

Abstract

The sheer scale and speed of the shift of payment system from time-based salaries to performance-related pay, PRP, in the British public services provides a unique opportunity to test the effects of incentive pay schemes. This study is based on the first large scale survey designed to measure the effects of performance related pay on employee motivation and work behaviour across the British public services. While there is evidence of a clear incentive effect for those gaining above average PRP, it is likely that it is offset by a more widespread demotivating effect arising from difficulties of measuring performance fairly. Organisational commitment appears to offset some of the negative effects of PRP.

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**Why Does Performance Pay Demotivate?
Financial Incentives Versus Performance Appraisal**

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1. Introduction

The New Economics of Personnel (NEP) stresses the superiority of performance-related pay over time-based pay systems under circumstances in which employees can exercise a good deal of discretion in their jobs and their effort is hard to monitor (Ferne and Metcalf, 1999). It is a powerful theory with important predictions because these conditions apply in a very large number of workplaces. The large-scale switch from time- to performance-based pay in the British public services over the past decade offers an excellent opportunity to test of some of these theories. This article analyses results from the first large-scale study of the effects on performance pay in the British public services to explore its effects on motivation and work relations. In particular, it seeks to establish how far employees judge the new incentives to have motivated them to perform, what they believe have been their effects on workplace cooperation, and how far alternative motivational forces, such as commitment and a belief in work standards are active in sustaining performance levels. Thus a novel feature of our study is to combine questions from the NEP and the Human Resource Management literature on incentives and employee performance. Based on questionnaire surveys of employees and their line managers who appraise performance, our study lacks objective data on output or organisational performance. Nevertheless, both the NEP and the dominant HRM theories, such as expectancy theory, predict that when employees have discretion in their jobs, their willingness to use it positively, that is, their work motivation, is the chief link between incentives and performance, the other being the ability to recruit higher productivity workers.

For a great many jobs in the public services, the NEP would predict that performance pay would give superior results. Teachers, health service professionals, job placement advisers and many tax officials have considerable control over how they work, and in many cases, it is very hard for management to monitor the effort and care they put into their jobs. In this regard, public sector employees differ little from their private sector counterparts. They also resemble private sector employees in that assessment of their performance relies heavily on subjective appraisal by line managers. In his JEL review of theoretical and empirical work on performance incentives within firms, Prendergast (1999) contrasted the dearth of studies on the effects of incentive pay on such employees, who make up the majority of the workforce, with the large number devoted to CEOs, sports and sales personnel. From the point of view of incentive theory, conditions for public sector employees have become more like those in the private sector in another respect. The break up of large bureaucracies into specialist agencies responsible for the delivery of specific services, each with their own set of performance targets, has reduced the problems posed by conflicting levels of political and management leadership ('multiple principals', Tirole, 1994). Finally, as Bewley's (1999) recent study shows, private employers also feel the need to take account of employees' sentiments of fairness, commitment and risk aversion when adjusting their pay.

Performance related pay (PRP) has been at the forefront of the reform of pay incentives for public servants in the UK since the late 1980s. By the late 1990s, it had replaced pure time-based pay with annual increases based on seniority for most civil servants,

and for many in local government and the health service. In schools, head teachers also had a form of PRP, and by the end of 2000, classroom teachers will have their own system. The introduction of a new pay system on this scale offers an excellent test of some of the NEP theories of incentives. Its sheer scale gives an opportunity to assess the effects of performance pay across a wide variety of work environments and occupations. The drive for PRP from central government means that it applied both where local management might have adopted it anyway, such as in the NHS hospital trusts in our sample, and where agency management might, if free, have opted for a different kind of scheme. An example of the latter is the Employment Service whose moves to develop team-working conflicted with individual performance pay. Our study therefore avoids some of the self-selection problems highlighted by Prendergast (1999).

The shift to performance pay also has taken place against a common background: that of time-based pay scales containing seniority-based increments. In fact, these were never intended to provide automatic progression up to the top of the pay scale for a particular grade, but as the Megaw inquiry (1982) observed, procedures for withholding increments for poor performance were rarely if ever invoked. In effect, public servants were paid on time rates, independently of their short-term performance. This is reinforced by the weakness of promotion as an incentive for a great many non-managerial public servants. The National Audit Office highlighted the slow rates of promotion for many in the civil service, for example, 20 years for a newly promoted SEO to reach the next grade up of Principal (NAO, 1989). The 'de-layering' of recent years will have restricted promotion still further. This is also reflected in employee expectations. In the evidence to the Sheehy enquiry on police pay, for example, it was found that over 40% of police officers did not expect to be promoted, despite the rank structure and a strong internal labour market (Touche Ross, 1993).

