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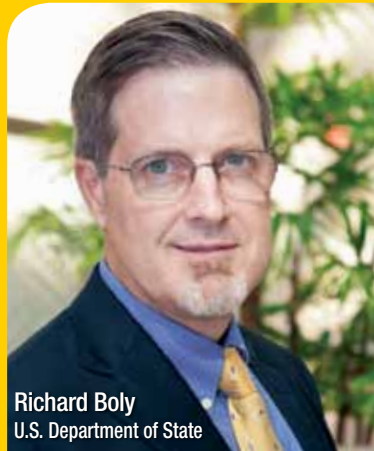
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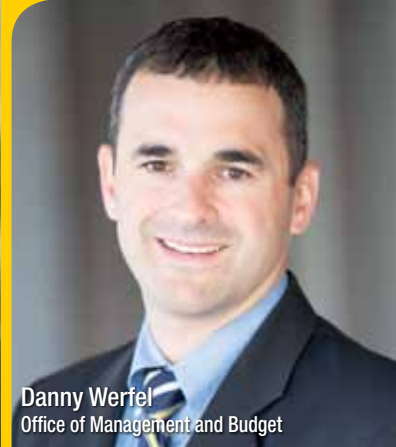
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The Business of Government

A Publication of the IBM Center for The Business of Government

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The Business of Government

The government and the nation face a significant period in modern history. The combination of the “fiscal cliff”—involving debts, deficits, budgets, taxes—combined with the opportunities facing the administration, as well as the increased power of the Internet, social media, and “Big Data,” place government leaders in uncharted waters that hold the potential for great challenges, but also great opportunities. Now more than ever, stakeholders in the success of government must come forward with creative approaches to solving seemingly intractable problems.

The Center for The Business of Government is participating actively in this discussion, building on our mission of bringing external research and leadership perspectives to potential solutions for hard problems facing the public sector. For the past several months, I have had the honor of succeeding Jonathan Breul as the Center’s executive director, working with the outstanding Center team to carry forward. The Center remains a key voice for how government can best manage the many challenges that it faces in serving citizens.

In addition to this semi-annual magazine, which contains a rich array of content, insights, and viewpoints about current and prospective ways that the government can manage effectively through a time of tremendous change, the Center maintains three central content channels:

- Reports by experts, largely from academia and the non-profit sector, that analyze and recommend practical solutions for challenges facing government
- Interviews with government leaders on their perspectives about key issues, which air on our weekly radio show, *The Business of Government Hour*, on Federal News Radio 1500AM every Monday at 11 a.m. and Wednesday at noon
- A web and social media channel, through which the Center has increasingly engaged in a rich dialogue about issues that government managers face daily

With regard to our use of social media, we seek to bring real-time perspectives to current topics through blogs, tweets, and interactive discussions across a range of new media channels. We will continue to evolve with the pace of innovation across this very collaborative platform, and seek to build more partnerships with other organizations who have similar perspectives—helping to identify synergies in perspective that can shed light on ongoing challenges for government stakeholders.

The Center also continues to issue periodic original papers that address specific management issues facing government. In the last year, we reported on major management imperatives facing the public sector today; joined with the National Academy for Public Administration and the Partnership for Public Service to develop recommendations for how federal, state, and local governments can work together and with non-profit and private sector groups to help deliver benefits more effectively; and last month again joined with the Partnership to release an important paper on the use of data and analytics to improve

decision-making in government. We also are releasing a series of reports about particular management needs in the national security community. These kinds of near-term, in-depth analyses can help government to define problem areas and develop focused solution alternatives. We welcome collaboration with other interested partners and stakeholders in addressing significant issues to help improve government performance.

In addition, we have taken a step back to examine major issues over the next several years. The Forum highlights a number of these areas. We are updating a number of key reports that have stood the test of time over several election cycles. And we will publish reports separately in early 2013 that identify ways for government to act more effectively, efficiently, and rapidly in meeting the historic imperative that stands before it today.

As always, and especially in light of the confluence of current events, the Center will seek to identify challenges and opportunities for leaders and managers in ways that benefit agencies—and ultimately, the citizens who are well-served by the cause of better government. ■



By Michael J. Keegan



Michael J. Keegan is Managing Editor of *The Business of Government* magazine and Host/Producer of *The Business of Government Hour*. His e-mail: michael.j.keegan@us.ibm.com.

Each edition of *The Business of Government* magazine seeks to highlight the latest trends and best practices for improving government effectiveness. We do this by introducing you to the efforts of key government executives, the work of public management practitioners, and the insights of leading academics; and the differing ways they tackle many of the pressing public management issues facing us today. We are in the midst of an exciting, engaging, yet trying period marked by uncertainty, significant challenges, undeniable opportunities, and indelible aspirations. It is about sharing knowledge and expertise gained from the research we fund and the conversations we commence. We hope to spark the imagination of government leaders to look beyond their day-to-day urgencies and reflect on the serious problems and critical challenges they face today into tomorrow.

Problems are interconnected, environments are turbulent, and the future is indeterminate. To echo Donald Schön's *The Reflective Practitioner*, what is called for under these conditions are not only analytic techniques, but also the active skill of designing a desirable future and inventing ways of bringing it about. As we focus on the administration's next four years, it becomes clear that those who have come before can provide wisdom that acts as a reference point as well as a point of departure—a snapshot in time that may offer insights into what has worked and how we can learn from others' experiences.

Conversations with Leaders

We feature conversations with dedicated public servant leaders from a wide variety of disciplines who share their extended reflections on the work they do and the efforts they lead. Advances in biomedical research seek to enhance health and length of life and reduce the burdens of illness and disability. The National Institutes of Health (NIH) plays a central role in making this happen. U.S. life expectancy has increased dramatically over the past century. Not only are people living longer, they are living healthier lives. However, as **Dr. Francis Collins**, Director of NIH, notes, science is not a 100-yard dash. It's a marathon; a marathon run by a relay team that includes researchers, patients, industry experts, lawmakers, and the public. Dr. Collins outlines how basic research prompted a revolution in the diagnosis, treatment, and prevention of diseases and what NIH is doing to advance biomedical research.



Since its inception, the country's credit union system has expanded and grown to serve over 93 million Americans. The severe economic crisis impacted all facets of the financial sector, including credit unions. In fact, over two and a half years ago, the credit union system teetered on the brink of collapse. **Debbie Matz**, Chairman of the National Credit Union Administration (NCUA) tells us how her agency has worked to stabilize the system, ensure its safety and soundness, and pursue a regulatory regime responsive to the ever-changing landscape of this country's credit union system.



It is critical to the safety and security of this country that federal, state, local, private-sector, and international partners improve their sharing of information about terrorism, homeland security, and weapons of mass destruction. When examining the full scope of information sharing and protection, many widespread and complex challenges must be addressed and solved by multiple agencies and organizations working together. **Kshemendra Paul**, Program Manager of the Information Sharing Environment (ISE) discusses his efforts in this area, tells us how information sharing is maturing across the ISE, and identifies the biggest challenges facing the ISE.

Good government; that is, government fiscally responsible to its people, has in its charge making operations more responsive, efficient, and accountable—getting rid of waste and saving money. In an era of tight budgets, this charge has taken on significance beyond the fundamentals to encompass the government-wide improvement of financial management. **Danny Werfel**, Controller, Office of Federal Financial Management within OMB, highlights the top federal financial management priorities and what the federal government is doing to eliminate improper payments, reduce waste, and realize government-wide cost savings.

The U.S. Department of Veterans Affairs may be the second-largest federal agency, but it runs the largest medical system in the United States, providing care to six million veterans and their families who depend on it. This is no small feat, considering the demands placed on the system. To meet these demands head-on involves leveraging innovation and advances in technology. **Dr. Peter L. Levin**, Senior Advisor to the Secretary and Chief Technology Officer, U.S. Department of Veterans Affairs, explains how VA is identifying new technologies and promoting innovation, the success of the Blue Button Initiative, and how VA is using open source technology to meet its mission.

Profiles in Leadership

I've interviewed a variety of government executives who manifest the leadership and commitment needed to meet their varied missions. In this edition, we introduce you to three leaders who are changing the way government does business. **Richard Boly**, Director, Office of eDiplomacy, Bureau of Information Resource Management (IRM) at the U.S. Department of State, leads the office charged with making eDiplomacy the way to collaborate within the department, most specifically by developing and managing a range of social media and collaborative platforms that provide staff access to knowledge resources, expertise, idea generation, and a secure collaborative environment across physical and organization boundaries. **Kathy Conrad**, Principal Deputy Associate Administrator, Office of Citizen Services and Innovative Technologies, U.S. General Services Administration, explains the dual mission of her office, which has positioned itself as the government-wide leader in identifying and fostering the adoption of innovative new technologies and open government. **Bernard Melekian**, Director, Office of Community Oriented Policing Services, U.S. Department of Justice, completes our profiles by detailing his efforts to advance public safety through community policing. His mission is to help local law enforcement make the communities it serves safer, and COPS does it by providing grants, technical assistance, best practices, and for Melekian, being "that voice for law enforcement inside the beltway."



Insights on Science, Service, and Stewardship

We also had an opportunity to speak with many public servants who are pursuing innovative approaches to achieving their missions and serving citizens. In this edition of Insights, we focus on how the National Oceanic and Atmospheric Administration (NOAA) relies on

information and technology to carry out its mission—to understand and predict changes in climate, weather, oceans, and coasts—with insights from **Joe Klimavicz**, Chief Information Officer and Director, High Performance Computing and Communication at NOAA. He outlines his agency's information technology strategy, how it's modernizing its technology infrastructure and ensuring that its IT investments align with its overall mission, and how NOAA is providing a balanced stewardship between information and technology.

Forum on Governing in the Next Four Years

A presidential election year provides an opportunity to step back and consider major issues and management challenges facing government executives. The Center has devoted significant attention to this topic since its inception. Most recently, in 2008–2009 the Center launched its **Presidential Transition Initiative**, which provided how-to resources in helping government executives succeed. This year we will build on that tradition with the inauguration of our **Governing in the Next Four Years** initiative.



This forum introduces this initiative and highlights the key areas of interest we'll be exploring. We will focus on issues where public sector leaders can learn from successes across all levels of government, industry practices, and our research community in order to develop effective solutions to complex public management issues. Key areas of interest explored by the contributors in this forum include:

- *Mission Support: Managing a Balancing Act*, by John Kamensky, discusses ways that leaders of federal programs can improve outcomes by capitalizing on approaches and tools developed in the "CXO" communities (Chief Information, Financial, Acquisition, and Human Capital Officers).
- *Joined-Up Management: A Next Step in Cross-Agency Collaboration*, by Dan Chenok, explores a new model of managing activities from a cross-program view, leveraging resources to more effectively serve a citizen or business.
- *Participation in an Age of Social Media*, by Gadi Ben-Yehuda, examines the role social media will play in citizen participation.
- *The Next Four Years: Intelligence Community Reform Refining, not Rebooting*, by Frank Strickland and Chris Whitlock, asks whether the Intelligence Reform and Terrorism Prevention Act of 2004 got it right and if a sweeping reorganization of the intelligence community is required to "fix the problem."
- Chuck Prow closes the forum with a brief preview of an upcoming book, *Fast Gov*, on creating a "fast government"—accelerating how agencies do their work to dramatically reduce the amount of time needed to deliver services.



Along with a variety of related Center resources, insights from this series will be available online at www.businessofgovernment.org/content/governing-next-four-years, which we will keep up to date as events unfold over the next several months.

With each edition of *The Business of Government* magazine, we do our best to continue and expand on the conversation that seeks as its end improving public management. It is another opportunity to inform, but most importantly, to invite you to use the IBM Center for The Business of Government as your resource—a how-to resource for improving government effectiveness at the federal, state, and local levels. ■



A Conversation with Francis Collins, MD, PhD Director, National Institutes of Health

Advances in biomedical research seek to enhance health and length of life and reduce the burdens of illness and disability. The National Institutes of Health (NIH) plays a central role in making this happen. Its basic research and translational advances have prompted a revolution in the diagnosis, treatment, and prevention of diseases. As a result, U.S. life expectancy has increased dramatically over the past century and still continues to improve. Not only are people living longer, they are living healthier lives. However, science is not a 100-yard dash. It's a marathon; a marathon run by a relay team that includes researchers, patients, industry experts, lawmakers, and the public.

This is a remarkable time of discovery and the opportunities in science and medicine are at once exciting and urgent. How has basic research prompted a revolution in the diagnosis, treatment, and prevention of diseases? What is NIH doing to advance biomedical research? How does the investment in such research increase the country's global competitiveness? Dr. Francis Collins, Director of the National Institutes of Health, joined me on The Business of Government Hour to explore these questions and more. Here are some insights from our discussion. – Michael J. Keegan



On the Mission of NIH

We are celebrating our 125th anniversary. As part of the U.S. Department of Health and Human Services, NIH is the world's largest supporter of medical research, trying to identify new ways to diagnose, prevent, treat disease, and increase the likelihood that all of us will live long and healthy lives—not shortened or diminished by chronic disease. Historically, our contribution to the improvement of human health in America has really been quite dramatic.

There are about 17,000 full-time employees plus contractors with a wide variety of skill sets that work for NIH. Many of them are distinguished scientists with doctoral degrees. Our overall budget this year is about \$31 billion, so it's a very substantial amount of taxpayers' money for which we are grateful and feel very responsible.

About 11 percent of the budget is devoted to research in what we call our intramural program. This includes both basic and clinical studies done in our facilities including the main one here in Bethesda, MD, which includes the largest research hospital in the world—the Clinical Center of NIH, 240 beds all utilized for clinical protocols. Patients come here from all over the world to be part of the clinical research studies we perform.

The remainder of our budget primarily goes out in grants to our nation's finest institutions and some outside the country as well. Investigators send us their best ideas. They are reviewed in a two-level peer review system which is very rigorous, and the ones that are judged most meritorious then get supported. Eighty-five percent of our budget goes out in grant awards to research investigators.

On Challenges Facing NIH

Seizing scientific opportunities

The first and most important question is: where are the scientific opportunities? Science is moving very fast right now. We're able to do things that I wouldn't have dreamed 10 years ago would be possible in my lifetime; working with DNA sequencing, working with stem cells, coming up with ways to do imaging of the brain in people who are alive, watching what happens when they do various tasks. These are just amazing opportunities; it is very much a part of my job to be sure that we're pushing the envelope as hard as we can.

Best and the brightest

Connected to that is the need to be sure that we are training and retaining the best and brightest—our most important resource, the scientific researchers. We need to make sure that we're identifying pathways so that young scientists can get the training they need and become highly productive, successful, creative, and have careers that are both inspiring to us and them.

Resources

Without resources nothing can happen; we need the resources to support our efforts. At a time when anything that the government is supporting has come into question because of our nation's fiscal challenges, I spend my time explaining why a dollar invested in biomedical research is an extremely good use of taxpayers' dollars in terms of what it can do for human health and how it stimulates our economy.

On Leading NIH

It's an amazing job; no day is like any other. I am responsible for standing at the helm of this remarkable ship of discovery, steering it in the direction that's going to have the greatest benefit to the public. That means I oversee the actions of 27 institutes and centers which make up NIH, each of which is led by a distinguished scientist who acts as its director. I'm particularly responsible for identifying opportunities for collaboration across institutes and outside of NIH. If there is a problem, say, in obesity research, I seek to get all the institutes to work together on that as well as pursue opportunities to collaborate with other government agencies like the Food and Drug Administration (FDA), the Centers for Medicare and Medicaid Services (CMS), or the Centers for Disease Control and Prevention (CDC), and with other foundations or with industry. I spend my time trying to make sure, especially in this tight budget climate, that we're making the most of those collaborations.



On Shaping NIH's Strategic Vision

When I was asked to come and lead this effort, I spent time thinking hard and talked to a lot of other scientists whose opinions I value and came up with five key themes.

1. **Taking advantage of advances in high-throughput technologies.** Perhaps in the past, biologists tended to think of technology as a secondary area of emphasis. These days, it drives so much of what we can do that it deserves its own kind of push. We are taking advantage of advances in high-throughput technologies to understand the fundamentals of biology and how specific diseases are activated.
2. **Emphasizing the translation of research into medicine.** Secondly, we wanted to be sure that opportunities to take basic science and bring it into clinical applications could be speeded up, emphasized, nurtured, and encouraged in new ways. This is what you call translational science; we are emphasizing the translation of research into medicine.
3. **Putting science to work for the benefit of health care reform.** When I first came to NIH we were in the midst of a national discussion about how we're going to reform our own approach to health care. NIH, while we're not part of the health care delivery system, is responsible for generating the evidence about what works and what doesn't work. We want to provide that rigorous research that would enable patients and physicians to know what kind of interventions are going to be available and what's going to help them.

4. **Placing a greater focus on global health.** My fourth theme, which may have surprised some people, is global health. I think we no longer live in a world where we can afford to think about the health of the United States in isolation from what's going on elsewhere. All those infectious diseases that pay no attention to country borders are just one example of that. It's more than that now with all of the things that are happening in terms of trends in chronic diseases, which cross boundaries as well.
5. **Empowering the biomedical research community.** Finally, and the most critical theme, is to support the researchers that are going to be doing the work; we need to be sure we have set up a system that recruits the best and the brightest to come and join us, providing them with a career trajectory that they can feel is worth investing their time and energy. If we don't have that talent, none of the rest of this will happen.

On the Importance of Basic Research

NIH spends about 53 percent of its budget on basic research, which is defined as research on some aspect of biological processes that does not have an immediate implication or application to a disease. You have to understand how life works at the most fundamental level before you can really understand a disease. This research is the foundation of everything we do. Over decades, the basic science research, which has led to no less than 137 Nobel Prizes for NIH-funded grantees, has been a pathway to the next level of understanding about a biological process that, in turn, has led to insights about diseases that are now making a difference clinically.

For instance, basic science is trying to understand at a fundamental level, what are the causes of various rare diseases? Collectively, rare diseases affect about 26 million Americans; there are about 7,000 of these rare diseases. In the last 10



“As part of the U.S. Department of Health and Human Services, NIH is the world’s largest supporter of medical research, trying to identify new ways to diagnose, prevent, treat disease, and increase the likelihood that all of us will live long and healthy lives—not shortened or diminished by chronic disease.”

— *Dr. Francis Collins*



years, using basic science strategies, we’ve uncovered the molecular bases of about 4,700 of these rare diseases. It’s breathtaking the rate at which these insights have been coming. Of course, this research is useful in terms of getting a grasp on what the diseases are all about, but what we really want is to translate that into a clinical intervention. Only about 250 of those rare diseases currently have treatments.

I’d like to share an example from my own research at NIH. In the lab I run, we’re studying the rarest form of premature aging, a condition called progeria. It affects children who age at about seven times the normal rate; sadly, their life expectancy is around age 12 or 13, dying usually from heart attacks or strokes. Nine years ago, basic science led us to discover the cause of it. Following up on that, additional basic science has helped us understand why a single DNA letter out of three billion that was misspelled was capable of causing this multisystem disease; it also suggested something we could do about it. There are now 28 kids with progeria, who have been in a clinical trial for four years with a drug that we believe has all the right properties to help them. This drug was not actually developed for progeria but for cancer; it turns out it has the right properties to affect the pathway that needs tweaking for kids with this disease. Our study of progeria is also teaching us interesting aspects of the normal aging process we all experience; it’s a great example of how research from basic to clinical, then back to basic, can have exponential benefits. It’s a virtuous circle: when you make an observation at the basic level that leads to clinical insights, sometimes when you try it clinically you learn something about the basics as well. You go around that virtuous circle to your benefit over and over again.

On Establishing the National Center for Advancing Translational Sciences (NCATS)

Officially established in fiscal year 2012, the Center strives to develop innovations to reduce, remove, or bypass costly and time-consuming bottlenecks in the translational research

pipeline in an effort to speed the delivery of new drugs, diagnostics, and medical devices to patients. We want to catalyze the generation of innovative methods and technologies that will enhance the development, testing, and implementation of diagnostics and therapeutics across a wide range of human diseases and conditions.

Having made basic discoveries, we’re poised to be able to translate them into action and that is in fact a major focus of the National Center for Advancing Translational Sciences. There are a number of steps that you want to follow once you understand the molecular bases of a disease. They’re complicated. They’re failure-prone. They’re risky. We know increasingly how to do that and that’s a great example of how at the present time the basic science informs the translation.

The average time it takes to go from a good idea about a new treatment to getting that drug approved is 14 years. The failure rate is well over 99 percent. Now an engineer looking at a pipeline like that would say there must be something better you could do here to improve success and shorten the time. NCATS was very much founded on the need to try to identify those systematic bottlenecks that caused this process to be so challenging. Where are the bottlenecks? At what point in the process do we lose momentum? Why are failure rates high? Could we take some of the new science that’s coming forward in the last few years and really reengineer that pipeline? We are focusing on the following:

- Use science advances to overcome translational pipeline barriers
- Test pipeline innovations with promising research projects
- Cultivate strong partnerships
- Increase collaboration with the U.S. Food and Drug Administration
- Support an innovative and collaborative training program

On Forging the NIH/FDA Joint Leadership Council

Shortly after Margaret Hamburg and I were appointed to our respective roles at FDA and NIH, we formed the council and agreed that we would personally cochair it. The idea involves getting safe and effective treatments in the hands of patients more quickly—building on the science that’s now possible. We’re working with FDA on a new approach. When you have a promising drug that you think might be the next big thing for cancer or diabetes we are looking to find the best, most efficacious way to get it to patients fast and safe. The key question: How do you know whether it’s going to be safe? There comes that moment where you have to decide whether or not that drug can be given to the first human patient. Right now, the way we test that is to give that same drug to some small animals or large animals at increasing doses. We look to see if there is any evidence of toxicity. It’s a system that’s slow, expensive, and not very reliable. Animals just aren’t the same as humans.

The new approach we’re working on with both FDA and the Defense Advanced Research Project Agency (DARPA) is to load human cells representing various organ types onto a biochip and wire them up with readouts that will tell us whether the cells are happy or not when a compound is shown to them. This will allow us to look at a human liver, heart, kidney, or the human brain on a biochip; it should lead to a closer approximation predicting whether a drug is going to be safe. It should also be much faster and cheaper to use once the chip is developed. We’re bringing together the engineering perspective of DARPA, NIH’s biological expertise, and FDA’s intense interest in the regulatory aspects of science. In the end, we might be able to completely reengineer this aspect of the drug pipeline.

On Leveraging mHealth Technologies

Given that cell phones are so ubiquitous, the opportunities to use them to prevent illness or monitor chronic disease are compelling. The use of mobile and wireless technologies to support the achievement of health objectives has the potential to transform the face of health service delivery.

I volunteered for a clinical trial where my iPhone was connected to a gadget that would send my EKG in real time across the country to a cardiologist in Los Angeles; that cardiologist could then tell when I was excited because my heart rate would go up. Fortunately, I didn’t have any scary rhythms to report. This is an amazing advance for those who may have a significant cardiac problem; it reduces the reliance on clunky ways of doing ambulatory monitoring.



With the advent of these technologies, we can do this continuously in real time. I’m very excited about the promise of mHealth technologies. Another very exciting application is for diabetes monitoring. I’ve seen a pilot of a small chip that’s embedded under the skin at the wrist that is capable of continuously monitoring blood glucose without having to stick your finger every few hours. It transmits the results to a gadget which you wear like a watch. That in turn transmits this continuous tracing of your glucose to your care provider. If you want to get really good management of diabetes and know exactly where you are, this is where you’d like to have the technology take you.

I think we have to be sure we’re not just carried away by the gee-whiz aspects of these new gadgets. They have to lead to real-world results and better health outcomes. Otherwise, we’re just fooling ourselves. This is where NIH has a really important role to play with so-called mHealth to be sure that as these exciting new technologies emerge, they get put to the test to make sure they really benefit people’s overall health status.

On the Future

A big part of focusing on the future involves how we set priorities. How do we decide when resources are limited? Where should those dollars go? There are areas of science that look promising but don’t pan out and you want to be sure you don’t keep throwing money after an idea that turned out not to be as rewarding as you thought.

My concern is that right now, with considerable stress on everything in the discretionary budget, that many scientists are feeling that pinch and are therefore a little uneasy about taking risks. I would hope that as we get through this national debate about where to place our bets that medical research will emerge as one of those most valuable kinds of investments; I want to be able to say to a young scientist who is just starting: “Yes, this a career path that you can be confident is going to be well supported. You can chase those ideas that are creative and expect that even if they don’t always work out, it’s going to be very worthwhile.” We need that assurance that this is a valued activity. With that we will see an exponential growth in our ability to understand why disease happens and what to do about it. We need to create that environment where incredibly talented scientists have a chance to pursue risky ideas, some of which are going to crash and burn, but some of which are going to transform our understanding of biology and medicine.

It’s very clear when looking at the economic data that medical research has been a major driver of American competitiveness, particularly over the last 20 or 30 years. It’s also clear that American leadership in biomedical research, which was unquestioned in the 1980s, is now being seriously challenged by accomplishments in other countries. We should celebrate those accomplishments. However, if we’re serious about having our own economy flourish, medical research is probably one of the best things to put a bet on given our history—a dollar spent on medical research is a pretty wise investment.



On Public Service

There has never been a better time than right now to come and join our enterprise. We are unraveling mysteries that have puzzled us for all of human history. We are poised to take new discoveries and information to the next level to prevent and treat disease. We have the chance to bring the basic and clinical aspects of research together in a very tight connection in a virtuous circle. This would be the moment to get involved in a great detective story that has great answers—come and join the biomedical research team. We have lots of cool things for you to do. ■



To learn more about the National Institutes of Health, go to www.nih.gov.



To hear *The Business of Government Hour's* interview with Dr. Francis Collins, go to the Center's website at www.businessofgovernment.org.



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A Conversation with Debbie Matz Chairman, National Credit Union Administration

Since its inception, the country's credit union system has expanded and grown to serve over 93 million Americans. Though credit unions generally maintain traditional lending standards and risk portfolios, they have not been immune to the broad effects of historically high unemployment and severely declining home values. The severe economic crisis impacted all facets of the financial sector, including credit unions. In fact, over two and a half years ago, the credit union system teetered on the brink of collapse. In response, the National Credit Union Administration sought to stabilize the system, ensure its safety and soundness, and pursue a regulatory regime responsive to the ever-changing landscape of this country's credit union system.

What is the mission of the National Credit Union Administration? How does it ensure the safety and financial soundness of the system? Debbie Matz, Chairman of the National Credit Union Administration, joined me on The Business of Government Hour to explore these questions and more. The following provides an edited excerpt from our interview. – Michael J. Keegan



On the History and Mission of the National Credit Union Administration

The Federal Credit Union Act of 1934 established federal credit unions. At that time, the national credit union bureau was established; it moved from agency to agency until 1970 when it was established as the National Credit Union Administration—an independent federal regulatory agency. NCUA charters credit unions. We regulate and supervise them. We insure deposits of up to \$250,000 per account in federally insured credit unions. We really are to credit unions what FDIC is to banks.

NCUA oversees an industry that has a trillion dollars in assets, with 93 million Americans having accounts with credit unions. We have a staff of about 1200 employees, most of whom are examiners. That means that they go into

credit unions on a day-to-day basis and make sure they are in regulatory compliance and operating soundly. They work in the field and report to regional offices. We have five regional offices: in Albany, New York; Alexandria, Virginia; Atlanta, Georgia; Tempe, Arizona; and Austin, Texas. Our central office is also in Alexandria, Virginia. In addition to the five regional offices, we have 13 major staff offices which each have a director who either reports to the board or to the top career employee who is our executive director.

We don't rely on appropriations for our operations. We're funded by assessments from the credit unions. Credit unions pay 1% of their deposits and that establishes the National Credit Union Share Insurance Fund. That's the fund that guarantees the deposits up to \$250,000. There are currently 11 billion dollars in the Share Insurance Fund.

On Leading the NCUA

NCUA has a three-member board. All the board members are appointed by the President and confirmed by the Senate for six-year terms. The chairman is generally of the same party as the President. The board sets the policy and the direction for the staff offices. As the chairman, I set the agenda for the agency. I determine what priorities we're going to be pursuing for the current year; every day is different. That is something I really love about the job. Probably 30% of my time is spent traveling. It's a very important part of my job because it's really important to meet with the stakeholders. Each state has what is called a credit union league, and they conduct annual meetings. I try to attend as many of these meetings as possible. I really can't do my job well as a regulator if I don't hear from the credit union officials about the issues they are facing. It's also an opportunity for me to convey to them what NCUA is doing and why we're doing it.

When I'm in the office, it's usually an endless series of meetings, which include monthly meetings with each of our staff office directors. We meet to discuss policy issues, agenda items for upcoming board meetings, and issues that require quick decisions. There are interagency meetings as well. I'm on the Federal Financial Institution Examination Council, FFIEC, so there are meetings with my regulator colleagues. I'm also a member of the Financial Stability Oversight Council, which was formed by the Dodd-Frank Act.

