models help to logically and analytically justify requests for resources.
- Responsible officials must clearly communicate the need for, and impact of, resource requests.
- Three common elements in most workload models, in sequence, are identifying activities (individual tasks necessary to meet the driver/output), identifying drivers (measurable events or outputs associated with a particular function), and determining the duration (the time it takes to accomplish an activity).
- Durations can be determined using several different methods and can be affected by many variables. For transactional-type activities, developing a guide for estimating average times could be helpful. For activities of a less predictable nature, the best option is to track duration data over time to develop realistic estimates based on history.
- An organization should determine its mission-critical functions first and conduct workload analyses for them. Administrative support positions should be analyzed last, because they generally depend on the functions and workload that they support.

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<sup>3</sup> EPA's 2006 contracted study on workload assessment and benchmarking documented the methods used by the Internal Revenue Service and the U.S. Army.

- It is crucial to have a good understanding of which tasks can be quantified, and which are more qualitative or subjective in nature.
- In a complex organization, such as EPA, a single, standard workload model is not practical or feasible. Rather, local units should adopt an approach that fits their mission and operations.
- A consistent timeframe should be established for running the models, perhaps every 2 years. Longer horizons generally will result in less accurate projections.

## **Examples of Workload Models**

We reviewed some examples of workload models from sources outside of EPA as well as the attempts that EPA made to analyze workload issues. Below are some concepts and details from the U.S. Department of State and the Washington State Department of Ecology examples, as well as two EPA examples. These examples incorporate concepts that EPA should consider when developing any future models.

### ***State Department***

The State Department has used workload analysis to justify its resource needs since 1996. In a June 2006 benchmarking study conducted for EPA by a contractor, State was considered a valid benchmark for EPA. In fact, the contractor identified the State Department in its study as most relevant to EPA based on three main criteria: agency functions, data update cycles, and predictability of workload changes. State had about 17,000 domestic employees in 2006, about the same number as EPA. Key among the features of the State Department model are:

- Employing separate models for domestic staff and overseas staff
- Completing the administrative/support functions in its models last, after the mission-related parts of the model are determined
- Running its models every 2 years

The State Department was able to use its models to analytically justify the need for more resources and received them during 2002–2004.

### ***Washington State***

In 2001, the Washington State Department of Ecology produced an assessment of the workload required to meet a 15-year schedule of work to address polluted waters, as contained in a memorandum of agreement with EPA. As a followup, the department again assessed workload in 2006, resulting in an updated set of recommendations and proposals for resource needs to more efficiently achieve its workload demands. Other features of this study were that the department:

- Used raw data to identify the number of impaired water bodies
- Determined which measures could be quantified
- Developed formulas differing by complexity or type of activity to estimate resources for some of the tasks that could be quantified
- Used past experience to determine FTE needs for some of its work relating to impaired waters
- Established an accountability team charged with improving the flow of communication and establishing a system for tracking and maintaining workload data

### ***EPA's Superfund Workload Assessment***

OSWER conducted a study beginning in 2006 of its Superfund program resources. Some of the main features of the study were that OSWER:

- Used a rigorous methodology that broke down the analysis into the following categories:
  - Work elements—activities with a common purpose/output
  - Outputs—the end product for each work element
  - Pricing factors—an estimated measure of the effort required, expressed in work years
- Used available EPA databases when possible
- Grouped sites by resource intensity (low, medium, high)
- Assigned a full pricing factor to planned work elements, and half of a pricing factor to work elements underway, to determine annual work years needed per site
- Estimated the total work years for a typical site by combining the above data on work elements and pricing factors with activity data in databases
- Looked at workload as a whole, including in all the regions, and then distinguished between work to be performed by in-house resources versus through contracts and grants
- Developed estimates of FTE needs based on workload allocation projections for each of the 10 regions

