A Report by a Panel of the
NATIONAL ACADEMY OF PUBLIC ADMINISTRATION
for the Federal Accounting Standards Advisory Board

Financial and Related Information
for Decision-Making:

Enhancing Management Information to Support
Operational Effectiveness and Priority Goals

April 2014
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Financial and Related Information
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Operational Effectiveness and Priority Goals

PANEL

G. Edward DeSeve,* Chair
David A. Mader*
Barbara S. Wamsley*

* Academy Fellow
The views expressed in this report are those of the Panel. They do not necessarily reflect the views of the Academy as an institution.

National Academy of Public Administration
1600 K Street, N.W.
Suite 400
Washington, DC 20006
www.napawash.org

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FOREWORD

Recognition of the need for clear reporting of federal financial information in the United States begins with the Constitution, which established the requirement in Article 1 that “...a regular Statement of Account of the Receipts and Expenditures of all public Money shall be published from time to time.” Since 1789, several key pieces of legislation, including the Budget and Accounting Act of 1921, have created the framework for modern federal financial management. One of the most significant and comprehensive is the Chief Financial Officers Act of 1990 (CFO Act).

The CFO Act mandated several important reforms designed to improve federal financial management, including increasing the availability of timely, reliable, and comprehensive financial and related information. The CFO Act led to the creation of the Federal Accounting Standards Advisory Board (FASAB)—sponsored by the Department of the Treasury, the Office of Management and Budget, and the Government Accountability Office—to consider the needs of the public for federal financial information, as well as the needs of Congress, the Executive Office of the President, the cabinet departments, and federal executives.

Nearly twenty-five years later, significant progress has been made—all but two of the 24 agencies covered by the CFO Act received unqualified or “clean” audit opinions on their 2013 financial statements. Many departments have implemented modern financial systems that can provide more timely, accessible, and relevant financial information to federal executives and senior managers for the purposes of operating their agencies effectively.

And yet, gaps still remain. FASAB commissioned the National Academy of Public Administration (the Academy) to hold discussions with representative federal executives and senior managers to determine their assessment of gaps in the availability of good management information. Their clear and consistent message is that they are awash in accurate and granular data, but many still lack the analyses and visual depictions needed to use this information most effectively for managing their agencies. While addressing this challenge will require thoughtful actions across the federal government, the benefits are potentially far-reaching as agencies become more efficient and effective.

As a Congressionally chartered non-partisan, non-profit organization with nearly 800 distinguished Fellows, the Academy helps public organizations address their most critical challenges. We are pleased to have had the opportunity to support FASAB in identifying the needs of federal executives and senior managers for financial information. I appreciate the deep commitment and involvement of FASAB leadership with the study, and thank the members of the Academy Panel who provided invaluable expertise and thoughtful analysis.

Dan G. Blair
President and CEO
National Academy of Public Administration
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<th>Description</th>
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<tr>
<td>ARRA</td>
<td>American Recovery and Reinvestment Act</td>
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<td>CFO</td>
<td>Chief Financial Officer</td>
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<td>CFOC</td>
<td>Chief Financial Officer Council</td>
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<td>CIGIE</td>
<td>Council of the Inspectors General on Integrity and Efficiency</td>
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<td>CIOC</td>
<td>Chief Information Officer Council</td>
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<td>Defense Logistics Agency</td>
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<td>EPA</td>
<td>Environmental Protection Agency</td>
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<td>FASB</td>
<td>Financial Accounting Standards Board</td>
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<td>FASAB</td>
<td>Federal Accounting Standards Advisory Board</td>
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<td>GAO</td>
<td>Government Accountability Office</td>
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<td>GAAP</td>
<td>Generally Accepted Accounting Principles</td>
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<td>GASB</td>
<td>Governmental Accounting Standards Board</td>
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<td>GPRA</td>
<td>Government Performance and Results Act</td>
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<td>NRC</td>
<td>Nuclear Regulatory Commission</td>
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<td>OMB</td>
<td>Office of Management and Budget</td>
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<td>OPM</td>
<td>Office of Personnel Management</td>
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<td>PMC</td>
<td>President’s Management Council</td>
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<td>SFFAS</td>
<td>Statements of Federal Financial Accounting Standards</td>
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<td>VHA</td>
<td>Veterans Health Administration</td>
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EXECUTIVE SUMMARY

Advancing the quality of federal financial information has been a sustained priority for many years. The enactment of legislation such as the Chief Financial Officers Act of 1990 (CFO Act), in conjunction with the modernization of financial systems, has resulted in significant improvements in the ability of the federal government to manage effectively and efficiently. While this progress has been considerable, further opportunities exist to strengthen the availability of accurate, timely, and relevant financial information to support managerial decision-making. The purpose of this report is to determine how federal executives and senior managers currently use financial and related information, what gaps they see that impact their ability to manage effectively, and what opportunities exist to close those gaps.

Specifically, this report seeks to address four key questions:

- Are good financial and related data (e.g., cost data, forecasts, and analysis) available to senior managers?
- Are the financial and related data being effectively used by senior managers or others within the organization in making decisions?
- What are the current and desired roles of the Chief Financial Officer’s staff with regard to management’s access to and use of good financial and related data?
- If a gap exists, what options are most likely to be helpful in closing that gap?

The report by the Academy’s Panel addresses these four questions based on a series of discussions with 27 federal executives and senior managers in early 2014. Most of these individuals were leaders with operating responsibility for agencies, bureaus, offices, divisions, or comparable organizational units. The group also included a number of Chief Financial Officers (CFOs). Those interviewed were selected to provide a representative cross-section of federal organizations and roles.

In response to the first three questions, the Panel reports the following three summary principal findings:

- **Availability of information**: Data generally are highly accurate and granular, but federal agencies face challenges in analyzing and transforming data into readily understood, actionable information for executive decision-making—especially the linking of budget, costs, and performance.

- **Use of information**: The degree to which financial data are effectively used for decision-making is heavily driven by each organization’s revenue source and operational approach. Agencies tended toward one of two general camps: 1) user fee-based revenue and/or production-oriented, direct operations agencies, where external pressure for transparency fosters the creation and use
of financial and cost analysis for decision-making by executives and senior managers; and 2) appropriations-based revenue and/or regulatory, policy, and grant-making agencies, which generally have fewer needs for detailed financial and cost analysis. Both types of agencies can utilize financial data more effectively if leadership instills a culture that pays attention to costs and performance by creating structures and incentives that encourage employees to carefully examine these issues.

- **Role of the CFO organization:** CFO organizations will increasingly need to offer valuable decision-making support to executives and senior managers. They should continue to evolve from a legacy core focus on transaction processing and compliance to a more modern approach that features sophisticated cost and performance analysis tailored to the decision-making requirements of agency leadership.

In response to the fourth question, the Panel makes the following recommendations:

**Recommendation 1:** Federal agencies should strengthen the CFO staff’s knowledge of program operations in order to increase their ability to act as business partners to agency program leadership.

**Recommendation 2:** Federal agencies should emphasize development of the CFO staff skillsets to ensure that traditional accounting is augmented by data analytics.

**Recommendation 3:** In order to connect financial and cost information to program outcomes, federal agencies should link budgeted resources to costs, outputs, and performance.

**Recommendation 4:** In order to ensure that relevant information is available in a readily accessible and user-friendly format, federal agencies should develop financial and programmatic dashboards specifically tailored to the decision-making requirements of executives.

**Recommendation 5:** Federal agencies should enhance existing reporting systems to integrate financial, operational, and HR-related information.

**Recommendation 6:** Congress and OMB should create specific legislative and regulatory catalysts, such as the 2009 American Recovery and Reinvestment Act reporting requirements, to focus agency attention on developing clear cost and outcome data.

The Panel recognizes that aspects of these recommendations have been priorities for both program operations and finance leaders at agencies for many years, and that there are examples of progress and success stories. Even so, the results of this study demonstrate that significant additional effort remains in order to meet the decision-making needs of federal executives and senior managers.
SECTION 1: BACKGROUND AND OBJECTIVES

Although significant progress has been achieved in recent years to improve the availability and use of financial information for managerial decision-making in the federal government, opportunities still exist to continue moving toward solidifying the federal government as a more financially-driven institution. Fiscally-responsible government requires accurate, timely information in the hands of both financial and program managers. The purpose of this report is to examine how this information is being used and to recommend ways that its use could be improved.

1.1 THE CHIEF FINANCIAL OFFICERS ACT OF 1990

The Chief Financial Officers Act of 1990, also known as the CFO Act, was intended to bring more effective financial management practices to the federal government by improving federal accounting systems and providing complete, reliable, timely, and consistent financial information for use by the executive branch of the federal government.¹ In doing so, new authorities were designed and entities established, including expanded roles for the Office of Management and Budget (OMB), and the establishment of the Federal Accounting Standards Advisory Board (FASAB).

Specifically, the Congress found that “current [in 1990] financial reporting practices of the Federal Government do not accurately disclose the current and probable future cost of operating and investment decisions.” The CFO Act called for fundamental reform in financial management requirements and practices, and charged these newly-authorized entities with improving efficiency in the federal government to combat the “billions of dollars lost each year.”

