PERFORMANCE AND MANAGEMENT

7. DELIVERING HIGH-PERFORMANCE GOVERNMENT

When Government does not work as it should, it has a real effect on people's lives—on small business owners who need loans, on young people who want to go to college, on the men and women in our Armed Forces who need the best resources when in uniform and deserve the benefits they have earned after they have served. Whether protecting individuals and communities, modernizing infrastructure, investing in our children, or taking care of the most vulnerable, the American people deserve a highly effective government.

Building a government that works smarter, better, and more efficiently to deliver results for the American people is a cornerstone of the President's Accountable Government Initiative and a key focus of this Administration.

The Nation's current fiscal situation makes it imperative that every aspect of government deliver programs demonstrated to work, and, when effective programs have not yet been identified, to experiment to find them. Once effective government programs and practices have been identified, government agencies must figure out how and where to promote their adoption, confirm they work as expected, and continually innovate to increase productivity.

To accomplish this, Federal agencies must adopt an evidence-based culture in which decisions are made using information collected in a timely and consistent manner about the effectiveness of specific policies, practices, and programs. Strategies for developing evidence exist along a continuum from the basic collection of program and outcomes information, to more sophisticated performance measurement and formative evaluation methods, to rigorous evaluation techniques that measure program and practice impacts against a comparison group. Some of these strategies are discussed in the next chapter on evaluation, including a discussion of how the Administration will use a tiered evidence approach to foster innovation, encourage promising practices, and scale proven models. This chapter focuses on complementary strategies critical to evidence-based implementation—strategic and daily management using outcome-focused performance goals and measures.

Government works better when organizational leaders identify a limited number of clear, measurable, and ambitious goals and regularly review progress toward them. When leaders ask about performance on specific goals, it reinforces the message that a goal is important. When they monitor if progress is on or off track and request analyses to understand why, it illuminates a path to improvement.

In the coming year, to improve the performance of the Federal Government and implement the recently enacted, bi-partisan Government Performance and Results Act Modernization Act of 2010 which the President signed into law in January 2011, the Administration will use three mutually reinforcing performance management strategies first introduced in the President's 2011 budget:

1. **Use Performance Information to Lead and Learn to Improve Outcomes.** Agency leaders are using constructive data-based reviews to keep their organizations on track to deliver on the near-term High Priority Performance Goals (Priority Goals) listed in the 2011 Budget and the government-wide management priorities in the Accountable Government Initiative. Given the near-term nature of the goals, OMB did not ask agencies to update or revise their Priority Goals as part of the 2012 budget process, but did encourage agencies to review and increase specificity in longer-term priorities where appropriate in their strategic plans and 2012 annual performance plans that accompany agency budget proposals. The next round of Priority Goal setting will commence in early 2011.

2. **Communicate Performance Coherently and Concisely for Better Results and Transparency**. The Federal Government will candidly communicate to the public the priorities, problems, and progress of Government programs, explaining the reasons behind past trends, the impact of past actions, and future plans. In addition, agencies will strengthen their two-way communication capacity to identify and share lessons from experience and experiments.

3. **Strengthen Problem-Solving Networks.** The Federal Government will tap into and encourage practitioner communities, both inside and outside Government, to work together to improve outcomes and performance management practices.

In addition, the Administration has taken unprecedented steps to engage the Cabinet in reviewing the budget line-by-line to find low-priority, low-performing, or duplicative and outdated programs so that funding can be directed to higher priority, well-performing programs.

The remainder of this chapter elaborates on the way the three strategies are being used—why they are important, what was accomplished over the past year, and plans for the coming year.

Use Performance Information to Lead and Learn to Improve Outcomes

In 1961, when President John F. Kennedy called for the United States to put a man on the moon within a decade, he demonstrated the motivating power of an ambitious, outcome-focused goal. Kennedy motivated people in government to accomplish an incredible feat that still inspires. He did this, in part, by clearly stating a goal that specified who and how many would accomplish what, where, and by when. Leaders in other countries, States, local governments, and a growing number of Federal programs have similarly demonstrated the power of using specific challenging and more earthly goals, combined with frequent measurement, diagnostic analysis, and unrelenting follow-up, to improve performance and cut costs.

Building on these lessons, President Obama appointed the Nation's first ever Chief Performance Officer and directed Federal agency leaders to set specific agency goals reflecting Administration priorities, combined with frequent measurement and analysis-informed reviews to drive progress. To kick-start agency efforts to operate this way, the Administration asked leaders of the 16 Cabinet departments and 8 other large Federal agencies to identify a small number of ambitious, outcome-focused, near-term High Priority Performance Goals (Priority Goals). Agencies were asked to choose goals that did not require additional resources or legislative action to achieve within an 18 to 24-month time frame, but rather hinged on strong execution. The Administration also identified specific government-wide management goals to cut waste and streamline and modernize the systems that power government operations—in information, finance, acquisition, and human resource management.

Each agency has designated a senior accountable official, a "Goal Leader," responsible for driving progress on each priority and government-wide management goal. Goal Leaders develop action plans using quarterly targets for key measures and milestones, as appropriate, to mark the path to the goal. They update progress on their goals on *Performance.gov*, a new online management tool developed by the Administration to track the government's progress each quarter to support cross-agency coordination and learning and to inform OMB review.

Agency Deputy Secretaries and their equivalents at the 24 agencies with Priority Goals are starting to hold goal-focused, data-driven reviews at least every quarter. At the Department of the Treasury, for example, the Deputy Secretary holds structured quarterly performance and budget reviews with each of his bureaus to steer the department in a unified strategic direction and improve implementation. Attendance at these meetings cuts across hierarchies and bureaucracies, and agendas are carefully vetted. These meetings forgo "daily fire drills" in favor of longer-term strategic issues, and create an unprecedented forum for every major bureau to discuss priorities, not just crises, with senior agency leadership. Critically, every meeting ends with a set of clear deliverables, follow-up actions, and deadlines. Treasury has used these reviews to sharpen the mission and goals of its bureaus, replace low-value performance measures with more meaningful indicators of performance, and foster collaboration and resource-sharing across organizational lines.

This data-driven management discipline is spreading across the Federal Government—at the Department of Veterans Affairs (VA), the Department of Housing and Urban Development (HUD), and in all other agencies with Priority Goals. It is also starting to happen more frequently at the bureau level and in smaller agencies. The FBI and Customs and Border Patrol, for example, run regular data-driven reviews at all levels of the organization, and the U.S. Food and Drug Administration recently launched FDA-TRACK, an agency-wide performance management program that monitors all 114 FDA program offices' key performance measures and highlighted projects. The acronym FDA chose for this initiative succinctly captures key objectives of the Administration's performance management approach: Transparency, Results, Accountability, Credibility, and Knowledge-Sharing. The FDA-TRACK website allows the public to view FDA's performance data, learn about the agency's breadth of public health responsibilities, and track progress on over 100 important projects and over 800 monthly program measures, including important Agency-wide initiatives such as egg farm inspections, H1N1 vaccines, and medical countermeasures.

OMB, working with the Performance Improvement Council (PIC), has begun monitoring review processes at the 24 agencies with Priority Goals to identify best practices worth sharing and to make sure that agencies that have not yet launched these reviews initiate constructive data-driven reviews at least quarterly. In the coming year, OMB and the PIC will launch a community-of-practice to strengthen agency capacity to prepare for and run effective internal results reviews.

Complementing agency internal reviews, OMB is also holding regular, data-driven constructive performance reviews on Priority Goals, IT projects (TechStat), acquisition (AcqStat), and other government-wide management priorities, including regular reviews with OPM on agency progress on personnel management priorities. While these review processes vary somewhat, they employ a similar approach. Prior to quarterly constructive performance reviews on each Priority Goal, for example, OMB asks every agency Goal Leader to assess the likelihood of success on his or her goal and, if needed, identify ways OMB or others can support goal achievement. Based on each Goal Leader's analysis, OMB budget analysts' review of information on *Performance.gov*, and reviews by members or staff of Federal cross-agency Councils (e.g., Performance Improvement Council), OMB develops a list of prioritized follow-up actions. Some of these require inter-agency meetings, some broker expert assistance, and others establish new interim expectations, such as requiring process benchmarking with industry best practices.

Where efforts are off-track and a team is not making the necessary mid-course corrections, OMB notifies the agency's Deputy Secretary or equivalent about its concerns. Where OMB or Council members have expertise or know of it in other agencies, assistance is offered to help the agency get back on track. Where progress is being made and breakthroughs achieved, OMB and the Councils celebrate and share the successes. Where progress toward a goal shared by multiple agencies requires inter-agency coordination or where agencies face similar problems that would benefit from cross-agency attention, OMB facilitates cross-agency action.

Over the past year, many agencies have released updated strategic plans, using them to communicate long-term goals and the path an agency will follow to achieve them. OMB uses the goals agencies set in their strategic plans, as well as the near-term Priority Goals, to align budget resources with priorities. Agencies also use their strategic plans to guide decisions about information technology (IT) and other major investments, and their hiring and training needs.

The power of this type of goal-focused performance management system is that it uses performance measures to create a constructive dynamic that motivates continual improvement, not just compliance. This approach stands in contrast to the way most (although not all) Federal agencies previously used goals and measures—primarily to complete the plans and reports required by law, rather than as a tool to improve outcomes and increase productivity. This Administration is committed to creating a performance management approach that ignites continual improvement. Significant progress has been made on some Priority Goals, while weaknesses have been identified and are being addressed in others. HUD and the VA have greatly accelerated housing and services for veterans to reduce the number of homeless veterans in 2010, on the way toward achieving the Administration's long-term goal of eliminating veteran homelessness in five years. To date, the Department of Energy has weatherized 295,000 homes, and more than 300 schools have signed on to the Department of Agriculture's Healthier US Schools Challenge—an important component of the First Lady's *Let's Move!* initiative to raise a healthier generation of kids. These schools agree to meet criteria for better food quality, physical activity, physical education, and nutrition education.

In the coming year, OMB and the PIC will help Federal agencies strengthen their analytic skills to extract insights and actionable lessons from the data they gather and integrate root cause analyses and hypothesis testing into program operations. Programs will be encouraged to search for research about effective interventions relevant to their work, and expected to find organizations with which to benchmark processes and outcomes. One particular area of attention for OMB and the PIC will be Federal agencies that depend on State and local government, non-profit organizations, or other delivery partners to accomplish their objectives, and those with field operations working on similar issues from different locations. Agencies in these situations need to strengthen their capacity to learn from others' experience—scouring for research and analyzing data from the field to identify promising practices, testing promising practices to see if they can be replicated, and when successfully replicated, promoting their adoption when more effective and cost-effective than the alternatives.

Working with the PIC, OMB will develop guidance to help agencies with goal-setting, measurement, analysis, results reviews, delivery chain mapping, and the use of incentives. There will be an increased focus on ensuring agencies understand the suite of measures that complement mission-focused outcome and output measures—such as indicators of responsiveness, beneficial and unwanted side effects, and measurement manipulation—and enhance program operations. Attention will also be devoted to connecting the performance community with the budget, financial, IT, acquisition, and human capital community.

OMB will also begin immediate implementation of the newly enacted GPRA Modernization Act of 2010, a law that builds on the strengths of the Government Performance and Results Act of 1993 (GPRA) and addresses its weaknesses. The new law is closely aligned with the Administration's aggressive performance agenda. In addition to adding requirements for priority-setting and frequent performance reviews by senior agency leaders and OMB and shifting the emphasis from the production of annual performance reports for their own sake to the use of performance measurement to motivate and illuminate ways to improve, the new law also requires adoption of cross-cutting Federal government priority goals, display of agency and government-wide results on a public website, and increased consultation with Congress.

Communicate Performance Coherently and Concisely for Better Results and Transparency

Transparent, coherent performance information contributes to more effective, efficient, fair, inclusive, and responsive government. Communicating performance information can support public understanding of what government wants to accomplish and how it is trying to accomplish it. It can also support learning across government agencies, stimulate idea flow, enlist assistance, and motivate performance gain. In addition, transparency can strengthen public confidence in government, especially when government does more than simply herald its successes but also provides candid assessments of problems encountered, their likely causes, and actions that will be taken to address problems. And communicating spending information supports public understanding of how federal funds are being used.

Beginning with the Recovery Act, this Administration provided the public unprecedented transparency into contracts and grants issued by the Federal government. Building on this experience, the Administration has charged forward to provide even more transparency, publishing information on all types of Federal spending in line with implementation of the Federal Funding Accountability and Transparency Act while taking care to keep the recipient reporting burden as low as possible. In April 2010, the Administration issued guidance implementing the compensation and sub-award requirements of the Transparency Act, including new requirements for quality and completeness metrics for Federal spending data. Agencies began reporting and displaying sub-award information in October 2010, so Americans can now view how their tax dollars are spent and who received Federal funds on *USAspending.gov*.

The Administration is also tracking and reporting multiple dimensions of Federal spending to increase spending accuracy. In June 2010, the Administration launched *PaymentAccuracy.gov* to display information on agency efforts to prevent, reduce, and recapture improper payments. Specifically, *PaymentAccuracy.gov* includes information on spending accuracy performance government-wide (e.g., government-wide improper payment rate and reduction targets for future years), at the agency level (agency-specific improper payment amounts and the amount of improper payments recaptured), and for specific programs. And for specific high-error programs (e.g., Medicare, Medicaid, Unemployment Insurance), the site contains program specific information (e.g., names of agency accountable officials, annual improper payment rates and reduction targets, and supplemental measures related to improper payments). *PaymentAccuracy.gov* makes improper payment information transparent and easily accessible to the public and agency officials, and uses targets and metrics to keep agencies focused on reducing and recapturing improper payments.

In August, the Administration opened *Performance.gov* to all Federal employees to support communications across agencies and between agencies and OMB. *Performance.gov* provides the basis for OMB's quarterly Priority Goal Constructive Performance Reviews. Agencies update information in *Performance.gov* each quarter at a minimum, which provides a clear, concise picture of each agency's Priority Goals, action plans, strategies, and status on measures and milestones. Agencies also explain missed targets and milestones, and what they are doing about them. As experience using the site grows, OMB will work with the PIC to transition annual performance planning and reporting previously required by the Government Performance and Results Act of 1993, and now required by the GPRA Modernization Act of 2010, to *Performance.gov*. Reporting agency performance on *Performance.gov* will save taxpayers' dollars by diminishing the agencies' reporting burden, saving time and reams of paper. It will also increase the usefulness of what is reported. Agencies can already sort by theme on *Performance.gov* to find other agencies with Priority Goals in the same policy area with which they might want to coordinate. They can sort by project type to find organizations handling similar functions with which to benchmark process times and quality. As the site develops, tagging features will be enhanced to support cross-agency coordination on shared goals.

Performance.gov was designed as a Federal Government management tool, but the Administration will open portions of the site to provide a window for Congress, the public and others to show government priorities, candidly convey how goals are being accomplished, and explain what agencies are doing when a problem is encountered. In the interim, the list of near-term High Priority Performance Goals originally set in the 2011 budget can be found at *http://www.whitehouse.gov/omb/performance_default*. These goals represent a subset of the fuller suite of goals reflected in agencies' long-term strategic goals and annual performance plans, as well as individual performance plans of bureaus, and do not include goals dependent on new or recent legislation and additional funding.

Reporting to OMB via *Performance.gov* and opening the site up to the public to provide a window on the way the Federal government is managing bolsters the President's Accountable Government Initiative to make government more responsive to the American people and creates a healthy dynamic that keeps agencies focused on delivering on their priorities. This is a management technique that has proven effective in both the public and private sectors to improve performance on key goals. For example, the State of Maryland publishes StateStat materials and goal tracking online and was ranked number one in the country for online stimulus tracking material.

Performance.gov is only one piece of an effective Federal performance communication system, however. Over the next year, the Administration will increase attention to other aspects of the performance communication infrastructure—considering more carefully key audiences for performance information, what they need to know, and how, when, and where they need to access the information to help them contribute to better outcomes.

Many Federal programs depend on delivery partners such as state and local governments and non-profit organizations to accomplish their objectives. Over the next year, the Administration will encourage Federal agencies to strengthen their capacity to be learning leaders supporting Federal field operations and state, local, tribal, and not-for-profit delivery partners. This requires not just figuring out how to organize performance and other relevant information about peers in similar situations to reveal effective practices worth promoting for broader adoption and problems that would benefit from cross-jurisdiction attention, but also understanding how to communicate that information in ways that are helpful, actionable, and fair—encouraging continual improvement without adding to fear and frustration.

To improve the quality of government services, provide greater certainty about the time needed, and inform decisions about which service provider to use when, the Administration is also working to enhance the way it communicates transaction performance—whether to those receiving benefits, getting a loan, going through a process designed to enhance security, using Federal facilities such as a national park, or otherwise directly dealing with Federal officials.