### ***EPA's Study on Assistance Agreements Workload***

OGD contracted out for a study related to workload issues for managing assistance agreements. The contractor's report, issued in April 2005, produced recommendations aimed at achieving efficiencies by streamlining the workload of grants specialists and project officers. The contractor also provided templates for OGD to use in determining future allocations of work and resources for grants specialists and project officers. Relevant features of this study were that EPA:

- Developed separate grant specialist and project officer workload models for EPA

- Measured all activities associated with the preaward, award, and postaward monitoring phases for grants, cooperative agreements, and interagency agreements, totaling about 325 total activities
- Categorized activities as either core, noncore, or other activities
- Used data from EPA's Integrated Grants Management System, EPA documents such as grants management policies, interviews with EPA personnel, Web-based surveys of grant specialists and project officers, an organizational questionnaire for grants management officers, and knowledge of practices in other agencies

## Conclusions

Workload analysis is the key to attaining a meaningful, data-driven, resource allocation system. Organizations of various sizes, including some larger than EPA, in both the private and public sectors, have successfully used workload modeling for many years to justify their decisions on how resources are allocated and used. In the last 20 years, EPA's mission and workload have changed and expanded significantly. In an era of diminishing budgets, EPA should implement policies that promote and support workload data gathering and analysis at the program and regional levels. Such policies will result in more effective resource allocation decisions.

## Agency Comments and OIG Evaluation

In its response, EPA stated that it does not dispute that many organizations use detailed workload models to plan resources for specific, clearly defined, and repeatable tasks. EPA stated that what is at issue is whether EPA can cost-effectively adapt existing models or develop new models for the many different functions and processes that EPA manages. EPA is looking for workable models and has piloted efforts in Region 1 and 6, but stated that designing useful workload models for complex, nonrepeatable, and evolving tasks is difficult and expensive. In its most recent pilot, EPA Region 6 reported that staff devoted 160 hours to analyze the workload of 35 FTE. EPA stated that if extrapolated for EPA as a whole, analyzing the workload of the Agency's FTEs would require 37 FTE and nearly \$5 million in payroll costs. As a financial manager, EPA said that it must weigh the costs of developing such systems with the benefits to informing decisionmaking.

We agree that any models that EPA uses in the future should be practical and cost effective. That said, if EPA's extrapolated figures are accurate, that would mean that EPA could potentially spend 37 FTE out of 17,417 (2010 FTE level), or just 0.2 percent of EPA's total FTE, to determine the best allocation of the other 99.8 percent of FTE. Further, the pilots that EPA conducted in Region 1 and Region 6 were resource intensive because there was no process in place to gather the data, and the data were not readily available. As workload data are more

routinely collected and tracked, and methodologies for analyzing it are improved, the burden for conducting such analyses should be reduced in future years.

## **Status of Recommendations and Potential Monetary Benefits**

RECOMMENDATIONS						POTENTIAL MONETARY BENEFITS (in \$000s)	
Rec. No.	Page No.	Subject	Status <sup>1</sup>	Action Official	Planned Completion Date	Claimed Amount	Agreed To Amount
1	12	Conduct a pilot project requiring EPA organizations to collect and analyze workload data on key project activities.	U	Chief Financial Officer			
2	12	Use information learned from the pilot and the ongoing contracted workload study to issue guidance to EPA program offices on: <ul style="list-style-type: none"> <li>a. How to collect and analyze workload data</li> <li>b. The benefits of workload analysis</li> <li>c. How this information should be used to prepare budget requests</li> </ul>	U	Chief Financial Officer			

O = recommendation is open with agreed-to corrective actions pending  
 C = recommendation is closed with all agreed-to actions completed  
 U = recommendation is unresolved with resolution efforts in progress

## ***Details on Scope and Methodology***

We conducted our audit from March 2010 to January 2011 in accordance with generally accepted government auditing standards. Those standards require that we obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our evaluation objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our objectives.

