

CRS Report for Congress

Pay-for-Performance: Linking Employee Pay to Performance Appraisal

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Summary

In many occupations today, pay is intended to reflect employee performance — or how effectively, efficiently, or thoroughly one performs his or her job. The federal government is no different from the private sector in this regard. Nearly 300,000 federal employees are currently in pay systems that attempt to make pay increases contingent upon job performance — such a system is often referred to as either a merit-based pay system or a performance-based pay system. A basic challenge with such an arrangement is arriving at credible and objective performance measures. In addition, while the private sector is ultimately concerned that employee performance be of such effectiveness that it contributes to the profits of a business, the federal government has other objectives to which employee performance is expected to contribute — such as the efficient, economical, and effective provision of services to those who qualify for, and are otherwise entitled to, them. This report discusses issues related to measuring performance across the federal government and analyzes a variety of methods utilized by the government to measure employee performance and its linkage to pay. As developments warrant, this report will be updated.

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Pay-for-Performance: Linking Employee Pay to Performance Appraisal

Nearly 300,000 federal employees¹ are presently in pay systems that attempt to link pay increases to job performance — which arguably may be defined as how effectively, efficiently, or thoroughly one performs his or her job. These pay systems vary considerably in their design, implementation, and outcomes. All of them, however, represent attempts to create a more productive and motivated federal workforce by linking performance to promotions, pay increases, or one-time bonuses. A basic challenge with such arrangements, whether used in the private or the public sector, is arriving at credible and objective performance measures. In addition, while the private sector is ultimately concerned that employee performance be of such effectiveness that it contributes to the profits of a business, the federal government has other objectives to which employee performance is expected to contribute — such as the efficient, economical, and effective provision of services to those who qualify for, and are otherwise entitled to, them.

Diverse considerations come to play when attempting to attract and retain the most effective federal employees — pay among them. Departments and agencies that enter into a performance-based pay system attempt to provide managers flexibility in hiring and awarding pay raises to assist them in recruiting new talent and adequately compensating existing talent. Before rewards for good performance can be provided, however, a fair and objective performance evaluation system must be created.

Performance Management and Performance Appraisal

Good performance management, as one group of authors has observed, “should be an ongoing, interactive process designed to enhance employee capability and facilitate productivity.”² Performance appraisal, on the other hand, measures “an employee’s contribution to the organization during a specified period of time,” and is defined in 5 C.F.R. § 430.203 as “the process under which performance is reviewed and evaluated.”³ Performance management is ongoing, while performance

¹ U.S. Office of Personnel Management, *Alternative Personnel Systems in the Federal Government: A Status Report on Demonstration Projects and Other Performance-Based Pay Systems* (Washington: GPO, Dec. 2007), p. 1.

² Cynthia Fisher, Lyle F. Schoenfeldt, and James B. Shaw, *Human Resource Management*, 6th ed. (Boston: Houghton Mifflin, 2006), p. 421.

³ *Ibid.*, p. 423.

appraisal is an event — a single moment of assessing completed job performance.⁴ Because appraisals are inherently reflections on the past, some public administration experts suggest not using them.⁵ Others point out, however, that effective appraisal criteria can help align employee performance with organizational goals, and help create a more satisfied and effective workforce by offering feedback and setting attainable goals.⁶ Ineffective criteria can prompt conflict within an organization and lead to resentment and competition among workers. Performance appraisals, therefore, should be precise and assist managers in ongoing performance management efforts.⁷

Federal employees who undergo performance appraisals are often given a performance plan, or expectations of their performance, at the beginning of their appraisal cycle.⁸ The performance plan may include both critical and non-critical performance elements, which are defined in the Code of Federal Regulations.

Critical element means a work assignment or responsibility of such importance that unacceptable performance on the element would result in a determination that an employee's overall performance is unacceptable.

Non-critical element means a dimension or aspect of individual, team, or organizational performance, exclusive of a critical element, that is used in assigning a summary level. Such elements may include, but are not limited to, objectives, goals, program plans, work plans, and other means of expressing expected performance.⁹

At the end of the appraisal cycle, a rating official and an employee may meet for a performance evaluation, or performance rating.¹⁰ An employee may have an unlimited number of critical and non-critical criteria on which he or she is measured. The appraisal may be written as a narrative or as a collection of short statements, or an employee may be assessed on a nominal or numeric rating scale. The National Credit Union Administration (NCUA), for example, rates employees on roughly five

⁴ Howard Risher and Charles H. Fay, "Managing for Better Performance: Enhancing Federal Performance Management Practices," a report from the IBM Center for The Business of Government, 2007, p. 13.

