ima®

The Association of Accountants and Financial Professionals in Business

Improving Federal Costing for Better Decisions

About IMA®

IMA (Institute of Management Accountants) is the worldwide association of accountants and financial professionals in business. Founded in 1919, we are one of the largest and most respected associations focused exclusively on advancing the management accounting profession. We are committed to empowering our network of about 100,000 members—and those throughout the rest of the profession—to strengthen on-the-job skills, better manage companies, and accelerate careers. We invite our members to discover the myriad of possibilities within the profession and build an actionable future in management accounting. Management accountants are vital to the financial health of organizations. They make critical decisions, safeguard a company's integrity, and plan for business sustainability. They include CFOs and controllers, budget analysts and treasurers, or one of many other game changers on internal teams. Most of all, as the majority of the accounting and financial workforce, they help drive an organization's strategy and value amid an unpredictable market. Management accountants belong at IMA.

About the CMA®

IMA's globally recognized CMA (Certified Management Accountant) program is a relevant assessment of advanced accounting and financial management knowledge in critical areas such as financial planning, analysis, control, and decision support. The CMA exam consists of 11 content domains organized into two exam parts. For more information about the CMA certification program, please visit www.imanet.org/certification.

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About Alta Via Consulting

Alta Via Consulting focuses on enabling management processes including planning, analysis, control, and decision support. We integrate our customers' costing and operational information to enhance their optimization decision making. We thrive on addressing specific challenges related to advanced cost management, highlighting solutions and best practices to help managers achieve their optimization objectives. Our consultants are passionate about adding value to each project, bringing to the client a greater understanding and transparency of their business processes through causal modeling. This allows the client to become more responsive to business changes and thus more profitable. Whether the path to success requires an integrated ERP solution, a best-of-breed costing tool, or enhancements to existing functionality—Alta Via's forte is to serve as solution architects to prove there is "a better use of information." Alta Via's vision is to empower effective cost optimization, analytics, and organizational alignment equipping our clients with operational clarity.

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Executive Summary

IMA® (Institute of Management Accountants) believes the federal government, as one of the largest enterprises in the world, would benefit greatly by applying an improved approach to understanding its resources, processes, and ultimately its costs. Improvement will result from focusing on causal operational relationships to consistently inform the decisions of its many levels of managers and executives. The decades of federal focus and the significant improvements made in financial accounting, reporting, and audit have simply not improved the government's ability to optimize resource use to support more cost-effective mission achievement.

This paper introduces federal executives and managers to IMA's Conceptual Framework for Managerial Costing (CFMC), the first comprehensive accounting framework in history to focus purely on creating cost information for decision support and optimization. The CFMC is also highly relevant to all aspects of the budget process—planning, programming, budget formulation, and execution—because they're most closely tied to operating and resource decisions.

This paper summarizes four key weaknesses in the current federal approach to financial stewardship:

- The official and audited report of cost data is the Statement of Net Cost (SNC/SONC), but it isn't used for decision making, budgeting, program management, or planning.
- Federal systems and analytical doctrine are oriented toward reporting compliance rather than decision optimization.
- Federal cost methods and systems don't provide the information to optimize the quantity and use of resource capacity.
- Federal cost systems don't place a priority on accurately reflecting resources, processes, and causal relationships for planning.

The paper also reviews the ways in which the CFMC adopted by IMA to support commercial optimization can be applied to the federal operating environment to promote optimization and better decision making.

Finally, the paper makes four key recommendations:

1. The federal government should go beyond the standards in Statement of Federal Financial Accounting Standards (SFFAS) 4 to define causal data sets that agencies can use to ensure appropriate information for decision making.
2. The federal government should prescribe analytical doctrine for decision-making information that departs from financial reporting and compliance regulations, and places dominance on causality.
3. Federal financial and resource management doctrine needs to emphasize capacity management and optimization rather than expenditure control.
4. Budget protocols should be reoriented to resources, causal costs, and operational information.

If you feel as though your agency's investment in improving financial reporting and audit performance has not produced a significant improvement in managing resources, this document explains why. And it explains what needs to change to create cost information that will make an impact.

Introduction

It's widely agreed that the federal government does a poor or inadequate job of creating effective cost information for decision support.[1] It's also widely agreed that the federal government needs to create and use cost information much more effectively when making management decisions and managing levels of service and performance in a resource-constrained environment.

The Critical Gap

The most critical gap is that the federal government has ***no definitive guidance on costing for internal management decision making***. It may surprise many federal executives and managers to learn this gap exists across the entire accounting profession and is recognized as a shortcoming in accounting education. Like the federal government, private enterprise also suffers from poor cost information to support internal management decision making. Yet because private enterprise is focused on revenue, cash, and profits rather than budgets, commercial enterprises typically adapt and compensate with greater agility.

The Impact

The impact for federal managers and employees is that knowledgeable individuals who need or want to develop cost information to support internal decision making must often spend a great deal of time and effort collecting new data and creating new information—and then spending even more time explaining why their information doesn't match financial statements, why it deviates from full cost and financial reporting cost guidance, or why anyone should believe their analysis. By crafting ad hoc data sets and analytical approaches on a case-by-case basis, agencies often view similar challenges and opportunities very differently, leading to inconsistent and suboptimal decisions. This isn't a problem limited to the finance function. Every program creates budgets for internal and congressional requests at least annually; these are the primary source of funding, oversight, and managerial evaluation and guidance for the federal government.

The Solution

To help solve the problem of poor quality cost information for internal decision support in both the private and public sector, IMA® (Institute of Management Accountants) has created the Conceptual Framework for Managerial Costing (CFMC). It defines the principles, concepts, and constraints associated with creating cost information for internal decision support. Again,

[1] *Financial and Related Information for Decision-Making: Enhancing Management Information to Support Operational Effectiveness and Priority Goals*, A National Academy of Public Administration (NAPA) report requested by the Federal Accounting Standards Advisory Board (FASAB), April 2014.

it may be surprising, but such a document didn't previously exist in accounting literature. The CFMC recognizes that financial accounting standards are fundamentally designed for an external audience and to facilitate audit, and, instead, ***focuses on the needs of managers and employees for actionable information to guide and support the management of resources, processes, outputs, and outcomes***. The CFMC has two guiding principles:

- **Causality:** The relationship between a managerial objective's quantitative output and the input quantities consumed if the output is to be achieved, or less formally, ensuring cost information reflects resource and operational cause-and-effect relationships.
- **Analogy:** The use of causal insights to infer past or future causes or effects, or less formally, ensuring managerial cost information is used for decision making in a way that logically extrapolates the embedded cause-and-effect relationships.

Conceptual frameworks exist for financial accounting standards, but none of them elevate presenting operational cause-and-effect relationships as a core principle. In fact, internal management is, at best, just one of many stakeholders considered as an audience for "general purpose financial statements," which is the term of "art" used by financial standard setters for the accounting standards they administer and the financial information subject to audit.

