

**Does Performance Pay Perform? Conditions for Success in the Public Sector****Iris Bohnet and Susan C. Eaton\*****Introduction**

In the past 10 years, the potential for introducing elements of pay-for-performance into government work has become a hotly debated issue in Washington. Based on the approach called "New Public Management" in Britain, Canada and New Zealand, then-Vice-President Albert Gore presented a proposal to transform federal agencies into "performance-based organizations" in March 1996. The proposal identified ten organizations, accounting for about 2 percent of the federal civilian work force, as candidates for the reform.<sup>1</sup> Some supporters argued that up to 75 percent of the federal bureaucracy could be transformed into performance-based organizations and that the proposal could cut operating costs by \$25 billion by 2004 (Osborne 1997). One key reform to be made was to liberalize civil service rules on employee pay so that "discretionary" pay could motivate employees to work more effectively, and to permit managers to clearly single out good performance.

This chapter offers a framework for deciding whether, and under what conditions, pay should depend on output to increase incentives for performance. While the "conditions for success" we present also apply more generally, we focus on the public sector, specifically on the federal level in the United States. We acknowledge that many other attributes of organizations, including monetary and non-monetary incentives (e.g.

promotion, training and travel opportunities, or awards such as the employee-of-the-month award), may affect performance but we concentrate on the payment system here.

This chapter is to weave together analysis based on economics, human resource management and social psychology to demonstrate not only what "should" happen according to economic theory, but what we know can and does happen when live human beings are involved, with all their deviations from the rational, money-maximizing 'economic man.'

### ***Pay-for-Performance Logic***

Our reference point from economics is a fairly straightforward payment scheme where an employee's pay is tied to output in a proportional way—so that the more output, the higher the pay. This is commonly known as a 'piece rate system' and simple examples are found in garment factories, home production arrangements or farm work, where the employee is paid a specified amount of money for each additional piece of work completed. However, typically the piece rate is combined with some base wage that is not contingent on performance, so that actual pay is equal to the base wage plus the piece rate. Hourly wages or salaries supplemented with a per-piece rate for production above a required minimum are an important part of any performance-based organization plan. This is in part because the employee needs to be assured of a minimum wage as well as the employer of minimum production. The concept arises directly from Taylorist scientific management where there is a "most efficient way" to do each job, and the employee has to be "motivated" by external forces to do the job more efficiently.<sup>2</sup>

Such payment systems are reported to have become more prevalent in the private sector in recent years. Ninety percent of Fortune 1000 companies report that they rely on incentive schemes that tie pay to some measure of output. More than 75 percent of all US companies say at least some part of pay is pegged to performance and 93 percent of the largest 460 European firms indicate that performance-based pay gained in importance during the recent years. Unfortunately, the specifics of performance pay in these companies are very poorly documented. Only rarely do we know how large the fraction of pay that depends on performance actually is, and recent surveys suggests that it is typically below 10%.<sup>3</sup>

### ***State of the Empirical Research***

The existing empirical evidence in economics is summarized by Gibbons, Dixit and Prendergast.<sup>4</sup> These surveys stress that the few empirical studies on the effect of performance pay all focus on "simple jobs" where a measure of performance is easily available. These studies find a positive effect of pay-for-performance on productivity, although the magnitude varies substantially. One detailed investigation of the impact of piece rates on performance has been undertaken by E. Lazear.<sup>5</sup> He studied auto windshield installation at Safelite Glass to measure productivity changes after a switch from fixed hourly wages to piece rates. He found that productivity rose by approximately 35 percent after the change in incentive schemes, with wages increasing by about 12 percent. He showed that approximately one third of the impact was due to turnover, where the less able were replaced by more talented workers.<sup>6</sup>

A more recent study on the effect of performance pay on productivity has been conducted by Iris Bohnet and Felix Oberholzer-Gee.<sup>7</sup> They investigate the effect of financial incentives on the number and the quality of suggestions for improvement submitted to about 1000 firms over 10 years. There are two differences in this work compared to the earlier empirical studies: employees are confronted with a more complex project than a simple task, and they are also charged with more than one task (i.e. their "regular" job plus the creation of ideas). The authors find that higher piece rates increase the number but decrease the quality of suggestions produced, and have a negative effect on performance overall.

