



A Framework for Improving Federal Program Management

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FOREWORD

On behalf of the IBM Center for The Business of Government, we are pleased to present this report, *A Framework for Improving Federal Program Management*, by Dr. Janet Weiss, University of Michigan.

Reformers have tried to improve federal program management for decades. In late 2016, Congress finally passed legislation—the Program Management Improvement Accountability Act (PMIAA)—to establish standards, define competencies, and conduct progress reviews that improve program and project management at a government-wide and agency level.

In this report, Dr. Weiss offers a framework for how the Office of Management and Budget (OMB), the Office of Personnel Management, and agencies should develop standards and competencies for program management. Dr. Weiss' report is designed to help agencies understand the full range of skills and experiences needed across the range of program management needs in government. She supplements the framework with concrete case examples of program managers who demonstrate the skills and experiences needed for the different types of programs.

Based on her research, she offers government-wide and agency leaders a set of practical recommendations for implementing PMIAA requirements in a way that maximizes potential for success.

OMB released guidance on PMIAA implementation in June 2018, which includes the designation of agency-level Program Management Improvement Officers and the creation of a cross-government Program Management Policy Council. While this report was written prior to the issuance of this guidance, OMB staff reviewed a draft and the guidance is consistent with Dr. Weiss' findings.

We hope both decisionmakers and program managers find this report useful in their efforts to improve the effectiveness of federal program management for driving outcomes and managing change in coming years.



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EXECUTIVE SUMMARY

The public, Congress, and the executive branch have a crucial stake in the performance and management of U.S. federal programs. Yet, over time, it has proved difficult for policymakers to strengthen program management across the federal government.

The Program Management Improvement Accountability Act (PMIAA) is the most recent example from decades of efforts to improve government management with the goal of better outcomes for the American people. This new law requires, among other provisions, "governmentwide standards, policies, and guidelines for program and project management for executive agencies."

This report examines the experiences of a wide range of federal program managers in implementing large-scale programs. It assesses whether requirements like those stipulated in PMIAA are likely to improve program management and how best to raise the performance of program managers.

What Is a "Program?"

The quest to make program management more effective begins with understanding the work of program managers, and that begins with a clear definition of "program." This report relies on a definition developed by OMB. A "program" is:

- Externally recognizable: A program relates to the federal agencies' discussions with Congress, in statute, in the budget, or in communications with the public.
- Operationally meaningful: A program represents a coherent strand of organizational activity
 that is understood by the leadership and components of the agency and represents how
 the agency delivers on its mission.
- Linked to an organizational component(s): A program is connected to a bureau or office that is responsible for performance.
- Persistent over time: A program is not temporary.

Four Types of Programs

This report applies a diagnostic tool developed to understand what makes organizations effective—the "Competing Values" framework. This framework illuminates the different leadership values and strategies that are effective in different program settings. Using the framework, federal programs are grouped into quadrants labeled "Collaborate," "Create," "Get Results," and "Control."

In each quadrant, programs share some common features, but few features are common across all four quadrants. This framework reveals why federal programs cannot all be managed in the same way, and how management strategies need to adapt to different kinds of programs.

Different Program Types Require Different Management Skills

This report applies the conceptual framework to the practical world of the program manager. The author analyzed interviews with a wide range of federal program managers to show how they describe their work. Four broad findings emerged from this analysis:

- First, programs in each quadrant make distinctive demands on managers.
- Second, effective program managers develop a portfolio of skills, experiences, and strategies that address the particular challenges presented by their programs.
- Third, program managers operate within limits on their authority and power from a dense thicket of constraints that are rooted in the political and institutional context of their work.
- Fourth, program managers have skills, strengths, and commitment that form the foundation for improved performance.

Most PMIAA requirements for standards, competencies, job careers, and training assume that program managers all work in similar ways. In practice, they do not. As the implementation of PMIAA moves ahead, policymakers need to appreciate the full range of skills and experiences needed to manage programs of different types.

Policymakers should ensure sufficient flexibility and variation when issuing guidance, to reflect the diversity that program managers experience. The resulting guidance should also address systemic constraints that inhibit managers from being effective in meeting mission demands. Following are seven recommendations to the central agencies responsible for overseeing government-wide implementation of PMIAA, and four recommendations to each of the federal agencies covered by the Act.

Recommendations for Government-wide Implementation of PMIAA

- The Office of Management and Budget (OMB) and the Office of Personnel Management (OPM) should develop multiple standards and guidelines, to reflect the different management skills and experiences needed to manage different types of programs.
- 2. **OMB** and **OPM** should create opportunities for high-performing program managers to learn skills from one another.
- 3. **OMB** should use the annual portfolio reviews and five-year strategic plan that are required by PMIAA to identify and propose simplifications for federal workforce planning and ease the burden on program managers.
- 4. OMB and the Program Management Policy Council should support the creation of communities of practice where program managers from multiple agencies who work on similar issues can learn from one another.
- 5. **OPM** should develop multiple strands of program management training, tailored for managers of different types of programs.
- 6. **OPM** should develop an inclusive list of competencies for program management, using the Executive Core Qualifications for the Senior Executive Service as a possible starting point.
- 7. **OPM** should plan for a new or improved job series after recognizing that only some program managers will benefit from a single career path, and many will benefit from a variety of career trajectories.

Recommendations for Agency-level Implementation of PMIAA

- 8. **Agency Program Management Improvement Officers (PMIOs)** should recognize the different kinds of programs in their agencies, and tailor a program manager training plan aligned to each kind of program.
- 9. Agency PMIOs should help create multiple communities of practice for program managers in each agency as they develop required agency implementation plans. To improve mentoring and retention of program managers, these communities should be organized around shared challenges.
- 10. **Agency PMIOs** should develop plans to recognize excellence in program management, give high-performing program managers developmental assignments, and expand opportunities for training at multiple career stages.
- 11. **Agency leaders** should provide public celebration and recognition of program managers who achieve measurable progress toward agency goals.

INTRODUCTION

When something goes wrong in a federal program, it makes the news.

Employees of some facilities in the Department of Veterans Affairs began to conceal long delays in providing access to medical care, leading to reports that many veterans had sickened or died while waiting for appointments. NASA's flagship astrophysics mission, the James Webb Space Telescope, is over budget and behind schedule by nearly 11 years because of daunting engineering and design challenges compounded by a series of human errors in testing and management of the complex and ambitious scientific mission. 2



Elected officials respond with dismay to delays, service failures, and technical challenges in federal programs. When congressional committees discussed legislation to improve the management of federal programs—the Program Management Improvement Accountability Act—the House and Senate committee reports on the bill bemoaned the waste of taxpayer dollars caused by troubled or failed major programs and cost overruns in major acquisitions.³ Every two years, the Government Accountability Office (GAO) publishes a list of "high risk" government programs, which draws repeated attention to the costs of poorly performing programs. Political candidates berate federal employees for not taking advantage of skills and techniques that succeed in the private sector. This is one portrait of federal program management—a picture that draws attention to problems, failure, and deficits that need repair.

While this portrait captures public attention, it is at best incomplete. Every day, federal managers deliver on their responsibilities to accomplish the missions of their agencies under challenging circumstances. The managers at the Centers for Medicare and Medicaid Services who worked to reduce medical errors, prevent infections, and reduce readmissions for hospital patients have saved thousands of lives, avoided harm to millions of patients, and saved billions of dollars. After managers at the Internal Revenue Service stepped up efforts to combat identity

^{1.} Paul Light, "A Cascade of Failures: Why Government Fails and How to Stop It," Center for Effective Public Management, Brookings Institution. 2014

^{2.} Daniel Clery, "NASA's Webb telescope delayed to 2021," Science, June 27, 2018. doi:10.1126/science.aau6087

^{3.} U.S. Congress, House of Representatives, Committee on Oversight and Government Reform. 2016. *Program Management Improvement Accountability Act.* Committee Report HR114-637. June 14, 2016; U.S. Congress, Senate, Committee on Homeland Security and Governmental Affairs. 2015. *Program Management Improvement Accountability Act.* Committee Report S114-162. November 3, 2015.

theft in 2015, the number of taxpayers who were victims of fraudulent tax filings dropped nearly 65 percent. Federal managers provide high-quality services and transactions, investigate complaints and wrong-doing, develop relationships with other countries, reinforce a level playing field in economic markets, further the rule of law, advance science and research, and work toward social justice. Year after year, the outstanding contributions and dedication of federal program managers are exhibited in the recipients of the Samuel Heyman Service to America Medals from the Partnership for Public Service, the FCW Federal 100 Award, and many other awards.

These awards provide a second portrait of federal program management, one that showcases strength, creativity, and contribution. Like the first portrait, it is incomplete by itself. To make a serious effort to change federal program management, we must see both sides of this coin.

The public, Congress, and the executive branch have a crucial stake in the performance and management of federal programs. PMIAA is a recent example from decades of efforts to get program managers to do a better job and improve the performance of federal agencies.

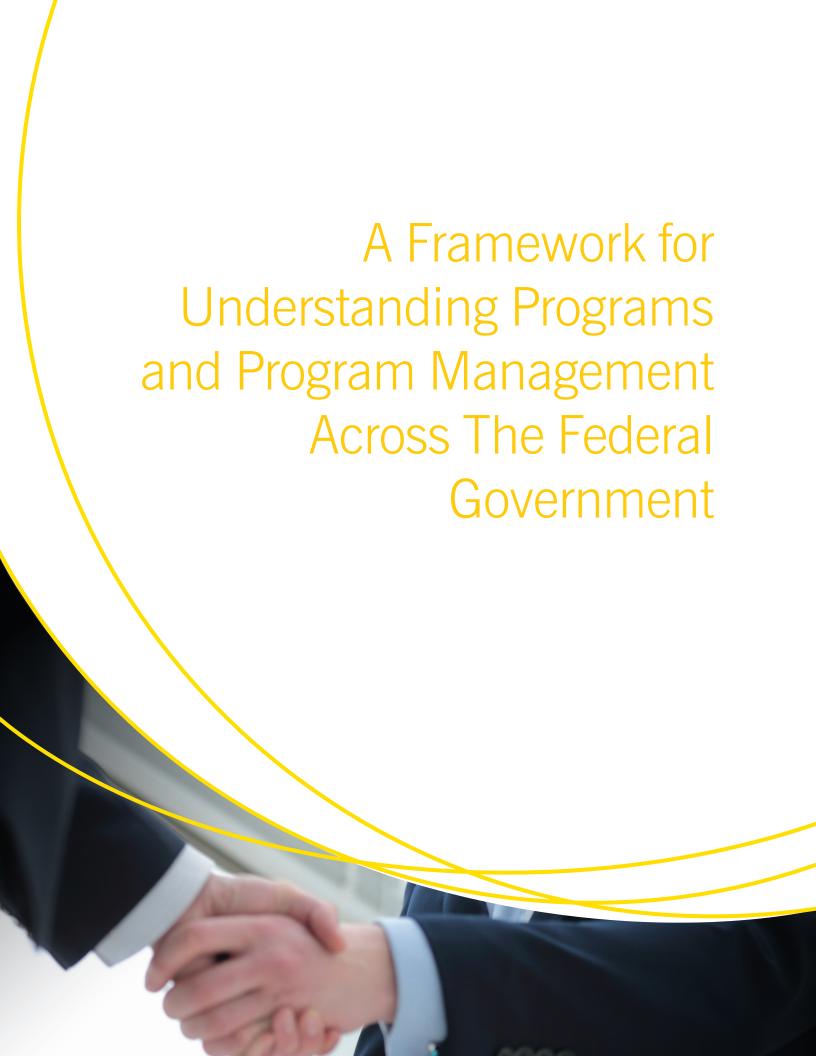
What steps can realistically strengthen the federal capacity for program management? This report addresses that question.

This report examines why efforts to improve program management cannot succeed without taking into account the diversity of federal programs. To avoid imposing overly simple solutions on heterogeneous phenomena, federal policies to improve operations should be based on a realistic picture of program management.

This report begins by discussing the different types of federal programs and how they differ from each other in ways that have consequences for how they should be managed. To analyze these differences, this report uses a conceptual framework that shows the relationship between program characteristics and the strategies that managers use. The framework reveals why techniques for good management need to be adapted to the type of program being managed, and why good managers use multiple strategies to achieve good results.

The next section of this report illuminates the practical world of federal program managers. Interviews with veteran federal program managers show how they experience and describe their work. Looking at what they say about their experience lays the foundation for understanding strategies that may be most effective in improving program management.

The findings and research insights based on the framework and interviews lead to specific recommendations for the implementation of PMIAA. Described in the Appendix, PMIAA is one of the most recent efforts to improve the ways that federal managers do their work.



What is a Federal Program?

The quest to make program management more effective begins with understanding the work that program managers do. And that begins with clarity about the definition of a program. The U.S. government does not have one exhaustive, mutually exclusive list of all federal programs. The reason is that various actors in and out of the federal government use differing definitions of a "program," based on different perspectives. For example, the definition of a program might rest on:

- Statutory authority: Which programs have been created by Congress through statute?
- Budgetary authority: Which programs receive explicit appropriations or have dedicated accounts in the annual federal budget?
- **Bureaucratic organization:** Which programs have an office and staff dedicated to carrying them out?
- Beneficiaries served: Which programs have a focused set of recipients who rely on their services?