The IMA CFMC is completely focused on the information managers need to make decisions that optimize their organization's operations and performance.

> **What about Statement of Federal Financial Accounting Standards (SFFAS) 4: Managerial Cost Accounting Concepts and Standards for the Federal Government? Doesn't it provide guidance for cost information?**

The Statement of Federal Financial Accounting Standard (SFFAS) 4 on managerial cost accounting from the Federal Accounting Standards Advisory Board (FASAB) has three stated objectives (section 22):

1. To provide program managers with relevant and reliable information relating costs to outputs and activities;
2. To provide relevant and reliable cost information to assist Congress and executives in making decisions about allocating federal resources, authorizing and modifying programs, and evaluating program performance; and
3. To ensure consistency between costs reported in general purpose financial reports and costs reported to program managers. This includes standardizing terminology for managerial cost accounting to improve communication among federal organizations and users of cost information.

Of the three objectives, only the third is even partially achieved with any consistency across the federal government, and that is because the annual financial statement audit ensures the Statement of Net Cost (SNC/SONC) reconciles to other financial accounting statements. The

cost information and systems supporting the SNC are seldom used for other purposes. There are a variety of significant reasons, such as: They don't have sufficient detail to reflect causal resource and operational relationships, they conform to financial accounting standards rather than operating realities that demand a focus on causality, and highly detailed cost systems make audits riskier and more challenging. The bottom line is that costing for internal decision support must adhere to the principle of causality, and objective No. 3 would place other principles ahead of causality.

Some Federal Government-Specific Challenges

Many Definitions of Cost

A significant part of the problem is that in the federal government, the term "cost" is used in many ways and is the servant of many masters:

- The cost of programs must be identified on the SNC.
- The cost of assets and inventory must be reported on the balance sheet.
- The full cost of providing reimbursable services must be recognized on financial statements.
- Working capital funds should charge the full cost of goods and services.
- Fees should be set for the public based on the cost the government incurs when providing the service.
- Costing standards exist for some forms of government contracting.
- Cost management is an objective of many federal agency managers but is usually focused on spending within budget and the rate of spending.

The simple fact is that there is no definition or calculation of cost that will meet the needs of every application in the federal government. To effectively discuss cost, it's important to be specific about what application is being addressed. This paper focuses on the creation and use of cost information for internal decision support with the goal of optimizing the use of existing or new resources to achieve management objectives.

Defining Cost for Management Decision Making

Does it make sense to provide a framework for cost purely for decision making when there are so many uses for cost information in the federal government? It does if you want cost to be a powerful tool for decision making. And nearly everyone can agree that it should be. The confusion among the definitions of cost impairs the development of cost systems and the creation and use of cost information by managers. The dominant principle for creating cost information for management decision making should be *causality* (cause and effect). Any system for developing cost information that compromises the cause-and-effect relationships between resources, the processes they operate in, and the outputs and outcomes they create, distorts and impairs decision making and is fatally flawed. Statutory and accounting standards that require costing to be done in particular ways have specific purposes, but they place one

or more principles ahead of the fundamental principle of causality, which is essential to internal management decision making where the objective is to optimize the use of resources. Not surprisingly, because causal cost information has an operational and optimization focus, it serves the purpose of other uses very well. The current lack of causal cost information shows financial accounting can't satisfy managerial costing and decision-making needs.

Are legacy approaches to costing wrong? The simple answer is no. But legacy approaches have compliance and reporting objectives that are placed ahead of and conflict with a priority on sound management decision making.

Other Studies and Solutions

The problems with cost information in the federal government have been studied in the past. For example, the April 2014 National Academy of Public Administration report, referenced earlier, explored whether senior managers had access to good financial and related data (e.g., cost data, forecasts, and analysis) and whether they were using that data effectively to make decisions. The report made six recommendations[2] but failed to address the fundamental problem—that the principles, concepts, and best practices in costing for internal decision support are fundamentally different from traditional accounting data and accounting information required by FASAB standards, various laws, and many regulations.

IMA's Solution

This document is intended to help agency financial and operational executives and managers, the Office of Management and Budget (OMB), and congressional appropriations and authorization committees ***understand the nature of the deficiencies in the cost information they are using, understand how it impairs effective decision making, and provide the language and framework for creating the knowledge, guidance, and processes to produce effective cost information for internal decision making.*** It's important to emphasize that cost analysis is not solely or perhaps even dominantly a financial management/CFO issue—it's an issue for managers and executives at all levels.

This document makes the case for applying the IMA CFMC to the internal decision making of managers in government operations. This includes the budget process—planning, programming, budget formulation, and execution—because they're most closely tied to operating and resource decisions.

[2] In summary, the six recommendations were to strengthen operational knowledge, develop new skill sets, link budgets to performance, improve data formats, enhance reporting systems, and legislate to improve reporting requirements.

Conclusion

The IMA CFMC focuses on identifying the principles, concepts, and constraints applicable to creating actionable cost information for managers and employees at all levels of an organization. The application of these principles and concepts means that resources, processes, and outputs will be clearly and causally reflected in cost information. This is the critical difference, because ***resources and processes are what most managers and employees make decisions about every day. This type of cost information ensures that the many small and incremental decisions can be made with an awareness of their economic impact on the organization and its mission.***

Part 1: Major Problems in Federal Costing and the Solutions Provided by the IMA® (Institute of Management Accountants) Conceptual Framework for Managerial Costing (CFMC)

The U.S. federal government has a myriad of costing challenges in financial reporting, budget formulation and execution, planning and programming, executing reimbursable agreements, operating working capital funds, fee setting, and in generating actionable cost information for day-to-day operating decisions.

The authors of this paper concluded that addressing four major, high-level issues about existing federal cost information provides a practical introduction and establishes the need for improvements to cost information for better management decision making.

Issue 1: The official and audited report of cost data is the Statement of Net Cost (SNC/SONC), but it isn't used for decision making, budgeting, program management, or planning. Why?

> **Federal managers use ad hoc and insufficient data sets for cost analysis, leading to inconsistent and suboptimal decisions.**

The SNC was designed to fit into a tightly knit package of auditable, general financial statements. It wasn't designed for highly focused use by management. The SNC provides generalized cost information at a "major program" level and varies significantly from entity to entity.

There is no requirement that the "major program" information in the SNC allow drill down to specific outputs, internal support services, or program resources. In fact, incorporating too much drill down and operational detail can make an SNC challenging to audit in an efficient and timely manner; therefore, the reporting regime contains a counterproductive incentive that actually works against cost modeling that effectively presents cause-and-effect relationships. The SNC allows central administrative and support costs to be stated separately, but there is no consistency across agency reporting, and many agencies avoid showing detail because they prefer to show that nearly all entity costs support mission programs to ensure they don't draw attention for budget reductions.

