

# T E S T I M O N Y

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## *The Defense Civilian Workforce: Insights from Research*

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Mr. Chairman, I\* am pleased to be here today to provide input on civilian workforce management in the Department of Defense (DoD). In my statement, I will first summarize RAND's research on the effects of civil service workforce shaping tools on the retirement behavior of defense civilian employees. Next I will discuss the infrequent usage of these tools, and provide other evidence on the performance of the civil service personnel system in terms of its processes and their effects on defense civilian workforce outcomes such as retention. I will then describe the workforce challenges facing the DoD that have become more prominent in the new post-September 11 national security environment. These challenges increase the urgency of addressing problem areas in DoD civilian management. I conclude by identifying the criteria that define an effective human resource system in any organization, and discuss some steps that could be taken by policy makers to help ensure that the DoD's personnel system meets those criteria.

***Research Shows that Workforce-Shaping Tools Could Have Significant Effects on Retirement Behavior***

Our research estimated the effects of workforce shaping policies on the probability of retirement (Asch, Haider, Zissimopoulos, 2003). These policies are the special voluntary separation incentive program also known as the VSIP or "buyout," the voluntary early retirement authority also known as VERA or early retirement option, and finally the retention allowance. The first two programs are intended to increase the financial incentive to voluntarily leave while the third is intended to increase the financial incentive to stay in the civil service.

Both VSIP and VERA were used during the 1990s by federal agencies to reduce federal employment. These programs induced voluntary separations among workers who would otherwise have been involuntarily separated because they worked in organizations that were identified for possible downsizing. Between 1993 and 1999, the DoD paid about 141,000 VSIP buyouts to its civilian employees to support its post-cold war drawdown. More recently both VSIP and VERA have been identified as tools to help federal managers "shape" the experience and skill mixes of their workforces (U.S. Office of Personnel Management, 2001).

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By providing federal workers with an incentive to retire early or separate, it is hoped that managers will be better able to hire or possibly outsource replacement workers with different skills or experience levels.

A key question is whether these flexibility-related tools are effective. Our study finds that, if used, these tools could be highly effective in changing retirement and separation behavior.

The study focused on DoD civilian employees age 50 and older who participate in the Civil Service Retirement System or CSRS. We first estimated the effects of the retention allowance on the decision to continue in the civil service rather than retire (Asch, Haider, and Zissimopolous, 2003). Understanding the effects of retention allowances is important because they could be used to induce personnel in critical areas and in key leadership positions to delay retirement thereby helping the DoD to manage the transfer of expertise from retiring employees to their replacements. The study found a large effect of retention allowances-- offering to older workers the maximum retention allowance of 25 percent of pay over the rest of their career would reduce the probability that an individual will retire by about 20 percent. The early retirement option was estimated to more than double the separation and retirement rates from the civil service among those who would be eligible for that benefit. The buyout was estimated to increase separations and retirements by about 30 to 40 percent, depending on age. Again, the estimated effects are sizable.<sup>1</sup>

Although financial incentives are not the only reason civilian employees stay or leave, the finding that defense employees respond to financial incentives is not entirely surprising. Available evidence indicates that civil service personnel quit rates have responded strongly to pay changes in the past. For example, a 1990 study (Black, Moffitt, and Warner, 1990) found that a 10 percent change in civil service pay would change civil service quit rates in DoD by 9.3 percent among technical workers and by 4.3 percent among administrative workers.

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<sup>1</sup> Two points are noteworthy. First, these estimates are not assessments of the past success of VERA and VSIP as tools to accomplish downsizing in the aftermath of the cold war. We explicitly excluded from our data analysis those individuals who received VERA or VSIP during the defense drawdown in the 1990s. Including them would have caused us to overestimate the effect of financial incentives on voluntary retirement or separation because workers who did not take the VERA or VSIP offer during the drawdown were likely to be involuntarily separated at a later date. To arrive at our estimates, we studied how defense civilians respond to the financial incentives embedded in CSRS in general and then simulated how their retirement behavior would change if offered these incentives. Second, our study did not consider the cost of offering these workforce-shaping incentives. Consequently we cannot draw any conclusions about their cost-effectiveness.