During our audit, we reviewed:

- Laws, regulations, guidance, and other background data related to workload and workforce planning, including OMB circulars and Office of Personnel Management documents
- National program manager guidance from the program offices
- EPA's Annual Commitment System, as well as some regional annual commitment documents
- Budget justification documents that OAR, OSWER, and OW submitted to OCFO for FYs 2009–2011
- Prior studies and reports on workload analysis that EPA issued or had conducted by contractors
- Prior audit work performed by GAO and the EPA OIG

During our audit, we conducted site visits and interviewed managers and staff from the following seven headquarters offices and four regions:

- OCFO, including OB and OPAA
- Office of Administration and Resources Management, including the Office of Human Resources
- OAR
- Office of Chemical Safety and Pollution Prevention
- Office of Research and Development
- OSWER
- OW
- Regions 3, 4, 6, and 8

We selected the program offices and regions we audited based on a variety of factors, including size and mission of the program office, as well as examples of workload analysis that EPA staff suggested we review. We also interviewed personnel from Region 4 and Region 6 about the level of FTEs they dedicated to the Deepwater Horizon oil spill response effort in the Gulf of Mexico.

During our site visits, we questioned personnel about processes they used within their offices to plan work and determine resource needs. When available, we also reviewed documentation relating to workload analysis.

In the early stages of our audit, OB provided us with three examples in which EPA completed a process to determine specific labor needs to complete estimated work activities. One of those examples was an effort Region 8 led to determine resources needed by each region related to energy permits. The other two examples involved resource estimates to complete major projects relating to mountaintop mining and the Chesapeake Bay. We spoke to Regions 3 and 4 regarding the mountaintop mining project, and Region 3 for the Chesapeake Bay project.

We also interviewed employees from entities outside EPA to obtain information relating to workload analysis. We interviewed the Associate Administrator for OMB's Office of Federal Procurement Policy regarding OMB's July 2009 memo to agencies on managing the multisector workforce of federal employees and contractors. That OMB memo discussed workload issues. We also spoke with personnel from the National Aeronautics and Space Administration during the early stages of our work about its work planning processes. We reviewed documents from the U.S. Department of State related to the workload models it uses. We also reviewed a report that the Washington State Department of Ecology issued related to its process for analyzing workload for state water pollution actions.

## **Prior GAO and EPA OIG Reports**

### **GAO reports**

<b>Report No./date</b>	<b>Workload issues identified</b>	<b>Effects</b>
GAO-07-883, July 2007	EPA did not complete an overall assessment of workload to determine resources needed by the states. From 1997 to 2006, EPA's regional enforcement workforce was reduced by about 5 percent.	Given the reductions in funding and personnel, states are finding it difficult to respond to new enforcement requirements in the Clean Water Act, Clean Air Act, and Resource Conservation and Recovery Act. EPA information on the workload and staffing needs of its regions and the states is incomplete and, thus, it is not possible with existing data to determine their overall capacity to meet their enforcement responsibilities.
GAO-09-434, March 2009	EPA's process for budgeting and allocating resources does not fully consider the Agency's current workload. In preparing requests for funding and staffing, EPA makes incremental adjustments, largely based on an antiquated workforce planning system that does not reflect a bottom-up review of the nature or distribution of the current workload.	EPA cannot assure that its resource allocation is optimal.
GAO-10-413, March 2010	EPA has not comprehensively analyzed its workload and workforce since the late 1980s to determine the optimal numbers and distribution of staff Agency-wide.	EPA cannot assure that its resource allocation is optimal.

### **EPA OIG reports**

<b>Report No./date</b>	<b>Workload issues identified</b>	<b>Effects</b>
2005-P-00006, February 2005	Office of Acquisition Management needs to complete workload and workforce analysis to identify FTEs and skill gaps.	OAM does not have the data to measure its progress toward achieving its vision of being the preferred business partner for all EPA contracts.
2005-P-00017, June 2005	EPA's management tools and dispersion of authority for Brownfields prevent the Agency from effectively allocating, utilizing, and accounting for staff resources. Staff is either under- or overutilized and staffing models are outdated due to incomplete workload assumptions.	EPA cannot assure that Brownfields program costs are accurately determined, that its staff is pursuing the best actions to achieve program goals, or that the program is spending resources efficiently and effectively.
11-P-0031, December 2010	EPA's policies and procedures do not require that employment levels be based on workload.	EPA cannot demonstrate that it has the right number of resources to accomplish its mission.