The information in nearly all SNCs is calculated from a financial model that uses broad allocations of expenditures that occurred during the fiscal year. This means some expenditures result from contracts and obligations that occurred three or more years ago. Additionally, Statement of Federal Financial Accounting Standards (SFFAS) 4 allows costs to be assigned in three ways: (1) direct tracing, (2) cause and effect, or (3) allocation on a reasonable and consistent basis. At the "major program" level, even direct tracing conveys little information about the purpose and causal contribution of resources to program achievement due to the large logical and organizational gap from a specific resource to a "major program"-level objective. Cause and effect is poorly defined in SFFAS 4, and allocation is widely used for assigning administrative and

support costs to "major programs" and conveys even less information than direct tracing and much more distortion.

The budget process is clearly the financial process in government that most significantly influences behavior and decisions. Since the cost information in the SNC has a very weak connection to the budget for the relevant fiscal year, its cost analysis is devalued in the budget-centric federal world.

Here's an example of the limited information that an SNC provides:

U.S. Department of Homeland Security
Consolidated Statement of Net Cost
For the Year Ended September 30, 2015
(In Millions)

Major Missions (Note 23)	**2015**
Foster a Safe and Secure Homeland	
Gross Cost	$ 34,362
Less Earned Revenue	(5,541)
Net Cost	**28,821**
Enforce and Administer Our Immigration Laws	
Gross Cost	10,211
Less Earned Revenue	(3,710)
Net Cost	**6,501**
Strengthen National Preparedness and Resilience	
Gross Cost	14,750
Less Earned Revenue	(4,157)
Net Cost	**10,593**
Mature and Strengthen Homeland Security	
Gross Cost	3,475
Less Earned Revenue	(109)
Net Cost	**3,366**
Total Department of Homeland Security	
Gross Cost	62,798
Less Earned Revenue	(13,517)
Net Cost Before (Gain)/Loss on Pension, ORB, or OPEB Assumption Changes	49,281
(Gain)/Loss on Pension, ORB, or OPEB Assumption (Note 16)	4,046
NET COST OF OPERATIONS	**$ 53,327**

This is copied from page 59 of the Department of Homeland Security's FY 2015 Agency Financial Report. Note 23 breaks down these amounts by the major DHS bureaus (FEMA, USCG, CBP, TSA, etc.), but there is no information that provides insight into the resources and processes that are the sources of these costs either in the financial statement or readily available in other forms to the public.

A Different Perspective Using the Conceptual Framework for Managerial Costing

The IMA Conceptual Framework for Managerial Costing (CFMC) focuses on building a cost model that provides information for internal decision making. Rather than being a primarily financial model that "tics and ties" to other financial statements, ***the CFMC advocates that cost models shouldn't be built until an organization has an effective and comprehensive causal model of its resources and operations in quantitative, nonfinancial terms***. The integrity of management's cost model is based on how effectively it reflects the resources and operations, not abstract financial standards. A cost model designed for decision making must not have "unintended" operational consequences.

For example, the elimination or reduction of a program that uses some portion of a fleet of ships' time shouldn't involve the reduction of shipboard personnel unless specific personnel are 100% dedicated to that program and are otherwise not required to operate the ships. The program elimination or reduction may include fuel for hours spent on that program and some reduction in operating hour-driven maintenance if the ships' total operating hours are reduced. The CFMC emphasizes building a model in which the costs reflect the responsiveness of resources consumed to changes in operational outputs. The key is that only resources and their costs with a strong causal relationship to the specific program output should be evaluated for reduction. Several CFMC concepts such as responsiveness, avoidability, and divisibility (see Part 2) must be considered in the evaluation.

Conclusion

The critical point on Issue 1 is not that the SNC is a bad report—it serves the goal of creating auditable general financial statements and gives a general picture to external stakeholders of how agency resources support high-level missions. But the report-level ***SNC is not a suitable basis for management decisions. The requirements of standardized financial reporting and audit require financial data to be constructed in a way that interferes and distorts the presentation of cause-and-effect operational relationships***. This is because financial statements have a dominant focus on principles such as matching and periodicity, rather than recognizing the need for a dominant focus on causality.

The purpose of managerial cost information is to make timely and accurate decisions and projections about changing the composition or quantity of resources and/or how resources are used in operations based on the cause-and-effect relationships that exist or are reasonably expected to exist after a decision is executed.

Issue 2: Federal systems and analytical doctrine are oriented toward reporting compliance rather than decision optimization.

> **The federal government holds "full cost" as the "gold" standard in SFFAS 4 and much of its financial guidance, but most budgetary and operating decisions are marginal and incremental.**

The term "full cost" sounds like a robust cost figure, but the name is misleading. Of course, the value computed for full cost and the granularity incorporated can vary widely depending on the design of the data collected and the manner of calculation.

To illustrate, let's look at a program that inspects certain facilities for environmental compliance. Typically, the salaries of the inspectors, program staff, and adjudication staff for fines/penalties are identifiable to the program. The cost of training, travel, and other direct expenses for the staffs is probably identifiable to the program. The costs of buildings and equipment for personnel may be identifiable or may be based on an allocation for which the causal relationship of the allocation basis may range from very specific to very general. The cost of personnel support, contracting support, accounting support, and higher-level administrative and management support may be allocated based on generalized drivers, or it may be treated as a central cost of the organization. This is enough information to create an auditable "full cost."

The most important information needed to manage the program, however, isn't known under this approach. For example: How much inspector time is available in the field? How much time (and money) is used writing up the inspection? How much time (and money) is spent on improving the knowledge of those regulated? What are the most and least expensive types of inspections? Which categories of customers create the highest cost inspections? How much idle time do the various categories of personnel have? What would be the cost savings or increase in available inspection time if inspection documentation time could be cut by 30% with better software and hardware?

Compliance-centric cost systems that generate full cost are focused on financial statement compliance for which allocations based on weak causal or very general bases are adequate. These approaches provide an efficient way to achieve compliance—they don't change much over time and are easy to audit. But managerial costing data that decision makers can use effectively must provide deeper insight. It must reflect operational cause-and-effect resource relationships: information like resources' capacity utilization, understanding the nature of resource use (and costs) as fixed or proportional to outputs, understanding the demand relationships between resource pools within the organization, and a multidimensional view of output cost—by product or service, by customer/customer type, by the manner of distributing or delivering the product or service, and perhaps other dimensions.

Federal government agencies are not devoid of this type of information. Many agencies have operational systems that generate useful and relevant nonfinancial performance information; however, those mission systems are often not well integrated with cost systems. Typically, a special study or analysis is conducted when a program comes under some form of scrutiny due to

a budget change or a performance crisis. Such special studies typically lack historical perspective and are subject to criticism, debate, and negotiation; furthermore, no monitoring system will be in place to ensure the specific performance and financial targets are met in the longer term.