***Authority for Some Flexibility-Related Tools is Limited, Others are Not Widely Used***

So far, the authority for buyouts and early retirement for workforce shaping purposes has been limited in the DoD. The National Defense Authorization Act (NDAA) for FY 2001 permitted the DoD to use buyouts in conjunction with optional retirement, even without downsizing. Eligibility for both early and optional retirement is based on age and years of service. The NDAA for FY 2002 expanded this authority to use buyouts in conjunction with either early retirement or with resignations, in addition to optional retirement. However, the law restricted the use of buyouts to 2,000 employees in FY 2002 and to 6,000 in FY 2003. Given that the DoD had about 290,000 employees eligible for early retirement and another 107,000 eligible for optional retirement (U.S. Office of Personnel Management, July 2001), these authorities are quite small relative to the size of the defense civilian workforce that is the target population for the use of these tools.

Available evidence also suggests that retention allowances have not been widely used in the past. The OPM estimated that retention allowances were given to less than one percent of Executive Branch employees, including DoD, in 1998 (U.S. Office of Personnel Management, 1999). The OPM study also looked at recruitment and relocation incentives. These three incentives (recruitment, retention, and relocation, or what have been dubbed the “3Rs”) are intended to create a more flexibly managed civil service (U.S. Office of Personnel Management, 1999). Although the use of these three incentives was 17 times greater in 1998 than it was in 1992, the fraction of employees getting them was still negligible. The study found that only 0.14 percent of all Executive Branch employees received 3R incentives in 1998. Recruitment bonuses were given to only 0.3 percent of all new hires and relocation bonuses were given to only 1 percent of employees making geographic moves in that year.

Why don't civil service managers use the flexibility-related pays that are available to them? A few reasons have been put forward. The 1999 OPM report contends that the primary reasons for the limited use of the 3Rs were a lack of funds, limited recruiting due to government downsizing during the period of examination, and relatively little need in some agencies for such incentives. The OPM report also stated that the authority to approve the usage of these tools tended to reside at high levels of the hierarchy within different organizations and the burden of justifying the use of such incentives seemed to have discouraged some lower-level managers from requesting 3R usage. This latter reason was

echoed by the 2002 Naval Research Advisory Committee report on personnel management in the defense science and technology community. That report stated that significant organization resistance has hindered reform of the personnel systems in the defense laboratories. It also noted that in the absence of sustained high-level commitment to use flexibility-related tools aggressively, most of those tools have gone unused or underutilized (Assistant Secretary of the Navy, 2002).

### ***Some Aspects of the Civil Service System Are Rigid and Cumbersome***

Civil service compensation, classification, promotion and staffing policies in the federal civil service are well defined in Title 5 of the U.S. Code. The published pay tables and the detailed processes for defining jobs promote clarity, openness, and predictability. However, such rules have also produced a rigid system that embeds some overly bureaucratic processes.

Statistics and anecdotal evidence show that civil service recruiting and firing processes have, indeed, become cumbersome at best and dysfunctional at worst, and that the civil service pay system is rigid and unresponsive to performance differences and external market conditions. Problems with the pay system, advancement, training, and the hiring process were discussed in the 1990 Volcker Commission report (Volcker, 1990) and more recently by the Defense Science Board Task Force on Human Resources Strategy (2000), the Naval Research Advisory Committee report (2002), and the National Commission on the Public Service (2003). Furthermore OPM recently reported that more than 75 percent of the increase in annual federal pay bears no relationship to individual achievement or competence (James, 2002). The 2001 survey conducted by the Brookings Institution found that most federal employees called the hiring process slow and confusing, a quarter called it unfair, and more than two-thirds said the federal government was not good at disciplining bad performance (Light, 2001). Stories abound of the long delays, often lasting months, in recruiting new personnel and the inability of personnel managers to fire poor performers. The Director of OPM has called the General Schedule pay system an antiquated one-size-fits-all system that overly compresses pay as a result of an emphasis on internal pay equity rather than competitiveness (James, 2002).

### ***The Civil Service System Has Worked in Some Respects in the DoD in the Past***

One way to assess how well an HR system serves to attract and retain high-quality personnel and to meet other strategic HR goals is to examine workforce outcomes. Measured in terms of such outcomes as the recruitment, retention, promotion, and pay of *high-quality* personnel, the civil service system has had a degree of success in the DoD. What evidence is available suggests that the system has produced some desirable personnel outcomes in the past, despite its rigidities.