While it may be surprising that these various definitions produce quite different lists of federal programs, the scale and complexity of the federal enterprise accounts for the difficulty in nailing down what we mean by a "federal program." Each of these definitions is useful for its intended purpose, and no definition is equally useful for all purposes.

The Office of Management & Budget (OMB) defines a "program" broadly as something that is:

- **Externally recognizable:** A program relates to the federal agencies' discussions with Congress, in statute, in the budget, or in communications with the public.
- **Operationally meaningful:** A program represents a coherent strand of organizational activity that is understood by the leadership and components of the agency and represents how the agency delivers on its mission.
- **Linked to an organizational component(s):** A program is connected to a bureau or office that is responsible for performance.
- Persistent over time: A program is not temporary.⁴

Alternate definitions can be much more general than the OMB definition, or more narrow. For example, the Government Accountability Office (GAO) defines a program broadly as "an organized set of activities directed toward a common purpose or goal that an agency undertakes or proposes to carry out its responsibilities." Other definitions can be narrower. For example, the Project Management Institute (PMI) defines a program as "a group of related projects, subprograms, and program activities that are managed in a coordinated way to obtain benefits not available from managing them individually. All projects within a program are related by a common goal, often of strategic importance to the sponsoring organization." Because the OMB definition aligns most naturally with the public understanding of a government program, it is the definition used in this report.

^{4.} Office of Management and Budget, Circular A-11, *Preparation, Submission, and Execution of the Budget,* Part 6, Section 280.3 (2018).

^{5.} U.S. Government Accountability Office, A Glossary of Terms Used in the Federal Budget Process, GAO-05-734SP (Washington DC 2005)

^{6.} National Academy of Public Administration, "Improving Program Management in the Federal Government," White Paper by a Panel of the National Academy of Public Administration (July, 2015).

It is worth clarifying that this report is focused on the management of federal *programs* and not on management of individual *projects*. This distinction is important because the management of programs as defined here moves beyond the more specific but better-known skills needed for project management. A project, as defined by the PMI, is a temporary endeavor undertaken to create a unique product, service or result.⁷ Critical differences between a project and a program (as defined here) are:

- A project is temporary, and a program is ongoing.
- A project involves activities that are unique, and a program involves both unique and repeating activities.
- A project has a defined beginning and ending while a program seldom has a defined ending.
- A project has a defined scope and resources while a program may evolve through multiple definitions of scope and varying levels of resources.

Types of Federal Government Programs

Federal programs encompass enormous variation in the inherent tasks and technology that managers face to manage them successfully. Table 1 lists 15 program types, drawn from OMB's categories, supplemented by three additional categories used by the Catalog of Federal Domestic Assistance.

Table 1: Types of Federal Programs		
Direct Federal Programs	These programs provide services primarily by employees of the federal government, such as the State Department's Consular Services program.	
Direct Federal Benefits Programs	These programs provide benefits or other payments to individuals, such as the Department of Veteran Affairs disability payment program.	
State-Administered Benefit Programs	These programs provide funding to states, where the states provide for benefits, reimbursements, or other payments to recipients, such as the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC).	
Competitive Grant Programs	These programs provide funds to state, local, and tribal governments, organizations, individuals, and other entities through a competitive process, such as HHS Health Centers.	
Block/Formula Grant Programs	These programs provide funds to state, local, and tribal governments and other entities by formula or block grant, such as the Department of Energy's Weatherization Assistance program.	
Regulatory-Based Programs	These programs achieve their goals through rulemaking that implements, interprets or prescribes law or policy, or describes procedure or practice requirements, such as the Small Business Administration's Size Standards program.	
Capital Assets and Public Works Programs	These programs achieve their goals through development, acquisition, and operation of capital assets (e.g., land, structures or equipment), such as the Bonneville Power Administration.	

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Table 1:	Types of	Federal	Programs	(cont.)

71	
Information Assets Programs	These programs achieve their goals through the development, acquisition, analysis, and/or dissemination of information, such as the Census Bureau.
Service Acquisition Programs	These programs achieve their goals through the purchase of services (e.g., maintenance and information technology).
Credit Programs	These programs provide support through loans, loan guarantees and direct credit, such as the Export-Import Bank's Long-Term Guarantees program.
Insurance Programs	These programs achieve their goals through compensation against the risk of specified loss, damage, illness, or death in return for payment of premiums.
Research and Development (R&D) Programs	These programs achieve their goals through knowledge creation or its application to the creation of systems, methods, materials, or technologies, such as NASA's Solar System Exploration programs.
Advisory Services and Counseling Programs	These programs achieve their goals through federal specialists who consult, advise, or counsel communities or individuals to include conferences, workshops, or personal contacts.
Training Programs	These programs provide instructional activities conducted directly by a federal agency for individuals not employed by the federal government, such as job training.
Investigation of Complaints and Resolution of Disputes	These programs examine or investigate claims of violations of federal statutes, policies, or procedure, such as discrimination complaints.

Source: Office of Management and Budget A-11, Part 6, Section 210.13 (2018) and Catalog of Federal Domestic Assistance.

Table 1 reinforces an important observation common in public administration literature: much federal program activity is actually carried out by partners in other government agencies (federal, state, local, and international), nonprofits, and for-profit contractors. If we care about federal program management because we hope to improve performance and outcomes for citizens, then we must care about the work of federal employees working on programs, and the work of all of the parties whose efforts are necessary to achieve the missions or outcomes of the programs. For example, the Head Start program is run by the Office of Head Start, which is in the Administration for Children and Families of the U.S. Department of Health and Human Services. That office is responsible for allocating funding, oversight of grants, provision of technical assistance, and monitoring. But the Head Start program is much more than the work of the Office of Head Start. The program is delivered by 1,700 public and nonprofit grantees in communities around the United States who serve just over one million children and families. Without the work of the grantees, local and state government agencies that work with the grantees, and contractors who provide technical support, the federal government has no ability to deliver the Head Start mission to young children, pregnant women, and families. To effectively manage the Head Start program (or any other federal program), program managers must take responsibility for the entire scope of activity required to achieve the federal mission.

Just as federal program management is usually greater than the work of a federal office, it is also greater than the work of an individual manager. It is tempting but misleading to conflate program management with the work done by an individual leader in charge. Federal programs achieve results through the combined efforts of individuals, teams, and organizations. No matter how skillful (or unskillful) a single program manager may be, successful performance occurs when individual, team, and organizational conditions support and enable successful programs.

Because program management is an organizational responsibility, it cannot be isolated from the contexts in which managers work and the tasks that they strive to achieve. As a result, skilled program management must be adapted to its context. Program management depends on the activity, resources, and circumstances of the organization and work to be managed.

Framework of Organizational Effectiveness for Different Types of Programs

What are the management challenges that arise across different kinds of programs? This section offers a way to distinguish the management styles indicated for different types of programs.

A powerful diagnostic tool, the "Competing Values Framework," has been developed by Kim Cameron, Robert Quinn, and colleagues to help leaders and managers understand what makes their organizations effective. It has been tested empirically with thousands of organizations and over 100,000 managers from private, nonprofit, and public sectors. This section explains the framework, and then applies the framework to different kinds of federal programs. The framework reveals the basic managerial challenges that arise in different kinds of federal programs. Because the challenges vary, the framework also highlights differences in the skills and strategies that make managers effective in the context of different kinds of programs.

Figure 1 shows two key dimensions that are important for achieving results in different organizational environments. Performance and effectiveness are not one-dimensional. The indicators of organizational effectiveness fall along two dimensions:

- Stability vs. Flexibility: The vertical dimension in Figure 1 represents the range of environments from flexibility and change on one end to stability and order on the other end. On the flexible end of the continuum, organizations need to be versatile and adaptable; on the stable end of the continuum, organizations and programs need to be steady, predictable, and durable. Some organizations aspire to succeed through behavior that is efficient, predictable, and consistent. Other organizations count themselves successful when they are quick to change and adapt. Neither end of the continuum is "right," but each is useful under different circumstances, when organizations and programs have different kinds of jobs to do.
- Internal vs. External Focus: The horizontal dimension in Figure 1 ranges from an internal focus, highlighting integration and coherence, to an external focus highlighting outward responsiveness and differentiation. Some organizations succeed through strategies that are cohesive, harmonious, and inwardly focused, while others aspire to be highly attuned to external stakeholders and their demands. Neither end of the continuum is the "right" way, but each is useful under some circumstances. Some organizations consider themselves to be effective when they have a consistent and coherent internal orientation. Others consider themselves successful when they are focused on their interactions with stakeholders outside of their boundaries.

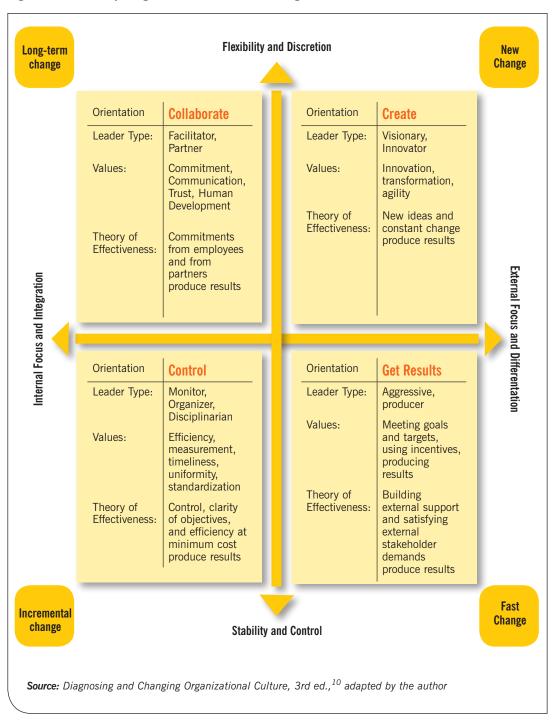
When the two dimensions are combined, they form the four quadrants of the Competing Values Framework in Figure 1, "Collaborate," "Create," "Get Results," and "Control." The four

^{8.} Kim Cameron and Robert Quinn, *Diagnosing and Changing Organizational Culture*, 3rd ed. (San Francisco: Jossey-Bass, 2011); Kim Cameron, Robert Quinn, Jeff DeGraff, and Anjan Thakor, Competing Values Leadership: Creating Value in Organizations (Northampton: Edward Elgar, 2006).

^{9.} Cameron and Quinn used the label "Compete" to describe the lower right quadrant, which is oriented to external stakeholders and stable functioning. The word "Compete" resonates with the private sector drive to achieve advantage over competitors in the market and to meet the needs of customers. In the public sector, "Compete" doesn't capture the essence of this quadrant, so I relabeled it "Get Results."

quadrants represent opposite or competing ideas—or competing values—about what contributes to effective organizational performance. These ideas are in tension with one another, and each of the quadrants in some way represents contradictory pushes and pulls on the organization. Almost all organizations need at least some attention to each of the four quadrants, although the relative emphases will differ across organizations and over time. Equal attention to all four quadrants is not inherently desirable and an equal balance seldom occurs.

Figure 1: The Competing Values Framework for Organizational Effectiveness



^{10.} Kim Cameron and Robert Quinn, Diagnosing and Changing Organizational Culture, 3rd ed. (San Francisco: Jossey-Bass, 2011), 53.

The framework shows how the management styles in the different quadrants—the leader types, their values and theories of effectiveness—produce different kinds of change.

- The Collaborate Quadrant: Change can be institutionalized over the long term, as those working on the change take ownership of implementation and develop the necessary expertise to carry it out.
- The Create Quadrant: Change can be novel and innovative, as creative program ideas can be nurtured and launched.
- The Get Results Quadrant: Change can be accomplished quickly, with an aggressive and hard-driving approach to meeting targets and satisfying external demands.
- **The Control Quadrant:** Change can be accomplished incrementally, and the incremental changes can be locked into the organizations' procedures and practices.

These four kinds of change are represented in the four corners of Figure 1.

According to Cameron and his colleagues, "A great deal of research has confirmed that leaders and organizations gravitate toward one or more of these quadrants over time ... For leaders this means that they develop a specific set of skills and areas of expertise. They develop mental models as well as behavioral competencies that become biased toward one or more of these quadrants. For organizations it means that they develop a dominant culture, a set of core competencies, and a strategic intent that are characterized by one or more of the quadrants."

The Competing Values Framework helps leaders and organizations diagnose and interpret these styles and inclinations and to use them to affect change. Understanding the attributes and activities represented in each quadrant is an important key to effective performance.

As a result, each quadrant has a dominant managerial style, which matches the kinds of organizational performance that are valued by the organization. When a leader's strengths match the dominant needs of the organization, leaders tend to be more successful.