Twenty years after the establishment of the CFO Act, a 2011 report jointly issued by the Chief Financial Officers Council (CFOC) and the Council of the Inspectors General on Integrity and Efficiency (CIGIE) focused on three major themes: successes and failures, lessons-learned, and direction for the future.² As stated in their report, these two groups felt the CFO Act accomplished many positive things, including establishing a government-wide financial management leadership structure, but posited a number of areas for continued improvement, including two specific recommendations for the Congress: “(1) Congress should consider enhancing the role of the CFO by standardizing the CFO’s portfolio; and (2) Congress should consider directing OMB, GAO, and FASAB, in consultation with CIGIE, to evolve the financial reporting model.”

1.2 The Federal Accounting Standards Advisory Board

The Federal Accounting Standards Advisory Board (FASAB) is a federal advisory committee created and sponsored by the Secretary of the Treasury, the Director of OMB, and the Comptroller General of the United States, with the mission of developing guidance to assist federal agencies in responding to the requirements of the CFO Act of 1990.

Prior to the creation of FASAB and its subsequent recognition by the accounting profession, the federal government did not have a source for generally accepted accounting principles (GAAP). The Financial Accounting Standards Board (FASB) sets GAAP for non-governmental entities, while the Governmental Accounting Standards Board (GASB) sets GAAP for state and local governments.3

After considering the needs of external and internal users of federal financial information, FASAB issues federal accounting standards and provides guidance to improve federal financial reporting. FASAB's nine-member Board includes one representative from each of its sponsor agencies—the Department of the Treasury, OMB, and the Government Accountability Office (GAO)—plus six non-federal representatives.

1.3 Objective

The objective of this study is to provide insight on answering four key questions:

- Are good financial and related data (e.g., cost data, forecasts, and analysis) available to senior managers?

- Are the financial and related data being effectively used by senior managers or others within the organization in making decisions?

- What are the current and desired roles of the Chief Financial Officer's staff with regard to management's access to and use of good financial and related data?

- If a gap exists, what options are most likely to be helpful in closing that gap?

These are relatively high-level topics and there exist many potential avenues of more detailed lines of inquiry for each. This study sought to address these four questions by holding discussions with federal executives and senior managers and learning their thoughts about the strengths, gaps, and wish lists for each of these four major areas.

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3 The American Institute of Certified Public Accountants is authorized under Rule 203—Accounting Principles to designate bodies to establish accounting principles. FASB was established in 1973, GASB was established in 1986, and FASAB was established in 1990.
SECTION 2: METHODOLOGY AND APPROACH

The Academy Study Team researched perspectives on the four key questions by conducting a series of discussions with 27 federal executives and senior managers from January 30 to March 31, 2014. The individuals interviewed comprised leaders with operating responsibility for agencies, bureaus, offices, divisions, or comparable organizational units. In addition, they included a number of CFOs. The group represents a cross-section of representative perspectives, not a random sample.

To facilitate the conversations, a Discussion Guide that included both multiple choice and qualitative questions served as the framework for the interviews. The Discussion Guide is included in Appendix D.

The Discussion Guide was designed specifically for face-to-face, in-person interviews, rather than as a questionnaire that could be completed online. The Discussion Guide was provided in advance so that participants could review the questions prior to the conversations. With one exception, all the interviews were conducted in person at the offices of the federal executives. The one exception was an interview conducted by telephone because the individual was based outside the Washington, DC metropolitan area. For this particular interview, the participant was already deeply familiar with the topics, so the conference call approach worked equally well as the in-person approach. Each interview lasted approximately one hour.

The questions were designed to prompt the participants to share their perspectives on the relative strengths and weaknesses regarding the availability of financial and related information. Some parts of the Discussion Guide posed similar questions in slightly different manners to test hypotheses from different angles, and see if the results were consistent. The numerical results are presented in Appendix E.

The executives and senior managers interviewed were selected in a manner designed to provide a cross-section of federal organizations and roles. The individuals were identified through a variety of means, including association with one or more Agency Priority Goals on the Performance.gov website, recommendations by the Academy Panel, and recommendations by the Study Team. In some cases, more than one individual was interviewed at the same organization in order to obtain perspectives from alternative vantage points.

The selection of individuals interviewed should not be viewed as a random sample with associated margins of error, but as a selection designed to elicit thoughtful feedback from individuals who can address the key study questions based on their experiences as senior federal executives.
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<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Agency</th>
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<tbody>
<tr>
<td>Angela Bailey</td>
<td>Chief Operating Officer</td>
<td>Office of Personnel Management</td>
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<tr>
<td>Owen Barwell</td>
<td>Chief Financial Officer, National Renewable Energy Laboratory</td>
<td>Department of Energy</td>
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<tr>
<td>Ruth Buckley</td>
<td>Deputy Performance Information Officer</td>
<td>United States Agency for International Development</td>
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<tr>
<td>Elizabeth Craig</td>
<td>Director, Climate Protection Partnerships Division</td>
<td>Environmental Protection Agency</td>
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<td>Lisa Danzig</td>
<td>Director, Office of Strategic Planning and Management</td>
<td>Department of Housing and Urban Development</td>
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<td>Jim Dyer</td>
<td>Chief Financial Officer</td>
<td>Nuclear Regulatory Commission</td>
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<td>Osama El-Lissy</td>
<td>Deputy Administrator, Animal and Plant Health Inspection Services</td>
<td>Department of Agriculture</td>
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<tr>
<td>Douglas Glenn</td>
<td>Deputy Chief Financial Officer and Director of the Office of Financial Management</td>
<td>Department of Interior</td>
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<tr>
<td>Biniam Gebre</td>
<td>Deputy General Secretary for the Office of Housing</td>
<td>Department of Housing and Urban Development</td>
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<tr>
<td>Robert Hale</td>
<td>Under Secretary of Defense (Comptroller) and Chief Financial Officer</td>
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<tr>
<td>Mark Harnitchek</td>
<td>Director, Defense Logistics Agency</td>
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<td>Pamela Haze</td>
<td>Deputy Assistant Secretary for Budget, Finance, Performance &amp; Acquisition</td>
<td>Department of the Interior</td>
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<td>Michael Huerta</td>
<td>Administrator, Federal Aviation Administration</td>
<td>Department of Transportation</td>
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<td>John Hurt</td>
<td>Chief Financial Officer, Federal Student Aid</td>
<td>Department of Education</td>
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<td>Bruce Kislauk</td>
<td>Deputy Commissioner for Patent Administration, United States Patent and Trademark Office</td>
<td>Department of Commerce</td>
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<tr>
<td>Alan Mayberry</td>
<td>Deputy Associate Administrator, Field Operations and Emergency Response, Pipeline and Hazardous Materials Safety Administration</td>
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<td>Nancy Potok</td>
<td>Deputy Director and Chief Operating Officer, United States Census Bureau</td>
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<td>Allison Ritman</td>
<td>Director, Office of Financial Reporting &amp; Accountability, Federal Aviation Administration</td>
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<td>Michael Shapiro</td>
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<td>Thomas Skelly</td>
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<td>Lawrence Spencer</td>
<td>Vice Chief of Staff of the United States Air Force</td>
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<td>Helen Tierney</td>
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<td>Kathleen Turco</td>
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<td>Darci Vetter</td>
<td>Deputy Under Secretary, Farm and Foreign Agricultural Services</td>
<td>Department of Agriculture</td>
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<tr>
<td>Wade Warren</td>
<td>Deputy Assistant Administrator, Bureau of Global Health</td>
<td>United States Agency for International Development</td>
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<tr>
<td>Thomas Williams</td>
<td>Assistant Administrator, Resources &amp; Technology Management, Energy Information Administration</td>
<td>Department of Energy</td>
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To encourage open discussion and candid responses, the conversations were not for attribution. For this reason, this study summarizes the findings, but it does not attribute them to specific individuals or organizations.

The topics of conversation proved of great interest to all the individuals interviewed, and each session drew a depth of comments and perspectives. A relatively small proportion of the comments related to specific situations at individual organizations. Rather, most of the comments struck themes in common with a substantial number of the others. This report summarizes the perspectives that were voiced multiple times across varying roles and agencies.

Fairly early into the discussions, the key common themes became apparent. As the Study Team met with additional executives and senior managers, similar assessments of strengths, gaps, and challenges were echoed, with the incremental interviews confirming the findings and providing new contexts and examples that were consistent with the overall findings. Accordingly, the number of interviews was considered sufficient to develop a solid sense of the perspectives of the group.
SECTION 3: AVAILABILITY OF FINANCIAL AND RELATED INFORMATION

This section presents the findings from the discussions on the availability of quality financial and related data (e.g., cost data, forecasts, analysis) to executives and senior managers.

Overview of Principal Findings on Availability of Information

Data generally are highly accurate and granular, but federal agencies face challenges in analyzing and transforming it into readily understood, actionable information for executive decision-making—especially the linking of budget, costs, and performance.