Performance pay in the British public services is mostly consolidated into basic salary so that the accumulation of above average awards can lead to quite big and lasting benefits for individual employees. It is most commonly awarded on the basis of individual performance appraisal, by each employee's line manager, against pre-agreed objectives. Given the importance assumed by qualitative aspects of public service performance, appraisal by line managers has been the preferred route, as predicted by the NEP. Nevertheless, line managers are given guidelines about relevant criteria, and about the need to be concrete about performance objectives, not least because the schemes must be defensible if challenged as discriminatory. The organisations covered in this study follow the same broad principles as those elsewhere in the British public services, with one exception. One of the trust hospitals has a trust-wide performance bonus payable to all satisfactory performers if the trust achieves its targets. Since the first performance pay schemes in the Inland Revenue in the late 1980s (see Marsden and Richardson, 1994), appraisal has undergone a sea change: away from evaluation against a standard set of criteria for all employees, and towards setting individual objectives in line with those of the organisation as a whole. In many respects, all these schemes have followed the canons of personnel management 'best practice' at the time as systematised by bodies such as the Institute of Personnel and Development, ACAS (1990), and leading private sector consultants such as Armstrong and Murlis (1994).

This study is based on the first major survey of individual employees across a variety of public service organisations in the UK with a view to discovering the effects of performance pay on employee motivation and work relations. The sample includes about 5,000 employees in two civil service departments (the Inland Revenue and the Employment Service); two National Health Service trust hospitals; and primary and secondary school head teachers, surveyed between August 1996 and March 1997. It covers therefore both a variety of occupations and two different types of organisation: what Mintzberg (1979) classified as 'machine' and 'professional' bureaucracy. The former includes the administrative staff of the two civil service departments, and the latter, hospitals and schools.

2. Principal-Agent Moral Hazard Analysis of Performance Pay

The theoretical rationale for performance related pay has been most clearly stated in the 'principal-agent moral hazard' model. The idea can be explained very simply in terms of Figure 1. For simplicity, assume that employees have discretion over the level of effort they provide, and that they can choose between providing 'low effort' (e_1) and 'high effort' (e_2). Suppose too that they wish to minimise the effort they exert for a given reward, and that the employer cannot observe effort directly.

If the employer offers a fixed wage, then employees will supply 'low effort'. The employer could respond by reducing the wage until it matches the value of the low effort level, but this may not always be desirable for either party. One solution is to link pay to observed output or performance, with a low wage (w_1) for low effort output (e_1), and a high wage (w_2) for (e_2). This allows employees to choose, and the employer can offer a schedule of wages designed to encourage e_2 .

If performance is easily measured and strongly correlated with employee effort this is a fairly simple matter. But in practice often neither relationship is straightforward. This is shown by the dispersion of performance levels associated respectively with the 'low' and 'high effort' levels.

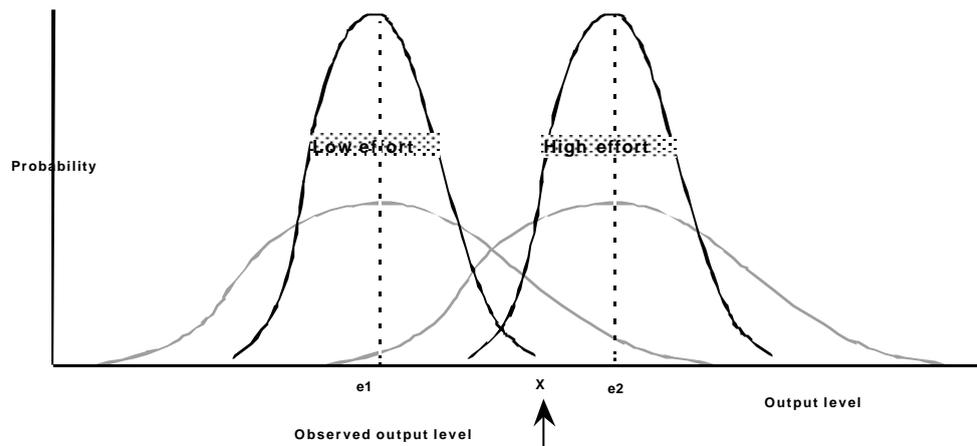
The two black (narrow) distribution curves represent the dispersion of output levels associated with each level of effort. As is well known, one might work hard and achieve low output because of lack of suitable training, poor management co-ordination, or other factors outside one's control. Equally, one may be lazy but lucky. With the two black distribution curves, the overlap is small so it is fairly easy for management to discriminate between employees providing the low or the high levels of effort. However, the curves could overlap a great deal more, as do the grey ones, and then it is much harder to determine whether a given level of output, say 'X', corresponds to low or high effort. In this case, there is a much greater chance that employees who work hard will not be rewarded, and vice versa.