On Shaping a Strategic Vision for the NCUA

On my first day I identified and e-mailed to our staff six goals that guide the work we do. It was important to lay these out for the staff, so they knew what my priorities were. I want NCUA to be recognized as a fair and effective regulator that sets the highest standards for safety and soundness. I want NCUA to be a strong advocate of initiatives to protect consumers from predatory and unsafe financial products and a regulator that ensures access to credit union service for all eligible members. I want NCUA to be an agency that listens and encourages exchanges of ideas and innovations with credit unions while maintaining its independence. I want the agency to be an employer of choice and a reliable partner with elected labor officials, understanding that employees are our most important asset. Finally, I want NCUA to be a model corporate citizen, recognizing the responsibility to implement environmentally sound practices and procedures whenever and wherever feasible.

We've worked very hard to open up the channels of communication both up and down and horizontally so that



employees understand that they're our most important asset. We also want to make sure they have the tools they need to be successful in ensuring the safety and soundness of the country's credit union system.

On Challenges Facing the NCUA

When I was confirmed in August 2009, we were in the depths of the horrible economic downturn that began in 2008. There were very significant immediate problems that needed to be addressed in the credit union world. At that time, the credit union system was on the verge of collapse. The system is divided into retail credit unions that you and I can walk into and establish accounts, and then there are corporate credit unions which do wholesale business; they provide liquidity, electronic payment services, and investments for the credit unions.

At that time, the corporate credit unions had purchased AAA rated securities, but of course the value of those securities plummeted and five of these corporate credit unions suffered catastrophic losses. We immediately had to stabilize the system, reform it, make sure that transactions occurred seamlessly, and that members were not affected by the situation. During this period, the retail credit unions also had significant problems. When I took over as chairman, I was really shocked to see that there were 14 credit unions with over a billion dollars [in assets] that were on our troubled credit union list, along with hundreds of other smaller credit unions that were also troubled.

We really had to triage, roll up our sleeves, and work literally around the clock to address problems on both sides of the system. Our staff are very committed to our mission—ensuring the safety and soundness of the credit union system—and we worked hand-in-glove to get through the crisis. Credit unions have come through the downturn extremely well. Their metrics are very positive. Safety and soundness of the credit union system is our mission; it's always our foremost challenge, and we always keep our eye on that ball.

The other challenge is internal, making sure that we have sufficient staff and that they're well-trained and dedicated to our mission. When I came on as chairman, we really didn't have sufficient staff, so that was a big challenge. It was critical for us to get staff on board and trained quickly. It's an ongoing job, making sure the staff are always trained and always responding to changes in the system. Along with having an adequate quantity of qualified staff, the staff must be well-trained, and mentoring staff is an important goal of mine.

My third major challenge is getting two votes on the board as it takes two votes to get anything passed. This involves continuous negotiation and compromise with the other board members.

On the Creation and Evolution of Credit Unions

Credit unions are not-for-profit institutions. They are run by volunteer boards, so the boards of the credit union do not get paid. They are democratically owned, so each person with an account at a credit union is a member of that credit union and gets to vote for the board. Every member gets one vote. It doesn't matter how much money is on deposit. Credit unions are also tax-exempt. The first credit union was a state-chartered credit union formed in New Hampshire in 1909.

The credit union system is a dual chartering system. Some credit unions are state-chartered; that means that they are chartered and regulated by state supervisors. There are federal credit unions that were created in 1934 by the Federal Credit Union Act. They are chartered and regulated by NCUA, but both federal credit unions and most state-chartered credit unions are insured by NCUA. Some credit unions actually have to deal with two regulators; the state for the regulations and NCUA for the insurance.

On Evaluating and Rating the Financial Health of Credit Unions

We have more than 800 examiners that evaluate the financial health of credit unions. We assess credit unions using



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— *Debbie Matz*



the CAMEL rating. The C stands for capital adequacy, A is asset quality, M is management, E is earnings, and L is for liquidity and their asset liability management. Credit unions receive a score in each area, and then an overall composite score. If they receive a score of one or two, that means they're in great shape; three means they have some issues; four and five they have serious problems. The CAMEL score is not publicly disclosed. It's just used for supervisory purposes.

On Regulatory Modernization

We want to protect the safety and soundness of the industry without overburdening the credit unions. To do that, I initiated the regulatory modernization initiative. It really went hand-in-hand with President Obama's Executive Order 13579, which asks independent regulatory agencies to review all rules and identify any that are outmoded, ineffective, or excessively burdensome. For those rules, we are to modify, streamline, expand on them if necessary, or repeal them.

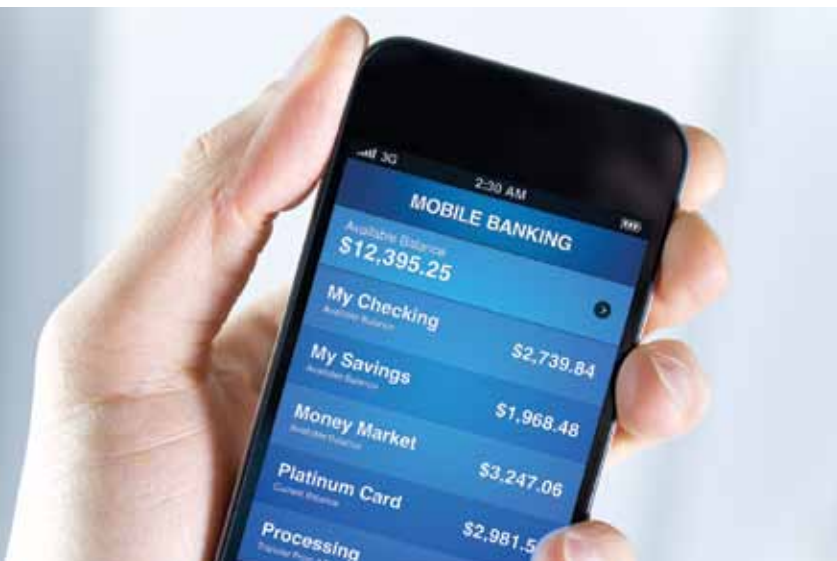
Every year we review one-third of our rules so in a three-year period, all of our rules are reviewed to make sure that they are modern, consistent, and effective. As a practice, we review our rules frequently, but this effort was more of a top-to-bottom review of our rules that involved meeting with our stakeholders and discussing with them how we can better meet the goals of the executive order. I held six listening sessions around the nation, meeting with credit union officials. We received some interesting ideas about how we could fine-tune regulation and minimize the burden. For example, when we issued rules on interest rate risk, we exempted small credit unions from that rule because we felt they didn't pose a significant threat to the Share Insurance Fund. If we hadn't exempted them it would have been very burdensome for them to comply. We want to make sure that our rules are targeted, focusing on riskiest activities and those credit unions engaging in them who also may present the most significant exposure to the insurance fund.

Given the growing complexity, we understand that a one-size-fits-all regulatory approach may not be most



effective. Therefore, we're setting up the Office of National Examination and Supervision (ONES), which is in the process of being formed. There are far fewer credit unions today than there were 20 years ago, almost 50% fewer ... and the credit unions are getting larger. In fact, one credit union per day merges out of existence. Given that credit unions today tend to be larger, it simply doesn't make sense to examine a \$10 million credit union in the same manner we would examine a \$10 billion credit union.

We have five credit unions that are currently over \$10 billion. We believe that having an office that focuses both on our corporate credit unions and on these extremely large credit unions will be a better use of our resources and will be more effective in ensuring the safety and soundness of the system. The board has decided to create the office. 2013 will be a transition year, but we anticipate it will be fully up and running in 2014.



On Expanding Credit Unions' Consumer Base and Appealing to Younger Generations

[The average age of the credit union member is 47. The peak borrowing age is 25 to 44, so in a sense the average member is already past their prime borrowing years: what can be done to expand the consumer base and appeal to younger generations?] I talk to credit unions about this reality in just about every speech I give. I remind them that if they want to be around in 10 years they need to attract younger members. In order to attract younger members, they need to provide services and tools that prospective younger members desire. For instance, credit unions need to embrace technology. Young people want to do their banking online, having access to their account 24 hours a day, seven days a week. Credit unions need to have websites that are appealing to young people, making them easy to navigate. They need to reach out to young people to help them understand that credit unions are a good value; that credit unions charge less interest on loans while paying higher interest on accounts.

I encourage credit unions to offer financial literacy to young people starting in elementary school; there are a number of credit unions that do it. There are a number of credit unions that actually have branches in high schools, which is a good opportunity for young people to not only learn about a credit union, but to work in one and see firsthand how

they operate. I always encourage credit unions to reach out to young people in every way that they can because that's their future. I feel that credit unions are poised for a very safe, secure future providing they continue to attract young members.

On the Future

I don't think the evolution of the credit union system has really changed the original purpose of credit unions. I think credit unions do an excellent job of providing affordable credit to their members while providing a wider range of services. In fact, it's probably improved now that credit unions are bigger and are reaching more members. There are 93 million people who belong to credit unions. That said, it poses challenges to the regulator because as the credit unions have gotten larger, they are using more sophisticated technology. We try to stay a step ahead, but our most significant challenge is making sure that we can keep up with this evolution. As we look to the future, I think the biggest challenge facing the industry is the risk that comes with rising interest rates. Interest rates have been at historically low levels for several years now. Ultimately they're going to rise; we hope that they creep rather than surge as it could pose a challenge for credit unions that have large numbers of long-term fixed-rate loans on their books. This is why credit unions should always have a diverse portfolio. We always need to be proactive rather than reactive, which is why I meet with our staff regularly to talk about trends and issues. What do the credit unions need to be doing now so they're safe and sound into the future? This is a big challenge since the industry changes so rapidly. ■

To learn more about the National Credit Union Administration, go to www.ncua.gov.



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A Conversation with Kshemendra Paul Program Manager, Information Sharing Environment

It is critical to the safety and security of this country that federal, state, local, private-sector, and international partners improve their sharing of information about terrorism, homeland security, and weapons of mass destruction. When examining the full scope of information sharing and protection, many widespread and complex challenges must be addressed and solved by multiple agencies and organizations working together. The risk of a future WikiLeaks incident can be reduced, but fixing these government-wide challenges is complex, difficult, and requires a staying commitment. To do this right involves cultivating the horizontal, cross-cutting, data-centric information sharing and protection capability.

What is the Information Sharing Environment? How is information sharing maturing across the ISE? What are the biggest challenges facing the ISE? To what extent does the pursuit of standards limit or defeat innovation? Kshemendra Paul, Program Manager, Information Sharing Environment, joined me on The Business of Government Hour to explore these questions and more. The following provides an edited excerpt from our interview. – Michael J. Keegan



On the Information Sharing Environment

The ISE is a complicated topic. The ISE is a collection of normalized mission and technical capabilities distributed and decentralized across all of our mission partners—federal, state, local, tribal, and private sector entities. The ISE is delivered by interconnecting existing networks, systems, and databases working with industry and standards bodies to adopt required standards and other frameworks. The ISE harmonizes and standardizes information processes based on shared mission equities. Finally, the ISE strengthens information safeguards, including protecting the privacy, civil liberties, and civil rights of the American people. A practical way of thinking about the ISE is to think of it as an information analogue to the interstate highway system. The same way the interstate highway system knit together this country post-World War II, the ISE is intended to be the information fabric enabling whole-of-government responses to national security and public safety challenges that face our nation. [The ISE provides analysts, operators, and investigators with integrated

and synthesized terrorism, weapons of mass destruction, and homeland security information needed to enhance national security and help keep our people safe.]

On the History and Mission of the Office of the Program Manager for ISE

My office is a core part of the government's response post-9/11. It was called for directly by the 9/11 Commission. In fact, a series of seminal reports issued by the Markle Foundation in the last decade really sketched out in detail the vision for the Information Sharing Environment. The statutory and policy foundation for the office derive from three pillars: the Intelligence Reform and Terrorism Prevention Act of 2004, Executive Order 13388 (further strengthening terrorism-related information sharing), and the 2007 National Strategy for Information Sharing.

From its inception, the PM-ISE has had two key focus areas: first, we have focused on the information sharing



architecture—focusing on the nexus between public safety and national security, or what some in the law enforcement community call the nexus between homeland security and hometown security. Second, our office has had a focus on identifying, integrating, and disseminating best practices around responsible information sharing, management, and integration. [Ultimately, the PM-ISE works with mission partners to improve the management, discovery, fusing, sharing, delivery of, and collaboration around terrorism-related information. It facilitates the development of the ISE by bringing together mission partners and aligning business processes, standards and architecture, security and access controls, privacy protections, and best practices.]

My office has just under 30 government employees, with half agency assignees working on specific projects on behalf of those agencies and also detailees. We have a number of contractors augmenting the skills of our government team. We're organized into four divisions plus two supporting teams. The four divisions are Mission Programs, where we work with state and local law enforcement and other mission programs across the government; the Standards and Architecture division, our primary touchpoint with industry; the Assured Interoperability division, which has a technical CIO program coordination function; and the Management and Oversight division, which focuses on performance budget integration, strategic policy, and governance work. The two supporting teams that work across all four divisions include stakeholder engagement and staff operations. Our budget is between 20 and 25 million dollars a year. Under a third of that budget goes to pay for government employees and administrative expenses. Over a third goes to support

contractors; about another third goes to support the implementation fund, which is a unique capability of our office to provide seed funding to accelerate development of the ISE.

On Leading the PM-ISE

As we are not in the chain of command, my specific responsibilities as program manager are to plan for and oversee the agency-based build-out and management of the Information Sharing Environment. The President, via the director of national intelligence, has also delegated his responsibilities as relates to the Information Sharing Environment. In particular, we are tasked with implementing guidelines for five core areas—privacy, common standards, a common framework for sharing between federal, state, local, tribal, and private sectors, controlled unclassified information (which has now moved to the National Archives), and international information sharing. We do this across five communities: law enforcement, homeland security, intelligence, defense, and foreign affairs. Additionally, the White House sets annual priorities through programmatic guidance issued jointly by the National Security Staff and OMB to the agencies.

How do we actually operate? I put it into three buckets. We have a top-down, a bottom-up, and an outside-in approach to how we operate and engage. I explore each approach at length in the ISE annual report to Congress. You can find that on our website, www.ise.gov.

Top-down approach. Regarding the top-down approach, I co-chair a White House policy committee around information sharing and access. We work closely with OMB on implementation guidance to the agencies. In this instance, our most powerful tool is our ability to identify best practices and share them among the various communities that compose the ISE.

Bottom-up approach. Our second approach is bottom-up. Since our inception, we've been focused on the domestic architecture, information sharing, and intelligence. Our strongest advocates are state and local agencies and the law enforcement community. They have become fully integrated partners in the national information sharing architecture, the national network of fusion centers, and suspicious activity reporting. In doing all this, we are viewed as an honest broker. We're able to convene and bring these stakeholders into the national policy conversations around responsible information sharing.

Outside-in approach, We also have an outside-in approach, which involves working with industry and standards organizations to mature interoperability standards, looking for

“The whole point of information sharing is not simply to share information, but to get information to the proper decision-maker, so they can make better, more proactive decisions that protect the American people and enhance national security.”

— *Kshemendra Paul*



opportunities to leverage procurement policy so agencies can buy interoperable solutions, and creating capabilities to deliver the Information Sharing Environment.

We're not in the chain of command, but we've crafted an innovative approach that combines traditional top-down with bottom-up and outside-in approaches. We have momentum in all those dimensions, which enables us to be a platform for agencies to drive informational transformation.

On Challenges Facing the PM-ISE

Accelerating responsible information sharing. Eleven years after 9/11, the number one [challenge] is retaining that urgency for accelerating responsible information sharing. We've made progress, but there's more work to do and it requires focus and prioritization.

Budget constraints. The number two challenge may be a somewhat new development, but it is just as big an issue. It's the structural financial challenge facing all government agencies. It's bad at the federal level. It's much worse at the state and local level.

Evolving threats. The number three challenge is the evolving and increasingly integrated threats that span national security and public safety missions. Terrorism is a great example, but things like cyber, human trafficking, transnational organized crime, prescription drug diversion—there's a whole variety of missions and threats ... that are increasingly integrated and intertwined and evolving.

These two challenges go together. As a result, we need to keep front and center the top priorities of our stakeholders. We also provide economies of scale—an efficiency imperative that we need to realize with our work. The tools we provide the ISE will reduce duplication and redundancy, leading to increases in productivity. Regarding continuously evolving threats, our mission partners seek to leverage the assets we put in place as a community. These include the national network of fusion centers, for example, to address additional threat areas.

Information tsunami. The fourth challenge involves the information tsunami—simply, the quantity of information and available data, and the imperative to correlate disparate bits of information across the distributed ISE.

Given the volume of data, our best-practices approach to responsible information sharing plays a key role in shifting through the data and assisting the ISE owners. For example, we're working with several agencies, such as DHS, to improve how terrorism-related data move across the government. We're able to implement enterprise data management ideas; we've developed repeatable processes and leveraged shared services. These activities will result in gaining efficiencies over time while also improving data quality.

On Issues Facing the ISE Community

From the view of the agencies and our mission partners, there are two specific issues. First, these agencies are all under varying degrees of financial pressure. It's either bad or really bad, and [involves] the degree to which working with a government-wide initiative such as the ISE can be viewed as a tax versus an enabler; as a result folks are wary. Second,



Conversations with Leaders

The figure below depicts a notional view of the ISE, portraying some of the major mission processes, core capabilities, and enablers.



Source: <http://ise.gov/scope-ise>



as a government, we're still fragmented with our programmatic management processes and how we make decisions across agencies and programs. These two themes are not new and go beyond the ISE, reflecting the characteristics of most government-wide initiatives. The PM-ISE, through our implementation fund and dispute resolution capability, seeks to assist our mission partners. We fund high value projects that lead to the development of core capabilities of the ISE; for example, our work on the NSI as well as a project with the Domestic Nuclear Detection office, integrating real-time rad- nuke sensor data across federal, state, local stakeholders.

We're also able to facilitate the resolution of disputes. Though we're not in the chain of command, we're seen as an honest broker. We bring the variety of tools to help identify creative solutions. We're staying invested in a tool we call Building Blocks of the ISE. You can find it on our website, www.ise.gov. Building Blocks is a knowledge management tool [incorporating] work that we've done over the last number of years, the work in the interagency partners, federal, state, local; and packaged it in different functional areas, answering questions. It almost becomes a how-to for folks that want to do responsible information sharing, want to leverage the best practices that we've packaged but ... aren't students of the ISE, don't live in ... the work that we do every day. So we've got a lot of good feedback on that, and we see it as a first step towards, again, packaging our work and making it more accessible to folks to be able to leverage at arm's length.

We've taken the work we've done and packaged among our different functional areas. We've received good feedback on this effort; we see it as a first step towards making our work more accessible for those most in need of it.

On the Success of the Nationwide Suspicious Activity Reporting Initiative (NSI)

[The Nationwide Suspicious Activity Reporting (SAR) Initiative (NSI) builds on what law enforcement and other agencies have been doing for years—gathering information regarding behaviors and incidents associated with criminal activity—and establishes a standardized process whereby SAR information can be shared among agencies to help detect and prevent terrorism-related criminal activity.]





The NSI allowed us to develop many aspects of the ISE in a contained, albeit national scope environment. The scope of the ISE is huge; the scope of NSI is still huge, but it's much more contained; we're able to actually make progress on key aspects of the ISE. For example, let's take the ISE SAR functional standard that defines the 16 behaviors that are reasonably indicative of pre-operational criminal planning or terrorism-related activity. This standard was developed across our stakeholders. We tested it in an evaluation environment with 12 fusion centers. We engaged with all the privacy advocacy groups. Through the process, we were able to evolve the standard, get buy-in, be able to roll it out more broadly to where now, about 250,000 to 300,000 front-line officers have been trained; we're actually expanding it beyond law enforcement to the public safety community more generally. In partnership with DHS, DOJ, and the FBI, we've used our implementation fund to support the development of training programs with the professional societies, targeting 2.3 million private security guards and 1.3 million firefighters. It is a great example of our efforts. We've invested about \$15 million in the NSI with agency partners like the FBI, DOJ, and DHS. This is a flagship success.

On Changing Cultures from Need to Know to Need to Share

This need for transforming cultures goes to the heart of the PM-ISE mission. Several years ago, the Markle Foundation championed the idea of authorized use, which focuses on decisions that needed to be made to protect the American people and enhance national security. The whole point of information sharing is not simply to share information, but to get information to the proper decision-maker, so they can make better, more proactive decisions. Authorized use is about placing information sharing in a mission context and defining policy that way. It's about moving from an information ownership model to a stewardship model; the key challenge given a decade's focus on classes of information is how do you make this transition. We need to get folks comfortable with the idea. It all boils down to the producers of information and consumers of information operating off the same rulebook, in a way that's transparent and auditable across the ISE.

In the end, we also believe that standards enable innovation. Let's innovate where we can add value and let's standardize where we have defined requirements and common mission equities; we really need to share information, so our standards framework is focused on exchange standards. You innovate on top of this foundation. ■

To learn more about the Information Sharing Environment, go to www.ise.gov.



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A Conversation with Danny Werfel, Controller Office of Federal Financial Management, Office of Management and Budget

Sound financial management is essential to the effective stewardship of taxpayer dollars and enables federal agency decision-makers to make tough choices on day-to-day and long-term management challenges. Good government; that is, government fiscally responsible to its people, has in its charge making operations more responsive, efficient, and accountable, getting rid of waste and saving money. In an era of tight budgets, this charge has taken on significance beyond the fundamentals to encompass the government-wide improvement of financial management.

What are the top federal financial management priorities? How does the Office of Management and Budget work to implement them? What is the federal government doing to reduce and eliminate improper payments? How is OMB working to transform the way government does business? Danny Werfel, Controller, OMB's Office of Federal Financial Management, joined me on The Business of Government Hour to explore these questions and more. The following provides an edited excerpt from our interview. – Michael J. Keegan

On the History and Mission of the Office of Management and Budget

OMB has a long history. It was called the Bureau of Budget; it moved out of the Treasury Department and became a stand-alone entity with a more direct nexus to the President. Later the management function was added and the name expanded to the Office of Management and Budget. We have roughly 500 people ... which is small by government standards; it's a place where everybody knows your name. It has a relatively flat hierarchy—given our size and need to be nimble and dynamic, it's not unusual for anyone from the highest-ranking political appointee or a GS-9 policy analyst to be meeting with the OMB director. For this reason, it's an enormously exciting place to work.

About two-thirds of our staff are on the budget side while one-third are on the management side. On the budget side, we essentially break up the government into smaller pieces



and have dedicated offices that work in those areas, so we'll have a labor branch, an education branch, or a homeland security branch. Each branch will have anywhere between six and 10 staff; they are the dedicated experts for that organization, advising the President and OMB director on all the issues that impact the policies, operations, and management of that particular agency.

Their core responsibilities involve developing the [agency] budget requests. For example, an agency will submit its proposed budget request to OMB annually in September; the examiners will evaluate that request, surface key questions for the OMB director to consider, and then make a final set of recommendations to the director and ultimately to the President on the proposed budget for that particular agency. In addition to working on the budget, OMB examiners involve themselves in a whole host of [agency] activities.

This is a good segue into the management side of OMB, which takes a much more horizontal view of the federal government. Our management offices are set up around functions such as financial management, procurement, performance, regulations, and information technology. Our responsibility is across government; we don't have a particular responsibility to dive deep into an agency. Instead our focus is on the area that we're responsible for, in my case financial management, across the whole of government. That's a quick overview of OMB; it's a very exciting and dynamic place to work.

On the Office of Federal Financial Management and the Duties of the Controller

The Office of Federal Financial Management was created with the passage of the Chief Financial Officers Act of 1990. The office coordinates OMB's efforts to initiate government-wide improvements in all areas of financial management. The position of controller was created to lead this office. The controller is a presidentially appointed, Senate-confirmed position. Leading up to the passage of the CFO Act, many were pointing to fundamental lapses in how federal agencies tracked and accounted for federal funds and mitigated fraud, waste, and abuse. They looked to the corporate environment as a model. Corporations had chief financial officers and also a set of standard financial statements and an audit of those financial statements. [Replicating such a model in the federal government] would help instill some discipline and rigor around fundamental questions of how money is tracked, how assets are accounted for, how liabilities are recorded, and how these items are made transparent. This act created a chief financial officer position within all of our major federal agencies, further initiated the process of annual financial statements, and put the CFO in charge of developing systems, processes, and technologies to capture proper financial information for inclusion in auditable financial statements. The CFO Act also created the CFO Council, and the controller runs the day-to-day and longer term operations of the CFO Council; this is a mechanism to foster collaboration and a one-government approach to tackling many of the financial management challenges the federal government faces.

On the Administration's Federal Financial Management Priorities

When the President talks about the work and priorities of the federal financial management community ... it's either about cutting waste or it's about building a government for the 21st century.

The Campaign to Cut Waste was launched by the President through an executive order in June 2011. We have a variety



of objectives we're trying to achieve under this campaign. They may not necessarily eliminate our deficit, but they represent dollars and every dollar counts. We can hold on to our vehicles longer; we don't need a printer on every desk; and we don't need to travel just for the sake of traveling. We put this commitment in the President's budget that all the agencies would cut 20 percent of administrative expenses, totaling \$8 billion; it's significant. In the end, we should be thinking about every penny, just like small businesses and households are thinking about every penny today. We need to do more with less; we have to innovate with less, and we have to find ways to manage our resources more effectively. There are other initiatives being pursued to eliminate unnecessary expenditures, such as reducing/eliminating improper payments and managing our real estate more effectively.

We are also focusing on building a 21st-century government. I'd like to highlight our efforts in the open government and transparency effort. This is an area that President Obama has championed for his entire federal career. When he was senator he cosponsored the Transparency Act with Senator Tom Coburn, which launched usaspending.gov in 2006; it was a seminal piece of legislation that really set the course for reporting on where federal dollars end up. Now there are efforts and initiatives underway to make even more details transparent and to make these websites even more functional and user-friendly. [Since] 2006 ... we have [created] a whole new world of data and tools for the citizen to know where the dollars are going. There's more to do as information could be more reliable, more comprehensive, and presented in a way that's easier to navigate.

On the Financial Management Challenges facing Federal Agencies

Declining budgets. The most obvious challenge is declining resources—the budget cuts facing federal agencies and how they should respond. We have a dual-pronged challenge of trying to modernize and make government more efficient under budgetary constraints. Every agency has been impacted by cuts to their budget. At the same time, operating with limited budgets cannot lead to a deterioration in services or government effectiveness. This new reality creates tension. Agencies have less money to invest in information technology, personnel, reengineering business processes; but at the same time they have a pressure and an expectation from the President, Congress, and the American people to improve government. I’m working with federal agencies to define steps that they can take and investments they can make to have the highest impact; it’s about managing the tension between resources and expectations.

Breaking old habits. To navigate this tension, the second challenge involves breaking old habits through innovation. For example, information technology: we have an approach that we’ve taken to modernize business systems in government over the last decade. The approach has proven to be slow and expensive; if we’re going to modernize business systems in a declining resource environment, then we have to change underlying assumptions. We need to make these system modernizations less expensive, do them more quickly,

and get more performance from them sooner. In the government, we have a responsibility to the taxpayer. We need to make sure that we’re buying only what we need. Breaking old habits isn’t easy, but our current budget reality demands it.

Creating a culture of collaboration. The third challenge is closely related to the previous two, and it involves creating a culture of collaboration. The federal finance community has been doing this since the 1990s, but even today we have room for improvement. How do we make sure that we are zeroing in on innovations in the areas of government performance and finance? If one agency has a success, how do we create an environment where other agencies can leverage that success? Along with successes, how can agencies teach each other about their failures, so all can learn and understand what happened, what went wrong? In navigating the tension between a lower resource environment and the need to modernize and become more efficient, we are going to have to develop even more of a collaborative atmosphere than we’ve achieved today.

On Tackling Improper Payments

I live and breathe the issue every day. There are current efforts for preventing, reducing, and recapturing improper payments. It is a pressing issue of financial management that impacts the government’s bottom line. We pay benefits to individuals, pay contractors for services, reimburse doctors for Medicare services, grants to states, all different variations of payments. Improper payments occur when funds go to the wrong recipient, an ineligible recipient receives a payment, the proper recipient receives the incorrect amount of funds (including overpayments and underpayments), documentation is not available to support a payment, or the recipient uses funds in an improper manner. Though not all errors are fraud or waste, all payment errors degrade the integrity of government programs. Citizens’ trust in government is fundamental to our bottom line.

[Under the direction of the Office of Management and Budget (OMB), agencies have identified the programs that are susceptible to significant improper payments, and measured, or are putting in place measurement plans, to determine the estimated amount of improper payments. By identifying and measuring the problem, and determining the root causes of error, the government is able to focus its resources so that corrective action plans can be thoughtfully developed and successfully carried out.] The more typical improper payment occurs when we lack the ability to validate whether the payment is correct. The largest sources of error in the government are in Medicare and Medicaid; those programs make up half our balance sheet. This is a



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— Danny Werfel



anomalies. In addition, we issued a memorandum on Reducing Improper Payments through the “Do Not Pay” list. [This will help agencies avoid making payments to individuals or entities who should not be receiving federal funds, such as debarred contractors or deceased federal employees. By providing a single point of access to an array of databases and using data analytics, federal agencies have new tools to stop improper payments before they occur.]