A 2001 DoD-sponsored RAND study of the pay, promotion, and retention of GS civil service workers in the DoD found that personnel managers are using the civil service system in such a way as to produce generally desirable outcomes (Asch, 2001). For example, the analysis found that higher-quality personnel, measured in terms of supervisor rating and education level, are generally paid more and promoted faster in the DoD, holding constant employment factors such as occupation, grade, years of service, location, and function, and demographic factors such as gender and age. The study found considerable variation in the pay and promotion patterns of personnel in different occupations in DoD, suggesting that managers are able to use the common pay table to achieve different pay outcomes in different occupations.

The study also found that better-quality defense workers, in terms of supervisor performance ratings, also had better retention, holding other factors constant. The one area of concern regarded employees with the most advanced degrees, such as a master's or doctorate degree. They were paid more, all else being equal, including occupation. But, the study also found that those employees tended to be promoted somewhat more slowly than those with only a bachelor's degree and in some cases had poorer retention, holding all else equal, including entry grade and occupation.

A related study (Gibbs, 2001) examined the workforce outcomes of scientists and engineers who work in laboratories in the DoD, a group that has many individuals with advanced degrees. The study found that the financial gains associated with greater skills and responsibility, as measured by the difference in pay across grades, remained about the same from 1982 to 1996. In marked contrast, in the private sector the pay differential for the greater skill and responsibility among engineers rose over that same time period. This difference in the wage structure of federal versus private sector workers was also documented by Katz and

Kreuger (1991) using data covering all federal workers. Nonetheless, the Gibbs study found little evidence that the DoD suffered a decline in the quality of the workforce being studied. Furthermore, the quality and performance of new hires to that workforce, relative to earlier groups of new hires, and the quality and performance of employees who were retained, relative to those who had left, remained stable.

Similar results were found in an earlier study of defense workers. A 1990 DoD study of the quality of civilian workers who had quit the DoD found no evidence that higher-quality employees, measured in terms of their SAT scores, were more likely to leave the DoD than other civilian employees (U.S. Department of Defense, 1990). Earlier studies of all federal workers, not just those in the DoD, also indicate that the system generates some desirable outcomes. A 1980 study of federal pay levels (Borjas, 1980) found substantial wage differentials across agencies in the federal government despite the so-called rigid pay table. A 1995 study comparing federal and private-sector hiring in the 1980s found that the federal government was able to attract high-quality entrants relative to the private sector (Crewson, 1995). Personnel quality was measured in terms of aptitude test scores.

What factors have afforded these favorable civil service workforce outcomes in the past?

A list of possible explanations includes the following:

- *Federal pay historically has been on par with private sector pay.* Official measures of the so-called “pay gap” show that federal pay grew more slowly than private-sector pay from the mid-1970s to mid-1990s, for similar jobs (Congressional Budget Office, 1997). However, another approach is to compare individuals with similar “human capital” such as age, education and occupation. Early studies using the human capital approach found that the pay of federal workers actually exceeded that of private sector workers with similar characteristics, broadly defined (Smith, 1976; Gyourko and Tracy, 1988; Krueger, 1988). More recent comparisons that use more detailed information about individuals’ human capital characteristics find that federal employees are neither overpaid nor underpaid relative to similar private sector workers (Moulton, 1990; Congressional Budget Office, 1997).
- *High quality and skilled civil service employees may enter and stay in federal employment because of the nature of their work and the desire to serve the public.* Such attitudes would make their behavior relatively insensitive to financial incentives.
- *Strong incentives to stay in the civil service until retirement eligibility is reached are embedded in both the CSRS and the Federal Employees Retirement System (FERS).* Those who leave before they are eligible to retire under either retirement system incur a large financial loss in the value of their expected retirement benefits (Asch and Warner, 1998). The pull of the retirement system is greater for higher-quality workers, if they are paid more and promoted faster over their career than for lesser-



quality workers, because the value of the expected retirement benefit increases with one's pay. Additionally, higher-paid workers covered by FERS are more likely to contribute to its Thrift Savings Plan. Therefore, higher-quality workers may be less likely to leave the civil service than lower-quality workers because they are paid more than lower-quality workers and both FERS and CSRS have a stronger effect for them.