The solution, which has received more attention in the NEP literature, has been to use more highly geared incentives, by offering a performance bonus that is a larger percentage of basic salary (eg Lazear, 1999, Ch. 3). In effect, the prize is made larger to compensate for the greater probability of error. An alternative solution, more common in the HRM literature, is to stress the need for improved appraisal systems. Good appraisal can help by agreeing objectives and obtaining better measurement of outcomes, particularly where it is hard to obtain valid objective measures. In the public services, there are severe constraints on the use of highly geared incentives for large numbers of staff for budgetary and other reasons, which places a greater burden on the fairness of appraisals.

Difficulty of measuring performance raises a second problem: whether management, which controls performance evaluation, can be trusted to act fairly. Given the need for a mix of quantitative and qualitative work objectives, there is little alternative to subjective appraisal if a bias towards quantitative outcomes is to be avoided (Holmstrom and Milgrom, 1991). However, it is very difficult for employees to verify the accuracy and fairness of such appraisals at the individual level. Whatever the actual honesty with which appraisals are conducted, our survey illustrates the depth of employee suspicion regarding 'moral hazard' by their employers. Across the organisations we surveyed, it was widely thought that performance pay was a device to cut the pay bill; over 60% thought management applied a quota to good appraisals; around 55% of employees thought they would not be awarded performance pay even if their work was good enough; and over 40% thought line managers used performance pay to reward their favourites¹. On the latter two questions, similar results have been found in the US federal service (Milkovitch and Wigdor, 1991).

¹ The favouritism question was not asked of head teachers.

Figure 1. Distribution of performance or output for two given levels of ‘effort’



Finally, Figure 1 brings out the importance of the initial assumption that employees are ‘effort minimisers’ and will opt for ‘low effort’ if they think it will pass undetected. That raises the question as to what sustained effort among the majority of public servants before PRP was introduced. Promotion may have been part of the answer, but, as mentioned earlier, for most employees such opportunities are limited. In some kinds of clerical work, clear job descriptions and well-paced work-flows make sub-standard performance easily detectable by line managers. In contrast, where employees have a lot of discretion, as is the case for many public servants, a mixture of organisational commitment, a belief in professional work values, may counteract such tendencies.

3. Measuring the Effects of PRP on Work Behaviour and Attitudes in Public Services

In this paper, we consider three main kinds of impact of performance pay: on motivation, on work relations, and on communicating management objectives. They correspond to different aspects of the performance outcomes sought by the use of incentive pay: giving employees greater incentive to provide higher levels of effort; encouraging more flexible working and team work; and redirecting employees’ effort towards new goals that management wants them to achieve.

3.1. Motivation

We interpret motivation as the willingness to undertake certain kinds of action, but we also ask about public servants’ agreement with the principle of performance pay, and whether they believe it rewards good work. Particularly important in the principal-agent analysis, but also in the views of management expressed to us in our interviews, was the willingness of staff to use their work discretion to the benefit of the organisation. We focused on whether staff felt PRP gave them an incentive to work beyond the requirements of their jobs, and to show more initiative in their work. Agreement with the principle implies accepting its legitimacy as an *ex ante* incentive, in keeping with the principal-agent analysis. Agreeing that it rewards good work captures a different nuance: that one appreciates the *ex post* recognition by one’s boss, and this might appeal more to those attracted to the intrinsic satisfactions of their work which might be especially important in health and education services (Deci and Ryan, 1985).

3.2. Work relations

In much of the public service, a high degree of cooperation between employees is needed for efficient working. Indeed, management has sought to encourage greater team working. We therefore asked employees whether, in their experience, performance pay caused jealousies among staff; whether it undermined team working; whether it improved cooperation with management; and whether management operated a quota on good assessments. The first two would be outcomes of PRP that inhibit more flexible work organisation. Likewise, willingness to co-operate with management becomes more important the greater the amount of discretion employees have in their work. Finally, whether management operate a 'quota' on performance pay and performance ratings can be interpreted as an indicator of trust in higher management. In fact, in the Inland Revenue higher management instructed line managers not to apply a quota, and the Employment Service scheme, like that of the trust-wide bonus hospital, had no place for a quota of any kind. Only the hospital using individual PRP used a standardised distribution.