On Lessons Learned from the Recovery Act Efforts

It was an enormous management effort to carry out the very challenging transparency and accountability requirements of the Recovery Act in real time. It required the development of a new nationwide cross-government data system; it all had to be done in a matter of months: the technology, the definition of the data, and then the training, and outreach to what turned out to be over 100,000 different recipients that were going to have to report.

very complex terrain. [In fiscal year (FY) 2011, federal agencies reported a government-wide improper payment rate of 4.69%, a sharp decrease from the 5.3% improper payment rate that was reported in FY 2010. Improper payments totaled approximately \$115 billion in FY 2011.] What we've tried to do is find the errors where we have the best chance of initiating changes to improve.

There are some promising areas where we are leveraging data, technology, and innovations to drive down these errors. We have access to so many different sources of information that federal agencies didn't have before that can help us make smarter decisions. There are databases that previously didn't have the interoperability with each other in real time, providing information that can help figure out the risk of sending a payment. We can manage data more effectively, use analytics to make better decisions, and identify

We learned so much about the federal government. Our data and accounts are not standardized. In many ways, the information that we hold in our financial systems doesn't lend itself to being produced in a way that the citizens are demanding or [that] can be well understood. We learned about some of the challenges that can take place when you rely on the recipients to report the information.

I first thought, this is great, because it takes all the pressure off us—the recipients will be the responsible party. I was wrong because when mistakes were made it ultimately fell, as I should have predicted, on the executive branch of government. The big lesson learned there is that at the end of the day you have to route everything back to the agency. The agency has to have a solid and comprehensive understanding of what it's paying out, who it's paying, and needs to manage any anomalies in the data. As we move forward on spending transparency, I think there is this debate that's going on in some circles about whether we anchor the program to what the agencies are reporting they spent or what the recipients are reporting they receive. The ultimate answer is that both



are necessary; they have to reconcile to one another, yet ultimately it's the agency that's going to be what we call the control total.

Agencies also developed robust procedures to identify anomalies in their Recovery Act reporting and understand the gaps between what was paid out and what was being reported in. Our compliance rates on the Recovery Act were north of 99 percent, so how do we harness this and apply it to other types of spending transparency? As a result, we created what we call the Schedule of Spend. It's a new statement that hadn't existed before. It would be a financial statement that would aggregate critical information on what you're spending. If you were to receive a clean audit opinion on the Schedule of Spend, then it would indicate that the information you're feeding into Usaspending.gov is reliable and it's comprehensive. We'd like to see the Schedule of Spend be one of the principal financial statements. We think that's going to have a large impact on improving reliability over time.

On Working to Achieve a Clean, Unqualified Opinion on Government-Wide Financial Statements

I'm extremely proud of the accomplishments of the federal financial management community. In 1990, there were no CFOs and no financial statements. Today just about every agency has a clean opinion or at least a qualified opinion. For over a decade, these financial statements were coming in six months or later after the fiscal year. Now [it's] 45 days after the fiscal year. The number of weaknesses found and concerns raised by auditors are steeply declining over time.

We only have one agency that has yet to receive an opinion on their financial statements, and that's the U.S. Department of Defense. This is the main reason why we don't have a clean opinion at the consolidated level. It's the largest and most complex organization in the world. The systems don't integrate and/or are not interoperable. To modernize these systems is expensive and difficult and doing it is exponentially more challenging for DoD than every other organization in government. This is not an excuse; they need to do it, they need to get the job done, and they have made progress, but there is still more to be done in this area. Secretary Panetta has been clear in seeking to accelerate the time-frames for the department to achieve its goals.

On the Issues Facing the Federal CFO Community Going Forward

The number one pressing issue focuses on people, our human capital. We have a large number of federal government employees eligible to retire, but it's more than simply succession planning. We also have budget cuts that we're facing, so in many cases we're going to have to figure out how to do things with fewer staff. Another issue involves the changing needs in skill sets. In the financial management community, analytics are becoming more important. Once we put traditional accounting functions on a more stable platform, it enables us to shift into performing more analysis. It's those analytics that are going to make us smarter and make better decisions. In the end, all of this starts and ends with the workforce; we have an opportunity to bring new people in from the private sector, from schools to grow our workforce differently, and to right-size it to meet the challenges we face ahead of us; and, this is going to be the major challenge for the financial community going forward. ■

To learn more about the Office of Management and Budget, go to www.whitehouse.gov.



To hear *The Business of Government Hour's* interview with Danny Werfel, go to the Center's website at www.businessofgovernment.org.



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A Conversation with Dr. Peter L. Levin, Senior Advisor to the Secretary and Chief Technology Officer, U.S. Department of Veterans Affairs

The U.S. Department of Veterans Affairs may be the second largest federal agency, but it runs the largest medical system in the United States, providing care to about six million veterans and their families who depend on it. This is no small feat considering the demands placed on the system. To meet these demands head-on involves leveraging innovation and advances in technology.

How is VA identifying new technologies and promoting innovation? What is the Blue Button Initiative and how is VA using open source technology to meet its mission? Dr. Peter L. Levin, Senior Advisor to the Secretary and Chief Technology Officer, U.S. Department of Veterans Affairs, joined me on The Business of Government Hour to explore these questions and more. The following provides an edited excerpt from our interview. – Michael J. Keegan

On the Vital Purpose of the Department of Veterans Affairs

We seek to deliver the best possible health care to veterans. Along with the delivery of medical services, we provide veterans with other benefits and necessary services; we also provide interment with honor for veterans. [In sum,] we run the nation's largest hospital system, deliver benefits to three million veterans, and provide them with interment with honor.

We do this on a budget of about \$135 billion with well over 300,000 employees. I think if you included our contractors we would be up to 330,000 employees as the second largest government agency, the largest civilian agency. The way I like to explain it is about one in every 10 federal employees works for the VA—either in benefits administration, processing claims, in the hospitals providing some kind of clinical service, or working in the National Cemetery Administration.

On Being VA's First Chief Technology Officer

It's the best job I've ever had. Beyond the privilege of being a presidential appointee, beyond the opportunity of working with people like Eric Shinseki, Scott Gould, John Gingrich, and Roger Baker literally on a day-to-day basis; beyond the



moral mission—taking care of the people who take care of us—it's just tremendous fun and we're making a difference.

The CTO role is about exploring the boundaries of new technology. It's about exploring the boundaries of new problems, problems that some folks say, well, you just have to live with that. You just have to suffer underneath it or you just have to kind of ignore it and hope it goes away. I get to say, well, why is it that we don't have an automated claims system? What about veterans getting their electronic medical records? Why is it that we don't have a suicide prevention chat line for the folks that don't feel comfortable or don't want to call the agency? We, then, start walking through those questions.

I get to ask the hard questions. I get to ask the risky questions. I get to fail in ways that sometimes other folks wouldn't feel comfortable with or frankly wouldn't feel empowered. I'm using this opportunity to create value inside the



department. I'm unencumbered in terms of living inside the narrow constraints of the old way of doing business. There's a sign on my door: it says, "all unauthorized persons will be authorized." My first answer is yes, and then we figure out how to make it happen. This is a direct instruction from Secretary Shinseki.

The other half of my job is serving a traditional senior advisor role—confidential actions and personnel issues—making sure that the boss is well prepped for whatever meeting that he has, creating the frame or the ambit for those discussions; it's sort of like a glorified speech writer. That's the fun part of my job.

On the Relationship between the CTO and the CIO

Roger Baker is our rock star CIO. He's arguably the most effective CIO in the federal government today. Why is that? Well, first of all he brings extraordinary operational expertise. My job in contrast is really to serve as a complement to that role. I consider myself as an enabler to the kinds of things that [Roger] needs to get done; bandwidth extension to put it in rather un-prosaic terms. There are just some things that he can't get to. As smart as he is, as capable as he is, it's my job to step out a little farther on the vanguard of what is out there, what is possible, and sort of negotiate that process with this 7,000-person IT organization.

On the Challenges facing VA's Chief Technologists

My number one challenge is getting folks away from a mindset of "it won't work" and "it can't be done" to "how

can it work" and "why we should try [to make it work]." Here is my experience. You have some folks in government service who approach it the way that I would approach any job. They come in saying, heck yeah we are going to do that and, heck yeah we are going to try that. What they are waiting for is the example I use of a sommelier. I have just described my job to you in a sentence; my job is to uncork that enthusiasm, uncork that risk-taking, uncork that energy, and push people into doing things that they otherwise wouldn't have necessarily tried because they didn't know that they had the political air cover, the professional air cover, or frankly the emotional air cover. I don't care if you fail; it's about imbuing a sense of urgency.

So my biggest challenge is to empower folks and say please try. Then, I want a specific date when I'm going to know whether this works or not. I want to know how many dollars you need. I want to know who is working on it with you. I want to know the performance metrics: How many people are going to be served? How many jobs are going to be created? How many records are going to be transferred? I am matching empowerment to accountability. In the end, it's about going from empowerment to performance, empowerment to accountability, and bridging that gap.

On Enhancing Mental Health Services at VA

It's not widely known, but it is true that the area of mental health services was the main reason why I came to VA. I wanted to work on enhancing mental health services generally and suicide prevention specifically. I think that we



“My number one challenge is getting folks away from a mindset of ‘it won’t work’ and ‘it can’t be done’ to ‘how can it work’ and ‘why we should try’ [to make it work].”

— Dr. Peter L. Levin



don’t understand it enough; it’s especially stigmatized in this population. Now suicide is an endemic problem in the U.S.; it’s not particular to veterans, but when veterans have this problem it’s something that we can do something about as long as they are in our system, as long as we can touch them, as long as we know who they are. They have to identify themselves.

I thought we could do better. The project we pursued was actually spearheaded by Dr. Jan Kemp and Dr. Sonja Batten, two people whom I consider some of my closest collaborators at VA. For those in need, who are not comfortable using the phone option to access assistance, perhaps they’re worried about the phone number being traced. They’re not comfortable because they don’t like to speak, but they’re perfectly happy to chat online. Jan had this idea to create a chat service. Even as recently as three years ago, this was kind of on the edge. We had this capability and the technology was available; it’s not very expensive and it’s highly secure. However, at the time, Jan was being blocked by the bureaucracy. This was my first project at VA. We created an Internet-based outreach service for suicide prevention as an alternative channel. I can tell you the day that we went live; it was July 3, 2009 and we turned on that Internet chat service; fast-forward to today, we have over 6,000 interventions; I’m not talking about just the chats. I’m talking about where we have an intervention, where we handed it off, and where we did something proactive to help that individual in distress.

In my faith tradition, if you save one you have saved the world. I don’t know that all of them necessarily were that close to the edge. Jan wouldn’t take credit and I won’t either, but you know it’s more than one.

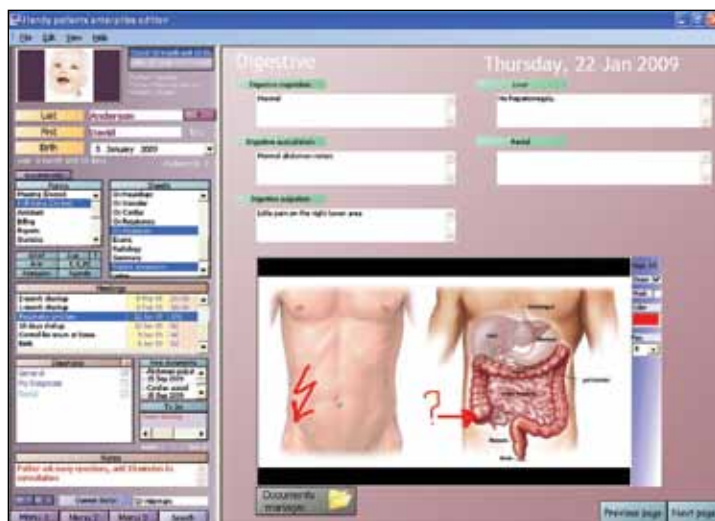
On Launching the Successful Blue Button Initiative

The Blue Button was born at a meeting of the Markle Foundation in January of 2010. I wasn’t even supposed to be at that meeting; I was a last-minute substitution. I’ve never been to the Markle Foundation; I know them by their

unbelievably good reputation. I’m still very new to health informatics. I was sitting around a table with a who’s who. We start talking about how do we make health records available to people? The Blue Button enables users of personal health records to download their personal health information as an ASCII text file. To this day we still don’t remember two things. We don’t remember who said just make it an ASCII file and we don’t remember who said call it a blue button. The idea of creating a very simple ASCII file was something that I had been thinking about for a while.

I report to the secretary about the meeting explaining to him why we should pursue it. It ties so nicely to the President’s initiative of the Virtual Lifetime Electronic Record (VLER). The secretary said, okay, Peter; that’s good [do it] and by the way [there’s] zero budget. Talk people into doing this for you with my blessing. He asked how many people do you think you could get? I wasn’t

The screenshot shows the Blue Button website interface. At the top, it says "UNITED STATES DEPARTMENT OF VETERANS AFFAIRS". Below that is a navigation bar with links for Home, Veterans Services, Business, About VA, Media Room, Locations, Contact Us, and Blue Button. The main content area features a "Blue Button Download My Data" section with a large image of a woman and a man. To the right, there is a "Blue Button Partners" section with a "My HealthVet" logo. Below the main content, there are sections for "Need to Know: Update for Blue Button Partners" and "One Million Blue Button Users - Veterans Talk to Markle Foundation". At the bottom, there is a section titled "What does the President think about the Blue Button?" with a small image of President Obama.



View of an Electronic Health Record

expecting that question. I pulled 25,000 out of the sky. It sounded like an achievable number. We reached 25,000 in six weeks. In fact, we had 25,000 before we formally launched the program at the Health 2.0 conference a few years ago. It was just amazing. We grew so quickly because of the enormous overarching need for people to get their health information; they were willing to take a cruddy ASCII file that was incomplete just to be able to pull something down and say that they had at least that information. They could edit it any way they wanted. They could augment it any way they wanted.

Fast-forward two years, the Blue Button had a new release; I think our 27th or 28th data chapter. We're reaching into the VistA system and pulling out immunization records, medications, and allergies. We've expanded the concept beyond VA. Using our presidential innovation fellows, we have launched Blue Button for America.

Two things are happening here. First, we are going to create a complete, comprehensive, clinically valid electronic health record for veterans pretty soon. The second thing that we're going to do, in close cooperation with Farzad Mostashari, the director in the Office of the National Coordinator for Health Information Technology (ONC), is make the tool available to everybody. Aetna, UnitedHealthcare, Blue Cross, and Kaiser signed on to our health informatics initiative. In the end, the more people that know about it, the more people that get value from it, the more people are going to demand it. There are a thousand things that we can start building around this core asset. It's something we're enormously proud of. We have over a million users today.

On Embracing Open Source Technology

On my first day of work Roger [Baker] and I were sitting in the office discussing how to modernize VA's electronic health records. VA has arguably the best electronic medical record system in the country—its Veterans Health Information Systems and Technology Architecture, or VistA system. It consists of nearly 160 integrated software modules for clinical care, financial functions, and infrastructure. However, the system is 15 years old and based on a tightly coupled, proprietary, customized code that's very difficult to maintain. We've literally pulled people out of retirement for fixes. Everything about the system, however, is already in the public domain. How do we start bringing things back in from the private sector from the folks that are doing things with VistA that we can't do ourselves? How do you solve this problem? Well, fast-forward to 2011 and the Open Source Electronic Health Record Agent (OSEHRA) project began to provide a common code repository for VistA software.

Under OSEHRA, we are moving VistA from this closed, proprietary, and integrated platform to one that is openly architected, standards-based, and modular. We're opening the aperture and making it easier for us to maintain, scale, fix and extend the system. I could walk you through the detailed operational, analytical, even mathematical description of why it is that when you have open source software you are actually more secure and your total cost of ownership is actually lower. I'll tell you why we do open source: because we are more secure and because it is cheaper in the long run.

On Moving Innovation Forward

I've worked in the semi-conductor world, in applied mathematics, on the theoretical side, and in cybersecurity. Given my background, I have a pretty broad understanding of the problems that we encounter today as we hit an inflection in information technology. When somebody brings me a new opportunity or a problem, I try to fit it into a framework. I try to say, okay, is this a device issue, which becomes a hardware issue, which becomes a qualification issue; or, is this a data liquidity issue, which becomes an access issue, which becomes a quality of service issue? I can walk you through maybe six or seven of those opportunities where I have this framework that I have been able to assemble and accumulate over 30 years now. I also like to feed it back looking at the [implications to] cost, quality, access, and the satisfaction of our veterans and service providers. I can map practically any problem you throw at me somewhere in that framework and connect it to things that either I know are going on at the VA or in the private sector. It's been a huge benefit to me and I'd like to think that it's been one of the secrets—one of the ways that we have been able to move the ball forward a little bit.



On Using Social Media

We use social media to communicate and engage our stakeholders; we use it to get ideas from our employees. One of the first projects that I did three years ago was to ask our employees how to solve the claims backlog problem using social media. Nobody had actually asked them before. It is an example of how we're really trying to empower our employees.

If you look at our Facebook account, we went from zero, with absolutely no Facebook presence, to hero in the course of a year with hundreds of thousands of subscribers.

Here is my favorite story about our Facebook success. There was this fellow whose complaint seemed like something I could personally do something about. I pull him off the Facebook page and asked him what was really going on here. The fellow's name is Randy Watson. Randy and I have become good friends; Randy was one of the first users of Blue Button. I had him test it. When I want to know what a veteran really wants, I ask Randy. ■

To learn more about the U.S. Department of Veterans Affairs, go to www.va.gov.



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Richard Boly

Director, Office of eDiplomacy, Bureau of Information Resource Management (IRM)
U.S. Department of State

By Michael J. Keegan

Leading the Office of eDiplomacy within the U.S. Department of State



Technology and new innovations have triggered changes in the ways people interact. The U.S. Department of State has sought to leverage these new innovations in service of its diplomatic and development goals. In this dynamic, interconnected world, State has also sought to restructure its organization and how it operates, advancing diplomacy by pursuing effective knowledge-sharing while expanding the use of collaborative technology.

According to Richard Boly, Director, Office of eDiplomacy, Bureau of Information Resource Management (IRM) within the U.S. Department of State, it's about identifying better ways to find and share information and to network, thus enabling and encouraging State personnel to securely and effectively contribute knowledge anywhere, anytime. "It's an effort to put end users in the decision-making process and help develop platforms for collaboration and information sharing from the grass roots ... if somebody has the information that another person needs that they can find each other. It's not a hierarchal, command and control knowledge management approach," explains Boly. He acknowledges that the success of his efforts rests on changing habits and mindsets from a need to know to a need to share: "it's fundamental to what we do," he declares. "If you don't collaborate and share internally, you're never going to share externally. In the end, the culture you have when nobody's looking is going to be the culture you have when people are looking."

Boly leads the office charged with making eDiplomacy the way to collaborate within the department, most specifically by developing and managing a range of social media and collaborative platforms that provide staff access to

knowledge resources, expertise, idea generation, and a secure collaborative environment across physical and organization boundaries. The department's ability to maintain institutional knowledge has always been a challenge given that foreign service assignments typically last two years. This makes it even more critical to maintain institutional memory, foster collaboration, and cultivate connections within the department. Boly identifies Diplopedia as a key platform to do just this; it offers staff access to what he calls "evolving and persistent knowledge." Diplopedia enables department staff to create a broad, informative, and expanding reference tool for knowledge-sharing about the department, its programs and offices, as well as international affairs issues. "It's a wiki built on the same software as Wikipedia; it has grown tremendously. We have over 17,000 articles, nearly 6,000 contributors, and about 35,000 page views a week. Increasingly, it's the place where people go to find information," says Boly. He offers a real-world example of its usefulness. "We helped our desk officers develop a portal within Diplopedia called Deskikipedia. It is an aggregation of all of the information that a desk officer would need to perform their duties. It's incredibly effective and useful."

Boly's efforts also provide ways to transcend organizational boundaries and geographic constraints. "If we think about Diplopedia as a [wiki of] evolving and persistent knowledge, then 'content with conversation' can be found on our multi-author blogs hosted on Communities @ State." This environment encourages staff to form online communities, publish information, connect with others, and foster discussion. "We have about 70 active blogs. About two-thirds are open to the interagency foreign affairs community and a third are restricted," notes Boly. He points out that staff can also create personal blogs to share their individual perspectives using the MyBlog@State tool.



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“If you don’t collaborate and share internally, you’re never going to share externally. In the end, the culture you have when nobody’s looking is going to be the culture you have when people are looking.”

Many of these resources are architected to help personnel do their jobs better. “Every time we make a gain,” declares Boly, “I want to institutionalize that gain, so that it becomes woven into the very fabric of how we do diplomacy.” The best way to institutionalize a gain is by developing platforms that help staff do their job better, faster, and more efficiently. “Then these folks become,” according to Boly, “the biggest advocates for the work that we’re doing.” To further complement these efforts, Corridor, a professional networking platform, was launched in May 2011. Boly describes it as having the best qualities of both LinkedIn and Facebook. Members post information about their professional accomplishments and expertise, expand their professional network of connections, and discover and access the expertise of colleagues worldwide. “We have over 11,000 users, which is a significant portion of the department ... as I mentioned before, diplomats move around every couple of years, so this platform is great for the enterprise,” says Boly.

The importance of harnessing technology and maturing it according to the needs of those it serves cannot be overstated. “We always say it’s not about the technology; it should never be the focus. The focus should be, what is the end user trying to achieve and can we achieve it faster, easier, or better through the right tool for the right challenge?” declares Boly. The Virtual Student Foreign Service (VSFS) program is part of a growing effort to harness technology and marry it with the commitment to global service among young people. It has as its end cultivating new forms of diplomatic engagement. “Secretary Clinton launched the VSFS program,” explains Boly, “in her NYU commencement address in May of 2009. We started with digitizing the typical internship. It’s been tremendously successful. We’ve seen the number of offices, embassies, and consulates offering projects increase dramatically year to year. We’ve seen an even faster growth in the number of students wanting to participate.” Boly notes that the program offers a useful way for department offices and foreign posts to draw on additional resources at no cost. “The 2.0 version of the program takes advantage of the virtual world, introducing a micro-tasking platform which enables embassies to put out a discrete task to an expanded pool of eInterns with the opportunity to participate in digital diplomacy.” Boly’s office was also instrumental in expanding the department’s virtual footprint with the creation of the Virtual Presence Post. “This was actually the first program to come out of eDiplomacy; it’s evolved

tremendously as technology has evolved.” It helps to focus and improve State’s engagement with specific communities where the U.S. has no physical diplomatic facilities.

Boly also underscores his office’s role as a convener that brings together diplomats, technologists, academics, and entrepreneurs to explore innovative ways technology can address global diplomatic and development objectives. “There are two great initiatives. Tech@State enables a deep dive into the convergence of diplomacy, development, and technology. TechCamp is a wonderful platform that allows technologists to meet with civil society leaders to tackle problems and identify the viability of using low cost, easy to implement technology to solve them.”

Though much has been accomplished in the area of eDiplomacy, there’s more work to be done. “We have a lot of ideas that we’re excited about pursuing,” Boly notes. “We need to integrate more closely the various platforms we’ve discussed—Diplopedia, Communities@State, and Corridor. I’d also like to look at our more traditional communications, cables, and explore the possibility of wrapping a conversation around them. How exciting would it be to have these formal diplomatic cables have a conversation wrapped around them?”

Boly has always been a proponent of entrepreneurialism. In a sense, the goals of eDiplomacy as pursued by IRM’s Office of eDiplomacy share similar qualities. “Entrepreneurs are not afraid of failure. If they were afraid of failure, they wouldn’t be entrepreneurs because the probability of failure is really high ... In government, it can be tough to confront failure, but without confronting it we don’t learn; if you don’t push yourself you’re not going to have that transformational change.” ■

To learn more about IRM’s Office of eDiplomacy, go to www.state.gov/m/irm/ediplomacy.



To hear *The Business of Government Hour’s* interview with Richard Boly, go to the Center’s website at www.businessofgovernment.org.



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Kathy Conrad

Principal Deputy Associate Administrator, Office of Citizen Services and Innovative Technologies, U.S. General Services Administration

By Michael J. Keegan

Expanding the Use of Open Government and Innovative Technologies



For federal agencies to be successful in their continued pursuit of government-wide initiatives such as reforming federal IT, using new technologies to improve government operations and citizen engagement, and enhancing customer experience across government, they require support and assistance. “Today, we have a dual mission to deliver innovative services and solutions to the public and to our government

agency customers,” explains Kathy Conrad, Principal Deputy Associate Administrator of GSA’s Office of Citizen Services and Innovative Technologies (OCSIT). Her office has positioned itself as the government-wide leader in identifying and fostering the adoption of innovative new technologies. OCSIT provides agencies with practical tools, models, and proven practices that can improve the efficiency and effectiveness of government operations while enhancing citizen engagement.

“We are a very lean, but incredibly productive office [consisting of] about 100 super-talented, hard-working people plus a team of excellent contractors with a budget of about \$35 million. We’re a little sparkplug igniting innovation all across government through two primary organizations; the Office of Citizen Services and the Office of Innovative Technologies,” describes Conrad. The Office of Citizen Services provides consumer information and services to the public wherever, whenever, and using whatever device or communication channel they choose. The Office of Innovative Technologies identifies and fosters innovative technologies that help agencies increase efficiency, enhance effectiveness of citizen services, and achieve cost savings.

As part of OCSIT’s senior leadership team, Conrad plays an integral role in its success as the primary advisor to Dave McClure, OCSIT Associate Administrator, on citizen services/engagement, innovative technology programs, and strategic direction. She oversees program management, including policy development, oversight, and implementation of operations and stakeholder outreach. She also moves forward the office’s high-priority areas: open government, mobile technology, and cloud computing.

“To deliver our mission,” outlines Conrad, “we have three key strategic goals. Our innovation goal focuses on expanding and enhancing public engagement with government using innovative, cost-effective solutions and practices that can be adapted and adopted government-wide. Second, customer intimacy focuses on delivering best-in-class customer experience that is driven by results other agencies can use. Finally, we have our operational excellence goal ... developing, implementing, and accelerating adoption of new technology platforms and initiatives that can improve operational efficiency and effectiveness. We seek to foster federal leadership in implementing solutions that are faster, cheaper, and more sustainable.”

Conrad’s office plays a lead role in pursuing a cloud-first policy to save money. “It’s forcing agencies to consider whether there are better, more agile ways to use scarce IT resources to enable achievement of desired program and mission outcomes,” declares Conrad. Cloud is a utility where you buy the services you need to meet real-time demands. “Cloud solutions,” according to Conrad, “offer infrastructure-as-a-service solutions like service and storage that can be used to host websites, software-as-a-service for applications such as e-mail, or platform-as-a-service which can be used for testing and development.” She points out the cloud’s benefits.



“We have a dual mission to deliver innovative services and solutions to the public and to our government agency customers.”



“We’ve found that social media is reaching our customers at a rate that is orders of magnitude higher than traditional communications channels. As of August 2012, we interacted with citizens two million times this year using new media which is a 305% increase from last year.”

“First, it’s cheaper. Services are automatically delivered and consumed as they are [provided].” Agencies can shift from owning and maintaining costly physical assets to managing service delivery. “Second, it’s actually better in terms of performance. On-demand services enable flexible, rapid response to dynamic business needs ... as your needs change, you can get the services that you actually need and it’s faster.” Agencies can dramatically decrease the time needed to deploy or implement solutions. “It’s better, faster, and cheaper, but it’s always important to remember cloud computing is not about the technology. It’s about mission enablement.”


To accelerate the adoption of secure cloud solutions, OCSIT launched the Federal Risk Authorization Management Program (FedRAMP). Currently, most agencies conduct their own security assessment and authorization for every acquired system. FedRAMP substantially reduces costs by providing a single, provisional authorization that all agencies can use as the basis for an Authority to Operate (ATO). “To date we’ve accredited 15 third-party assessment organizations and received over 50 applications for FedRAMP assessment and authorizations from agencies,” she notes.


OCSIT also accelerates and incubates government-wide social media and public engagement solutions that focus on transparency, accountability, and citizen engagement, highlighted by such initiatives as Data.gov and Challenge.gov. Data.gov provides clear, accessible, and easy-to-use online government data. “The future of Data.gov,” offers Conrad, “is to focus on enabling data discovery, use, and impact. By using application programming interfaces (APIs) and open data standards, citizens, developers and others can easily access and harness the value of data to develop new products and services that improve the quality of people’s lives.” She offers examples like The San Ramon Valley Fire Protection District’s lifesaving mobile app that allows CPR-trained volunteers to be notified if somebody nearby needs emergency assistance. The American Red Cross developed a hurricane app allowing citizens to monitor storm conditions, prepare for emergencies, find help, and let people know that they’re safe. “If Data.gov makes data discoverable and accessible, Challenge.gov offers a new tool and platform to engage the public in harnessing


the value of the data.” Challenge.gov is a crowdsourcing platform to find solutions to government problems through challenges and prizes. Many of the challenges use open data sets. It’s important to note that agencies are actually authorized to conduct these competitions and contests under the American Competes Act, and according to Conrad, they are doing it. “When we launched Challenge.gov back in 2010, we had 35 challenges from 15 different agencies. As of this September 2012, we have challenges from 47 agencies and average seven new challenges per month. You pay only for successful entries or solutions. It has proven to be just an amazing tool for achieving big breakthroughs where solvers invent products, write software, design systems, develop mobile apps, [and] create videos and games.” Examples like the Hungry Hiker and Explode Your Food apps promote healthy kids. There’s the My Money App Up Challenge to produce a mobile app that can offer consumers better, faster, more convenient access to financial products, services, tools, and information to make positive financial choices.