⁵ *Ibid.*, p. 15.

⁶ *Ibid.*

⁷ *Ibid.*, p. 18.

⁸ According to interviews with various departments and agencies, some organizations require rating officials to meet with their employees to discuss the performance criteria; other organizations make the criteria available electronically or send notices to the employees. According to 5 C.F.R. § 430.203, "Performance plan means all of the written, or otherwise recorded, performance elements that set forth expected performance."

⁹ 5 C.F.R. § 430.203.

¹⁰ 5 C.F.R. § 430.203 defines "performance rating" as "the written, or otherwise recorded, appraisal of performance compared to the performance standard(s) for each critical and non-critical element on which there has been an opportunity to perform for the minimum period."

performance criteria. Each criterion has a five-tier scale that ranges from “Exceptional” to “Unsatisfactory.”¹¹

Measuring the Proper Criteria

An appraisal system, according to Fisher et al., should hold employees accountable for results that are within their control and “measure important job characteristics (relevancy) and be free from extraneous or contaminating influences; it should also encompass the whole job (not be deficient).”¹² Moreover, the evaluation assessment should be tested to ensure that two managers evaluating the same employee create similar ratings.¹³ This test for evaluation bias, called an “inter-rater reliability test,” is essential for establishing employee trust in the assessment’s equity and fairness. The system must also affect all employees — regardless of race, gender, age, ethnicity, or sexual orientation — equally. Even systems that indirectly affect one group more negatively than another may face challenge. For example, in 2007, an impartial mediator determined that the pay system at the Securities and Exchange Commission (SEC) unfairly hindered the advancement and pay increases of African American employees and employees over the age of 40. On October 6, 2008, the SEC agreed to pay \$2.7 million to affected employees. The SEC also agreed to adjust the current salaries of the employees who were adversely affected by the merit pay system.¹⁴ When the pay system was found to be unintentionally biased, the commission “temporarily” separated the performance appraisal system from employee pay. SEC is currently working with employees and the National Treasury Employees Union — which represented employees affected by the previous merit-based system — to create a new performance-based pay system.¹⁵

Employers must also choose what they should measure to ascertain how well employees have performed: employee traits (loyalty, ability to communicate, cooperativeness); employee behaviors (greeting customers, ability to explain complicated concepts, filling out forms properly); or results (number of units produced, number of units rejected, number of days absent).¹⁶ Each type of rating

¹¹ U.S. Government Accountability Office, *Financial Regulators: Agencies Have Implemented Key Performance Management Practices, but Opportunities for Improvement Exist*, GAO-07-678 (Washington: June 2007), p. 23.

¹² Cynthia Fisher, Lyle F. Schoenfeldt, and James B. Shaw, *Human Resource Management*, p. 429.

¹³ *Ibid.*, pp. 431-432.

¹⁴ National Treasury Employees Union, “NTEU Secures \$2.7 million Settlement and Pay Adjustments for SEC Employees Subject to Illegal Pay System.” Press Release, Oct. 7, 2008. Information also provided to the author by SEC officials on October 8, 2008.

¹⁵ Testimony of SEC Executive Director Diego Ruiz, in U.S. Congress, House Committee on Oversight and Government Reform, Subcommittee on the Federal Workforce, Postal Service, and the District of Columbia, *Pay for Performance System*, hearing, 110th Cong., 2nd sess., Feb. 12, 2008, available on Lexis-Nexis.

¹⁶ Cynthia Fisher, Lyle F. Schoenfeldt, and James B. Shaw, *Human Resource Management*, pp. 440-441. “Traits” are the desired characteristics an employee needed to perform (continued...)

system has strengths and weaknesses. Ratings of employees' traits may indicate employees whose personalities are best suited to the position, but may not accurately measure effective performance. Rating an employee's behavior may capture how the employee does his or her job, but may fail to measure whether the behavior leads to effective job outcomes. Finally, measuring results may determine whether an employee completes assigned tasks, but also may create a work atmosphere in which employees attempt to acquire "results at all cost [sic]."¹⁷

In performance appraisals, employers determine which criteria are critical.¹⁸ The Office of Personnel Management (OPM) also suggests that criteria be "specific," and clearly linked to overall organizational goals.