The Administration is committed not just to communicating performance from the Federal government in more useful ways, but also to improving public and delivery partner communication to the Federal government. *Performance.gov* will make it easy for site visitors to provide feedback. In addition, OMB and 40 Federal agencies have worked together to make it easier and faster to solicit actionable, timely feedback for many types of qualitative customer information, including comment cards, focus groups, and user testing, by using a generic clearance process that agencies can submit to the Office of Information and Regulatory Affairs for a five-day review. To tap into electronic networks and gather ideas, the Administration is also testing a web-based tool, with a working name of ExpertNet, to find people with expertise relevant to an issue, ask structured questions, receive public answers, and use public reactions to the answers to "filter up" the best suggestions for Federal attention.

Strengthen Problem-Solving Networks

The third strategy the Administration will pursue to improve performance management involves the extensive use of existing and new practitioner networks. Federal agencies do not work in isolation to improve outcomes. Every Federal agency and employee depends on and is supported by others—other Federal offices, other levels of government, for-profit and not-for-profit organizations, and individuals with expertise or a passion about specific problems. New information technologies, such as the ExpertNet tool described in the preceding section, are transforming our ability to tap vast reservoirs of capacity beyond a Federal office. At the same time, low-technology networks such as professional associations and communities of practice are also able to solve problems, spur innovation, and diffuse knowledge.

The Administration is turning to existing networks, both inside and outside Government, to tap their intelligence, ingenuity, and commitment, as well as their dissemination and delivery capacity. The PIC, made up of Performance Improvement Officers from every Federal agency, functions as the hub of the performance management network. OMB worked closely with the PIC over the past year to design and implement *Performance.gov* and the quarterly Constructive Performance Review process. In the coming year, it will continue to work with the PIC to modernize the principles and practices of the current performance management framework and to figure out effective ways to help agencies accelerate their performance. Acceleration efforts will include the creation of a Practitioners' Corner on *Performance.gov* to share tips, tools, and templates; the identification of best practices and agency experts ready to assist counterparts in other agencies; and the establishment of functional working groups and communities of practice to share and co-invest in better practices they can share.

In 2010, several cross-agency teams began sharing experiences and developing common tools. Performance Improvement Officers from agencies responsible for benefits processing identified priority areas of shared interest for future group action, including reducing improper payments and improving the experience of customers—processing their benefits faster and improving customer relationship management. Federal employees who manage unwanted incidents—preventing bad things from happening and reducing their costs when they do—developed a common measurement framework they can all use. Agencies implementing new evidence-based grant programs began exchanging lessons on how to build a strong evidence focus into their grant review and selection processes and to require projects to be evaluated using rigorous evaluations designs. And, volunteers from across the government reviewed the content of *Performance.gov* to provide agencies feedback from multiple perspectives. Tapping a network of reviewers from other Federal agencies also spreads and strengthens Federal agency knowledge about outcome-focused performance management practice.

Problem-solving teams have been launched to conduct intensive reviews across a range of disciplines. In the Information Technology (IT) realm, OMB has gathered ideas from private sector leaders, top CEOs, contractors and agency CIOS to improve the Federal Government's management of IT projects. Additionally, the office of the U.S. Chief Information Officer launched TechStat sessions that bring together all of the government staff and private contractors joining forces on a given IT project to identify problems and come up with solutions to improve effectiveness and cut out waste. The Office of Federal Procurement Policy has reinstituted the Front Line Forum, comprising front line contracting officers from all the large agencies as well as many small ones, to get the front-line staff's unique perspective and recommendations on improving acquisition across the Federal government. In 2011, the Chief Acquisition Officers Council (CAOC) will focus on strengthening the acquisition workforce and improving communication between program and contracting officials. The CAOC has also initiated a cross-council group (CAOC, PIC, Chief Financial Officers Council, Chief Information Officers Council, and Chief Human Capital Officers), working with the Office of Personnel Management, to share hiring flexibilities and develop effective hiring strategies for agency hiring managers. And like the IT TechStat sessions, the Office of Federal Procurement Policy has launched AcqStat sessions to bring a broad swath of acquisition professionals together to discuss the challenges they face in delivering better results for less.

The Administration is also turning to existing external networks—including State and local government associations, schools of public policy and management, think tanks, and professional associations—to enlist their assistance on specific problems and in spreading effective performance management practices.

AGENCY HIGH PRIORITY PERFORMANCE GOALS

The list of near-term High Priority Performance Goals can be found at http://www.whitehouse.gov/omb/performance_default .

8. PROGRAM EVALUATION

The Administration believes that the Federal Government should use taxpayer dollars efficiently and effectively. Central to that is a culture where agencies constantly ask, and try to answer, questions that help them find, sustain, and spread effective programs and practices; find and fix or eliminate ineffective ones; test promising programs and practices to see if they can be replicated; and find lower-cost ways to achieve a positive impact. The Federal fiscal situation necessitates doing more with less, not only to reduce budget deficits, but to build confidence that Americans are receiving maximum value for their hard-earned tax dollars. It is therefore critical to apply an evidence-based approach to government management that utilizes rigorous methods appropriate to the situation, learns from experience, and is open to experimentation.

One of the challenges to evidence-based policy-making is that it is sometimes hard to say whether a program is working well or not. Historically, evaluations have been an afterthought when programs are designed, and once a program has been in place for a while, building a constituency for rigorous evaluation is hard. The Administration is committed to addressing this problem.

This Administration is strongly encouraging appropriately rigorous evaluations to determine the impact of programs and practices on outcomes, complementing the performance measurement and management practices described in chapter 7 , "Delivering High -Performance Government", in this volume. In many policy debates, stakeholders come to the table with deep disagreements about the effectiveness or ineffectiveness of particular interventions. Evaluations that are sufficiently rigorous, relatively straightforward, and free from political interference are especially valuable in such circumstances.

Evaluations do what performance measurement, alone, cannot. Evaluations determine whether programs produce outcomes superior to alternative policy choices, or not putting into place a policy at all. This is in contrast with performance measurement, which tracks progress toward intended program outcomes, but does not compare outcomes to alternative programs or the status quo. If a particular job training approach has a high job placement rate, is it because it is effective or because it attracts those easiest to place in jobs? An evaluation would compare the employment of participants in the job training program to comparable individuals who did not participate in the program in order to isolate the effects of the training from other factors. Evaluations can answer a wide-range of germane questions such as whether workers are safer in facilities that are inspected more frequently, whether one option for turning around a low-performing school is more effective than another, whether outcomes for families are substantially improved in neighborhoods that receive intensive services, and whether no-fee debit cards increase savings among the unbanked.

Evaluation is one component of the evidence infrastructure that plays a role in a wide range of decision-making. The best government programs embrace a culture where performance measurement and evaluation are regularly used and complement one another. Agencies use performance measurement to detect practices that hold the most promise for improving performance and those with the greatest problems. Descriptive evidence of program recipients helps managers better target their resources. Regression analyses of administrative data shed light on how to better match recipients with appropriate services. Rigorous evaluations using experimental or quasi-experimental methods identify the effects of programs in situations where doing so is difficult using other methods; and rigorous qualitative evidence complements what can be learned from empirical evidence and provides greater insight into the contexts where programs and practices are implemented more and less successfully.

Continuing its emphasis on rigorous program evaluations initiated in the President's 2011 Budget, the Administration is proposing new evaluation funding for 2012 for 19 evaluations that have the potential for strong study designs and that address important actionable questions or strengthen agency capacity to support such strong evaluations.

Agencies that submitted proposals were expected to demonstrate that their funding priorities are based upon credible empirical evidence—or that they have a plan to collect that evidence—and to identify impediments to rigorous program evaluation in their statutes or regulations so that these might be addressed going forward.

The evaluation initiative included an extensive review process, with proposals reviewed by program examiners and evaluation experts at the Office of Management and Budget (OMB) and the Council of Economic Advisers (CEA). In some cases agencies then had a series of meetings with OMB and the CEA to sharpen their proposals. Going forward, OMB and the CEA plan to continue to work with these agencies on implementing strong research designs that answer important questions.

While the evaluation proposals include a broad range of domestically and internationally focused agencies, each shares the characteristics of rigor and presenting an actionable choice based on results. The accompanying table presents the evaluation activities proposed for funding as part of the 2012 evaluation initiative. These activities include a series of evaluations assessing the effectiveness of different strategies for improving college enrollment, persistence, and completion, capacity-

Table 8–1. FUNDED PROGRAM EVALUATION INITIATIVE PROPOSALS

Agency	Description
Department of Education	Evaluation of providing high schools with financial aid submissions data
Department of Education	Evaluation of integrating FAFSA and tax form preparation
Department of Education	Evaluation of college "bridge programs" for adult learners
Department of Education	Evaluation of early college placement testing and counseling
Department of Education	Evaluation of call centers to increase community college retention
Department of Education	Evaluation of Promise Neighborhoods
Department of Health and Human Services	Impacts of Medicaid expansions in Affordable Care Act
Department of Health and Human Services	Evaluation of health homes for enrollees with chronic conditions
Department of Health and Human Services	Falls prevention demonstration and evaluation
Department of Health and Human Services	Enhancing quality in early childhood programs
Department of Labor	Evaluation of TAA Community College and Career Training Grants
Department of Labor	Capacity building
Millennium Challenge Corporation	Gender-specific impacts of MCA Benin Access to Land project
United States Agency for International Development	Evaluation of Rwanda Integrated Improved Livelihoods program
United States Agency for International Development	Evaluation of Haiti Integrated Watershed Management program
United States Agency for International Development	Capacity building for evaluation consultancies
Department of the Treasury	Research studies to explore new and improved uses of IRS data
National Aeronautics and Space Administration	Evaluation of Applied Sciences program
Office of Personnel Management	Evaluation of Federal Government telework and Results Only Work Environment pilot

building for the United States Agency for International Development (USAID) that should help make rigorous evaluation a more routine aspect of their international development assistance efforts, and an analysis of ways to make the Federal workforce more efficient.

The evaluations proposed in this initiative encompass only a fraction of the evaluations performed by the Federal Government. For example, the Recovery Act launched a number of evaluations across the Federal Government on such topics as the effects of different rent formulas on housing assistance recipients, the effects of smart grid meters on residential electricity usage, and the effects of extended unemployment insurance benefit programs on employment outcomes. In addition, the Administration is placing additional focus on agency evaluation budgets to ensure that those dollars are producing high quality evidence that informs key decisions.

New funding for rigorous evaluations is only part of the Administration's efforts to reinvigorate evaluation activities across the Federal Government. Additional effort is being placed on building agency capacity for doing good evaluations. Whether that is supporting an agency in standing up a central evaluation office, empowering existing evaluation offices, institutionalizing policies that lead to strong evaluations, or hiring evaluation experts into key administrative positions, this Administration strives to build a robust evaluation infrastructure.

In addition, an inter-agency working group is promoting stronger evaluation across the Federal Government by (a) helping build agency evaluation capacity and creating effective evaluation networks that draw on the best expertise inside and outside the Federal Government, (b) sharing best practices from agencies with strong, independent evaluation offices and making research expertise available to agencies that need assistance in selecting appropriate research designs in different contexts, (c) devising new and creative strategies for using data and evaluation to drive continuous improvement in program policy and practice, and (d) developing Government-wide guidance on program evaluation practices with sufficient flexibility for agencies to adopt practices suited to their specific needs.

OMB is working with agencies to make information readily available online about all Federal evaluations focused on program impacts that are planned or already underway. This effort, analogous to that of the Department of Health and Human Services (HHS) clinical trial registry and results data bank (ClinicalTrials.gov), will promote increased transparency and accountability, and allow experts inside and outside the Government to engage early in the development of program evaluations.

For several new grant-based initiatives, the Administration is using a three-tiered approach to evidence-based funding. First, money is proposed to promote the adoption of programs and practices that strong evidence suggests will lead to significant improvement in results. Second, for programs with some but not as much supportive evidence, additional resources are proposed with the condition that the programs will be rigorously evaluated going forward. Over time, the Administration anticipates that some second-tier programs will move to the first tier, but only if they prove more promising and cost-effective than other programs. Third, agencies are encouraged to innovate and test ideas with strong potential—ideas supported by preliminary research findings or reasonable hypotheses.

A good example of this approach—in which new or expanded programs have evaluation "baked into their

DNA"—is the Department of Education's Invest in Innovation Fund (i3). The i3 fund invests in high-impact, potentially transformative education interventions—ranging from new ideas with huge potential to those that have proven their effectiveness and are ready to be scaled up. Whether applicants to i3 are eligible for funding to develop, validate, or scale up their program, and therefore how much funding they are eligible to receive, will depend on the strength of the existing evidence of the program's effectiveness, the magnitude of the impact the evidence demonstrates the program is likely to have, and the program's readiness for scaling up.

This three-tiered structure will provide objective criteria to inform decisions about programs and practices in which to invest and create the right incentives for the future. Organizations will know that to be considered for significant funding, they must provide credible evaluation results that show promise, and, before that evidence is available, be ready to subject their models to analysis. As more models move into the top tier, it will create pressure on all the top-tier models to compete to improve their effectiveness to continue to receive support. For example, the Administration has chosen to invest in many of those areas, but has made a concerted effort to increase investments in early childhood education and home-visiting programs that are backed by strong evidence—because rigorous evidence suggests that investments in those areas have especially high returns.

Rigorous evaluation will be a central component of several cross-agency initiatives designed to identify more cost-effective approaches to achieving positive outcomes for disadvantaged populations. These populations are often eligible for multiple services and benefits administered by separate Federal and State agencies, which are poorly coordinated and governed by rules that stifle effective collaboration and innovation. In 2012, the Departments of Labor and Education will support joint pilots to test interventions and systemic reforms with the potential to improve education and employment outcomes at lower cost to taxpayers. The Social Security Administration and the Department of Education will launch a joint initiative to test interventions that improve outcomes for children with disabilities and their families, which may yield substantial long-term savings if these children leave the Supplemental Security Income program. OMB's Partnership Fund for Program Integrity Innovation will test promising solutions developed collaboratively by Federal and State agencies to improve payment accuracy, improve administrative efficiency, and enhance service delivery in overlapping benefit programs. Rigorous evaluation of these cross-agency pilots will help determine which strategies lead to better results at lower cost, allowing Federal and State governments to identify the most promising strategies that warrant expansion

The President has made it very clear that policy decisions should be driven by evidence—evidence about what works and what does not and evidence that identifies the greatest needs and challenges. By instilling a culture of learning into Federal programs, the Administration will build knowledge so that spending decisions are based not only on good intentions, but also on strong evidence that yield the highest social returns on carefully targeted investments.

9. BENEFIT-COST ANALYSIS

I. INTRODUCTION

Federal Government policies and programs make use of our Nation's limited resources to achieve important social goals, including economic growth, job creation, education, national security, environmental protection, and public health. Many Federal programs require governmental expenditures, such as those funding early childhood education or job training. Moreover, many policies entail social expenditures that are not reflected in budget numbers. For example, environmental, energy efficiency, and workplace safety regulations impose compliance costs on the private sector. In all cases, the American people expect the Federal Government to design programs and policies to manage and allocate scarce fiscal resources prudently, and to ensure that programs achieve the maximum benefit to society and do not impose unjustified or excessive costs.

A crucial tool used by the Federal Government to achieve these objectives is benefit-cost analysis, which provides a systematic accounting of the social benefits and costs of Government policies. As the President recently said in Executive Order 13514, "It is the policy of the United States that...agencies shall prioritize actions based on a full accounting of both economic and social benefits and costs and shall drive continuous improvement by annually evaluating performance, extending or expanding projects that have net benefits, and reassessing or discontinuing under-performing projects." The benefits and costs of a government policy are meant to offer a concrete description of the anticipated consequences of the policy. Such an accounting helps policymakers to design programs to be efficient and effective and to avoid unnecessary or unjustified costs and burdens. That accounting also allows the American people to see the expected consequences of programs and to hold policymakers accountable for their actions.

It is true that quantification and monetization produce significant challenges, but serious efforts have been made to meet those challenges. Those efforts are continuing. Importantly, there is a close relationship between public participation and benefit-cost analysis. Because analysis is often improved through transparency and public comments, participation and consideration of benefits and costs are tightly connected in practice. To strengthen the economic recovery and prepare the country to thrive in an increasingly competitive global economy, it is important to analyze both benefits and costs and to take steps to eliminate unnecessary burdens, which may have adverse effects on job creation and growth.