3.3. Communicating objectives

Over the past decade, there has been considerable devolution of public management towards specialist agencies, hospital trusts and local management of schools. One reason has been to enable management to formulate objectives closer to the point at which public services are delivered than previously. In all the organisations we studied, there was strong emphasis on formulating clear organisational objectives and communicating these to individual employees, together with a view that performance appraisal was a natural focus for this. The more discretion employees have, the more important it is that they are aware of organisational objectives. We therefore asked whether employees believed that PRP had raised their awareness of their organisation's objectives.

3.4. Independent variables

Among our independent variables we include first of all the public service organisation and the occupation to which employees belong. Each organisation was assigned a dummy variable, taking the Inland Revenue as the benchmark. For the occupational analysis, staff were assigned to one-digit ISCO occupations, with managers as the benchmark. Organisational dummies were used to capture both effects of differences between schemes, and possible effects of 'administrative' compared with 'professional' bureaucracy. Occupational dummies were included to capture the lesser work discretion enjoyed by employees in lower paid occupations, and hence the greater likelihood that they would feel performance pay unfair because they had little scope to improve their performance. We included two bio-data variables: length of service and gender. Longer service employees, who grew up under age-incremental scales, might be more hostile to the new pay norms. Likewise, it is sometimes argued that men are more assertive than women, and so more likely to respond to individual PRP.

Turning to the operation of performance pay, we asked employees three main questions: the amount of performance pay they had received, the effectiveness of goal setting in the appraisal process, and their views on the fairness with which their appraisals were conducted. In terms of the principle-agent model outlined, the first question relates to the direct effect of financial incentives, and the second two, to factors affecting employees' views of their chances of being rewarded if they perform.

For the financial incentive, we asked how much performance pay individuals had received or what had been their latest appraisal score when this determined their pay award.

Under the civil service and hospital schemes, PRP had replaced seniority increments, and so practically everyone now gets performance pay. We experimented with two measures: those in receipt of performance pay, and those who got above average awards. Only the latter had any effect so that was the one we included. We also experimented with a question on people's subjective rating of their own performance, on the grounds that those who believe their performance is better than their colleagues' would be more likely to find performance pay motivating.²

By the time of our study, all the appraisal schemes assessed performance against agreed objectives, and are now an integral part of communicating organisational objectives to employees and shaping their personal work targets for the coming period. It is against these that their performance is appraised. We asked therefore whether they felt PRP had led their managers to set work targets more clearly. We asked too whether they felt the appraisal process operated fairly: thus whether they thought they could get a good appraisal if they performed well; whether their last one was a fair reflection of their performance; and whether they thought their line managers knew enough about their work to appraise them accurately.

Apart from whether line managers try to act fairly, employees may believe the nature of their work is such that it is hard to measure. Measurement problems can arise because employees doubt that management will or is competent to apply valid criteria, and because they doubt it can measure them reliably and honestly. This is particularly likely in health and education, where many employees believe that they work to professional standards, and which they do not regard management as competent to measure (Zucker, 1991). In addition to technical knowledge, professional training usually inculcates notions of performance standards expected of those in the profession or occupation. Strongly organised professions, such as those of doctors and lawyers, play an important part in regulating and enforcing high standards because they need to protect their collective reputation when non-professionals lack the necessary expertise to assess performance quality. The two largest occupational groups in our sample, nurses and teachers, are weakly organised professions, but both have training that seeks to instil notions of responsible and good performance. Employees holding these norms could be expected to question whether management is competent to select and measure appropriate performance criteria.

Many public service jobs offer great opportunities for intrinsic motivation. Collecting the money for public services, helping job seekers, looking after the sick and educating children can all be rewarding activities in their own right. Such non-pecuniary benefits may attract many into the public service. Deci and Ryan (1985) argue that strong intrinsic motivation is associated with a strong desire for autonomy in one's work. Such employees would resent both being treated as if their good performance was motivated by marginal increments in pay, and the closer performance monitoring by management. We used factor analysis to combine a series of questions on intrinsic and extrinsic motivation, concerning notably what people felt attractive about their current jobs (varied and interesting work, opportunities for responsibility, and pay and career opportunities).

Organisational commitment is widely held to imply a strong belief in and acceptance of the organisation's goals; a willingness to exert extra effort on its behalf; and a strong desire to maintain membership (Mowday, Steers and Porter, 1981). Exchange between individual employees and their organisation is regarded as a key mechanism for building commitment (Meyer and Allen, 1997), so there is no implication that committed employees will permanently give something for nothing. However, the presence of such commitment is likely to restrain the kind of employee moral hazard predicted by the simple principal-agent model.

² It was only very weakly correlated with receiving performance pay, and so it is unlikely that it was greatly influenced by it.