## ***Agency Response***

### **MEMORANDUM**

**SUBJECT:** EPA’s Comments on the Office of Inspector General (OIG) Draft Report “EPA Needs Workload Data to Better Justify Future Workforce Levels” Project Number 2010-1211

**FROM:** Barbara J. Bennett /s/ August 9, 2011  
Chief Financial Officer

**TO:** Arthur A. Elkins, Jr.  
Inspector General

Below are EPA’s written comments on the Office of Inspector General Draft Report “EPA Needs Workload Data to Better Justify Future Workforce Levels”.

Thank you for agreeing to some direct discussions about workload recommendations in this and related OIG reports. Our conversations helped connect common threads from different reports and provided a higher level perspective on the challenges involved in finding a balanced approach to the workload/workforce allocation issue. These helped inform Agency-level workload discussions at the Executive Management Council (EMC) and Budget Forum last month.

At these meetings, Regions 1 and 6 presented the results of their air and water pilot projects, which they developed over the last few months. Their experience showed that workload methodologies can be designed for some of EPA’s functions but that they require a significant level of Subject Matter Expert (SME) time and effort to develop due to highly variable inputs and outputs, levels of state participation, process data needs, etc. During discussions managers expressed concerns that EPA does not produce widgets – most EPA functions do not have clearly defined and measurable inputs and outputs, making it extremely challenging and potentially costly to develop practical workload methodologies that would provide actionable results.

Based on these discussions, the Deputy Administrator asked Agency managers to continue workload efforts but aim for a “medium” level of detail, possibly targeting certain core work, and to strive for less resource intensive approaches. OCFO implemented this direction by including this language in recent budget guidance to the Agency:

“Thanks again to Regions 6 and 1 for your hard work on the air and water programs workload analytics. Over the next few months, OCFO will work with OAR, OW and regions on options and an estimation process that captures more detail than the 2010 managers’ survey but less detail than the original set of analytics. In addition, this effort

will consider potential core activities for review and factors that may signal workload shift concerns. OCFO also will consult with other offices as needed.”

The goal is to help the agency manage EPA’s resources within multiple Congressional and Office of Management and Budget (OMB) mandates and constraints. The question is not whether we have enough resources to meet all our obligations, but rather, how we can most effectively use the limited resources EPA receives.

You also suggested considering population as an overarching factor. I agree that we should be looking at more global measures as well, and suggest that we evaluate using population and other external data such as such as land area, Gross Domestic Product (GDP), and / or certain environmental statistics. This would help us better understand EPA’s overall workload to protect human health and the environment, but with the understanding that these factors do not apply to all activities.

Below is a discussion of four general points raised in the report, followed by EPA’s responses to the IG’s recommendations. The attachment contains more specific comments

**Item 1 – Quantifiable support for EPA’s budget.** Page 7 states that “Without workload data, EPA cannot determine, and quantifiably support in budget documents, the resource needs for planned work” and page 10 states that “EPA cannot assure resources are planned or allocated in the most efficient and effective manner.”

These statements imply that the OMB Circular A-11, *Preparation, Submission and Execution of the Budget* requires complete, detailed, task level workload data. However, OMB has not indicated that EPA fails to comply with A-11. EPA is one of the few agencies which consistently submits its proposed budget to OMB on time every year, and definitely one of the very few that submits its complete one thousand page submission with detailed descriptions, charts and tables on time. Our reading of A-11 is that workload analyses are listed as just one of the many items that an Agency should consider in developing resource requests.

Page 3 also cites OMB’s FY 2012 budget guidance which told agencies that “they were to restructure operations by:

- (1) eliminating programs that have low impact on an Agency’s mission so that resources can be freed up to continue investments in priority areas even as overall budgets are constrained,
- (2) reengineering staffing plans and other processes to squeeze waste out of existing operations and produce better outcomes, and
- (3) focusing management attention on high performance goals to better deliver services to the American people using available resources.”