II. BENEFIT-COST ANALYSIS OF FEDERAL REGULATIONS

Overview of Benefit-Cost Analysis of Federal Regulation

For over three decades, benefit-cost analysis has played a critical role in the evaluation and design of significant Federal regulatory actions. While there are precursors in earlier administrations, the Reagan Administration was the first to establish a broad commitment to benefit-cost analysis in regulatory decision making through its Executive Order 12291. The Clinton Administration continued that commitment when it updated the principles and processes governing regulatory review in Executive Order 12866, which continues in effect today. Executive Order 12866 requires executive agencies to catalogue and assess the benefits and costs of planned significant regulatory actions. It also requires agencies (1) to undertake regulatory action only on the basis of a "reasoned determination" that the benefits justify the costs and (2) to choose the regulatory approach that maximizes net social benefits, that is, benefits minus costs (unless the law governing the agency's action requires another approach).

On January 18, 2011, President Obama issued Executive Order 13563, which emphasizes the importance of protecting "public health, safety and our environment while promoting economic growth, innovation, competitiveness, and job creation."[1] Executive Order 13563 points to the need for predictability and for certainty, and for use of the least burdensome tools for achieving regulatory ends. It states that agencies "must take into account benefits and costs, both quantitative and qualitative." Executive 13563 reaffirms the principles, structures, and definitions in Executive Order 12866. In particular, Executive Order 13563 directs:

"As stated in Executive Order 12866 and to the extent permitted by law, each agency must, among other things: (1) propose or adopt a regulation only upon a reasoned determination that its benefits justify its costs (recognizing that some benefits and costs are difficult to quantify); (2) tailor its regulations to impose the least burden on society, consistent with obtaining regulatory objectives, taking into account, among other things, and to the extent practicable, the costs of cumulative regulations; (3) select, in choosing among alternative regulatory approaches, those approaches that maximize net benefits (including potential economic, environmental, public health and safety,

[1] Available at www.whitehouse.gov/sites/default/files/omb/inforeg/eo12866/eo13563_01182011.pdf.

and other advantages; distributive impacts; and equity); (4) to the extent feasible, specify performance objectives, rather than specifying the behavior or manner of compliance that regulated entities must adopt; and (5) identify and assess available alternatives to direct regulation, including providing economic incentives to encourage the desired behavior, such as user fees or marketable permits, or providing information upon which choices can be made by the public."

In addition, Executive Order 13563 asks agencies "to use the best available techniques to quantify anticipated present and future benefits and costs as accurately as possible."

Executive Order 13563 elaborates five new principles to guide regulatory decision making. First, agencies are directed to promote public participation, in part through making relevant documents available on regulations.gov to promote transparency and comment. Second, agencies are directed to attempt to reduce "redundant, inconsistent, or overlapping requirements," in part by working with one another to simplify and harmonize rules. This important provision is designed to reduce confusion, redundancy, and excessive cost. One goal of simplification and harmonization is "to promote rather than to hamper innovation," which is a foundation of both growth and job creation. Third, agencies are directed to identify and consider flexible approaches to regulatory problems, including warnings and disclosure requirements. Such approaches may "reduce burdens and maintain flexibility and freedom of choice for the public." Fourth, agencies are directed to promote scientific integrity. Fifth, and finally, agencies are directed to produce plans to engage in retrospective analysis of existing significant regulations to determine whether they should be modified, streamlined, expanded, or repealed.

Operating under the broad framework established by Executive Order 12866 (and now with the additional guidance of Executive Order 13563), the Office of Management and Budget (OMB) requires careful analysis of the costs and benefits of significant rules; identification of the approach that maximizes net benefits; detailed exploration of reasonable alternatives, alongside assessments of their costs and benefits; cost-effectiveness; and attention to unquantifiable benefits and costs as well as to distributive impacts. These steps are taken to ensure that regulations will be effective in achieving their purposes and that they do not impose excessive costs.

Reviewing agencies' benefit-cost analyses and working with agencies to improve them, OMB provides a centralized repository of analytical expertise in its Office of Information and Regulatory Affairs (OIRA). OMB's guidance to agencies on how to do benefit-cost analysis for proposed regulations is contained in OMB's Circular A-4, Regulatory Analysis. Circular A-4 directs agencies to specify the goal of a planned regulatory intervention, to consider a range of regulatory approaches for achieving that goal, to select the least burdensome approach, and to estimate the benefits and costs of each alternative considered. To the extent feasible, agencies are required to monetize benefits and costs, so that they are expressed in comparable units of value. This process enables the agency to identify (and generally to choose) the approach that maximizes the total net benefits to society generated by the rule.

For example, consider a regulation that sets standards for how quickly a truck's brakes must be able to bring it to a stop.[2] A shorter stopping distance generates greater safety benefits, but also will impose larger compliance costs if more effective brakes are more expensive. The agency should attempt to quantify both the safety benefits of reduced stopping distance and the costs of regulatory requirements. It should consider a range of stopping distances to determine the optimal one that maximizes net benefits. At such an optimal standard, making the stopping distance even shorter would impose greater additional compliance costs than it would generate in additional safety benefits. At the same time, making the stopping distance longer than optimal results in a loss in safety benefits that is greater than the cost savings. Careful benefit-cost analysis enables the agency to determine the optimal standard. It helps to show that some approaches would be insufficient and that others would be excessive.

To be sure, quantification of the relevant variables, and monetization of those variables, can present serious challenges. OIRA and relevant agencies have developed a range of strategies for meeting those challenges; many of them are sketched in Circular A-4, and we take up one such strategy below. Efforts continue to be made to improve current analyses and to disclose and test their underlying assumptions. In some cases, analysis of costs and benefits will leave significant uncertainties. But much of the time, an understanding of costs and benefits will rule out some possible courses of action, and will show where, and why, reasonable people might differ. Such an understanding will also help to identify the most effective courses of action and to eliminate unjustified costs and burdens—in the process helping to promote competitiveness and economic growth.

The Benefits and Costs of Federal Regulation in 2009

Each year, OMB reports to Congress agencies' estimates of the benefits and costs of major regulations reviewed in the prior fiscal year. Table 9–1 presents the benefit and cost estimates for the 33 non-budgetary rules reviewed by OMB in 2009.[3] Of those, agencies were able to monetize both the benefits and costs for 16. (For some rules, agencies were able to monetize benefits but not costs. For example, the Department of Interior adopted three Migratory Bird Hunting regulations for which the agency estimated the benefits associated with increased consumer welfare of hunting allowances.) Most of the benefits

[2] The National Highway Traffic Safety Administration recently issued a new safety standard for air brake systems to improve the stopping distance performance of trucks. See 49 CFR § 571.

[3] 2009 is the most recent period for which such a summary is available. These estimates were reported in OMB, 2010 Report to Congress on the Benefits and Costs of Federal Regulations and Unfunded Mandates on State, Local, and Tribal Entities. A detailed description of the assumptions and calculations underlying these estimates is provided in that Report.

and costs reported in Table 9–1 are expressed as ranges, and sometimes as wide ranges, because of uncertainty about the likely consequences of rules. Quantification and monetization raise difficult conceptual and empirical questions. Prospective benefit-cost analysis requires predictions about the future—both about what will happen if the regulatory action is taken and what will happen if it is not—and what the future holds is typically not known for certain. A standard goal of the agency's analysis is to produce both a central "best estimate," which reflects the expected value of the benefits and costs of the rule, as well as a description of the ranges of plausible values for benefits, costs, and net benefits. These estimates inform the decisionmakers and the public of the degree of uncertainty associated with the regulatory decision. The process of public scrutiny can sometimes reduce that uncertainty.

To illustrate some of the underlying issues, consider the EPA's recent National Ambient Air Quality Standard (NAAQS) for Lead. The benefits of the rule are estimated to be somewhere between $455 million to $5,203 billion—an expansive range. Almost all of these estimated benefits are due to reduced lead exposure leading to reductions in decrements in cognitive function in children and ancillary benefits of reduced mortality resulting from the reduction in particulate matter emissions caused by the rule. However, there is substantial uncertainty with respect to (a) the underlying shape of the dose-response relationship in evaluating effect of lead exposure on cognitive function in children, (b) the relationship between exposure to particulate matter and premature death and (c) the proper monetary valuation of avoiding a premature death. Similar uncertainties in both the science used to predict the consequences of rules and the monetary values of those consequences, contribute to the uncertainty represented in the ranges of benefits and costs for other rules in Table 9–1. Despite these uncertainties,

Table 9–1. ESTIMATES OF THE TOTAL ANNUAL BENEFITS AND COSTS OF MAJOR RULES REVIEWED BY OMB IN 2009

(In millions of 2001 dollars)

Rule	Agency	Benefits	Costs
Energy Efficiency Standards for Commercial Refrigeration Equipment	DOE/EE	186-224	69 - 81
Energy Efficiency Standards for General Service Fluorescent Lamps and Incandescent Lamps	DOE/EE	1,111-2,886	192 - 657
Patient Safety and Quality Improvement Act of 2005 Rules	HHS/AHRQ	69-136	87-121
Revisions to HIPAA Code Sets	HHS/CMS	77-261	44- 238
Surety Bond Requirement for Suppliers of Durable Medical Equipment, Prosthetics, Orthotics, and Supplies	HHS/CMS	Not estimated	86
Updates to Electronic Transactions (Version 5010)	HHS/CMS	1,114-3,194	661-1,449
Use of Ozone-Depleting Substances; Removal of Essential Use Designations [Epinephrine]	HHS/FDA	Not estimated	154-940
Prevention of Salmonella Enteritidis in Shell Eggs	HHS/FDA	206-8,583	48-106
Air Cargo Screening	DHS/TSA	Not estimated	191-273
Secure Flight Program	DHS/TSA	Not estimated	262-348
Importer Security Filing and Additional Carrier Requirements	DHS/USCBP	Not estimated	744-3,009
Documents and Receipts Acceptable for Employment Eligibility Verification	DHS/USCIS	Not estimated	118
Real Estate Settlement Procedures Act (RESPA); To Simplify and Improve the Process of Obtaining Mortgages and Reduce Consumer Costs (FR-5180)	HUD/OH	2303	884
Migratory Bird Hunting; 2008 to 2009 Migratory Game Bird Hunting Regulations	DOI/FWS	711-1,001	Not estimated
Migratory Bird Hunting; 2009 to 2010 Migratory Game Bird Hunting Regulations	DOI/FWS	234-309	Not estimated
Migratory Bird Hunting; 2009 to 2010 Migratory Game Bird Hunting Regulations	DOI/FWS	234-309	Not estimated
Abandoned Mine Land Program	DOI/OSMRE	Not estimated	Not estimated
Family and Medical Leave Act of 1993; Conform to the Supreme Court's Ragsdale Decision	DOL/ESA	Not estimated	224-226
Refuge Alternatives for Underground Coal Mines	DOL/MSHA	Not estimated	41-45
Part 121 Pilot Age Limit	DOT/FAA	30-35	4
Washington, DC, Metropolitan Area Special Flight Rules Area	DOT/FAA	10-839	89-382
Hours of Service of Drivers	DOT/FMCSA	0-1,760	0-105
New Entrant Safety Assurance Process	DOT/FMCSA	472-602	60-72
Passenger Car and Light Truck Corporate Average Fuel Economy Model Year 2011	DOT/NHTSA	857-1,905	650-1,910
Reduced Stopping Distance Requirements for Truck Tractors	DOT/NHTSA	1,250- 1,520	23- 164
Requirements for Temporary Vehicle Trade-In Program	DOT/NHTSA	Not estimated	46
Roof Crush Resistance	DOT/NHTSA	374-1,160	748- 1,189
Pipeline Safety: Standards for Increasing the Maximum Allowable Operating Pressure for Gas Transmission Pipelines	DOT/PHMSA	85-89	13-14
Prohibition on Funding of Unlawful Internet Gambling	Treas/DO	Not estimated	75
TARP Limits on Compensation	Treas/DO	Not estimated	Not estimated
Greenhouse Gas Mandatory Reporting Rule	EPA/AR	Not estimated	64-86
Review of the National Ambient Air Quality Standards for Lead	EPA/AR	455-5,203	113-2,241
FAR Case 2007-013, Employment Eligibility Verification	FAR	Not estimated	127-141

benefit-cost analysis often reduces the range of reasonable approaches—and simultaneously helps to inform the decision about which approach is most reasonable.

Quantification and Breakeven Analysis

In some cases, the effort to monetize certain benefits (such as protection of streams and wildlife) will run into serious obstacles; quantification may be possible but not monetization. In other cases, analysts will know the direction of an effect, and perhaps be able to specify a range, but precise quantification itself will not be possible. Recognizing these points, OMB has recommended that consistent with Executive Order 12866, the best practice is to accompany all significant regulations with (1) a tabular presentation, placed prominently and offering a clear statement of qualitative and quantitative benefits and costs of the proposed or planned action, together with (2) a presentation of uncertainties and (3) similar information for reasonable alternatives to the proposed or planned action. An advantage of this approach is transparency. If, for example, it is possible to quantify certain benefits (such as protection of water quality) but not to monetize them, then the public should be made aware of that fact. At the same time, qualitative discussion of nonquantifiable benefits should help the public, and relevant decisionmakers, to understand the goal of the regulation and how it might achieve that goal.

When quantification is not possible, many agencies have found it both useful and informative to engage in "breakeven analysis." Under this approach, agencies specify how high the unquantified or unmonetized benefits would have to be in order for the benefits to justify the costs. Suppose, for example that regulation that protects water quality costs $105 million annually, and that it also has significant effects in reducing pollution in rivers and streams. It is clear that the regulation would be justified if and only if those effects could reasonably be valued at $105 million or more. Once the nature and extent of the water quality benefits are understood, it might well be easy to see whether or not the benefits plausibly justify the costs—and if the question is difficult, at least it would be clear why it is difficult. Breakeven analysis is an important tool, and it has analytical value when quantification is speculative or impossible.

Current Agency Practice for Values of Mortality Reduction

Since agencies often design health and safety regulation to reduce risks to life, evaluation of these benefits can be the key part of the analysis. When monetizing reduced mortality risks, agencies often use what is commonly described as a "Value of a Statistical Life," or VSL. The term is misleading because it suggests, erroneously, that the goal of monetization is to place a "value" on individual lives. The goal is instead to value reductions in small risks of premature death (such as 1 in 100,000); it follows that "VSL" actually refers to the value of marginal risks. There is no effort to suggest that any individual's life can be expressed in monetary terms.

Circular A-4 provides background on the theory and practice of calculating VSL. It states that a substantial majority of the studies of VSL indicate a value that varies "from roughly $1 million to $10 million per statistical life." In practice, agencies have tended to use a value in the middle or upper range of this distribution. (Note that Circular A-4 was issued in 2003 and that because of national income growth, the figure increases over time.) OMB believes that it is important to consult the relevant literature, which contains a range of significant empirical findings and conceptual claims, in order to base analysis on the best available research.

Two agencies, the Environmental Protection Agency (EPA) and the Department of Transportation (DOT), have developed official guidance on VSL. In its 2009 update to its guidelines, DOT uses a value of $6.0 million (2009 dollars), and requires all the components of the Department to use this value in their Regulatory Impact Analyses (RIAs). EPA recently changed its VSL to $6.3 million (2000 dollars) and adjusts this value for real income growth to later years. For example, in its final rule setting a new primary standard for Nitrogen Dioxide, EPA adjusted VSL to account for a different currency year (2006 dollars) and to account for income growth to 2020, which yields a VSL of $8.9 million. EPA stated in this RIA, however, that it is continuing its efforts to update this guidance.

Although the Department of Homeland Security has no official policy on VSL, it recently sponsored a report through its U.S. Customs and Border Protection, and has used the recommendations of this report to inform VSL values for several recent rulemakings. This report recommends $6.3 million (2008 dollars) and also recommends that DHS adjust this value upward over time for real income growth (in a manner similar to EPA's adjustment approach). Other regulatory agencies that have used a VSL in individual rulemakings include the Department of Labor's (DOL's) Occupational Safety and Health Administration (OSHA) and the Department of Health and Human Services' (HHS') Food and Drug Administration (FDA). In OSHA's rulemaking setting a Permissible Exposure Limit for Hexavalent Chromium, OSHA specifically referred to EPA guidance to justify a VSL of $7.0 million (2003 dollars), as the types of air exposure risks regulated in this rulemaking were very similar to those in EPA rulemakings. The FDA has consistently used values of $5.0 million and $6.5 million (2002 dollars) in several of its rulemakings to monetize mortality risks, but also often uses a monetary value of the remaining life years saved by alternative policies. This is sometimes referred to as a "Value of a Statistical Life Year" or VSLY. As noted, OMB believes in the importance of consulting the growing empirical and conceptual work in this domain.