A Different Perspective Using the Conceptual Framework for Managerial Costing

The IMA Conceptual Framework for Managerial Costing (CFMC) can improve costing in the federal government because it incorporates specific concepts that are necessary for cost information to be useful for managerial decision making. The principle of causality introduced in the previous section is supported by 10 concepts that define the key characteristics necessary to create causal cost models that are built to reflect (as opposed to generally represent) an operational model. (See Part 2.) The practice of full costing and the use of noncausal or weak causal allocations is contrary to the CFMC because those approaches impair a manager's operational insights and decision making. For example, if a program is expanded, support resources may or may not need to be increased; the need for an increase depends on the nature of the resources (and their associated costs) and how they are consumed in the process of creating program outputs—is the resource consumption fixed for the level of increase? Proportional? Or, as is most likely, a mix of the two? The same is true of a program reduction. Both increases and reductions can cause negative consequences—either the needed additional resources aren't provided, which strains existing capabilities, or unavoidable fixed costs of support services are cut, again straining existing capabilities.

Conclusion

SFFAS 4 uses the term "full cost," and it's most commonly interpreted as "fully absorbed cost" because SFFAS 4 allows costs to be assigned using "(3) allocation on a reasonable and consistent basis." Allocation is widely used and accepted in the federal government; however, SFFAS 4 includes separate definitions in its glossary for full cost and fully absorbed cost.

If full cost is developed only using the first two cost assignment methods in SFFAS 4, "(1) direct tracing and (2) cause and effect," full cost could meet the definition of attributable cost, which has been defined in accounting literature as: "The attributable cost of any activity is the cost that could be eliminated, in time, if that activity were discontinued and capacity were to be reduced accordingly." The difference between fully absorbed cost and attributable cost is that the attributable cost of an objective must have a clear causal relationship to its inputs while allocations need only be "reasonably" related.

SFFAS 4 and other federal guidance need to provide more sophisticated guidance and doctrine on creating cost information for specific purposes, particularly management decision making. The CFMC recommends separate costing systems for compliance requirements and internal decision support because of the widely different core principles and levels of detail, auditability, and causality.

Example

The Economy Act of 1932, authorizing federal entities to cross-service one another on a reimbursable basis, provides an illustration of the cost and performance improvements possible from greater use of marginal/incremental cost information.

The Act was a magnificent step forward in federal resource optimization. Prior to its passage, two federal agencies operating in the same seaport that each occasionally needed a crane would each buy and maintain a crane, an absurd duplication of expense and a needless near-doubling of idle capacity. This is an example of complete and ironclad stove-piping. After the passage of the Economy Act, one or the other agency would buy a single crane and cross-service their federal colleagues at full cost recovery rates. This legislation unleashed a surge in capacity utilization within the federal government. It was clear to the serviced agency that it was better off paying half the full cost of a crane to its neighbor, rather than bearing the whole burden itself. And, of course, the taxpayers were better and served more efficiently.

The Economy Act was a big win, but after 85 years of successful cross-servicing experience, it's time to look at the fundamental flaw in the Economy Act. Every young student of management accounting, every Uber driver, and every Airbnb host has learned that once you own capacity, there are circumstances under which it's good business to make a marginal sale if you can recover your proportional costs and contribute toward fixed costs. This well-understood concept is the basis for the early bird special, the Las Vegas Tuesday through Thursday hotel rate, the matinée movie, and an endless array of other capacity-leveraging deals. But there are no early bird specials under the Economy Act. By law, every customer must pay full cost. Perhaps that was a logical first step down the road of reimbursable activity in the 1930s, but today it's an archaic holdover that saps efficient utilization of resources from the massive productive capacity in the federal government—capacity that U.S. citizens have already paid for.

As an example, let's say the National Science Foundation needs to get equipment to Antarctica to conduct important research. The U.S. Coast Guard has C-130 aircraft sitting in Hawaii or Sacramento, Calif., that can do the job, but the Coast Guard is required by the Economy Act to charge the National Science Foundation a full cost rate, even though several aircraft are sitting underutilized, standing by as surge capacity, or as backups for rescue/law enforcement assets that are on more immediate standby. To comply with the Economy Act, the Coast Guard might have to charge $90,000 (full cost) for the delivery, while the marginal cost might be $20,000. The National Science Foundation can go out and hire a commercial carrier to make the run for $75,000, so it does that because it's cheaper than the falsely inflated $90,000 charge. The result is that the taxpayer is worse off by $55,000 ($75,000 minus $20,000). Worse still, suppose the National Science Foundation judged that the mission value of getting the equipment to the station was $60,000, not $75,000 or $90,000; a mission that could have been completed for $20,000 is abandoned.

A key objective of the Economy Act and of other programs like the A-76 outsourcing initiative is to create federal efficiency without unfairly disadvantaging commercial vendors who

wish to contract with the government. That's an admirable goal, but the Economy Act's mandate for full cost recovery doesn't create a level playing field—it dramatically disadvantages federal taxpayers and federal missions in rationally leveraging the capacity they have already paid for. The private vendor can compete at marginal cost plus contribution margin, while the federal offeror is handcuffed into a full cost recovery pricing schedule. Perhaps the perception that the federal government is always a highest-cost provider is just that—a perception arising from the rigid pricing policies mandated in the law, or perhaps a reality arising from rules coupled with poor cost information that hamper capacity utilization within the federal resource management community. There's a secondary opportunity that's even more dramatic for federal cross-servicing—to infuse entrepreneurial thinking into the federal manager's decision model and to heighten the value proposition of government by allowing reimbursable activity at marginal cost when it makes sense. This is only possible when marginal information is available to decision makers.

Issue 3: Federal cost methods and systems don't provide the information to optimize the quantity and use of resource capacity.

> **Federal accounting and financial information focuses more on expenditure control than on leveraging latent capacity and optimization. The key to effectively managing costs is understanding the characteristics and managing the use of the vast federal resource capacity (employees, equipment, software, buildings, etc.) and matching costs to them.**

Capacity is a controversial and often misapplied concept in the federal government. The first problem is that government executives are often judged by how they manage their agency's budget, when an equally important focus should be on the resource input and performance outcome dynamic. The second problem is that capacity is often only applied to inanimate objects—buildings, equipment, computers, supplies, etc.—when the most expensive and versatile asset in most agencies is the federal workforce (labor hour capacity). A third problem is that many government assets are acquired and maintained in the hope they won't be used. This includes war-fighting capacity, emergency response and rescue capacity, and conservation and preservation. Additionally, many government assets have multiple possible managerial objectives based on national priorities or the situations that arise within a year and from year to year. For example, hurricane response supplies and military assets can be used to respond to a mass refugee event.