It is very difficult to find empirical studies on the effectiveness of performance pay in the public sector. Anecdotal evidence suggests that the "Next Steps Initiative" (NSI) in Britain was a success, but there is hardly any empirical evidence to support this impression.<sup>8</sup> Roberts summarizes the main reasons for the missing research studies in Britain, which was among the first countries to strengthen pay incentives: "One difficulty is the lack of performance data for executive agencies for pre-reform years. A second problem is a lack of consistent performance data for post-reform years: agencies have often added, removed or modified measures from one year to the next. A third problem is uncertainty about the effect of other reform initiatives undertaken after NSI."<sup>9</sup>

Some would argue that the lack of a definitive evaluation of performance pay is no accident. Alan Blinder, introducing a collection of essays on pay-for-performance, notes that "rising and falling tides of interest in the various incentive plans have more to

do with changing social, political, and economic fashions than with accumulating scientific evidence on how well the plans work.”<sup>10</sup>

### ***Organization of this Chapter***

We argue that the "conditions for success" of any pay-for-performance plan depend on three main factors: the kind of *output* produced (Section 2), the *people* producing the output (Section 3) and the *organizational setting* in which the people produce the output (Section 4). We suggest that the “conditions for success” are generally not met in the private sector – and even less so by the in the public sector. We conclude in Section 5 with implications for managers and researchers.

### **Output**

The type of "output" appropriate to pay-for-performance arrangements has three key characteristics. These include: a) single task; b) clearly measurable; and c) linked to a single individual.

### ***Pay-for-performance works best if employees have to complete one well-specified task***

Most employees are charged with not one but multiple tasks. If high-powered incentives for output are used for one task alone, others will be neglected.<sup>12</sup> As some tasks tend to be more easily observable and measurable than others, using different payment rates for different tasks may be tempting for employers but will often cause employees to reallocate effort in undesirable ways.

An example is the quantity-quality trade-off. A worker may pick more lettuce if paid by the head, but she will not necessarily ensure that all lettuce is of high quality unless the pay system incorporates quality. Research suggests that firms are aware of the ubiquity of multi-tasking and are less likely to use piece rates when an employee undertakes more than one task.<sup>13</sup> In contrast to the single task in the auto-windshield example, computer programmers, nurses, or intelligence agents, for example, are charged with multiple tasks.

Most organizations, especially public agencies, are faced with multi-tasking problems, making it more likely that their agents will focus on the task that is most easily measurable. OSHA, the Occupational Safety and Health Administration, for example, enforces laws to protect worker safety *and* health. The statistics show that industrial hazards present a greater threat to worker health than to safety. Despite this, OSHA has focused on safety rather than health concerns. Wilson writes:

“Regulation-writers find it much easier to address safety than health hazards. The former are technically easier to find, describe, assess, and control than the latter. A worker falls from a platform. The cause is clear—no railing. The effect is clear—a broken leg. The cost is easily calculated—so many days in the hospital, so many days of lost wages, so much to build a railing. The directive is easy to write: ‘Install a railings platform.’ But if a worker develops cancer fifteen years after starting work in a chemical plant, the cause of the cancer will be uncertain and controversial. The cost of the disease will be hard to calculate. The solution will be hard to specify....”<sup>14</sup>

Similarly, the IRS found after implementing its "pay-for-performance" plan, in which it rewarded agents for the amount of monies collected, that some agents were becoming belligerent with taxpayers in order to increase the amount of their collections.<sup>15</sup>

***Pay-for-performance works best if output due to effort can be distinguished from output due to luck***

If an employee's performance is not verifiable, what economists call "moral hazard" arises. Rather than being able to directly pay-for-performance, the employer will have to pay for some random outcome that is related to the employee's effort. The conditions for an incentive scheme to be optimal under these circumstances are very restrictive. Generally speaking, the base wage will become larger and the "incentive" portion smaller if it is difficult to determine how closely effort and outcome are related.

Existing studies suggest that in practice, pay-for-performance systems for non-professional employees are used where the output can be easily measured—for instance, the number of phone calls answered in a given time, the total number of lettuce heads picked, the number of keystrokes made, or the number of windshields installed. At the same time, performance pay is prevalent for the highest--level employees, namely CEOs, whose effect on output often is hard to control or measure. It has been common to reward CEOs with stock options to make sure that they act with the owners' interests in mind. Even before the scandals of 2002, CEO compensation studies found that incentive pay is not properly calibrated to measure performance and therefore cannot be working as planned.<sup>16</sup> A recent study finds that CEOs are effectively rewarded for luck.<sup>17</sup> These researchers also report that pay for luck is strongest among poorly governed firms, and

that adding a major shareholder on the board decreased the pay for luck by 23 to 33 percent.