Cost-per-life-saved of Health and Safety Regulation in 2009

For regulations intended to reduce mortality risks, another analytic tool that can be used to assess regulations, and to help avoid unjustified burdens, is cost-effectiveness analysis. Some agencies develop estimates of the "net cost per life saved" for regulations intended to improve public health and safety. To calculate this figure, the costs of the rule minus any monetized benefits other than mortality reduction are placed in the numerator, and the expected reduction in mortality in terms of total number of lives saved is placed in the denominator. This measure avoids any assignment of monetary values to reductions in mortality risk. It still reflects, however, a concern for economic efficiency, insofar as choosing a regulatory option that reduces a given amount of mortality risk at a lower net cost to society would conserve scarce resources compared to choosing another regulatory option that would reduce the same amount of risk at greater net costs.

Table 9–2 presents the net cost per life saved for four recent health and safety rules for which calculation is possible. The net cost per life saved is calculated using a 3 percent discount rate and using agencies' best estimates for costs and expected mortality reduction where those were provided by the agency. There is substantial variation in the net cost per life saved by these rules, ranging from negative (that is, the non-mortality-related benefits outweigh the costs), to potentially as high as $11.0 million.

This table is designed to be illustrative rather than definitive, and continuing work must be done to ensure that estimates of this kind are complete and not misleading. For example, some mortality-reducing rules have a range of other benefits, including reductions in morbidity, and it is important to include these benefits in cost-effectiveness analysis. Other rules have benefits that are exceedingly difficult to quantify but nonetheless essential to consider; consider rules that improve water quality or have aesthetic benefits. Nonetheless, it is clear that some rules are far more cost-effective than others, and it is valuable to take steps to catalogue variations and to increase the likelihood that scarce resources will be used as effectively as possible.

Table 9–2. ESTIMATES OF THE NET COSTS PER LIFE SAVED OF SELECTED HEALTH AND SAFETY RULES REVIEWED BY OMB IN FISCAL YEAR 2009

(In millions of 2001 dollars)

Rule	Agency	Net Cost per Life Saved	Notes
Prevention of Salmonella Enteritidis in Shell Eggs	HHS/FDA	Negative	Morbidity benefits exceed costs.
New Entrant Safety Assurance Process	DOT/FMCSA	Negative	Property damage and morbidity benefits exceed costs.
Reduced Stopping Distance Requirements for Truck Tractors	DOT/NHTSA	Negative	Property damage benefits exceed costs.
Roof Crush Resistance	DOT/NHTSA	$6.4-11.0	The agency estimates that the rule will prevent 135 fatalities and 1,065 nonfatal injuries annually. These figures translate into 156 equivalent fatalities. The main estimates value equivalent fatalities prevented at $6.1 million. It follows that the value of nonfatal injuries prevented is $6.1 million*(156-135)=$128.1 million annually. Total costs associated with the rule range from $875 million to $1,400 million annually. If injury benefits are subtracted from costs, the range of net cost per life saved is thus $5.5 million to $9.4 million (2007 dollars). Adjusting to 2001 dollars yields $6.4 million to $11.0 million.

III. BENEFIT-COST ANALYSIS OF BUDGETARY PROGRAMS

As noted, Executive Orders 13563 and 12866 require agencies, to the extent permitted by law, to "propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs." OIRA works actively with agencies to promote compliance with this requirement.

Historically, benefit-cost analysis of Federal budgetary programs has been more limited than that of regulatory policy. Increasingly, though, the Federal Government explicitly employs benefit-cost analysis to ensure that projects and spending programs have benefits in excess of costs, maximize net benefits, and allocate Federal dollars most efficiently across potential projects.

In the 1936 Flood Control Act, for example, the Congress stated as a matter of policy that the Federal Government should undertake or participate in flood control projects if the benefits exceeded the costs, where the lives and social security of people are at stake. By the late 1970s, the Army Corps of Engineers had begun to use benefit-cost analysis to improve the return on investment at a given project site. The Corps did this by designing projects based on increments of work whose benefits exceeded their costs. More recently, the budget has used benefits and costs, along with other criteria, to develop an overall program for the Corps that yields the greatest bang for the buck.

Benefit-cost analysis can also be used to evaluate programs retrospectively to determine whether they should be either expanded or discontinued and how they can be improved. Chapter 8, "Program Evaluation", in this volume discusses current efforts to improve program evaluation. Evidence that an activity can yield substantial net benefits has motivated the creation and expansion of a substantial number of programs. For example, longitudinal studies have shown that each dollar spent on high quality pre-school programs serving disadvantaged children yields substantially more than a dollar (in present value) in higher wages, less crime, and less use of public services, motivating an expansion of funding for quality pre-kindergarten programs. Similar evidence has spurred the decision to expand funding for nurse-family partnerships, finding that each dollar spent in the program leads to more than a dollar of benefits mostly in reduced Government expenditures on health care, educational and social services, and criminal justice, and that the highest returns were present in serving the most disadvantaged families. Similarly, the Government Accountability Office (GAO) has concluded that the Women, Infants, and Children (WIC) program produces monetary benefits that exceed its costs by reducing the incidence of low birth weight and iron deficiency, which are linked to children's behavior and development.

OMB continually works with Executive agencies to improve their benefit-cost analyses, and to increase transparency. In its 2010 annual report to Congress on the benefits and costs of Federal regulations,[4] OMB made the following recommendations for improvement in agencies' benefit-cost analysis by promoting (1) clarity with respect to underlying assumptions and anticipated consequences, (2) prominent tabular presentations of costs and benefits, and (3) careful consideration of the comments offered by members of the public on proposed rules. Furthermore, OMB recommends that benefit-cost analysis should be seen and used as a central part of open government. By providing the public with information about proposed and final regulations, by revealing assumptions and subjecting them to public assessment, and by drawing attention to the consequences of alternative approaches, such analysis can promote public understanding, scrutiny, and improvement of rules. OMB continues to explore ways to ensure that benefit-cost analysis helps promote the commitment to open government.[5]

[4] OMB 2010 Report to Congress on the Benefits and Costs of Federal Regulations and Unfunded Mandates on State, Local, and Tribal Entities.

[5] See Transparency and Open Government, Memorandum for the Heads of Executive Departments and Agencies, President Obama, Jan. 21, 2009.

IV. IMPROVING BENEFIT-COST ANALYSIS

In the Memorandum on Transparency and Open Government, issued on January 21, 2009, the President called for the establishment of "a system of transparency, public participation, and collaboration."[6] The memorandum elaborated the principles of such a system, designed to promote accountability and disclosure of information that "the public can readily find and use." The memorandum noted that "[k]nowledge is widely dispersed in society, and public officials benefit from having access to that dispersed knowledge." Implementing the President's memorandum, agencies have begun to take a series of concrete measures described in the Open Government Directive to put into practice the commitments to transparency, participation, and collaboration.[7]

The goals of this effort are to promote accountability, to ensure that regulations are informed by a careful analysis of the likely consequences, and to reduce the dual risks of excessive and insufficient regulation. A particular goal, in the current period, is to avoid unjustified or excessive burdens on business, State and local government, and individuals. The recent agency checklist for Regulatory Impact Analysis is designed to promote these various goals (see Appendix).

Participation and Collaboration in the Regulatory Process

Regulations are likely to be most sensibly designed when they are created through the open exchange of information and perspectives among public officials, experts in relevant disciplines, and the public as a whole. To promote that open exchange, the Administration has asked agencies to provide the public with timely access to regulatory analyses and supporting documents (to the extent permitted by law and subject to privacy, confidentiality, security, or other restrictions), to ensure a meaningful opportunity for public comment.

The Internet provides an ideal vehicle for making information public, and the Administration has committed to publish as much as possible online in a format that can be retrieved, downloaded, indexed, and searched by commonly-used web search applications. Importantly, this commitment promotes public accessibility of the analysis of benefits and costs, together with the supporting materials, in order to ensure that the analysis is subject to public scrutiny. That process of scrutiny can help to increase benefits, decrease costs, or both.

Agencies now publish a great deal of information relevant to rulemaking and benefit-cost analysis, including underlying data, online and in downloadable, as well as traditional, formats. The Administration has directed agencies to use regulations.gov as often as possible, in order to make the online record as complete as possible,[8] to take all necessary steps to make relevant material available to the public for comment, and to make sure that all information provided to the public conforms to stringent information quality guidelines.[9]

Executive Orders 13563 and 12866 require that the public should generally receive a comment period of not less than 60 days for proposed regulatory actions. Even where statutes necessitate shorter comment periods, agencies can seek public comment and respond in a timely fashion to suggestions about potential improvements in rules and underlying analyses.

Publicly Accessible Summaries and Tables with Key Information

In order to improve analysis of the effects of regulations, and simultaneously to improve accountability, OMB has called for a clear, salient, publicly accessible executive summary of both benefits and costs—written in a "plain language" manner designed to be understandable to the public. For all economically significant regulations, Executive Order 12866 requires agencies to provide a description of the need for the regulatory action and a clear summary of the analysis of costs and benefits, both quali-

[6] Available at: www.gpoaccess.gov/presdocs/2009/DCPD200900010.pdf

[7] Available at: www.openthegovernment.org/otg/OGD.pdf

[8] Available at: www.whitehouse.gov/omb/assets/inforeg/edocket_final_5-28-2010.pdf

[9] Available at www.whitehouse.gov/omb/fedreg_final_information_quality_guidelines/

tative and quantitative. The summary often includes an accounting of benefits and costs of alternative approaches, and where relevant, an analysis of distributional impacts on subpopulations (such as people with disabilities or those with low income).

As noted, some benefits and costs can be quantified and monetized, while some can be described only in qualitative terms. Agencies are now asked to list all costs and benefits of a regulation in a convenient summary, quantifying and monetizing as many of them as possible. A useful way to communicate effects that cannot be easily quantified or monetized is to present ranges of values (as agencies frequently now do).

Simple, Straightforward Justification of Preferred Option

Executive Order 12866 requires the executive summary to include "an explanation of why the planned regulatory action is preferable to the identified potential alternative," and demonstrate that the agency has selected the approach "that maximizes net benefits (including potential economic, environmental, public health and safety, and other advantages; distributive impacts; and equity) unless a statute requires another regulatory approach."

Under the Executive Order, agencies are required to provide a "reasoned determination that the benefits of the intended regulation justify its costs," to the extent permitted by law. In making those determinations, agencies should pay close attention to quantifiable and monetizable benefits and costs, but are permitted to consider values that are hard or impossible to quantify in light of existing knowledge, as well as distributional effects, fairness, and considerations of equity (including, where relevant, considerations of environmental justice). Executive Order 13563 endorses and amplifies these principles.

Where nonquantified or nonmonetized variables are important to the agency's determination, agencies often use "breakeven analysis," explaining how high the nonquantified or nonmonetized benefits would have to be in order for the benefits to justify the costs. In those situations, agencies make underlying assumptions transparent to the public and available through the rulemaking process. Where the agency has proceeded even though the benefits do not justify the costs, and where the agency has not selected the approach that maximizes net benefits, it should carefully explain its reasoning (as, for example, where a statute so requires).

Benefit-cost analysis is a useful and often indispensable method for evaluating programs and options. In some cases, it reveals that apparently attractive proposals are too expensive to be worthwhile. In other cases, it shows that costly proposals are well-justified, because the benefits are significantly higher than the costs. Often benefit-cost analysis helps to identify the range of reasonable options. It is true that conceptual and empirical challenges remain and that it is important to assess the evolving literature in order to meet those challenges. Especially in a period of serious economic difficulties, greater use and improvement of benefit-cost analysis are high priorities.

APPENDIX
AGENCY CHECKLIST: REGULATORY IMPACT ANALYSIS

With this document, the Office of Information and Regulatory Affairs is providing a checklist to assist agencies in producing regulatory impact analyses (RIAs), as required for economically significant rules by Executive Order 12866 and OMB Circular A-4.

Nothing herein alters, adds to, or reformulates existing requirements in any way. Moreover, this checklist is limited to the requirements of Executive Order 12866 (available at: http://www.reginfo.gov/public/jsp/Utilities/EO_12866.pdf) and Circular A-4 (available at: www.whitehouse.gov/OMB/circulars/a004/a-4.pdf); it does not address requirements imposed by other authorities, such as the National Environmental Policy Act, the Regulatory Flexibility Act, the Unfunded Mandates Reform Act, the Paperwork Reduction Act, and various Executive Orders that require analysis. Executive Order 12866 and Circular A-4, as well as those other authorities, should be consulted for further information.

Checklist for Regulatory Impact Analysis:[10]

Does the RIA include a reasonably detailed description of the need for the regulatory action?

Does the RIA include an explanation of how the regulatory action will meet that need?

Does the RIA use an appropriate baseline (i.e., best assessment of how the world would look in the absence of the proposed action)?

Is the information in the RIA based on the best reasonably obtainable scientific, technical, and economic information and is it presented in an accurate, clear, complete, and unbiased manner?

Are the data, sources, and methods used in the RIA provided to the public on the Internet so that a qualified person can reproduce the analysis?

To the extent feasible, does the RIA quantify and monetize the anticipated benefits from the regulatory action?

To the extent feasible, does the RIA quantify and monetize the anticipated costs?

Does the RIA explain and support a reasoned determination that the benefits of the intended regulation justify its costs (recognizing that some benefits and costs are difficult to quantify)?

Does the RIA assess the potentially effective and reasonably feasible alternatives?

Does the RIA assess the benefits and costs of different regulatory provisions separately if the rule includes a number of distinct provisions?

Does the RIA assess at least one alternative that is less stringent and at least one alternative that is more stringent?

[10] www.whitehouse.gov/sites/default/files/omb/inforeg/regpol/RIA_Checklist.pdf. The checklist provides the complete cross-reference to the Executive Order 12866 and the Circular A-4.

Does the RIA consider setting different requirements for large and small firms?

Does the preferred option have the highest net benefits (including potential economic, environmental, public health and safety, and other advantages; distributive impacts; and equity), unless a statute requires a different approach?

Does the RIA include an explanation of why the planned regulatory action is preferable to the identified potential alternatives?

Does the RIA use appropriate discount rates for benefits and costs that are expected to occur in the future?

Does the RIA include, if and where relevant, an appropriate uncertainty analysis?

Does the RIA include, if and where relevant, a separate description of distributive impacts and equity?

Does the RIA provide a description/accounting of transfer payments?

Does the RIA analyze relevant effects on disadvantaged or vulnerable populations (e.g., disabled or poor)?

Does the analysis include a clear, plain-language executive summary, including an accounting statement that summarizes the benefit and cost estimates for the regulatory action under consideration, including the qualitative and non-monetized benefits and costs?

Does the analysis include a clear and transparent table presenting (to the extent feasible) anticipated benefits and costs (quantitative and qualitative)?

10. SOCIAL INDICATORS

The social indicators presented in this chapter illustrate in broad terms how the Nation is faring in selected areas where the Federal Government has significant responsibilities, including the economy, energy, the environment, health, and education, among others.

The indicators shown in the tables in this chapter are only a subset drawn from the vast array of available data on conditions in the United States. In choosing indicators for this table, priority was given to measures that were consistently available over an extended period. Such indicators make it easier to draw comparisons and establish trends.

The individual measures in these tables are influenced to varying degrees by many Government policies and programs, as well as by external factors beyond the Government's control. They do not measure the outcomes of Government policies, because they do not show the direct results of Government activities, but they do provide a quantitative measure of the progress or lack of progress toward some of the ultimate ends that Government policy is intended to promote. The "Program Evaluation "and "Benefit-Cost Analysis" chapters of this volume discuss approaches toward assessing directly the impacts of particular Government programs.

The President has made it clear that policy decisions should be based upon evidence—evidence about what the Nation's greatest needs and challenges are and evidence about what strategies are working. The social indicators in this chapter provide useful information both for prioritizing budgetary and policymaking resources and for evaluating how well existing approaches are working.

Economic Conditions: The 2008-2009 economic downturn has produced the worst labor market in more than a generation. Unemployment is double its rate at the most recent business cycle peak. The employment-to-population ratio has fallen below 60 percent for the first time in 25 years.

Over the full 1960 to 2010 period shown in the tables, the primary pattern has been one of rising living standards. Real disposable income per capita has more than tripled over the past five decades as technological progress and the accumulation of human and physical capital have increased the Nation's productive capacity. Average household net worth has more than doubled. But the median family has not shared fully in this prosperity—median income is up only about 24 percent (since 1967) and was lower in 2009 than in 1998, because income gains have been concentrated among higher-income families and individuals. Household composition has also affected the median income as the numbers of two-earner households and single-parent households have increased. Similarly the median wealth of households in the decade before retirement has risen, but not nearly as rapidly as mean wealth.