In the 2012 budget guidance items 1 and 3 require informed assessments on which programs have low impact or high impact (or potential performance) goals – not workload models. Item 2 requires informed agency planning on how to become more efficient within budget constraints. After more than a year of participating in many difficult decision-making discussions on how to manage resources within the Congressional and OMB limits, I can attest that Agency senior decision-makers review a host of critical financial, performance, risk and other data to inform tough choices about scarce resources. In designing our budget and planning processes, we have

to be mindful of the work we are asking of the agency and consider the cost / benefit of any added requirements.

**Item 2 - Correlation between program requests and final decisions.** Page 7 states, “We found little correlation between program office requests and OCFO’s budget recommendations. The lack of program office workload data contributed to the differences between the offices’ proposed estimates and the FTE levels that OB approved.” This statement implies that workload data would explain those changes.

For example, the draft OIG report cites the Region 8-led request for additional energy permitting resources, but neglects to mention three points:

- (1) Region 8’s request included both FTE to address its existing backlog and new anticipated permitting needs. EPA decided, given other priorities, to provide resources to address the permit backlog only.
- (2) The initial request was made under one administration – and the final decision was made under another. Each administration has discretion over agency priorities and resource decisions.
- (3) The initial Region 8 request was made when petroleum prices had dramatically jumped and seemed to be going higher – while the final figures were decided after prices (and thus the number of estimated projects) had declined considerably.

**Item 3 - Federal Financial Accounting Standards Number 4.** It is unclear how these accounting standards relate to OIG’s workload planning suggestions. I would suggest removing the reference from the report.

**Item 4 – EPA acting upon previous workload analyses.** The draft report offers six examples of how EPA looked at its workload methods (grants, planning methods, research administrative efficiencies, Superfund, contracting and workload benchmarking) and in each case writes that EPA “did not take action”. But I believe that EPA management did take action – just not in the direction of immediately implementing detailed workload modeling. In these cases EPA managers decided, based on the studies, not to invest additional resources in developing detailed models – because the studies did not indicate that the additional information generated would be worth the cost.

## **Responses to Recommendations**

**Recommendation 1.** We recommend the Chief Financial Officer conduct a pilot project requiring EPA organizations to collect and analyze workload data on key project activities.

Agency Response: Concur in part. As discussed above we are following up on recent air and water workload pilot projects conducted by Regions 1 and 6 and are continuing to look at how other organizations collect and analyze workload data and use workload methodologies.

**Recommendation 2.** We recommend the Chief Financial Officer use information learned from the pilot and the ongoing contracted workload study to issue guidance to EPA program offices on:

- a. how to collect and analyze workload data,

- b. the benefits of workload analysis, and
- c. how this information should be used to prepare budget requests.

Agency Response: Concur in part. We are completing the workload survey / benchmarking study in September 2011, which includes input from over 1,000 managers, informational interviews with other agencies that manage similar functions, and discussions with over a dozen similar agencies about what workload tools they employ. We will also explore the use of external variables such as population, land area, Gross Domestic Product (GDP), and/or other reliable and available environmental or public data to help better understand major drivers for EPA's geographic workload.

We will use perspective(s) gained from the pilots, study, and geographic analyses to develop intelligent, cost-effective options for strengthening planning processes. EPA's paramount goal is to inform decision-making and evaluations regarding how to best use increasingly limited resources. However, OCFO cannot commit to issuing detailed guidance to the rest of the Agency on collecting and using workload data until we have developed or found viable methodologies for EPA's functions.

## **Conclusion**

Thank you for the opportunity to comment on the draft report and for agreeing to some direct discussions. We remain committed to partnering with your staff on findings and recommendations that help efficiently protect human health and the environment and support the Agency's efforts to do so. We are always looking for innovative ideas to improve the ability of EPA's programs to strengthen resource stewardship while also achieving better environmental results.