Whether or not committed employees would resent management's use of performance pay is harder to decide. On the one hand, they should use their discretion positively for the organisation without direct incitement from management. They share its goals, are willing to make an effort for it, and wish to remain members, and so might feel that use of the 'carrot and stick' implies that their management no longer trusts them to behave in this way. On the other hand, if they feel they share objectives with management, then they might be more confident that management will operate the scheme fairly.

Organisational commitment is high in many parts of the public service, especially to the workplace organisation. We test for its effects by measuring employees' affective commitment to their workplace organisation, and their commitment to the goals of their organisation. Our measure of affective commitment is based on Meyer and Allen (1997). Using factor analysis, we include: feeling 'part of the family' in one's workplace; not becoming as emotionally attached to another workplace; work in the organisation meaning a lot to them; being happy to continue working there; and believing that employees don't lose out whenever there is change in the organisation.³ Goal commitment included believing one's work was contributing to an important public service, and that it was fair to use PRP in order to retain good employees, implying the welfare of the organisation was more important than the integrity of the pay system.

All of these variables are summarised in Table 1.

Table 1. Summary of Main Variables Analysed

Dependent variables	Independent variable	Independent variable (cont)
I. Directly attributed outcomes	a) Structural	d) Goal setting
a) Effects on individual motivation	Employment Service (cf IR)	Mgrs set targets more clearly
Rewards good work	Hospitals	
Work beyond job requirements	Schools	e) Quality of appraisal
Good principle	Professional (cf Mgrs)	Doubt I'll get a good appraisal
Show more initiative in my work	Technical	My last appraisal was fair
	Clerical	Mgrs know enough to appraise me
	Service	
	Craft	
b) Impact on work relations	b) Biodata	f) Measurability of performance
Causes jealousies among the staff	Length of service	Performance hard to measure
Undermines team working	Male	There is a standard for the job
Reduced my wish to co-operate with mgt.		
Management operate a quota	c) Incentive effect	g) Intrinsic/extrinsic motivation
	Gets PRP	Intrinsically motivated Factor 1
c) Communicating objectives	My work always better than others	Extrinsically motivated Factor 2
Raised my awareness of org's objectives		h) Commitment
		Affective commitment Factor 1
		Goal commitment Factor 2

4. Results

The mean values for each of the outcome variables in the full logit regressions (Table 2) conform to the simple cross-tabulations by Marsden and French (1998). Overall PRP appears not to have motivated better performance, as the great majority of employees disagree that it has raised their performance. Likewise, the majority also believed that it has damaged

³ Our questions are also similar to those used in the reduced British measures refined by Peccei and Guest (1993). We were constrained by the length of our questionnaire to use a reduced set of questions.

workplace relations, lowering morale, causing jealousies and breeding distrust of management. Against this background, we assess the differential impact of the incentive and operational aspects of PRP on motivation and work relations.

Table 2. General results: Overall Probabilities of Believing Particular Effects of PRP

Mean values of the dependent variables used	% agree	Disagree/ no view	% correctly predicted *
PRP means good work is recognised and rewarded	33.3	66.7	77.73
PRP is a good principle	51.5	48.5	71.30
PRP has given me an incentive to work beyond my job requirements	16.6	83.4	86.21
PRP given me an incentive to show more initiative	17.9	82.1	84.89
PRP has made me more aware of the org's objectives	36.3	63.7	72.11
PRP causes jealousies among staff	66.8	33.2	73.62
PRP is bad for team working	46.5	53.5	70.76
Management operate a quota	61.3	38.7	74.23
PRP has made me less willing to co-operate with mgt.	17.3	82.7	84.79

*. The percentage of cases correctly predicted by the logit regressions as compared with the actual distribution of replies.

4.1. Is PRP seen by public servants as a suitable incentive for public servants?

Whether PRP is seen as an appropriate incentive can be judged from the replies to whether it means that good work is rewarded, and whether it is regarded as a good principle.

Factors boosting the likelihood that employees will judge performance pay to be an appropriate incentive include: receiving above average performance pay; and believing that it has led managers to set targets more clearly. Likewise, employees are less likely to judge it to have been motivating if they believe they will be unfairly appraised, that their performance is hard to measure, and that there is an appropriate standard of performance for their job.

There is an interesting difference between PRP as an *ex ante* incentive and an *ex post* reward. Those in the predominantly administrative bureaucracies are more likely to respond positively to the principal of linking pay to performance, whereas those in the predominantly professional bureaucracies are more likely to respond to *ex post* recognition (good work is rewarded). Among the occupations, professionals stand out as more likely to reject the principle. Remember that the benchmark for the organisational dummies is the Inland Revenue, and for the occupational dummies, it is managers. The results are summarised in Table 3.