### ***System May Not Work Well Enough***

The fact that some outcomes are better among higher-quality employees does not mean that *enough* higher-quality employees are being recruited and retained. That is, the recruitment and retention of higher quality civilian personnel may not have been high enough, given the DoD's requirements for such personnel. Unfortunately, until recently, most organizations in the DoD lacked workforce plans, so they did not have an explicitly stated requirement for high-quality workers. Consequently, there is no benchmark by which to compare whether the supply of high-quality workers meets the requirement. The better retention of high-quality workers found in past research may or may not be sufficient relative to the requirement for such workers.

Finally, the defense civilian workforce and its missions are undergoing changes as a result of demographic shifts and the new post-September 11 national security environment. The effects of these changes are uncertain and positive outcomes of the past may not persist into the future.

### ***Evidence is Mixed on the Success of Civil Service Waiver Experiments***

Several federal organizations as well as parts of DoD have been able to waive, either partially or fully, civil service rules defined by Title 5 of the U.S. Code, and have, therefore, had the opportunity to develop their own HR systems. The organizations include the U.S. Postal Service, the Central Intelligence Agency, the Library of Congress, the Federal Reserve Board, the Federal Aviation Administration and other federal agencies. Within the DoD, they include the demonstration projects at the Naval Air Warfare Center in China Lake, California. About half of federal employees are in these exempt organizations (U.S. Office of Personnel Management, 1998a).

Past study and review panels have consistently recommended that the DoD pursue additional waivers for the defense workforce. Evidence on the success of these waivers

provides some insight into this approach to civil service reform. The available evidence indicates that civil service waivers have had mixed results in terms of producing better workforce outcomes or substantially better personnel processes. This doesn't mean that different civil service personnel systems don't work, just that the scope and implementation of the waiver experiments may have been limited.

In a 1998 OPM study of the personnel practices and policies in organizations that are partially or fully exempt from Title 5, the OPM noted the following:

“We started the study with the working hypothesis that there would be substantial differences in the HRM [Human Resource Management] systems of non-Title 5 organizations compared with Title 5 agencies. In general, we found that the actual systems differences are important *but more limited than anticipated.*” (italics added) (OPM, 1998).

The study found few differences in the recruitment, hiring, and promotion practices of exempt organizations that supposedly had more flexibility than those that were not exempt. A notable exception was the absence of preferential employment and hiring practices for veterans and the so-called “rule of three” in hiring that gives preference to the top three eligible candidates certified by the OPM. Although exempt organizations had the ability to hire people on the spot, even without announcing a vacancy, the study found that such flexibility was limited by concerns about merit, collective bargaining agreements, and other constraints. The study also found that the exempt organizations continued to incorporate the merit system principle or other merit-based organizational values.

The study found differences in the classification and compensation systems used by exempt and non-exempt organizations. Several exempt organizations developed their own classification systems and pay systems that included pay-for-performance, broad bands, and other forms of variable pay. Whether these systems produce improved outcomes in terms of worker morale, recruiting and retention of high-quality personnel, and better performance is still an open question. On the other hand, one notable finding was that 5 of the 37 exempt organizations studied by OPM continued to follow Title 5 for personnel classification and compensation because it was easier than establishing their own system.

Evaluations of experimental pay systems developed to introduce greater flexibility in personnel management show mixed effects on workforce outcomes. The Gibbs (2001) study of DoD laboratory scientists and engineers found no evidence that these other pay plans

provided greater flexibility in workforce management. It measured the same outcomes for employees who were under the traditional civil service general schedule pay system as for those who participated in the China Lake demonstration project and in the Performance Management Recognition System. This latter plan was used in the late 1980s and early 1990s, covered all GS-13 to GS-15 workers throughout the civil service, and altered how within-grade pay increases were determined.