While this is true for an organization as a whole, programs within the same organization may find that they need different management styles. For example, a scientific research agency may focus on fostering innovation and new thinking in the Create quadrant. But within that agency, a program led by a human resources unit may fall within the Collaborate quadrant, and a program led by the budget office may fall within the Control quadrant. When different programs in an organization assign differing degrees of importance to the different quadrants, they may end up managing programs in different ways. "The vocabulary, mechanisms, priorities, required management skills, and measurement systems of the four [quadrants] are so different that even if everybody in the organization is creating value, not everyone would recognize it or value it." So, while it is a great advantage to have multiple models, the clash of the models can also create friction and misunderstanding.

Applying the Framework to Federal Programs

Federal programs differ from one another in which quadrants drive their dominant culture. The framework points managers to the kinds of models or logical structures that are likely to be helpful in managing their kind of program. The following two examples of successful program management show these logical structures in action:

^{11.} Kim Cameron, Robert Quinn, Jeff DeGraff, and Anjan Thakor, *Competing Values Leadership: Creating Value in Organizations* (Northampton: Edward Elgar, 2006), 31-32.

^{12.} Kim Cameron, Robert Quinn, Jeff DeGraff, and Anjan Thakor, *Competing Values Leadership: Creating Value in Organizations* (Northampton: Edward Elgar, 2006), 46.

Implementing the Federal Aviation Administration (FAA) Automatic Dependent Surveillance-Broadcast System

The Next Generation Air Transportation System within the FAA was assigned the task of deploying the Automatic Dependent Surveillance-Broadcast system (ADS-B) to transform the air traffic control system from a ground-based system to a satellite-based system.¹³ Looking at a Program Management Institute case study of this program, we can see that the program managers used some strategies from each quadrant of the Competing Values Framework, although they emphasized strategies from the Control quadrant:

- **Collaborate:** They "hired like-minded contractors" for a "fantastic fit" to ensure productive working relationships, and designed communication to maintain high morale.
- **Create:** They launched a new approach to meeting the demands of increased air traffic using newly available technology.
- **Get Results:** They adopted a hard driving, aggressive schedule that "drove people to succeed." They engaged key stakeholders, including Congress, to reduce resistance and minimize delays.
- Control: They relied on standardization of processes, multiple, coordinated performance
 measures, risk identification, and reduction. They initiated efficiencies to meet cost and
 schedule expectations. They made extensive and systematic use of project and program
 management tools such as Earned Value Management, rolling-wave planning, post-implementation review, tracking and reporting the programs of approved acquisitions, and risk
 controls.

Implementing the DATA Act

The implementation of the Digital Accountability and Transparency Act illustrates the launch of a new program that emphasizes the Create quadrant. An executive steering committee from OMB and the Department of the Treasury worked with an interagency advisory committee and a Treasury program management office to change how the federal government collects, tracks, and uses data about spending. In this example, the Control quadrant was not prominent, while the other quadrants were more important:

- **Collaborate:** The launch of the new initiative required cooperative engagement from many agencies.
- **Create:** The team relied on an inspiring strategic vision for the overall project, and saw themselves as problem-solvers, providing value to the agencies and the public. The team also used "agile" methods to develop systems, which required rapid cycles of innovation, testing, and revision rather than more top-down control systems.
- **Get Results:** The team invited frequent input from stakeholders so that work could adapt to opportunities and obstacles identified by stakeholders, so that the team remained knowledgeable about the concerns and interests of external parties.

Assigning Types of Federal Government Programs to Quadrants

While both examples show that managers need a portfolio of strategies, the FAA managers relied most heavily on the Control quadrant, while the Treasury managers relied most heavily on the Create quadrant. Different types of programs pose different management challenges. Managers respond to these differences by embracing a mix of different management strategies tailored to their own contexts.

^{13.} Project Management Institute. Transforming Air Traffic within the U.S. National Airspace System. 2014.

^{14.} Data Foundation and Deloitte, DATA Act 2022: Changing Technology, Changing Culture, 2017; John Kamensky, "Ten Factors for Successfully Implementing Large Initiatives," Government Executive, July 6, 2017.

The 15 different kinds of federal programs described in Table 1 have dominant characteristics that align them with one of the four quadrants. Figure 2 arrays the different kinds of programs from Table 1, according to the dominant quadrant from Figure 1.

Flexibility and Discretion **Collaborate** Create **Training** Research and Development **External Focus and Differentation Advisory Services** Internal Focus and Integration **New Programs** Control/Collaborate State-Administered Benefits **Get Results** Block/Formula Grants Information Assets Credit Control Insurance Direct Federal Programs Control/Get Results **Direct Federal Benefits** Investigations Regulatory Programs Competitive Grants Capital Assets and Service Acquisitions Public Works **Stability and Control** Source: Analysis by the Author

Figure 2: Federal Program Types in Competing Values Framework

- Collaborate: The Collaborate quadrant is likely to dominate in the management of programs like Training and Advisory Services. This quadrant may be especially important in programs in which expertise and human resources are the key element of value, and where the ability to attract, retain, develop, and use the expertise of the staff and partners is the pathway to effective program results. The importance of trust among partners also means that the Collaborate quadrant will be important in programs like State-Administered Benefit programs and Block/Formula Grant programs. For these State-Administered Benefits and Block/Formula Grant programs, the Collaborate quadrant and the Control quadrant will both be important. Because these programs distribute large amounts of money, the financial controls needed to carry them out balance with the need to develop trusting partnerships with grant recipients to achieve success in program mission.
- **Create:** The Create quadrant is likely to be dominant in Research and Development programs, where new ideas and adaptation to change are key to the program mission. The Create quadrant is also likely to be important whenever a new program is created, as this

quadrant emphasizes the importance of flexibility, innovation, and adaptation to external change and innovation.

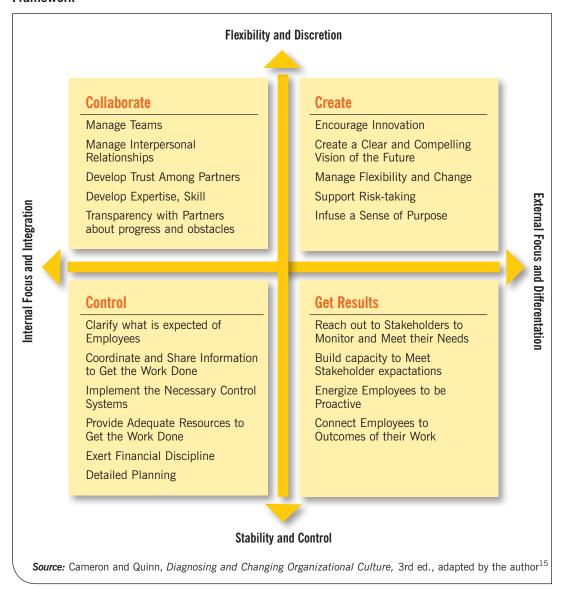
- **Get Results:** The Get Results quadrant is likely to be dominant for programs where external stakeholders are strong and articulate, and demand results that can be judged against standards external to the federal agency. The Get Results quadrant will be especially important for programs involving Information Assets, Credit, and Insurance. In many of these programs, external groups are especially attuned to financial outcome metrics (such as loan defaults or insurance claims), or other metrics parallel to the market (such as customer demand for information products). Federal program managers in this quadrant must meet these external demands for results to be seen as successful.
- Control: Some programs are characterized by direct operational responsibility for delivering products, benefits, or services to constituents. For these programs, the Control quadrant is likely to be dominant. The importance of accuracy, cost containment, risk mitigation, effective use of technology, and management of ongoing operations are primary in these program types. A similar argument can be made for regulatory programs, where the clarity, coherence, timeliness, and fair administration of regulatory programs is critical to the success of federal agencies in regulating the activities of external groups.

Both the Control quadrant and the Get Results quadrant influence another group of programs—those involving Investigations, Competitive Grants, and Service Acquisition Programs. Elements of both of these quadrants may lead to pressures on program managers to achieve high levels of both internal control and external accountability. For example, for Investigation-related programs, internal pressures for accuracy, fairness, and scrupulous control of legal requirements pull the operating culture toward the Control quadrant. At the same time, the sources of complaints and grievances and demands for accountability to external stakeholders pull program managers for these same programs toward a more responsive and externally oriented approach. The pressures to have both internal and external orientations may be present in other programs as well, such as those that manage Competitive Grants and Service Acquisitions, where meeting internal federal requirements and the external needs of grantees or contractors is important to the operating values of the federal program.

Which Program Management Strategies Are Most Effective in Different Quadrants?

Just as it is important to appreciate how and why programs differ in the management challenges they present, managers need to know which skills and strategies are needed to meet those challenges. The framework shows how differences among programs lead managers to use strategies that are adapted to the challenges of their programs. As Figure 3 shows, different programs call for different strategies or skills.

Figure 3: Different Program Management Strategies Are Used in the Competing Values Framework



When a program is centered in one of the quadrants, the most successful managers in that program develop a matching style, relying heavily on the strategies most important in that quadrant. Thus, for programs centered in the Control quadrant, managers focus on organizing, measuring, increasing efficiency, standardizing, and eliminating errors. That kind of leadership is the right match for those programs. If managers are responsible for programs that are centered in the Create quadrant, they are not likely to succeed if they rely heavily on control-oriented skills that worked so well in a different program. Instead, they need to develop management skills and embrace strategies that are entrepreneurial, innovative, risk-taking, and flexible. The framework suggests which skills will be most important to success with a given program.

^{15.} Kim Cameron and Robert Quinn, Diagnosing and Changing Organizational Culture, 3rd ed. (San Francisco: Jossey-Bass, 2011), 139.

Experiences of Federal Program Managers in the Framework

This section examines how program managers experience their work in the federal government. First, it looks at the experience of using program management strategies from each of the four quadrants. The examples begin with the Collaborate quadrant, and then move to experiences in programs dominated by the other three quadrants: Create, Get Results, and Control. Second, program managers must often master several different approaches to address the range of challenges that arise in programs that span the quadrants. The third part of this section examines what program managers have to say about the political and institutional context in which they must work, since this context plays such a significant role in their daily work.

Much of this section makes use of a rich set of interviews with successful federal managers on the IBM Center's "The Business of Government Radio Hour" (see the broadcast dates in the Bibliography). These interviews offer a glimpse of how very successful managers talk about their work, and how they experience the demands of leadership in a broad array of federal programs. These interviews show how effective managers encounter and address the challenges of each quadrant.

Managers Who Worked in the Collaborate Quadrant

In the Collaborate quadrant, federal program managers talked about the critical importance of developing commitment, morale, and expertise. Following are examples of leaders of programs in this quadrant.

Major General John Ferrari, U.S. Army: Major General John Ferrari of the U.S. Army's Program Analysis and Evaluation Office said in a 2015 interview: "I've got 80 people and [if] I focus on them, well that's 80 people times their time and you can get a lot more done...I focus on growing leaders and managing talent and in my current organization. I do it through the eighty people in PA&E [Program Assessment and Evaluation], making sure that they have the education they need. We tend to hire young people and we don't have a very senior force. Because they become experts in what they do, they tend to be hired by the organization they're overseeing, which is great. They get promoted, and so we just have to make sure we bring in new people. And, I balance—we have about half military and half civilians so on the military side. We have a lot of turnover, so we're managing that...We bring in mid-grade officers, we educate them, and then we assign them throughout, and they do a lot of the decision support work for the military and there are a couple hundred of them. That's really purely about managing talent and working in their grad school programs, training with industry, and then making sure the right person gets to the right job."

Ferrari also emphasized communication and transparency: "I focus on really communicating upward and outward and downward, right? Because, as a leader, your organization doesn't exist for itself. So, you've got to understand what the organizations to your left and right are doing, and then what your higher headquarters is doing. So, by spending a lot of time horizontally with my peers, with the organizations above us, I am then able to translate that back into my organization so that the talent we have there is able to move in the right direction."

Susan Angell, Department of Veterans Affairs (VA): Susan Angell, former Director of the Veterans' Homelessness Initiative in the VA, said in a 2013 interview: "I think we learned these lessons together. We learn our best lessons when we go out as a leadership team, both HUD, VA, and Interagency Council on Homelessness, to a community that might be struggling with some of their processes. And we learn to sit down with them, we learn what the blocks are, if there's something we can do from a policy perspective, a change that we need to make—we learn right from the people on the ground doing this very hard, but very important

work—how we can support them. We also bring in resources to help them improve their processes. And when we look at our data, our accomplishments together, we really can tell each other 'if you could do this a little bit faster, we could do this a little bit better,' so it's really a very transparent, open partnership where we share data, we share struggles, and we share successes."

Charles Addington, Bureau of Indian Affairs: Charles Addington, Deputy Director of the Office of Justice Services within the Bureau of Indian Affairs in the Department of the Interior, worked toward reducing violent crime on selected tribal reservations. A 2014 case study by PMI observed that he used many strategies in the Collaborate quadrant to focus on team building and cooperation among law enforcement agencies in the affected communities, which led to an increase in mutual understanding and respect. Securing community buy-in from tribal leaders and local officers made it possible to move from being a reactive to a proactive force. Open channels of communication lead to an atmosphere of transparency that increased trust among vital partners. Raising cultural awareness through formal orientation, especially for officers "unfamiliar with Indian cultures and customs" led to a more effective, culturally sensitive law enforcement community.