Output in the public sector is more likely to be vaguely defined than in the private sector. For example, the U.S. Department of State is asked to “Promote the long-range security and well-being of the United States” and the Bureau of Indian Affairs to “Facilitate the full development of the human and natural resource potential of Indian and Alaska Native people.” Output measurement is further complicated by the fact that many services public agencies provide benefit the community at large rather than separate individuals (e.g. security or vaccinations). The value of such collective goods is harder to measure than the value of individual goods. Such goods are not traded on the market, so it is hard to set an appropriate "price."

***Pay-for-performance works best if output can be attributed to one person's effort***

The provision of public goods often requires cooperation and coordination within agencies and across agencies. Team production is not a problem if the employer only cares about the sum of the individual employees' efforts and if each effort can be evaluated separately and has no relationship with the efforts of others. Typically, this is not the case, however, and an incentive system for the whole team must be designed to reinforce people's willingness to share and to work together with others.

However, performance pay distributed as a reward for team performance also creates incentives to "free ride," or to slack off and let other people do the work.

Newhouse found that group incentives in a medical practice led to a rise in overhead

costs and doctors working fewer hours as the fraction of revenues shared with others increased.<sup>18</sup> Investigating the effect of team-based compensation on individual productivity for telephone operators in a large financial company, Hansen reported a negative effect on the formerly more productive and a positive effect on the formerly less productive employees.<sup>19</sup> While Hansen's first finding supports the idea that some people are 'free riding,' the second suggests that perhaps peer pressure may have induced the formerly less productive to increase their productivity.

Measuring team output and arranging pay systems that avoid the problem of free riding and co-worker resentment are complicated. While some such schemes have been devised, most 'pay-for-performance' is implemented on an individual basis, and thus does not fit well with today's team-oriented workplace. In the unusual case where group rewards are used, they function best if the entire work organization is aligned with the rewards—"hybrid" arrangements that combined individual and group rewards were less effective than either individual rewards (for truly individual work) or group rewards (where the work was truly interdependent).<sup>20</sup> In these instances, the size of the group is important (smaller groups generally function better than large ones), the composition of the group is important (the group must have all the skills required), and the support, both material and in leadership and coaching, that the group gets also is critical to its success.<sup>21</sup> Pay is only one component of a much larger and more complicated set of factors that require alignment to get good results.

**People**

The characteristics of the people who do the work that are germane to the suitability of pay-for-performance arrangements. Relevant lessons can be drawn from extensive bodies of research on human psychology and the sociology of organizations. It is important to identify and critically scrutinize assumptions behind any pay plan. These include assumptions about how people are motivated, what makes them work harder, and how they wish to be treated or viewed-- as well as how they view themselves. We will focus on two characteristics crucial for the success of pay-for-performance: a) people solely motivated by income and more specifically, b) people motivated by absolute, rather than relative, income (e.g. those who do not care about how much others are paid).

***Pay-for-performance works best if employees primarily work for money***

Pay-for-performance systems generally deliver rewards primarily in the “extrinsic” form of money. If people are not only interested in the income they earn but also are motivated by other components of their job, e.g. satisfaction from task completion or challenging work, then increasing pay may either have a smaller positive, zero, or even a negative effect on performance. Most social psychological research suggests that people do not want to believe they work primarily for money, and studies show that public servants are much less likely than employees in business to value money over other goals in work and life.<sup>22</sup> In some professions, as in the case of a religious vocation, a military career, or social-service delivery, other components may be so

important that money does not make up a critical portion of the benefits derived from work. Such individuals can be offended when they are treated as if they were only responsive to money. Sometimes pay-for-performance plans are referred to as "bribes" by employees and taken to mean that management does not respect their devotion to the mission itself. Commitment to the job and employer has been shown to be strongly related to performance and is closely tied to workplace motivation, perceptions of fairness, and relationships with coworkers and supervisors rather than to pay levels.<sup>23</sup>

Essentially the assumptions behind "pay-for-performance" rest on a theory about people that is grounded in what Douglas McGregor called "Theory X," which holds that employees are averse to effort and would prefer not to work if they could get away with it. McGregor argued that in reality, most employees would benefit from "Theory Y" management, which assumes that most people like to work, gain psychic as well as financial rewards from working, and want to do a good job.<sup>24</sup> William Ouchi added, in his "Theory Z", the concept that people typically enjoy working in teams and groups; thus, they gain benefits from social interaction at work and will not function best if treated solely as independent agents.<sup>25</sup>