The rise in the share of national income received by those at the top of the income distribution can be seen in the two inequality measures in Table 10-1. The share of income accruing to the lower 60 percent of households has fallen from 32.9 percent in 1968 to 26.6 percent in 2009 - the most recent year for which we have data. The income share of the top one percent of taxpayers has risen from around eight percent in the two decades between 1960 and 1980 to 18 percent in 2008. The poverty rate, which fell dramatically between 1960 and 1970, as the economy prospered and as Social Security and other safety-net programs expanded, is at about the same level as in 1967—despite the large increase in per capita income, and 15 percent of American households are food-insecure. Changes in family structure among low-income households and stagnating wages for low-skill workers are a large part of the story for why rising aggregate income has not had more impact on the most economically vulnerable Americans.

Setting the Stage for Future Prosperity: The Nation's future economic prosperity depends on having a highly skilled workforce, an expanding stock of physical capital including advanced infrastructure, and a business environment that encourages innovation. National saving is a key determinant of future prosperity because it supports capital accumulation. Table 10-1 shows that net national saving, which was already low by international standards when it averaged around 10 percent in the 1960s and 1970s, fell from 6.2 percent in 2000 to 1.8 percent in 2007 as Federal budget surpluses turned to deficits. During the recent economic downturn, personal saving has rebounded to around 6 percent, but net national saving, which includes the Government's dissaving, has fallen to -1 percent of GDP. Despite the current low saving rate, past saving has resulted in a large accumulation of physical capital. The stock of physical capital including consumer durable goods like cars and appliances amounted to $49 trillion in 2009, more than four times the size of the capital stock in 1960, after accounting for inflation.

National Research and Development (R&D) spending has hovered between 2.5 percent and 2.8 percent of GDP for most of the past 50 years. The President has set a target to increase this number to 3.0 percent. Patents encourage innovation by awarding an inventor the right to exclude others from the use of an invention unless compensated. The patent system also assures publication of patented ideas distributing knowledge that might otherwise be kept confidential. Patents by U.S. inventors have more than doubled since 1960.

The Nation's future well-being and prosperity depends also on stewardship of our natural resources and environment and on our ability to bring about a clean energy economy. The country has made major strides in improving air quality since the passage of the Clean Air Act in 1970. Concentrations of the main criteria pollutants tracked by the Environmental Protection Agency have declined significantly since 1970. The largest decline was for lead, which was removed from gasoline, but there have also been large declines in the emissions of carbon monoxide, nitrogen oxides, and sulfur dioxide. The air has become markedly cleaner in the United States as a result of this progress. Progress on improving water quality has also been noticeable as an increasing proportion of the population is served by improved water treatment facilities.

Moving forward, the greatest environmental challenge is reducing greenhouse gas emissions. In 2008, emissions were 6016 teragrams. The President announced a target reduction of 17 percent in greenhouse gas emissions between 2005 and 2020, with an ultimate reduction of 83 percent between 2005 and 2050. While technological advances and a shift in production patterns mean that Americans now use about half as much energy per real dollar of GDP as they did 40 years ago, rising income levels mean that per capita consumption has remained roughly constant. And today only eight percent of U.S. energy production is from renewable sources.

Health, Education, and Civic Engagement: Table 10-2 focuses on additional national priorities.

The first three groups of indicators in this table show measures related to the Nation's health. The United States devotes a large fraction of its income to health care, and that share has increased more than threefold since 1960. In the latest data, the share of GDP accounted for by health expenditures was 17.6 percent of GDP in 2009, and the share is projected to have remained near that level in 2010. This is the largest it has ever been and well above what other nations spend on health. Despite the large expenditures on health care, many Americans were unable to obtain health insurance. In 2009, about 17 percent of the U.S. population was uninsured. In 2010, the President signed into law the Affordable Care Act, which is projected to reduce the number of uninsured Americans significantly. The United States has seen progress over the last 50 years in some important indicators of health status. Infant mortality has fallen from 26 deaths per 1,000 live births in 1960 to less than 7 deaths in 2000, although there has been relatively slow progress since 2000. Life expectancy at birth has increased substantially in the United States, rising by more than eight years since 1960, although it lags behind that in many other developed countries, and registered a small decline in 2008.

Americans' behaviors contribute to some of our health problems. Cigarette smoking has declined dramatically since the 1970s, but 21 percent of the adult population still smokes with the attendant health risks that brings. Obesity is a growing problem for the United States as more and more Americans fall into this category. About 27 percent of the population is classified as obese according to criteria established by the Centers for Disease Control and Prevention, up from 15 percent fifteen years ago.

The Administration is committed to returning America to being number one in the world in high school and college graduation rates and academic achievement, which is critical to long-term competitiveness and growth. Between 1960 and 1980, the percentage of 18-24 year olds with a high school diploma increased from 60 percent to 81 percent, a gain of about ten percentage points per decade. Progress has slowed since then with only a four percentage point gain over the past 30 years. The most thorough measurement of education achievement is the National Assessment of Educational Progress (NAEP). These measures have been taken since the 1980s. They show only very gradual improvement in mathematics and no discernible progress in reading for American 17-year olds. College enrollment rates have continued to rise. In 1980 only a quarter of 18-24 year olds were enrolled in college. Today that number is almost 40 percent.

Americans are generally well housed, but some of the population faces housing problems. In 2007, about five percent of households with children lived in inadequate housing as defined by the Census Bureau. These problems usually consisted of poor plumbing, inadequate heating, or other physical maintenance problems. About six percent of these households were experiencing overcrowding. Both measures were down from levels reported in the 1980s. However, many families have experienced increased housing costs relative to income. In 2007, 37 percent of families with children were spending more than 30 percent of reported income on housing and utilities, up from 17 percent in 1980.

Since 1980, there has been a remarkable decline in violent crime. The two crime measures shown in Table 10-2 are based on different types of record keeping. The murder rate is based on reported homicides compiled by the Federal Bureau of Investigation from local law enforcement agencies, while the violent crime statistic is based on surveys of victims. The violent crime rate has declined to about one-third of its 1980 level. The murder rate has been cut in half.

Measures of family instability increased significantly up until around 1995. Since 1995, births to unmarried adolescents age 15 to 17 have dropped from around 30 per 1,000 women to about 21 per 1,000. After rising for more than three decades, the percentage of children living only with their mother has stabilized at around 24 percent of all children. Americans increased their charitable contributions at an average real rate of slightly less than two percent per year between 1960 and 2008; real GDP per capita grew by slightly more than two percent per year over that interval. Charitable giving measured in real terms dropped slightly in 2008 and again in 2009, as the recession and capital losses cut into family resources, but the level of giving was still higher than in any year before 2007. Another measure of American's willingness to participate in civic activity, the voting rate for President, was at 64 percent in 1960, but averaged about 55 percent from 1972 through 2000 before rising to 60 percent in 2004 and 62 percent in 2008.

Other Compilations of Economic and Social Indicators: There are many other sources of data on trends in American social and economic conditions, including the *Statistical Abstract* published annually by the Census Bureau. Some examples are described below. Cutting across a range of social and economic domains, the Interagency Forum on Child and Family Statistics annually assembles *American's Children: Key National Indicators of Well-Being* (*http://www.childstats.gov*). The Interagency Forum on Aging-Related Statistics publishes *Older Americans: Key Indicators of Well-Being* every other year (*http://www.agingstats.gov/agingstatsdotnet/main_site/default.aspx*).

There are also topic-specific indicators, which highlight performance in specific areas. *Science and Engineering Indicators*, published by the National Science Board, provides a broad base of quantitative information on the U.S. and international science and engineering enterprise: (*http://www.nsf.gov/statistics/indicators*). The Science Resources Statistics Division at the National Science Foundation is doing developmental work on measuring innovation, an important component of the scientific enterprise not currently included in our measures. *Healthy People 2020* within the Department of Health and Human Services offers a statement of national health objectives that identifies the most significant preventable threats to health and establishes national goals to reduce these threats. The National Center for Health Statistics annually publishes *Health, United States* (*http://www.cdc.gov/nchs/hus.htm*), a comprehensive compilation of health indicators. The National Center for Education Statistics within the Department of Education publishes the *Condition of Education* (*http://nces.ed.gov/programs/coe*). The website includes a set of indicators and also special analyses and a user's guide.

Table 10–1. ECONOMIC AND SOCIAL INDICATORS

	Calendar Years	1960	1970	1980	1990	1995	2000	2005	2006	2007	2008	2009	2010
	Economic Conditions:												
	Living Standards:												
1	Real GDP per person (2005 dollars) [1]	15,729	20,933	25,697	32,184	34,151	39,784	42,733	43,458	43,865	43,462	41,955	42,723
	average annual percent change (5-year trend)	0.8	2.3	2.6	2.3	1.2	3.1	1.4	1.8	1.8	1.3	0.1	–0.0
2	Real disposable income per capita average (2005 dollars) [2]	10,865	15,158	18,863	23,568	24,951	28,899	31,318	32,271	32,693	32,946	32,847	33,019
	average annual percent change (5-year trend)	1.2	3.2	2.0	1.8	1.1	3.0	1.6	2.0	1.8	1.6	1.0	1.1
3	Real median income: all households (2009 dollars)	N/A	43,055	43,892	47,637	47,622	52,301	50,899	51,278	51,965	50,112	49,777	N/A
	average annual percent change (5-year trend)	N/A	N/A	0.5	1.2	–0.0	1.9	–0.5	0.0	0.5	–0.2	–0.2	N/A
4	Poverty rate (%) [2]	22.2	12.6	13.0	13.5	13.8	11.3	12.6	12.3	12.5	13.2	14.3	N/A
5	Food-insecure households (percent of all households) [3]	N/A	N/A	N/A	N/A	N/A	10.5	11.0	10.9	11.1	14.6	14.7	N/A
	Jobs and Unemployment:												
6	Civilian unemployment rate (%)	5.5	4.9	7.1	5.5	5.6	4.0	5.1	4.6	4.6	5.8	9.9	9.6
7	Unemployment plus marginally attached and underemployed (%)	N/A	N/A	N/A	N/A	10.0	7.0	8.9	8.2	8.3	10.6	16.3	16.8
8	Employment-population ratio % [4]	56.1	57.4	59.2	62.8	62.9	64.4	62.7	63.1	63.0	62.2	59.3	58.5
9	Payroll employment change - December to December (millions)	–0.4	–0.5	0.3	0.3	2.2	2.0	2.5	2.1	1.1	–3.6	–4.7	1.1
10	Payroll employment change - 5-year annual average (millions)	0.2	1.7	2.6	2.1	1.8	2.9	0.5	1.2	1.6	0.8	–0.5	–0.8
	Economic Inequality:												
11	Income share of lower 60% of all households	N/A	32.3	31.2	29.3	28.0	27.3	26.6	26.5	26.9	26.7	26.6	N/A
12	Income share of top 1% of all taxpayers	8.4	7.8	8.2	13.0	13.5	16.5	17.4	18.0	18.3	17.7	N/A	N/A
	Wealth Creation:												
13	Net national saving rate (% of GDP) [5]	10.4	8.1	7.1	3.9	4.7	6.2	2.9	3.8	1.8	–0.4	–2.3	–1.2
14	Personal Saving Rate (% of Disposable Personal Income) [5]	7.2	9.4	9.8	6.5	5.2	2.9	1.4	2.4	2.1	4.1	5.9	5.8
15	Average household net worth (thousands 2010 dollars) [5]	227	272	298	357	401	509	586	607	582	447	467	476
16	Median wealth of households aged 55–64 (thous. 2007 $) [6]	N/A	N/A	N/A	160	156	199	269	262	254	N/A	N/A	N/A
	Innovation:												
17	R&D spending (% of GDP)	2.6	2.5	2.3	2.6	2.5	2.7	2.5	2.6	2.6	2.8	N/A	N/A
18	Patents issued to U.S. residents (thousands)	42.3	50.6	41.7	56.1	68.2	103.6	88.5	112.5	105.1	105.0	107.0	N/A
19	Multifactor productivity (average 5 year percent change)	1.0	0.9	0.8	0.6	0.5	1.3	1.8	1.8	1.4	0.9	N/A	N/A
20	Nonfarm output per hour (average 5 year percent change)	1.8	2.1	1.1	1.5	1.5	2.7	3.1	2.7	2.1	1.6	1.7	2.1
	Capital and Infrastructure:												
21	Bridges that are structurally deficient or functionally obsolete (%) [7]	N/A	N/A	N/A	N/A	31.8	28.6	26.3	25.8	25.4	25.2	24.8	N/A
22	Real net stock of fixed assets and consumer durable goods ($09 bils)	11,209	16,360	22,543	29,818	33,174	38,952	44,821	46,097	47,247	48,103	48,500	N/A
	Energy and Environment:												
	Air Quality - Mean Pollution Concentration levels [8]:												
23	Carbon Monoxide (ppm) based on 124 monitoring sites	N/A	N/A	8.951	6.130	4.797	3.461	2.296	2.195	2.021	1.874	N/A	N/A
24	Ground Level Ozone (ppm) based on 258 monitoring sites	N/A	N/A	0.100	0.089	0.090	0.081	0.080	0.078	0.079	0.075	N/A	N/A
25	Lead (ug/m3) based on 19 monitoring sites	N/A	N/A	1.263	0.357	0.090	0.079	0.078	0.066	0.102	0.101	N/A	N/A
26	Nitrogen Dioxide (ppm) based on 75 monitoring sites	N/A	N/A	0.028	0.024	0.023	0.021	0.017	0.016	0.016	0.015	N/A	N/A
	Particulate Matter (ug/m3):												
27	PM10 based on 325 monitoring sites	N/A	N/A	N/A	80.769	67.718	62.601	57.194	56.388	58.360	55.929	N/A	N/A
28	PM 2.5 based on 728 monitoring sites	N/A	N/A	N/A	N/A	N/A	13.470	12.831	11.535	11.887	10.899	N/A	N/A
29	Sulfur Dioxide (ppm) based on 141 monitoring sites	N/A	N/A	0.012	0.009	0.006	0.005	0.004	0.004	0.004	0.003	N/A	N/A
	Water Quality:												
30	Population served by secondary treatment or better (millions) [6]	53.4	85.9	117.9	154.4	163.3	189.1	205.2	205.4	205.5	205.7	208.0	210.2
	Climate Change:												
31	Net greenhouse gas emissions (teragrams CO2 equivalent) [9]	N/A	N/A	N/A	5,217	5,646	6,380	6,183	6,101	6,213	6,016	N/A	N/A
32	Per capita greenhouse gas emissions (megagrams CO2 equivalent)	N/A	N/A	N/A	20.9	21.2	22.6	20.9	20.4	20.6	19.8	N/A	N/A
33	Per 2005$ of GDP greenhouse emissions (kilograms CO2 equivalent)	N/A	N/A	N/A	0.649	0.621	0.568	0.489	0.470	0.470	0.455	N/A	N/A
	Energy:												
34	Energy consumption per capita (millions of BTUs)	250	331	344	339	342	351	340	334	337	327	308	N/A
35	Energy consumption per real dollar of GDP (thousands of BTUs)	15.9	15.9	13.4	10.5	10.0	8.8	8.0	7.7	7.7	7.5	7.3	N/A
36	Energy production from renewable sources (% of total)	N/A	N/A	N/A	N/A	N/A	N/A	6.4	6.8	6.7	7.4	7.7	N/A

[1] Values for 2010 based on preliminary data for 2010.Q4.

[2] The poverty rate does not reflect noncash government transfers.

[3] These households were uncertain of having, or unable to acquire, enough food to meet the needs of all their members because they had insufficient money or other resources for food at some time during the year.

[4] Civilian employment as a percent of the civilian noninstitutional population age 16 and above.

[5] 2010 through 2010.Q3 only.

[6] Data interpolated for some years.

[7] Bridges are structurally deficient if they have been restricted to light vehicles, require immediate rehabilitation, or are closed. They are functionally obsolete if they have deck geometry, load carrying capacity, clearance or approach roadway alignment that no longer meet the criteria for the system of which the bridge is carrying a part.

[8] ppm -- parts per million; ug/m3 -- micrograms per cubic meter

[9] This is a net measure reflecting both sources and sinks of greenhouse gases.