Respondents provided feedback regarding their assessment of the importance and availability of data along six different dimensions:

- Timeliness;
- Accuracy;
- Usefulness of format;
- Granularity;
- Forward-looking and predictive nature of the data; and
- Ease of creation with reliable systems.

The discussions elicited a consistent theme across nearly the entire group. While accurate, granular, and timely financial and related data is highly valued, the agency respondents expressed concern about the lack of value-added analysis to transform data into insightful management information tailored to the decision-making requirements of executives and senior managers.

The following quotations are representative of the discussions and provide a sense of the perspectives:

“The underlying transactions are accurate but the way the information is summarized is not helpful to answer the questions being asked.”

“Managers don’t have easy access to understandable information—they are forced to analyze object class level data instead of program level data.”

“We have a big gap in our ability to summarize and produce financial information at a level for decision-making.”
“We have data overload—information needs to be boiled down to the level required for decision-making.”

This theme was consistent among both the program operations executives and the financial executives. While the types of financial analysis desired to support operational decision-making varied by agency, the most-mentioned wish was for financial information that detailed the cost of program outcomes. The following representative quotes provide a sense of this feedback:

“We lack clear cause-and-effect linkages along the cycle of the funding stream, from appropriations to outcomes, and all the connection points in between.”

“Current systems are not well-suited to relate dollars with accomplishments. This makes it difficult to allocate scarce resources.”

“We have a good structure for identifying costs, but we are missing a framework for assessing the benefits achieved by that spending that would enable us to determine which programs are performing and which are not.”

The interviewees rated the importance and availability of the characteristics of financial information on a one to five scale, with one being low and one being high. The results are depicted in Figure 1, which is arranged with the characteristic showing the smallest gap between importance and availability on the left (accuracy) and the largest gap on the rightmost side of the chart (easily created with reliable systems).

Figure 1: Importance and Current Availability of Financial Information

The following findings describe the assessments of the availability of financial and related information in more detail.
Finding 1: Data generally is considered highly accurate and granular.

Executives interviewed considered accuracy and granularity of data critically important, with accuracy as the aspect of the utmost importance.

On the whole, while interviewees found accurate data to be available, retrieving data for management purposes was cited as a laborious process. In fact, a number of interviewees felt those compiling data often invested time fine-tuning the degree of accuracy beyond the level required for decision-making needs. For example, one interviewee explained that having 100 percent accurate data is not always necessary to make certain decisions—in fact, certain time-sensitive decisions cannot wait for completely accurate data.

Finding 2: Timeliness of financial information is generally regarded as sufficient to meet most decision-making needs, though room for improvement exists.

While most interviewees characterized the timeliness of data as adequate, many respondents indicated room for improvement. Some identified instances where information became available too slowly and impeded effective decision-making.

At a number of agencies, many types of data are available as frequently as daily or even in real time, which of course meets or exceeds requirements, often through the use of data dashboards. However, at other agencies, some data is not as available with the frequency necessary to make effective management decisions. Most often cited were data currently available on a quarterly or annual basis, which, if available on a weekly or monthly basis, would improve the ability to make changes in resource allocations in real time.

One interviewee described how increasing the frequency of certain data from quarterly or annually to weekly would improve operational performance. That agency’s ideal scenario would be to track program performance on a weekly basis from the beginning of the fiscal year and evaluate each in a typical color-coded fashion—green, yellow, or red—to indicate if goals for the year were ahead or behind achievement. As the weeks of the year progressed, programs performing in a “green” fashion could be reviewed for possible realignment of resources to support programs performing in a “yellow” or “red” fashion. However, without data available with greater frequency, these redistributions to optimize overall agency performance could not be conducted.

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4 Data dashboards are computer displays of information arranged to allow for quick analytical access to users. These dashboards often allow users to investigate specific areas of interest from their own computer, helping stem the need for data requests. Typically they offer “drill-down” capabilities, which enable the user to click on higher level data to review one or more levels of granularity.
Finding 3: While raw data is considered highly accurate, granular, and reasonably timely, the federal government has difficulty analyzing this data and transforming it into effectively presented and actionable information for senior-level decision-making.

The need for improved analysis and presentation of data in formats that are sufficiently relevant and aligned to decision-making was a widely-cited gap. The majority of executives interviewed over the course of this study expressed the need for expanded skillsets among financial analysts in the federal government.

For example, interviewees contended that many federal analysts have not been properly trained to deliver effective presentations with actionable analysis for managerial decision-making. With constrained budgets, getting those staff training opportunities has become increasingly difficult. Additionally, most interviewees expressed frustration both with the federal hiring process and the incentive structure. Currently, attracting talent to the federal government is difficult as the typical notification and hiring process can last months, pushing interested and qualified applicants to apply and accept job offers elsewhere.

Along with this slow hiring process, the incentive structure and pay scale in the federal government were both cited by executives as major hindrances to recruitment and retention. One interviewee stated that employees do not have the incentive to produce and use quality financial and operational data, especially data that could eventually save funds.

Finding 4: Information linking budget, costs, and performance to support resource allocation decisions is one of the most needed types of analysis.

The executives interviewed expressed the desire for various types of actionable information, including better projections on salary-related costs as positions were vacated or filled, contract and procurement information, and more detailed obligation and expenditure information toward fiscal year end. But while these areas were considered to be gaps that should be addressed, they are relatively tactical in nature and were not viewed as important as the more fundamental issue of linking costs and performance.

The interviewees were frustrated about the inability to link appropriations, spending, outputs, outcomes, and contributions to agency mission goals. Without such analysis, interviewees felt that they lacked the necessary information to make decisions about how to optimize resource allocation to programs. In addition to improving resource allocation within agencies, developing strong analysis on the cost of performance would be beneficial to OMB and Congress. Specifically, Congress would have additional information available to utilize when making appropriation decisions, and the public would be able to better understand how tax dollars are spent and what benefits are achieved.

One interviewee explained that the financial reporting model and related support structures from OMB and other organizations were effective in ensuring that financial data and reports were created, organized, and reported in such a way that enabled compliance.
On the other hand, a similar structure to support and encourage the development of financial information to link costs to performance was not as well-developed.

**Finding 5: Information that is forward-looking and predictive is desired, but generally unavailable.**

Forward-looking information represented a major gap facing interviewees during the course of this study. Interviewees articulated the importance of this information, stating an agency is often “flying blind” without it and has trouble forecasting their needs and abilities.

In trying to pinpoint the cause of this lack of predictive information, many interviewees cited the uncertainty in recent years around federal budgets, specifically for agencies that receive the bulk of their funding through appropriations. Without an ability to plan programs over a multi-year period, interviewees felt their operations and mission were negatively impacted.

Without certainty around appropriations and budgets, one interviewee stated that agencies must rely on strong leadership to foster a culture of performance and the use of predictive information. According to this interviewee, such leadership is rare in the federal government, but those agencies with predictive information have been able to create a structure that uses forward-looking information for managerial decision-making.

**Finding 6: Senior leaders believe that financial systems are often difficult to use without specialized training.**

Many interviewees felt that financial information is theoretically accessible from systems, but gaining access to it requires “super users” trained in the nuances of how to generate meaningful reports through the agency’s financial system. The need for super users contributes to the creation of a gulf between those who have the technical skills to create reports and those with the business needs for the information.

To bridge this gap, the super user must learn the business issues to a sufficient degree to know how to generate the needed reports, or the business leader must learn enough of the capabilities of the system to know how to provide guidance to the super user on what reports to create. This does not happen easily, and a breakdown in the communication necessary to result in the production of the right kinds of reports is likely with complex systems. In addition, a more complex system with a greater requirement for super users results in a slower and more costly process of generating information.

A related issue was over-customization of systems that made them overly complex for users and difficult to upgrade. While each decision to create a new type of customization likely was logical, the cumulative levels of customization ultimately produced a less optimal system.
Finding 7: The need for timely and granular data is most critical at fiscal year-end and during periods governed by continuing resolutions or shutdowns.

While timeliness and granularity of financial data generally were considered to be adequate, they take on greater importance during certain times when information on salaries, contracts, and other spending requires a greater degree of granularity and updates in a real time or daily basis. This information is particularly important toward the end of the fiscal year as agencies seek to complete the year in accordance with budgeted amounts. During the recent periods of continuing resolutions and shutdowns, timely and granular financial information took on even greater importance as disbursement decisions needed to be prioritized and determined on a daily basis.
SECTION 4: EFFECTIVE USE OF INFORMATION FOR DECISION-MAKING

This section presents the findings from the discussions regarding the degree to which there is effective use of financial and related data (e.g., cost data, forecasts, analysis) by executives and senior managers for decision-making.

Overview of Principal Findings on Use of Information

The degree to which financial data are effectively used for decision-making is heavily driven by each organization’s revenue source and operational approach. Agencies tended toward one of two general camps:

1) User fee-based revenue and/or production-oriented, direct operations agencies—external pressure for transparency fosters the creation and use of financial and cost analysis for decision-making by executives and senior managers.