Clayton Alderfer presented a theory and evidence that all people require "existence, relatedness, and growth."<sup>26</sup> This was a response to Maslow's hierarchy of needs, which asserted that material needs came before any such concerns as belonging,

self-esteem or self-actualization. Alderfer, in contrast, argued that the three fundamental human needs co-exist simultaneously —so that pay will help with "existence" needs, but not with social or growth needs. A supportive structure of work, good management, and well-designed organizations are required for employees to have successful group or team experiences (for relatedness) and for continuous lifelong learning (for growth) as well as a feeling of accomplishment. Thus a pay-for-performance advocate is implicitly putting a great deal of emphasis on the 'material' needs of employees, and must be wary of ignoring or underestimating other needs like social relationships or learning.

Performance pay can even decrease performance if it undercuts employees' intrinsic motivation. Rewards have been found to undermine intrinsic motivation if they are perceived to be controlling.<sup>27</sup> In many situations, firms must rely on their employees' judgment, trusting that workers have the interest of the company in mind even if their behavior can neither be precisely observed nor rewarded. If employees are intrinsically motivated, they will try to meet their obligations even when they cannot be contractually required to do so, and indeed even when their performance cannot be verified. Remember also that precise 'monitoring' is not only difficult and expensive, but may create an adverse reaction in employees who feel they are not trusted. If performance pay undermines intrinsic motivation, overall productivity can be negatively affected.

In a similar vein, Frederick Herzberg called salary a "hygiene factor" or a "dissatisfier" in an article that has become a classic.<sup>28</sup> He argued that salary levels will predominantly generate negative feedback to an organization, no matter how high or how

constructed, especially when compared to intrinsically motivating factors like the meaning of the job, a sense of satisfaction at the accomplishment of valued tasks and the engagement with one's values. These are factors that managers can control without performance-based pay. Alfie Kohn agrees, suggesting that managers should "pay people well, pay people fairly, and then do everything possible to get money off their minds."<sup>29</sup>

If motivation because of the inherent value or worth of the job more important in the public sector than in the private for-profit sector, the reduction of intrinsic motivation through performance-based pay will be a correspondingly bigger problem. Various studies have shown that those who choose to work for the public sector are more inclined to value public service and their ability to work for the public good than those who work for private businesses.<sup>30</sup> These differences, which were consistently documented in the 1960s through the 1970s, apparently began to decrease in the early 1980s, but then were reconfirmed by later studies.<sup>31</sup>

Some studies have tried to identify a specific factor called "public service motivation," and in a 1999 study of 10,000 federal employees, this motivation was positively associated with performance.<sup>32</sup> While we do not have a definitive answer yet, it is reasonable to think that many public employees value the nature of their work for its own sake more highly than do their private-sector counterparts.

Heckman, Smith, and Tabor, discuss an interesting example of intrinsic motivation related to the Job Training Partnership Act of 1982 where the absence of performance pay for case-workers produced the desired outcome, namely to help the most disadvantaged, while the presence of performance pay created adverse incentives for the management.<sup>33</sup> The stated aim of the Job Training Partnership Act was to improve employment prospects and earnings of the disadvantaged. About 600 training centers all over the US were charged with this task. Their funding included performance-based incentives. While only families below the poverty line or unemployed were eligible, centers had some discretion in accepting applicants. Because employment status and earnings after completion of program were used as performance measures, and because incentive pay went to the centers and not to the caseworkers, the centers had an incentive to select the more qualified applicants whose prospects look good. Caseworkers, on the other hand, were intrinsically motivated to help the least-well-off and tended to admit the least employable applicants. While case-workers' preferences are more aligned with those of the general public (Congress) than with those of the managers, this alignment gave their center a worse placement record and reduces the performance payment it received.