Conrad acknowledges that innovative ideas and programs cannot come to life in a vacuum. “Partnership and teamwork are at the core of all of our operations. We depend on broad input from the stakeholders we support through established channels. Social media and open government provide tools to get direct feedback from our customers,” says Conrad. “If you combine a fabulous mission,” she admits, “with lots of customer demand, it helps keep people motivated even when times are a bit tough.” ■

To learn more about GSA’s Office of Citizen Services and Innovative Technologies go to www.gsa.gov/portal/content/105227.

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Bernard Melekian

Director, Office of Community Oriented Policing Services
U.S. Department of Justice

By Michael J. Keegan

Advancing Public Safety Through Community Policing



We face a new reality in American policing, one requiring a shift in the methods used to ensure public safety, while also dealing with ever-shrinking budgets. As law enforcement agencies throughout the nation continue to face challenges brought about by fiscal constraints, it is increasingly important that they find innovative ways to ensure the safety of the public. As a result, some in the law enforcement community recognize


the importance of maintaining and expanding community policing practices. According to Bernard Melekian, Director, Office of Community Oriented Policing Services (COPS) within the U.S. Department of Justice, community policing is about building partnerships and solving community problems that proactively and locally address conditions jeopardizing public safety. Melekian leads the federal program, which began in the 1990s and focuses on weaving community policing practices into the fabric of the country's law enforcement community. "Our mission," declares Melekian, "is to help local law enforcement make the communities that they serve safer, and we do that through a variety of means." Melekian's office pursues its mission by providing grants, offering technical assistance, being a convener of best practices, and for Melekian, being "that voice for law enforcement inside the Beltway."

To do this effectively, Melekian has crafted a strategic vision that works to rebrand the office and reposition its programs. "My first priority is to depoliticize the office. The office is not a federal jobs program. We help advance public safety across the country. Secondly, I want to ensure that the office is the voice for law enforcement. Thirdly, I want to stress the concept

of evidence-based practice: identifying what works best and how we can make that part of law enforcement thinking. The fourth strategic area wasn't on my radar when I first arrived in Washington, and that's helping law enforcement agencies deal with the fiscal reality of today," describes Melekian.

In 2011, his office improved the integration of community policing principles into its grant programs. As a result, grant applicants must provide a more comprehensive community policing plan. According to Melekian, COPS hiring grants are now problem-solving grants. "What we've tried to do over the last three years is challenge these law enforcement agencies to focus on specific community problems that they're trying to address." These problems can run the gamut from homicide and school policing to policing in rural areas, gang violence, and homeland security. He has sought to change the mindset of the awardees from viewing the grant as a long-term or permanent addition to their department. Rather, he wants them to "think about it as a four-year problem-solving grant that enables them to tackle a specific community issue with some extra, yet finite resources." In FY2010, the office received more than 4,000 applications requesting \$2.2 billion in funding. "The size of the grants portfolio varies from year to year. This year [FY12], for example, we had roughly \$111 million in hiring grants; that's down almost 90 percent from three years ago when we had a billion dollars as part of the Recovery Act," explains Melekian. Tighter resources require a more focused approach.

It also involves identifying better ways of assessing grantees' implementation of community policing. Melekian admits the office measured the success of its grant programs from a technical process-driven standpoint: Did the authorized money get to awardees? Did they spend it on what they said they would? Were they timely? "The Community Policing Self-Assessment



“At some point, community policing has to cease to be a project or a series of special projects; it has to become the operating philosophy of an organization. When that transformation occurs, then you can say that community policing has arrived.”



“My first priority is to depoliticize the office. The office is not a federal jobs program. We help advance public safety across the country. Secondly, I want to ensure that the office is the voice for law enforcement.”

Tool (CP-SAT),” explains Melekian, “is really the first attempt to measure the effectiveness of a specific grant on a specific agency.” It is an online survey designed to measure implementation efforts across three critical dimensions—community partnerships, problem-solving, and organizational transformation. Grantees must complete the CP-SAT at the beginning and at the end of their grant period. “It’s very hard to measure the success of community policing,” Melekian acknowledges. “Probably the most common way to do that has been through community opinion polls: do you like your police department? That’s not a bad measure, but it’s certainly not complete. We hope CP-SAT is a step in the right direction.”

The COPS office has also refocused its efforts on grants monitoring. “Our monitoring activities are critical. We’re currently monitoring over \$266 million in outstanding grants,” notes Melekian. To do this, the office performs a series of desk audits. “We review what the agencies say they’re doing. We also do site visits, where we send teams to agencies and review firsthand what they’re doing beyond what the paperwork says they’re doing,” Melekian explains. He points out that the office is planning over 150 site visits this year to different agencies. “It is not enough to say how many officers the program funded or hired. We have to understand what these officers accomplished, and more specifically, are the communities safer?”

Making communities safer can also be done by providing law enforcement agencies with technical assistance, training, the development of innovative community policing strategies, and the sharing of best practices. The Community Policing Development (CPD) funds are used in this way to advance the practice of community policing. “The community policing development grants,” says Melekian, “really span a very wide spectrum of activities and projects. One effort that I’m most proud of this year began in Hawthorne, California, [and is] called Coffee With a Cop. It’s an incredibly simple idea; you have a local restaurant donate space, advertise the event, and folks from the community can just come in and have a cup of coffee. “When I first saw that I thought, well, okay, this might be interesting, but is it really going to catch on? It has caught on nationwide.” The CDP program

also funded a report assessing the successes and failures of creating joint police-fire agencies, sometimes called public safety agencies. “We think that report will be enormously valuable to the field, to city managers and county administrators, as they try to make decisions about how to manage their local budgets,” says Melekian.

Without exception, the recent economic downturn has fundamentally changed policing. Melekian’s office issued a report last fall finding that at least 12,000 officers across the U.S. in the previous 24 months had been laid off, an additional 35,000 positions had gone unfilled, and at least 28,000 officers had been furloughed. “It’s an enormous loss of capacity; you have to figure out different ways to do business,” exclaims Melekian. It will require a greater reliance on technology; greater use of civilians, both as employees and as volunteers; use of an alternative response to non-emergency radio calls; and regionalization and consolidation of departments across a number of fronts. “These things are happening right now,” admits Melekian.

In light of these difficult times, he continues to position his office as a resource for law enforcement agencies around this country. Along with many challenges, difficult times can offer opportunities to transform. “At some point, community policing has to cease to be a project or a series of special projects; it has to become the operating philosophy of an organization. When that transformation occurs, then you can say that community policing has arrived,” declares Melekian. ■

To learn more about DOJ’s Office of Community Oriented Policing Services (COPS) go to www.cops.usdoj.gov.



To hear *The Business of Government Hour’s* interview with Bernard Melekian, go to the Center’s website at www.businessofgovernment.org.



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Science, Service, and Stewardship: Insights from Joe Klimavicz, Chief Information Officer and Director, High Performance Computing and Communications, National Oceanic and Atmospheric Administration

The National Oceanic and Atmospheric Administration, NOAA, relies on information and technology to carry out its mission—to understand and predict changes in climate, weather, oceans, and coasts. The agency depends on the availability of and access to high-quality, timely, and reliable information and the technology that makes it all possible; both are strategic assets to an agency that understands managing these resources efficiently and effectively is key to its success. What is the information technology strategy for the National Oceanic and Atmospheric Administration? How is NOAA modernizing its technology infrastructure and ensuring that its IT investments align with its overall mission? And how is NOAA providing a balanced stewardship between information and technology? Joe Klimavicz, CIO and Director, High Performance Computing and Communications at NOAA, shares his insights on these topics and more.



Joe, before we delve into specific initiatives, perhaps you could give us an overview of the history and mission of NOAA?

— Joe Klimavicz —

NOAA is fundamentally a science agency. It enriches life through science and was formed in 1970. We like to think about our reach as going from the surface of the sun to the depths of the oceans as we work to keep citizens informed of the changing environment around them. This can be anywhere from daily weather forecasts, severe storm warnings, climate monitoring, fisheries management, to coastal restoration and marine support. Our products and services are vital to economic interests of the U.S. We've estimated that one-third of America's gross domestic product depends on NOAA products.

It's an important mission; we have dedicated scientists that use cutting-edge research, high-tech instrumentation to provide citizens, planners, emergency responders, and other decision-makers with reliable information when they need it. We really think we touch the lives of every American; we're proud of our role in protecting life and property.

We'd like to think of our mission as science, service, and stewardship. Our vision for the future is healthy ecosystems, communities, and economies that are resilient in the face of change.

Joe, with such an interesting mission, I'd like to get a sense of the scale of operations that you support. Would you describe how NOAA is organized, the size of its budget, number of full-time employees, and its geographical footprint?

— Joe Klimavicz —

NOAA is a very diverse organization, made up of six line offices and many different missions. The National Weather Service is probably the one that gets the most attention, but in addition there is the National Ocean Service, National Marine Fishery Service, National Environmental Satellite Data and Information Service, Oceanic and Atmospheric Research Service, and Program Planning and Integration. The budget in our FY 13 request was \$5.1 billion. We have about 12,500

federal employees. When you look at onsite contractors and associates, visiting scientists, we're about 25,000 total staff onsite. We have a presence in virtually every state and U.S. territory. I think the last count was we had about 435 buildings across the country with 122 weather forecast offices around the country. We also fly 17 satellites and eight buoy networks. We have 19 ships and 14 aircraft. In addition, we have three weather and climate research supercomputers and two operational supercomputers. We have 284 data centers all over the country. We have 46 IT investments, 71 mission systems according to our inventory, and 47 infrastructure systems. We also are responsible for 13 marine sanctuaries, one national monument, and many other commercial fishery plans and fishery councils.

Now that you've given us a sense of the larger organization, could tell us a little about your specific area? What are your responsibilities as the CIO and as the

Director of High Performance Computing and Communications, how is the office organized, and how do you align back to the mission that you described?

— Joe Klimavicz —

I like to think of our office as sitting right in the middle of the assets I just described. My office is responsible for essentially all the information and information technology resources. NOAA spends about \$1.3 billion annually on its IT portfolio, and that's larger than all the four nondefense bureaus. We have the standard CIO responsibilities of planning, reporting, oversight for all investments, cybersecurity, information quality, and privacy. I'm supported by a CIO Council composed of line office CIOs. We provide a host of enterprise-wide, mission-essential IT services, such as e-mail, web hosting, networking, and security response and monitoring. Through our high points computing and communications program, we're striving to ensure that we've got the computing necessary to propel our science and service



National Environmental Satellite Data and Information Service



National Marine Fishery Service



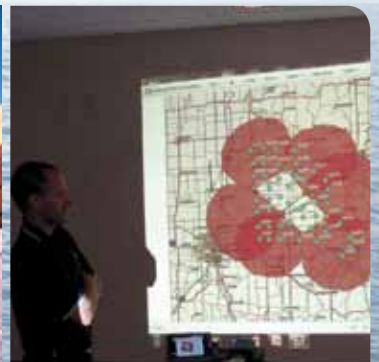
National Weather Service



National Ocean Service



Oceanic and Atmospheric Research Service



Program Planning and Integration

missions enterprise-wide, supercomputing, to support both sides of that activity.

I'm also responsible for NOAA's homeland security program, ensuring preparedness and response and mission continuity in event of a terrorist attack, disaster, or other emergency. I spend time focusing on a program called NOAALink; it's an innovative, strategic sourcing vehicle to provide economies of scale and enterprise-wide acquisition for our IT infrastructure and services. Lastly, I also serve as the Department of Commerce senior agency official for geospatial information as well as the senior executive responsible for the department's use of the radio frequency spectrum.

With such an expansive portfolio, Joe, what are your top challenges that you face in your position and how have you sought to address those challenges?

— Joe Klimavicz —

I think the number one for most CIOs is cybersecurity. Our ability to execute our mission is at risk every day. Just connecting to the Internet is very dangerous. We had well over a thousand incidences, not all were penetrations, which required response. Every year from 2007 through today, this area has been highlighted by the department and its inspector general as one of the top challenges across the department. It's not unique to NOAA, but it's a big deal and it takes a lot of time and effort.

The next challenge is cost reduction. All CIOs are under incredible pressure to reduce their operating costs. It's quite challenging given the growth of information volume requires us to improve forecasts and services. As requirements are going up, I have to drive down operating costs, which makes the environment quite challenging. Another challenge is getting the right skill sets and deploying the best workforce; it's making sure we have those critical skills in our workforce because that's how you make all this happen. It is also important to enhance portfolio management because if I'm going to really reduce cost I've got to get a better handle on investments. We need to drive convergence on investments while pursuing consolidation and standardization. We spend much time identifying the best ways to consolidate our IT infrastructure and services so we produce and deliver the most efficient services that support NOAA's very important mission.

Our strategic direction maps nicely to meeting these challenges. We seek to protect our IT investments from security threats, ensuring that our information and technology is always available. It's critical that we always put a mission focus on IT investments, looking for innovative uses of IT in



support of evolving and growing mission needs. The third area is high-performance computing. High-performance computing is key to our research and science missions as well as our operations. We want to make sure we expand these capabilities essentially through on-demand computing; we've also been able to expand high-performance computing to non-typical users inside of NOAA to see how we can really advance science. The fourth strategic goal is looking for efficiencies and improving effectiveness through enterprise-wide solutions. The fifth goal is ensuring a skilled IT workforce, because in the end all of this comes down to the people. We are focusing on attracting, developing, and retaining the best IT workforce we can.

Your agency carries multiple and often complex missions and information technology requirements and your portfolio reflects that complexity. How are you fostering an enterprise view of technology, not simply supporting mission, but actually enabling mission?

— Joe Klimavicz —

Given NOAA's mission, we have information coming in, we have brilliant scientists adding value to that information, and then we provide that information to the public or other agencies. Information and data are key to NOAA's overall mission and none of that can happen without information technology.

What we're trying to do is improve the visibility and decision-making by leveraging IT resources across NOAA. I'm positioning my office's involvement in the budgeting and acquisition planning, evaluating programs upfront rather

than responding to a crisis afterwards. We're really trying to remove barriers to deliver a uniform, modern, agile, and cost-effective set of services. If we can reduce the complexity, then we can improve our security posture. As we build more enterprise-wide services, it'll make it easier for us to secure our IT. Lastly, I seek to position IT as a mission enabler through the right services, common services, and an infrastructure that supports our diverse mission, and really with a strong focus on improving customer service. We want to reduce our operating cost, but we also want to improve our service. We want to empower our employees to more effectively be able to execute their mission-critical activities.

Joe, I'd like to talk about green IT, which aims at reducing the environmental footprint of IT products throughout their lifecycle. What are you doing in the area of sustainable IT practices to act as good environmental stewards?

— Joe Klimavicz —

We spend time focusing on how we can be better stewards of the environment. I'm committed to reducing our overall IT footprint, and we're trying to do this in a couple different ways. One is lowering our energy consumption and many things go into that effort. It involves how we configure and arrange our servers, how we consolidate our data centers, and pursuing ENERGY STAR® purchasing of equipment. Old chillers that are inefficient are being replaced with newer, higher efficiency systems with a big emphasis on cloud computing. We have moved many programs to the cloud, many services we're buying as services from the cloud. I



think, though, from a strategic perspective you need to look at this in a couple different ways. Regarding business practices, do we have the right policies and strategies in place? Are we looking to identify and seize the easy opportunities? Changing the culture and making sure energy efficiency is a consideration in our acquisitions really drives efficiencies.

On the technology side, we are focusing on PC power management. We've also reduced our printing quite a bit through workflow management tools and better utilization of technology to reduce our printing demand. We've reduced the number of desktop printers by over half to reduce our paper consumption. We've also started deploying to leadership with iPads. As an environmental agency, the NOAA leadership stresses the importance of conserving paper. We're also improving our efforts with virtualization and looking at using microchips. We're reducing our IT load while reducing our power consumption.

Joe, through its advanced modeling capabilities, climate research, and real-time weather products, NOAA is a recognized leader in understanding and predicting the earth's environment. To do this it requires high-performing computing systems. Would you tell us more about NOAA's high-performance computing and communications program and its goals?

— Joe Klimavicz —

These supercomputer assets are going to help us improve our weather forecast, our ability to forecast hurricanes and track their intensity. We had these plans in place and we received \$170 million of the ARRA funding to replace our research and development supercomputers. In March of 2012, we completed a modernization and recapitalization of all of our research and development supercomputers. What we ended up with is seven times the computing that we had originally. In essentially two years, we ended up with a seven-times improvement in our research and development computing. We did this in cooperation and collaboration with the Department of Energy, so the biggest one for our research sits down in Oakridge, Tennessee, in the Department of Energy's lab, enabling very large data files to move from the computing to our data stores to the scientists. It's a major accomplishment; we're ready to continue to expand on how we collaborate and share these computing assets across the federal government. They are key assets at the federal level to spur innovation. We have test beds in place to work with the next generation of supercomputing chips, things called graphic processing units and integrated core technologies. The future computer processors are going to be very different than what we're using today. We need to be prepared from a

software perspective because we have millions upon millions of lines of code that need to be able to run on the next generation of hardware. We're also in the process of replacing all of our operation supercomputers. It should go live with the next generation of operation computers in October 2013. That'll be about a four-times improvement in our operational computing. Again, we'll make sure that we're capable of running high resolution and complex models. This is what drives our ability to forecast changes in the environment.

Today rapidly evolving technology increases an organization's vulnerabilities. Would you elaborate on the efforts to secure the IT infrastructure and to combat cybersecurity threats? What are you doing to implement safeguards to reduce these attacks and sustain the heightened user security awareness?

— Joe Klimavicz —

I look at this in terms of three sources of attacks. There are the criminals out there trying to steal things for profit, but there's also an area that's growing pretty quickly, and that's the co-hackivism. Folks looking for publicity seek to deface a website or bring down a capability. They may not be trying to get rich or steal your intellectual property, but they're trying to make a point. We're trying to improve our ability to monitor and respond to threats. In 2010, we established a security operation center that's constantly monitoring all of our devices, our networks, and trying to correlate very subtle events and assess threat levels. Trusted Internet connections are critical and the Department of Homeland Security has approved us for four trusted Internet connections. We have a fairly robust FISMA compliance program. Continuous monitoring is a huge operation right now, and being able to track reports and assess endpoint security is something we've put a lot of time and effort into. From a critical infrastructure perspective, we're trying to understand and document the risk exposure of our systems and respond accordingly.

Given the importance that information technology plays in mission and program delivery, how has the role of the CIO evolved to that of a trusted advisor? What are the characteristics of a successful CIO in the future?

— Joe Klimavicz —

I made the point to NOAA and department leadership that I really want to be a buyer of IT and IT services in the future. It's evolved from the early days when you had to build the IT in-house, you had to operate it, it was all a fairly closed system, and it was more about the IT. Today, it's less about the IT and more about meeting the mission, which brings the CIO closer to being that trusted advisor.



If I could reduce my job to taking our customers' requirements, funding, and provisioning the right services at the right time at the right price, I'd be okay with that approach. I think the future is buying from the cloud, buying from other agencies that have already implemented these services, and only then if you can't find what you need at the right price you implemented yourself. But that, to me, is a last resort.

Moreover, I believe that CIOs need to be connected to other CIOs. We need to share, talk, and learn from each other because we all face many of the same challenges. I also think it's important to connect to and stay connected with industry. I participate in many venues that bring together industry and government; you have to constantly be learning. This is a very dynamic area. Sometimes I learn more about what's going on in other departments and agencies from industry. It pays to be well connected and to maintain an understanding of what's going on in other places. Typically, I don't have enough money to be a first [adopter], but I don't want to be the last either. Whenever you're looking to move to another service, another technology, it's important to understand who has gone before you. I would reach out and talk to those individuals. In the end, it is important to spend time talking to other CIOs about what works and what doesn't work. ■

To learn more about NOAA's Office of the Chief Information Officer & High Performance Computing and Communications go to www.cio.noaa.gov



To hear *The Business of Government Hour's* interview with Joe Klimavicz, go to the Center's website at www.businessofgovernment.org.



To download the show as a podcast on your computer or MP3 player, from the Center's website at www.businessofgovernment.org, right click on an audio segment, select Save Target As, and save the file.



To read the full transcript of *The Business of Government Hour's* interview with Joe Klimavicz, visit the Center's website at www.businessofgovernment.org.

Introduction: Governing in the Next Four Years

A presidential election year provides an opportunity to step back and consider major issues and management challenges facing government executives. The Center has devoted significant attention to this topic since its inception. Most recently, in 2008–2009 the Center launched its *Presidential Transition Initiative*, which provided how-to resources in helping government executives succeed. This year we will build on that tradition with the inauguration of our *Governing in the Next Four Years* initiative.

We will look at a variety of emerging trends, offer innovative approaches to address the management challenges facing government executives, and, if necessary, update widely read reports that can assist leaders in meeting their missions. We hope to engage in a dialogue with government and industry leaders, and welcome broad and deep discussion going forward.

This forum introduces this initiative and highlights the key areas of interest we'll be exploring. We will focus on issues where public sector leaders can learn from successes across all levels of government, industry practices, and our research community in order to develop effective solutions to complex public management issues. Key areas of interest explored by the contributors in this forum include:

- *Mission Support: Managing a Balancing Act*, by John Kamensky, discusses ways that leaders of federal programs can improve outcomes by capitalizing on approaches and tools developed in the “CXO” communities (Chief Information, Financial, Acquisition, and Human Capital Officers).
- *Joined-Up Management: A Next Step in Cross-Agency Collaboration*, by Dan Chenok, explores a new model of managing activities from a cross-program view, leveraging resources to more effectively serve a citizen or business.
- *Participation in an Age of Social Media*, by Gadi Ben-Yehuda, examines the role social media will play in citizen participation.
- *The Next Four Years: Intelligence Community Reform Refining, not Rebooting* by Frank Strickland and Chris Whitlock, asks whether the Intelligence Reform and Terrorism Prevention Act of 2004 got it right and if a sweeping reorganization of the intelligence community is required to “fix the problem.”
- Chuck Prow closes the forum with a brief preview of an upcoming book, *Fast Gov*, on creating a “fast government”—accelerating how agencies do their work to dramatically reduce the amount of time needed to deliver services.

As part of this initiative, we will also focus on turning performance measurement and management toward a more actionable agenda that reinforces improvement across similar programs as well as recalibrates resources toward efforts that lead to better results. Along with a variety of related Center resources, our insights for this series will be available online at www.businessofgovernment.org/content/governing-next-four-years, which we will keep up to date as events unfold over the next several months.

Please let us know your thoughts on the content that we will address around *Governing in the Next Four Years*. We look forward to continued collaboration in applying both research and practical lessons learned to address some of the government’s most pressing public management issues. ■



Mission Support: Managing a Balancing Act

by John M. Kamensky

Senior executives leading agency mission support functions (chief financial, information, acquisition, and human capital officers) face a range of cross-pressures from different stakeholders. How can they—and key federal mission leaders—jointly leverage their efforts to improve agency mission results?

Background

Twenty years ago, federal agencies typically did not have senior executives leading key mission support functions such as finance, technology, acquisition, or workforce. These functions were largely seen as administrative transaction services. In the past two decades, reflecting trends in the private sector, Congress created a series of “chief” positions—chief financial officers, chief information technology officers, chief acquisition officers, and chief human capital officers. Performance improvement officers were recently added without the chief title.

These various chiefs come from different professional disciplines with their own preexisting communities and ways of defining success. The distinctiveness of these individual communities was reinforced by the creation of cross-agency chief councils, such as the Chief Financial Officers Council and the Chief Information Officers’ Council. These councils often spearheaded government-wide initiatives, such as the CIO Council’s development of a comprehensive data-center inventory. Once identified, the number of data centers was cut in half, leading to greater efficiencies. The councils also shared best practices across agency boundaries.

The chiefs generally report to the heads of their agencies. They also generally wear three hats:

- Providing **services** to internal agency customers (such as hiring or installing computers or providing office space)
- Ensuring **compliance** with government-wide requirements (such as merit principles or capital investment guidelines)
- Providing **strategic advice** (such as workforce planning or financial risk management)



Depending on which hat they wear, chiefs may have different customers or stakeholders. For example, if the chief is wearing a customer service hat, the customers may be line managers and employees. If the chief is wearing a compliance hat, the customer may be the Office of Management and Budget (OMB) or the Office of Personnel Management (OPM). And if the chief is wearing an advisor hat, the customer may be the agency head. These hats are not mutually exclusive. In fact, one challenge of the chief’s job is balancing the differences.

Does the Chiefs Function Support Mission Leaders Effectively?

The roles of the various mission support chiefs (sometimes collectively referred to as CXOs) have become clearer and more organized across agencies. In fact, there is a common support office for all the cross-agency CXO councils, and it sometimes convenes the different councils to address specific issues.

However, there are problems from the perspective of mission-oriented line managers in agencies. Mission managers deliver services to the public, such as air traffic control, environmental cleanup, export assistance, disability benefits, or immigration enforcement at the border. These mission managers both rely on, and could capitalize more on, mission support functions such as those provided by chiefs. But, as one former mission manager recently noted, in his experience “the CXO community is the biggest obstacle to success.”

Managing at the Speed of Light: Improving Mission-Support Performance, a 2009 National Academy of Public Administration (NAPA) study of the chiefs’ functions at the Department of Energy (DOE), found that mission support functions were seen as dysfunctional by line managers, largely because the various functions did not coordinate with each other. The lack of coordination within and among these functions resulted in “an inwardly focused, regulation-based, transactional organization.”

The study concluded: “DOE needs to better integrate and manage the mission-support offices’ efforts in order to develop a coordinated approach to providing essential support services.” In addition, it found the mission support offices needed to develop a stronger mission focus: “DOE does not have formal systems to assess how well the mission-support offices are meeting the needs of the department and to hold them accountable for doing so.”

But the solution is not to devolve all authorities to mission managers. After all, the study also found: “The mission-support organizations provide the grease that makes the department run. Without mission support, work in the program offices will grind to a halt.”

How Can the Chiefs Integrate Their Services to Benefit Mission Leaders?

The NAPA study recommended the department focus on creating cross-bureau governance structures within each agency to coordinate mission-support activities, to include:

- An undersecretary for management
- An operations management council
- A mission-support council

The designation of another chief—chief operating officer (or undersecretary for management)—is a solution favored by the Government Accountability Office. This role has been enshrined in the new GPRM Modernization Act, so it now has statutory standing along with the other chiefs and serves as a nexus between policy and management.

But new structures and roles alone don’t change tendencies to act independently. Chiefs have to connect with one another through formal and informal means, and balance their three-hat roles.

The proposed operations management council can serve as a way of addressing cross-functional internal services and compliance functions. The mission support executives in the Department of Veterans Affairs hold weekly meetings about common initiatives and address strategic questions such as “Do we have the right skill sets?” and “Will this training lead to changes in mission performance?”

Likewise, the mission-support council can be a way of focusing attention on the needs of key mission initiatives. For example, the Department of Housing and Urban Development convenes a series of meetings on its priority goals and its strategic objectives on at least a quarterly basis. These forums, often led by the secretary or deputy secretary, serve to regularly focus leadership attention on place-based programs in communities, instead of just on policy initiatives.

Potential Initiatives over the Next Four Years

The CXO communities have matured over the past two decades as valuable contributors to the support of missions within and across agencies. They have had to balance their different roles and have made real progress in improving operating efficiencies, saving billions via their initiatives.

But over the next four years, there are new opportunities they could pursue in order to improve mission results for their agencies and government-wide. These might include both agency-level and cross-agency initiatives.





Agency-Level Initiatives

Departmental chief operating officers should become mission champions. The chief operating officers should proactively coordinate the mission support chiefs on behalf of agency mission and program executives, serving as their champions. They can continue to focus on initiatives to gain greater efficiencies in mission support services, but ideally not at the expense of strong support for mission managers.

Mission support leaders should collaborate among themselves as well as with mission delivery executives. The collaborative operations management council approach, such as the one used in the Department of Veterans Affairs, should be a model for other agencies, as should the HUDStat approach used in the Department of Housing and Urban Development.

Ensure transparency to the chiefs' various stakeholders. The chief operating officer at the Office of Personnel Management, Chuck Grimes, says his agency created a dashboard of key mission support measures such as "time to hire" or "veterans hiring," and made the data widely available. He says this helps program managers make better decisions because they have immediate access to useful data.