To develop specific measure(s) for each element, you must determine how you would measure the quantity, quality, timeliness, and/or cost-effectiveness of the element. If it can be measured with numbers, clearly define those numbers. If performance only can be described (i.e., observed and verified), clarify who would be the best judge to appraise the work and what factors they [sic] would look for.¹⁹

An organization also must decide whether the appraisal criteria will be standardized across the department or agency or if it will include individualized measures specifically tailored to each employee. Standardized criteria allow all employees to be evaluated on a common set of goals, and may facilitate a clearer link between criteria and organizational mission. Employees can assume that standardized measures are important to the organization because the measures are included agency wide. On the other hand, individualized criteria can allow the rating official to capture unique job performance elements that may be essential to the organization, but are not directly linked to the agency's mission and, therefore, may not be captured by a standardized appraisal. According to U.S. Merit Systems Protection Board, "functions within an organization may be so diverse that it becomes appropriate in many organizations" to use individual appraisal criteria.²⁰

¹⁶ (...continued)

the job. "Behaviors" are the actions an employee performed to execute his or her job. "Results" are an employee's output.

¹⁷ Ibid., pp. 440-442.

¹⁸ 5 C.F.R. § 430.203 and U.S. Office of Personnel Management, Performance Management and Incentive Awards Division, *A Handbook for Measuring Employee Performance: Aligning Employee Performance with Organizational Goals*, PMD013 (Washington: Sept. 2001), available at [<http://www.opm.gov/perform/WPPDF/2002/HANDBOOK.PDF>], visited May 1, 2008.

¹⁹ U.S. Office of Personnel Management, "Performance Management: Developing Performance Standards," available at [<http://www.opm.gov/perform/articles/118.asp>], visited May 1, 2008. See also U.S. Office of Personnel Management, "Performance Management: Planning," available at [<http://www.opm.gov/perform/plan.asp>], visited May 1, 2008.

²⁰ U.S. Merit Systems Protection Board, Office of Policy and Evaluation, *Designing an Effective Pay for Performance Compensation System* (Washington: Jan. 2006), p. 10.

Employee Involvement

Involving employees in all parts of performance appraisals can create a system that is more trusted and can better motivate employees and “help them understand the goals of the organization, what needs to be done, why it needs to be done, and how well it should be done.”²¹ Currently, most federal agencies with performance-based pay systems encourage employees to speak with their managers about their rating criteria, but very few agencies require employee input. At the end of an appraisal year, an employee may be given the opportunity to submit a self-appraisal or respond to his or her rater’s appraisal. Employees who are involved in the process usually are more satisfied with it than those who are not permitted to add input.²²

Employers also must determine whether peers, subordinates, customers, or other employee supervisors are permitted to add input to evaluations. Requiring peer input may offer rating officials additional insight into an employee’s performance, but each additional assessment also carries drawbacks that could contaminate the appraisal. Peers may not want to rate one another because they may be wary of making themselves seem inferior to those whom they rate, or they may not want to jeopardize workplace cooperation by submitting a poor rating.²³ A subordinate may have an incentive to inflate the rating score of his or her supervisor if he or she believes the supervisor will know who submitted the evaluation.²⁴ By allowing additional assessments, rating officials may cede some of their authority in making decisions about an employee’s performance and, therefore, may lose some of the flexibilities in rate-of-pay decisions that performance-based systems are meant to increase.

Comparison or Criteria

Employers must determine whether to evaluate employees by comparing across colleagues or based on set performance criteria. Employers may rank their employees comparatively,²⁵ create comparative forced distributions (in which “the evaluator has to place a certain percentage of employees in each of several performance

²¹ Cynthia Fisher, Lyle F. Schoenfeldt, and James B. Shaw, *Human Resource Management*, p. 456. See also U.S. Office of Personnel Management, *A Handbook for Measuring Employee Performance: Aligning Employee Performance with Organization Goals*, p. 5.

²² Cynthia Fisher, Lyle F. Schoenfeldt, and James B. Shaw, *Human Resource Management*, p. 465. See also Mary Beth DeGreggorio and Cynthia D. Fisher, “Providing Performance Feedback: Reactions to Alternate Methods,” *Journal of Management*, vol. 14, 1998, pp. 605-616.