2) Appropriations-based revenue and/or regulatory, policy, and grant-making agencies—generally have fewer needs for detailed financial and cost analysis.

Both types of agencies can utilize financial data more effectively if leadership instills a culture that pays attention to costs and performance by creating structures and incentives that encourage employees to carefully examine these issues.

In 2007, GAO published a review of the use of managerial cost accounting at a number of federal agencies and found a high degree of variability. This study’s findings from the discussions with executives and senior managers were consistent with those of GAO’s review. While a more comprehensive study specifically designed for such a purpose would be helpful, this study’s interviews indicated that federal agencies tended toward one of two general “camps” in terms of their use of financial information for decision-making. The camp toward which each agency tends is determined by how an agency may be characterized along two continuums: source of revenue and the nature of operations.

The source of revenue for an agency may be largely appropriation-based at one end of the spectrum (e.g., the Veterans Health Administration [VHA] and the Environmental Protection Agency [EPA]), or characterized largely by user fees or a revolving fund structure at the other end (e.g., the Nuclear Regulatory Commission [NRC] or the Defense

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Logistics Agency [DLA]). The nature of operations for an agency may be primarily outcome and goal-oriented on the one hand (e.g. NRC and EPA), or on the other it may be very production and output oriented (e.g., VHA and DLA). This model is depicted in Figure 2.

Figure 2: Use of Managerial Cost Systems

Interviewees serving at agencies that rely heavily on managerial cost accounting systems to make decisions offered comments, such as this one, that expressed the importance of financial analysis in their operations:

“Cost accounting is at the forefront of our work. We must relate the costs to the budget in order to make choices on how to provision services.”

Other interviewees at agencies without a strong culture of financial and cost analysis expressed deep concern about that gap, often attributing it to organizational culture:

“We understand the budget of everything and the cost of nothing.”

“There is little incentive for managers to be cost conscious.”

“Managers don’t see the need for performance. They don’t see anyone as their customer, and therefore don’t feel pressure to report performance.”

Some interviewees offered suggestions for addressing these issues, and some had implemented processes to drive improvements. Such efforts, however, relied upon the influence of leadership alone, without the structural incentives at agencies that are externally-funded or production-oriented.
Finding 8: Highly production-oriented organizations that generate significant revenue through revolving fund or user-fee components tend to maintain and effectively utilize robust managerial cost accounting systems.

Agencies characterized by external funding sources and a production-oriented mission tend to demonstrate a core culture of management based on the analysis of financial and related information. The combination of these two elements contributes to this result.

On the funding side, when revenues are derived externally, there are clear “customers” who demand transparency of costs, either on their own accord or through regulatory requirements. These customers take different forms depending on the agency and the service being provided. Customers may be individual citizens or businesses engaging in fee-based transactions with agencies or other federal government entities in a shared-services arrangement. These customers are likely to be cost conscious and concerned about the amounts charged. In the cases of citizens or businesses, regulatory requirements likely demand the collection of detailed cost data. In the case of other federal government agencies, budget pressures and the desire to ensure good value may prompt demands for good cost information.

Appropriation-funded agencies do not have as clearly defined customer groups demanding the creation and use of detailed cost data. This does not mean they cannot have strong financial stewardship, management of funds, and a sincere effort to ensure the effective use of those funds. However, without clearly identifiable bill-paying customers, one form of pressure for this does not exist.

On the mission side, when an agency is engaged in activity that may be characterized as highly production-oriented with specific, repeatable outputs, the organization is more likely to operate a managerial cost accounting system because those outputs easily lend themselves to the calculation of comparative and longitudinal costs. When the agency is engaged in goals that are not production-oriented, such as more policy focused or grant management focused, there is less perceived value and more difficulty in conducting cost analysis.

Finding 9: Regulatory, policy-oriented, and grant-making organizations funded by appropriation are less likely to operate and utilize managerial cost systems.

Agencies engaged primarily in regulatory, policy-oriented, or grant management activities and funded by appropriations do not have the same degree of external pressure for transparency or the operational imperatives to drive the demand for robust managerial cost systems. Especially for regulatory and policy-oriented agencies, the units of output are much less identifiable, and therefore less likely to perceive value from robust comparative cost analysis. For grant-making agencies, evaluating costs and program results are still important to ensuring that taxpayer dollars are spent wisely, but they do not lend themselves to being “reported” in agency financial statements in the same way as direct operations agencies.
Finding 10: Some federal agencies are either production-oriented or user-fee funded. Whether these agencies rely heavily upon financial and cost analysis to make decisions largely depends on their leadership’s expectations and their organizational culture.

Agencies characterized by drivers of both external revenue and production-oriented missions tended to be heavy users of cost information, while those with neither of those drivers are not as interested in such analysis. Agencies with one of those two drivers but not the other sometimes effectively used financial data for decision-making, but the situation was specific to the organization.

At several agencies, the placement of data-driven individuals in senior leadership positions resulted in a distinct change in culture as those leaders began asking detailed questions of their direct reports on costs (and other metrics) as a standard part of their leadership approach. This change in emphasis then caused the behavior of their reporting organizations to shift as a result. At agencies whereby the core mission involves delivering services that are highly production-oriented, the development of such a culture is facilitated more easily because the outputs are relatively quantifiable and comparable both longitudinally and with other organizations, both government and private sector, producing similar services.

Finding 11: Many of the executives and senior managers interviewed as part of this study maximize their use of currently available financial data and believe that additional information is needed.

Many of the executives interviewed desire to operate and make decisions at their agency in a highly data driven manner but were frustrated by the current degree of availability of relevant financial and related information. These interviewees typically had taken concrete steps to enable their agencies to become more data-oriented. They worked aggressively to re-engineer those processes within their span of control to improve the degree to which decisions are made in a data-driven fashion. Through these initiatives, many have accomplished significant changes in systems, processes, and organizational structure that materially enhanced the degree to which decisions are made based on relevant financial analysis.

Even with such changes, these interviewees reported that much ground remained to be covered. The most senior executives, who are agency heads and accordingly have the greatest ability to effect change, were working hard personally to continue their efforts to promulgate upgrades in processes, systems, skills, and behaviors. Other senior managers not at the agency head level continued to execute changes, but also expressed the desire for improvements that were outside their span of control.
Finding 12: Many federal managers grew up in a culture where data-driven, cost-conscious management was not the norm. As they transition, they may require further development of their skills and practical day-to-day experience to maximize their effectiveness.

Interviewees often mentioned the challenge of federal executives managing their organizations with the relatively passive approach of accepting an annual budget and working to repeat past solid performance using existing frameworks. By contrast, a more active approach would involve asking pointed questions about costs, outcomes, and performance. There was a sense among interviewees that leaders demonstrating this approach comprised a minority, and that improvements could be made by more such individuals being appointed to such positions, and, when in place, for these leaders to teach their own direct reports how to begin operating in this manner.

At one organization, the leader instituted a new annual performance review process, with quarterly reviews, to review annual budget allocations. In the past, allocations were rarely examined, but rather resources were deployed in the same way from year to year. This leader created a new framework in which each direct report manager was required to discuss the funds requested for their division in conjunction with the performance outcomes. Some managers described new priorities that required additional funding. Because the overall appropriation was fixed, such managers would be required to explain why the uses of additional funds in their organizations would result in a better use of taxpayer dollars than maintaining deployment of those funds to the missions of their peer managers.

This process involves difficult trade-offs. In order to make those decisions effectively, each of the managers needs to be able to articulate the cost of performance outcomes of their organizations. Some managers lacked the analytical skills to assess this information and found it challenging at first. Over time, they began to learn how to develop the kinds of analysis about their organizations to present data on costs and performance.

Finding 13: Individual leaders can exert significant influence through their guidance to next-line managers.

The importance of senior leadership as a driver of the effective use of financial and related information emerged as a common theme from a number of interviewees. The perspective from this group posited that one of the keys to effective use of financial information lies in the presence of executives leading with a management style based on data-driven decision-making. This finding was not limited to a certain level of manager, but rather was cited as highly relevant at a number of levels by various organizations, from highest level of the Departmental Secretary level to mid-level managers, and the levels of management in between.

At one organization, a new top-level executive brought to the organization a new approach of asking questions on managerial information, including costs, and tasking direct reports
with responsibility for performance. The senior managers responsible for operating divisions then needed to adapt their focus and approach to the demands of the executive.

**Finding 14: For the most part, cuff records are not widely utilized by executives now that modern financial systems have been implemented in most agencies.**

Most interviewees reported relying upon data from the core financial system as the system of record and did not maintain separate “cuff records” on their own. They indicated that cuff records once were important in managing programs, but as financial systems have been modernized, the need to maintain cuff records has been greatly reduced. With this decline, the challenges of data reconciliation and dealing with more than “one version of the truth” have decreased.

Some organizations reported maintaining systems outside of the core financial system, but did not characterize these as cuff systems in the sense that they were duplicative and required reconciliation. Rather, they were seen as official systems of record that provided a necessary adjunct to the data in the financial system, not a “band aid” due to shortcomings in the core financial system.