Engage chiefs' stakeholders in defining what constitutes value to missions. Department of Transportation Chief Human Capital Officer Brodi Fontenot says his agency now sponsors an ideation platform to engage employees in joint problem-solving, much like the Transportation Security Administration's "Idea Factory." At the Department of Housing and Urban Development, Chief Information Officer Jerry Williams says the leadership uses regular meetings of top executives to jointly address mission challenges such as reducing homelessness.

Cross-Agency Initiatives

Reintroduce the Quad Council. In the late 1990s and early 2000s, the four councils of chiefs—finance, information technology, acquisition, and human capital—came together as the Quad Council, which worked with OMB to leverage cross-agency mission support activities that supported a number of e-government initiatives. This model provides an interesting lens from which to view the issue of collaboration across professional disciplines from a government-wide perspective. The existing CXO council support office is a natural focal point for such an effort.

Develop cross-functional, integrated management improvement agendas. The chiefs all have management improvement initiatives. But they, not the mission managers, should serve as the integrators of initiatives to improve mission support services and compliance requirements. For example, efforts to reduce federal agencies' use of real estate has:

- A human capital component of telework strategies
- A technology component relative to employee connectivity
- Financial and acquisition components related to the investments needed to pursue such a strategy

Develop a strategy to support cross-agency mission-oriented initiatives. Increasingly, agencies are working across organizational boundaries to solve major public challenges, such as climate change and food safety. Mission support for these efforts has largely been ad hoc. The cross-agency councils should undertake efforts to develop approaches to provide mission support functions for these initiatives in ways that ensure appropriate accountability and efficiency.

Will steps such as these serve as a bridge between the perceived gaps between mission managers' needs and the roles of various mission support chiefs? Probably not at first, given the historical tensions in their respective roles. But proactive steps from top agency leadership should be a key expectation in coming years. ■

TO LEARN MORE

About the Center's Governing in the Next Four Years series, insights from the series are available online at www.businessofgovernment.org/content/governing-next-four-years.

Joined-Up Management: A Next Step in Cross-Agency Collaboration

by Dan Chenok

Most government activities are managed through programs in agencies. The pace of technology and business change is causing leading organizations that have always collaborated to move to a new model of managing activities from a cross-program view, leveraging resources to more effectively serve a citizen or business.

For most of the last century, when the government determined a need for an activity in a certain area, the response has come in the form of a program that sits within an agency. Funding is requested by administrations within accounts dedicated to that program. Congress then authorizes funds under committees focused on the program. Managers run their programs as a line operation, with staff (and often contractors) working within program authorities in a hierarchical structure. Oversight processes from OMB to Congress to outside interest groups are aligned to influence the program. Results are generally measured by how much money is spent, how many people are served, and in some cases by outcomes tied to particular program missions.

Over the past two decades, coinciding with the growth of the Internet as an information resource without boundaries, a growing number of initiatives have sought to collaborate across programs to better align government resources to those being served: citizens, business, schools, states, or cities. These initiatives have evolved over time. For example:

- The Clinton administration’s National Performance Review (NPR) opened the floodgates for cross-program ideas. NPR leaders first explored the idea of reformulating government services around life events like births, college attendance, starting a business, and retiring. Innovators came together under the auspices of NPR to define the art of the possible.
- The Bush administration’s e-government initiatives used technology to integrate resources through front doors that the public could enter to access common services and information, without regard to which agency hosted a given service. To make these front doors work effectively, OMB brought together agency officials who wanted to



make change happen, creating committees and boards that oversaw coordinated delivery of services.

- The Obama administration’s “High-Priority Goals” focus on improving the performance of over a dozen activities with programs in multiple agencies. These goals include doubling exports, which involves more than eight contributing agencies and over 40 programs within them, and improving cybersecurity, which involves virtually every agency in the government. The goals address significant mission challenges in government and have a common set of performance measures, so that the collaboration centers on government programs that have a direct effect for citizens or businesses.

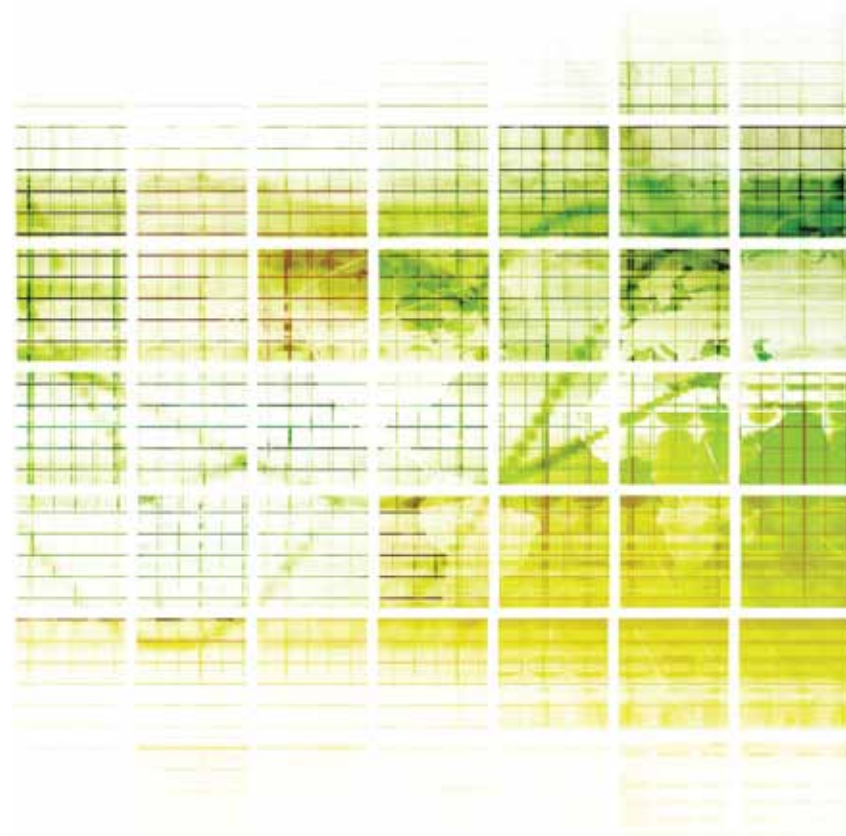
While technology can both identify consistencies and expose differences in how agencies provide services in areas ranging from education to environment to public safety, transparency and interagency coordination are only first steps. A second is collaborating to develop consistency in how services are delivered in such areas, so that managers do not perpetuate

different ways of doing business to achieve the same goal. To understand how important this is, just ask states that receive federal funding from numerous agencies how much time and money they spend following different compliance and reporting paths.

Significantly, last month the Government Accountability Office (GAO) released a report addressing a variety of mechanisms for collaborating effectively. It can be found at <http://www.gao.gov/assets/650/648934.pdf>. The report catalogues a dozen specific mechanisms the government currently uses to collaborate across boundaries. GAO also offers a self-assessment checklist of seven key design features that collaborative network leaders need to consider when using these approaches. These features include:

- **Outcomes and accountability:** Have short-term and long-term outcomes been clearly defined? Is there a way to track and monitor their progress?
- **Bridging organizational cultures:** What are the missions and organizational cultures of the participating agencies? Have agencies agreed on common terminology and definitions?
- **Leadership:** How will leadership be sustained over the long term? If leadership is shared, have roles and responsibilities been clearly identified and agreed upon?
- **Clarity of roles and responsibilities:** Have participating agencies clarified roles and responsibilities?
- **Participants:** Have all relevant participants been included? Do they have the ability to commit resources for their agency?
- **Resources:** How will the collaborative mechanism be funded and staffed? Have online collaboration tools been developed?
- **Written guidance and agreements:** If appropriate, have participating agencies documented their agreements regarding how they will be collaborating? Have they developed ways to continually update and monitor these agreements?

Ultimately, lasting and real change will involve the ability to manage in ways that capitalize on the multiple paths to reach beneficiaries of common services. The simplest approach to this would seemingly be to reorganize around these common services. But as has been demonstrated time and again, government reorganizations are complex and fraught with legal, institutional, and budgetary challenges. As an alternative path, successful leaders in government can follow the enterprise model of the private sector, using



technology and information to manage jointly across agencies—building from collaborative networks to share operations, overcome programmatic silos, and improve services.

There are many examples of interagency committees to coordinate programs across common areas; however, most of those entities come together quickly, agree on a strategy forward, and then go back to their agencies to implement that strategy. What if leaders took the opportunity to build on some successful models of actually managing programs in a coordinated way? For example, a recent interagency cybersecurity committee (see description at <http://www.gsnmagazine.com/node/27304>) not only established goals across civilian and national security agencies, but also set up joint review processes to ensure that standards across agencies built off one another.

Success factors in such a joint management model have some commonalities with the GAO study list, and include:

- Leaders should establish and communicate a clear vision and mission.
- Roles and responsibilities should be transparent to all stakeholders.

- Funding streams should be identified up front and be clear throughout.
- Participation in joint activities should come from committed staff, who form teams with similar performance incentives for the group effort.
- Success should be based on clear measures that tie back to individual agency metrics (as opposed to agency measures that differ from those of the group).
- As the agency best positioned to incentivize collaboration, OMB should establish accountability structures that reward cross-agency management.
- Communications with key congressional staff should occur early and often.

The ability to move from collaboration to joint management by leveraging multiple agency resources will only grow over the next four years, as leveraged technology and management models (including the cloud and “big data”) point out opportunities to gain greater performance by combining efforts across organizations and processes in key mission areas. In the longer term, successful management integration without organizational change might also make it easier for key players to support such change in the future. ■



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Participation in an Age of Social Media

by Gadi Ben-Yehuda

This article examines the role social media will play in citizen participation.

Americans, even before they were Americans, have always practiced participatory government. The Mayflower Compact, one of the most famous examples of citizen participation in governance, was written and signed before its authors set foot on Plymouth Rock. This story continued into the 20th century with constitutional amendments that enfranchised more citizens and carries on today with the explosion of government websites used by citizens to comment on pending rules, or in private companies that enable citizens to send legislators structured data about constituent opinion on specific bills.

In the chapter that is the next four years, Americans should see participation that is ever more:

- **Widespread:** extending to more agencies and more activities
- **Actionable:** integrated more thoroughly into decision-making processes, not just as a final selection from a few limited choices
- **Open:** participants will be able to see each other and the decision-makers with whom they are interacting
- **Valued:** participants and citizen-liaisons will be recognized and rewarded for their participation
- **Encouraged:** participation will enjoy a higher profile and will be accorded more resources both from citizens and from government agencies

Of course, these changes will not happen of their own accord; only the active involvement of federal agency leadership will ensure that they are implemented and institutionalized successfully. By taking concrete steps to broaden and deepen citizen engagement, agencies can lower the barriers to participation as a culture of engagement replaces the insularity that has often defined public service. The Open Government Directive of 2009, while important, has been overtaken by the events of the three years between its signing



and the 2012 election. The winner will face an electorate that demands to be heard and a bureaucracy that has already taken the initial steps to listen.

Widespread

The website GovSM.com lists more than 200 federal agencies, departments, and offices with links to their social media accounts, including Facebook, Twitter, Flickr, YouTube, and others. Through many of these accounts, ecitizens can read what agencies are doing, often in real time. At least as important, though, they can leave comments and start conversations with other social media users—both from within and beyond the agencies—about the issues raised in those forums.

In the next four years, not only will Americans see more agencies activate accounts on existing social media sites, but it is likely that:

- New sites will launch that better serve the interests of citizens' participation in government

- More government offices will establish online outposts and staff them adequately to take advantage of citizen participation
- More Americans will establish their own social media presence and use it to engage their government

What agencies can do: Activate accounts in relevant social media sites to communicate agency activities and objectives; monitor social media for feedback and, where possible and appropriate, incorporate collaboration tools, such as wikis and ideation platforms. Entrust as many employees as possible with social media access, the better to monitor incoming communications from those channels.

Actionable

Americans are already helping agencies with many mission-critical tasks. Private enterprises and private citizens alike, for example, are entering government-sponsored contests to build applications and robots that perform essential tasks. And there is no shortage of individuals, companies, and trade associations that want to see their interests reflected in the rules that govern federal agencies and federal procedures.

The next four years, therefore, are very likely to see an increase not only in conversations, but in actionable information and implementable innovation permeating the public sector from every other sector of society. Sites like

Regulations.gov and PopVox, tools like SeeClickFix and Open311, and contests like NASA's Centennial Challenges and the DARPA Grand Challenge are only the beginning.

What agencies can do: Weave citizen-outreach activities into as many programs as possible, and promote outreach efforts on relevant social media platforms. Where permissible, use ideation platforms and other tools to gather citizens' ideas and let them comment on others' ideas. As an example, the White House's We the People tool is open source, and can be used by agencies for their own purposes. Develop and implement challenges to the public to spur innovation around mission-critical functions.

Open

The move to more open government—meaning that people both within and outside an agency will be able to see who is developing, discussing, deciding, or implementing policies and programs, and to see the impact of their contributions—will be driven by two powerful engines.

The first is by the volunteers themselves. Two strong motivators that open government taps into are the desire for recognition and the desire for meaning. By showing who is participating in mission-critical activities, agencies recognize volunteers and organizations. By allowing those volunteers and organizations to track their contributions and see how



they affect policies and programs, agencies demonstrate the meaningfulness of their contributions.

Agencies are the second engine, primarily because they may be required to show who has helped determine their policies and who is responsible for their programs' performance. Additionally, agencies may find experts on policy or implementation whom they want to engage proactively, and they will be able to do so only if their records are open.

What agencies can do: Use as much open source material as possible; put as much data in the public sphere as possible; use open ticket-trackers for service requests; where permissible, live stream meetings and hearings and put recordings on a specific portion of the agency website.

Valued

While recognition and meaning are powerful motivational forces, rewards—both monetary and non-monetary—are also effective. Already, there is no shortage of contests and awards, for example, the SAVE, the Sammys, and HHSinnovates awards are only three examples of prizes for federal employees. In the next four years, some government agencies are very likely to replicate these types of programs for volunteering individuals or organizations.

What agencies can do: Conduct online chats—e.g., through Twitter or Skype—with people or organizations that participate in agency activities. Allow communities that coalesce around agency issues, on Facebook for example, to nominate individuals or organizations for awards that the agency offers, and allow senior management to bestow awards on winners.

Encouraged

All four of the previous trends, if they come to pass, will culminate in the fifth: more encouraged participation. In 2008, when many of the agencies' digital participation efforts launched, it may have been enough simply to initiate a program, inform a few media outlets, blogs, and websites, and wait for people to join a conversation or sign up for a program. Today, however, failing to design and implement comprehensive outreach is a recipe for failure. Part of the story of the next four years will certainly be federal agencies joining both mainstream and niche social media sites and engaging bloggers as well as traditional media outlets to promote their participation programs and showcase their successes.

What agencies can do: Identify important voices beyond the agency's walls—influential bloggers, highly active social media presences, on and offline community leaders—and



include them in discussions of agency tasks in which they have previously shown an interest. Find NGO organizations or CSR programs that work on agency goals and invite them to participate in relevant activities. In short, normal operating procedure should include listening to and talking with individuals and organizations outside government.

Participation in an Age of Social Media

Social media are not new, but they are renewing many Americans' desire and ability to participate in their own governance. The tools for people to share their thoughts, to share their work, to collaborate both online and off are no longer exotic or constrained by tethered or spotty access to the Internet. In the pockets of more than half of all U.S. citizens are devices that not only connect to social media all the time, but have sophisticated sensors that allow their holders to generate and capture all sorts of data that can be shared with the government or other citizens.

The next chapter in American history will be written in no small part by the multitudes who have already demonstrated that they have means and desire to participate. The success of their efforts will be determined in part by federal leaders who encourage meaningful engagement, innovation around agency priorities, and the creation of collaborative networks of citizens who are able to work with their government and one another to identify and solve pressing issues. ■

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The Next Four Years: Intelligence Community Reform Refining, not Rebooting

by Frank Strickland and Chris Whitlock

In the next four years the executive and legislative branches will pick up the recurring question of additional intelligence community reform. Did the Intelligence Reform and Terrorism Prevention Act of 2004 get it right? Is a sweeping reorganization of the intelligence community required to “fix the problem”? This article examines these questions and recommends a strategy with specific implementation details. While it is hoped the article will have value inside the intelligence community, it is especially intended for government leaders outside the community whose legislation and policy will drive any additional reform.

Understanding the Problem

The U.S. intelligence community is a collection of 16 agency and departmental organizations executing a roughly \$75 billion annual budget. The community’s mission to understand the world, warn of crises, and support national security actions—often against cunning and destructive threats—is a difficult one to put it mildly. We can describe the problem of managing intelligence in practical terms by considering it from two aspects: integrating the five functional intelligence disciplines, and applying the intelligence enterprise to the range of national security problems and questions.

The best intelligence requires the integration of five primary types of intelligence—signals (SIGINT), human (HUMINT), open source (OSINT), geospatial (GEOINT), and measurement and signatures (MASINT). This is not simply a matter of integrating the data produced by these five functional disciplines. The “connect the dots” metaphor has little resemblance to the object it seeks to describe. Technologist Jeff Jonas, who is not an intelligence professional, has a metaphor that closely resembles the reality of intelligence problems.

Imagine a giant puzzle with five different types of pieces—the five intelligence disciplines. As you try to fit together these different types of pieces, you eventually realize that pieces of the puzzle are missing. This is the inherent uncertainty in intelligence. There are some facts that determined



adversaries will manage to withhold until after the fact or perhaps forever. Worst yet, seemingly legitimate pieces of the puzzle are in fact bogus: they don’t belong to the puzzle you are assembling, although you don’t immediately recognize this problem as the pieces seem perfectly suited. This is the deliberate deception that cunning adversaries will execute to deceive intelligence about their actual capabilities and intentions. For the hardest targets—weapons of mass destruction, cyber, or terrorists—it takes multiple types of intelligence working together to accurately complete as much of the puzzle as possible, and properly characterize the uncertainty over the missing pieces of the puzzle. Bringing the intelligence disciplines together for this result is the work of intelligence integration.

Intelligence integration does not begin with collected data; it begins with the strategy for solving a problem. What is the customer’s problem? How will intelligence address that problem? What are the related intelligence hypotheses and questions? How do we analyze those hypotheses

with indicators and evidence? From an integrated intelligence strategy come collection and analysis focused on the customer's problem, ultimately creating intelligence that is integrated with the customer's operations. One discipline will at times answer part of an intelligence problem, but the best understanding of complex problems requires an integration of multiple intelligence disciplines, much as the brain's understanding of complex environments requires the integration of multiple senses.

Second, consider the breadth and depth of the problems intelligence must address. At the highest level, intelligence problems involve one or more national security topics, such as cyber attacks, presented as problems based on the behaviors of one or more state and non-state actors. Imagine an array of dozens of national security problems against hundreds of state and non-state actors. Of course, every problem-actor intersection does not require intelligence. For example, the problem of weapons of mass destruction (WMD) does not occur in every country, nor does every non-state actor present a WMD threat. However, the high-level priorities at the problem-actor intersection can number well into the thousands. For each of these problems, one can then envision multiple important questions requiring intelligence.

Now, imagine your job is to effectively and efficiently integrate the five functional disciplines against all of the problems in this array. Thus, you have a basic appreciation for the complex depth and breadth of managing intelligence, one of the daily challenges of the director of national intelligence (DNI). This is a problem that must be managed, as it cannot be solved. It is an ongoing challenge that requires more than organizational and budgetary controls.

Reforming by Refining, not Rebooting

Since the National Security Act of 1947, Congress and the executive branch have continuously sought to improve the management of intelligence. In just the past 30 years there have been nearly three dozen studies of how to improve intelligence community management. The Intelligence Reform and Terrorism Prevention Act (IRTPA) is the most recent legislative action to reform the community's performance and management. While the IRTPA has contributed to intelligence improvements, such as increased sharing of data on terrorism, most in and around the intelligence community would assert that managing the intelligence enterprise is still a work in progress.

The DNI has further focused the intelligence disciplines on integrated operations by establishing national intelligence managers (NIMs). These NIMs seek to facilitate integrated

intelligence strategies that support national security outcomes. Focusing all of intelligence on security outcomes and the integrated strategies that support those outcomes would seem an unquestionably good thing to do. Yet, the NIM approach is hardly wanting for skeptics and critics.

It may be that no amount of tinkering with organizational and budgetary authorities—or other classic bureaucratic levers—will substantially improve the management of intelligence. If that were the case, surely the issue would be put to rest now after dozens of studies, annual intelligence authorizations dating back to 1978, and the most sweeping piece of national security legislation since 1947 in the 2004 IRTPA.

When considering how to improve the management of intelligence, it is helpful to first recognize that the solution is not an end state. Intelligence, like the threats it confronts, is a living process; one that must constantly change to keep pace with the behavioral changes of the threats, their capabilities and intentions, and the world in which America and our adversaries and allies operate. Thus, improving the management of intelligence is an ongoing process, similar to the continuous improvement efforts required for enterprise management processes in competitive commercial enterprises.

Next, it is equally helpful to keep in mind that enterprise management processes ultimately depend on the personal relationships among the principals. The management of intelligence will never be simply an automated system that spits out answers. It rests first and foremost on the connections between intelligence officers and the customers they serve. The most exquisite requirements system ever imagined cannot offset the importance of these relationships. The relationship between the President and the DNI is the most important of these, but the principle applies down through all customer-intelligence officer relationships. These relationships are closely followed in importance by those between intelligence officers from the functions across the five major disciplines and the hundreds of capabilities within those disciplines. Relationships are developed and nurtured by people, especially leaders, and no amount of statute and policy can substitute for these relationships.

That said, managing an enterprise as large and complex as the intelligence community cannot be done through people and relationships alone, regardless of how competent and interrelated they are. Managing the intelligence enterprise requires many decisions regarding the allocation of operational and fiscal resources for desired security outcomes, assessing the effects of those decisions, and continuously

refining those decisions to achieve the best mix of desired outcomes across the breadth and depth of priorities outlined above. Managing intelligence is by its very nature a data-driven process, and analytics are required to complement the leaders' thinking and interactions.

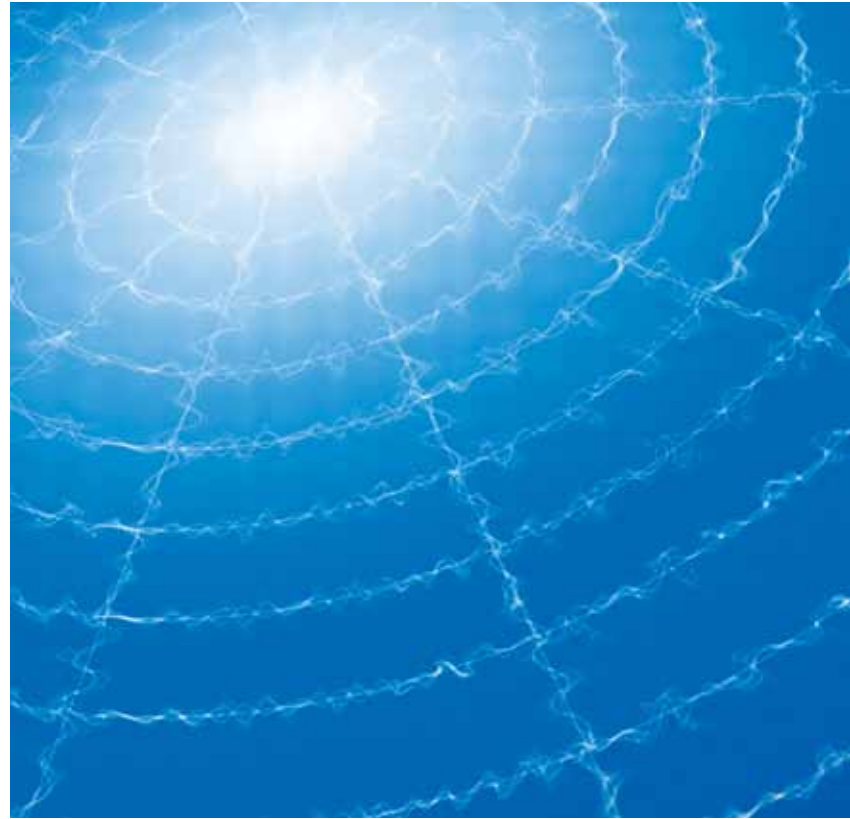
For an enterprise whose primary mission is data-driven analysis of threats, intelligence has been much slower in applying data and analytics to managing the enterprise. Historically, intelligence management was based on the experience and intuition of seasoned intelligence officers and too often on one or a handful of anecdotes. Experiential and intuitive judgment is essential to managing any complex enterprise, but the enterprise management system must serve experience and intuition with hard data and solid analysis.

Looking Forward

Looking into the next decade and beyond, the community faces some tremendous operational challenges. On the one hand, intelligence must become much more open and transparent, especially where speculative questions about the future are concerned. The best information and thinking about this century are not completely within the bounds of the intelligence community. On the other hand, some elements of intelligence must become even more clandestine or covert in order to penetrate the hardest targets. Stealing secrets will always be at the very core of the intelligence mission. Stealing secrets requires secret sources and methods.

The community must address these operational challenges in an era of constrained resources. It is easier to create new capabilities when programs are flush with funding than it will be in the next decade or so, when resources are flat or declining. The intelligence community is a mission-driven culture, one that naturally encourages operational innovation. Innovations in the management of intelligence—especially the allocation of scarce operational and fiscal resources across many competing priorities—come less naturally. Perhaps more reforms are necessary to help, but of what type?

One former intelligence agency director characterizes intelligence reform by noting that “the intelligence community has been on the operating table for the past decade.” There have been major organization and budget reforms during this time. The community has implemented these reforms while helping protect the American homeland and the nation's interests abroad. Further improvements in the management of intelligence may require different levers.



The IRTPA has driven substantial changes that have improved essential elements of intelligence, such as the sharing of information between agencies. The DNI's focus on the integration of intelligence has further strengthened collaboration among agencies against specific intelligence problems. In terms of an integrated approach to managing intelligence, the NIMs have made strides in promoting strategies, information sharing, and inter-organizational teamwork that better integrate the functional disciplines.

The work of sharing intelligence data and information between agencies will always be a work in progress. Effective intelligence services are continuously conceiving and creating new means to penetrate secrets. This leads to compartmentation which in turn requires ongoing efforts to appropriately share information. This too is a problem to be managed, not solved.

Given the substantial progress made in sharing information—and the tremendous volumes of information available to analysts and managers today—the primary challenge facing both intelligence analysis and the management of intelligence has likely shifted from sharing the data to making sense of it. While one may wish to tweak how enterprise management is organized—such as reducing the number of

NIMs or changing how the NIMs relate to the national intelligence officers—the major improvements in managing intelligence will be found in the use of data and analytics to inform the creation of intelligence strategies and assess how the community is performing against the strategies. Mission performance assessments based on hard data should start to regularly drive the allocation of not only operational capabilities, but budgeting for future capabilities as well.

Achieving this type of reform does not require a major acquisition program or additional staff added to the management processes. Commercial analytics capabilities have matured to the point that they are well suited for making sense of large volumes of disparate data types on the intelligence community's performance. The community and its customers' behaviors are well-instrumented, thanks to the proliferation of modern IT networks and systems. Analytics are able to gather and make sense of data on the community's performance and even how intelligence products are or are not adding value to customers' missions—the ultimate measure. These analytics can move the resource decision-making to a higher plane, away from simply discussing requirements, capabilities, and performance anecdotes to a more comprehensive discussion of intelligence value.

For the cynics, the point here is not that analytics will by themselves determine the value of intelligence or make decisions about resource allocations (although some level of automated resource allocation is entirely possible through automated activity models). The evidence, however, is clear that analytics can greatly improve the quality, timeliness, and coherence of decisions about the value of intelligence and how to get the most from limited intelligence resources against seemingly unlimited national security questions.

Benefits to the Mission

Focusing additional intelligence reforms on this more practical aspect of managing intelligence with analytics has four benefits to the intelligence mission.

Leaders can use data-driven performance assessments to focus the many constituents to any intelligence problem on the customer's need, the performance of intelligence against that need, and the alternatives for improving performance. This will not eliminate conflict in the bureaucracy, but it can help leaders create a culture of constructive conflict and timely decision-making and action, even in a large and complex enterprise.

Analytics can help smaller staffs bring together performance assessments from data available on the networks, minimizing

data calls on the operating agencies. Instead of investing time in responding to data calls, operating agencies can engage in the dialogue on the completeness, accuracy, and implications of the performance data. This should have the net effect over time of reducing the size of staff in the enterprise.

Data-driven assessments can help strengthen inter-organizational team performance and further intelligence integration by focusing teams on substantive mission issues clearly defined by data and analysis. This will not eliminate the organizational equities and turf brought to any inter-organizational effort, but it can greatly reduce this impediment to collaboration.

The greatest benefit, perhaps, is that this approach to further reforming the management of intelligence puts an immediate focus on improving the value of intelligence. Major changes in organizations, budgets, and other traditional bureaucratic levers of change are arguably unnecessary, and likely disruptive to the mission for benefits that may or may not come for some time into the future.