***Pay-for-performance works best if employees only care about absolute pay***

If people evaluate compensation relative to some reference point, e.g. other comparable employees' salary or the organization's profits, then pay-for-performance may not work well. While "relative income" is rarely considered by economists to be a major concern, many people care more about changes than levels.<sup>34</sup> More importantly,

changes to the better are valued less than changes to the worse. Whether a change is perceived as a gain or as a loss depends on the reference point. The most obvious reference point that workers use when evaluating their compensation is their past salary, which has recently been supported by an interesting study by Bewley entitled "Why Wages Don't Fall during a Recession."<sup>35</sup>

The book investigates why salaries rarely decline during economic downturns and asks: Why do labor markets not behave like product markets where excess supply typically leads to a fall in prices? Bewley finds an answer to this question in interviews with 336 managers, labor leaders and employment counselors in Connecticut in 1992/93: Employees feel losses with disproportionate intensity, and managers know this. A wage cut, say of 5%, hurts employees much more than a 5% wage increase pleases them. A cut would negatively affect employees' morale, their productivity, effort, creativity and cooperativeness.

Comparisons with peers, or "social comparisons," are a second reason why performance pay may not work; they involve considerations of both procedural and distributive justice. This simply means that for a pay system to enjoy legitimacy and acceptance (both are required for effectiveness), employees must see it as fair in terms of process and outcomes. Recent research suggests that even if outcomes are agreed to be fair, performance can be negatively affected if the process through which the outcomes are achieved is perceived as unfair.<sup>36</sup>

Human psychological processes make differentiation among close co-workers extremely controversial. Garrison Keilor's description of Lake Wobegon as a town where "all the children are above average" resonates in part because it also describes any given adult workforce -- at least their view of themselves. Very few people wish to perceive themselves in the bottom tier of performers; in fact, research shows that 80% of individuals feel they fall into the top 30% of ability.<sup>37</sup>

Even though the simple performance-based pay scheme does not provide "tournament style" incentives—in which some win and others lose--employees often perceive piece rate pay as doing just that. Not everyone can be a top performer, but everyone would like to be a winner. Highly qualified people can be discouraged and leave the organization if they do not “win.” The “silver medal syndrome,” based on a study of Olympic champions, shows that the most disappointed people are those who come in 2<sup>nd</sup> in a competition, having hoped that they would be first (Scully forthcoming). Robert Behn agrees: "Any system in which most people are likely to lose is a poor system for motivation," he notes. "You want to set a reward that everyone can achieve-- you don't want only the top 20% of people to succeed."

Studies of social comparison effects show that employees receiving bonuses are likely to find ways to share them with their work group, to alternate or rotate who receives them, or to do almost anything to reduce distinctions among group members. This has been documented in the federal and state sector, as in the case of a group of

Wyoming public sector workers who decided to hold a party with the annual 'bonus' rather than endorsing the distinctions it was intended to promote.

What is perceived as fair? In some cases, there may be differences between the public and the private sector. For instance, more than 40% of U.S. public employees are unionized and are familiar with a system that reduces inequality between the lowest and highest paid employees. Pay increases are typically a result of an increase in responsibility and/or seniority. This system has a high degree of perceived procedural justice, at least for those who have known nothing else since being hired in. Removing the promise of increased pay after acquiring more experience or skills would be a major culture and morale shock. In addition, unions typically oppose 'merit pay' unless there are clear criteria for merit and all employees potentially can earn such pay. Unions express serious concerns about the potential for favoritism and oppose what they see as subjective evaluations that serve to divide employees who must work together.

Managers sometimes argue that the “carrot and stick” method of dealing with employees at all levels is best. A well-known Harvard Business School professor always asked his audience to imagine what kind of creature is usually depicted “between” the carrot and the stick.<sup>38</sup> He then describes what he calls the “great jackass fallacy,” which he suggests results in self-fulfilling behavior by employees. Further, pay-for-performance is probably most effective if salaries are not public, which is often the case in private business firms able to avoid exactly the kind of social comparisons we describe above. However, most U.S. government salaries are public as a result of

legislation or public disclosure laws such as the Freedom of Information Act. This would be another barrier to meeting the ideal conditions for pay-for-performance plans in the public sector.

### **Organization**

One key organizational factor that affects the conditions under which pay-for-performance can be successful is the degree to which employees know what to do and whom to serve. This often relates to the problem of “multi-agency,” i.e. the fact that some employees “have many masters.”

#### ***Pay-for-performance works best if the employees know which output to produce***

Knowledge of an organization's objectives and goals is not a given for employees. Often, the absence of clear goals can be attributed to multiple and/or changing leaders or managers with different objectives. In the private sector, we often assume that a firm is a top-down hierarchy with the CEO as "principal" and the top managers as her "agents." While this is not always accurate for a private firm, it reflects the public sector reality even less well. Typically, any public servant's effort will affect many people higher in the organization who may not be able to agree on one output to be produced because of political or programmatic differences.