In contrast, evidence provided by the OPM suggests that waiving Title 5 requirements has resulted in improved outcomes in some of the demonstration projects, including those that cover scientists and engineers in the DoD. For example, OPM found that starting pay was higher, pay raises were larger for more highly rated employees, and turnover of workers with better ratings was lower for federal employees at China Lake relative to a control laboratory that was not a demonstration project. (U.S. Office of Personnel Management, 1988, 1991). Similar results have been found for the National Institute of Standards (NIST) demonstration project (Rosenthal, et. al., 1991).

Still other evidence provides a more negative picture of the effects of these personnel demonstration projects in DoD. The Naval Research Advisory Committee report on the defense science and technology community reviewed studies of these demonstration projects at various defense laboratories (2002). It concluded that the results of these projects could have been much better than they were and that many of the most promising or innovative initiatives to improve the civil service system were dropped due to problems in getting organizational approval.

### ***Workforce Challenges Facing DoD***

Successful management of the defense civilian workforce has become even more important, not only because of the changing national security environment and the war on terrorism, but also because of personnel challenges that are looming on the horizon.

A major shift is occurring in the demographics of the defense civilian workforce. According to Defense Manpower Data Center statistics, about half of this workforce was over age 40 in 1985. In 2001, about 75 percent were over the age of 40 and about a third of civilian defense employees were over age 50. Although the working population in the U.S. as a whole has also aged, it is still relatively young compared to the federal civilian workforce. Thus, in 1999, only about a third of those employed in the U.S. were ages 45 or older. In contrast, about 60 percent of federal civil service workers were over age 45.

The aging of the DoD's civilian workforce is partly due to the approach it used to reduce the size of its workforce in the aftermath of the cold war. Employment in the DoD fell from 1.1 million in 1988 to about 700,000 in 1999. One of the ways the DoD accomplished its downsizing was to hire fewer new workers. Data on DoD civilian personnel show that the fraction of the permanent defense workforce with less than 2 years of service fell from 8 percent in FY 1988 to 2.7 percent in FY 1996 (Asch, Haider, Zissimopoulos, 2003). Furthermore, the average age of those who were hired rose slightly. As a result, the fraction of new hires age 40 and older rose from 18.5 percent in 1988 to 20.5 percent in 1994, just 6 years.

Another factor contributing to the aging of the defense civilian workforce is the high annual continuation rates among mid-career and senior personnel. During the 1980s and 1990s, the annual continuation rate of permanent full-time civilian employees in the DoD held steady at about 97 percent for those ages 41 to 45 and at about 98 percent for those ages 51 to 55 (Asch, Haider, Zissimopoulos, 2003). The net result of reduced hiring, increased retention of mid-career and senior personnel, and increased hiring of older workers is an older civilian workforce in the DoD.

As a result of these demographic changes, DoD will be at risk of losing a large part of its workforce over the next decade. The General Accounting Office projects that about a third of the defense civilian workforce will be eligible to retire by 2006, and about half of that group is expected to actually retire. Similar figures are found for other parts of the federal civil service, resulting in the General Accounting Office designating "human capital" as a government wide high-risk area (U.S. General Accounting Office, 2001). Retirement eligibility over the next decade will be far greater for those workers covered by CSRS than for those covered by FERS.

There are reasons to believe that the civil service system will be highly stressed in the future as a result of this demographic shift.

- *Decisions must be made to replace or possibly outsource the services provided by those retiring.* Whether replacements are new hires or contractors, managers must be able to define what their workforce requirements are in terms of the desired skill and experience mixes, how they will meet those requirements in terms of retention, recruiting or outsourcing, and how these requirements might change as missions change or as the labor market from which personnel are drawn changes.

- *It may be difficult to find and hire large numbers of qualified replacements within a short time span.* Even with a workforce plan, the job of replacing a large number of workers, or of outsourcing their jobs is more difficult and more costly when done within a short time span. First because so many employees will be leaving, the demand for new workers by DoD (whether as replacements or as outsourced jobs), will grow, even if the overall staffing requirements remain the same. Second, the cost of generating and screening large numbers of qualified applicants or contractor bids tends to be higher when done in a short timeframe.
- *The replacement of skills will take place in a highly competitive environment, if the trends of the past 20 years continue.* DoD will be competing against both the private sector and state and local governments for replacements. Though the DoD has had some success recruiting and retaining high-quality personnel in the past, by some metrics, it may become harder to do so in the future. The competition for new workers is likely to be particularly fierce in the coming years because the entire U.S. population is aging. If DoD wants to replace retiring workers with new hires or with contractors with at least some college, as will likely be the case, it may need to alter its compensation, hiring, career management and contracting practices to ensure that it can compete effectively for college-educated individuals in the labor market in the future. For example, pay must remain competitive with the dramatically rising pay for those with post-secondary education relative to those with no post-secondary education. (Mishel, Bernstein, and Schmitt, 1999).
- *Some retention of experience personnel will be desirable.* Even if DoD can effectively compete for qualified replacement workers, some retention among retirement-eligible personnel is desirable because they possess institutional knowledge that may be impossible to replace quickly.