Table 10–2. ECONOMIC AND SOCIAL INDICATORS

	Calendar Years	1960	1970	1980	1990	1995	2000	2005	2006	2007	2008	2009	2010
	Access to Health Care:												
37	Total national health expenditures (percent of GDP)[1]	5.2	7.2	9.2	12.5	13.9	13.8	16.0	16.1	16.2	16.6	17.6	17.8
38	Percentage of population without health insurance	N/A	N/A	N/A	12.9	14.4	13.7	15.3	15.8	15.3	15.4	16.7	N/A
39	% of children age 19–35 months with recommended immunizations[2]	N/A	N/A	N/A	N/A	N/A	72.8	80.8	80.5	80.1	78.2	75.7	N/A
	Health Status:												
40	Infant mortality (per 1000 live births)[3]	26.0	20.0	12.6	9.2	7.6	6.9	6.9	6.7	6.8	6.6	N/A	N/A
41	Low birthweight [<2,500 gms] percentage of babies	7.7	7.9	6.8	7.0	7.3	7.6	8.2	8.3	8.2	8.2	N/A	N/A
42	Life expectancy at birth (years)[3]	69.7	70.8	73.7	75.4	75.8	76.8	77.4	77.7	77.9	77.8	N/A	N/A
	Health Risks:												
43	Cigarette smokers (% population 18 and older)	N/A	37.4	33.2	25.5	24.7	N/A	20.9	20.8	19.8	20.6	20.6	N/A
44	Obesity (% of population with BMI over 30)[4]	N/A	N/A	N/A	N/A	15.3	19.8	23.9	N/A	25.6	N/A	26.7	N/A
45	Alcohol (% high school students engaged in heavy drinking)[5]	N/A	N/A	N/A	N/A	32.6	30.7	25.5	25.8	26.0	N/A	24.2	N/A
46	Physical activity: % of adults engaged in regular physical activity[6]	N/A	N/A	N/A	N/A	N/A	N/A	48.7	N/A	49.2	N/A	50.6	N/A
	Education:												
47	High school graduates (% of population 25 and older)	44.6	55.2	68.6	77.6	81.7	84.1	85.2	85.5	85.7	86.6	86.7	N/A
48	Percentage of 18–24 year olds with a high school diploma	59.9	78.8	80.9	81.7	80.8	81.9	82.9	82.6	83.9	84.9	N/A	N/A
49	Percentage of 18–24 year olds enrolled in college	N/A	25.7	25.6	32.0	34.3	35.5	38.9	37.3	38.8	39.6	N/A	N/A
50	College graduates (% of population 25 and older)	8.4	11.0	17.0	21.3	23.0	25.6	27.6	28.0	28.7	29.4	29.5	N/A
	National Assessment of Educational Progress[7]												
51	Reading 17-year olds	N/A	N/A	283	288	286	285	284	285	285	286	N/A	N/A
52	Mathematics 17-year olds	N/A	N/A	297	303	305	306	305	306	306	306	N/A	N/A
	Housing:												
53	Percentage of families with children with inadequate housing[8]	N/A	N/A	9	9	7	7	5	5	5	N/A	N/A	N/A
54	Percentage of families with children with crowded housing	N/A	N/A	9	7	7	7	6	6	6	N/A	N/A	N/A
55	Percentage of families with children with costly housing[9]	N/A	N/A	17	25	28	28	34	36	37	N/A	N/A	N/A
	Crime:												
56	Violent crime rate (per 100,000 population 12 and older)[10]	N/A	N/A	4,940	4,410	4,610	2,740	2,100	N/A	2,040	1,900	1,690	N/A
57	Murder rate (per 100,000 population)[11]	5.1	7.8	10.2	9.4	8.2	5.5	5.6	5.8	5.7	5.4	5.0	N/A
	Families:												
58	Births to unmarried women age 15–17 (per 1,000)	N/A	N/A	20.6	29.6	30.1	23.9	19.7	20.4	20.8	20.6	N/A	N/A
59	Children living with mother only (% of all children)	9.2	11.6	18.6	21.6	24.0	22.3	23.4	24.0	24.1	23.9	24.4	N/A
	Civic Engagement:												
60	Individual Charitable Giving per Capita (2008 dollars)	306	438	467	533	504	771	823	795	786	748	741	N/A
61	Percentage of Americans volunteering[12]	N/A	N/A	N/A	20.4	N/A	N/A	27.0	26.7	26.2	26.4	26.8	N/A
		(1960)	(1968)	(1972)	(1976)	(1980)	(1984)	(1988)	(1992)	(1996)	(2000)	(2004)	(2008)
62	Voting for President by election year (% eligible population)[13]	63.8	61.5	56.2	54.8	54.2	55.2	52.8	58.1	51.7	54.2	60.1	61.7

[1] The 2010 values is projected, the last actual data are for 2009.

[2] The 4:3:1:3:3 series consisting of 4 doses (or more) of diphtheria, tetanus toxoids, and pertussis (DTP) vaccines, diphtheria and tetanus toxoids (DT), or diphtheria, tetanus toxoids, and any acellular pertussis (DTaP) vaccines; 3 doses (or more) of poliovirus vaccines; 1 dose (or more) of any measles-containing vaccine; 3 doses (or more) of Haemophilus influenzae type b (Hib) vaccines; and 3 doses (or more) of hepatitis B vaccines.

[3] Data for 2008 are preliminary

[4] BMI refers to body mass index. A BMI over 30 is the criterion for obesity used by the Centers for Disease Control and Prevention.

[5] Data are interpolated. Percentage of high school students who had five or more drinks within a couple of hours at least once within the 30 days prior to the survey.

[6] Adults with 30+ minutes of moderate physical activity five or more days per week, or vigorous physical activity for 20+ minutes three or more days per week

[7] Data are interpolated. Actual survey years were 1973, 1978, 1982, 1986, 1990, 1992, 1994, 1996, 1999, 2004, and 2008.

[8] Inadequate housing has moderate to severe physical problems, usually poor plumbing or heating or upkeep problems. Some data intepolated.

[9] Expenditures for housing and utilities exceed 30 percent of reported income. Some data intepolated.

[10] Includes crimes both reported and not reported to law enforcement. Offenses include homicide, rape, robbery, aggravated assault and simple assault.

[11] Based on reported crimes. Not all crimes are reported, and the fraction that go unreported may have varied over time, preliminary data for 2008.

[12] Data from 1974, 1989, and since 2005 are drawn from the Current Population Survey.

[13] As computed by Professor Michael McDonald, George Mason University, after adjusting the population for those not eligible to vote in Presidential elections.

Table 10–3. SOURCES FOR ECONOMIC AND SOCIAL INDICATORS

Indicator:	Source:
Economic, Environmental, and Energy Indicators (Table 10-1):	
Real GDP per person	U.S. Department of Commerce, Bureau of Economic Analysis, National Economic Accounts Data.
Real disposable income per capita	U.S. Department of Commerce, Bureau of Economic Analysis, National Economic Accounts Data.
Real median income: all households	U.S. Census Bureau, Housing and Household Economic Statistics Division
Poverty rate	U.S. Census Bureau, Housing and Household Economic Statistics Division
Food-insecure households	U.S. Census Bureau, Current Population Survey Food Security Supplement; tabulated by U.S. Department of Agriculture, Economic Research Service
Civilian unemployment rate	U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey.
Unemployment plus marginally attached and underemployed	U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey.
Employment-population ratio	U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey.
Payroll employment	U.S. Department of Labor, Bureau of Labor Statistics, Current Employment Statistics program.
Income share of lower 60% of all households	U.S. Census Bureau, Housing and Household Economic Statistics Division
Income share of top 1% of all taxpayers	Thomas Piketty and Emanuel Saez, "Income Inequality in the United States, 1913-1998" *Quarterly Journal of Economics*, 118(1), 2003, 1-39 (tables and figures updated to 2008, July 2010)
Net national saving rate	U.S. Department of Commerce, Bureau of Economic Analysis, National Economic Accounts Data.
Personal Saving Rate	U.S. Department of Commerce, Bureau of Economic Analysis, National Economic Accounts Data.
Average household net worth	Board of Governors of the Federal Reserve System, Flow of Funds Accounts of the United States, and U.S. Census Bureau, Housing and Economic Statistics Division.
Median wealth of households aged 55-64	Board of Governors of the Federal Reserve System, 2007 Survey of Consumer Finances Chartbook.
R&D spending	National Science Foundation, Division of Science Resources Statistics, National Patterns of R&D Resources 2008, data update, NSF 10-314.
Patents issued to U.S. residents	U.S. Patent and Trademark Office, Electronic Information Products Division, Patent Technology Monitoring Team, submissions to the World Intellectual Property Organization.
Multifactor productivity	U.S. Department of Labor, Bureau of Labor Statistics, Major Sector Productivity Program.
Nonfarm output per hour	U.S. Department of Labor, Bureau of Labor Statistics, Major Sector Productivity Program.
Bridges that are structurally deficient or functionally obsolete	U.S. Federal Highway Administration, Office of Bridge Technology, "National Bridge Inventory."
Real net stock of fixed assets and consumer durable goods	U.S. Department of Commerce, Bureau of Economic Analysis, National Economic Accounts Data.
Carbon Monoxide	U.S. Environmental Protection Agency, Office of Air and Radiation, Air Trends
Ground Level Ozone	U.S. Environmental Protection Agency, Office of Air and Radiation, Air Trends
Lead	U.S. Environmental Protection Agency, Office of Air and Radiation, Air Trends
Nitrogen Dioxide	U.S. Environmental Protection Agency, Office of Air and Radiation, Air Trends
PM10	U.S. Environmental Protection Agency, Office of Air and Radiation, Air Trends
PM 2.5	U.S. Environmental Protection Agency, Office of Air and Radiation, Air Trends
Sulfur Dioxide	U.S. Environmental Protection Agency, Office of Air and Radiation, Air Trends
Population served by secondary treatment or better	U.S. Environmental Protection Agency, Clean Watersheds Needs Survey 2008 Report to Congress, June 10, 2010 (includes a projection for 2028) EPA-832-R-10-002.
Net greenhouse gas emissions	U.S. Environmental Protection Agency, 2010 Inventory of Greenhouse Gases Emissions and Sinks: 1990-2008.
Energy consumption per capita	U.S. Energy Information Administration, Annual Energy Review 2009, August 19, 2010 energy overview table 1.5.
Energy consumption from renewable sources	U.S. Energy Information Administration, Independent Statistics and Analysis, Renewable Energy Consumption by Energy Use Sector and Energy Source, Table 1.2, August 2010.
Health, Education, and Other Social Indicators (Table 10-2):	
Total national health expenditures	Centers for Medicare and Medicaid Services, National Health Expenditures Data, January 2011.
Percentage of population without health insurance	U.S. Census Bureau, Housing and Household Economic Statistics Division
% of children age 19-35 months with recommended immunizations	Centers for Disease Control and Prevention, National Center for Immunization and Respiratory Diseases and National Center for Health Statistics, National Immunization Survey.
Infant mortality	Centers for Disease Control and Prevention, National Vital Statistics Report, vol. 59, no. 2, December 9, 2010
Low birthweight percentage of babies	Centers for Disease Control and Prevention, National Vital Statistics Report, vol. 58, no. 16, April 6, 2010.
Life expectancy at birth	Centers for Disease Control and Prevention, National Vital Statistics Report, vol. 59, no. 2, December 9, 2010
Cigarette smokers (% population 18 and older)	Centers for Disease Control and Prevention, Data and Statistics, Trends in Current Cigarette Smoking Among High School Students and Adults, United States, 1965–2009
Obesity (% of population with BMI over 30) (d)	Centers for Disease Control and Prevention, Morbidity and Mortality Weekly Report, Vital Signs: State-Specific Obesity Prevalence Among Adults --- United States, 2009, August 3, 2010
% high school students engaged in heavy drinking	Centers for Disease Control and Prevention, Morbidity and Mortality Weekly Report, Vital Signs: Binge Drinking Among High School Students and Adults --- United States, 2009, October 8, 2010.
% of adults over 45 engaged in regular activity	Centers for Disease Control and Prevention,Prevalence and Trends Data Nationwide (States, DC, and Territories), Physical Activity

Table 10–3. SOURCES FOR ECONOMIC AND SOCIAL INDICATORS—Continued

Indicator:	Source:
High school graduates (% of population 25 and older)	U.S. Census Bureau, People and Households, Educational Attainment, Table A-2, Percent of People 25 Years and Over: Who Have Completed High School or College, Selected Years 1940-2009.
Percentage of 18-24 year olds with a high school diploma	U.S. Census Bureau, School Enrollment, Historical Table A-5a, The Population 14 to 24 Years Old by HS Graduate Status and College Enrollment.
Percentage of 18-24 year olds enrolled in college	U.S. Census Bureau, School Enrollment, Historical Table A-5a, The Population 14 to 24 Years Old by HS Graduate Status and College Enrollment.
College graduates (% of population 25 and older)	U.S. Census Bureau, Current Population Survey, 2008 Annual Social and Economic Supplement, Internet Release Data, April 2009.
NAEP: Reading 17-year olds	National Assessment of Educational Progress, National Center for Education Statistics, 2008 Long-Term Trend Top Stories.
NAEP: Mathematics 17-year olds	National Assessment of Educational Progress, National Center for Education Statistics, 2008 Long-Term Trend Top Stories.
Percentage of families with children with inadequate housing	U.S. Census Bureau, American Housing Survey. Tabulated by U.S. Department of Housing and Urban Development
Percentage of families with children with crowded housing	U.S. Census Bureau, American Housing Survey. Tabulated by U.S. Department of Housing and Urban Development
Percentage of families with children with costly housing	U.S. Census Bureau, American Housing Survey. Tabulated by U.S. Department of Housing and Urban Development
Violent crime rate (per 100,000 population 12 and older)	U.S. Department of Justice, Bureau of Justice Statistics, Violent Crime Trends
Murder rate (per 100,000 population)	U.S. Department of Justice, Federal Bureau of Investigation, Criminal Justice Information Services Division, 2008 Crime in the United States, Table 1.
Births to unmarried women age 15-17 (per 1,000)	Centers for Disease Control and Prevention, National Vital Statistics Report, Volume 59, Number 1, December, 2010.
Children living with mother only	Annual Social and Economic Supplement to the Current Population Survey, Detailed Poverty Tabulations various years
Individual Charitable Giving	Statistical Abstract 2010, Center on Philanthropy at Indiana University, *Giving USA*.
Percentage of Americans volunteering	Corporation for National and Community Service, "Volunteer Growth in America: A Review of Trends since 1974" based on the Current Population Survey.
Voting for President by election year (% eligible population)	The United States Elections Project, Dr. Michael McDonald, George Mason University, Fairfax, Virginia.

11. IMPROVING THE FEDERAL WORKFORCE

The United States has overcome great challenges throughout our history because Americans of every generation have stepped forward to aid their Nation through service, both in civilian Government and in the Uniformed Services. Today's Federal public servant carries forward that proud American tradition. Whether it is defending our homeland, restoring confidence in our financial system and administering an historic economic recovery effort, providing health care to our veterans, or searching for cures to the most vexing diseases, we are fortunate to be able to rely upon a skilled workforce committed to public service.

A high-performing Government depends on an engaged, well-prepared, and well-trained workforce with the right set of skills appropriate to the situation. As the mission of our government has changed over time, the Federal government has worked to ensure that it employs people with the skills needed to tackle new challenges. This chapter discusses trends in Federal employment, composition, and compensation, and presents the Administration's plans for achieving the talented Federal workforce needed to serve the American people efficiently and effectively.

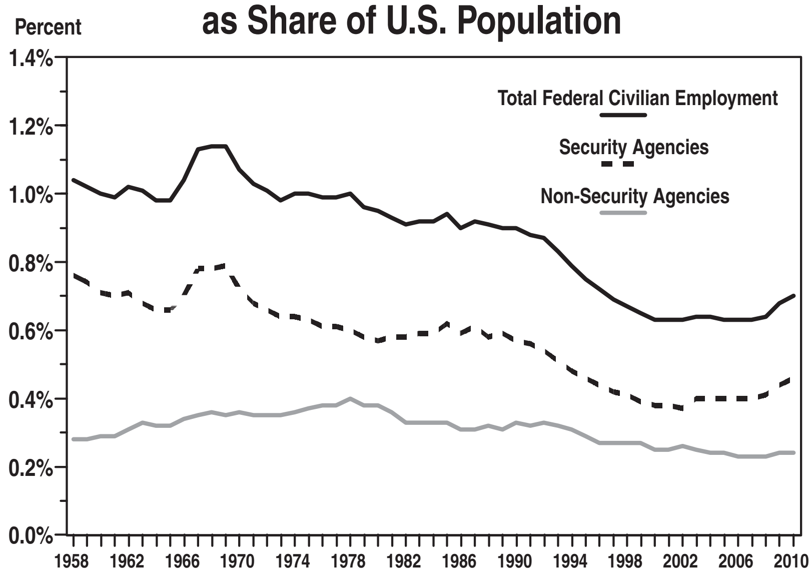
Trends in Federal Employment

The relative size of the Federal civilian workforce has declined dramatically over the last several decades. Notwithstanding occasional upticks due, for example, to military conflicts and the enumeration of the Census, the number of Federal workers as a percentage of population has fallen over time. In 1953, there was one Federal worker for every 78 residents. In 1989, there was one Federal employee for every 110 residents. By 2009, the ratio had dropped to one Federal employee for every 147 residents. The picture that emerges is one of a Federal workforce that has significantly shrunk compared to the overall U.S. population, as well as compared to the size of Federal expenditures and the work that the Federal Government is called upon to perform.