Again, I appreciate your willingness to meet with me to discuss these recommendations and how they relate to other ongoing IG efforts. If you have questions or comments, please contact me. Staff may wish to follow up with Carol Terris, Deputy Director, Office of Budget/OCFO at (202) 564-0533 or Hamilton Humes, Senior Advisor, Office of Budget/OCFO at (202) 564-2835.

Attachment

cc:

Maryann Froehlich, Deputy Chief Financial Officer  
Josh Baylson, Associate Chief Financial Officer  
David Bloom, Director, Office of Budget  
Carol Terris, Deputy Director, Office of Budget  
Kimberly Dubbs,  
Barbara Freggens,  
Hamilton Humes,  
Diane Kelty

## **Attachment: EPA’s Specific Comments to OIG Draft Report “EPA Needs Workload Data to Better Justify Future Workforce Levels” Project Number 2010-1211**

Below are some specific comments about the Draft Report “EPA Needs Workload Data to Better Justify Future Workforce Levels” Project Number 2010-1211 in the order that they appeared in the report.

### **Specific Comments**

Page 1, footnotes 1 and 2.

- Replace “EPA” with “one”. Using EPA as the subject implies that EPA chose not to use a commonly accepted definition, while the report acknowledges there is “no one exact definition of workload” and, thus, no definition of workload modeling.

Page 2.

- Suggest recognizing Government Performance and Results Act (GPRA) Modernization Act, enacted in January 2011 at end of the OPAA paragraph.

Page 3, 1<sup>st</sup> paragraph.

- Add “because the results were not implementable and one study is not yet completed” “after “assessments”.

Page 5, Prior GAO and OIG Audit Reports.

- The summary of the audit reports implies that EPA concurred with all the recommendations and analyses presented in these reports, which isn’t the case. EPA managers did not believe that it was a cost-effective to invest resources to implement many of the recommendations contained in the reports.

Page 6, 1<sup>st</sup> paragraph.

- Suggest recognizing that some EPA offices do conduct regular workload analysis, e.g., FFRRO, and that some EPA offices do cost accounting of time for cost recovery purposes.
- The statement "EPA's Office of Budget must base budget decision primarily on subjective justifications at a time when budgets continue to tighten and data-driven decisions are needed" is misleading. Agency resource allocation decisions are made based on a comprehensive assessment of the Agency's priorities as aligned with the Strategic Plan, with large amounts of input from program officials and assessment of performance results as well as consideration of Administrator and Administration priorities and of course OMB and Congressional decisions. This analysis includes looking at the FTE (or workforce) used by particular programs and organizations.

Page 8

- 1<sup>st</sup> paragraph, first sentence. Add “some” before EPA and “water” after EPA. These specific examples of water-related data are not necessarily transferrable to all Water programs let alone all of EPA’s programs, e.g., research, air, etc.

- 1<sup>st</sup> paragraph. Delete Region 4 system example and revise remaining paragraph to refer to a single system example rather than two. Since the Region 4 system “has been in use for about a year”, it likely did not inform the FY 2011 FTE estimates which would have been developed largely in 2009 for the FY 2011 President’s Budget.
- Last sentence: Suggest adding “EPA advised that” before “while”.

Page 9, 2<sup>nd</sup> paragraph.

- Add to last sentence: “...and promoting work sharing among regional offices could be a viable alternative.”