The problem economists call "multi-agency" is especially pronounced in the United States because the legislature has more influence in shaping the priorities of government agencies than, for example, in the United Kingdom. "Senior executives in a congressional system of government are compelled to serve many masters."<sup>39</sup> Roberts reports that Congress indeed is reluctant about performance-based reforms: "A provision to negotiate annual performance agreements had been included in the Clinton administration's bill to reorganize the Patent and Trademark Office as performance-based organization. The U.S. Patent and Trademark Office's user groups strongly opposed the administration's plan, arguing that it would give the Commerce department too much influence over the organization (American Intellectual Property Law Association, 1995). The House subcommittee on intellectual property agreed... ." <sup>40</sup>

The National Performance Review seems to have been aware of multi-agency problems as it included only those departments into its reform program that "have a clear mission with broad-based support from its key 'stakeholders'--both internal and external to the agency--regarding its mission."<sup>41</sup> Excluded from the very beginning were those organizations in which public servants also cater to reference groups outside of politics such as economists and lawyers in the Federal Trade Commission or economists in the Council of Economic Advisers.

### **Conclusions**

Pay-for-performance as outlined in economic theory and in human resource management research requires the existence of certain conditions to be an effective system for high

motivation and outcomes. These conditions include key assumptions about the output desired, the people providing the output, and the organizational context of the workers. However, these conditions are often not met in the public sector, in part because of the complexity of the typical government product, the nature of public goods, the increasing role of teamwork and cross-agency collaboration, and the social comparisons and internal motivational dynamics of employees in general and public employees in particular.

Performance pay in the public sector can be effective under specific conditions, met, for example, by many of the National Research Laboratories.<sup>43</sup> We suggest that managers examine whether their organizations, their employees and the jobs they supervise meet the "conditions for success" identified here before introducing even simple pay-for-performance schemes. We do not argue that contingent incentives are not effective under the right conditions — only that the ideal conditions are rarely met by empirical reality. Unfortunately, the current literature does not allow us to give practical advice about the costs and benefits of pay-for-performance in a less than ideal world. All we can say with confidence at this point is that the less well the conditions presented here approximate reality, the larger the base pay and the smaller the piece rate should be.

Managers will have to turn either to more complex monetary incentive schemes and/or consider adding or substituting non-monetary incentives to motivate their employees. While beyond the scope of this paper to describe in detail, many opportunities exist to recognize and reward positive performance in public and private organizations. These include programs such as public recognition, training and education opportunities, development assignments that are challenging, cross-functional or career-

building assignments, travel to desirable places, extensive autonomy and flexibility, and others.<sup>44</sup> These, along with the opportunity for public service, can help employees feel their jobs are part of making their own lives better, as well as contributing to the effectiveness of the work and the social goals they value.

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<sup>1</sup> These include in chronological order of the date the proposed transformation was announced: The Patent and Trademark Office, the National Technical Information Service, The Defense Commissary Agency, the Animal and Plant Health Inspection Service, the Federal Housing Administration, the Government National Mortgage Association, the Office of Retirement Programs, the St. Lawrence Seaway Development Corporation, the U.S. Mint and the Seafood Inspection Program. Alsdair Roberts, "Performance-Based Organizations: Assessing the Gore Plan," *Public Administration Review*, vol. 57 no. 6 (1997): pp. 466).

<sup>2</sup> 'Taylorist' here refers to the standard time-and-motion study approach to work efficiency pioneered by Frederick W. Taylor in the 1910s. Many human resource management (HRM) scholars cite Frederick W. Taylor, *The Principles of Scientific Management* (NY:Harper and Row, 1911), as a basis for early management approaches to getting workers to produce more output.

<sup>3</sup> A recent review on pay-for-performance concludes: "Despite the frequent use of pay-for-performance as an incentive motivator because of presumed value of money to employees, many lingering doubts remain regarding the effectiveness of this approach... In particular, with but a few exceptions..., most of the evidence regarding the effectiveness of pay-for-performance is based on anecdotal testimonials and one-time company cases, rather than on methodologically

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more rigorous empirical studies." Alexander D. Stajkovic and Fred Luthans, "Differential Effects of Incentive Motivators on Work Performance," *Academy of Management Journal*, vol. 4, no. 3 (2001): pp. 582.