²³ John A. Drexler Jr., Terry A. Beehr, and Thomas A. Stetz, “Peer Appraisals: Differentiation of Individual Performance on Group Tasks,” *Human Resource Management*, vol. 40, 1987, pp. 785-797.

²⁴ David Antonioni, “The Effects of Feedback Accountability on Upward Appraisal Ratings,” *Personnel Psychology*, vol. 47, 1994, pp. 349-356.

²⁵ For various methods of ranking employees, see Cynthia Fisher, Lyle F. Schoenfeldt, and James B. Shaw, *Human Resource Management*, p. 446.

categories”), or use set standards on which to evaluate each employee individually.²⁶ While comparative evaluations can be performed quickly and inexpensively, they do not allow managers to determine “whether the top-ranked employee in a group is a lot or just a little better than the second-ranked person,” according to Fisher et al.²⁷ Moreover, comparative rankings make cross-working-group or organization-wide comparisons nearly impossible. Employees may not trust a system in which their ratings cannot be replicated across managers (inter-rater reliability).²⁸ Finally, some critics have noted that comparative ratings may generate a competitive workplace, rather than foster teamwork, because employees are competing against one another for ratings.²⁹

Appraisal Training

Once performance appraisal criteria are established, both managers and employees must be trained in how to use the system. Managers “can be taught how to reduce rating errors,” such as leniency (awarding more positive ratings than deserved), severity (awarding more unfavorable ratings than deserved), central tendency (rating all employees near the midpoint of the performance scale), and halo errors (allowing feelings about the individual to affect positively all rating scores).³⁰

Employees who will be rated by the appraisal system may be taught how it will operate to ensure their understanding of the evaluation process and to instill greater trust in the system. Finally, organizations may establish a formal process for employees to offer feedback or to challenge their appraisals. Training both employees and supervisors may increase the appraisal system’s transparency, which, according to the MSPB, can promote “shared understanding of the [employee’s] expectations” and “build trust” both in the system and between the supervisor and employee.³¹

²⁶ Ibid., p. 448.

²⁷ Ibid., p. 447.

²⁸ Ibid.

²⁹ Stephen V. Burks, Jeffrey P. Carpenter, and Lorenz Goette, “Performance Pay and the Erosion of Worker Cooperation: Field Experimental Evidence,” Institute for the Study of Labor (IZA) Discussion Paper No. 2013, Mar. 2006, available at [<http://ideas.repec.org/p/iza/izadps/dp2013.html>], visited May 5, 2008.

³⁰ Cynthia Fisher, Lyle F. Schoenfeldt, and James B. Shaw, *Human Resource Management*, pp. 434-435, 462. See also H. John Bernardin, “Effects of Rater Training on Halo Errors in Student Ratings of Instructors,” *Journal of Applied Psychology*, vol. 63, 1978, pp. 301-308; Jeffrey S. Kane, H. John Bernardin, Peter Villanova, and Joseph Peyrefitte, “Stability of Rater Leniency: Three Studies,” *Academy of Management Journal*, vol. 38, 1995, pp. 1036-1051; and Peter Villanova, John Bernardin, S.A. Dahmus, and R. Sims, “Rater Leniency and Performance Appraisal Discomfort,” *Educational and Psychological Measurement*, vol. 53, 1993, pp. 789-799.

³¹ U.S. Merit Systems Protection Board, Office of Policy and Evaluation, *Designing an Effective Pay for Performance Compensation System*, p. 7.

Pay Linkage

Pay Banding

Most federal performance-based pay systems operate on a broad-banded pay structure. Instead of the 15-step General Schedule (GS) scale that serves as the pay structure for most federal employees, those who are in a performance-based system have pay bands that usually encompass a wider pay range than was formerly in a single GS grade. The wider pay bands may allow managers greater flexibility to hire promising employees at a higher rate of pay and to retain high-performing employees by increasing their pay at a faster pace than was possible under the GS scale. Pay bands, like GS grades, cap maximum — and limit minimum — pay rates. Unlike the GS scale, however, most pay bands do not have automatic increases within each band. Instead, in a banded system, funds that were formerly used to pay for within-grade and quality-step increases in the general schedule are often pooled and used to fund the pay increases determined at the end of the performance appraisal cycle.³²

Some agencies, like the Government Accountability Office (GAO), have included additional performance elements in their pay bands. In two of its four pay bands, GAO originally established speed bumps, which are designed to intentionally slow some employees' progress through a pay band, at about the 75% mark of the bands. In one band, GAO required employees at or above the speed bump to receive ratings in the top 50% of averages for their band and team³³ to qualify for the annual pay adjustment. In the other band, employees had to be in the top 80% of averages for their band and team. The establishment of speed bumps was controversial, and led to employee appeals and prompted federal legislation (P.L. 110-323).³⁴ Pursuant to P.L. 110-323, all GAO employees with a satisfactory performance rating are now statutorily required to receive an annual pay increase that is at least equal to that of similar employees in their geographic pay area who are on the GS pay scale.