Financial managers spend a lot of time tracking money with commitments, obligations, undelivered orders, unliquidated orders, accrued expenditures, expenditures, outlays, etc. Far less time is spent analyzing the same level of detail in resource capacity-use terms:

- Productive: when a resource is doing what you hired or acquired it to do. This includes time spent being mission-ready for emergency use or surge capacity when a resource is held ready to mitigate extant risk.
- Nonproductive: when a resource is engaged in necessary, but not productive, activities such as maintenance, training, repair, etc. These are necessary and vital activities, but should be optimized to increase productive time. (Continuous/ongoing mission training for a mission-ready asset whose primary mission is "to be ready" would be productive capacity use.)
- Idle/excess: when a resource isn't used or kept ready due to lack of demand, management choices, legal restrictions, etc.

The analysis of resource utilization and associated cost patterns are far more relevant to management improving efficiency, effectiveness, cost control, and optimization than expenditure control.

The problem is current federal cost models are fundamentally financial models supporting financial accounting and external reporting. This often makes it challenging to acquire financial information to support budgeting and planning for resources and operations. Budgeting and planning are more closely tied to resource capacity and operational data than the financial data created by financial accounting systems. Many agencies, the Department of Defense being the

largest example, have extensive operation models to assess the readiness, use, and status of their resources, and they are continuously challenged to support and correlate operational issues with financial data or budget data to create a solid, representative financial view.

A Different Perspective Using the Conceptual Framework for Managerial Costing

The IMA Conceptual Framework for Managerial Costing (CFMC) takes a very different approach to creating cost information. It does this based on the recognition that money or costs are merely a reflection or a mirror image of real actions and the work that resources do; cost is the meta language of economic activity. This means that costs per se can't be managed, in the same way that cleaning a mirror will not clean a dirty face. Costs are reduced/optimized only if the resources and their capacity are effectively managed—hence, the emphasis in the CFMC on a causal operational cost model. Once an operational model is created, resource capacity and use issues are the centerpiece. The cost data and collection approach must be designed to clearly reflect resources and their use.

The CFMC principles of causality and analogy, the 14 concepts that support the two principles, and the seven constraints provide the insight and language to build a cost model focused directly on managing resource capacity and improving and optimizing management decisions about existing and planned capacity. The CFMC's essence is a focus on the operations and resources used to create outputs and outcomes with actionable cost information that's readily available and designed to inform and guide decision making.

Critics may say this type of model is too complex and too expensive to create and maintain. Operational models managing some types of capacity, such as ships and aircraft, are in wide use, are well maintained, and are responsible for massive improvements in efficiency and effectiveness often with very limited connection to financial data. The CFMC leverages these operational models by adding a layer of cost information to them. Thus, a detailed duplicate cost model that requires extensive maintenance isn't what the CFMC proposes. Instead, the cost model is maintained whenever requisite operational models are maintained. Think how much more useful both operational and financial models would be in supporting decision making if they were integrated in this way and widely used.

Conclusion

The essence of cost management is optimizing the capacity and use of resources to provide maximum benefit from capacity at minimal cost. Current federal practices obscure this reality with their focus on expenditure control. The CFMC emphasizes that an operational model of resources and the demands on them will keep the financial information focused on the realities of operations and mission performance.

Issue 4: Federal cost systems don't place a priority on accurately reflecting resources, processes, and causal relationships for planning.

> **The budget and expenditure-centric focus of the federal government drives management attention to funds management rather than to resource application and optimization (i.e., minimizing cost and/or maximizing benefit). The projection of costs based on resources and operations should be fact-based. Federal cost systems should place a priority on accurately reflecting resources, processes, and causal relationships for planning.**

Issue 4 is closely related to Issue 3. Federal costing systems are primarily backward-looking because they're designed to support financial accounting and reporting; however, this isn't the fundamental flaw. The principal shortcoming of the current approach is the failure to reflect causal resource and process relationships, which is impossible for an accounting system that must comply with financial accounting and reporting standards.

As stated in Issue 3, planning and budgeting are primarily related to operational and resource planning for mission resources and the necessary levels of support and administration. Since the clarity of the connection between operational systems and financial systems is impaired by traditional costing done to support financial reporting standards, it normally requires considerable effort, a great many extrapolations, and broad estimates to make financial accounting data connect to existing and projected changes to resources and processes.

When you can't present effectively the current financial impact of existing resources and operations, it's even more challenging to make projections and a solid case for change. For example: If all you know about the cost of personnel administration is that the cost of the central processing center and the regional centers is the total cost, how would you assess the impact of adding or reducing a brigade (10,000-15,000 troops)? The typical answer is to divide the total cost of the centers by the cost of all personnel supported. Yet a brigade has more junior personnel and is deployed more often for operations or training. Do these or other factors impact the personnel administration resources? Which costs of the personnel administration are fixed, and which are proportional to changes in the number or categories of personnel serviced? A typical financial accounting model of obligations and expenditures will never provide insight into personnel administration resources and their operations. A causal model of resources and processes can provide superior insight.

A Different Perspective Using the Conceptual Framework for Managerial Costing

The IMA Conceptual Framework for Managerial Costing (CFMC) emphasizes building a comprehensive operational model of resources and processes and producing cost information to reflect that operational model. The principle of analogy emphasizes using the information for decision making in a way that logically extrapolates the embedded cause-and-effect relationships as the basis for projections to support planning and decision making.

This may not sound like a comprehensive solution for planning and budgeting, but planning and budgeting have three basic scenarios:

1. A current set of resources used in a mission is being incrementally expanded.
2. A new mission requiring entirely new resources is being planned.
3. A mission and its resources are being eliminated or incrementally reduced.

Scenarios 1 and 3 clearly place a premium on understanding the current state of resources and operations. Scenario 2 isn't directly aided by the current operational or cost model, but the ability to present the new mission and its resource impact in a manner highly consistent with existing resources and missions will lend a great deal of credibility to the plans and budgets. The capability to effectively track causal relationships, understand fixed and proportional resource consumption and costs, identify strong and weak causal impacts, and build a financial model accurately reflecting operational assumptions is made more credible by a track record of performing it effectively and comparing the model to actual results over several time periods. This requires a strong managerial costing skill set—not a reporting compliance skill set—and systems designed to support internal management decisions.

Conclusion

The key to creating credible budgets and forecasts is to ensure they reflect resources, processes, and the projected demands on them. This means a robust operational model needs to serve as the foundation for any financial illustration of an anticipated need or change. Credibility is established when a financial budget or projection can be tied to operations and resources at a granular level. Credibility is enhanced by doing this effectively over periods of time and demonstrating a strong capability to connect operational models with financial projections. The CFMC modeling focuses on establishing an operations model, which is then costed to reflect or represent the organization's resources and operations accurately.