Table 3. Summary of the Logit Results

	Likelihood of positive incentive effects	Likelihood of demoralisation
Administrative bureaucracy	+	+
Professional bureaucracy	-	--
Length of service	0	0
Male	0	0
My work better than others	+	0
Gets above average PRP	++	0/-
Mgrs set targets more clearly	++	-
Doubt I'll get a good appraisal	-	++
My last appraisal was fair	0	0/-
Mgrs know enough to appraise me	0	-
Performance hard to measure	--	++
There is a standard for the job	--	0
Intrinsic motivation	0/+	0
Extrinsic motivation	0/+	0
Affective commitment Factor 1	+	--
Goal commitment Factor 2	+	-

Detailed logit coefficients are shown in Appendix Table 1.

4.2. PRP and employee willingness to work beyond job requirements

Turning to the willingness of staff to use their work discretion positively, receiving above average performance pay has a strong positive effect. Indeed, this was one of the consistently strong coefficients to emerge, holding across four of the five measures of positive performance effects.

The question of objective setting and work measurement is critical. If employees believe PRP has led managers to set work objectives more clearly, then they are more likely to respond positively on working beyond job requirements and using initiative. Likewise, if they believe their work is hard to measure, then they respond negatively. Closely related is whether employees believe there is an appropriate standard of performance which they should achieve. This might be an internalised belief about work levels, or stem from professional work norms, but either way, it suggests a degree of conflict with management over the determination of work standards in connection with PRP. The link with professional norms was confirmed in a separate logit analysis, based only on organisational, occupational and biodata variables. That showed that professionals and those in professional bureaucracies were more likely to respond that performance was difficult to measure and that PRP did not motivate because employees already worked to an 'appropriate standard'.

What is the strength of the financial incentive relative to the other factors measured? As is well known, logit regression coefficients tell us the change in the log of the odds⁴ that a person will work beyond job requirements for a unit change in the independent variable. This cumbersome concept can be made simpler by taking the exponent: the proportionate change in the odds arising from a unit change in the independent variable (Table 4). Values of less than one imply a decrease in the odds. Thus in moving to above average PRP increases the odds by a factor of 1.8. Because the mean values of the independent variables differ, it may be felt preferable to compare elasticities. These relativise the effect of getting above average performance pay: although still strong, it is considerably less so than the other variables. However, elasticities for binary and five-point scale variables are far from ideal, so a final check on the relative strength of each variable was done by computing logit coefficients for all of them measured as binary variables. This involves some loss of information, but it

⁴ The 'odds' are used in their strict sense here to refer to the ratio of the probability of the event occurring to its not occurring.

shows that the effect of getting above average performance pay is probably weaker than the beneficial effects of setting work targets more clearly, and is of a comparable order of magnitude to the negative effects of unfair appraisals and perceived measurement difficulties.

Table 4. Alternative measures of the relative strength of the financial incentive

a) PRP has made me more willing to work beyond job requirements

Variable	Logit coefficient (B)	Exp(B)	Elasticity	Logit coefficient for binary variables (B)
Gets above average PRP	0.61	1.84	0.75	0.63
Mgrs set targets more clearly	0.38	1.47	7.03	0.75
Doubt I'll get a good appraisal	-0.14	0.87	-3.06	-0.32
Performance hard to measure	-0.32	0.73	-7.76	-0.48
Affective commitment Factor 1	0.23	1.32	n.a.	0.22
Goal commitment Factor 2	0.25	1.32	n.a.	0.38

b) PRP means good work is rewarded

Variable	Logit coefficient (B)	Exp(B)	Elasticity	Logit coefficient for binary variables (B)
Gets above average PRP	0.56	1.74	0.33	0.56
Mgrs set targets more clearly	0.57	1.77	4.98	1.23
Doubt I'll get a good appraisal	-0.17	0.84	-1.82	-0.27
My last appraisal was fair	0.26	1.30	2.49	0.62
Performance hard to measure	-0.52	0.60	-6.10	-1.03
Affective commitment Factor 1	0.15	1.17	n.a.	0.16(ns)
Goal commitment Factor 2	0.15	1.16	n.a.	0.28

4.3. Goal setting

Apart from encouraging employees to provide more effort, PRP can have an important role in re-directing their efforts towards different goals. Whether PRP has made employees more aware of their organisation's goals is most strongly influenced by whether or not they believe that PRP has improved target setting by their line managers. In the same way, if employees believe their work is hard to measure or that there is a pre-existing appropriate standard of performance, they are less likely to believe PRP raised their awareness of their organisation's objectives.