Summary

Perhaps the intelligence community requires some additional changes in the traditional elements of government reform. However, given the organizational and budgetary reforms made in the past decade and the mission and fiscal challenges ahead, the next phase of improvements in the management of intelligence will be best served by focusing on the use of data and analytics to assess and improve specific mission problems and the allocation of scarce resources. Performance management analytics will give the intelligence community and its customers the knowledge necessary to allocate operational and fiscal resources in an environment wherein many competing priorities and constrained resources are considered against the consequences of potential failures in our national security capabilities. Further improvements to the management of intelligence require focused refinements, but not a major rebooting of the intelligence community. ■

TO LEARN MORE

About the Center's Governing in the Next Four Years series, insights from the series are available online at www.businessofgovernment.org/content/governing-next-four-years.

by Chuck Prow

***Fast Gov*—An Upcoming Book by the IBM Center**

What is the value of time? Is it measured in cost, in service levels, in quality? If you were running a government agency and you could reduce your claims processing time from over 300 days to fewer than 60, what would that be worth to your agency and those it serves? If a police force could provide officers with real-time information on crime incidents and suspects, what would that be worth? If an agency utilized predictive analytics or a disruptive technology to identify improper payments before they were dispersed, not only would that agency save money, it would eliminate the reclamations process. In fact, the value of reducing or eliminating cycle time is arguably the single largest driver of improved mission effectiveness.

We see the value of time every day—in claims processing times, supply chains, lag-times from intelligence collection to analysis to action—in each of these cases, long cycle times mean higher costs, lower services levels, and diminished mission effectiveness. Making government work faster will enhance mission effectiveness, improve service levels, and reduce costs. That simple but powerful premise is at the heart of *Fast Gov*, an anticipated anthology that explores how a faster government helps create a more responsive and lower cost government. Time is an often-overlooked variable in the value equation. The book's contributors will discuss that by focusing on making government work faster; whether by redesigning processes, adopting new technology, or moving to embrace innovation and risk-taking, public sector leaders can improve services and reduce costs. Drawing on the experiences of a diverse group of authors, from private sector pioneers to political appointees to career public servants, *Fast Gov* provides real-world examples of how a focus on speed can transform government.

This upcoming work is a follow-up to *Governing to Win*, and will be released shortly by the IBM Center for The Business of Government. ■

A New Federal Performance Framework

By John M. Kamensky

Staff from the Office of Management and Budget (OMB) have been visiting agencies in recent weeks to explain a new performance framework they have developed for the federal government. The framework is based on recent legislative changes and is embedded in OMB Circular A-11, OMB's guidance to agencies on how they should prepare their budget requests for fiscal year 2014.

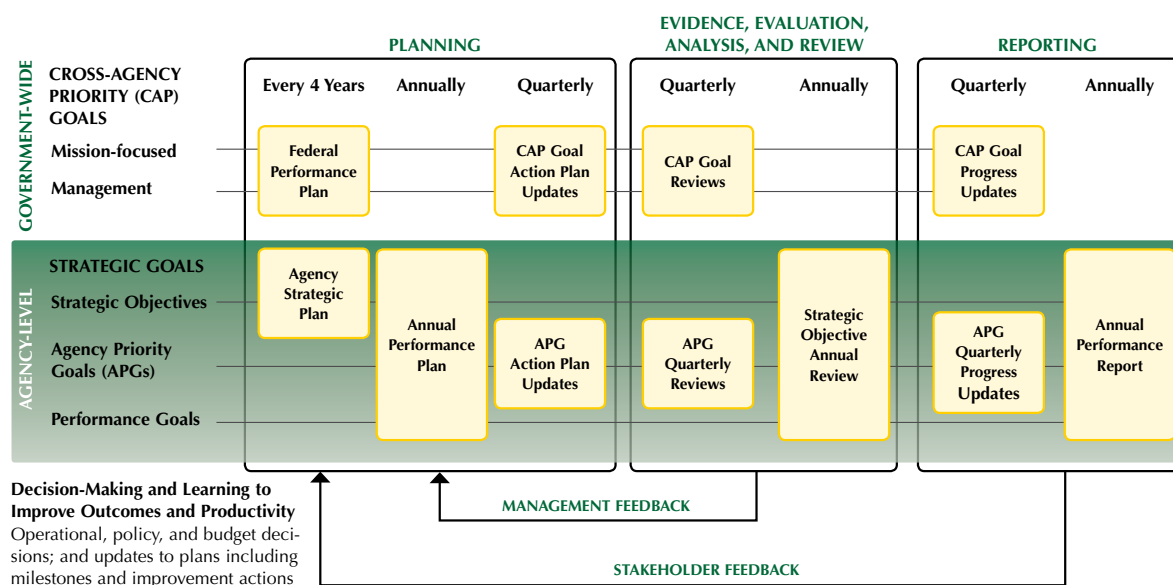
The new guidance provides a multi-year, phased roadmap for implementing the performance framework, which will significantly influence agency headquarters activities (see figure below). If agencies implement the framework properly, its influence should filter down to program-level activities in coming years as well.

I offer a high-level preview of what agencies should expect to see over the next few years. It focuses on:

- The revised strategic and annual planning processes
- The new strategic objective review process
- The new reporting process via Performance.gov
- Efforts to balance the need for compliance and process vs. setting priorities and making decisions

There are a number of other elements in the guidance that address additional requirements in the new law (refer to The New OMB Performance Guidance to Agencies on the following page), but these are not addressed here.

The New Federal Performance Framework



KEY UPCOMING DATES

Fall 2012: APG and Cross-Agency Priority Goal (CAP Goal) information (including performance indicators) published on Performance.gov, beginning quarterly updates.

February 2013: Agencies publish FY 2014 Annual Performance Plans (APPs) and FY 2012 Annual Performance Reports (APRs).

May 2013: Agencies publish program inventory, and show how programs support their goals and objectives.

February 2014: OMB publishes new CAP Goals on Performance.gov; Agencies publish FY 2014–2017 Strategic Plans, including new APGs, on Performance.gov.

February 2015: Results from first Strategic Objective Annual Reviews published on Performance.gov.

Background

Almost 20 years ago, Congress passed the Government Performance and Results Act of 1993 (GPRA). That law required federal agencies to develop multi-year strategic plans, annual performance plans, and measures of progress, and to report every year their progress against their annual plans.

In 2004, the Government Accountability Office concluded that, after a decade, the statutory requirements under GPRA “have established a solid foundation of results-oriented performance planning, measurement, and reporting in the federal government.” But there were concerns that this new supply of performance information was not being used by decision-makers to make data-driven decisions. There were also perceived timing and coordination issues. For example,

The New OMB Performance Guidance to Agencies

Long-standing OMB guidance outlines agency performance management and reporting responsibilities under the law. The guidance was significantly revised in August 2012—more than doubling in length—to reflect the new requirements of the GPRA Modernization Act and lay out a multi-year, phased implementation approach. Here are section-by-section highlights of the new guidance:

A performance governance framework: The guidance describes the roles and responsibilities of various officials (such as agency chief operating officers), provides definitions of the many terms used in the performance arena, and lays out a timetable for action. This section is a substantial revision of previous guidance.

Public reporting: The new law requires a one-stop performance web portal for all performance plans, reports, and programs across the government. This section describes what gets reported, by when. This section is new.

A federal performance plan and cross-agency goals: The new law requires OMB to develop a federal performance plan that details key cross-agency priority goals. This section is new.

Agency strategic plans: The new law changes the timing of when agencies are to update their multi-year strategic plans to align them with the four-year term of office for the President. The guidance lays out a new timetable, with all agencies submitting new plans by February 2014. This section is a revision.

Agency performance plans: The new law requires agencies to more tightly link their annual performance plans to their multi-year strategic plans, to the cross-agency goals, and to their own priority goals. Agencies must also identify “lower priority program activities” (at least five percent of their discretionary budget), as required by the new law. This section is a revision.

Agency priority goals: The new law requires the 24 largest agencies to identify between two and eight “priority goals.” The guidance lays out a process for refining or replacing existing priority goals, with drafts due to OMB by early summer 2013. This section is new.

Annual performance reports: Agencies typically report on their past year’s performance in November, as part of their financial reporting, or in February, as part of their budget submissions. The new law encourages more frequent reporting on at least their priority goals. This section is a revision.

Performance and strategic reviews: The new law requires two sets of reviews. One is a quarterly review of progress on agency priority goals. The other is an annual review and assessment of agency performance goals and objectives. The quarterly reviews have been a part of the Obama administration’s performance agenda, so they have been piloted. But the second set of reviews—of performance goals and objectives—is a new requirement that OMB plans to phase in. This section is new.

Federal program inventory: The new law requires a central list of all federal programs, along with description, financing, and performance information for each. This will be a massive undertaking, starting with the difficulty of defining what constitutes a program in the first place! This section is new.

Source: OMB Circular A-11, Part 6, “Preparation and Submission of Strategic Plans, Annual Performance Plans, and Annual Program Performance Reports” (August 2012).



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the original law required agencies to develop five-year strategic plans on three-year cycles. This did not match the four-year presidential election cycle. As a consequence, when a new President took office, the existing agency plans were often discarded.

In 2010, Congress adopted the GPRA Modernization Act. This new law substantially revised the original and attempted to both address the weaknesses of the old law and embed successful administrative practices developed over the past two decades. For example, the new law requires agencies to appoint performance improvement officers, a position created during the Bush administration that proved successful in creating a performance champion in each agency.

The new law made more than 150 changes or additions to existing law and included a complex timetable for implementation, as Figure 1 depicts. In response, OMB developed guidance to agencies on how they should implement these provisions. Four of the more significant sets of new requirements are summarized below.

Strategic and Annual Planning

The 1993 law required agencies to develop multi-year strategic plans and annual performance plans. The original vision was that plans should reflect organizational and leadership commitments to goals that key stakeholders agree are important, and that agency leadership would focus on strategies to pursue those goals, using measurement, data, and analysis to inform their choices and decisions. But what seemed to evolve was largely a compliance process disconnected from what agencies “really did.” The 2010 amendments try to fix that.

The Senate committee report explaining the new GPRA law notes that the timeframe for the development of multi-year agency strategic plans needs to be synchronized with four-year presidential terms.

Under GPRA, an agency is currently required to develop a strategic plan at least every three years to cover the following five year period. This reporting timeframe for updating strategic plans does not correspond to presidential terms. It makes little sense to require an update of a strategic plan shortly before a new administration is scheduled to take office, as changes in political leadership often result in new objectives and can render preexisting plans unuseful.

The new law requires that these four-year strategic plans be presented to Congress by the President with his first full budget, which is submitted one year after taking office. So beginning in early 2013, all agencies must begin developing new strategic plans, consult with stakeholders and Congress, and submit initial drafts to OMB on June 3, 2013, with final drafts for clearance by December 20, 2013.

What becomes more complex is that agencies must concurrently develop new annual performance plans (which will now have to cover two years instead of one—the current fiscal year as well as the subsequent year), and agency-level “priority goals” which would be a subset of their strategic and performance plans. In addition, they will have to show how these plans support any related cross-agency priority goals and how they link back to people and financial resources to support their implementation. Specifically, according to the Senate committee report, the new law:

. . . requires an agency to provide additional information about how the agency plans to achieve its performance goals by identifying clearly defined milestones, the agency officials responsible for ensuring each goal is achieved, and the program activities, regulations, policies and other activities that support each goal.

The OMB guidance says that this “should be considered in conjunction with” materials agencies traditionally submit with their annual budget justifications to Congress. And, for the first time, these materials will need to be “machine-readable.”

Strategic Objective Review Process

A provision buried in the GPRA Modernization Act of 2010 says: “Each fiscal year, the Office of Management and Budget shall determine whether the agency programs or activities meet performance goals and objectives outlined in the agency performance plans and submit a report on unmet goals . . . ” to the agency head, GAO, and various congressional committees.

Doing this at the program or activity level, however, would be daunting. There are more than 1,000 programs government-wide (at least that was the case under the Bush Administration’s Program Assessment Rating Tool). In response, OMB developed a novel way to meet this statutory requirement that enables broader strategic tradeoffs and increases the meaningfulness of the results of such a review. OMB accomplishes this by putting programs in the context of how they interact with each other around the achievement of meaningful outcomes.

OMB has developed a review process that focuses on assessments of agency strategic objectives—calling it the Strategic Objectives Annual Review (SOAR). This review will be used to inform long-term strategy planning and annual budgeting, to identify gaps in capacity, and to improve transparency. The guidance lays out a structured process for raising issues to agency leadership, and describes how progress under each strategic objective will be assessed.

Fiscal years 2012–2013 will be a transition phase, “because many agencies do not have strategic objectives set which are appropriate for such a review, or do not have appropriate data sources for each strategic objective.” OMB encourages agencies to develop a strategic objective review process and, using existing information in their current performance plans, include progress summaries in their FY 2012 annual performance reports.

Beginning in fiscal year 2014, all agencies will be required to begin assessing progress on their strategic objectives (which will have been updated as a part of their new strategic plans, due in February 2014). To prepare for this, OMB says the revised annual performance plans must be organized around agency strategic objectives.

But this isn’t just a new paperwork exercise. The new law requires OMB to assess whether agencies are making progress toward their planned levels of performance and to take action if it judges that a strategic objective is “facing significant challenges.” This tracking and reporting framework will begin “with the assessments completed for fiscal year 2014

Annual Performance Report . . . ” OMB says this will likely be in early 2015.

Performance.gov

The original 1993 law required agencies to prepare annual performance reports describing their performance in relation to the promises made in their annual performance plans. Ultimately, these reports were posted on the Internet by each agency when this became an accepted way of conveying government information. The new law goes much further. It requires a one-stop, government-wide website that provides the progress of every agency’s priority goals, an inventory of all agency programs, and is the repository for all agency strategic plans, performance plans, and performance reports.

Example of an Agency’s Strategic Objectives

Department of Health and Human Services

The HHS strategic plan has five strategic goals. The first is “Strengthen Health Care” which in turn is supported by six strategic objectives:

Strategic Objective 1: Make coverage more secure for those who have insurance, and extend affordable coverage to the uninsured.

Strategic Objective 2: Improve health care quality and patient safety.

Strategic Objective 3: Emphasize primary and preventive care linked with community prevention services.

Strategic Objective 4: Reduce the growth of health care costs while promoting high-value, effective care.

Strategic Objective 5: Ensure access to quality, culturally competent care for vulnerable populations.

Strategic Objective 6: Promote the adoption and meaningful use of health information technology.

Each strategic objective reflects a series of initiatives and programs, along with associated measures and resources. Some of these sub-initiatives are designated as Agency Priority Goals.

The challenge will be how to do this in a way that can make this large amount of information both useful and used by a range of different stakeholders. The Obama administration created a website in mid-2011, Performance.gov, which details its various management improvement initiatives. It was expanded in February 2012 to detail more than 100 agency and cross-agency priority goals established by the administration.

OMB guidance says this website will be further expanded beginning in December 2012 to include quarterly progress assessments of agency and cross-agency priority goals. Agencies will add their strategic plans, annual performance plans, and annual performance reports in subsequent years in machine-readable formats, as they are made available. For example, agencies will publish their fiscal year 2014 annual performance plans and their fiscal year 2012 annual performance reports on the web no later than May 31, 2013.

Compliance vs. Use

The new law and its many complicated requirements offer both promise and peril. A key challenge for leaders will be to avoid being overwhelmed by myriad process and compliance requirements under the new law and the accompanying OMB guidance. There will be a strong temptation in some agencies to create a team, staff it with experts, and let them comply with the requirements with professional-looking reports.

The real question for agencies and their leaders will be: how can the new federal performance framework be leveraged to create an evidence-based, performance-and results-focused organizational culture?

This won't be easy. A recent academic study by Drs. Donald Moynihan and Stéphane Lavertu examines federal employee survey results about the implementation of the earlier phases of GPRA to see if the law actually changed performance. They premise their analysis on the underlying assumption in organizational theory "that change among employees can be fostered by altering their routines ..." In a statistical analysis of the survey results, they conclude that the law's requirements "... have excelled at creating organizational routines for data collection and dissemination, [but] they have been less successful at creating routines for the use of these data."

Moynihan and Lavertu caution the implementers of the new law against being too optimistic about its chances of creating a new performance culture when they observe from the first two phases that: "GPRA and PART have been more effective



in 'passive forms of performance information use,' such as complying with requirements to collect and report it." And they conclude that this "tells us something about the limits of any formal government-wide performance requirements to alter the discretionary behavior of individual managers when such behavior is difficult to monitor."

Nevertheless, there are some encouraging signs with some agencies already pointing the way. The top leadership at the Departments of Housing and Urban Development and Health and Human Services are pioneers in implementing many of the requirements in the new law. For example, they already hold periodic progress meetings of senior officials and heavily rely on data-driven assessments of performance to make decisions and allocate resources.

In addition, five agencies, including HUD, Veterans Affairs, and the Department of Energy, are piloting a performance management approach called GEAR, which stands for Goals-Engagement-Accountability-Results. This pilot asks agencies to develop specific initiatives to "articulate a high performance culture" and to "align employee performance management with organizational performance management." The pilot agencies are using this approach to "create a culture of ongoing, continuous feedback between managers and employees." Ultimately, this approach may be expanded to other agencies and may be more significant than their being able to say, "we met OMB's requirements." ■

Road Hazards: Recognizing the Risks of Social Media

By Gadi Ben-Yehuda

The advent of social media has opened up new roads on which digital brigands operate, but the methods that they use are decades (if not centuries) old. One of the most effective means to diminish the risk is to develop, enforce, and routinely update a social media use policy. By doing so, agencies can greatly decrease the likelihood of highway mishaps.

Responding to the Risks

There are four main risks that agencies face when their employees are active in social media: stolen data, damage to devices or networks, diminishment of reputation, and loss of employee productivity. In response, agencies need to take steps to safeguard their data, secure their networks and devices, protect their online reputation, and maintain high productivity.

It is always tempting to focus on addressing particular vulnerabilities, such as infected e-mail attachments. A successful policy, however, should start with a clear understanding of what it intends to prevent—that is, it should focus on outcomes rather than methods. After all, the methods used to attack or disrupt agency systems and networks are fluid—the only constant is change. Threats are likely to change as quickly as new social media are introduced and new security loopholes are discovered (or created).

Arriving at desirable outcomes on a daily basis requires the coordination of agency leadership, IT staff, and all employees who use social media. A carefully crafted policy that all understand and follow will minimize the risks associated with using social media—providing necessary guidelines to reap its benefits while avoiding its perils.

Safeguarding Data

Robin Hood was perhaps the most famous highwayman. Though he would relieve rich travelers of their valuables, he allowed them to pass otherwise unharmed. Today's corollary is the hacker who breaks into networks and devices and steals the data they contain.



Data thieves have three main tools at their disposal. The first is malware, a portmanteau of malicious software, examples of which include viruses, worms, and trojans. Through malware, hackers can disable or bypass security protocols, record and transmit keystrokes, access sensors (such as cameras) on network-connected devices, or simply have data transmitted directly to them. The second tool available to hackers is accessing a network directly, either through guessing passwords, applications that run so-called alphabet attacks, or exploiting networks' vulnerabilities. Finally, hackers use social engineering to gain access to secured networks and devices.

Social engineering is a relatively new term for a centuries-old art. It involves winning someone's trust to trick or coerce them into divulging information or performing an action. Examples of social engineering might be sending someone a link through Twitter that then takes them to a malicious website. Another non-digital example might be calling



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someone in their office and impersonating a member of the IT staff and acquiring the person's logon information.

Social media have added new methods for all three types of attack. Professor Alan Oxley's recent report, *A Best Practices Guide for Mitigating Risk in the Use of Social Media*, published by the IBM Center for The Business of Government, details the many steps organizations can take to avoid a data breach, whether from malware or social engineering.

The most important step to safeguarding data is to develop a comprehensive social media use policy, which raises employees' awareness of the risks posed by social media and provides them with strategies to mitigate those risks.

Securing Networks and Devices

Sometimes, highwaymen target the vehicles—regardless of their contents—while others care less for the vehicles and command the actual road itself. The parallel in the digital world involves hackers who seek to control whole terminals by hijacking their systems and turning them into “bots” on a “botnet” that may then attack a third network, or by seeking to bring down entire networks out of malice or for some personal gain.

Network security companies such as McAfee and Kaspersky are constantly updating their virus protection databases with new viruses, but no software can protect systems from attacks that target not a computer, but the computer's user. For example, in the early 2000s one such attack came in the form of an e-mail sent to people by their friends: “[T]his virus has probably forwarded itself on to you. It is easily removed if you don't open the file (jdbgmgr.exe). It has a teddy bear icon and is not detectable by Norton or McAfee. First go to Start then the find or search option. In the files or folders option type jdbgmgr.exe. ... [T]he virus has a grey teddy icon. DO NOT OPEN IT. Go ... to file (on the menu bar) and DELETE...”

Though deleting that particular file did not pose a security risk, it would be every bit as easy to write a hoax e-mail that unaware users could follow to the detriment of their systems and networks. As with securing data, employees must take seriously the potential threats to their devices and the networks that support them; it is critical to understand the importance of securing their devices and working with their IT staff to implement and follow the use policies set by their leadership.

Protecting Online Reputations

When engaging with the public online, an agency is risking not only its digital assets, but its most important social asset: its reputation. In February 2011, the Red Cross became an example of how a single 140-character communication could undo much of the good will the organization had built up. That day, a tweet was sent out on the Red Cross's official feed that read: “Ryan found two more 4 bottle packs of Dogfish Head's Midas Touch beer ... when we drink we do it right #gettnslizzerd.” Thankfully, the Red Cross



Viewpoints

communications team turned what could have been a public relations nightmare into a marketing dream, when they tweeted “We’ve deleted the rogue tweet but rest assured the Red Cross is sober and we’ve confiscated the keys.”

In the summer of 2012, The Altimeter Group released a research report, “Guarding the Social Gates: The Imperative for Social Media Risk Management,” which found that organizations rank damage to their reputation as the primary risk posed by social media. The best way to manage this risk is the same one used to avoid traffic collisions: teach safe conduct on social media and have regular training sessions. For example, the U.S. Environmental Protection Agency (EPA) has developed a flow chart that helps its employees decide whether to ignore or respond to a social media message. Finally, it is vital to instill in all employees the understanding that their online behavior, especially at work, reflects on the organization.

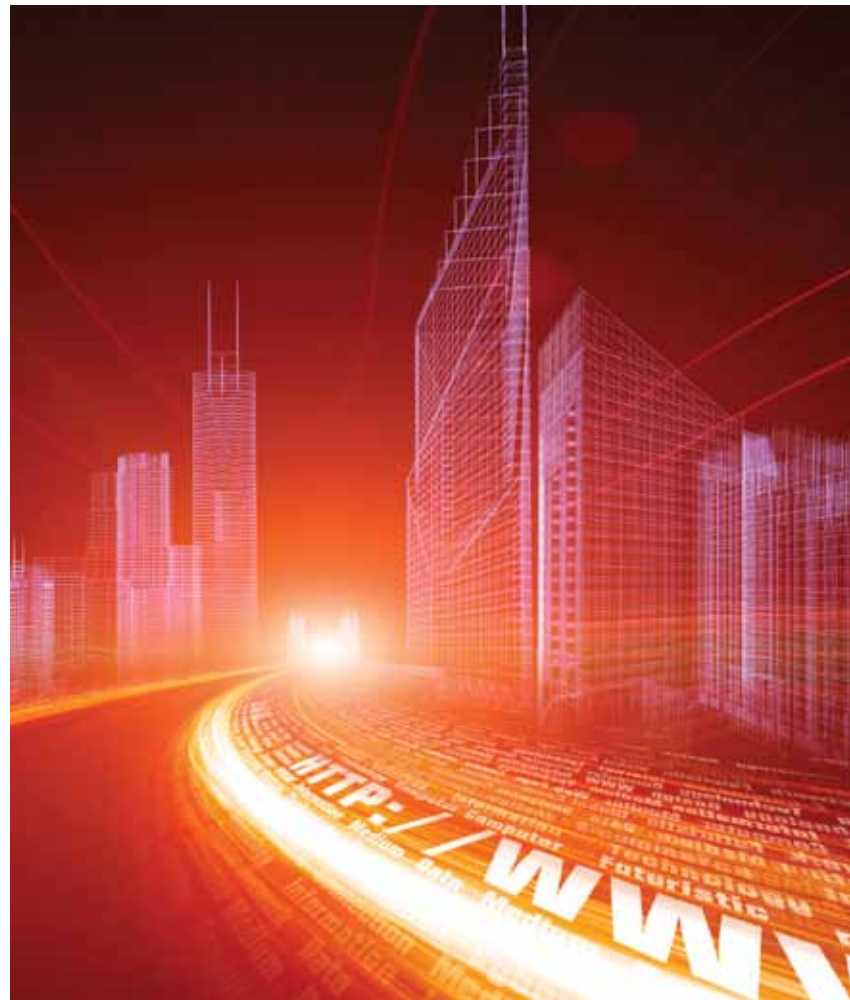
Maintaining High Productivity

Sometimes what impedes productivity is not a bad actor at all, but the many distractions of the road itself. Scenic overlooks, or the rapturous tableaux of foliage in early autumn, can cause even the most conscientious drivers to pull over for extended periods of leisure.

On the digital highways, personal e-mail, social games, and even distractions in the guise of news and information are always only a click away. Further, even as mobile devices have allowed work to seep into the home, they have also allowed personal activities—from shopping to trading stocks to commenting on a friend’s wedding photos—to enter the workplace.

The solution cannot be to ban personal connectivity devices, but rather to set productivity milestones and hold employees accountable for reaching them. In 2010, Washington, D.C.’s Office of the Chief Technology Officer began implementing a program called ROWE (Results Only Work Environment), which allowed employees literally to set their hours, but made them entirely responsible for accomplishing specified tasks in a set timeframe. That experiment was prematurely cancelled, so no evaluations were possible.

However, a University of Minnesota study of Best Buy’s ROWE programs demonstrated a 45 percent drop in employee turnover, and the company itself noted a 35 percent increase in productivity among participants. Social media tools made this program possible by enabling employees to collaborate easily.



New Rules for New Roads

Social media have become indispensable channels both for government agencies seeking greater citizen participation and for citizens and organizations looking for ways to participate in their own governance. Though sites like Facebook, Twitter, and YouTube present new perils, those risks can be managed; and properly mitigated, they can never outweigh the benefits of these powerful new tools.

To operate safely, agencies need only learn the rules for this new road. ■

Performance Budgeting in the States: An Assessment

By Yi Lu and Katherine Willoughby

This article examines the state of performance budgeting in the 50 American states. We examine the evolution and institution of performance budgeting across a decade featuring two economic downturns, including the Great Recession. We update the status of performance budgeting laws in state governments and then assess the relationship of performance budgeting and state fiscal health. We talked with 27 public officials and managers from 10 state governments about their performance budgeting systems in addition to analyzing data on state budget laws and measures of state fiscal health.¹

Our findings indicate that performance budgeting, if conducted consistently, benefits the long-term fiscal health of the practicing state government. Most significantly, such systems can provide government officials and managers the data they need to manage effectively through hard times.

Benefits and Challenges of Performance Budgeting

Performance budgeting, or performance-informed budgeting, is defined here as an information system requiring the development and reporting of performance measures that are applied to government programs, services, and activities; and a system in which decision-makers use these measures in the budget process. The potential benefits of this reform seem obvious. A well-constructed and implemented performance budgeting system should restructure a decision-maker's thought process from a strictly accounting to a performance-oriented one; that is, from bean-counting to an interest in return on investment.

Performance information that is accessible, reported, and transparent can help to:

- Break down silos among departments, agencies, and programs and across branches of government
- Bring public officials and managers together to develop and support government-wide goals and plans, thereby unifying the direction for government



- Provide decision-makers, constituents, the general public, and others with a better understanding of what agencies are doing, how they are doing, and what changes to policy may be necessary to reach determined goals

There are significant challenges to successfully implementing performance budgeting in government. The effort must be championed by leaders in both the executive and legislative branches. Agency and program managers and staff, program clients, constituents, and the general public must trust that their government leaders support the system and actually use the information produced to inform their decisions. It takes political will on the part of elected officials to acknowledge and digest performance information when deliberating about budget and fiscal plans.

Measurement itself is a challenge—agreement on what measures to use; development of realistic, meaningful, valid, and reliable measures; and a mix of qualitative and quantitative analyses are necessary components of a strong performance



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budgeting system. One executive budget director says:

Whenever you are going through development of a budget or reviewing a budget request ... you should never look at one single source of information as the absolute and definitive. Performance measures are one piece and then there is a variety of other types of analysis, both quantitative and qualitative, about what is going on in agencies ... about what they are accomplishing. [Performance measurement] doesn't tell you the answer to every question. Often it helps us identify more questions than answers.

Perhaps most important, there needs to be a culture that embraces continuous improvement rather than one that is punitive. Punishing agencies that do not meet performance targets (such as by cutting their budgets) hampers implementation. Performance budgeting systems are strongest where data informs rather than drives budgeting decisions.

Legislating Performance Budgeting: What Difference Does it Make?