**Finding 15: The one-year appropriation cycle hinders multi-year planning and incentivizes ineffective and inefficient spending behavior at year-end.**

Nearly all interviewees referenced the challenges of operating on a one-year appropriation cycle. Concerns included the pressure to expend remaining funds at year-end driven by an urgency to not “leave money on the table.” This focus on the short term, as well as the time-consuming administrative action required to monitor year-end spending, hinders an agency’s ability to set and follow through on long term goals.

**Finding 16: The process of producing audited financial statements is viewed by senior managers as critical to ensuring the accuracy and integrity of data, though the final product is not considered useful for managerial decision-making purposes.**

Interviewees consistently cited the importance of the processes and procedures in place that are required to produce the annual financial statements for each agency. At the same time, however, they characterized the final product of the processes, the statements themselves, as reports that were unsuited to managing agency operations. Many also mentioned that citizens and taxpayers are interested in understanding how federal funds are spent and outcomes achieved, but said the annual financial reports were not useful for this purpose.

**Finding 17: Reporting requirements generally are not seen as burdens.**

For the most part, interviewees did not view reporting requirements as burdens. They explained that the reasons for the requirements were generally understood throughout the organization. As such, compliance is regarded as a necessary and important activity.
**SECTION 5: ROLE OF THE CHIEF FINANCIAL OFFICER ORGANIZATION**

This section presents the findings from the discussions concerning the current and desired role of the CFO’s staff regarding management’s access to and good use of data.

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**Overview of Principal Findings on the Role of the CFO Organization**

CFO organizations will increasingly need to offer more decision-making support to executives and senior managers. They should continue to evolve from a legacy core focus on transaction processing and compliance to a more modern approach that features sophisticated cost and performance analysis tailored to the decision-making requirements of agency leadership.

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As the transactional financial work streams become automated with the implementation of new systems, it is a widely acknowledged trend that the role of CFO organizations in both the private sector and government has been shifting from core accounting to being an advisor to operations. The participants in these interviews were not exceptions to these changes, and often requested closer relationships between program operations and finance:

“We need policy executives to have a better understanding of the financial reporting and finance executives to have a better understanding of the program and policy issues.”

“The CFO office needs to be able to nestle information down to what a manager needs—be able to predict things for a manager.”

“The CFO needs to provide better day-to-day information for our managers.”

Such growth in understanding, it was felt, would provide a platform to support improved financial and cost analysis.

**Finding 18: The relationship of program and operations managers with the CFO varies depending on the degree to which the CFO has shifted from an accounting and transaction focus to a business advisory and support role.**

The role of the CFO traditionally has been to monitor the agency’s financial accounts and alert and advise leadership about investment opportunities. As the way agencies operate has changed, the role of the CFO has been affected as well: increasingly, CFOs are relied upon to deliver in-depth analysis of financial and operating statuses. The results from this study are mixed.
Agency partnerships between operations and the CFO were difficult in some instances. One executive expressed the relationship between the CFO and the Chief Operating Officer as “open warfare,” while another executive had to replace an existing CFO with someone who agreed with the agency’s vision. Both of these working relationships, at their respective agencies, are now effective ones.

Other agency interviewees described the CFO as an important partner in managerial decisions, offering a unique and financial lens to problem-solving.

**Finding 19:** Program executives want CFO staff to have a deeper understanding of the programs and business environments and be able to provide more sophisticated and relevant financial analysis.

A number of interviewees expressed the specific desire to have CFO staff be more involved with the program side of agency operations in order to tailor and provide more effective financial analysis. This increased focus on operations by CFO staff would encourage better understanding of agency needs and allow for greater anticipatory functions by the CFO, such as providing more understandable reports.

**Finding 20:** Program and operations managers rely on reports from the CFO office for their basic financial needs, but desire more analytical linkages to operational data, including HR information, to assist them with decision-making.

While interviewees obtained most of their financial data from the CFO, they wanted the additional ability to link agency operational data to the financial systems for increased analytical capabilities.

Taking the provider role, one interviewee contended that the role of the CFO is to build systems that provide actionable analysis for operational decision-making: it should be seen as a “challenge” to the CFO to produce reporting systems that can be effectively used.

Another interviewee expressed the possibility of linking performance data to financial billing codes in order to better analyze costs of running federal programs. This would require substantial cooperation with the CFO, but would hypothetically be able to provide analytical cost-benefit data.

**Finding 21:** Modernized financial systems are a prerequisite for providing effective information to managers.

While agencies with modernized financial systems do not necessarily provide managers with the information needed for decision-making, those agencies with older systems feel unable to take steps to better serve the needs of managers until those systems are upgraded or replaced. Of those interviewed the largest gap in making financial information available stemmed from “inadequate reporting systems.”
A number of interviewees expressed concern that their agencies continue to use financial systems installed in the mid-to-late 1970’s—the so-called, “green screens.” Unable to tailor the financial system to meet the needs of its users, executives and managers for the most part simply work around the as-is state. These antiquated systems simply cannot achieve the results that executives and managers are insisting upon for today’s federal government.

To address this technological issue, interviewees generally recommended installing new systems designed to meet current needs rather than attempting to redesign current systems, but acknowledged that a redesign would be preferable to maintaining the status quo. In some cases, agencies are looking to cross-service their financial systems with other agencies.
SECTION 6: RECOMMENDATIONS FOR CLOSING GAPS

Based on the findings discussed, the Panel issues the following six recommendations to improve the availability and use of financial and related information in the federal government:

RECOMMENDATION 1

Federal agencies should strengthen the CFO staff’s knowledge of program operations in order to increase their ability to act as business partners to agency program leadership.

As the accounting function has evolved to automate transaction processing, the role of the CFO organization needs to change as well. In the past, the core mission of the CFO staff focused primarily on accounting, but now, with extensive financial and related information residing in modernized financial systems, the CFO staff needs expanded programmatic knowledge in order to unlock raw data and develop analysis that will support decision-making for program operations.

To implement this recommendation:

a. CFO staff should become more educated about agency programs and operations in order to better understand what data and information would be valuable. This action should be continuous and ongoing.

b. The Chief Financial Officer Council (CFOC) should develop best practice models to facilitate CFO staff working more closely with program operations. This can include “cross-pollination” of staff, such as embedding CFO staff within program operations for an extended period of time to encourage learning and better understanding of needs. The CFOC should target developing this model by the end of FY 2014.

RECOMMENDATION 2

Federal agencies should emphasize development of the CFO staff skillsets to ensure that traditional accounting is augmented by data analytics.

Interviewees identified skillsets as the largest barrier to developing better financial and related information. Traditionally, those producing financial data were not tasked with creating analytically-focused reports. Now, with the implementation of modernized data systems and the availability of “big data,” the federal government has shifted its attention more towards data analytics as a means to assess and improve performance and outcome measures.
To implement this recommendation:

a. Agencies and the Office of Personnel Management (OPM) should continue to improve the current hiring process, which often hinders attracting the best candidates. OPM should continue to enhance and streamline the federal government’s hiring mechanism, USAJOBS, while working with agency and departmental CFOs to pinpoint desired skillsets.

b. Agencies should provide training opportunities for CFO staff to develop the needed analytical skillsets. The CFOC should design and implement a training program and skills framework for CFO staff aligned with the present day needs of agency leaders.

RECOMMENDATION 3

In order to connect financial and cost information to program outcomes, federal agencies should link budgeted resources to costs, outputs, and performance.

Interviewees considered clear financial and cost analysis that linked budget to outcomes as a critical tool to making budget allocation decisions. Most of the interviewees lacked this information, but said that if it could be developed, it would enable them to make major improvements in the performance of their agencies.

Developing these linkages between costs and benefits has been an ongoing goal of successive administrations and Congresses. A number of efforts have been undertaken to advance the creation of such information, including the CFO Act and more recently, the Government Performance and Results Act (GPRA) Modernization Act of 2010. The question then is what steps would best serve continued progress in this area given that past efforts, while they have been well-regarded and made significant headway, have not yet been sufficient to close the gaps.

Accordingly, implementation of this recommendation will not be accomplished by a simple change in guidance to agencies, but rather requires a process that engages both the agencies themselves and other stakeholders that provide guidance, support, and leadership.

To implement this recommendation:

a. OMB should enlist the President’s Management Council (PMC)6 to lead the development and execution of an approach to implementing this

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6 According to the Office of Personnel Management, “The PMC is made up of high ranking administration officials, is chaired by the Deputy Director of OMB and is made up of the Chief Operating Officers (typically the Deputy Secretaries) from all executive branch agencies, as well as the OPM Director, GSA Administrator, and other high-ranking government officials.”
recommendation. The PMC should determine how to assign ownership and support roles among groups such as the CFOC, the Chief Information Officer Council (CIOC), FASAB, and agencies. An initial meeting of the PMC should be convened in Q3 FY 2014, a work plan created by the end of Q4 FY 2014, and the plan executed by the end of FY 2015.

b. FASAB should support the PMC by utilizing FASAB’s staff expertise in conceptualizing frameworks for integrating budget, costs, and service performance information developed through the creation of Statement of Federal Financial Accounting Standards #4 (SFFAS #4), Managerial Cost Accounting Concepts and Standards. While SFFAS #4 already provides detailed guidance to agencies on the principles of managerial cost accounting, significant unmet availability of such information was described by agency leaders. Taking the concepts and standards to the next level to meet the needs of agency decision-makers will require direction by the PMC.