The strongest response that PRP had raised staff awareness of organisational objectives was among clerical and service occupations. Significantly, these are among those least likely to have regular contact with senior managers, and so least likely to be well informed in the absence of performance management.

4.4. Performance pay and workplace cooperation

The most devastating evidence of the malfunctions of PRP in the public services are to be found in the effects on divisiveness and cooperation among colleagues and with management. It was this evidence that a recent government report cited as showing that the current civil service PRP schemes were 'ineffective and discredited' (Makinson, 2000: p2). The key factors likely to intensify perceptions of jealousies and divisiveness (that PRP undermines teamworking) were: a) poor target setting by line managers, b) the belief that even if one performed well one would not get a good appraisal, c) that line managers do not know one's work well enough to appraise fairly, and, very strongly, d) the belief that one's work is hard to measure. Willingness to co-operate with management, and employee trust in their fair

dealing, were additionally undermined for those who thought their last appraisal had been unfair. The incentive effects of getting above average PRP did nothing to reverse this.

There are two main reasons why PRP should cause jealousies, and why it should undermine relations with management. The first has to do with the transition to a new pay system in any organisation, and the second, with the difficulty of drawing the line between those who get PRP, and those who do not. When any new pay system is introduced in a 'brown field' organisation, there are likely to be both winners and losers. The more losers there are, the greater the likely opposition, but equally, the more winners, the more costly is the whole system to management. The usual way out of this dilemma is to make transition to the new system voluntary for incumbent employees, and wait for the old system to wither as older employees leave or retire, and younger ones are promoted, the condition for which is often to move onto the new system. This was the method adopted in the trust hospitals, but not in the civil service, and is likely to have caused some jealousies between those on the new and the old systems.

The second problem is more fundamental, and concerns management's ability to justify why some employees get higher PRP awards than others. If everyone agrees that the appraisal system deciding the allocation of PRP is fair and honest, then it may be relatively easy. Cropanzano and Fulger (1991) show that employees are more likely to accept unfavourable ratings if they believe the appraisal process is fair. But if appraisals are poorly done, or managers lack good enough information, or they are thought to be biased or open to negotiation, then it can be hard to justify awarding only a standard appraisal rather than a good one. Examples chosen to explain tournament theory often compare extremes, such as between the manager who achieves only modest profit figures while turning round an unprofitable plant compared with one who gets good profits on an easy one. However, the difficulties of awarding PRP do not lie between the extremes, but rather, in dealing with the borderline cases. If we assume performance is normally distributed, then few workers are either extremely good or extremely bad performers, and most cluster around the borderline between 'satisfactory' and 'good'. As a result, line managers much more often face the task of explaining why they rate one employee's performance 'good' and another's only 'satisfactory'. Unlike academic examiners, line managers rarely have the luxury of anonymous double marking and examination boards to protect them, and mostly they have to continue working with the disappointed employee afterwards.

It is enough of a problem if the feeling of injustice arises only from imperfect monitoring, but our research suggests that many employees were distrustful of management's motives. Many thought that PRP was about cutting labour costs, that management operated a quota, and that many line managers used PRP to reward their favourites.

5. Performance Outcomes, Professional Standards and Commitment

Our study, therefore, highlights both that some employees find PRP motivates their performance, especially those getting above average payments, but a larger number experience its effects in a deterioration of workplace relations and cooperation. The latter effect shows the importance of how incentive systems are operated, and their effect on employees' perceptions of fair treatment. In the public services there are limits on how far greater uncertainty of reward can be compensated by increasing its size. So the obvious route if PRP is to be retained is to reduce the 'noise' in the relationship between effort and assessed performance, narrowing the dispersions shown in Figure 1.

The second conclusion concerns the role of commitment and prior work values in sustaining performance even though employees believe the incentive system is unfair. Following the principal-agent moral hazard analysis, one would expect employees to respond

in two ways when faced with an incentive system they feel is unfair. Our study found evidence of both. Employees might begin to bargain over their work objectives, and they might start 'gaming' behaviour, for example, manipulating performance data. Both are potentially very destructive to the goal setting functions of performance appraisal.

In the Inland Revenue, where we asked the question, about 40% of employees thought that employees exceeding their work targets did so because they were 'clever at negotiating' easy performance agreements. Over 55% said that in agreeing their objectives they were more concerned to avoid a bad appraisal than to achieve a good one.