<sup>4</sup> Avinash Dixit, "Incentives and Organizations in the Public Sector: An Interpretative Review," Working paper 2001; Robert Gibbons, "Incentives in Organizations," *Journal of Economic Perspectives* vol. 12 (1998): pp. 115-32; Canice Prendergast, "The Provision of Incentives in Firms," *Journal of Economic Literature*, vol. 37 no. 1 (1999): pp. 7-63.

<sup>5</sup> Edward P. Lazear, "Performance, Pay and Productivity," *American Economic Review*, vol. 90 no. 5 (2000): pp. 1346-1361.

<sup>6</sup> For a critical summary of Lazear's study, showing what in the analysis is transferable to other kinds of work and what is not, see James N. Baron and David M. Kreps, *Strategic Human Resources: Frameworks for General Managers* (NY: John Wiley and Sons, 1999), Chapter 11, pp. 243-244.

<sup>7</sup> Iris Bohnet and Felix Oberholzer-Gee, "Pay-for-Performance: Motivation and Selection Effects," in Bruno Frey and Margit Osterlog, eds., *Successful Management by Motivation. Balancing Extrinsic and Intrinsic Incentives* (Berlin: Springer, 2001), pp. 119-139.

<sup>8</sup> One "Next Steps Initiative" executive said that "the crispness of the targets, the discipline it exerts on us, the clarity of accountability, the focus on customers, are all good for us... I can tell you from personal experience it is certainly very real and marked. It does make a difference." Robert fn. 1, House of Commons, p. 471.

<sup>9</sup> Roberts, fn. 1, p. 467.

<sup>10</sup> Alan S. Blinder, *Paying for Productivity: A Look at the Evidence* (Washington, DC: The Brookings Institution Press, 1990), p. 3.

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<sup>11</sup> Obviously, many differences between the public and the private sector are of degree, not of kind. Note that this chapter does not address the question whether an activity should be carried out in the private or in the public sector.

<sup>12</sup> Bengt Holmstrom and Paul Milgrom, "Multi-task Principal-Agent Analysis: Incentive Contracts, Asset Ownership and Job Design," *Journal of Law, Economics and Organization*, vol. 7 (1991): pp. 24-52.

<sup>13</sup> Charles Brown, "Firms: Choice of Method of Pay," *Industrial and Labor Relations Review*, vol. 43 (February 1990): pp. 165S-182S.

<sup>14</sup> James Q. Wilson, *Bureaucracy: What Government Agencies Do and Why They Do It* (New York: Basic Books, 1989), p. 42.

<sup>15</sup> Max Stier and the Partnership for Public Service, "Performance-Oriented Pay in the Federal Government," presentation at Kennedy School of Government Executive Session-Future of Public Service, Washington, DC, April 29, 2002.

<sup>16</sup> Brian Hall and Jeffrey B. Liebman, "Are CEO's Really Paid Like Bureaucrats?" *Quarterly Journal of Economics*, vol. 113 no. 3 (1998): pp. 653-692; Kevin J. Murphy, "Executive Compensation," in Orley Ashenfelter and David Card, eds., *Handbook of Labor Economics*, Vol. 3 (Amsterdam: 1999), pp. 2485-2563; Cynthia G. Wagner, "Soaring CEO Salaries," *The Futurist*, vol., 33, no. 9 (1999), pp. 9-10.

<sup>17</sup> Marianne Bertrand and Sendhil Mullainathan, "Are CEOs Rewarded for Luck? The Ones without Principals Are," *Quarterly Journal of Economics*, vol. CXVI no. 3 (2001): pp. 901-932.

<sup>18</sup> Joseph Newhouse, "The Economics of Group Practice," *Journal of Human Resources*, vol. 8, no. 1 (1973): pp. 37-56.

<sup>19</sup> Daniel Hansen, "Worker Performance and Group Incentives: A Case Study," *Industrial and Labor Relations Review*, vol. 51 (1997): pp. 37-49.