FASAB has already been proactive with soliciting user needs for financial information. Accordingly, FASAB should leverage its three sponsors—Treasury, OMB, and GAO—in elaborating on details of user needs. One potential approach for long-term consideration would be the development of a taxonomy of auditable accounting codes that tie each expense journal entry to a type of benefit or outcome.

c. Federal departments and agencies should continue efforts already underway to progress their level of attainment. Agencies that have been particularly successful should be evaluated as potential models of best practices.

d. Congress should stay apprised of these efforts and assess if additional legislation would serve as a productive mandate to foster the development of this financial and performance information for agency executives.

**Recommendation 4**

In order to ensure that relevant information is available in a readily accessible and user-friendly format, federal agencies should develop financial and programmatic dashboards specifically tailored to the decision-making requirements of executives.

Many types of financial and cost analysis information needed for executive decision-making are required in consistent formats and on a fairly routine schedule. Yet, they are often not easily accessible, and when they are provided, are not easily understood by senior leaders. Developing financial dashboards that are easy to use and provide information in a tailored fashion to support decision-making would improve the ability of executives to understand and improve the performance of their agencies.

To implement this recommendation:
a. As part of the process used to implement Recommendation 3, OMB should enlist the PMC to lead with support as determined appropriate.

b. FASAB should develop an approach to an electronic, web-based financial reporting model that would be responsive to the decision-making needs of internal and external users. While this focus will be primarily for the benefit of external users and may not tie directly to the needs of agency executives and senior managers, synergies may exist.

c. Federal departments and agencies should prioritize development of financial dashboards that are based on executive decision-making needs. Through coordination with the PMC and CFOC, departments and agencies should share best practices.

**Recommendation 5**

**Federal agencies should enhance existing reporting systems to integrate financial, operational, and HR-related information.**

Interviewees expressed an inability to effectively integrate financial and operational data because of silo approaches to systems and reporting. Those interviewed felt that without this connection, their abilities to manage were diminished. Being able to effectively link financial data with operational data, such as salary expenditures with staffing levels, would improve the managerial decision-making of federal executives.

To implement this recommendation:

a. As part of the process used to implement Recommendation 3, OMB should enlist the PMC to lead with support as determined appropriate.

b. FASAB should identify requirements for the integration of financial and operational information in its approach to the development of the reporting model. Once identified, these requirements should be shared with the PMC and their designated support entities.

c. Federal agencies, led by their CFO organizations, should work to link these types of data together.

**Recommendation 6**

**Congress and OMB should create specific legislative and regulatory catalysts, such as the 2009 American Recovery and Reinvestment Act reporting requirements, to focus agency attention on developing clear cost and outcome data.**

Just as a data-driven agency leader can serve as a catalyst for an organization to make more effective use of financial and related information, external requirements such as those
specified by the American Recovery and Reinvestment Act (ARRA) can be an important change motivator, especially when viewed as helpful and productive rather than burdensome. In the case of the ARRA reporting, the approaches to aspects of information presentation such as accessibility via a web interface, visual formatting such as maps, and granularity through drill-down, helped broaden the understanding of agency managers regarding potential best practices for reporting.

To implement this recommendation:

a. In its approach to addressing Recommendations 3, 4, and 5, the PMC should consider the power of catalysts and leverage them as appropriate. The Panel recommends the PMC employ a “use case” approach in developing a reporting framework. Specifically, as the framework is developed, each report should be characterized for a certain type of “use” by agency executives. The use cases for these reports should be aligned with needs.

b. FASAB should support the PMC in this endeavor. FASAB has already solicited input in user needs, and should codify this by developing a list of use cases. As the reporting framework is developed, it should be cross-checked against these use cases, and validated with agency representatives.

c. The Panel recommends that executive decision-makers participate in the development and validation of these use cases and reporting framework.
APPENDIX A: PANEL AND STAFF

PANEL

G. Edward DeSeve, Chair*—Executive in Residence, Brookings Institution Executive Education; Senior Advisor, Oliver Wyman. Former Co-Executive Director, State Budget Crisis Task Force; Former Senior Advisor to the Office of Management and Budget for Director for Implementation of the Recovery Act, Special advisor to the President and Assistant to the Vice President. Former Professor, Fels Institute of Government, University of Pennsylvania; Professor and Director, Management Finance and Leadership Program, School of Public Affairs, University of Maryland College Park; Managing Partner, Governmentum Partners. Former Partner and National Industry Director, Federal Government, KPMG; Deputy Director for Management, and Controller, U.S. Office of Management and Budget; Chief Financial Officer, U.S. Department of Housing and Urban Development; Special Assistant to the Governor, Commonwealth of Pennsylvania; President, Public Financial Management; Managing Director, Merrill Lynch Capital Markets. Former positions with the City of Philadelphia, Pennsylvania: Analyst and Deputy Director, Community Renewal Program; Assistant to the Director of Finance; Deputy Director of Finance for Budget; Director of Finance.

David A. Mader*—Senior Vice President, Strategy and Organization, Booz Allen Hamilton. Former Managing Director, Sirota Survey Intelligence LLC; Former positions with the Internal Revenue Service, the U.S. Department of Treasury: Acting Deputy Commissioner for Modernization and CIO; Assistant Deputy Commissioner; Chief, Management and Finance; Chief, Management and Administration; Assistant Commissioner, Human Resources and Support; Deputy Assistant Commissioner, Planning and Research; Assistant District Director, State of New Jersey; Assistant Director, Detroit Computing Center.

Barbara S. Wamsley*—Principal, LMA International; Consults with various organizations and governments on leadership, change and U. S. system of governance. Former Fellow with the Center for the Study of American Government, Johns Hopkins University and Maxwell Center for Advanced Public Management, Syracuse University; Professor, Florida State University and Johns Hopkins University. Former positions with U.S. Department of Health and Human Services: Senior Advisor to the Deputy Secretary; Deputy Assistant Secretary for procurement, grants, information resources management, management analysis; Director, Program Integrity; Former Deputy Director, Federal Programs, National Academy of Public Administration.

ACADEMY STUDY TEAM

Joseph P. Mitchell, III, Director of Project Development—Leads and manages the Academy’s studies program and serves as a senior advisor to the Academy’s President and CEO. He has served as Project Director for past Academy studies for the Government Printing Office, the U.S. Senate Sergeant at Arms, USAID/Management Systems International, the National Park Service’s Natural Resource Stewardship and Science
Directorate, and the USDA Natural Resources Conservation Service. During his more than ten years at the Academy, Dr. Mitchell has worked with a wide range of federal cabinet departments and agencies to identify changes to improve public policy and program management, as well as to develop practical tools that strengthen organizational performance and assessment capabilities. He holds a Ph.D. from the Virginia Polytechnic Institute and State University, a Master of Public Administration from the University of North Carolina at Charlotte, and a BA in History from the University of North Carolina at Wilmington. He is a current Master of International Public Policy candidate at the Johns Hopkins University’s School of Advanced International Studies.

**David E. Treworgy, Senior Advisor**—Prior to joining the Academy, David served government organizations in improving operational effectiveness through his roles as a Project Delivery Executive with IBM’s Global Business Services division and a Partner at PricewaterhouseCoopers. His areas of expertise include cost management, activity based costing, enterprise performance management and reporting, business case development, and business decision analysis. He has worked extensively with various government departments and agencies to improve the quality and availability of information to help executives make decisions. He holds a BA in Economics from Williams College and an MBA from Harvard Business School.

**Jonathan W. Wigginton, Research Associate**—Joined in the Academy in the spring of 2012 after having spent time as a research volunteer at the Smithsonian’s National Museum of American History. He has worked on a number of studies while at the Academy, including the United States Postal Reform Study and FBI Headquarters Relocation Study. Jonathan helped lead the Memos to National Leaders project which culminated in spring 2013, oversaw launch the 2013 Edition of the Survivor’s Guide for Presidential Appointees, and currently serves as the manager of the Academy’s website. He holds a BA in History from the University of Mary Washington.