Part 2: Overview of the Conceptual Framework for Managerial Costing (CFMC) as It Applies to the Federal Government

The IMA® (Institute of Management Accountants) Conceptual Framework for Managerial Costing (CFMC) defines the core principles and concepts to create and use cost information for decision making. It gives primacy to decision support rather than to financial accounting standards or financial reporting conventions. It also supports the optimal use of resources to meet an organization's strategic objectives—whether that be maximizing profit, delivering a defined level of service at minimal cost, or maximizing service with available resources. This view can conflict with traditional views of resource and financial information; however, it provides the long-term view necessary to create maximum value and minimize cost from the employment and acquisition of resources.

The CFMC focuses on two core principles:

1. **Causality:** *The relation between a managerial objective's quantitative output and the input quantities consumed if the output is to be achieved.*
   Cost models for management decision making must reflect causal relationships between resources and performance outcomes. This also means not imposing "causal relationships" where they don't exist and reflecting the nature of causal relationships accurately for decision making where they exist.

2. **Analogy:** *The use of causal insights to infer past or future causes or effects.*
   Cost information must be used logically, and the limits of the quantitative information must be known and acknowledged.

Each of the principles has supporting concepts that guide their application. There are also constraints identified for the use of each principle. Constraints can't be eliminated completely and must be managed and evaluated for risk of impairing information when a model is designed and the information used.

IMA recognizes there are many objectives in creating financial information and many models to achieve those objectives. It's important that cost information be created in a manner that supports the objective sought. We should recognize that internal decision support hasn't been a primary focus for the accounting profession. It's been assumed by financial standard setters that managers would create the detailed decision support information they need; however, experience has shown that the pressure to achieve external reporting objectives and goals is so great that little time and effort are left to produce any other cost information. The problems identified in Part 1 illustrate that situation for the federal government.

The Framework

Figure 1 (from the IMA Statement on Management Accounting, *Conceptual Framework for Managerial Costing,* September 2014) provides the overview of the conceptual framework.

Figure 1. The Conceptual Framework for Managerial Costing

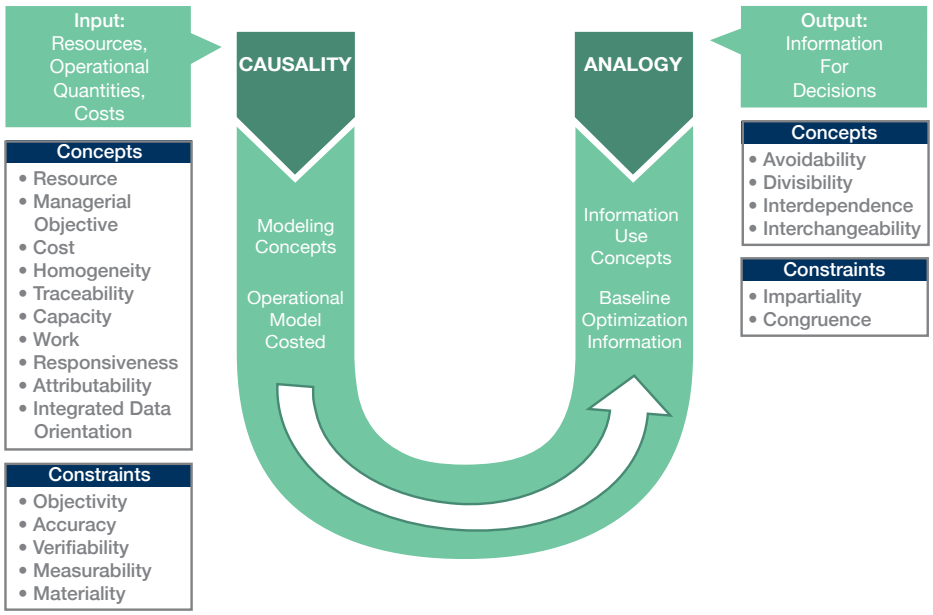

Diagram Overview

An organization is composed of resources that produce work and incur costs. The principle of causality (cause and effect) is used to create a model of the organization's resources—guided by 10 concepts related to causality on the left of Figure 1. The result of applying the concepts is the creation of a model composed of operational quantities and how these are consumed in an organization's processes, products, and services. The operational model is then costed.

The cost model forms the baseline information for management to use to improve and optimize operations and the associated resources usage. The use of the information is guided by four concepts shown on the right of Figure 1. These concepts don't address behavioral or management issues, but rather are logical considerations when using managerial costing information. The key principle for information use is analogy, which emphasizes the information should be presented and used for decision support in a logical manner.

Both causality and analogy are subject to constraints that can't be totally overcome. They're always present and must be considered and managed when one creates a model and uses its information.

The CFMC is not a costing approach or costing method (such as standard costing, process costing, activity-based costing, etc.). Instead, it defines the key principles, concepts, and constraints that must be considered in designing and evaluating an organization's costing needs and selecting a costing approach. Nor is the CFMC a best practice. It is a set of inherent principles and concepts that form the basis for sound costing for internal decision making about operations and resources.

Objective of Managerial Costing

The CFMC begins by defining the objective of managerial costing. The objective focuses on internal decision making, and does not include supporting external financial reporting standards and their particular supporting principles and concepts.

The objective of managerial costing is to provide a monetary reflection of the utilization of business resources and related cause-and-effect insights into past, present, or future enterprise economic activities. Managerial costing aids managers in their analysis and decision making and supports optimizing the achievement of an enterprise's strategic objectives.

Principles

The CFMC defines two foundational principles for managerial costing. The first principle, causality, guides the design and construction of a cost model. The second principle, analogy, guides the use of information generated by the causal managerial costing model.

Causality	The relation between a managerial objective's quantitative output and the input quantities consumed if the output is to be achieved.[3]

Analogy	The use of causal insights to infer past or future causes or effects.

Modeling Concepts

The application of the CFMC's principles are further guided by supporting concepts. Modeling concepts support the principle of causality. They fall into four categories:

1. The constructs of a causal cost model:

- What are we trying to accomplish (*managerial objectives*)?
- What do we have at our disposal to accomplish these objectives (*resources*)?

Managerial Objective	A specific result or outcome of the application or provision of resources that management chooses to monitor for the purpose of enabling one or more managerial activities.
Resource	A definitive component of an enterprise acquired to generate future benefits.

2. To create an effective cause-and-effect model requires capturing characteristics of the constructs used in the model. These include the concepts of *cost*, *homogeneity*, *traceability*, *capacity*, and *work*.

[3] Adapted from Shillinglaw, G., 1979, p. 162.