In summary, in the Collaborate quadrant, program managers embraced strategies that strengthen teamwork, develop talent, increase involvement, raise morale, and build trust.

Managers Who Worked in the Create Quadrant

In the Create quadrant, federal managers emphasized vision, risk taking, creativity, and flexibility. Following are examples of managers working in programs that fall into this quadrant.

Anthony Fauci, National Institutes of Health: In a 2014 interview, Anthony Fauci talked about his use of deliberate approaches to generating new ideas as Director of the National Institute of Allergies and Infectious Diseases (NIAID), a component of the National Institutes of Health (NIH) in the Department of Health and Human Services: "We very closely collaborate and partner with the Centers for Disease Control and Prevention, the Food and Drug Administration, the Department of State, and USAID—for example, the PEPFAR [President's Emergency Plan for AIDS Relief] Program. We collaborate with the Department of Homeland Security with the biodefense. We collaborate with the Department of Defense because a lot of the vaccines we make are important for the troops...The importance of that collaboration is that it really provides for a synergy of ideas, because if you go it alone, you really deprive yourself of the expertise and the perspective of others who come from it from a different angle. That's the reason why we very much embrace these kinds of collaborations—because it's good for everyone."

Eric Dishman, National Institutes of Health: Eric Dishman, also from NIH, described in a 2016 interview his approach to stimulating creativity and risk taking in the Precision Medicine Initiative. "One of my key principles is 'surround yourself with people smarter than you' ... building an interdisciplinary team that is empowered. I am not a Czar. I am there to remove barriers for very smart people who work for me to get their work done. Another big piece is transparency...There's an equation that I was taught at Intel: S=R-E, Success equals Results minus Expectations. So, managing people's expectations and helping them understand the complicatedness of tasks and the reasonableness of timelines [is important]...The notion that you have a perfect plan is a false one no matter how much time you spend planning...

^{16.} Project Management Institute, "A Case of Project/Program Management Success within the Office of Justice Services" (December, 2014).

You need a good enough plan to get started. You iterate. You surround yourself with experts and you're incredibly transparent and clear about what your goals are, and then you adjust and you continue to keep going forward...The other aspect is we have to skate to where the puck is going, in Wayne Gretzky's terms. We're building a current platform, but we have to build it in a way knowing that even three years out there may be wearables or genetic testing capabilities that we can't imagine that we're going to have to add into our platform...We're already doing partnerships with other programs to learn from them best practices...[We want] to make sure that we are going to where the trends are, and also trying to anticipate cost curves on technologies that I can't afford today—to put into the homes of a million people—that maybe three, four years out I can."

Larry Sampler, U.S. Agency for International Development: Larry Sampler, with USAID's Office of Afghanistan and Pakistan Affairs, highlighted in a 2014 interview another way to stimulate innovation. "We now look for programs where we get multiple benefits from each program. It is no longer enough to have just an agriculture program. Our ag programs have gender components, involve technology, involve governance...We achieve this when we put out a request for proposals. We incentivize the partners who are some of our best and most innovative thinkers. We tell them we will consider your proposal positively if you have found ways to work with other programs already in the area...to get more bang for the buck. In the early days in Afghanistan we were all about saving lives. There were literally thousands of Afghans dying from tainted water or lack of medical care...Now we are a bit more sophisticated. We want to build the Afghan's capacity to pick this up and sustain it and run with it. We want to see more value from each program through a variety of different sectors."

Charles Bolden, National Aeronautics and Space Administration: The former Administrator of NASA, Charles Bolden, talked in a 2014 interview explicitly about encouraging and managing risk. "I talk about risks all the time. I don't go out to the centers without talking to our workforce about the fact that I want them to be risk takers but that I want them to be smart risk takers. For every risk that we're willing to incur, then we must put into place some risk mitigation factor ... Okay, we are not going to keep this failure from happening, but we can keep it from killing the crew if we just put this procedure in place where they switch to an alternative system or go to a back-up...A risk matrix tells us where to put your money to buy down that risk. The [tools] never tell you 'don't do that.' They just say 'okay, that's more risky than this, than that.' We see what is the highest risk and then how do we put money against it, or how do we put procedures against it, or how do we buy down that risk until we get to a level that's acceptable to us."

In summary, program managers working in the Create quadrant create a clear vision for the future, encourage strategic risk taking, engage employees in a common purpose, and create flexibility so that programs can innovate and change.

Managers Who Worked in the Get Results Quadrant

In the Gets Results quadrant, federal managers focus on tracking the expectations of external stakeholders and keeping employees focused on meeting those expectations. Following are examples of managers working in programs that fall into this quadrant.

James Williams, General Services Administration: As James Williams, the former Commissioner of the Federal Acquisition Service, described in a 2007 interview: "First of all, we're a service organization, and our first commitment is to our customers...We have two customers: the agencies that we support, whether that be federal, state, or local—trying to make them more effective and efficient in their missions; and our second customer is the American

people...That customer challenge is always in front of us: To do a better and better job for the customer...We are an organization that does not get appropriations. We exist based upon the fees we collect for the services we provide. Our customers almost always can vote with their feet, so we have to prove ourselves every single day."

Curtis Coy, VA: Collecting information about the expectations and needs of key stakeholders is also important in a range of programs. Curtis Coy, the former Deputy Undersecretary for Economic Opportunity in the VA, said in a 2014 interview that the VA's system had to hold educational institutions accountable for the services that they provide to veterans. "It provides meaningful information about the financial cost and quality of the school. It prevents abusive and deceptive recruiting practices...The principles were designed to ensure that veteran students are given the right tools to assist them in making informed decisions...So, we're also developing a centralized inter-agency feedback system that veterans can call in[to], or veterans can write in through our website, and tell us whether or not they believe a school is adhering to the Principles of Excellence—and if not, what is that school doing. And we will then address that with the school, and we will research and we will find out whether or not the school is in fact doing things like deceptive marketing."

Kevin McAleenan, U.S. Customs and Border Protection (CBP): Another important strategy in this quadrant is working faster. Kevin McAleenan, the former Deputy Commissioner of CBP, described in a 2016 interview his agency's efforts to hire quality staff in a competitive employment market. "We had to make it faster...and we couldn't lower our standards ... By law and by choice we have a polygraph requirement for our frontline law enforcement officers ...There are simply not enough human beings who are federally certified polygraphers to maintain a 45,000-person workforce and increase hiring at the same time. So, we've had to train some new polygraphers just to keep up with that load...Instead of sequentially managing the testing and the interview and the polygraph, we try to bring five or six steps together in a concerted two- or three-day process and get as many people through the pipeline as we can. Then we're much more responsive on the timeline...Without diminishing our commitment to integrity, we're trying to engineer a process that is much more responsive, more efficient—simple things like communicating via text, as people tend to do. Taking steps into the modern era."

Susan Angell, VA: The HUD/VA veteran's homelessness initiative used "Rapid Results Boot Camps" to speed up their problem solving. In a 2013 interview, Angell noted "we bring HUD staff, VA staff, Public Housing staff, our Veterans Benefits staff—whoever has a piece in the process—to solve this problem. They come together as a team and for two-and-a-half days they work as a team. They look at their process. They look at where there's duplication. They look at where there's gaps. The goal, really, of the boot camp is for the team to set audacious 100-day goals that they commit to as a team...They share their progress with the leaders every 30 days until we get to that 100-day point, and at the 100-day point we hear 'did you make your goal, or did you not make your goal?' We're finding the competitiveness between different regions to make their goal is very helpful. It's very exciting. It makes it fun for the teams. We're finding that they are doing things like housing 100 veterans in 100 days, cutting a process that took maybe 200 days. They were able to cut that processing time in half."

David Lebryk, Department of Treasury: Helping employees to appreciate the connections between their work and important outcomes is an important managerial strategy of this quadrant. The Bureau of Fiscal Services in the Department of Treasury was created from a consolidation of the Bureau of the Public Debt and the Financial Management Service. Thencommissioner Dave Lebryk explained in a 2014 interview, "as two independent entities, we would have a difficult time continuing to fulfill our mission-critical functions, and so we looked, as a budget exercise, how can we reduce costs...We identified close to one hundred

million dollars of savings, which is about twenty percent of our appropriated budget, on an annual basis from our 2010 level. So, we really have reduced our costs significantly, but what really surprised me is that we've thought about ourselves differently. We've reimagined what the organization can do. When you look at the legacy missions of the two organizations, you would see language which would say we're here to provide services. We're here to provide payment services or financing services or debt collection services. When you look at the mission of the new organization, it's about transforming government. It's about changing the way the government does some of these back-office operations and improving financial management across government...We're going to take many significant steps forward on really improving the way government delivers services."

In summary, in the Get Results quadrant, federal program managers embrace strategies for speed, feedback, and finding better ways to meet external expectations. These examples show that strategies used by federal program managers in the Get Results quadrant sometimes, but not always, resemble competitive strategies more familiar in the private sector.

Managers Who Worked in the Control Quadrant

The key management strategies in the Control quadrant focus on clarity, coordination, discipline, efficiency, and planning. Following are examples of managers who were successful in managing programs in the Control quadrant.

Shantanu Agrawal, Centers for Medicare and Medicaid Services (CMS): The Director of the Center for Program Integrity in the CMS has the mission to avoid improper payments and address waste, fraud, and abuse in Medicare and Medicaid payments. This control mission is critically important to the success of the agency. In a 2015 interview, former director Shantanu Agrawal noted that "Medicare pays about 4.5 million claims per day, so over a billion claims a year, and it spends about a billion to a billion and a half dollars per day. We work with over 1.5 million enrolled providers and suppliers and cover about 50 million patients or beneficiaries...Medicaid programs are run directly by the states and there are 56 different Medicaid programs that, between them, account for about 4.4 million claims per day ...It's a massive system. As I mentioned, we have a lot of levers for going after over-utilization, abusive practices, even fraudulent or potentially fraudulent practices—but the volume, the sheer magnitude of the system, I think, is very important to keep in mind."

Some of his most important strategies were drawn directly from the Control quadrant. "So, challenge number one is always achieving that coordination across the agency, and what I've seen among CMS leadership is a real willingness to do that and build on that coordination. I think a second challenge...is how to prioritize the various issues that we encounter, making sure that we are going after issues that represent real vulnerabilities that can lead to real savings of dollars for American taxpayers...and ultimately that we're also...going after issues that might be causing patient harm or safety concerns. So, getting our hands around what's happening in a system this large, and being able to prioritize it as an agency, is very important ... Once we do know what the vulnerabilities are, are we using the right tool for the job? In other words, using one of the many tools at our disposal that will be highly effective—that will impact the vulnerability that we are looking to impact—but, and here's the balance, doing it in a way that doesn't overly burden the very legitimate physicians and providers that we have in our system, that are seeing our patients that are offering the necessary healthcare services." These classic control strategies of coordination, priority setting, discipline, and efficiency are critical to the task at hand.

James Williams, General Services Administration: Like the CMS Office of Program Integrity, the Federal Acquisition Service in General Services Administration is a program that relies on management strategies in the Control quadrant. Meeting the needs of federal agencies in their purchase of space, vehicles, technology, supplies, or professional services requires keeping costs down and quality up. According to a 2007 interview with former Commissioner James Williams, the Service did "things like e-travel, where we now have 100 percent of all of the agencies signed up—all of the civilian agencies—on the same e-travel system. That's one of those common platforms. We are involved in the financial management line of business, the HR line of business. These things are about trying to make the government a better manager of the taxpayer dollars, putting out those common platforms." This required the strategies of the Control quadrant, especially the focus on cost savings, efficiency, and standardization. Compliance with the complex rules governing federal procurement required close supervision of the ways in which GSA and other federal agencies obtain the goods and services that they require. As Williams said, "we don't just award a contract and turn our head. We have people go out and check to make sure that these contractors are delivering the way they're supposed to."

Gay Gilbert, Department of Labor: Gay Gilbert, Administrator of the Office of Unemployment Insurance (UI) in the Department of Labor, explained in a 2017 interview that "One of my legacies in the UI System is named 'UI Performs.' UI Performs is actually a suite of performance measures and standards. They go to three big areas: timeliness, accuracy, and also integrity. So, those are the big buckets. These are standards that we identify, actual targets that states should be meeting. We collect reporting data from states to determine if they're meeting those standards...Actually, there are different ways we get to the actual measurement. We also have some processes around quality, where we bring states together with federal staff to review state cases, to determine if they got the right answer, and review quality and their scores that emerge from that. Again, we're focused with states on measuring key aspects of the program to make sure it's healthy and that they're administering the program properly. And then, if a state is not meeting any of the standards in the UI performance measures, they're required to do a corrective action plan with milestones and timelines about when they expect to get to achievement of the standard, and that's then monitored up by our regional offices on a quarterly basis."