³² Within-grade increases (WGIs) are “received by federal employees after they have served a specified amount of time at a certain grade level and demonstrated at least an acceptable level of performance.” These increases are provided for by Chapter 53 of Title 5 of the *U.S. Code*. Regulations for within-grade increase distributions are at 5 C.F.R. 531, Subpart D. Quality-step increases (QSIs) are “a one-step increase to base pay [that] can be granted to recognize employees in the general schedule who have received the highest available rating of record and meet agency criteria.” They provide “faster than normal progression through the step rates of the general schedule.” QSIs are provided for under 5 C.F.R. 531, Subpart E. See the *Federal Employees Almanac 2006* (Herndon, VA: *Federal Employees News Digest*, 2006), pp. 17, 23.

³³ At GAO, employees are divided into teams within each division.

³⁴ In April 2007, GAO settled appeals with 12 employees who were adversely affected by a speed bump. In the wake of the settlement, roughly 270 other GAO employees who did not receive the annual pay increase — but had at least “meets expectations” performance ratings — filed appeals with the GAO Personnel Appeals Board. P.L. 110-323 provided an “exclusive remedy” for current GAO employees affected by the former pay system. Former GAO employees who have retired but who were affected by the former pay system were not affected by P.L. 110-323 and have litigation pending.

Designing the Pay Structure

Once an organization decides whether to create pay bands before implementing performance-based pay, it can begin to design the pay-out structure. An effective merit pay system, according to Fisher et al., will incorporate three components: expectancy (the employee's belief that he or she is capable of meeting expectations), instrumentality (the employee's belief that his or her actual performance does prompt the reward), and valence (the employee's belief that the reward is desirable or valued).³⁵ Most effective merit-pay systems attempt to maximize each of these components by clarifying criteria, making the system transparent, and offering consistent, desirable pay increases to those who qualify for them.

The Funding Pool

For most federal departments and agencies, merit pay involves taking an employee's performance evaluation and using it to determine the percentage increase an employee will receive in his or her pay. Available performance-based pay funding is often pooled. The funding may come from a variety of sources, including a line item in the organization's budget, a determination from the organization's administration, or funding formerly used to pay for within-grade and quality-step increases. Pay banding may also eliminate some costs formerly used to consider promotions because employees no longer need to receive a promotion to secure an increase in pay. The wider pay band allows employees to acquire significant pay increases without having to apply for and receive a promotion. This cost savings may also be added to the merit-pay funding pool.

The size of the pool is a primary consideration when determining each employee's individual pay increase. Because the pay pool's size depends on larger macroeconomic and budgetary trends, performance-based payouts often vary in size from year to year. This variability in pay increases may lead to valence problems for the merit-based pay system. If employees do not believe their performance will lead to a pay increase of a sizeable value, the system may not operate properly. Additionally, because employee performance may stay consistent from year to year while payouts vary, employees may fail to see a solid link between their performance and their pay increase. Performance-based pay is designed to reward some employees with higher pay than others. Inherent in this design is an inequity in pay among colleagues, which may lead to an atmosphere of competition rather than teamwork. As the MPSB has observed, the structure of performance-based pay can produce a "win-lose situation" that "may create resistance among those who perceive that their incomes are falling behind and heighten competition in a negative way."³⁶

In some pay systems, an employee's location along the pay-band spectrum affects his or her total pay. For example, at the Farm Credit Administration (FCA),

³⁵ Cynthia Fisher, Lyle F. Schoenfeldt, and James B. Shaw, *Human Resource Management*, p. 537.