Page 10,

- 1<sup>st</sup> paragraph, next to last sentence: Replace “each” with “most.” Some program/projects, such as STAG grants, do not include EPA personnel costs.
- 1<sup>st</sup> paragraph’s description that EPA currently tracks cost for about 140 program/projects understates the level of detail with which the financial systems track EPA costs. In addition to the 140 program projects, financial and other systems capture significant additional detail. First of all most program projects are broken out by National Program Office (NPM) and Region, which frequently means up to 23 pieces. Second, most program projects are broken out by Object Class (salaries, contracts, grants, etc.) which means up to 8 pieces. Budget systems also must capture IT coding (mandated by OMB) that track how much money in certain programs is designated for particular IT projects. BAS (the Budget Automation System) also captures estimated budgets for many specific items requested by Congress, such as earmarks. Payroll and financial systems must also track Superfund site-specific charging, as well as pesticide fees charging. Superfund site-specific for potential payment by Potentially Responsible Parties (PRPs) and the pesticide fees for charging to reimbursable agreements. Overall these examples of the many financial and programmatic categories of data tracked means that EPA’s budget is actually divided and tracking in thousands of pieces. EPA’s tracking is so detailed that OCFO has no more characters in its accounting codes that it can use to track different items.
- 2<sup>nd</sup> paragraph, first sentence: Add “EPA” before “resources”.
- 2<sup>nd</sup> paragraph, last sentence: After “required,” add “and recoverable from responsible parties.”
- 2<sup>nd</sup> paragraph general. This paragraph implies EPA is ignoring its financial duty by not doing detailed tracking like it did for Deep Water Horizon. However, there is another interpretation, EPA implements this type of tracking when needed and carefully judges the costs and benefits of tracking additional items. In this case, EPA acted promptly to address the need to put in place additional tracking so costs could be recovered from the responsible parties for the disaster rather than have the American taxpayer pay.

Page 11,

- 2<sup>nd</sup> paragraph states “For example, the current contract that OCFO is using is designed to provide feedback that will broadly look at EPA as a whole from a top-down management

perspective. We believe that EPA would benefit from a bottom-up approach.” These sentences imply that the workload benchmarking did not include a bottom-up approach. However the managers’ survey obtained direct input from over 1,000 front-line managers whose staff work in the six functions identified. The survey was specifically designed to provide bottom-up insight on level of effort, work drivers, and work tasks.

Page 14,

- 2<sup>nd</sup> bullet “In a complex organization, such as EPA a single, standard workload model is not practical or feasible. Rather local units should adopt an approach that fits their mission and operations.” I agree with this statement - huge, complicated workload models that try to foresee every conceivable analytical need are neither practical nor feasible. EPA’s present budget process permits local units to use tracking and workload estimation tools. However, there is some risk in using locally developed workload methodologies for Agency-level decision-making if they are not comparable.
- Comparison to State Department. EPA’s workload benchmarking exercise includes looking at specific comparable agencies. For each of the 6 functions, the contractor, working with EPA experts, carefully assessed which other agencies would provide the best comparison to EPA. This includes looking at the State Department because the IG suggested it, but I would emphasize that the State Department is very dis-similar to EPA in many ways -- it is an international organization with a very different mission, it is not a scientific, regulatory, or enforcement agency, it does not issue permits, conduct environmental monitoring, etc.
- Comparison to Washington State. This example does not provide a case for detailed workload models. It was a two-step analysis in a particular media and in a particular state – and not a model used for ongoing budget analysis.

Page 16.

- The Conclusion states that “Organizations of various sizes, including some larger than EPA, in both the private and public sectors have successfully used workload modeling for many years, to justify their decision on how resources are allocated and used.” EPA does not dispute that many organizations use detailed workload models for planning resources needed for specific, clearly defined and repeatable tasks. What is at issue is whether EPA can cost-effectively adapt existing models or develop new models for the many different functions and processes that EPA manages. EPA is looking for workable models and has piloted efforts in Region 1 and 6, but recognizes that it is difficult and expensive to design useful workload models for complex, non-repeatable and evolving tasks. In its pilot, Region 6 reported that staff devoted 160 hours to analyze 35 FTE. Extrapolated for EPA as whole that would require 37 FTE and nearly \$5 M in just payroll costs. As financial managers, we must weigh the costs of developing such systems with the benefits to informing decision-making.

## ***Distribution***

Office of the Administrator  
Assistant Administrator for Administration and Resources Management  
Chief Financial Officer  
Director, Office of Budget, Office of the Chief Financial Officer  
Director, Office of Human Resources, Office of Administration and Resources Management  
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