Chart 11-1 shows Federal civilian employment (excluding the U.S. Postal Service) as a share of the U.S. resident population from 1958 to 2010. The chart shows the overall decline noted above. Both security and non-security agencies have declined, although the greatest overall reductions have been in the security agencies.

This overall downward trend began to reverse itself in 2001, following the September 11 attack. Following that tragic event, the Federal workforce expanded to deal with national security and safety issues and to serve our veterans. Civilians working for the Army grew from 203,000 in 2001 to 260,000 in 2010, for example, while people working for the Veterans Health Administration increased from 189,000 in 2001 to 252,000 in 2010. Customs and Border Protection grew from 38,000 employees in Fiscal Year 2003

Chart 11-1. Federal Civilian Workforce as Share of U.S. Population



Source: Office of Personnel Management.

Notes: Security Agencies include the Department of Defense, the Department of Justice, the Department of State, Department of the Treasury, and the Department of Veterans Affairs. Non-Security Agencies include the remainder of the Executive Department agencies.

to 56,000 today. Overall, security agency employment grew by 22 percent from 2001 to 2010. During the same period, employment in non-security agencies as a percent of population fell by 4 percent.

The 2012 Budget continues these trends. Table 11-2 shows actual Federal civilian employment in the executive branch by agency in 2010, and estimates it for 2011 and 2012. The 2012 Budget estimates a 2012 workforce of 2.1 million, roughly the same level as proposed last year and a modest increase over 2010 actual levels. Consistent with the overall recent trends, personnel increases focus on providing greater security and economic opportunity for the American people. Seventy percent of the proposed increase in the size of the 2012 Federal workforce occurs in five agencies – the Department of Defense, the Department of Veterans Affairs, the Department of Homeland Security, the Department of Justice, and the Department of State. These organizations are all centrally involved in our security interests, including operations and activities in Afghanistan and Iraq, providing care for our returning veterans, protecting our country from the threat of terrorism, protecting our borders, and advancing our Nation's interests abroad. Other increases aim at implementing the recently enacted Affordable Care Act, assuring fair and thriving financial markets, and restoring some of the regulatory protections eliminated by the previous Administration in areas such as oversight of mortgage lenders and mine safety. Personnel figures at most non-security agencies remain essentially flat over the past two years, with some agencies, including Commerce (beyond the Census), the U.S. Army Corps of Engineers, Agriculture, Interior, the Nuclear Regulatory Commission, and the Small Business Administration proposing lower personnel levels due to increased efficiencies and hard choices about budget trade-offs.

Federal Workforce Pay Trends

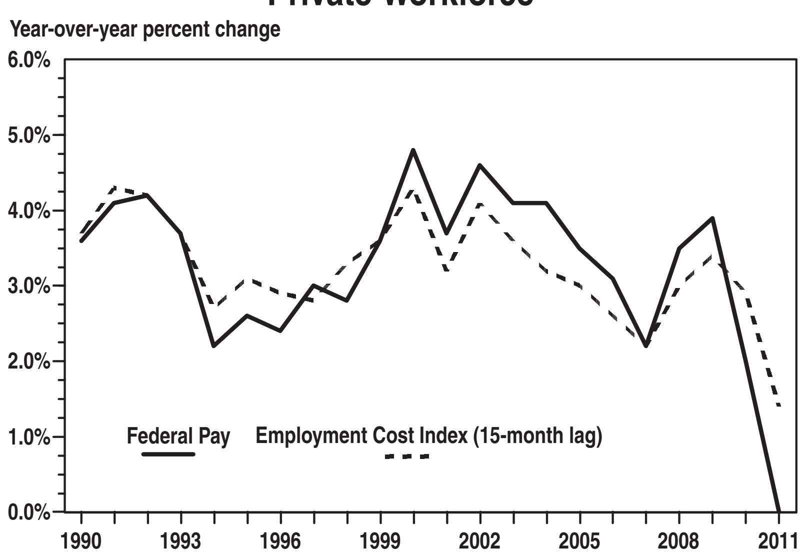
Federal and private sector pay raises have followed each other closely for the past two decades (as seen in chart 11-2). By law, as a default, Federal pay raises are pegged to changes in the 15-month-lagged Employment Cost Index (ECI) series of wage and salaries for private industry workers. The index measures private sector pay, holding constant industry and occupation composition. The law also gives the President the authority to propose alternative pay adjustments for both base and locality pay. Presidents have regularly proposed alternative pay plans.

In late 2010, the President proposed and Congress enacted a two-year freeze in the pay of civilian Federal employees as one of the steps needed to put the Nation on a sustainable fiscal path. This will save $2 billion for the remainder of 2011, $28 billion over the next five years, and more than $60 billion over the next 10 years.

Composition of Federal Workforce and Factors Affecting Federal Pay

In addition to changes in the relative size of the Federal workforce, the last half century has also seen significant shifts in its composition. Fifty years ago, most white collar Federal employees performed clerical tasks, such as posting Census figures in ledgers and retrieving taxpayer records from file rooms. Today their jobs are vastly different, requiring advanced skills to serve a knowledge-based economy. Professionals such as doctors, engineers, scientists, statisticians, and lawyers now make up a large portion of the Federal workforce. A large number of Federal employees must manage highly sensitive situations that require great skill, experience, and judgment. They increasingly need sophisticated management and negotiation skills to coordinate changes not just across Federal

Chart 11-2. Pay Raises for Federal vs. Private Workforce



Sources: Public Laws, Executive Orders, and the Bureau of Labor Statistics.

Notes: Federal pay is for civilians and includes base and locality pay. Employment Cost Index is the wages and salaries, private industry workers series.

Table 11–1. OCCUPATIONS OF FEDERAL AND PRIVATE SECTOR WORKFORCES
(Grouped by Average Private Sector Salary)

Occupational Groups	Percent	
	Federal Workers	Private Sector Workers
Top Third Occupations Ranked by Private Sector Salary		
Lawyers and judges	1.8%	0.5%
Engineers	4.2%	1.9%
Scientists and social scientists	4.6%	0.6%
Managers	11.4%	13.1%
Doctors, nurses, psychologists, etc.	7.2%	4.9%
Miscellaneous professionals	15.1%	7.7%
Administrators, accountants, HR personnel	6.7%	2.6%
Pilots, conductors, and related mechanics	2.1%	0.8%
Inspectors	1.4%	0.3%
Total Percentage	**54.5%**	**32.4%**
Middle Third Occupations Ranked by Private Sector Salary		
Sales including real estate, insurance agents	1.0%	6.7%
Other miscellaneous occupations	3.2%	4.2%
Automobile and other mechanics	1.8%	3.0%
Social workers	1.4%	0.5%
Office workers	2.6%	6.3%
Drivers of trucks and taxis	0.6%	3.5%
Laborers and construction workers	4.2%	10.8%
Total Percentage	**14.8%**	**35.0%**
Bottom Third Occupations Ranked by Private Sector Salary		
Clerks	14.8%	11.6%
Manufacturing	2.6%	8.1%
Law enforcement and related occupations	8.4%	0.8%
Other miscellaneous service workers	2.5%	6.0%
Janitors and housekeepers	1.7%	2.3%
Cooks, bartenders, bakers, and wait staff	0.8%	4.0%
Total Percentage	**30.8%**	**32.8%**

Source: Current Population Survey, 2006-2010.

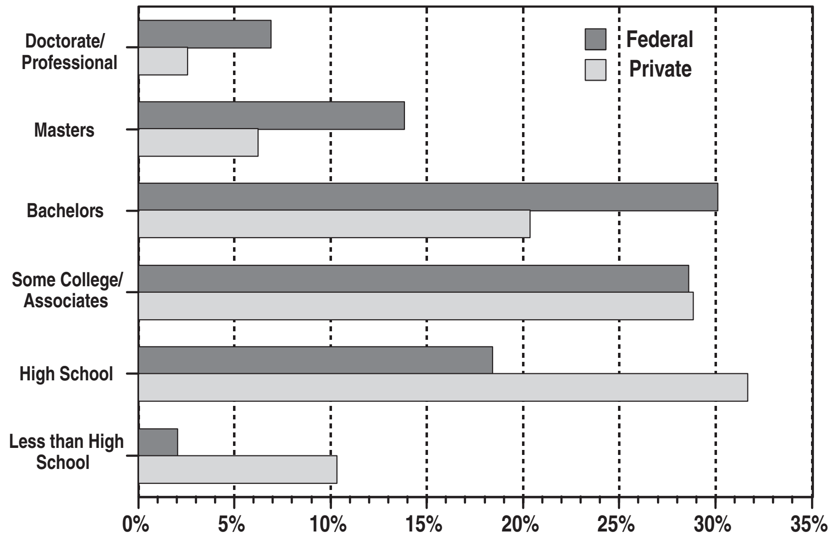
Notes: Federal workers exclude the military and Postal Service, but include all other Federal workers in the Executive, Legislative, and Judicial Branches. However, the vast majority of these employees are civil servants in the Executive Branch. Private sector workers exclude the self-employed. Neither category includes state and local government workers. This analysis is limited to full-time, full-year workers, i.e. those with at least 1500 annual hours of work.

Government organizations, but also with other levels of government, not-for-profit providers, and for-profit contractors.

Federal worker pay receives a great deal of public scrutiny, in particular in comparison to pay of private sector workers. Such comparisons are complicated by the fact that Federal and private sector workers do very different types of work. Using data from the Current Population Survey (CPS) of full-time, full-year workers, Table 11-1 breaks all Federal and private sector jobs into 23 occupation groups. That breakdown shows that more than half (54.5 percent) of Federal workers work in the nine highest-paying occupation groups – as judges, engineers, scientists, nuclear plant inspectors, etc. – compared to less than a third (32.4 percent) of private sector workers in those same nine highest paying occupation groups. In contrast, a fifth of private sector workers work in the four lowest-paying occupation groups (excluding law enforcement, which does not have a good private sector counterpart) as cooks, janitors, service workers, and manufacturing workers. Fewer than one in thirteen Federal workers work in those four lowest-paying occupation groups.

Raw comparisons of average pay between Federal and private sector employees mask important differences in the skill levels, complexity of work, scope of responsibility, size of organization, location, experience level, and special requirements, as well as exposure to personal danger.

Chart 11-3. Education Level Distribution in Federal vs. Private Workforce



Source: Current Population Survey, 2006-2010.
Notes: Federal workers exclude the military and Postal Service, but include all other Federal workers in the Executive, Legislative, and Judicial Branches. However, the vast majority of these employees are civil servants in the Executive Branch. Private sector workers exclude the self-employed. Neither category includes State and local government workers. This analysis is limited to full-time, full-year workers, i.e. those with at least 1500 annual hours of work.

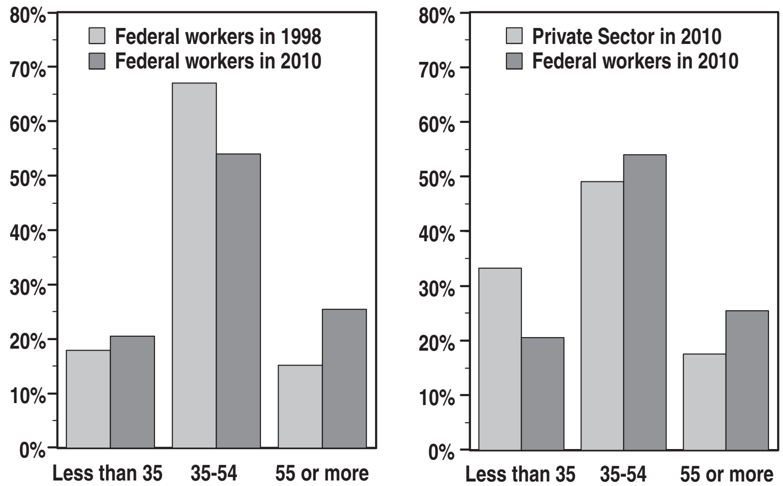
Some of the factors to consider when comparing Federal and private workers' pay are:

- Demographic characteristics. Federal workers tend to have demographic characteristics associated with higher pay in the private sector. They are more experienced, older and live in higher cost metropolitan areas. For example, in the private sector, there are more full-time workers under the age of 30 than between the ages of 50 and 59 (25 percent versus 19 percent). In the Federal workforce there are more than twice as many 50 to 59 year-olds as those under 30 years old (29 percent versus 14 percent).
- Size of organization. Another important consideration is the size of the organization. Federal agencies are large and often face challenges of enormous scale, such as distributing Social Security checks and caring for the Nation's Veterans. In many situations, it is more appropriate to compare the Federal workforce to those at larger private firms. Workers from large firms (those with 1,000 or more employees) are paid about 15 percent more than workers from small firms (those with less than 100 employees), even after accounting for occupation, education, and other characteristics.
- Education level. The size and complexity of much Federal work necessitates a highly educated workforce – whether that work is analyzing security and financial risks, forecasting weather, planning bridges to withstand extreme weather events, conducting research to advance human health and energy efficiency, or advancing science to fuel future economic growth. Chart 11-3 examines the difference in the education level of the Federal civilian and private workforce. About 20 percent of Federal workers have a master's degree, professional degree, or doctorate versus only 13 percent in the private sector. A full 51 percent of Federal employees have at least a college degree compared to 35 percent in the private sector.

Challenges

The Federal Government faces specific challenges, including an aging and retiring workforce and an inadequate system for hiring, developing, deploying, and engaging personnel. If the Government loses top talent, experience, and institutional memory through retirements but cannot recruit, retain, and train highly qualified workers, government performance will suffer. If the Government does not adapt to technological change by updating the ways it develops, deploys, and engages its personnel, it will have difficulty meeting 21st century challenges. The large number of retiring workers poses a challenge, but also creates an opportunity for an infusion of new workers excited about Government service and equipped with strong technology skills, problem-solving ability, and fresh perspectives to tackle the problems that Government is expected to address. This section lays out some of the Federal workforce challenges. The following section describes some of the

Chart 11-4. Federal Age Distribution in 1998 and 2010 and Federal vs. Private Age Distribution in 2010



Sources: Current Population Survey, 2010 and FedScope.
Notes: Federal workers exclude the military and Postal Service, but include all other Federal workers in the Executive Branch. Private sector workers exclude the self-employed. Neither category includes SState and local government workers. This analysis is limited to full-time, full-year workers, i.e. those with at least 1500 annual hours of work.

actions this Administration is taking to address those challenges.

Aging workforce

The Federal workforce of 2010 is older than Federal workforces of past decades and older than the present private sector workforce. The left panel of Chart 11-4 shows how the Federal workforce aged between 1998 and 2010. The percentage of Federal workers age 55 or older increased from 15 to 25 percent over 12 years. At the same time, the percentage of workers under 35 also edged up, from 18 to 21 percent, between 1998 and 2010. The right panel of Chart 11-4 shows that the private sector experienced a more significant shift from older employees to younger workers than did the Federal government during this period.

The recent recession substantially slowed projected Federal retirements. Between 2005 and 2008, annual separations (retirements and other departures) from the Federal workforce ranged between 244,000 and 252,000. Separations fell to 212,000 in 2009. If the reduced retirement pattern continues, 230,000 separations are likely in 2011. If separation rates return to their 2007 levels instead, more than 300,000 separations could occur in 2011.

Given these demographics, the Federal government faces two immediate challenges: preparing for retirements to maximize knowledge transfer from one generation to the next, and hiring and developing the next generation of the government workforce in a manner that enables them to accomplish the varied and challenging missions the Federal government must deliver.

Need to Strengthen System for Developing, Deploying and Engaging Personnel

One well documented challenge in the public sector is creating personnel performance systems that encourage commitment and innovation. At the same time, the systems must deal with poor performers who fail to improve as appropriate to their situation. Federal employees have identified this as an area of weakness over the past 10 years. Employees rate "Results Oriented Performance Culture" as a weak spot in the Federal employee survey. In 2010, only 31 percent of employees sampled answered positively that "In my work unit, steps are taken to deal with a poor performer who cannot or will not improve." In addition, only 41 percent agreed that "creativity and innovation are rewarded".