In summary, the program managers in these examples relied on the strategies of clarity, planning, financial control, and coordination that are important in the Control quadrant to achieve their primary mission.

Working in Multiple Quadrants

In Serving the Public Interest: Profiles of Successful and Innovative Public Servants, edited by Norma Riccucci (2012), researchers carefully examined the careers of 16 public administrators who have been exceptionally effective and innovative over the course of long careers in public service. The profiles of these administrators focused on the actions and behavior that they used to work within the highly complex and politicized environments of their own agencies.

These profiles show that the task environment and the political environment of federal programs require managers to be able to use more than one approach to management practice. Each quadrant poses a dominant set of issues, but managers need to be versatile enough to address the full set of challenges that may arise. Program managers need a portfolio of skills, and the capacity to know which skill will be most effective under the circumstances.

Eli Rosenbaum, U.S. Department of Justice: Eli Rosenbaum, the director of the Office of Special Investigations in the US Department of Justice (1995-2010), was responsible for leading an office to investigate and prosecute cases to strip Holocaust perpetrators of their U.S. citizenship. The mission of the office was later expanded to include the legal status of human rights violators, terrorists, and war criminals beyond those of the Nazi era. This office had a highly technical mission and was staffed by expert professionals. Rosenbaum made use of management strategies from multiple quadrants. From the Create quadrant, he was a risk taker, and good at defining and setting goals. From the Get Results quadrant, he forged strong relationships with foreign governments and with historians. From the Control quadrant, he improved the agency's management information system. He considered his most important efforts to be in the Collaborate quadrant, where he actively recruited talented attorneys, built a strong team, boosted morale, was democratic, resolved conflict, and promoted transparency.

Donna Shalala, Department of Health and Human Services: Donna Shalala, Secretary of Health and Human Services (1993-2000) faced the challenge of managing a huge agency while reconciling the pushes and pulls of conflicting values and agendas of the president and the Congress. Her management strategies included setting clear goals, but she did not see herself as an entrepreneur or a visionary, specializing in the Create quadrant. Instead, drawing on the Get Results quadrant, she mobilized support for balancing financial, equity, political and implementation perspectives in health policy, and good working relationships with key stakeholders in Congress, the White House, and the interest groups. She also focused on the Collaborate quadrant, recruited a strong team of subordinates, listened and communicated with both career staff and political appointees, and remained open to new ideas and to pragmatic compromise.

In the 16 profiles of exemplary public managers compiled in the Riccucci volume, only a few relied heavily on the Control quadrant. In fact, the most common pattern was to emphasize strategies from the Collaborate quadrant, especially investment in developing staff and communicating about performance. The exemplary managers succeeded by building a strong staff with the skills and motivation to perform at high levels, and by extra efforts in communication and transparency to engage allies in politicized environments in which partners are critical to success.

Instead of describing these skills as competencies, which implies that a manager has a fixed stock of skills, it may be more helpful to think of the management strategies as evolving capabilities. Managers must adapt to the needs of changing circumstances and be flexible enough to deploy those strategies most aligned with the present demands.

Working in a Political Context

Listening to the narratives of federal program managers, the realities of the political context loom large. Federal program managers do not have autonomy to set their own mission, and seldom can afford a narrow focus on serving the needs of one stakeholder. Elected officials set the direction and provide the resources for public action. While professional managers assume the responsibility for carrying that action forward, the larger political environment affects how managers work in an ongoing way. They must engage seriously with the power and perspectives of all the other stakeholders who have (or might have) a role to play in the political environment.

This analysis offers a brief tour through nine features of the political landscape, to suggest how they push and pull at the work of all public managers, but especially program managers:

Institutional Constraints:

- Constitutional Separation of Powers
- Intergovernmental System
- Reliance on Contractors
- Multiple Stakeholders
- Media

Legal and Procedural Constraints:

- Career Staff and Political Appointees
- · Civil Service System
- Procurement Process
- Oversight

These defining features of the government landscape mean that program management in the federal government must be adapted to work in this context. Strategies that are effective in other contexts, including much of the private sector, do not necessarily transfer unmodified into the work of federal program managers.

Institutional Constraints

Constitutional Separation of Powers

The executive branch carries out the policies adopted by the legislative branch. Unlike in the private sector, the managers of federal programs do not have the autonomy to decide on their own mission, or even on some elements of their own strategy for pursuing their mission. In some circumstances, considerable autonomy is delegated to the bureaucracy, but that autonomy can be constrained and resources redirected when the Congress determines to do so.

For example, then-NASA Administrator Charles Bolden noted, "When I came in, the goal was to be able to fly American astronauts on American spacecraft in 2015. The first year, the president submitted a budget that had commercial crew in it; he asked for a billion dollars and got zero. You're not going anywhere with that kind of response from the Congress. So, my friends in Congress...get angry when I say 'okay, you do bear some responsibility for where we are today, the fact that we're dependent on the Russians. I bear a lot of the responsibility, because it was my job to convince you that this was the right course. I didn't do a very good job of that, but you're the one that writes the check, and you chose not to give any money.""

Legislators set direction and allocate resources, and the bureaucracy works within those parameters. Over the past generation, Congress has passed annual budgets with a shorter and less-predictable lead time for agencies to plan their resource allocation. As David Lebryk from the Department of Treasury said, "A budget process that doesn't lend itself to long-term thinking—that makes it very difficult to manage in that environment." And John Ferrari from the Army explained, "The biggest challenge we've got is fiscal uncertainty...Managing that is very difficult in a year-to-year basis, because, like any organization, you need a certainty in the funding levels in order to make long-term decisions...We'll be making multi-year decisions with year by year kind of thought processes." This has constrained the ability of program managers to move forward with new initiatives or make significant investments that require long-term commitments to improve performance.

Intergovernmental System

The executive branch of the federal government relies extensively on state, regional, and local governments to carry out much of the domestic agenda of the federal government. Political pressure to reduce the size of the federal government has increased this reliance on subnational governments over the past generation. To accomplish national goals in health, education, criminal justice, environmental protection, housing, and other critical policy domains, federal programs do not work directly but in partnership with state and local agencies. This means that federal programs seldom have direct authority or control over the outcomes they seek; instead, they apply pressure and offer support to others who produce the outcomes.

For example, Gay Gilbert of the Office of Unemployment Insurance (UI) said "the UI Program is a federal-state partnership. I think it's really important to understand that at the front end. It's driven by broad federal laws...states then have great flexibility in developing their own UI laws, and they administer the program in accordance with those laws...One of the biggest challenges is the structure of the program as a federal-state partnership. Every state's law is different, and so there isn't a uniformity across the country. So, there's different benefit amounts, different eligibility requirements, different taxing structures. It's very different across states, so keeping track of all of the differences among the states and being sure that all of those differences are complying with federal law can be challenging." Federal program managers face inevitable variety and lack of consistency in services, transactions, and outcomes across the country, as the quality of services depends on the capacity and willingness of the state and local partners to advance federal priorities.

Reliance on Contractors

Intense political pressure has restricted agencies in hiring federal employees, but has not limited the work that federal employees are expected to do. This has led to an explosion of contracting. Federal agencies contract with private firms, nonprofits, and other governments to carry out federal policy.

This arises even in a core governmental function like border control. Kevin McAleenan of CBP noted that a "core principle of CBP is public/private partnerships. We cannot do our job effectively without close engagement with industry and the key players in the global supply chain, from the major U.S. importers to the foreign manufacturers and everyone in between, whether it's a major express consignment operator like a Fed-Ex or a UPS, down to a freight forwarder that specializes in a unique commodity and targeted audience. We want to be able to engage all of those elements, to know who they are, to know how they interact, so that we have a comprehensive view of the security of the supply chain. So, that partnership has manifested in a program called the Customs Trade Partnership Against Terrorism...We have supply chain security specialists, people that we've trained and developed and cultivated, who are experts in how goods move around the globe, go work with a company on their supply chain, go visit their manufacturer's facilities, look at each entity that is a player in their supply chain—from their ocean carrier to their freight forwarder—to make sure those elements are secure as possible." Federal program managers are responsible for simultaneously managing the work of federal employees and the work of external parties who are often deeply interdependent and jointly responsible for the success and effectiveness of federal programs.

Multiple Stakeholders

Federal programs carry out a public mission which has numerous stakeholders. Citizen stakeholders may be the beneficiaries of a federal program and pay the taxes that fund the program. Elected officials may support or oppose the program, and seek to expand, limit, or redirect the program. Employees, grantees, and contractors may press for program continuation or for change. Advocacy groups argue for policies and practices that further their values

and the interests of those subgroups that they represent. The press is alert to the possibility of scandal or misconduct.

For example, Larry Sampler described his role in 2014 at USAID as sitting at a confluence of interests: "Another stream of influence is the Washington policy community. I am beholden to the [USAID] Administrator, and to the President, to make sure that what our office is doing is in line with what their guidance has been. Continuous to that is the interagency community. I mentioned Defense and State, but we have countless other partners, Commerce, Department of Agriculture, Treasury...We need to make sure that we're good team players with them... How do you get the most bang for the buck from contractors that we use in Washington? How do you make sure that fraud, waste, and abuse are not eating into the effectiveness of our programs in Afghanistan and Pakistan?...In terms of outreach, we have what I call 'a community of interest' that is certainly the Hill, and I separate that into the members of Congress themselves and their staffs. Then, also the think tank community, the intellectual elites of Washington and the United States who shape so much of the thinking that goes into what gets done. And then, our partners—you know, our implementing partners are all either NGOs or for profits here in the United States for the most part and they have relationships both with the think tanks and the members of Congress. So, we address all of those communities of interest." These multiple stakeholders create an environment in which federal program managers need to devote considerable energy to communicate, listen, negotiate, and collaborate to carry out their work.

Media

Federal agencies work in full view of the public, the media, and key interest groups. In the words of Larry Sampler from USAID in a 2014 interview, he saw the "effect of the 24/7 news cycles that we see now that, you know, a beating or a sexual attack or something that happens in the field literally changes the course of national policy within a matter of days or weeks...Decisions that we make at the tactical level—an email that one of my staff sends to another staff member about a particular project today—may wind up as part of a Freedom of Information Act request next month or next year or five years from now. Instead of just a tactical email between two young staff members discussing the merits of a particular program, it becomes part of a lawsuit or it becomes part of a congressional inquiry or an inspector general audit and all of a sudden it has tremendous consequences." Conducting agency business subject to ever-present press scrutiny can also make program managers cautious about embarking on paths that are not easy to defend to their critics.

Legal and Procedural Constraints

In addition to these features of the institutional environment, federal program managers work under legal and procedural constraints.

Career Staff and Political Appointees

Program managers are often career employees, although some are political appointees who serve short stints in federal service. Productive relationships between these two groups are important to program success. Kathy Stack from OMB explained in a 2014 interview, "As a [career] civil servant, leadership requires making sure that your political leadership understand the importance of implementation and the challenges and the hard work associated with that. There are a lot of great ideas that can be announced in speeches, but unless you can marshal all of the resources to think through the challenges of getting it implemented and executed well, and sustained, you don't have an accomplishment."

Civil Service System

Hiring, firing, compensating, and disciplining employees is an essential function of management. Attracting people with the right skills and commitment is necessary for work to get done in any organization. To avoid favoritism and limit political patronage, the civil service merit system restricts the autonomy of managers to hire and compensate as they wish. Managers work within human resource guidelines that are fair, and observe federal priorities, even at some cost to efficiency or effectiveness. While the principles of the merit system have enduring value, the frictions and inefficiencies of the system have accumulated over time. The current civil service system, designed over 40 years ago, has not kept up with changes in the labor force, technology, the kinds of work that federal agencies do, and contemporary human resource practices. Most importantly, hiring processes are slow and burdensome to job applicants, making it difficult to recruit from outside the federal government.

For example, Kevin McAleenan with CBP explained, "If you're asking someone to consider a career with you, and it takes an average of over a year—four hundred plus days—to get [them] an offer, you're going to lose your highest potential candidates...I think we're going to have to take a much more aggressive approach on recruiting, making it a—not just a collateral duty, but a fundamental responsibility of our uniformed components and our mission support components to get out there in the community to talk about the excitement of these jobs." Federal program managers must attract, retain, and manage their employees within a system often described as rigid, flawed, or broken. As a recent National Academy of Public Administration report found that "the current system, too often, has become trapped in processes that keep leaders from leading." ¹⁷

Procurement

To ensure that public resources are used appropriately, the procurement process is extensively regulated. This serves important policy purposes but constrains federal managers from moving resources around in flexible ways to achieve program purposes. As one report recently noted, "federal acquisition rules prevent leaders from simply selecting and purchasing technology they feel best meets their needs. "You have to have fair and open competition in government," said John Morenz, Chief Technology Officer at the Social Security Administration. "You don't always get the best technology. You get the system that meets the requirements at the least cost, or that is technically acceptable." 18

Similarly, Baligh Yehia, former Deputy Undersecretary for Health at the VA observed in a 2017 interview: "We have to partner with community providers and hospitals and clinics across the country to best take care of our veterans. We cannot have a physical presence in every location. And so we have to be able to do those strategic partnerships as efficiently and as quickly as possible. Going through the federal contracting process takes a long time, and we may be talking about a small group practice or maybe kind of a single-provider shop, and they're not used to working that way with any other sort of health entity, whether it's a health insurance plan or other systems, or even Medicare or another part of the federal government ...This is so important, because in many locations—especially in rural America—they may be the only game in town. So, we may be dependent on that surgeon, that cardiologist, that neurosurgeon, that radiology group to take care of our veterans. If we can't work with them efficiently because there is some complicated process that they have to go through, you know, it really does us harm."