*Academy Fellow
APPENDIX B: AGENCY EXECUTIVES INTERVIEWED FOR STUDY

Bailey, Angela—Chief Operating Officer, Office of Personnel Management (1/30/14)

Barwell, Owen—Chief Financial Officer, National Renewable Energy Laboratory, Department of Energy (2/25/14)

Buckley, Ruth—Deputy Performance Information Officer, United States Agency for International Development (2/26/14)
(Joined by: Maggie Mesaros, Management and Program Analyst)

Craig, Elizabeth—Director, Climate Protection Partnerships Division, Environmental Protection Agency (2/14/14)

Danzig, Lisa E.—Director, Office of Strategic Planning and Management, Department of Housing and Urban Development (2/3/14)
(Joined by: Henry Hensley, Acting Director, Office of Strategic Planning and Management; and, Jeffrey Little, Deputy Performance Improvement Officer)

Dyer, Jim E.—Chief Financial Officer, Nuclear Regulatory Commission (2/18/14)

El-Lissy, Osama A.—Deputy Administrator, Animal and Plant Health Inspection Services, Department of Agriculture (2/20/14)

Glenn, Douglas A.—Deputy Chief Financial Officer and Director of the Office of Financial Management, Department of Interior (3/14/14)

Gebre, Biniam—Deputy General Secretary, Office of Housing, Department of Housing and Urban Development (3/25/14)
(Joined by: Jason Stayanovich, Senior Advisor)

Hale, Robert F.*—Under Secretary of Defense (Comptroller) and Chief Financial Officer, Department of Defense (2/5/14)

Harnitchek, Mark D.—Director, Defense Logistics Agency, Department of Defense (2/10/14)

Haze, Pamela K.*—Deputy Assistant Secretary, Budget, Finance, Performance & Acquisition, Department of the Interior (2/14/14)

Huerta, Michael P.—Administrator, Federal Aviation Administration, Department of Transportation (2/26/14)
(Joined by: Max Slutsky, Special Assistant to the Administrator)
Hurt, John—Chief Financial Officer, Federal Student Aid, Department of Education (3/14/14)

Kisliuk, Bruce—Deputy Commissioner for Patent Administration, United States Patent and Trademark Organization, Department of Commerce (2/19/14)

Mayberry, Alan K.—Deputy Associate Administrator, Field Operations and Emergency Response, Pipeline and Hazardous Materials Safety Administration, Department of Transportation (2/11/14)

Potok, Nancy*—Deputy Director and Chief Operating Officer, United States Census Bureau, Department of Commerce (3/6/14)

Ritman, Allison W.—Director, Office of Financial Reporting & Accountability, Federal Aviation Administration, Department of Transportation (2/20/14)

Shapiro, Michael—Principal Deputy Assistant Administrator, Environmental Protection Agency (1/31/14)

Sidari, David P.—Acting Chief Financial Officer, Department of Housing and Urban Development (3/10/14)

Skelly, Thomas—Acting Chief Financial Officer and Director of the Budget Service, Department of Education (3/12/14)

Spencer, Lawrence O.—Vice Chief of Staff of the United States Air Force, Department of Defense (2/4/14)

Tierney, Helen—Chief Financial Officer, Department of Veterans Affairs (3/31/14)

Turco, Kathleen—Chief Financial Officer, Veterans Health Administration, Department of Veterans Affairs (3/7/14)

Vetter, Darci L.—Deputy Under Secretary, Farm and Foreign Agricultural Services, Department of Agriculture (2/12/14)

Warren, Wade—Deputy Assistant Administrator, Bureau of Global Health, United States Agency for International Development (3/26/14)

Williams, Thomas D.—Assistant Administrator, Resources & Technology Management, Energy Information Agency, Department of Energy (3/6/14)

*Academy Fellow
APPENDIX C: INDIVIDUALS CONSULTED FOR BACKGROUND RESEARCH

Bussow, Mark—Program Analyst, Performance and Personnel Management, Office of Management and Budget

Criscitello, Doug A.—Managing Director, Global Public Sector, Grant Thornton LLP

Dong, Norman S.—Deputy Controller, Executive Office of the President, Office of Management and Budget

Fiely, Lisa—Director, Global Public Sector, Grant Thornton LLP

Hatry, Harry P.*—Director, Public Management Program, The Urban Institute

Karner, John L.—Advisor, Office of Executive Councils, Chief Financial Officers Council

Kamensky, John M.*—Associate Partner, IBM Global Business Services

Kearney, Regina—Senior Advisor, Office of Federal Financial Management, Office of Management and Budget

Lippuner, Denise—Principal, Global Public Sector, Grant Thornton LLP

Peacock, Marcus C.*—Former Minority Staff Director, U.S. Senate Committee on the Budget

Reger, Mark—Deputy Assistant Secretary, Accounting Policy, Department of the Treasury

Shea, Robert J.*—Principal, Global Public Sector, Grant Thornton LLP

Steinberg, Harold I.*—Technical Director, Federal, State and Local Government Performance Reporting Programs, Association of Government Accountants

Thompson, Fred*—Director, Center for Governance and Public Policy Research, Willamette University

Valentine, Kate—Senior Policy Analyst, Executive Office of the President, Office of Management and Budget

Van Daniker, Relmond P.—Executive Director, Association of Government Accountants

Verma, Shiva—Principal, Global Public Sector, Grant Thornton LLP

Webster, Douglas*—Principal, Cambio Consulting Group

Zaharchuk, David R.—Research Lead, IBM Institute for Business Value

*Academy Fellow
**APPENDIX D: DISCUSSION GUIDE**

The following are the questions from the Discussion Guide administered to the individuals listed in Appendix B. These interviews were not-for-attribution and off-the-record.

**Users, Sources, and Frequency**

<table>
<thead>
<tr>
<th>(✓ the appropriate boxes)</th>
<th>Agency Chief</th>
<th>Program Manager</th>
<th>Mid-level Manager</th>
<th>Line-Level Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key user(s) of financial information?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Key user(s) of operational information?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| (✓ the appropriate boxes) | Program office staff | CFO office staff | CIO office staff | Office of Admin. and Mgmt. | Strategic planning staff | Additional or “cuff records” | Other |
|----------------------------|----------------------|-----------------|-----------------|----------------------------|-------------------------|-----------------------------|
| Primary source(s) of financial information? |            |                 |                 |                            |                         |                             |       |
| Primary source(s) of operational information? |            |                 |                 |                            |                         |                             |       |

<table>
<thead>
<tr>
<th>(✓ the appropriate boxes)</th>
<th>Real-Time</th>
<th>Daily</th>
<th>Weekly</th>
<th>Pay Period</th>
<th>Monthly</th>
<th>Quarterly</th>
<th>Annually</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current frequency of financial information</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Desired frequency of financial information</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Current frequency of operational information |          |       |        |            |         |           |          |
| Desired frequency of operational information |          |       |        |            |         |           |          |

**Importance and Availability**

<table>
<thead>
<tr>
<th>Information Is:</th>
<th>Financial Information</th>
<th>Operational Information</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Importance?</td>
<td>Current Availability?</td>
</tr>
<tr>
<td>Timely</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Accurate, with high degree of data integrity</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Presented in usefully formatted reports</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Highly granular when granularity is desired</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Forward-looking/predictive</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Easily created with reliable systems</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

1: low importance 5: high importance
1: low availability 5: high availability

*Discussion Question*: In an ideal world, what information do you wish was available?
Use by Mid-Level Managers and Top Agency Leadership

<table>
<thead>
<tr>
<th></th>
<th>To What Extent?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers at all levels believe they have the financial information they need to do their job</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Managers at all levels have a hand in developing financial reports and insuring data quality where appropriate</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>There is a flow of financial information from “the shop floor to the top floor” so that this information can be used and useful at all levels</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Reporting requirements are seen as burdens imposed from above</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>The most senior management of the agency uses financial information for internal management</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>The most senior management of the agency uses financial information for external reporting</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

Gaps

<table>
<thead>
<tr>
<th>Gaps in Financial Information:</th>
<th>Extent of the Gap?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exist in content</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Exist in timeliness</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Exist in quality</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Stem from inadequate reporting systems</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

1: small extent 5: large extent

<table>
<thead>
<tr>
<th>Options to Address Gaps:</th>
<th>Likely Effectiveness?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clearer policy guidance</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Re-engineering of processes</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Changes in the operation of existing systems</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>New systems designed to better meet needs</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Broaden the skill-sets of staff producing and analyzing financial information</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

1: low effectiveness 5: high effectiveness

Discussion Question: If you had gaps and closed them, how did you do it?

Discussion Question: For gaps that still exist, how would you make better decisions if the gaps were closed?
APPENDIX E: NUMERICAL RESPONSES TO DISCUSSION GUIDE

The charts below depict the average numerical responses from individuals listed in Appendix B when asked to answer the questions in the Discussion Guide, found in Appendix D. These results represent a cross-section of perspectives, not a random sample.

Figure E1: Key Users of Financial Information

Figure E2: Primary Sources of Financial Information
Figure E3: Key Users of Operational Information

- Agency Chief: 76%
- Program Manager: 80%
- Mid-Level Manager: 76%
- Line-Level Manager: 72%

Figure E4: Primary Sources of Operational Information

- Program Office: 60%
- CFO: 44%
- CIO: 28%
- Office of Admin/Management: 32%
- Strategic Planning: 16%
- Additional/Other Records: 28%
- Other: 8%
Notes on Figures E5, E6, E7, E8, and E9

These figures depict the results from questions where responses were provided on a one to one scale.