In contrast, Federal employees are generally positive about the importance of their work and their willingness to put in extra effort to accomplish the goals of their agencies, with 92 percent of respondents answering positively to the statement "the work I do is important" and nearly 97 percent of respondents answering positively to the statement "when needed I am willing to put in the extra effort to get a job done."

Personnel Performance Agenda

To serve the American people and address these challenges, the Federal Government needs to improve management of the Federal workforce. The Office of Personnel Management (OPM) Strategic Plan has four overarching goals that match the career cycle of a Federal employee. The “Hire the Best” strategic goal concentrates on improving the Federal hiring process. The “Respect the Workforce” strategic goal focuses on employee retention through training, labor relations, and work-life balance initiatives. The “Expect the Best” strategic goal aims to provide the necessary tools and resources for employees to engage and perform at the highest levels while holding them accountable. Finally, the “Honor Service” strategic goal acknowledges and recognizes the exemplary service of Federal employees. Combined, these strategic goals will help the government recruit and retain the talented and high performing employees required to tackle new and emerging challenges and deliver the services on which the American people depend efficiently and effectively.

Improving the Federal Hiring Process

The likelihood of large numbers of workers retiring could be a problem if not managed well, but it also creates an opportunity for Government to bring in new workers excited about Government service with strong technology and problem-solving skills along with fresh perspectives on the problems that Government is expected to address.

To manage these challenges well, the Administration launched the Hiring Reform Initiative, making it a priority for all Federal agencies to improve their hiring processes. On May 11, 2010, President Obama issued a Memorandum to agencies on Improving the Federal Recruitment and Hiring Process. This launched the first phase of the Administration’s comprehensive initiative to address major, long-standing impediments to recruiting and hiring the best and brightest into the Federal civilian workforce. The reform effort’s sweeping changes are already taking hold, but to spread to every part of government, will require a cultural shift over many years.

The President’s Memorandum established three initial objectives for the first phase of hiring reform:

1. Make it easier for Americans to apply for Federal jobs by simplifying and shortening job descriptions and letting applicants apply using only a resume, as is done in the private sector;

2. Federal agency managers and supervisors assume a greater role planning, recruiting, and selecting employees, and human resource offices provide greater support to them; and

3. Improve hiring timeliness, as well as applicant and manager satisfaction with the hiring process and manager satisfaction with applicant quality.

Progress is being made:

– Lengthy job descriptions – some previously over 20 pages – have been reduced. By November 2010, 49 percent of job descriptions were shorter than five pages, improved from 24 percent in 2009.

– Agencies adopted aggressive new benchmarks for Veteran hiring in response to the President’s Executive Order 13518 on Employment of Veterans in the Federal Government. More than 50,000 Veterans were hired in the first nine months, exceeding prior years’ Veteran hiring levels.

On December 27, 2010, President Obama signed Executive Order 13562 “Recruiting and Hiring Students and Recent Graduates”. The E.O. established a comprehensive structure that will help the Federal Government be more competitive in recruiting and hiring talented individuals who are in school or who have recently received a degree.

In addition, the Administration has made significant progress improving the timeliness and quality of security clearances. Security clearances are performed in two stages, investigation and adjudication. At OPM, which conducts the majority of non-intelligence community investigations, it took an average of only 39 days to complete 90 percent of initial investigations in 2010, whereas it took an average of 67 days to complete the fastest 80 percent of its initial investigations in 2007. Agencies handle their own adjudications and, as the Federal government’s largest employer, the Department of Defense (DOD) adjudicates most of the Federal government’s adjudications (used to determine whether potential employees are suitable for Federal employment after an investigation is completed.) In 2010, it took DOD an average of only 10 days to adjudicate 90% of those investigations for its employees, whereas it took an average of 28 days to adjudicate 80% of those investigations in 2007.

More changes are needed, however, to improve the Federal hiring system. In 2010, the Administration sent legislative language to Congress proposing changes to existing hiring laws to facilitate inter-agency cooperation in hiring and make it easier for the most experienced employees to enter into part-time retirement arrangements to provide expertise or mentor new and rising employees.

Developing and Using Personnel Analytics

The Federal Government has fallen behind its private sector counterparts in tapping data and analytic advances to improve personnel management. The Administration is committed to strengthening Federal agencies’ capacity in this area to address workplace problems, improve productivity, and cut costs.

The Federal Government began annual administration of the Employee Viewpoint Survey in 2010 to make it more useful as a managerial tool to identify areas of personnel management strength and weakness. To enhance its value further, in 2011, the survey will be administered to more employees and done so in a way that allows findings to be linked to more organizational units. In 2012, OPM will begin to survey all civilian employees every other year. Each year, OMB and OPM will analyze survey findings to identify promising practices to promote more broadly for Government-wide improvement and to pinpoint problem areas needing attention.

A second analytic initiative proposed this year will improve management of health costs and quality. The Federal Employee Health Benefits (FEHB) program provides health insurance for 8 million Federal employees, retirees, their spouses and dependents. Data from insurance carriers involved in FEHB is currently used to detect fraud. It has not, however, been analyzed to improve the effectiveness or efficiency of the program or the health of FEHB members. This Budget proposes funding to build capacity to analyze FEHB program data for quality improvement, cost control, and fraud detection.

In addition, the Administration is developing a human resources dashboard to show agency progress on human resource management – providing the public a window on government-wide and agency-specific hiring times and satisfaction, employee engagement and retention, other aspects of employee viewpoints, diversity and disability data, and Veteran's hiring and employment.

Using Evaluation to Improve Personnel Management

The President's Budget includes funding for an evaluation of Federal telework practices. The Telework Enhancement Act of 2010 creates a framework through which agencies can improve their telework programs to assure continuity of operations, improve management and productivity, and accommodate the changing family caregiver needs of the workforce without compromising work quality. The Administration is committed to helping agencies implement best practices in these areas.

Engaging a Diverse Workforce

The American people are best served by a Federal employee workforce that reflects the rich diversity of the populace. An expected wave of retirements in the manager and senior executive corps presents both a challenge and an opportunity to improve the diversity of our leadership, which is disproportionately lacking in minority representation. As one part of that effort, the President issued Executive Order 13548 in July 2010 to increase the number of individuals with disabilities that agencies employ. The 2012 Budget includes funds to support the implementation and execution of the Executive Order, including funds for the use of technology to track and report agency progress in hiring those with disabilities. It also includes funds for continued recruitment of individuals with disabilities and to coordinate with agency-designated senior officials responsible for disability recruitment and retention.

The President firmly believes in the fundamental American principle of fairness and equality. Over the past two years, the President directed the heads of executive departments and agencies, in consultation with OPM, to conduct a thorough review of the benefits they provide, identify those benefits that could be extended to LGBT employees and their families, and based on recommendations provided by OPM in consultation with the Department of Justice, extend those discretionary benefits. However, legislative action is still necessary to provide full equality to LGBT Federal employees. Since many top private sector companies now offer domestic partner benefits, making these changes will strengthen our ability to recruit and retain highly qualified candidates from all segments of society.

Improving Labor-Management Relations

On December 9, 2009, the President issued Executive Order 13522 "Creating Labor-Management Forums to Improve the Delivery of Government Services". Cooperative labor-management forums are now being formed across the Federal government to resolve workplace issues and improve mission performance and service delivery to the American public. The Administration has developed guidelines to help each forum think about its objectives and how to measure the results of its efforts along three dimensions: mission accomplishment and high quality products and services; employee perceptions; and labor-management relations.

Strengthening Government Acquisition and the Acquisition Workforce

The Government uses both Federal employees and private sector contractors to deliver important services to citizens. Contractors provide a wide range of services to help federal employees carry out their agencies' missions and operations -- from scientific research and environmental protection, to information technology support and construction. While spending on federal contracts doubled between 2001 and 2008, the federal acquisition workforce, which negotiates and manages these contracts, remained relatively flat. This imbalance contributed to ineffective and wasteful contracting practices, such as awarding contracts without competition; bundling many buys into one large contract, which often makes it impossible for small businesses to compete; and agreeing to pay contractors on a per-hour basis, which reduces the incentives for contractors to be efficient. In his March 4, 2009, Memorandum on Government Contracting, the President called on agencies to address these concerns, and agencies are now doing that. Improvements include ending contracts that are ineffective, leveraging the government's purchasing power to negotiate better prices, and using competition and more effective pricing incentives to reduce cost overruns. These efforts have instilled a new sense of fiscal responsibility that has stopped the costly and unsustainable growth in spending on contracting and helped agencies reduce spending on contracts between 2009 and 2010 for the first time in more than 10 years. To sustain these improvements, this Budget includes resources focused on developing and retaining the acquisition workforce.

Table 11–2. FEDERAL CIVILIAN EMPLOYMENT IN THE EXECUTIVE BRANCH
(Civilian employment as measured by Full-Time Equivalents in thousands, excluding the Postal Service)

Agency	Actual	Estimate		Change: 2010 to 2012	
	2010	2011	2012	FTE	Percent
Cabinet agencies:					
Agriculture	96.3	98.4	94.7	–1.6	–1.7%
Commerce	123.3	42.8	42.0	–81.3	–65.9%
Defense	741.4	755.4	748.0	6.6	0.9%
Education	4.1	4.4	4.5	0.4	9.8%
Energy	16.1	16.9	16.5	0.4	2.5%
Health and Human Services	66.1	68.0	70.7	4.6	7.0%
Homeland Security	173.0	185.9	193.6	20.6	11.9%
Housing and Urban Development	9.5	9.7	9.9	0.4	4.2%
Interior	70.9	69.7	69.9	–1.0	–1.4%
Justice	113.4	119.3	123.0	9.6	8.5%
Labor	16.9	17.3	17.8	0.9	5.3%
State	31.6	31.8	32.0	0.4	1.3%
Transportation	57.2	58.1	58.9	1.7	3.0%
Treasury	111.9	111.5	116.6	4.7	4.2%
Veterans Affairs	284.8	294.5	295.4	10.6	3.7%
Other agencies—excluding Postal Service:					
Agency for International Development	3.1	3.3	3.5	0.4	12.9%
Broadcasting Board of Governors	1.9	2.0	2.1	0.2	10.5%
Corps of Engineers—Civil Works	23.6	23.2	22.4	–1.2	–5.1%
Environmental Protection Agency	17.2	17.4	17.2	0.0	0.0%
Equal Employment Opportunity Comm	2.4	2.5	2.6	0.2	8.3%
Federal Deposit Insurance Corporation	7.1	7.3	8.8	1.7	23.9%
General Services Administration	12.5	13.4	13.4	0.9	7.2%
National Aeronautics and Space Admin	18.4	18.8	18.4	0.0	0.0%
National Archives and Records Administration	3.2	3.4	3.4	0.2	6.3%
National Labor Relations Board	1.6	1.7	1.7	0.1	6.3%
National Science Foundation	1.4	1.4	1.5	0.1	7.1%
Nuclear Regulatory Commission	4.0	4.0	4.0	0.0	0.0%
Office of Personnel Management	4.8	5.4	5.4	0.6	12.5%
Peace Corps	1.1	1.2	1.2	0.1	9.1%
Railroad Retirement Board	1.0	0.9	0.9	–0.1	–10.0%
Securities and Exchange Commission	3.7	3.8	4.5	0.8	21.6%
Small Business Administration	3.4	3.5	3.4	0.0	0.0%
Smithsonian Institution	5.1	5.2	5.2	0.1	2.0%
Social Security Administration	67.3	68.0	70.5	3.2	4.8%
Tennessee Valley Authority	12.0	12.5	12.5	0.5	4.2%
All other small agencies	16.4	18.1	19.7	3.3	20.1%
Total, Executive Branch civilian employment *	**2,127.9**	**2,100.8**	**2,115.8**	**–12.1**	**–0.6%**
Subtotal, Defense	741.4	755.4	748.0	6.6	0.9%
Subtotal, Non-Defense	1,386.5	1,345.4	1,367.8	–18.7	–1.3%

* Totals may not add due to rounding.

Table 11–3. TOTAL FEDERAL EMPLOYMENT
(As measured by Full-Time Equivalents)

Description	2010 Actual	Estimate		Change: 2010 to 2012	
		2011	2012	FTE	Percent
Executive branch civilian personnel:					
All agencies except Postal Service and Defense	1,386,496	1,345,390	1,367,844	–18,652	–1.3%
Department of Defense	741,393	755,448	747,981	6,588	0.9%
Subtotal, excluding Postal Service	2,127,889	2,100,838	2,115,825	–12,064	–0.6%
Postal Service [1]	626,723	608,195	582,320	–44,403	–7.1%
Subtotal, Executive Branch civilian personnel	2,754,612	2,709,033	2,698,145	–56,467	–2.0%
Executive branch uniformed military personnel:					
Department of Defense [2]	1,552,041	1,541,182	1,500,668	–51,373	–3.3%
Department of Homeland Security (USCG)	43,080	44,273	44,011	931	2.2%
Commissioned Corps (DOC, EPA, HHS)	6,892	7,137	7,235	343	5.0%
Subtotal, uniformed military personnel	1,602,013	1,592,592	1,551,914	–50,099	–3.1%
Subtotal, Executive Branch	4,356,625	4,301,625	4,250,059	–106,566	–2.4%
Legislative Branch[3]	32,890	35,515	35,550	2,660	8.1%
Judicial Branch	34,862	35,672	36,206	1,344	3.9%
Grand total	**4,424,377**	**4,372,812**	**4,321,815**	**–102,562**	**–2.3%**

[1] Includes Postal Rate Commission.
[2] Includes activated Guard and Reserve members on active duty. Does not include Full-Time Support (Active Guard & Reserve (AGRs)) paid from Reserve Component Appropriations.
[3] FTE data not available for the Senate (positions filled were used).

Table 11–4. PERSONNEL COMPENSATION AND BENEFITS
(In millions of dollars)

Description	2010 Actual	2011 Estimate	2012 Request	Change: 2010 to 2012 Dollars	Change: 2010 to 2012 Percent
Civilian personnel costs:					
Executive Branch (excluding Postal Service):					
Direct compensation:					
Department of Defense	53,743	57,324	57,253	3,510	6.5%
All other executive branch	114,182	115,312	119,616	5,434	4.8%
Subtotal, direct compensation	167,925	172,636	176,869	8,944	5.3%
Personnel benefits:					
Department of Defense	15,560	16,711	16,881	1,321	8.5%
All other executive branch	45,996	46,828	48,444	2,448	5.3%
Subtotal, personnel benefits	61,556	63,539	65,325	3,769	6.1%
Subtotal, Executive Branch	229,481	236,175	242,194	12,713	5.5%
Postal Service:					
Direct compensation	37,832	36,861	36,061	–1,771	–4.7%
Personnel benefits	20,384	16,089	18,153	–2,231	–10.9%
Subtotal	58,216	52,950	54,214	–4,002	–6.9%
Legislative Branch: [1]					
Direct compensation	2,181	2,177	2,226	45	2.1%
Personnel benefits	634	663	673	39	6.2%
Subtotal	2,815	2,840	2,899	84	3.0%
Judicial Branch:					
Direct compensation	3,160	3,227	3,345	185	5.9%
Personnel benefits	1,000	1,034	1,109	109	10.9%
Subtotal	4,160	4,261	4,454	294	7.1%
Total, civilian personnel costs	294,672	296,226	303,761	9,089	3.1%
Military personnel costs:					
Department of Defense					
Direct compensation	99,638	102,356	100,412	774	0.8%
Personnel benefits	50,891	49,206	52,826	1,935	3.8%
Subtotal	150,529	151,562	153,238	2,709	1.8%
All other executive branch, uniformed personnel:					
Direct compensation	3,088	3,203	3,305	217	7.0%
Personnel benefits	805	871	882	77	9.6%
Subtotal	3,893	4,074	4,187	294	7.6%
Total, military personnel costs [2]	154,422	155,636	157,425	3,003	1.9%
Grand total, personnel costs	**449,094**	**451,862**	**461,186**	**12,092**	**2.7%**
ADDENDUM					
Former Civilian Personnel:					
Retired pay for former personnel	70,996	73,865	76,793	5,797	8.2%
Government payment for Annuitants:					
Employee health benefits	9,642	10,185	10,817	1,175	12.2%
Employee life insurance	44	47	47	3	6.8%
Former Military personnel:					
Retired pay for former personnel [3]	51,095	55,475	48,455	–2,640	–5.2%
Military annuitants health benefits	8,623	9,457	9,917	1,294	15.0%

[1] Excludes members and officers of the Senate.

[2] Amounts in this table for military compensation reflect direct pay and benefits for all service members, including active duty, guard, and reserve members.

[3] Public Law 111-383 required changes in the payment date for most military retirees. No benefits were reduced, but approximately $3.6 billion in payments was shifted from 2012 to 2011.