^{17.} National Academy of Public Administration, No Time to Wait: Building a Public Service for the 21st Century, 2017.

^{18.} Partnership for Public Service, Leading Ambitious Technology Reforms in Government, 2017.

Oversight

Federal agencies experience scrutiny and oversight from multiple stakeholders. As Nani Coloretti, then Assistant Secretary at the Treasury Department, said in a 2013 interview, "When you come to government, [you're] managing within federal constraint. A lot of the rules in which you need to follow when you're managing in a federal space are not issued by you. So, you really need to pay attention to what's going on in the Office of Management and Budget, the Office of Personnel Management and so forth, because there are communities of practice that are moving to the next thing and the next thing. You really need to sort of just keep up and follow along with those things...that makes it difficult to manage, when you have uncertainty in what your level of appropriations is going to be and uncertainty in where you're headed." Many program managers are accustomed to explaining themselves to skeptical audiences and defending their programs and resources against competing demands. The experience of constant scrutiny can have the effect of limiting creativity and risk taking, as so much attention from overseers is devoted to compliance with rules and priorities that originate outside the program.

Acquisition Focused or Related			
Federal Acquisition Regulation (FAR)	Governs Federal acquisition.		
Agency-Specific FAR Supplementals	Provide agency-specific acquisition policies and processes.		
Procurement Integrity Act	Places certain restrictions on Federal employees who serve as procurement officials, when involved in the conduct of a procurement.		
Competition in Contracting Act (CICA)	Requires, with limited exceptions, that Contracting Officers promote and provide for full and open competition in soliciting offers and awarding U.S. Government contracts over the simplified acquisition threshold.		
Performance of Inherently Governmental and Critical Functions	Guidance on determining which functions must be performed by a government employee versus a contractor.		
E.O. 13693: Planning for Federal Sustainability in the Next Decade	Mandates executive leadership in energy, environmental water, fleet, buildings, and acquisition management to drive national greenhouse gas reductions and prepare for impacts of climate change.		
Budget Focused			
Antideficiency Act	Prohibits Federal employees from making or authorizing an expenditure from any appropriation or fund in excess of the amount available in the appropriation or fund unless authorized by law; prohibits Federal employees from accepting voluntary services and other prohibitions about obligation or authorizing unavailable funds.		
Information Technology (IT) Focused			
Federal Information Technology Acquisition Reform Act (FITARA)	Reform initiative to centralize decision making and oversight of Information Technology (IT) and IT personnel with the Chief Information Officer (CIO).		
Clinger-Cohen	Improves the Federal Government's acquisition of IT, including the creation of the CIO.		
Federal Information Security Management Act (FISMA)	Requires agencies to develop, document, and implement information security for IT assets, including those provided or managed by contractors.		

Table 2: Key Laws and Regulations Affecting Federal Managers (cont.)			
Section 508 of the Rehabilitation Act	Requires Federal agencies to make their electronic and information technology (EIT) accessible to people with disabilities.		
Program Focused			
Government Performance and Results Act (GPRA) Modernization Act of 2010	Increases accountability for project results by requiring agencies to document their project goals and performance. Agencies must submit a strategic plan consisting of goals and plans to achieve the goals.		
OMB Circular A-131, Value Engineering	Guidance to support the sustained use of value engineering by Federal departments and agencies to reduce program and acquisition costs, improve performance, enhance quality, and foster the use of innovation.		
OMB Circular A-123, Management's Responsibility for Enterprise Risk Management and Internal Control	Provides guidance to Federal managers on establishing, assessing, correcting, and reporting on internal control.		
OMB Circular A-11, Preparation, Submission and Execution of the Budget	Guides budget development for programs and projects, requiring documentation for funding requests over threshold.		
Federal Travel Regulation	Governs domestic travel for Federal government employees and contractors.		
Federal Advisory Committee Act	Defines how Federally created committees can be established and operated, with special emphasis on open meetings, chartering, public involvement, and reporting.		
Paperwork Reduction Act	Requires Office of Management and Budget (OMB) clearance before using more identical questions to collect information on 10 or more persons who are not Federal government employees		

Source: Federal Project Manager's Handbook, 2015, pp 14-15.

Table 2 summarizes selected laws that collectively create procedural constraints on federal program managers. The table clearly shows that Congress and the executive branch seek to accomplish multiple goals at the same time. They expect federal programs to produce mission performance and, on top of that, other social and public goals like fairness, transparency, environmental protection, support for veterans and small business, access to government by disadvantaged groups, and others. Each of these laws and requirements has a sound rationale one at a time, but they bear cumulatively on senior managers in agencies with considerable weight.

As Peter Schuck explains, "The legal procedures embedded in and surrounding all public programs may be more or less effective in promoting legality, fairness, accuracy, regularity, transparency, accountability, honesty, and other procedural values that promote the rule of law and affect the design and implementation of public policies. At the same time, these procedures powerfully and inevitably limit policy effectiveness because they increase budgetary costs, cause delay, encourage opportunistic behavior, transfer power to lawyers and courts, and affect program substance." As with other features of the political environment, program managers must adjust their strategies to accommodate these multiple requirements.

An example of this cumulative impact comes from Coloretti's discussion of the Treasury Department: "We started taking a critical look at our capital investment process. A lot of IT capital investment processes are just required by different laws or regs or rules ... There is an IT investment framework that requires a lot of filling out forms. And so you basically spend your time meeting these requirements and of course that's all done by staff that's located in our IT group. [It's] not in any way, shape, or form coordinated with our budget staff ... So the notion of the capital planning work required now by OMB is to really look at capital investments over time and not just buy something without thinking about the operations and maintenance costs. So that is a really smart concept. The challenge was its disconnection from the rest of Treasury program and people and decision makers...How can we structure it? And do we even understand what we're investing in?" Juggling the multiple demands represented by the rules described in Table 2 is no small challenge.

While the political context diverts precious leadership attention from a direct focus on mission, successful program managers have developed strategies to carve out enough flexibility to achieve strong outcomes. They master the intricacies of the constraints and devote attention and resources to working successfully within them. On top of managing the mission, they anticipate and respond to the external pressures and directives. Sometimes, they engage with external stakeholders to prevent them from stifling or ignoring the work of the program. Sometimes, they must find and build support to create openings for the program to grow and innovate. This is part of the job.

This section has reviewed the experiences of federal program managers as they confront the basic challenges of their programs in the four quadrants of the Competing Values Framework, and as they navigate the political constraints of the federal context. Four broad findings emerge from this experience:

- First, programs vary in the demands that they make on managers, and successful managers need judgment and skill to match their strategies to the needs of the program.
- Second, effective program managers develop a portfolio of skills, experiences, and strategies that address the particular challenges presented by their programs.
- Third, program managers face limits on their authority and power from a dense thicket of constraints that are rooted in the political context, but effective managers are not paralyzed by these limits. Successful managers use their understanding of the rules of the game to carve out flexibility and mobilize energy and coalitions to move their programs forward.
- Fourth, program managers with the right skills in the right roles have been critical to
 performance of many government programs. Efforts to improve performance can build on
 expertise and commitment to public service among federal executives, and will be less
 successful when they ignore strengths that are in place.

What does this understanding of the experience of program managers imply for efforts to build the capacity for more effective program management across the federal government?

PROGRAM MANAGERS IN THE FUTURE

As noted in the preceding case studies, government program managers face an increasingly complex environment, involving both constraints imposed by legislative requirements and growing demands to work collaboratively across organizational boundaries. The implementation of the Digital Accountability and Transparency Act (DATA Act), for example, relied heavily on the use of agile methods to develop systems. But the lead team for the DATA Act also relied heavily on the development of collaborative arrangements with counterparts in other agencies, often through transparency and trust.

Similarly, in the Bureau of Indian Affairs case study, the program manager focused on team building and cooperation, "which led to an increase in mutual understanding and respect" among Indian tribe leaders and local law enforcement officers in reducing violent crime on reservations.

This use of soft skills complements the more established technical skills traditionally developed by program managers. But developing and using soft skills takes time and effort typically crowded out by quantitative technical tasks during the course of a program, such as calculating levels of effort and developing program schedules.

However, the introduction of emerging technologies to augment human analysis and decision making, most notably artificial intelligence (AI), will likely revolutionize the field of program management in coming years, strengthening the use of data to drive program outcomes. Two recent IBM Center reports show examples of how augmenting human capabilities with artificial intelligence has already begun to help program managers make smarter choices: *The Future Has Begun: Using Artificial Intelligence to Transform Government* (with the Partnership for Public Service); and *Delivering Artificial Intelligence in Government: Challenges and Opportunities*, by Kevin Desouza.

Software-based AI can help free up program managers from more technical tasks, such as recalculating levels of efforts, progress reporting, and development of knowledge bases for programs. AI will help interpret data being collected and create actionable information for program managers. As a result, program managers can invest more time in change management and other strategic elements of program management, and focus their skills and energies on creative problem solving.

In fact, AI can even help with some of the soft skills. In a forthcoming book for the IBM Center, David A. Bray writes: "AI can match humans into different ad-hoc teams [and] and help identify who is available to assist with what activities [and] learn which humans work better on specific tasks with other humans" In addition, AI can accelerate interaction within professional communities by optimizing shared performance dashboards, on-line forums, and real-time access to administrative data across units.

With this kind of AI support, program managers in the future, as Dr. Weiss notes in this report, will "need a portfolio of strategies" that encompass systems thinking and the use of big data and analytics, and not just rely on traditional program management skills.

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How to Improve Program Management Based on the Framework

Congress enacted the Program Management Improvement Accountability Act (PMIAA) to "improve program management practices in the Federal government." As the House Report says: "Turning agency best practices into government-wide policies for program and project managers could help to stop waste before it starts." The law directs the Office of Management and Budget (OMB), the Office Of Personnel Management (OPM), and individual agencies to develop and adopt government-wide standards, policies, and guidelines for program and project management (for a summary, see the Appendix).

Will PMIAA simply add another row to the list of procedural requirements in Table 2? Or will it help program managers to operate more effectively?

This section summarizes findings and insights based on the Competing Values Framework and the experiences of experienced program managers. The following section offers recommendations, based on these findings and insights, for implementing PMIAA in ways that can support the work of program managers across the federal government.

Finding 1: Different Types of Programs Make Differing Demands on Program Managers

As discussed in the previous sections, one single style of management and one common definition of program management cannot capture the range of skills and strategies needed by managers leading different types of federal programs. PMIAA calls for a single standard to be applied across all government programs, a standard that is most appropriate for federal programs that look like those described in the Control quadrant of the Competing Values Framework.

The PMIAA law does not offer an explicit definition of "program management"²² but appears to be consistent with the perspective of the Program Management Institute (PMI), which differs from this report in defining programs as collections of related projects. PMI defines program management as the application of knowledge, skills, tools, and techniques to a program to meet the program requirements and to obtain benefits and control not available by managing projects individually.²³ "Program management involves aligning multiple components to achieve the program goals and allows for optimized or integrated cost, schedule, and effort."²⁴

The PMI definition focuses on the important goals of reducing risk, improving efficiency, bringing down cost, and improving the consistency of results. As Figure 4 shows, this definition places a heavy emphasis on a program manager's responsibility for control, timing, efficiency, and cost—which are the predominant characteristics of the Control quadrant, which is a subset of a broader universe of federal program types.

PMIAA calls for government-wide standards, best practices, and common solutions applied across agencies and across programs. To implement these requirements, the law creates a governance structure comprised of OMB, OPM, and a newly-created Program Management Policy Council which is comprised of newly-designated PMIOs, one from each agency.

^{20.} U. S. Congress, Senate, Committee on Homeland Security and Governmental Affairs, *Program Management Improvement Accountability Act*, Committee Report S114-162, November 3, 2015.

^{21.} U.S. Congress, House of Representatives, Committee on Oversight and Government Reform, *Program Management Improvement Accountability Act.* Committee Report HR114-637, June 14, 2016.

^{22.} Neither the House or Senate Committee report defines "program management" and both refer to "program and project management" without distinguishing between them.

^{23.} Project Management Institute, "Program Management" https://www.pmi.org/learning/featured-topics/program

^{24.} U.S. Government Accountability Office, *Program Management: DOE Needs to Develop a Comprehensive Policy and Training Program,* GAO-17-51, November 2016, p. 7.