³⁶ U.S. Merit Systems Protection Board, Office of Policy and Evaluation, *Designing an Effective Pay for Performance Compensation System*, p. 21.

an employee at the higher end of the pay spectrum receives a lower percentage increase in pay than someone at the lower end of the pay band with an identical appraisal score. The lower pay percentage increase for the employee with the higher pay occurs because the Department of Labor has determined that the employee's basic rate of pay is already higher than the market rate for that position.³⁷ In addition, a higher basic pay rate will yield a higher pay increase than a lower pay rate multiplied by the same percentage pay raise.

Employees who have already reached their pay band's pay cap may receive no pay bonus, or they may be permitted to receive their pay increase as a one-time lump sum that will not modify their rate of basic pay. In these cases, the pay increases may not be included when retirement and pension pay are calculated.³⁸ Employees who have reached their pay maximum may have less financial incentive to maintain their work pace and effectiveness. Agencies with many employees at the pay cap may face higher rates of retirement, leading to both recruitment and retention concerns.

Concluding Observations

Performance-based pay can be beneficial to both employees and the organization, but it also may present new issues in an organization that has historically used more traditional pay structures. In some cases, performance-based pay for federal workers may have increased retention of effective employees, increased overall employee productivity, led to cost savings for the organization, and aided in the attainment of organizational objectives in a more effective manner than under the GS pay scale.³⁹ Adopting merit pay, however, takes substantial time and additional financial resources at the beginning of the implementation. In other cases, performance-based pay in federal agencies has prompted lawsuits and mistrust of pay system administrators.⁴⁰ Experts suggest that organizations need to plan carefully the performance appraisal system that will inform merit pay, and the system must ensure that the financial rewards for effective performance are large enough to be desirable to employees. "With pay for performance, one needs to re-evaluate the motivation, retention, productivity, and organizational objectives continually, with the idea of fine-tuning the system to make sure rewards are aligned with desired performance."⁴¹

Experts also observe that rating officials and employees must be trained in how best to use the performance-based pay system. Supervisors, employees, and their

³⁷ Information provided by telephone to the author from the FCA on Mar. 26, 2008.

³⁸ This information was provided to the author from a variety of federal departments and agencies.

³⁹ Many agencies, like the Federal Housing Administration and the Bureau of Alcohol, Tobacco, Firearms, and Explosives, have stated that their pay systems have performed well. Information provided to the author by telephone from the individual agencies.

⁴⁰ Both the Securities Exchange Commission and GAO merit-based pay systems have faced legal and public scrutiny.

⁴¹ Cynthia Fisher, Lyle F. Schoenfeldt, and James B. Shaw, *Human Resource Management*, p. 541.

representative unions must believe that a pay system is both fair and transparent. The most effective performance-based pay systems encourage communication throughout the process, use performance appraisals to improve performance management, and ensure that qualified employees' salaries keep pace with those of colleagues both in the public sector and in comparable private-sector positions.⁴²

If an agency or department has bargaining unit employees, the agency may observe that unions generally have disliked and litigated performance-based pay systems because they believe the structures destroy solidarity and permit arbitrary or sometimes unintentionally racist, gender-biased, or ageist outcomes.⁴³ Some unions fear that performance pay will force a return to the spoils system for federal personnel — that employees may be rewarded for partisan or political behavior. Members of Congress have expressed concern that giving agency managers more discretion may lead to increased misconduct by those managers.⁴⁴

Further, the constitutional design of government leaves most agencies in the position of serving “many masters.” As public administration professor Alasdair Roberts has asserted, the power struggle over control of executive branch agencies may be, in fact, a major roadblock to government-wide institution of performance-based pay.⁴⁵

⁴² Ibid., pp. 468-469.

⁴³ SEC's performance-based pay system, for example, was found to have unintentional negative effects on employees who were African American as well as those who were more than 40 years old. Other research indicating inequities in performance-based pay includes Thomas Lemieux, W. Bentley MacLeod, and Daniel Parent, “Performance Pay and Wage Inequality,” NBER Working Paper 13128, May 2007; and Thomas Dohmen and Armin Falk, “Performance Pay and Multi-dimensional Sorting: Productivity, Preferences and Gender,” Institute for the Study of Labor (IZA) Discussion Paper No. 2001, Mar. 2006.

⁴⁴ Alan Doig, “Mixed Signals? Public Sector Change and the Proper Conduct of Public Business,” *Public Administration*, vol. 73, pp. 191-212.

⁴⁵ Alaisdiar Roberts, “Performance-Based Organizations: Assessing the Gore Plan,” *Public Administration Review*, vol. 57, Nov.-Dec., 1997, p. 474.