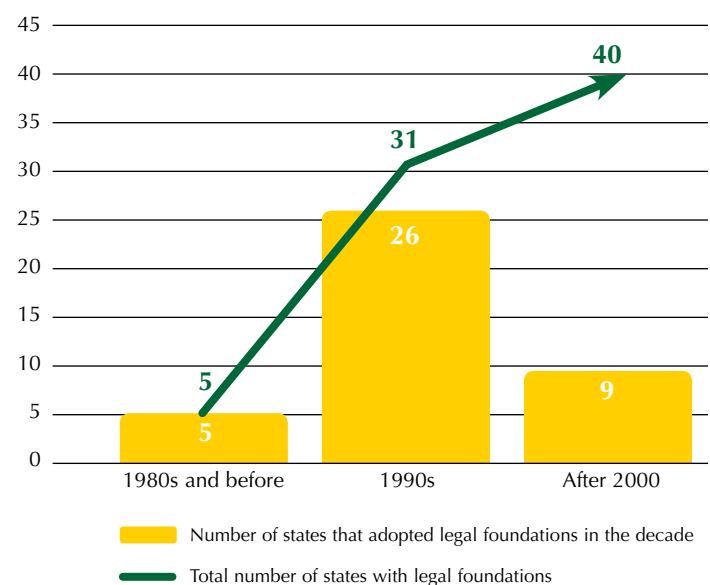
A vital foundation for an effective performance budgeting system is a legal requirement (Lu, Willoughby, and Arnett, 2009). And the more comprehensive the state law (legislation includes specifics regarding performance measurement development, information, and reporting, and clear stipulations of responsibility for information development and reporting), the stronger the performance system in action (Lu, Willoughby, and Arnett, 2011). The 1990s was an explosive decade for performance budgeting law in the American states, with 26 states adopting new performance budgeting laws. Just five states adopted such law in the 1980s or earlier.

By 2004, 33 states (66 percent) had maintained, amended, or added legislation requiring a performance budgeting system, while 17 states (34 percent) had an administrative requirement or executive mandate for such legislation (Melkers and Willoughby, 2004). An update of state performance budgeting laws indicated that by 2009, 39 had such legislation (Lu, Willoughby and Arnett 2009).

By January 2012, 40 states had a performance budgeting law on the books; the most recent addition is Pennsylvania.² Figure 1 presents the advancement of performance budgeting laws in the American states over several decades. Figure 2 ranks the 40 states with performance budgeting law according to the comprehensiveness of the legislation. Iowa and Alaska have the most comprehensive legislation.

We compared states with performance budgeting law versus those without against their Budgeting for Performance scores as graded by the Government Performance Project (GPP) in 2008.³ States with a law score higher for their performance budgeting systems as practiced. That is, 31 states with a law (79 percent) received mid-level or strong scores from the GPP for their conduct of performance budgeting, while four of 11 without a law (36 percent) received mid-level scores

Figure 1: Performance Budgeting Laws in States, by Decade





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for their use of performance information for resource allocation decisions.⁴ Most states without a law (seven of 11, or 64 percent) were scored as weak in their conduct of performance budgeting.

Does Performance Budgeting Matter to State Fiscal Health?

To assess the impact that a law and the practice of performance budgeting can have on state fiscal health, we collected data on performance budgeting laws and practices as well as measures of fiscal health in the 37 states with performance budgeting laws spanning the years from 2002 to 2010.⁵ We counted how many years a performance budgeting law was in place in each of these states for this decade to measure longevity of law. We used GPP scores for states in the management area, Information, as a proxy measure of the strength of practice of performance budgeting in these states across the years of interest.⁶ We calculated the following fiscal ratios for each state for each year in the decade of interest: current and operating ratios, long-term liability ratio, and expenses per capita (in real dollars).

After controlling for political, social, and economic factors, we found that:

- Law longevity is positively related to modest fiscal health improvement in two measures, current ratio and expenditures per capita. The longer a state has performance budgeting law on the books, the larger its current ratio. That is, a longer history of performance budgeting law positively impacts state liquidity.
- Longevity of a performance budgeting law dampens expenditures per capita. States that have laws in place for longer periods indicate significantly lower expenditures per capita than states where laws are new or quickly repealed. Lower expenditures per capita suggest stronger service-level solvency and less expensive government.
- Stronger performance budgeting systems (the proxy measure used for this was a higher GPP score for the use of performance information) lead to lower long-term finan-

cial liability ratios. That is, states with the strongest performance budgeting systems as practiced indicate stronger fiscal health in the long run, as evidenced by lower long-term liability ratios.

These results suggest that a consistent and strong application of performance budgeting positively impacts the long-term fiscal health of state governments. Over time, the culmination of decisions made using a performance budgeting system seems to foster stronger long-term solvency in these governments.

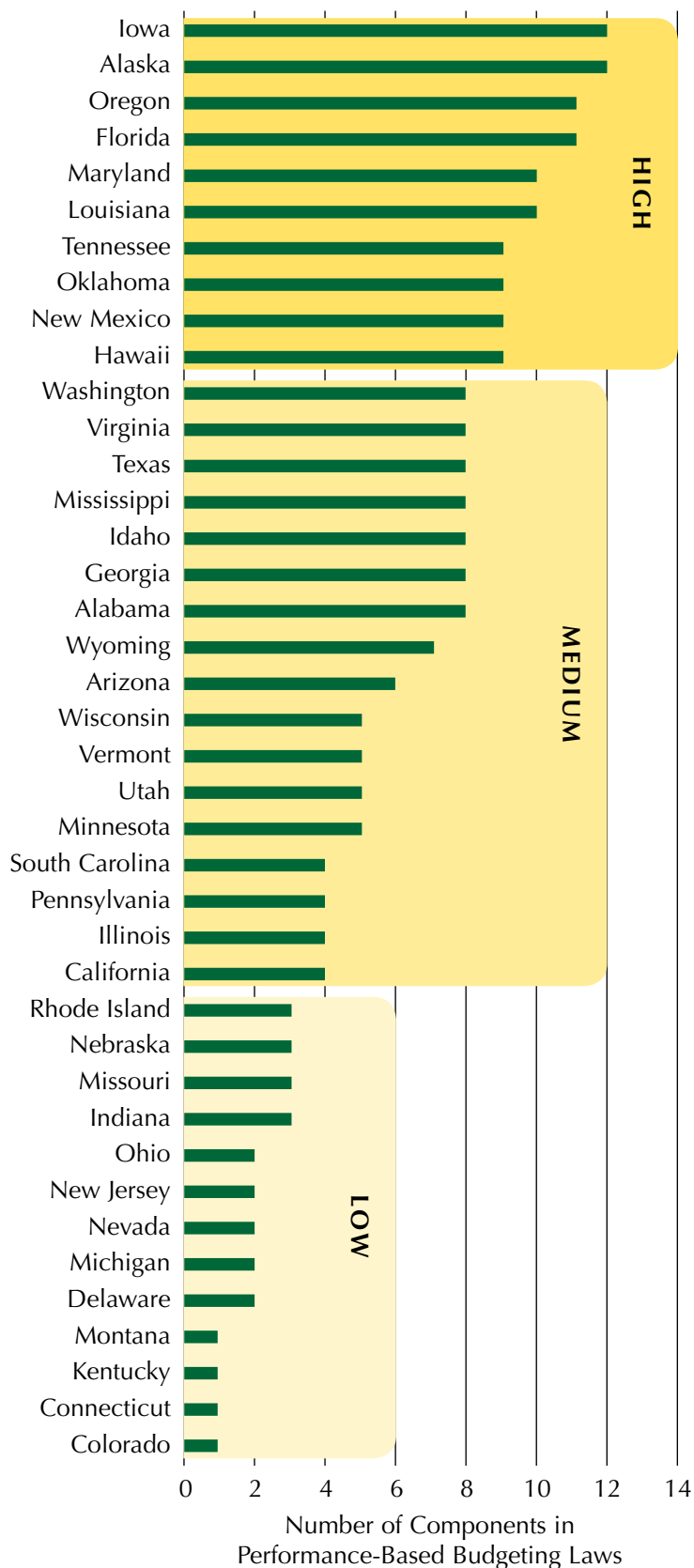
The Road Ahead: Recommendations

The most important finding is that there is a positive fiscal impact, albeit modest, related to legislating performance budgeting in state governments. The strongest impact of legally requiring and practicing performance budgeting is on government's long-term fiscal health.

Conversations with those whose states have a performance budgeting law say performance budgeting helps them make hard choices. In those states where performance budgeting



Figure 2: Comprehensiveness of Performance Budgeting Laws in the States



works (where the GPP score indicates that performance budgeting is strong), performance data may not be used for every budget decision, but when they are used, they are helpful and provide guidance. These systems suggest that it is important for the information to be there and for measures to be reliable and understandable. The result of using measures for decisions (sustained system implementation) is stronger fiscal health.

Given these findings, we set forth four recommendations for states to continue to advance performance budgeting:

- Recommendation One:** To the states that do not yet have performance budgeting law on the books, they should adopt a law prescribing a performance budgeting system to hasten system implementation. Legislating performance-informed budgeting improves the odds of shared responsibilities between the executive and legislative branches. Our research shows that the longevity of legal foundations for the conduct of performance budgeting is positively associated with cash solvency (higher current ratio) and service solvency (lower expenses per capita).
- Recommendation Two:** To the 40 states that have a performance budgeting law, they should periodically revisit and update it to strengthen what works and to repair or discard what does not. Tweaking laws improves comprehensiveness and can strengthen the use of performance information for decision-making. Specific attention to key components of law presented here can help strengthen an existing performance budgeting system. As an official commented in one state well known for using benchmarks that had been tracked for 20 years, the benchmarks needed to be refreshed, “the system needed a jumpstart.” Continuous attention to revise legislation as well as the process renews the culture of performance management and budgeting.
- Recommendation Three:** To all states that seek a strong performance budgeting system, they should create and cultivate a dialogue related to performance information among all staff, managers, and decision-makers in the process. The dialogue, to use one interviewee’s comment, “makes people ask themselves why are we doing this and what is the result we are expecting out of [it]? It starts a set of thought processes.” In addition, a performance dialogue emphasizes the social context of measurement that is different from auditing. According to another state official, “benchmarks are most useful, but what comes from that is a means to connect agencies with the community and creating a dialogue, what do agencies do? ... The [funding] decisions should not be driven by data, but informed by data.” This is the function of a performance dialogue.



- Recommendation Four:** To all states that seek a strong performance budgeting system, they should make the investment today and use it to focus on the long-term fiscal impact of a consistently practiced system. Particularly important is the investment in staff. One official reports, “At end of day, the most important thing you need is experienced staff. There’s no substitute for well-trained, experienced staff that understands what they are looking at when they look at the data. You could have performance data, but if you don’t have staff that understand and interpret and know the questions to ask then it’s just information and doesn’t do you any good. Experienced staff want multiple sources of information and pieces of data to help them make decisions.”

The research findings presented here indicate that having a performance budgeting law in place over time positively impacts state government fiscal health. Interviews with state officials from ten states that have performance budgeting law confirm the benefits of creating and using performance information for budgeting, as well as the challenges to conducting performance budgeting well. The results here are conclusive: a sustained commitment to performance budgeting improves the long-term fiscal health of American states. More specifically, performance budgeting, when consistently practiced, provides state officials, managers, and decision-makers the data they need to manage through hard times. Performance budgeting is well worth the investment. ■

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Notes

- We interviewed a mix of budget, finance and audit officers, managers, and analysts in the executive and legislative branches of ten state governments. Interviews were from 20 minutes to an hour each and were conducted from January to June, 2012. The sample included the following: executive budget office (10, representing eight states and including one group interview of three from one office); transportation department (5); legislative fiscal or budget office (7, representing six states with one group interview of two from one office); department or division of audits or performance audits (5). Those interviewed were assured confidentiality and are not personally identified here. Comments are identified by position title or office and branch of government and not by name or state.
- As of January, 2012, ten states do not have performance budgeting laws, including Arkansas, Kansas, Maine, Massachusetts, New Hampshire, New York, North Carolina, North Dakota, South Dakota, and West Virginia. These states may have had such laws in the past and/or may have vestiges of past administrative reforms or executive requirements for performance budgeting.
- The second criterion used to grade states on their management of information was titled Budgeting for Performance and was defined as “Elected officials, the state budget office and agency personnel have appropriate data on the relationship between costs and performance and use these data when making resource allocation decisions.” This criterion serves as the GPP’s proxy measure for performance budgeting as practiced in the states. For more information about the GPP surveys on state government management, measurement criteria, and scoring methodology, go to: <http://www.pewstates.org/projects/government-performance-project-328600>
- Pennsylvania just passed its performance budgeting law in 2012 and so is counted as a state with no law for the calculations here.
- Out of the 40 states with performance budgeting laws, Alaska, Nebraska, and Pennsylvania are not included in this analysis. Alaska is a fiscal outlier; Nebraska is a political outlier, and Pennsylvania adopted its performance budgeting law outside the timeframe under study.
- This variable is created using GPP grades A to D (scored A = 10, A- = 9, etc. to D = 1) for Information and Managing for Results in 2001 (average score serves as proxy for years 2002 and 2003); Information grades in 2005 (proxy for years 2004, 2005 and 2006) and Information grades in 2008 (proxy for years 2007 to 2010). Information grades in 2005 and 2008 incorporated criteria included in Managing for Results in the 2001 GPP. That is, Managing for Results was not a separate, graded category in the 2005 or 2008 GPP.
The Information criteria include five categories of measures: (1) strategic direction, (2) budgeting for performance, (3) managing for performance, (4) performance auditing and evaluation and (5) online services and information. For more detail about the measures within these five categories, go to: <http://www.pewstates.org/projects/government-performance-project-328600>

Key Actions That Contribute to Successful Program Implementation: Lessons from the Recovery Act

By Dr. Richard Callahan, Dr. Sandra O. Archibald, Kay A. Sterner, and Dr. H. Brinton Milward

Less than a month after taking office, President Obama signed the American Recovery and Reinvestment Act, a \$787 billion piece of legislation that provided temporary dollars to 28 agencies through more than 200 programs. This was equivalent to doubling domestic discretionary spending over the following year.

The Recovery Act also set tight deadlines—70 percent of the money had to be committed by September 30, 2010 or it would expire. It also contained a number of unprecedented transparency and accountability provisions as well as a number of new programs that would have to be designed and deployed, often with few additional staff resources. Furthermore, since it was the beginning of a new administration, few political appointees were in place. In fact, only 14 percent of top-level appointees were in place by the end of the first 100 days of the administration.

So how did federal agencies manage this massive implementation challenge?

Nine case studies prepared by federal agency executives and interviews with federal agency staff involved in implementing the Recovery Act provide insights on what federal executives faced and how they responded. The challenges faced by these agencies spanned the spectrum of challenges faced by other agencies. One agency—the Public Buildings Service—saw its construction budget increase fivefold. Another agency—the Department of the Treasury—had to develop guidance for, and implement, a \$60 billion new bond program for states and localities, which set precedents for the next 30 years. And the Department of Labor found itself reengineering worker protection programs to streamline approval and certification processes so the Department of Transportation could authorize transit construction grants to states and localities.

In some cases the new approaches developed to manage Recovery Act implementation were temporary and agencies returned to their standard operating procedures. But in a majority of cases, agencies adopted the newly developed processes as their standard way of doing business. Examples

include the streamlined contracting processes developed by the Department of Veterans Affairs and the place-based reporting system developed by the Department of Housing and Urban Development.

The federal government faced a formidable set of challenges in implementing the Recovery Act. In nine case studies and interviews with federal executives, four challenges consistently emerged.

Challenge One: Creating Cross-Agency Governance and Accountability Structures

The Office of Management and Budget (OMB) took the early lead in developing guidance for what agencies would report under the Recovery Act. President Obama then designated Vice President Joseph Biden to lead the implementation, and the Vice President created a team to direct this effort from his office.

Vice President Biden asked a former OMB deputy director for management, Edward DeSeve, to return temporarily to federal service and serve as the lead for this effort. DeSeve, who had been serving as an informal implementation advisor, accepted the Vice President's invitation.

DeSeve chose to use a network model for how he organized the Recovery Implementation Office (RIO), where his office served in the role of convener and problem-solver rather than as a source of regulations or direct services. For example, he coordinated twice-weekly calls for the first two years of the act's implementation with major federal agencies. These calls focused on transmitting information about recipient reporting, prevailing wage guidance, Buy America provisions in the act, spending targets, and other details regarding implementation.

On the weekly calls, agencies discussed problems they were having and how others could help. For example, if an agency had problems with the timetable for congressional notification of a project in its district, it would ask RIO to help streamline the notification process so the funds could be



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distributed quickly. This led to the development of a 24-hour rule that allowed agencies to proceed if the White House had not notified the members of Congress first.

OMB instituted weekly financial reporting from agencies to track how fast monies were being obligated. RIO served as the agencies' point of contact for this reporting, which was displayed every Friday on Recovery.Gov, the website created by the independent Recovery Accountability and Transparency Board.

The network model was used among stakeholders other than federal agencies to develop guidance and get feedback far more quickly than traditional methods. This allowed guidance to be developed faster and implemented more quickly than normal. OMB issued implementing guidance the day after the Recovery Act was signed into law and followed up with 10 additional, major guidance documents over the next 10 months. This unusual pace was made possible by establishing a real-time feedback loop with recipient stakeholders and federal agency staff.

Nine Action Steps for Managing Large Initiatives

The case studies and interviews undertaken for this report revealed shared practices in how federal career executives responded to the myriad challenges imposed by the requirements of the recovery. The following action steps could serve as future guides for executives who find themselves facing similar challenges:

- **Action Step One:** Set deadlines to create a sense of urgency. Statutory deadlines focused agency leadership on key priorities and fostered entrepreneurial behaviors to find ways around traditional operating practices. Self-imposed interim deadlines maintained momentum.
- **Action Step Two:** Create dedicated project teams. Most agencies created project offices so senior executives could devote full-time attention to meeting program demands.
- **Action Step Three:** Use technology to track progress. Off-the-shelf technology provided departmental secretaries and program managers in the field access to real-time data that had never before been available.
- **Action Step Four:** Anticipate bottlenecks and streamline processes. Existing processes would not work because they were too slow. Agency executives quickly identified potential bottlenecks and redesigned processes, often by centralizing efforts in the project leadership offices.
- **Action Step Five:** Build in transparency and accountability. The Recovery Act created new expectations, governance structures, and tools. It also provided significant funding to track spending and progress. These were largely web-enabled approaches not used on this scale before.
- **Action Step Six:** Identify risks and manage them. The law explicitly required risk identification and risk management techniques with a focus on prevention of fraud and abuse, rather than the traditional approach of catching malfeasance after the fact. This was made possible by the transparency tools noted in Action Step Five.
- **Action Step Seven:** Foster real-time learning. As implemented, the Recovery Act placed a strong emphasis on sharing experiences across programs and levels of government to spur real-time learning. Although not a statutory element, this was a basic operating premise adopted by the Vice President's Recovery Implementation Office and replicated across agencies.
- **Action Step Eight:** Create horizontal networks. Cross-agency networks were a hallmark of the Recovery Act's implementation, again fostered by the operating premises embraced by the Recovery Implementation Office.
- **Action Step Nine:** Embrace adaptation as a mindset. Agency career executives found themselves largely on their own, given that only a few political appointees were in place. The Recovery Act's urgency encouraged career executives to innovate and improvise in ways that ran counter to traditional operations, but were appropriate given the circumstances.



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Challenge Two: Managing a Spending Spike in Existing Programs

The Recovery Act mandated that 70 percent of the monies—about \$551 billion of the total \$787 billion—had to be committed in 17 months, from the time of enactment in February 2009 to no later than September 30, 2010. Otherwise, the spending authority would lapse and the monies would no longer be available. This created a huge spike in spending for a number of programs in the 28 agencies receiving monies under the Recovery Act. For comparison, total non-defense, non-entitlement government spending for FY2009 was \$580 billion. Some programs experienced breathtaking increases. For example, average annual spending for the Department of Energy's home weatherization program was \$210 million, but under the Recovery Act, the program was appropriated an additional \$5 billion and given three years in which to spend it.

How did agencies manage this increase? The Fish and Wildlife Service is a good example.

Fish and Wildlife Service's decentralized implementation to its regions. The Fish and Wildlife Service in the U.S. Department of the Interior saw a spending spike from its typical level of about \$80 million a year to \$280 million—about three years' normal workload—added on top of its normal workload. The Fish and Wildlife Service (FWS) has a small headquarters operation and a highly decentralized field structure with over 700 different entities and varied work processes in each of its eight regions.

The service designated its headquarters business office to coordinate the implementation effort and oversee contracting. But it also respected the tradition of a highly decentralized field culture. FWS relied on increased levels of cross-regional and cross-program standardization, coordination, communications, and reporting.

Each regional office created its own temporary Recovery Act implementation team to coordinate efforts. These interdisciplinary teams were given the responsibility and authority

to make the key day-to-day decisions necessary to keep hundreds of Recovery Act projects moving ahead. Rather than focus funding in the traditional way by providing monies to program areas (such as the coastal program or the migratory bird program), it instead focused funding decisions on individual projects. Headquarters established a centrally controlled master project list for the first time to track progress on projects. Originally the list was intended for mandated external reporting, but its value as a tool for internal transparency and accountability quickly became apparent.

Once the project approval and guidance development phases were completed, the key role of headquarters shifted to oversight and support for the regions. The Fish and Wildlife Service's headquarters business office sponsored regular help forums for regional leaders to discuss Recovery Act-related issues and created a centralized reporting tool to manage the external queries for project information, which in some cases occurred weekly.

Challenge Three: Creating New Programs

The Recovery Act also created a number of new programs that immediately challenged agencies to develop new program guidance, application forms, and management systems in short order. Agencies found that they not only had to move quickly, but they needed to build in risk mitigation strategies so they could manage any potential unforeseen circumstances arising from the speed with which they had to act.

The Department of the Treasury was charged with implementing several of these new programs, each of which had significant future financial ramifications, and this required careful risk assessments of the implications posed by the implementation guidance developed for the programs.

Creating the Build America Bonds program. Treasury was also charged with creating an alternative to the traditional tax-exempt bond which, while issued by states and localities, receives a borrowing subsidy indirectly through a federal tax exemption to investors for interest received on the bonds. But



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with the bond market largely inactive because of the financial crisis, the federal government sought an alternative way of injecting capital into state and local construction projects.

The new bond program has the federal government deliver borrowing subsidies directly to state and local governments. Called Build America Bonds, the bonds themselves are taxable, but the federal government pays states and localities 35 percent of the bond coupon interest up front.

The new program required Treasury and the IRS to develop new:

- Guidance
- Processes
- Forms
- Legal and policy decisions

Typically major new programs would take years to develop these procedures, in part because of the huge financial consequences extending over the 30-year life of most bonds. But the new direct payment bonds were required by law to have guidance issued within 90 days and the program to be fully functional in six months. This was done on time, but IRS formed a compliance team to monitor bond issuances and protect the taxpayer's investments from fraud and abuse. This included risk assessments and mitigation strategies to predict and preclude misuse of the program.

Because the program was so new and novel, Treasury also had to develop an education and outreach program so that traditionally risk-averse states and localities would feel confident in participating in this new program. The efforts worked. By the end of 2009, total bond issuances surpassed \$60 billion, representing 20 percent of new municipal debt. In FY2011, the program was made permanent at a 28 percent subsidy rate and the program became a model for other tax credit bond programs.

Challenge Four: Redesigning Administrative Processes to Meet New Demands

In most agencies involved with implementing Recovery Act programs, traditional agency administrative processes had to be rethought in the context of the new timetables, transparency, and accountability provisions of the Recovery Act. This included:

- Risk management
- Contracting
- Grants management
- Program reviews

How agencies responded differed and in some cases the Recovery Act changed dynamics with the recipients of federal aid. For example, the Recovery Act injected about \$280 billion into nearly 70 grant programs to states and localities. Since the monies included new spending, transparency, and accountability requirements—including reporting from sub-grantees and sub-contractors—this required significant redesign of traditional administrative processes in a compressed timeframe at the federal, state, and local levels. Sometimes processes in other support agencies had to be redesigned, as well.

Employee Benefit Security Administration. The Employee Benefit Security Administration (EBSA) in the Department of Labor oversees the implementation of COBRA-extended health insurance. Under this law, laid-off employees have the right to continue their health insurance coverage for 18 months, but must pay the full premium costs, which can be prohibitive for the unemployed. The Recovery Act provided a 65 percent premium subsidy to employers for eligible individuals. This was a new program to be implemented by employers, not the government. But if a terminated employee was judged ineligible by their employer, Labor would serve as the focal point for an adjudication appeals process. While EBSA had a wealth of technical expertise in COBRA, it had never had adjudication responsibilities. As a result, it had



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to design and implement a process from scratch, and the law required a resolution of any appeal within 15 business days. In addition, because the eligibility period predated the Recovery Act, operations would begin with an urgent backlog. ESBA created a cross-functional team that flow-charted the appeal process, created an electronic paperless system, developed staff training, and devolved implementation to its existing field offices within 90 days. In the first four months, more than 20,000 adjudications were conducted in the 15-day timeframe and only two were challenged in court. The paperless correspondence system created for the appeals process was so effective that it was ultimately integrated into ESBA's normal operating system.

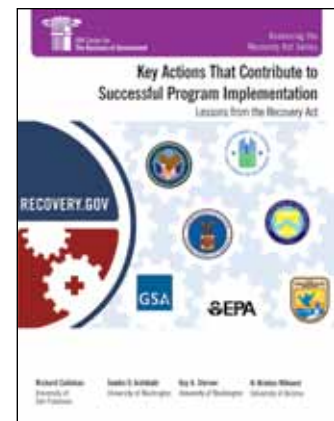
Conclusions

The Recovery Act demonstrates a new way of doing business. The implementation of a variety of Recovery Act programs offers a range of practical lessons from the perspective of the federal executives managing and leading the efforts. The application of these lessons in future arenas might become one of highest yielding investments made under the Recovery Act.

Federal executives—and their state, local, and nonprofit counterparts—did not accept business as usual when implementing the Recovery Act. They developed, designed, and delivered programs that accounted for the dollars spent and the performance delivered in innovative ways that advanced the standards of public service inside and outside of government. ■

TO LEARN MORE

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by Dr. Richard Callahan,
Dr. Sandra O. Archibald,
Kay A. Sterner, and Dr. H.
Brinton Milward



The report can be obtained:

- In .pdf (Acrobat) format at the Center website, www.businessofgovernment.org
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- By calling the Center at (202) 551-9342

Challenge.gov: Using Competitions and Awards to Spur Innovation

By Dr. Kevin C. Desouza

Over the past three years, the Obama administration has been encouraging federal agencies to engage citizens in solving public problems by increasing the use of electronic participation platforms. The America COMPETES Act—adopted in 2010—provides statutory support for conducting public contests and providing awards to winners. The Office of Management and Budget issued a memorandum in March 2010 on agencies' use of challenges and prizes to provide agencies with more guidance on how to conduct such initiatives.

One of the most prominent approaches to engaging citizens has been the creation of the government-wide website, Challenge.gov. Launched in September 2010, the website presents information on 199 competitions held from its creation until August 2012, when this report went to press. This cross-agency site is a one-stop platform that includes all the contests sponsored by federal agencies and their partners. These competitions range from those with large prizes and ambitious goals, such as the development of autonomously operated vehicles for the Defense Department, to those with smaller prizes targeted to smaller challenges such as the creation of an app to track the arrival status of local buses.

Using Competitions to Spur Innovation

Competitions use monetary and non-monetary awards as incentives to drive participation in solving public problems. There is a rich history of using prizes to spur achievement and recognize excellence. The private sector has long realized the value of sourcing ideas and solutions from outside the organization.

There have been several private-sector competition platforms. One of the most well-known is InnoCentive, the competition crowdsourcing platform of choice for organizations such as Procter & Gamble and the National Aeronautics and Space Administration to find innovative solutions to problems. InnoCentive's competitions and awards—open to a wide range of participants—have led to notable solutions such as dealing

with oil spill recovery and developing a simpler manufacturing process for drugs fighting tuberculosis. The solution for the latter came from a scientist in India, and the former from a citizen whose expertise was in the concrete industry. For a detailed analysis of the role of prizes in industry and government, see Luciano Kay's 2010 report for the IBM Center.

Competitions have several valuable features that make them ideal for solving problems. First, through a prize, organizations have the ability to leverage limited resources better than they could through traditional mechanisms (e.g., contracts). For example, the Ansari X PRIZE awarded \$10 million to the winning team. The X PRIZE Foundation was able to leverage its investment 40:1, with teams investing over \$100 million and with \$1.5 billion in public and private expenditure to support the private space flight industry.

Second, competitions allow for the hedging of risks—you only have to pay the winner.

Third, competitions allow for the leveraging of collective intelligence. Collective intelligence helps source solutions from the masses rather than a select few experts. When prizes are announced and participation is open, seldom do the winners originate from the "usual suspects."

Fourth, through competitions, public agencies can draw attention to causes. For example, First Lady Michelle Obama held a competition to develop Apps for Healthy Kids as part of the Let's Move! campaign that is drawing attention to the issue of childhood obesity in the U.S.