Flexibility and Discretion **Collaborate** Create **External Focus and Differentation** Internal Focus and Integration Align multiple components Identify opportunities **Get Results** Control Application of knowledge, Capturing and understanding skills, tools to meet program stakeholder need requirements Maximize benefits provided by Optimized costs, schedule, effort program Establishing process for maintaining oversight and decision making support Manage program activities related to program life cycle Stability and Control Source: Project Management Institute, Project Manager Competency Development Framework, 2017 and author's analysis

Figure 4: The PMI Definition of Program Management in the Competing Values Framework

OMB has the responsibility to:

- Adopt and implement government wide standards, policies, and guidelines for program management for agencies
- Establish standards and policies for agencies, consistent with widely accepted standards for program and project management planning and delivery
- Engage with the private sector to identify best practices that would improve federal program and project management

OPM has the responsibility to:

- Identify key skills and competencies needed for a program and project manager in an agency
- Establish a new job series, or update and improve an existing job series, for program managers

Each department and major agency designates a PMIO who has the responsibility to:

- Implement program management policies
- Collect and disseminate best practices and lessons learned to enhance program management
- Develop common templates and tools to support improved data gathering and analysis
- Serve on a government-wide Program Management Policy Council

In these ways, PMIAA calls for OMB and OPM to define shared standards, expectations, and competencies of program management, in consultation with the Program Management Policy Council. Based on this approach, government-wide or agency-wide standards will inevitably lead to standards that work well for some programs, but not at all for others. A focus on the Control quadrant gives less attention and emphasis to other strategies to improve performance, including stimulating innovation, developing human capital, or anticipating stakeholder needs. The many program managers who live in a multi-actor, multi-sector, shared power world of contested values would barely recognize the picture of program management described in PMIAA.²⁵

The theory of change for PMIAA suggests that there is "one right way" to carry out program management, and that the law will spread the one right way to more managers and more programs. This theory is not consistent with the finding that programs differ substantially in the demands they place on program managers.

Research Insight: One set of standards will not apply equally to all federal programs. As OMB and OPM proceed with the implementation of PMIAA, they will find the law best fits programs that are squarely in the Control quadrant. To make the provisions of the law useful to program managers who work in other quadrants, OMB, OPM, and the agencies need a range of standards that reflect differing program needs.

Finding 2: Managers Need a Portfolio of Skills and Capacity to Match Their Programs

Building the skills of program managers can be very helpful for improvement, so long as the available training and support matches the skills and expertise needed in differing programs. Of course, the federal government already invests considerable resources in training and support for senior managers within agencies and through OPM, the Senior Executive Service, and interagency programs. The question is how to add to the current commitment to training in ways that will strengthen the capacity of program managers to be effective.

Even the language of "program manager" in describing the clientele for training can be controversial. These words mean different things to managers who come from different communities and experiences. Many federal managers do not think of themselves as program managers, even when they manage a program. They are more likely to embrace a professional identity connected to the mission of their program or agency. Managers of education programs think of themselves as experts in education, and the same in environmental regulation, banking, public health, foreign aid, trade assistance, and so on. Many program managers spend their careers in one broad policy domain, and treasure the experience, peer connections, and expertise specific to that domain. Their professional identities are more connected to the substance of the programs than to the management strategies that they use to achieve results. They may believe that they have more in common with other experts in their policy domain than they do with program managers who work in other policy areas. As a result, these very busy professionals will not voluntarily invest in training that they do not see as central to their professional identity, success, and career progression.

^{25.} Bryson, John, Alessandro Sancino, John Benington, and Eva Sorensen. "Towards a Multi-Actor Theory of Public Value Co-Creation," *Public Management Review* 19, no. 5 (2016): 640-654.

Research Insight: One kind of training will not meet the needs of all program managers and will not fit their self-identification. Successful training aligns with the challenges that program managers see as central to their performance and professional experience. No one way can address the training and support needs of all federal program managers.

Research Insight: Establishing a separate job series and career path for program and project managers may not accomplish its intended purpose. PMIAA provides for OPM to establish a new job series and define a career path for program and project managers; this assumes that program managers are fundamentally alike across a range of different program types. OPM already has an occupational series for program managers but many program managers are classified into another occupational series. The diversity of classification practices that currently exist across the federal government may accurately reflect the diversity of appointments that can attract and retain talent. With a variety of skills needed for program management, it is not clear that a unified job career will make it easier to recruit, train, or retain excellent program managers. If many people who already do the work of federal program management do not define themselves as program managers, then investing resources in creating a single job series and defining a single career path for those individuals may not help to attract new recruits to federal service. As a result, mandating the use of one job series for program managers may not accomplish its intended purpose.

Research Insight: The skills and competencies to be a successful program manager will vary, depending on the type of program to be managed. PMIAA requires that OPM identify skills and competencies needed for federal program and project managers. While various groups have developed lists of competencies, some of these make the assumption that there is only one kind of program, and that this program demands a set of Control quadrant skills (for example, the Federal Acquisition Institute's guidebook—very helpful for acquisition professionals, not so much for others).²⁶ Even the most inclusive list of discrete skills struggles to capture the complex, imaginative, and dynamic experience of leading a federal program. Successful leaders require discrete skills, and the capacity to deploy those skills skillfully and strategically, to meet changing circumstances. Program managers themselves have a wide range of views about the skills that they need, given the demands of their programs.

Research Insight: Communities of practice can be an important mechanism to share expertise among program managers across agencies and different program types. Bringing together program managers across the federal government to learn from one another is a useful way to inspire creative thinking, share expertise, and introduce new program managers to resources and support that can help them succeed.

This can be done by creating a community of practice, a group of people who care about the same problems and interact regularly to learn from each other. Such communities have grown up in a variety of settings (business, education, health care, and cybersecurity, for example). They work well when they promote mutual engagement, joint enterprise, and a shared agenda. Communities initiated from the top do not necessarily elicit the participation or commitment of members that makes them effective in developing or transmitting ideas. It is a matter of debate whether senior management can instruct program managers to participate in a community of practice, or whether community interactions are productive only when program managers engage voluntarily because they share a professional identity and have a sense of shared fate. But more and more organizations are moving in the direction of encouraging the creation and growth of communities of practice.

OPM or individual agencies may try to create structures for shared interaction and support among program managers. For example, agency and government-wide initiatives to support training in the acquisition and procurement communities have helped to build common language and understanding across programs. Program managers get the opportunity to develop their skills and learn from more experienced managers how to be effective in managing the challenges of acquisitions. The practices and the competencies developed in the acquisition community may not generalize to those who manage very different kinds of activities. However, they do suggest that, within carefully drawn parameters, program managers across agencies can learn profitably from one another.

Finding 3: Program Managers Would Benefit from Additional Flexibility in Administrative Routines

As discussed earlier, a dense web of political and institutional factors reduces the flexibility and autonomy of program managers. Some observers of government performance call for addressing the constraints head-on—making major changes to streamline how the federal government carries out its work, giving managers more autonomy to use the best strategies for their programs and missions. PMIAA might have provided a vehicle to begin this streamlining. However, it did not include giving program managers more autonomy by eliminating, mitigating or circumventing these constraints either directly or through a waiver process.

Addressing these political and institutional factors often requires legislation. To date, the appetite among elected officials for administrative reform has been limited. Although elected officials may not place high priority on procedural reforms, they do want federal programs to succeed. For that, they need high-quality management. To get high-quality management, some elements in the political environment can be changed in ways that empower program managers to produce desired results.

What if better results might follow from reducing reliance on contractors and grantees? Dilulio makes the case for improving government management by reducing the federal government's reliance on contractors and grantees and hiring more federal employees.²⁷

What if better resource allocations might follow from more responsible and predictable budgeting from the Congress? The budget process in Congress could change along the lines suggested by Rivlin and Domenici for the Bipartisan Policy Center, or political scientists Mann and Ornstein. Rivlin and Domenici offer recommendations to allow the Congress to review and approve all expenditures and revenues (including entitlement programs and tax expenditures), and adopt biennial budgets. Both they and Mann and Ornstein suggest procedural changes to require Congress to attend to the substantive and fiscal (rather than strictly political) consequences of budgetary decisions. The political cost of such changes looms much larger than the possible benefits, at least for now. But such changes, when the time is ripe, would offer clearer lines of authority and direction and less uncertainty for federal managers seeking to balance mission and costs.

What if agencies were able to hire and retain a more qualified work force, better matched to the changing nature of the federal mission? The bipartisan desire for better performance could

^{27.} John Dilulio, *Bring Back the Bureaucrats: Why More Federal Workers Will Lead to Better (and Cheaper) Government* (West Conshohocken: Templeton Press. 2014).

^{28.} Alice Rivlin and Pete Domenici, Bipartisan Policy Center, Proposal for Improving the Congressional Budget Process, 2015.

^{29.} Thomas Mann and Norman Ornstein, It's Even Worse Than It Looks: How the American Constitutional System Collided with the New Politics of Extremism (New York: Basic Books, 2012).

lead to reforms of the civil service system, as suggested by the National Academy of Public Administration.³⁰

Research Insight: Reforms to the existing civil service system could improve hiring and retention of talented program managers. The work of program managers can be enhanced by pruning the restrictions imposed on their capacity to staff and lead their programs. The Presidential Management Agendas of the Bush, Obama, and Trump administrations each identified workforce issues as a priority. The 2018 Federal Workforce Priorities Report from OPM offers useful steps for progress on succession planning, training and development, employee recognition, and workforce planning. The National Academy of Public Administration found in its recent report, "The federal government's civil service system is badly out of sync with the needs of an effective 21st Century government ..." The report recommends changes that allow agency leaders to tailor their practices to fit their agency's needs and missions. Experts who have looked at the Senior Executive Service (SES), the leadership cadre of the federal government, see opportunities for OPM to enhance the recruitment and retention of management talent.

Specific proposals from these various reports include:

- Faster and more targeted recruiting of managers
- Pipelines for preparing outstanding employees to move into management positions
- Better support and appreciation for senior program leadership to retain talent
- Regular opportunities for professional growth and skill development

While agencies and OPM carry out these responsibilities under current law, legislative changes to the civil service and SES systems could offer faster and more direct ways to attract high-quality talent to government service. At the same time, changes in civil service practices can make it more likely that talented managers already in government can be encouraged and retained.

Finding 4: Build on Existing Strengths and Commitment Among Federal Program Managers

When policies to get better management and better performance are based on the assumption that things are wrong and need to be fixed, they logically address failure and deficits. But the very assumption that things are wrong, that federal program managers are failing, has unfortunate consequences of its own. Labeling federal managers as "broken" directs leadership attention to enumerate gaps, challenges, and constraints, and that overwhelms the sense that things can improve. A focus on problems ratchets up attention to deficits that have led to those problems. It leads program managers to become stressed and defensive, as well as pessimistic and cynical that policy changes might improve their situation.

Management reform that seeks to build on already high potential can have the opposite effect. Assuming that federal program managers bring commitment and strength to their work leads

^{30.} National Academy of Public Administration. 2017 No Time to Wait: Building a Public Service for the 21st Century. A White Paper by a Panel of the National Academy of Public Administration. July 2017.

^{31.} U.S. Office of Personnel Management, 2018 Federal Workforce Priorities Report. February 2018.

^{32.} National Academy of Public Administration. 2017. *No Time to Wait: Building a Public Service for the 21st Century.* A White Paper by a Panel of the National Academy of Public Administration. July 2017.

^{33.} Ronald Sanders, ed., Building a 21st Century SES: Ensuring Leadership Excellence in Our Federal Government (Washington D.C.: National Academy of Public Administration, 2017).

to policies that build and develop those strengths. Instead of triggering fear, resistance, or (at best) dutiful compliance, this approach can be inspirational and affirming. Recent management research in positive organization scholarship provides evidence that policies to enhance strength can lead to more improvement in performance than policies to repair deficits.³⁴

As Cameron, Dutton and Quinn write, "Almost all living systems are subject to the heliotropic effect—an inclination toward the positive and away from the negative—so focusing on achievements, assets, potentials, innovations, strengths, elevated thoughts, opportunities, benchmarks, high point moments, lived values, traditions, strategic competencies, memorable stories, and expressions of wisdom leads to a fusion of individual and organizational strengths. This, in turn, leads to the activation of positive energy and, subsequently, to positive organizational performance." To focus on strength is not a complacent endorsement of the status quo or a refusal to acknowledge risk or error. Instead, it argues that great results do not follow from dwelling on deficits but from mobilizing energy, purpose, and commitment of willing partners.

Federal program managers offer an especially promising arena for this positive model. Federal leaders report very high levels of commitment to public service and to the mission of their agency. Many of these managers have professional skills that could command higher salaries in other sectors, yet they remain in government service. The strengths already present in this population justify a focus on helping them to broaden and build on their strengths, rather than rebuking them for failures and mandating that they shore up their weaknesses. Based on analysis of the results of Federal Employee Viewpoint Surveys and decades of research, social scientists have found that engaging and empowering federal employees leads to better program performance. They suggest that managers invest in giving employees a voice in identifying problems and suggesting improvements, fostering a collaborative spirit, and enhancing employee motivation.