### ***Toward Successful Civilian Workforce Management***

To help identify what steps are needed for DoD to meet these challenges successfully while addressing ongoing concerns about the effectiveness of its civilian workforce, it is necessary to know what characteristics define an effective human resource system in any organization and to identify where the civil service system falls short for DoD (Asch, 2002).

Although management experts and economists do not have an explicit list of characteristics that make a human resource system successful, the factors that are usually identified in studies of organizational management can be grouped into six criteria (Milgrom and Roberts, 1992; Tirole, 2000).

1. *The HR system offers flexible personnel and compensation tools or policies that efficiently promote the organization's missions.* Compensation and personnel policies provide incentives to attract, retain, motivate, and eventually separate personnel. These policies are sufficiently flexible to allow managers to respond to

different markets and to adapt quickly to changing circumstances. The more uncertain or variable the environment, the more flexibility that is required.

2. *Managers have discretion over how the personnel and compensation tools are used.* Managers are able to set pay, to hire, to assign, to retain, to reward, and to separate personnel, and to allocate resources. A general principle in the management literature is that authority to make decisions is given to the managers and workers who have the information and incentives to act on that authority.
3. *Managers have the incentive to use the personnel and compensation policies in a way that supports the organization's mission.* Unused tools or tools that are used incorrectly or ineffectually are not beneficial. Compensation and personnel policies for managers must provide incentives for effective employment of the HR tools. These incentives must be linked to a system that monitors individual managers' performance and holds them accountable for measured outcomes.
4. *Resources are available to implement and monitor those policies.* Unfunded tools--for example, authority to pay bonuses without funding--are not beneficial either. Resources must also be devoted to gathering data and analyzing the outcomes that result from these policies on an ongoing basis. Such data and analysis inform policymaking, and promote transparency.
5. *Policies are transparent and appropriately linked to the organization's goals, and their implementation is subject to both internal and external oversight.* The policies are transparent to prevent the incidence and costs of opportunistic behavior and fraud among managers. Fraud and nepotism are more likely to occur when managers have discretion. Therefore, HR systems that are more flexible and provide more managerial discretion also have an additional amount of oversight.
6. *Policies are stable and limit the financial and career risks that workers face.* Workers who are exposed to greater uncertainty and unpredictability in their pay and opportunity relative to other employment options receive higher overall compensation, on average, to compensate for that risk. Otherwise, worker morale and recruiting/retention will be diminished.

Each of these characteristics deserves attention when evaluating the merits of an HR system. While organizations may give more weight to some characteristics over others, it is clear from management studies that systems that have only some of these characteristics but not others will not be fully effective.

The federal civil service system contains some, but not all, of the elements understood to be part of an effective HR system. It classifies jobs, sets compensation, and establishes

procedures for hiring, promotion, firing, and retirement. However, some HR elements—e.g., resourcing and personnel outcome monitoring—are defined by how agencies implement the system.

As implemented, the civil service system emphasizes the fifth and sixth characteristics: It is transparent, subject to extensive oversight, and its policies regarding compensation and staffing are highly stable and seem equitably applied. It also has the first characteristic, to the extent that the system includes tools that promote flexibility in workforce management. However, the available evidence suggests that it lacks the second, third and fourth characteristics. Defense managers often lack the resources that would let them take advantage of the HR tools built into the system, and they seem to have relatively little discretion or authority over such matters as setting pay or hiring and firing decisions. Defense managers also do not or cannot extensively use the flexibility-related tools that are available.