Cost	A monetary measure of (1) consuming a resource or its output to achieve a specific managerial objective or (2) making a resource or its output available and not using it.
Homogeneity	A characteristic of one or more resources or inputs of similar technology or skill that allow for their costs to be governed by the same set of determinants and in an identical manner.
Traceability	A characteristic of an input unit that permits it to be identified in its entirety with a specific managerial objective on the basis of verifiable transaction records.
Capacity	The potential for a resource to do work.
Work	A measure of the specific nature of units of resource output.

3. Concepts to capture the relationships between resources and managerial objectives: *responsiveness* and *attributability.*

Responsiveness	The correlation between a particular managerial objective's output quantity and the input quantities required to produce that output.
Attributability	The responsiveness of inputs to decisions that change the provision and/or consumption of resources.

4. A concept to define the nature of the data needed for the model: Integrated Data Orientation.

Integrated Data Orientation	Information about an organization's economic resources, events, and their corresponding monetary values, free from traditional accounting conventions, which allows for the aggregation of elementary data elements and their values for any purpose.

Information Use Concepts

Information use concepts further define the principle of analogy. They are divided into two groups: concepts relevant to analysis and concepts relevant to decision making.

1. Information use concepts relevant to analysis are avoidability and divisibility.

Avoidability	A characteristic of an input that allows for the input (and hence its costs) to be eliminated as a result of a decision.
Divisibility	A characteristic of a resource that allows it to be associated in its entirety with the change in a managerial objective's output resulting from a decision.

2. Information use concepts relevant to analysis are interdependence and interchangeability.

Interdependence	A relation between managerial objectives that occurs because of a decision to use resources to achieve one objective that affects the amount or quality of resources required to achieve other objectives.
Interchangeability	An attribute of any two or more resources or resource outputs that can be substituted for each other without affecting the costs of the other resources that are required to carry out the activities to which the interchangeable resources are devoted.

Constraints for Managerial Costing

Every model is subject to constraints as it seeks to recreate reality. These constraints can't be eliminated; they are ever-present and must be managed, considered, and evaluated when building a model and using information. The constraints are divided into two categories: those pertaining to the principle of causality and modeling and those pertaining to the principle of analogy and using cost information.

1. The constraints that pertain to the principle of causality and modeling are objectivity, accuracy, verifiability, measurability, and materiality, and those pertaining to the principle of analogy and using cost information.

Objectivity	A characteristic of a cost model that shows it to be free of any biases.
Accuracy	The degree to which managerial costing information reflects the concepts you intended to model.
Verifiability	A characteristic of modeling information that leads independent reviewers to arrive at similar conclusions.
Measurability	A characteristic of a causal relationship enabling it to be quantified with a reasonable amount of effort.
Materiality	A characteristic of cost modeling that would allow for simplification without compromising managers' decision-making needs.

2. The constraints that pertain to the principle of analogy and using cost information are impartiality and congruence.

Impartiality	The unbiased consideration of all resource application alternatives.
Congruence	The interdependence of individual managerial actions to attempt to achieve both individual and enterprise objectives in an optimal manner.

Example

The following are simple examples applying the definitions of the 14 Concepts:

Resource: A ship supported by other resource inputs such as a crew, fuel, maintenance contracts, food, intelligence reports, etc.

Managerial objective: Underway mission hours for a ship are an output or intermediate managerial objective contributing to the Interdict/Deter Drug Smuggling at Sea managerial objective that may contribute to a higher-level national managerial objective.

Cost: Underway hours, dockside hours in high readiness, and ship maintenance hours are costs of owning the ship. Dockside hours for crew rest/work-life balance are costs of not using the ship. They would be considered idle capacity for the ship since a second crew could be assigned to operate it. The crew resource time would be characterized as nonproductive since they are essentially in a maintenance status.

Homogeneity: Ships are only grouped as a pool if they have the same technology, equipment, crew size, capability, etc.

Traceability: The crew is clearly traceable to the ship. A headquarters mission planning staff for the Drug Interdiction Mission is not traceable to an individual ship; it will continue to exist until the mission ceases to exist; minor changes in the number of ships don't impact the size or activity of the staff.

Capacity: A ship is available 24 hours times 365 days each year. The time will be divided between productive (performing a mission or ready status to perform a mission), nonproductive (maintenance), and excess/idle (no mission, no need for mission readiness, or time placed off-limits by management).

Work: The work of a ship can be defined by how many hours it spends on various activities: drug interdiction, rescue missions, military readiness training, maintenance (perhaps various categories), etc.

Responsiveness: Certain types of ship maintenance are fixed costs, such as a dry docking every three years. Other maintenance is proportional based on the productive (underway) hours, such as main propulsion engine overhauls every 12,000 hours.

Attributability: The time the ship is in port primarily for crew rest is not attributable to the Drug Interdiction Mission. It's excess or idle time and should be evaluated continuously for its effectiveness. The possibility of creating a fully trained replacement crew to continue operating the ship is one option for making better use of the ship's available capacity. Whether to do that or not is a management decision based on causal data and judgment.

Integrated Data Orientation: Operational and cost data are captured in a manner that allows both to be continuously reflective of each other. This means that cost for internal decision support is captured by a managerial costing ledger that's different (it leverages causal operational models) from the financial accounting general ledger, which is primarily designed to support standardized financial reporting.

Avoidability: If the budget for a ship is cut in the fourth quarter of a fiscal year and full funding is expected in the new fiscal year, the only avoidable costs are fuel for underway mission time, some maintenance supplies, and contracts associated with underway time. The cost of the crew and fixed maintenance are not avoidable.

Divisibility: A ship receives new navigation and communications electronics, which saves 2,000 hours (one full-time equivalent) of maintenance by electronic technicians per year. But the ship only has three electronics technicians who are needed to stand watch 24 hours a day (eight hours each) while under way for immediate equipment adjustments and repairs. Maintenance is typically done in port or as day work when under way. Since the electronics technicians watch- standing workload is not divisible, the agency won't be able to eliminate an electronics technician on the ship due to the reduced maintenance requirement. The electronic technicians will be less busy while in port or for their underway day work.

Interdependence: A ship is doing 10% more underway hours, but finding fewer ships smuggling drugs. The problem is that finding high-probability targets is dependent on satellite-based intelligence, and due to a military emergency, fewer satellite resources are available to the Interdict/Deter Drug Smuggling at Sea Mission.

Interchangeability: A ship has very high ratings for its training and engineering readiness with the current captain and chief engineer. They're promoted and leave the ship. The new captain and chief engineer have less experience, and so the ratings fall. While all the personnel are qualified and categorized at the same job description, some have less experience and drive. The captain and chief engineer positions are not perfectly interchangeable between qualified individuals.