Research Insight: Focus on a positive framing of strengths of program management. A positive, strength-oriented approach to improving program management would emphasize recognition, learning, and opportunities for professional sharing. Combining an appreciation of past successes and opportunities for future learning could also make it more attractive for high-potential professionals to pursue a career as a program manager.

^{34.} David Cooperrider and Diana Whitney, *Appreciative Inquiry: A Positive Revolution in Change* (San Francisco: Berrett-Koehler, 2005); Kim Cameron and Gretchen Spreitzer, eds., *Oxford Handbook of Positive Organizational Scholarship* (Oxford: University Press, 2012).

35. Kim Cameron, Jane Dutton, and Robert Quinn, eds., *Positive Organizational Scholarship: Foundations for a New Discipline* (San Francisco: Berrett-Koehler, 2003).

^{36.} Ronald Sanders, ed., Building a 21st Century SES: Ensuring Leadership Excellence in Our Federal Government (Washington D.C.: National Academy of Public Administration, 2017).

^{37.} Herman Aguinis, et al., "Using Organizational Science Research to Address U.S. Federal Agencies' Management and Labor Needs." *Behavioral Science and Policy* 2, no. 2 (2016): 67-76.



Based on the findings and insights in the previous section, the following recommendations may help those responsible for implementing the Program Management Improvement Accountability Act (PMIAA).

Recommendations for Government-Wide Implementation of PMIAA

The first seven recommendations are addressed to the Office of Management and Budget (OMB) and the Office of Personnel Management (OPM), which have government-wide responsibilities under the PMIAA legislation.



Recommendation 1

OMB and OPM should develop multiple standards and guidelines for program managers to reflect the different types of management skills and experiences needed to manage different types of programs.

This recommendation is based on Findings 1 and 2. In the near term, OMB can develop and apply standards for program management to the subset of programs that reflect the key features of the Control quadrant, in order to meet the statutory deadlines stipulated in PMIAA. However, OMB is not applying these standards to other types of programs that face very different challenges. In the longer term, OMB and OPM should develop and promote policies, standards, and guidelines that reflect the variations in program management skills and experiences described in this report.



Recommendation 2

OMB and OPM should create opportunities for high-performing program managers to learn skills from one another.

This recommendation is based on Findings 2 and 4. OMB and OPM can take advantage of their government-wide purview to identify common areas of strength and interest among program managers. While no "best" practice can be identified, the central agencies can collect many examples of successful strategies and describe the conditions under which these various successful strategies may apply. OMB and OPM might also create opportunities for program managers to connect with peers in other programs or agencies engaged with the same stakeholders or beneficiaries, to learn what has worked and where opportunities for better practice can be found.



Recommendation 3

OMB should use the annual portfolio reviews and five-year strategic plan that are required by PMIAA to identify and propose simplifications for federal workforce planning and ease the burden on program managers.

This recommendation is based on Finding 3. PMIAA directs OMB to carry out portfolio reviews of program management experience, and to prepare a five-year strategic plan to raise the quality of program management across the agencies. These reviews and plans could identify opportunities to streamline the procedural requirements bearing on program managers, giving them the increased flexibility to be more effective. The strategic plan, in alignment with the President's Management Agenda, could identify legislative and administrative solutions to lower barriers that constrain effective management practice.

The political context that surrounds federal program managers is not immutable; some of it can be altered. Steps in the direction of strengthening management autonomy need to be

weighed against other key values and principles associated with our governmental system, such as fairness, transparency, integrity, separation of powers, and equal opportunity. With this caveat in mind, better program management is likely to follow from increasing the flexibility of program managers.



Recommendation 4

OMB and the Program Management Policy Council should support the creation of ongoing communities of practice where program managers from multiple agencies who work on similar issues can learn from one another.

This recommendation is based on Findings 1 and 2. Instead of only cultivating one large community of federal program managers, OMB should encourage the agencies to promote the development of numerous smaller, more homogeneous communities, organized around common themes or challenges. Such smaller communities may be organized by program type, program mission, similar beneficiaries, or other relevant dimensions that are meaningful to the managers themselves. OMB can make an additional contribution by encouraging communities of practice that include program managers from multiple agencies who have common challenges, use common technologies, or who serve common beneficiaries. It can also encourage these smaller communities to share lessons and successful practices with other communities of practice. Effective interaction within and across professional communities can be accelerated through judicious use of technology, including shared performance dashboards, on-line forums, and real-time access to administrative data across units.



Recommendation 5

OPM should develop multiple strands of program management training to be appropriate to managers of different types of programs.

This recommendation is based on Finding 2. As OMB and OPM tailor policies and standards for different program types, each should be supported with appropriate training and professional development. Such training will be most attractive if it is framed in ways that connect to the professional identities of managers (whether they see themselves as "program managers" or not).



Recommendation 6

OPM should develop an inclusive list of program management competencies, using the Executive Core Qualifications for the Senior Executive Service as a starting point.

This recommendation is based on Finding 2. OPM can use its existing list of Executive Core Qualifications for the Senior Executive Service as an initial baseline for developing competencies for program and project managers. These Executive Core Qualifications include:

- Leading Change (which covers many of the competencies in the Create quadrant)
- Leading People (which covers many of the competencies in the Collaborate quadrant)
- Results Driven (which covers many of the competencies required in the Get Results quadrant)
- Business Acumen (which covers many of the competencies required in the Control quadrant)
- Building Coalitions (which adds competencies required in the Get Results quadrant)

The list includes the strategies that managers use across a very broad range of programs. It is also quite general, creating considerable room for interpretation about what counts as evidence of mastery. Because it is broadly inclusive, it covers the full range of strategies that managers need, but pushes to the back burner the question of which programs require which skills from their managers.

For homogeneous subsets of program managers, such as software acquisition professionals, a focused list of competencies can be useful, so long as it is clear that the competencies specific to that professional community will not be expected from all program managers.



OPM should plan for a new or improved job series after recognizing that only some program managers will benefit from a single career path, and many will benefit from a variety of career trajectories.

This recommendation is based on Finding 2. Collecting all program managers within a dedicated "program manager" job series will advance the goals of better visibility and support for program management, but only for a subset of programs. The rest of the program managers will feel like square pegs in round holes. Therefore, OPM should acknowledge the limits associated with a single job series for program managers, and limit the use of the series to the circumstances where it makes sense. OPM should make an explicit effort to develop a repository for housing best practices and a dissemination strategy of those practices to accommodate those who manage programs that demand differing mixes of skills and experiences.

Recommendations for Agency-Level Implementation of PMIAA

The following four recommendations are addressed to the departments and agencies covered by the requirements in PMIAA, and in particular to the Program Management Improvement Officer (PMIOs) in each agency who lead the implementation of program management initiatives under PMIAA.



Agency-level PMIOs should recognize the different kinds of programs in their agency, and tailor multiple plans for training program managers to align with programs of each kind.

This recommendation is based on Findings 1, 2, and 4. Each agency needs to develop plans to support program managers in its own programs. Instead of promoting a single model of best practice within the agency, PMIOs should identify and promote the full range of strengths already present among agency program managers. That assessment of strengths would then form the foundation for opportunities to expand those strengths. In addition to accessing appropriate training offered centrally, program managers can develop learning agendas that recognize their own strengths and work to address the gaps they identify in their own experience and skills.



As they develop required agency implementation plans, PMIOs should support the creation of multiple communities of practice for mentoring and retention of program managers.

This recommendation is based on Finding 2. PMIAA directs each agency PMIO to find ways to improve mentoring, training, and career opportunities for program managers. PMIOs are also to identify steps to encourage the recruitment and retention of highly qualified individuals to

serve as program managers. Each agency should develop systematic opportunities for program managers to learn from each other through the support of shared networks and communities of practice, making use of energy and expertise at the grass-roots level. These communities of practice may not only help program managers to be more effective—they may also increase social support and career advice, helping to reduce stress, retain talent, and increase mobility within the agency.



Recommendation 10

PMIOs should develop plans to recognize excellence, give high-performing program managers developmental job assignments, and expand opportunities for training at multiple career stages.

This recommendation is based on Finding 4. PMIOs might develop other useful steps to improve the strengths of program management, such as:

- Expanded recognition of excellence in performance, including on-time and on-budget achievement of program goals, and creative approaches to the mission
- Expanded opportunities for program managers to build their skills with developmental job rotation or assignments
- Creating pathways for talented professionals to get management training and experience at multiple stages of their careers in government
- Investment in explaining the purpose and meaning of program activity, communicating to external and internal audiences how and why the program matters to the people of the United States



Recommendation 11

Agency leaders should provide public celebration and recognition of program managers who achieve measurable progress toward agency goals.

This recommendation is based on Finding 4. One of the most important ways to improve program management is for agency leadership to get out the word that many federal programs are successful because of the excellent and important work done by program managers. The PMIOs can take responsibility for identifying and vetting outstanding managers, to receive recognition from agency leadership. Agency leaders are uniquely positioned to know that the cartoon character of the federal manager as wasteful and incompetent is often unfair and misleading. They have the opportunity to promote a more realistic portrait of hard-working managers striving to accomplish important goals under pressure with limited resources.

Appreciation for program managers by agency leaders (and, when possible, by elected officials) is more likely to inspire effort, intelligence, and better performance by the majority of program managers than flagellation of the laggards. When management policy focuses on repairing failures, it inevitably misses opportunities to improve management through inspiring stronger, more effective leaders. Support for federal managers and celebration of their successes can moderate the political temptation to fixate on failures and problems. When public officials invest energy in respect and support for their key managers, the benefits of higher performance, better retention, more successful recruiting, and less corrosive stress can be substantial.

APPENDIX

Summary PMIAA and Accompanying OMB Implementation Guidance

Summary of Statutory Provisions³⁸

The bill establishes as additional functions of the Deputy Director for Management of OMB requirements to:

- Adopt and oversee implementation of government-wide standards, policies, and guidelines for program and project management for executive agencies
- Chair the Program Management Policy Council (established by this Act)
- Establish standards and policies for executive agencies consistent with widely accepted standards for program and project management planning and delivery
- Engage with the private sector to identify best practices in program and project management that would improve federal program and project management
- Conduct portfolio reviews to address programs identified as high-risk by the Government Accountability Office
- Conduct portfolio reviews of agency programs at least annually to assess the quality and effectiveness of program management
- Establish a five-year strategic plan for program and project management

The bill exempts the Department of Defense (DOD) from such provisions to the extent that they are substantially similar to: (1) federal provisions governing the defense acquisition workforce; or (2) policy, guidance, or instruction of DOD related to program management.

The head of each federal agency that is required to have a Chief Financial Officer shall designate a Program Management Improvement Officer (PMIO) to implement agency program management policies and develop a strategy for enhancing the role of program managers within the agency. OMB must submit a report containing such strategy within one year after enactment of this bill. The Under Secretary of Defense for Acquisition, Technology, and Logistics shall be considered the PMIO for DOD.

The Program Management Policy Council is established within OMB to act as the principal interagency forum for improving agency practices related to program and project management.

The Office of Personnel Management must issue regulations that: (1) identify key skills and competencies needed for an agency program and project manager, (2) establish a new job series or update and improve an existing job series for program and project management within an agency, and (3) establish a new career path for program and project managers.

^{38.} Bill Summary Prepared by the Congressional Research Service, *Program Management Improvement Accountability Act,* Public Law 114-264, 2016.

The Government Accountability Office must issue a report within three years of enactment, in conjunction with its high risk list, examining the effectiveness of the following (as required or established under this Act) on improving federal program and project management:

- The standards, policies, and guidelines for program and project management
- The strategic plan
- Program Management Improvement Officers (PMIOs)
- The Program Management Policy Council

Summary of OMB Guidance

Subsequent to the passage of the legislation, OMB developed guidance to agencies on the implementation of the Act.³⁹ This guidance outlined a five-year strategic outline to improve program and project management, organized around three strategies.

Strategy 1—Coordinated Governance: Leverage a coordinated approach and governance structure that clarifies key roles and responsibilities for senior leaders in strengthening program and project management. This defines roles for:

- Agency chief operating officers
- Agency PMIOs (a new role)
- The Program Management Policy Council

Strategy 2—Regular OMB/Agency Engagement and Reviews: Hold managers accountable for results through annual program portfolio reviews that assess performance as well as identify opportunities for improvement. These reviews are to be held in coordination with agency annual strategic reviews conducted between agencies and OMB.

Strategy 3—Strengthening Program Management Capacity to Build a Capable Program Management Workforce: Develop a job series or job identifier to better track the program and project management workforce within agencies and the investments made in building their capacity and career paths. The intent is to professionalize this workforce.

Implementation phases and timetables are described, along with requirements that agencies develop their own implementation plans and provide initial drafts to OMB by November 30, 2018.

^{39.} Office of Management and Budget, M-18-19: Improving the Management of Federal Programs and Projects Through Implementing the Program Management Improvement Accountability Act (PMIAA), 2018; Office of Management and Budget, OMB Circular A-11, Preparation, Submission, and Execution of the Budget, Part 6, Section 270, 2018.

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