Clearly, given the large number of retirements that are imminent in the DoD, personnel managers should be given the authority *and* the resources to use flexibility-related policies extensively. Our estimates show that such policies would be effective, if used.

While essential, expanded use of the flexibility-related policies alone will not address problems such as either excessive or insufficient oversight, cumbersome administrative procedures, hiring inadequacies, and poorly conceived management and employee performance incentives. Additional steps will be needed. Various research studies as well as commissions and study groups charged with studying the federal workforce management have proposed alternative steps. They include the development of new pay systems for subgroups of personnel, such as scientists and engineers, more streamlined processes for recruitment and for political appointments, and transfer of authority for the defense civilian workforce from OPM to the Secretary of Defense. Others have proposed greater investment in monitoring and analytical activities to identify and evaluate policies intended to address shortcomings of the civil service system. Despite the varying scopes of these reports, they have a remarkably consistent message for the DoD regarding how to achieve meaningful change. To ensure a high performing civilian workforce, the leadership in the DoD and Congress must demonstrate a strong and ongoing commitment to not only identify but also reform inappropriate processes and policies that hinder the effectiveness of the civilian workforce in meeting its current and future missions.

### ***Bibliography***

- Asch, Beth, Steven Haider, Julie Zissimopolous, “The Effects of Workforce-Shaping Tools on Civil Service Retirements: Evidence from the Department of Defense,” DB-404-RC, RAND, 2003.
- Asch, Beth J., Steven Haider, and Julie Zissimopolous, “Financial Incentives and Retirement: New Evidence from Federal Civil Service Workers in the Department of Defense” Michigan Retirement Research Center, RAND , 2002.
- Asch, Beth, *Ensuring Successful Personnel Management in the Department of Homeland Security*, IP-235-NSRD, Santa Monica, Ca: RAND, 2002
- Asch, Beth, *Pay, Promotion, and the Retention of High Quality Personnel in the Federal Civil Service*, MR-1193-OSD, Santa Monica, Ca: RAND, 2001
- Asch, Beth and John Warner, *Separation and Retirement Incentives in the Civil Service: A Comparison of FERS and CSRS*, MR-986-OSD, Santa Monica, Ca: RAND,1998
- Black, Matthew, Robert Moffitt, and John Warner, “The Dynamics of Job Separation: The Case of Federal Employees,” *Journal of Applied Econometrics*, Vol. 5, pg 245-266, 1990.
- Borjas, George, *Wage Policy in the Federal Bureaucracy*, American Enterprise Institute for Public Policy Research, Washinton, 1980.
- Congressional Budget Office, *Comparing Federal Salaries with Those in the Private Sector*, CBO Memorandum, July 1997.
- Crewson, Phillip, “A Comparative Analysis of Public and Private Sector Entrant Quality,” *American Journal of Political Science*, Vol. 39, No. 3, 1995.
- General Accounting Office, “High-Risk Series: An Update,” GAO-01-263, January, 2001.
- General Accounting Office, “Performance Management: Aligning Employee Performance with Agency Goals at Six Results Act Pilots,” GAO/GGD-98-162, September 1998.
- General Accounting Office, “Human Capital: Major Human Capital Challenges at the Departments of Defense and State,” GAO-01-565T, March 2001.
- General Accounting Office, “Managing in the New Millennium: Shaping a More Efficient and Effective Government for the 21<sup>st</sup> Century,” GAO/T-OCG-00-9, March 2000.
- Gibbs, Michael, *Pay Competitiveness and Quality of Department of Defense Scientists and Engineers*, Santa Monica, Ca: RAND, MR-1312-OSD, 2001.
- Gyourko Joseph, and Joseph Tracy, “An Analysis of Public-Private Sector Wages Allowing for Endogenous Choices of Both Government and Union Status,” *Journal of Labor Economics*, Vol. 6, 1988.



Kettl, Donald, Patricia Ingraham, Ronald Sanders, Constance Horner, *Civil Service Reform: Building a Government that Works*, Brookings Institution, Washington DC, 1996.

Ippolito, Richard, "Why Federal Workers Don't Quit," *The Journal of Human Resources*, Vol. 22, Issue 2, 1987.