Part 3: Recommendations

IMA® (Institute of Management Accountants) believes the federal government has a great opportunity to improve program performance and cost-effectiveness by using the Conceptual Framework for Managerial Costing (CFMC) to improve the quality of the cost and operational information managers use for their decision making. This spans the realm of decisions from day-to-day to strategic and policy decisions. The following recommendations are offered as the initial steps to improve the focus on causal decision support-focused cost information.

> **Recommendation 1: The federal government should go beyond the standards in Statement of Federal Financial Accounting Standards (SFFAS) 4 and require causal modeling to ensure that agencies use correct information for decision making.**

Clarify that Statement of Federal Financial Accounting Standards (SFFAS) 4 and the existing Statement of Net Cost (SNC/SONC) are not designed to provide the level of detail or clear connections to resources and operations needed for internal decision making or budget formulation and management. ***The Office of Management and Budget (OMB), perhaps assisted by the Federal Accounting Standards Advisory Board (FASAB), should consider defining a cost framework based on the IMA CFMC, system architecture for separate costing for decision support, and report(s) that can drill down to processes and resources in a manner that clearly identifies causal relationships and supports internal management decision making.*** This report should be reconcilable with other federal financial statements at a summary level to explain the differences between financial reporting standards and managerial costing principles for internal decision support (examples could be: differing depreciation methods—the CFMC promotes a continuous capital charge through replacement cost depreciation, or the timing difference between obligations and expenditures). The new information should focus on reflecting causal relationships, resource capacity employment, and supporting effective marginal and incremental analysis. ***The test of its effectiveness should be wide use by managers and budget personnel at all levels of management and oversight.***

Recommendation 2: The federal government should prescribe analytical doctrine for decision-making information that departs from financial reporting and compliance regulations and places dominance on causality.

The federal government should improve its focus on the creation of internal cost and operational information needed to optimize resources use, operations, and costs. In a constrained budget environment, cost information is needed to "do more with the same or less" or "ensure every dollar counts." Achieving this requires detailed insights into the use of resources and their costs that tie logically and very directly to operations, outputs, and subsequently to performance results. ***OMB should focus on internal management decision-making information, explicitly de-emphasize traditional full costing, and emphasize the systematic creation of marginal and incremental cost information.*** The key is for cost information to reflect causal resource and process relationships through better understanding of the nature of how resources are consumed by operational use. This information is essential for efficiency and effectiveness to be evaluated while consistently improving mission performance.

A specific example is the Economy Act of 1932. It was designed to break down the statutory stove-piping that drove massive operating inefficiencies in the federal government. The opportunity now exists to eliminate structural stove-pipes that still exist in federal fiscal law that dampen rational, cost-effective, value-producing cross-servicing opportunities among federal agencies. The Economy Act and associated regulations should be amended to allow and encourage federal cross-servicing at marginal cost rates, in those cases where unused capacity has been paid for by the taxpayers and is available for use. The federal

government could gain a surge in new efficiencies and boost federal mission output value to the taxpayers with existing resources by taking this simple step. That is a first order effect of significant value. The meritorious second order effect is yet more promising. With proper incentives, this step can begin a shift in culture among federal resource decision makers away from a capture-and-spend paradigm to a paradigm of resource optimization, where the collaboration and innovation that characterize the best aspects of our economy finally begin to take hold within the federal government.

Recommendation 3: Federal financial and resource management doctrine needs to emphasize capacity management and optimization rather than expenditure control.

The government is made up of massive quantities of resources, people, and physical assets; the capacity is used to produce outputs and results (outcomes). Information and reports don't currently exist that quantify resource capacities in an effective manner. Additionally, the definitions of the use of resource capacity (productive, nonproductive, or idle/excess) haven't been established across government. Understanding the quantity of resource capacity, the characteristics of its use, and availability is essential for better resource management and optimum resourcing and budgeting. ***OMB, perhaps assisted by FASAB, should require reporting of the maximum available resource capacities and the nature of the capacity used and available in both operational quantities and monetary/cost terms for major mission and support resources.*** This would include reporting on personnel resources. Reporting should start at the foundation of the organization—resources and groups of homogeneous resources—to allow effective two-way information flow, summarizing upward, and allowing drilling downward.

An example of what is possible from even a very basic effort at capacity management was evident from the Freeze the Footprint initiative that was in place from 2012 through 2015.

The following is from www.performance.gov:

> **FY 2015—THE FINAL YEAR OF FREEZE THE FOOTPRINT**
>
> FY 2012 marked the beginning the Freeze the Footprint policy (FTF) and agencies' efforts to freeze their office and warehouse space to a fixed baseline. Since FY 2012, a total of 24.7 million square feet of office and warehouse space has been reduced from agencies' real property baselines. Approximately 10.2 million square feet (SF) were reduced in FY 2013, another 11.2 million SF were reduced in FY 2014, and in the final year of the FTF policy, FY 2015, 3.7 million SF were reduced. At the end of FY 2015, the total domestic federal inventory of office and warehouse space was 705.4 million SF, which is a 3.4% reduction from the FY 2012 office and warehouse baseline.

Recommendation 4: Budget protocols should be reoriented to causal cost, resource, and operational information.

Oversight focus should de-emphasize expenditures to focus on resource optimization. Federal agency budgets need to be constructed on a cause-and-effect basis using

anticipated resource capacities, resource/process performance (output), and levels of activity/demand for a given level of service. ***Cost, resource capacity, and performance metrics need to exist in cost and operational systems in a manner that allows comparison of budget to actual on a regular basis, explanation of the changes in the assumptions, and the resulting changes in the use of resources to enable learning and evaluation, and to establish future projections.*** The federal planning, programming, and budget process is the primary decision-making tool to manage the vast resources of the federal government and the quantity and quality of its operations. ***Systematic and documentable cause-and-effect-based cost, resource capacity, and operational information need to be the foundation for planning and budgeting decisions at all levels of approval and oversight.***

Conclusion

The application of these recommendations in the federal government will be a significant step toward ensuring that government operations and resources are managed with business acumen, an emphasis on optimization, and an unimpaired view of economic reality.

This has been a goal of much legislation, such as the Chief Financial Officers Act and the Government Performance and Results Act; however, the infrastructure and doctrine to achieve improved decision support information has largely followed traditional financial accounting and reporting practices. The federal government needs a much stronger focus on causal decision support information than the private sector, and the IMA CFMC defines the principles and concepts it can apply to move toward improving its decision support systems, doctrine, and knowledge.

The authors believe the primary actions to implement these recommendations are:

1. Clearly delineate the different principles in federal accounting guidance. Clarify the purpose of SFFAS 4 in external financial reporting and create new guidance that emphasizes the use of causality for decision making with an optimization focus.

2. Place more focus on operational models, causality, and resource capacity in the budget and planning process by OMB and congressional oversight.

A practical and achievable first step would be to rework the Economy Act of 1932 to reflect the principles and concepts of the CFMC. (See the final example in Part 1, Issue 2.)