And finally, today, advanced information and communication technologies are enabling engagement of a wider audience for competitions without the traditional constraints (e.g., geography). For all of the above reasons, competitions allow government to empower citizens as co-creators of solutions to address problems, and even to participate in the realization of opportunities.



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Implementing a Challenge

After nearly two years of operation, what can be learned about the use of Challenge.gov, the government-wide platform created for agencies to conduct contests and awards? What types of challenges are undertaken on that site versus other sites? Which agencies use it the most? What kinds of prizes are awarded?

There are a number of key steps that federal agencies must undertake before launching a competition on Challenge.gov. These steps involve:

- Identifying and assessing the problem
- Describing the desired solution
- Selecting the target audience
- Developing criteria for judging
- Setting milestones



DARPA Shredder Challenge

(Defense Advanced Research Projects Agency, Department of Defense)

Description of Competition: DARPA's Shredder Challenge calls upon computer scientists, puzzle enthusiasts and anyone else who likes solving complex problems to compete in the challenge by piecing together a series of shredded documents. The goal is to identify and assess potential capabilities that could be used by our warfighters operating in war zones, but might also create vulnerabilities to sensitive information that is protected through our own shredding practices throughout the U.S. national security community. Presently, a variety of techniques exist for reconstructing shredded documents including manual assembly, fully automated (computerized) algorithms and hybrid operator-assisted approaches.

Monetary Prize: \$50,000

Number of Submissions: 9,000

Dates of Competition: October 27, 2011 to December 2, 2011

Winner (\$50,000): A small San Francisco-based team correctly reconstructed each of the five challenge documents and solved their associated puzzles. The "All Your Shreds Are Belong to U.S." team used custom-coded, computer-vision algorithms to suggest fragment pairings to human assemblers for verification. In total, the winning team spent nearly 600 man-hours developing algorithms and piecing together documents that were shredded into more than 10,000 pieces.

Competitions for Local Government

The Bloomberg Philanthropies, supported by New York City Mayor Michael Bloomberg, launched a \$9 million competition during the summer of 2012. The Mayors Challenge is a competition "to inspire American cities to generate innovative ideas that solve major challenges and improve city life."

Twenty finalists will be announced during the fall of 2012. Teams from each of the finalist cities will attend a two day workshop in New York City where the teams will work together to improve one another's ideas. Nearly 400 cities have applied as of mid-August 2012. The deadline for applications was September 14, 2012.

The five winning cities will be announced in the spring of 2013. The winning city will receive the \$5 million grand prize, with the four runner-up cities each receiving a \$1 million prize.

Selection criteria include:

- **Vision:** Demonstrate a novel and visionary approach to a challenge faced by cities
- **Ability to Implement:** Reflect thoughtfulness in planning for budget, resources, duration, and key milestones
- **Replicability:** Must address a challenge that is relevant to multiple cities
- **Impact:** Must show the potential to impact one of the following:
 - Address social or economic problems
 - Improve customer service for residents or businesses
 - Enhance accountability of or engagement with the public
 - Create efficiencies that make government work better, faster, and cheaper

For more information, visit the Mayor's Challenge website: mayorchallenge.bloomberg.org.

Upon receiving clearance from the general counsel of the agency, agency managers work with the Office of Citizen Services and Innovative Technologies at the General Services Administration (GSA) to upload the competition on the Challenge.gov platform. GSA creates a moderator account that allows personnel from the sponsoring federal agency to manage the particulars of their competition on the platform. The Office of Citizen Services and Innovative Technologies also works to promote competitions to the general public through press releases, Twitter feeds, and updates on its Facebook site.

Competitions posted on the Challenge.gov platform include competitions sponsored by one federal agency, by two or more agencies, or sponsored jointly by a federal agency and private-sector entities. Examples of each type include:

- The Occupational Employment Statistics Challenge was sponsored by one agency, the U.S. Department of Labor.
- The My Air, My Health competition is being sponsored by both the Department of Health and Human Services and the Environmental Protection Agency.
- The 2010 Progressive Automotive X PRIZE, aimed at creating a new generation of super-efficient vehicles, was a joint initiative of several organizations, including Progressive Insurance, Cisco, the Department of Energy, and the state of Michigan.

There is a wide range in the scope of competitions, which includes:

- Competitions seeking solutions to technical challenges (such as the Power Beaming Challenge and the Nano-Satellite Launch Challenge)
- Competitions related to social and policy issues (such as America's Home Energy Education Challenge and the Equal Pay Apps Challenge)

While the Challenge.gov platform is open, the submission and eligibility requirements are set by the sponsoring federal agency. For example, competitions, such as the Apps for

Energy competition, can restrict the age of participants, as well as require participants to be citizens or permanent residents of the United States.

Awards for winning competitions range from cash prizes to non-monetary prizes, such as certificates and events that recognize the winners. Judging the submissions can be done by an agency-selected panel, public voting, or a combination of both.

While Challenge.gov serves as a platform for running federal agency competitions, it also serves as a hub where competitions conducted by federal agencies on alternative platforms are advertised. For example, several agencies host competitions on other platforms such as the private sector-based InnoCentive program. In these cases, the Challenge.gov platform is used as a gateway to share information with the public on the competition, and then route users to the external platform where the competition is actually hosted (i.e., submissions are accepted, judging details are posted, etc.). ■

TO LEARN MORE

Challenge.gov: Using Competitions and Awards to Spur Innovation
by Dr. Kevin C. Desouza



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Five Methods for Measuring Unobserved Events: A Case Study of Federal Law Enforcement

By John Whitley

Law enforcement can face tough measurement challenges, but the fields of statistics and econometrics have developed a framework for dealing with them and it is useful to begin with a brief overview of that framework. All violations of a federal law can be thought of as elements of a prospective data population. The scope of the population can be defined in various ways—e.g., immigrants illegally entering the United States in a calendar year, or the illegal drugs smuggled across the southwest land border between the United States and Mexico. To effectively manage their operations, federal law enforcement officials need insight into these unobserved violations; i.e., they need to know the properties or parameters of this population of data, such as its size and distribution.

Five methods that can assist government performance analysts in estimating basic information on unobserved events are introduced and described here.

Method One

Administrative Records: Once a performance manager has identified the outcomes that need to be measured and is beginning the task of developing a measurement strategy, the first action is to identify all relevant data currently captured by the agency or by others. In the best-case scenario, the performance manager may discover relevant data at a lower level in the organization (e.g., at the field offices) or in another organization (e.g., in a survey conducted by the Census Bureau that asks a pertinent question).

Or it could be that estimation of the outcome is possible, but that multiple sources of data have to be combined and those sources are spread across organizations. For example, Immigration and Customs Enforcement is responsible for law enforcement concerning individuals who enter the United States on visas, but violate the visa by overstaying the required departure date. The rate of visa overstay, however, is unobservable to federal law enforcement. The number of visas issued and their required departure dates are known, but who actually departs and when is not. Everyone leaving

Example of Using Administrative Records Recidivism Analysis

The U.S. Border Patrol (USBP), within the DHS Customs and Border Protection, is responsible for controlling the U.S. land border with Mexico between the Ports of Entry (POEs). USBP maintains a detailed database called ENFORCE



on all apprehensions of illegal border-crossers. When illegal border-crossers from Mexico are apprehended and returned to Mexico, many try again within a relatively short period of time. In fact, if all who were returned attempted to cross again, the fraction apprehended a subsequent time would constitute an estimate of the apprehension rate. With an estimated apprehension rate in hand, it is then possible to estimate the flow of illegal border-crossers.

A challenge with this approach is that every individual who is apprehended and returned does not attempt a subsequent crossing—the first apprehension acts as a deterrence (referred to as at-the-border deterrence). This means that recidivism analysis by itself does not solve measurement challenges, but it can provide an important part of the solution in situations where it is appropriate. If it can be combined with estimates from other sources on the deterrence effect of apprehensions, it can be used to create an estimate of apprehension rate and, subsequently, the rate of illegal immigration.

John Whitley is a Senior Fellow at the Institute for Defense Analyses (IDA). His work at IDA includes resource allocation and performance issues in national security, defense resource management analysis, and the study of immigration policy. He is also an adjunct lecturer at The George Washington University in the Trachtenberg School of Public Policy and Public Administration, where he has taught National Security Economics.



the United States by commercial air or maritime transport is known because they are identified in passenger manifest documents maintained by the transportation companies. Thus, a major portion of the performance measure can be estimated by combining data from government visa records with commercial transportation passenger manifests.

Example of Using Surveys National Crime Victimization Survey (NCVS)



Many state and local crimes leave aggrieved victims and physical evidence and are more likely to be reported to law enforcement officials than some federal crimes are. But this reporting is still not perfect, and the records of these reported crimes may

not represent the full extent of the crime committed. The NCVS is one method law enforcement officials use to understand and measure potential undercounting.

According to its official website, the NCVS surveys a nationally representative sample of about 40,000 households on criminal victimization in the United States. Each household is interviewed twice during the year. The data are then used to estimate the likelihood of victimization by rape, sexual assault, robbery, assault, theft, household burglary, and motor vehicle theft for the population as a whole as well as for segments of the population such as women, the elderly, members of various racial groups, city dwellers, or other groups.

More information on the NCVS is available from the Department of Justice at <http://bjs.ojp.usdoj.gov/index.cfm?ty=dcdetail&iid=245>.

Method Two

Surveys: Surveys are a commonly used data collection method in policy and social science research. Surveys involve asking a set of questions to a sample population. They can be conducted by telephone or mail, online, or in person. The goal is to obtain a sample of sufficient quality, e.g., size and representation, to enable inferences to be drawn about the population from analysis of the data. Surveys may be conducted on a regular, recurring basis to create estimates through time or can be conducted on a one-time basis to answer specific questions at a point in time.

There are numerous surveys already being conducted by the government and private organizations that provide valuable information on federal law enforcement issues. The U.S. Bureau of the Census and its many supporting surveys provide some of the most comprehensive data about the United States. Other federal agencies conduct a wide range of surveys that include specific emphasis on law enforcement issues, such as the National Crime Victimization Survey (NCVS) discussed in the National Crime Victimization Survey box. Surveys are also conducted by academic researchers, think tanks, and private companies. In some situations, there may already be a recurring survey conducted that is close to, but not exactly, what the performance manager needs; a cost-effective way to get started is to partner with the organization conducting the existing survey to expand it in a way that would be useful for the law enforcement performance measurement.

Method Three

Inspections, Investigations, and Audits: Criminal or administrative investigations offer another way to systematically collect an accurate data sample. The important point about using investigations in the context of measuring unobserved events is that the investigations must be in some way random. In typical law enforcement operations, proactive

Example of Using Audits National Research Program



The Internal Revenue Service (IRS) within the Department of the Treasury is the nation's tax collection agency and administers the Internal Revenue Code. The tax gap is the IRS's measure of tax liability that is not paid on time. The IRS National

Research Program (NRP) measures the tax gap using randomized audits.

Most IRS tax audits are targeted to those tax returns for which there is suspicion of non-compliance. These audits cannot be used to develop an estimate of overall compliance because they are not a representative sample of all tax returns. The NRP, therefore, conducts audits on a random set of tax returns to develop an unbiased estimate.

The NRP originally drew samples every few years of about 45,000 individuals. In 2007, it switched to an annual sampling of 13,000 individuals. This allows the IRS to make more frequent estimates and more accurately monitor trends. The majority of individuals selected will have their tax returns confirmed through in-person audits with an IRS examiner. The IRS will also use matching and third-party data to confirm the accuracy of the tax returns.

investigations are prioritized to follow the most important clues or those that are most likely to lead to a major arrest or disruption of crime. Investigations prioritized in this manner may not provide statistically valid estimates of the underlying level of criminal activity. Conducting investigations on a more random sample of potential illegal activity represents a major cultural shift for law enforcement operations, but limited and systematic use of them can be a powerful way to collect information about the outcomes the law enforcement organization is trying to effect. See the National Research Program text box for an example of this method.

Method Four

Experimental Methods: Another method involves actually adding or modifying law enforcement activities in the field

Example of Using Field Experiments Randomized Secondary Screening

The Office of Field Operations within U.S. Customs and Border Protection (CBP) is responsible for screening all individuals entering the United States at Ports of Entry. With 340 million individuals entering the United States at these ports per year, this is a high-volume process. All individuals are subjected to a primary screening procedure to ensure compliance with U.S. entry law.



To empirically estimate the failure rate of the primary screening process, CBP randomly selects a sample of the entrants at both air and land ports to conduct a more thorough examination for major violations. Major violations involve serious criminal activity, such as possession of narcotics, smuggling of prohibited products, human smuggling, weapons possession, fraudulent U.S. documents, and other offenses serious enough to result in arrest. For the air domain, passengers are selected in a random sample that totals 12,000 passengers annually (1,000 passengers per month) at each of the 19 largest international airports. Similarly, for the land domain, passengers are selected in a random sample that totals 12,000 passengers annually (1,000 passengers per month) at each of the 25 largest land border ports. These sample sizes were selected to obtain an overall 95 percent confidence level in the estimates.

in ways that may facilitate estimation of the crime rate. In controlled environments like Ports of Entry or airport security screening, this could involve selecting a randomized subset of individuals who pass the primary screen for a secondary, more rigorous screen. The rate at which violations are identified in the secondary screen can be used to infer the failure rate of the primary screen. The Randomized Secondary Screening text box describes how CBP conducts these randomized secondary inspections at Ports of Entry. This method is not restricted to physical screening—application processing and other forms of information-based screening can also have randomized secondary evaluations conducted to evaluate the accuracy of the primary screening process.

Example of Using Technical Measurement Measuring Drug Production



A major area of federal law enforcement is combating the smuggling of illegal drugs into and within the United States. Although some drugs have significant domestic production, e.g., methamphetamine, many drugs are predominantly produced internationally and smuggled

into the United States, e.g., cocaine. Identifying the flow of illegal drugs into the United States is an important measure, but unobserved to federal law enforcement officials.

The U.S. Government and the United Nations both produce systematic estimates of drug flows and these estimates start with technical measurement by satellite and aerial imagery. For cocaine, the U.S. estimates are produced by the Inter-Agency Assessment of Cocaine Movement (IACM). These estimates use Intelligence Community (IC) imagery of coca-producing countries to estimate the total level of cultivation. Subsequent analyses include likely harvest yields, refined product yields, distribution destinations (i.e., how much goes to U.S. markets versus markets in other countries), and flow across individual vectors or pathways (e.g., overland through Mexico versus maritime transit through the Caribbean). The final estimates are thus produced by combining many of the different methods described in this report, but the estimation starts with technical collection by satellite and other imagery.

Example of Using Technical Measurement Counterfeit Detection



The original mission of the U.S. Secret Service, now within DHS, was to investigate counterfeiting of U.S. currency. Although presidential protection was later added and is now what the Secret Service may be best known for, the Secret Service remains the

primary law enforcement organization on counterfeiting. Working with the Federal Reserve Board (FRB), the Secret Service is able to estimate the level of counterfeit currency in circulation in part through technical measurement.

Method Five

Technical Measurement: Although there are many more methods that can be used, the final method described here is technical data collection. Well-known examples at the state and local level include red-light and speeding cameras and, more recently, gunfire detectors in some major cities. Examples at the federal level include the use of sensors, radars, and unmanned aerial vehicles to detect illegal immigrants crossing the border, and radiation detectors and X-ray screening of containerized cargo entering the United States. See the Measuring Drug Production and Counterfeit Detection text boxes for examples of this method. ■

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Designing Open Projects: Lessons From Internet Pioneers

By David T. Witzel

Using Open Project Design at the Office of the National Coordinator for Health Information Technology

The Department of Health and Human Services's Office of the National Coordinator for Health IT (ONC) is working to expand adoption of electronic health records, connect physicians to each other and to a national information network, involve patients in their health care, and broadly improve public health. To achieve these ambitious goals, ONC has been using Internet-like, open project approaches in a number of programs and even outlined similar concepts in their Design Principles document that has guided recent project efforts. This case study provides a brief overview of two initiatives, using ONC's experience to illustrate what the tips from Internet pioneers look like in practice.

Background

In 2004, President George W. Bush called for widespread adoption of interoperable electronic health records and established the Office of the National Coordinator for Health IT to make it happen. The mission and scope of ONC greatly expanded in 2009 with the passage of the American Recovery and Reinvestment Act (ARRA), which established the Medicare and Medicaid electronic health record (EHR) incentive programs providing billions of dollars to providers and hospitals that adopt and "meaningfully use" health IT. The first set of requirements for meaningful use include recording medications, sharing patient health records for referrals, implementing clinical decision support, and reporting quality results.

ONC has worked with collaborators to define standards, services, and policies for communicating health information, collectively dubbed the Nationwide Health Information Network (NwHIN). ONC's goal with NwHIN is to "provide a secure, nationwide, interoperable health information infrastructure that will connect providers, consumers, and others involved in supporting health and healthcare. This critical part of the national health IT agenda will enable health information

to follow the consumer, be available for clinical decision-making, and support appropriate use of healthcare information beyond direct patient care so as to improve health."

ONC's challenge is to get a wide variety of organizations, including more than two dozen federal agencies, state and local governments, hospitals, insurers, patients, and some 800,000 doctors, to coordinate so that:

- Health data are securely shared
- Health care and health improve
- Costs go down

Major components of the NwHIN effort include:

- Negotiation of definitions, standards, and policies to support various kinds of information exchange
- Development, prototyping, and adoption of software to support exchange engagement with a diverse community of health professionals, vendors, patients, and government staff to refine, test, and implement these approaches

CONNECT Software

CONNECT is the current incarnation of a software development effort that started in 2007 to share health-related data among the more than 20 federal agencies that house and use it. It is an open source package that implements NwHIN standards. The project claims "more than 2,000 organizations—including federal agencies, states, healthcare providers, insurers, health IT vendors—all working together to improve the CONNECT solution."

Started as a traditional government software effort developed by interested federal agencies under the auspices of the Federal Health Architecture, CONNECT was developed under a contract with Harris Corporation in 2008. The software was released as open source code in 2009 under a license that places few restrictions on modification or redistribution. As of March 2012, it is in release version 3.3. The Department of Veterans Affairs, Department of Defense, and Thayer County,

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Nebraska are among the organizations that have begun to implement components of the CONNECT package.

The CONNECT project was actively engaged in building a software developer community for its product, and hosting a series of code-a-thons around the country. In addition to providing access to all source code online, the project offers a wiki, online forums, and online issue tracking open to contributors. Project managers are available for direct contact and questions, the projects host webinars and training seminars, and even architecture discussions are held on open conference calls.

In May 2011 a forked version of the software was released as Aurion in a project managed by the newly formed Alembic Foundation. Started by two of the original CONNECT architects, the new foundation is developing open source software starting from a CONNECT codebase while extending decision-making for the direction of development beyond federal agencies.

ONC has announced a new generation of Connect, Connect+, that will, among other things, be restructured to simplify deployment. In 2012 ONC intends to spin off both NwHIN Exchange and the Connect software into external, public-private organizations. These new homes will manage governance and planning as well as development of the software.

NwHIN Direct

As the *New York Times* explains, “A basic challenge is for doctors, hospitals, patients and public health authorities to be able to easily and securely share information—things like a person’s vital signs, diagnosis, lab tests and drugs prescribed. A fancy electronic patient record, unconnected, is just an expensive way to capture data.”

The NwHIN Direct Project, launched in 2010, is intended to address this challenge and replace the fax machine with an easy, standardized way to exchange health care information

electronically. Currently, even doctors using the same brand of health record software might not be able to exchange information, while those with different brands of software have little hope of electronic exchange. Direct is intended to improve quality, speed transfer, and security, and lower costs for sharing patient data.

With Direct, ONC took an even more dramatic step toward open systems development. Foregoing responsibility for any software development, ONC focused on defining technical standards and services with the expectation that project partners would implement.

Representatives from electronic health records vendors, medical organizations, health delivery networks, federal and state governments, and consultants have participated. Work has proceeded in a series of work groups convened by ONC, with over 200 organizations committed to active involvement and implementation.

Direct is based on widely adopted Internet standards, including e-mail protocols for transport (SMTP), content sharing (MIME), and security (X.509). The approach is intended to be widely applicable and able to be integrated with existing electronic health record packages and health information exchange platforms, as well as foster new products and services.

ONC had a clear focus to drive its efforts—coming up with an easily adopted mechanism for two providers to securely share patient health information. Arien Malec, former coordinator for NwHIN Direct, says the project has had an “iron mission, flexible tactics.” He explains, “We had a goal (universal addressing and transport for content-neutral, secure, directed exchange for health care) and stuck with it, through thick or thin, but were willing to try almost anything and compromise on almost anything to get there.”

This meant deliberately not including other potentially important but potentially distracting issues. The design

What is an Open Project?

The concept of openness is used in a number of disciplines. In systems theory, an open system is one that continuously interacts with its environment. In technology, it is one that supports open standards and can therefore be made to interoperate with other computer systems. In science, it means a system that allows matter or energy to flow across system boundaries.

We now talk about open source software, open data, open standards, even open education. For our purposes, the concept of “open” can be used to modify projects or organizations as well. An open project or organization tends to have porous, flexible boundaries and is receptive to contributions, resources, ideas, and direc-

tion from the outside. This is in contrast to “closed” projects and organizations which have internally defined objectives and tightly controlled resources, participation, and information flows.

Most of the organizations we work in—government and nonprofit—are traditional closed organizations, with clear-cut boundaries for employment, funding, and responsibilities. This report imagines closed organizations exploring the possibility of managing open projects that have more fluidity and exchange with their environments and with other organizations and projects. The hypothesis is that, in some situations, this approach will increase the value created for society while sharing the cost of production.

Contrasts between Closed and Open Management Approaches

Closed	Open
Tight control	Loose control
Clearly defined objectives	Fluid, emergent objectives
Enforceable deadlines	Flexible deadlines
Proprietary assets	Non-proprietary, shared assets
Secrecy expected	Secrecy discouraged
Resources are capped, tightly controlled, closely held	Resources are shared, without central control, distributed
Formal methods and processes are implementable and enforceable	Processes are harder to enforce
Superior in static settings	Superior in complex, dynamic settings
Implements known approaches	Discovers unknown approaches
Responsibility clear	Responsibility hard to identify

principles of Direct Project state, “Don’t let ‘perfect’ be the enemy of ‘good enough;’ go for the 80% that everyone can agree on ... before focusing on the more obscure” interpreted as “when in doubt, cut it out.” For example, questions about how to find doctors’ Direct addresses (similar to e-mail addresses), while interesting and probably valuable, was an issue deliberately defined as out-of-scope.

ONC has encouraged participation by a wide range of affected and interested organizations and people. Technology providers like Microsoft and Google, health data companies like Surescripts and Allscripts, representatives of medical providers like the American Academy of Family Physicians, consultants, and regional health agencies are involved.

To help manage participation, ONC has used a variety of communications channels. However, it is through their wiki and code archives that much of the detailed learning is

shared and practical decisions made. The Direct Project wiki, actively used for documentation and coordination, lists over 800 members. ONC has conducted face-to-face boot camps attended by state partners. Notes and recordings from those sessions are available online.

One of the benefits of open participation has been innovation from the edges. Malec recalls being approached at a conference by someone wanting to participate in The Direct Project. Malec says, “He was from an obscure company in Minnesota that I’d never hear of before and clearly wasn’t on my hit list of folks I wanted to get involved. I told him: we’ve got a wiki; the best way to get involved is to go participate and add value.” The new participant proceeded to provide a helpful test model for how the architectural components could be provided and his company ended up being the first to launch in production.

ONC Results: A Preliminary Assessment

While ONC's work is still young, some early indicators are positive. The open source CONNECT Project reports that over 2,000 organizations have downloaded or contributed to it. Whether the forking of the CONNECT codebase to Aurion will advance HHS's objectives is yet to be seen. It is possible that moving Exchange and Connect to private organizations will respond to external demands.

Meanwhile, live implementations of the Exchange protocols are in place across the nation, with 35 companies implementing in 2011 and over 40 states building Direct into their strategies to support health information exchange. Over two dozen companies are developing products and services to integrate or build upon ONC's efforts. Direct has been incorporated into the proposed regulations for the second stage of "meaningful use" to provide a ubiquitous mechanism for information exchange.

HHS's Office of the National Coordinator is an example of a government agency taking the lead to explore, demonstrate, and benefit from open project approaches like those that built the Internet. Projects like CONNECT and Direct that

involve diverse organizations, coordinate the efforts of many people, and create products that can be widely used and reused, demonstrate new ways of thinking about government service provision. ■

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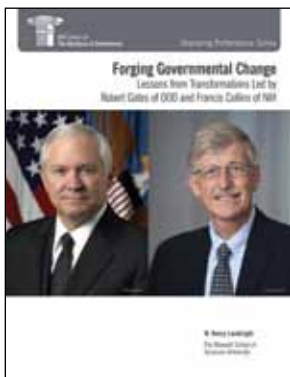
Recently Published IBM Center Reports



From Data to Decisions II *Partnership for Public Service*

In its 2011 report on analytics use in the federal government, From Data to Decisions: The Power of Analytics, the Partnership wrote about the tremendous budget pressures federal agencies face at a time when there is great public demand for government to be more effective and efficient. This report's release sparked an overwhelmingly positive response from agency leaders and federal performance management practitioners who asked, "Where do we go from here? How do we get an analytics program started?"

Their reactions demonstrated a hunger for understanding how to develop and grow an analytics culture within their agencies and incorporate it into how they perform their mission. This led the Partnership and IBM to join forces on another study to look at day-to-day practices that can help build and sustain an analytics culture, drive meaningful changes, and achieve mission results.



Forging Governmental Change: Lessons from Transformations Led by Robert Gates of DOD and Francis Collins of NIH *W. Henry Lambright*

This report continues the IBM Center's long interest in leadership and transformation. In Robert Gates, former secretary of defense, and Francis Collins, director of the National Institutes of Health, Professor Lambright has identified two outstanding government leaders who both led transformation initiatives in their organizations.

Professor Lambright found many similarities in the challenges faced by Gates and Collins and in their effective responses to these challenges. Lambright concludes that experience and leadership skills really do matter, and that both leaders set clear goals and offered clarity as to means. The report also describes how both overcame opposition to their transformation initiatives.



Best Practices for Leading Sustainability Efforts *Jonathan M. Estes*

This report examines the sustainability processes of three organizations, two of which are private and one public. It also identifies three recommendations that demonstrate the critical success factors for meeting sustainability compliance.

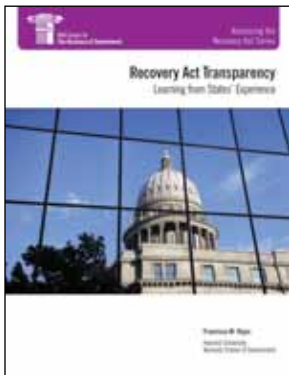
The purpose of this report is to provide practical, timely best practices for public-sector stakeholders and leaders based on independent research from representative organizations. The three case studies were selected because of their long history and continued commitment to sustainable practices and the relevance of their business model for federal agencies as they develop and implement their sustainability plans.



Collaboration Across Boundaries: Insights and Tips from Federal Senior Executives
Rosemary O'Leary and Catherine M. Gerard

Senior Executive Service members today clearly recognize that their job involves collaboration within their agency, their department, and the federal government, as well as with key external partners and stakeholders.

This report, which continues the IBM Center's long interest in collaboration, provides valuable insights into how federal senior executives view collaboration. Based on survey responses from over 300 members of the federal Senior Executive Service, O'Leary and Gerard found—to their mild surprise—that nearly all those surveyed report using collaboration as a management strategy.



Recovery Act Transparency: Learning from States' Experience
Dr. Francisca M. Rojas

The American Recovery and Reinvestment Act of 2009 included unprecedented provisions to disclose how more than \$275 billion in grants, contracts, and loans were spent under the Act. These requirements fell not only on federal agencies but on the recipients and sub-recipients of these monies. In many cases, state governments were the focal point for collecting and reporting this information.

This report offers recommendations to federal and state officials in the design and implementation of future transparency initiatives. It is one of a series examining the implementation of the Recovery Act, which was the largest effort undertaken by the federal government in over 60 years, nearly doubling federal discretionary spending in the 17-month period after its enactment.



Improving Government Contracting: Lessons from Bid Protests of Department of Defense Source Selections
Steven M. Maser

Government administrative processes often receive criticism for focusing on inputs and not outcomes. A specific example of this criticism has been registered by members of the acquisition community regarding source selection processes used for contracting that could be improved to reduce bid protests, the appellate process for contracting. Protests do not occur frequently, but when they do occur the costs are significant—and when sustained, they can impact the process for many subsequent contracts. Bid protests and source selection processes continue to receive attention: a recent GAO study reported a government-wide increase in the number of protests by government contractors.

Professor Maser's research is based on interviews with members of the acquisition community, and on analyses of bid protests submitted to the Government Accountability Office (GAO) involving Department of Defense (DoD) agencies between 2001 and 2009. His work yields nine findings with recommendations for changes that can improve the source selection process. While the data collected for this report are from DoD, many recommendations apply to all government agencies.

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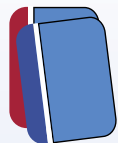
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