On each page, the bar graph shows the average numerical response and the table shows the actual distributions of ratings. Because the sample size was small, the results should not be interpreted with statistical significance. However, in the judgment of the Study Team that conducted the interviews, the numerical results are fully consistent with the qualitative feedback from the discussions with the executives and senior managers.

Some interviewees responded with a rating halfway between two whole numbers (e.g. "between four and five"). To quantify those responses, a ½ point is allocated to the lower number and a ½ point to the higher number. This methodology accounts for some of the ratings distributions not being a whole number.

Of the 27 interviews conducted, 25 provided complete or nearly complete responses to the multiple choice questions. Due to time constraints, two interviews focused exclusively on the qualitative questions and did not record the ratings. Accordingly, 25 is the maximum number of potential ratings for each question. In a small number of cases, interviewees did not provide a rating to a certain question because either they did not know or felt the question was not applicable. Where this occurred, the total is less than 25.
Figure E5: Importance and Current Availability of Financial Information

<table>
<thead>
<tr>
<th>(ratings)</th>
<th>Accuracy</th>
<th>Granularity</th>
<th>Timeliness</th>
<th>Useful Formatting</th>
<th>Forward-Looking</th>
<th>Easily Created with Reliable Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>23</td>
<td>10.5</td>
<td>15.5</td>
<td>7.5</td>
<td>20.5</td>
<td>6.5</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>2</td>
<td>6.5</td>
<td>6.5</td>
<td>3.5</td>
<td>7.5</td>
</tr>
<tr>
<td></td>
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<td>0</td>
<td>7</td>
<td>3</td>
<td>5.5</td>
<td>1</td>
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<tr>
<td></td>
<td>2</td>
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<td>Total</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>25</td>
</tr>
</tbody>
</table>

4.8 4.5 4.8 4.5 4.6 4.7
4.1 3.8 3.7 3.2 3 3
Low                                     High
**Figure E6: Importance and Current Availability of Operational Information**

![Bar chart showing the comparison between importance and current availability of operational information.](image)

<table>
<thead>
<tr>
<th>(ratings)</th>
<th>Accuracy</th>
<th>Granularity</th>
<th>Timeliness</th>
<th>Useful Formatting</th>
<th>Forward-Looking</th>
<th>Easily Created</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>15</td>
<td>7</td>
<td>10.5</td>
<td>5.5</td>
<td>17</td>
<td>4.5</td>
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<td>4</td>
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<td>3.5</td>
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<tr>
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<td>5.5</td>
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<td>6</td>
<td>1.5</td>
<td>8.5</td>
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<tr>
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<td>0</td>
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<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>22</td>
<td>22</td>
<td>21</td>
<td>21</td>
<td>22</td>
<td>22</td>
</tr>
</tbody>
</table>

*Note: The table shows the ratings for each aspect of operational information, with importance and current availability scores for each category.*
Figure E7: Use of Financial Information by Mid-Level Managers and Top Agency Leadership

<table>
<thead>
<tr>
<th>(ratings)</th>
<th>Managers have the information they need</th>
<th>Managers have a hand in developing reports</th>
<th>Information flows from the shop floor to the top floor</th>
<th>Senior mgmt. uses financial info for internal management</th>
<th>Senior mgmt. uses financial info for external reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>1.5</td>
<td>3</td>
<td>6</td>
<td>9.5</td>
<td>11</td>
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<tr>
<td>4</td>
<td>8</td>
<td>7.5</td>
<td>3</td>
<td>9</td>
<td>7.5</td>
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<tr>
<td>3</td>
<td>8</td>
<td>7.5</td>
<td>9</td>
<td>4.5</td>
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<tr>
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<td>2.5</td>
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<td>0.5</td>
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<tr>
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<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
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</tr>
<tr>
<td>Total</td>
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<td>24</td>
<td>23</td>
<td>24</td>
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</tr>
</tbody>
</table>
Figure E8: Extent of Gaps in Financial Information

<table>
<thead>
<tr>
<th>(ratings)</th>
<th>Timeliness</th>
<th>Quality</th>
<th>Content</th>
<th>Stem from Inadequate Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
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<td>5.5</td>
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<tr>
<td>3</td>
<td>5.5</td>
<td>11</td>
<td>8</td>
<td>5.5</td>
</tr>
<tr>
<td>2</td>
<td>8.5</td>
<td>4.5</td>
<td>3</td>
<td>4.5</td>
</tr>
<tr>
<td>1</td>
<td>7.5</td>
<td>7.5</td>
<td>7</td>
<td>5.5</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>24</td>
<td>24</td>
<td>24</td>
</tr>
</tbody>
</table>
Figure E9: Likely Effectiveness of Options to Address Gaps in Financial Information

<table>
<thead>
<tr>
<th>(ratings)</th>
<th>Clearer Policy Guidance</th>
<th>Re-engineering of processes</th>
<th>Changes in operation of existing systems</th>
<th>New systems designed to better meet needs</th>
<th>Broadening of skill sets of staff producing reports</th>
</tr>
</thead>
<tbody>
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<td>5</td>
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<td>12.5</td>
<td>8</td>
<td>8</td>
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<td>2.5</td>
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<tr>
<td>Total</td>
<td>23</td>
<td>23</td>
<td>23</td>
<td>22</td>
<td>23</td>
</tr>
</tbody>
</table>
APPENDIX F: STUDY FINDINGS AND RECOMMENDATIONS

Section 3: Availability of Financial and Related Information

Finding 1: Data generally is considered highly accurate and granular.

Finding 2: Timeliness of financial information is generally regarded as sufficient to meet most decision-making needs, though room for improvement exists.

Finding 3: While raw data is considered highly accurate, granular, and reasonably timely, the federal government has difficulty analyzing this data and transforming it into effectively presented and actionable information for senior-level decision-making.

Finding 4: Information linking budget, costs and performance to support resource allocation decisions is one of the most needed types of analysis.

Finding 5: Information that is forward-looking and predictive is desired, but generally unavailable.

Finding 6: Senior leaders believe that financial systems are often difficult to use without specialized training.

Finding 7: The need for timely and granular data is most critical at fiscal year-end and during periods governed by continuing resolutions or shutdowns.

Section 4: Effective Use of Information for Decision-Making

Finding 8: Highly production-oriented organizations that generate significant revenue through revolving fund or user-fee components tend to maintain and effectively utilize robust managerial cost accounting systems.

Finding 9: Regulatory, policy-oriented, and grant-making organizations funded by appropriation are less likely to operate and utilize managerial cost systems.

Finding 10: Some federal agencies are either production-oriented or user-fee funded. Whether these agencies rely heavily upon financial and cost analysis to make decisions largely depends on their leadership’s expectations and their organizational culture.

Finding 11: Many of the executives and senior managers interviewed as part of this study maximize their use of currently available financial data and believe that additional information is needed.

Finding 12: Many federal managers grew up in a culture where data-driven, cost-conscious management was not the norm. As they transition, they may require further development of their skills and practical day-to-day experience to maximize their effectiveness.
Finding 13: Individual leaders can exert significant influence through their guidance to next-line managers.

Finding 14: For the most part, cuff records are not widely utilized by executives now that modern financial systems have been implemented in most agencies.

Finding 15: The one-year appropriation cycle hinders multi-year planning and incentivizes ineffective and inefficient spending behavior at year-end.

Finding 16: The process of producing audited financial statements is viewed by senior managers as critical to ensuring the accuracy and integrity of data, though the final product is not considered useful for managerial decision-making purposes.

Finding 17: Reporting requirements generally are not seen as burdens.

Section 5: Role of the Chief Financial Officer Organization

Finding 18: The relationship of program and operations managers with the CFO varies depending on the degree to which the CFO has shifted from an accounting and transaction focus to a business advisory and support role.

Finding 19: Program executives want CFO staff to have a deeper understanding of the programs and business environments and be able to provide more sophisticated and relevant financial analysis.

Finding 20: Program and operations managers rely on reports from the CFO office for their basic financial needs, but desire more analytical linkages to operational data, including HR information, to assist them with decision-making.

Finding 21: Modernized financial systems are a prerequisite for providing effective information to managers.

Section 6: Recommendations for Closing Gaps

Recommendation 1: Federal agencies should strengthen the CFO staff’s knowledge of program operations in order to increase their ability to act as business partners to agency program leadership.

Recommendation 2: Federal agencies should emphasize development of the CFO staff skillsets to ensure that traditional accounting is augmented by data analytics.

Recommendation 3: In order to connect financial and cost information to program outcomes, federal agencies should link budgeted resources to costs, outputs, and performance.
Recommendation 4: In order to ensure that relevant information is available in a readily accessible and user-friendly format, federal agencies should develop financial and programmatic dashboards specifically tailored to the decision-making requirements of executives.

Recommendation 5: Federal agencies should enhance existing reporting systems to integrate financial, operational, and HR-related information.

Recommendation 6: Congress and OMB should create specific legislative and regulatory catalysts, such as the 2009 American Recovery and Reinvestment Act reporting requirements, to focus agency attention on developing clear cost and outcome data.
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