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- <sup>20</sup> Ruth Wageman, "Interdependence and Group Effectiveness," *Administrative Science Quarterly*, vol. 40 (March 1995): pp. 145-180.
- <sup>21</sup> For additional discussion see, J. Richard Hackman, *Leading Teams: Setting the Stage for Great Performances* (Cambridge, MA: Harvard Business School Press, 2002).
- <sup>22</sup> Hal G. Rainey, *Understanding and Managing Public Organizations*, Second Edition (San Francisco, CA: Jossey-Bass, 1997), p. 213.
- <sup>23</sup> John P. Meyer and Natalie J. Allen, *Commitment in the Workplace: Theory, Research, and Application* (Thousand Oaks, CA: Sage, 1997).
- <sup>24</sup> Douglas McGregor, "Theory X: The Traditional View of Direction and Control," and "Theory Y: The Integration of Individual and Organizational Goals," in *The Human Side of Enterprise* (NY: McGraw-Hill, 1960), Chapters 3-4, pp. 33-57.
- <sup>25</sup> William Ouchi, *Theory Z: How American Business Can Meet the Japanese Challenge* (Reading, MA: Addison-Wesley, 1981).
- <sup>26</sup> Clayton Alderfer, *Existence, Relatedness, and Growth* (NY: Free Press, 1972).
- <sup>27</sup> For an extensive survey of psychological studies, see E. L. Deci, Koestner and R. M. Ryan, "A Meta-Analytic Review of Experiments Examining the Effects of Extrinsic Rewards on Intrinsic Motivation," *Psychological Bulletin*, vol. 125 no.3 (1999): pp. 627-68 and for an application to management, Bruno Frey and Margit Osterloh, eds., *Successful Management by Motivation. Balancing Extrinsic and Intrinsic Incentives* (Berlin: Springer, 2001). Kenneth Arrow, *The Limits of Organization* (New York: Norton, 1974) was among the first economists to point out that financial incentives can disrupt "implicit agreements" in organizations and Teresa M. Amabile, "How to Kill Creativity," *Harvard Business Review* (September-October 1998): pp. 77-87, showed that pay-for-performance can decrease creativity.
- <sup>28</sup> Frederick Herzberg, "One more time: How do you motivate employees?" *Harvard Business Review*, vol. 65 no. 5 (1987): pp. 109-120.

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<sup>29</sup> Alfie Kohn, *Punished by Rewards* (Boston: Houghton-Mifflin, 1993): p. 36.

<sup>30</sup> Rainey 1997 fn. 22, p. 215.

<sup>31</sup> For a summary see, Carole L. Jurkiewicz, Tom K. Massey Jr., and Roger G. Brown, "Motivation in Public and Private Organizations," *Public Productivity and Management Review*, vol. 21, no. 3 (March 1998): pp. 230-250, who also report that some studies have found fewer differences between the private and the public sector.

<sup>32</sup> Katherine C. Naff, and John Crum, "Working for America: Does public service motivation make a difference?" *Review of Public Personnel Administration*, vol. 19, no. 4 (Fall 1999): pp. 5-16; J. L. Perry, "Antecedents of public service motivation," *Journal of Public Administration and Research*, vol. 7, no. 2 (1997): pp. 181-197.

<sup>33</sup> Heckman, James J., Jeffrey A. Smith and Christopher Taber, "What Do Bureaucrats Do? The Effects of Performance Standards and Bureaucratic Preferences on Acceptance into the JTBA Program," in *Advances in the Study of Entrepreneurship, Innovation, and Growth*, Vol. 7 (JAI Press, 1996): pp. 191-217.

<sup>34</sup> Kahneman and Tversky 1979

<sup>35</sup> Truman F. Bewley, *Why Don't Wages Fall during a Recession* (Cambridge, MA: Harvard University Press, 1999).

<sup>36</sup> Baron and Kreps (1999), fn. 6.

<sup>37</sup> Robert Behn, "Measuring Performance Against the 80-30 Syndrome," *Governing* (June 1993) p. 70.

<sup>38</sup> Harry Levinson, *The Great Jackass Fallacy* (Boston: Harvard Business School Press, 1973).

<sup>39</sup> Roberts (1997), fn 1, p. 474.

<sup>40</sup> Roberts (1997), fn. 1, 471.

<sup>41</sup> National Performance Review, "Reinvention's Next Steps: Governing in a Balanced Budget World," Speech by Vice President Al Gore, March 4, 1996 (Washington, DC), p. 19.

<sup>43</sup> James R. Thompson, “Devising Administrative Reform That Works: The Example of the Reinvention Lab Program,” *Public Administration Review*, vol. 59 no. 4 (1999): pp. 283-293. Research Laboratories are technical agencies relatively close to the ideal (e.g. a clear line of accountability avoids multi-principal problems, and user fees mean that the goods the agencies provide are not public). They collect or disseminate information, expedite work processes, automate cash transactions etc.

<sup>44</sup> See Baron and Kreps fn. 6 or any good HRM text for a series of examples.