James, Kay Coles, U.S. Office of Personnel Management, "A White Paper, A Fresh Start for Federal Pay: The Case for Modernization," April 2002.

Katz, Lawrence, Alan Krueger, "Changes in the Structure of Wages in the Public and Private Sectors," National Bureau of Economic Research Working Paper No. 2667, 1991.

Krueger, Alan, "Are Public Sector Workers Paid More than Their Alternative Wage? Evidence from Longitudinal Data and Job Queues." in *When Public Sector Workers Unionize*, R. Freeman and B. Ichniowski (eds.) Chicago: University of Chicago Press, 1988.

Light, Paul, "To Restore and Renew: Now is the Time to Rebuild the Federal Public Service," *Government Executive*, November 2001.

Milgrom, Paul and John Roberts, *Economics, Organization, and Management*, Prentice Hall: Upper Saddle River, New Jersey, 1992.

Mishel, Lawrence, Jaren Bernstein, and Jon Schmitt, *The State of Working America, 1998-1999*, Economic Policy Institute, Washington, D.C., 1999.

Moulton, Brent, "A Reexamination of the Federal-Private Wage Differential in the United States," *Journal of Labor Economics*, Vol. 8, No. 2, 1990.

Report of the National Commission on the Public Service, *Urgent Business for America: Revitalizing the Federal Government for the 21<sup>st</sup> Century*, Center for Public Service, the Brookings Institution, Washington, D.C., 2003

Rosenthal, Douglas, Margaret Barton, Douglas Reynolds, and Beverly Dugan, *Third Annual Evaluation Report: National Institute of Standards and Technology Personnel Management Demonstration Project*, Final Report 91-13, 1991, Alexandria VA: HumRO.

Smith, Sharon, "Pay Differentials Between Federal Government and Private-Sector Workers," *Industrial and Labor Relations Review*, Vol. 29, 1976.

Tirole, Jean, *The Theory of Industrial Organization*, MIT Press: Cambridge Massachusetts, 2000.

U.S. Department of Defense, "Factors in the Retention of DoD Civilian Professional and Administrative Employees: Follow-up on an Entering Cohort," Defense Manpower Data Center, May 1990.

- U.S. Office of the Assistant Secretary of the Navy (Research Development, and Acquisition, *Naval Research Advisory Committee Report on Science and Technology Community in Crisis*, Washington, D.C., 2002.
- U.S. Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics, *Final Report of the Defense Science Board Task Force on Human Resources Strategy*, Washington, D.C., 2000
- U.S. Office of the President, Office of Management and Budget, “The President’s Management Agenda, Fiscal Year 2002,” Washington DC, 2001.
- U.S. Office of Personnel Management, Office of Merit Systems Oversight and Effectiveness, “Poor Performers in Government: A Quest for the True Story,” January 1999.
- U.S. Office of Personnel Management, Office of Merit Systems Oversight and Effectiveness, “HRM Policies and Practices in Title-5 Exempt Organizations,” MSE-98-4, August 1998a.
- U.S. Office of Personnel Management,, “Recruiting and Retaining Information Technology Professionals,” November 1998b.
- U.S. Office of Personnel Management, Office of Merit Systems Effectiveness, Center for HR Innovation, “Human Resources Flexibilities and Authorities in the Federal Government,” July 2001a.
- U.S. Office of Personnel Management, “The Fact Book: 2001 Edition, Federal Civilian Workforce Statistics,” July 2001b.
- U.S. Office of Personnel Management, Office of Merit Systems Effectiveness, Center for HR Innovation, “Report of a Special Study: The 3Rs: Lessons Learned from Recruitment, Relocation, and Retention Incentives,” December 1999.
- U.S. Office of Personnel Management, “Turnover in the Navy Demonstration Laboratories, 1980-1995, Management Report XI: Evaluation of the Navy Personnel Management Demonstration Project,” Personnel Systems and Oversight Group, 1988.
- U.S. Office of Personnel Management,, “Recruitment of Scientists and Engineers in four Navy Laboratories. Management Report XIV for the Navy Personnel Management Demonstration Project,” 1991.
- Volcker, Paul, *Leadership for America: Rebuilding the Public Service. The Report of the National Commission on the Public Service*, Lexington, MA: Lexington Books, 1990.