Shortly after our survey, the Guardian newspaper reported a series of scams in the Employment Service, mis-reporting and double-counting job placements, which it estimated could have inflated placements nationally by up to 30%⁵. It seems that the grey area concerning whether a placement should be logged as successful, and so counting towards one's targets, had flipped from being a minor abuse, tolerated by management to help employees meet their targets, into serious over-reporting by both staff and management. The event was serious enough for the then government to launch an internal inquiry although its results were never made public. In both examples, the lack of faith among employees in the system's fairness seemed to transform an essential tool of good management - communicating work targets to employees - into a numbers game.

In view of these dysfunctions one might expect real, as opposed to measured, productivity to have collapsed. A number of indicators suggest that it did not fall, and may even have risen. Our discussions with senior managers in the Inland Revenue and the Employment Service, who will have had access to internal performance benchmarking data, and with the unions, indicated that productivity had risen, and particularly in the Inland Revenue, there had been quite large cuts in staff without corresponding cuts in the organisation's workload. Both trust hospitals did well on the NHS performance indicators. We have no hard data on schools, but all the Teachers Review Body evidence points to sustained high workloads. We also have the evidence from line managers who conduct appraisals, and who were included in the sample. Between a quarter and a half believed PRP had led employees in their organisations to work harder, and a smaller percentage, believed it had increased work quality. Although there was a larger percentage of 'disagrees', they would include 'no change'.

The question put to us by one senior civil service manager was whether the performance level was sustainable given the deterioration of work relations, and if so, what sustains it? The answer seems to lie in the strength of organisational commitment among public servants, and to a lesser extent, in prior work values. Our two commitment variables, reflecting affective commitment to one's workplace and immediate work colleagues, and commitment to the organisation's goals helped to sustain work relations with colleagues and with management. The coefficients on both dimensions were strong, and highly significant.

One apparent puzzle is that organisationally committed employees are also more likely to respond positively to PRP, whereas earlier it was suggested that they might resent the 'carrot and stick' approach to rewards. A likely reason is that affective workplace commitment embraces not just one's peers but also one's immediate line managers. Because these are the ones who carry out appraisals, committed employees are more likely to believe they operate the scheme fairly, and so find the rewards motivating.

The other factor helping to sustain performance has been the belief in professional standards to which employees are attached. Although these were associated with a weaker incentive effect of PRP, it is notable that work relations were less damaged in the

⁵ Guardian (29.3.97) 'Jobcentres 'fiddled figures to boost employment statistics''; Guardian (1.4.97) 'McDonald's job data 'abused''; Guardian (16.4.97) 'Fake job figures scandal exposed'.

professional bureaucracies than in the administrative bureaucracies. Likewise, for those in professional compared with less qualified occupations.

Returning to the senior HR manager's question about sustainability, the answer is 'yes' in the short-run. Organisational commitment has helped to maintain levels of performance even though most employees thought the system unfair and divisive. In the longer run, the answer is likely to be 'no'. The research on commitment indicates that it is built up by a process of exchange between employees and their organisations. In the short-run, such commitment represents a capital which will sustain the organisation through short-run problems, but in the long-run it will be eroded by the feelings that the exchange is no longer fair. Thus, one would expect employees' work behaviour to become gradually more instrumental, and more akin to that of the principal-agent model presented earlier.

Appendix: Survey Methods

The research was based on questionnaire surveys to employees in the Inland Revenue, the Employment Service, two NHS trust hospitals operating PRP, and primary and secondary school head teachers between August 1996 and March 1997. Where possible we sought the support of both management and unions. In the hospitals, management distributed the questionnaires to all staff except doctors, who were outside the PRP scheme. For the civil service and head teachers, the unions drew random samples of their members. The response rate varied between a low of 20% in one of the hospitals and about 40% for head teachers, giving us a total sample of about 5,000. Full details, together with checks for possible response bias, can be found in Marsden and French (1998). We discussed our cross-section results in a series of feed-back seminars with management, unions, and other staff.

Most of the attitudinal questions were measured as responses to five-point Likert scales running from 'disagree strongly', through 'no view' to 'agree strongly'. The dependent variables, were re-coded into binary variables for the logit analysis.

Appendix Tables

Appendix Table 1. Logit Regression Results

Independent variables	Rewards good work	Good principle	Work beyond job requirements	Show more initiative in my work	Raised my awareness of org's objectives	Causes jealousies among the staff	Undermines team working	Management operate a quota	Reduced my wish to co-operate with mgt.
Employment Service		.5283	-.7312		.4162	-.5235	-.4274		
Hospitals	1.3059			-.6966		-1.4899	-1.9355	-.4541	-.8508
Schools	1.1876	-1.4549	-1.2978	-1.6253	-1.0991	-1.6432		-1.2209	-1.3937
Professional		-.6229				-.3618			
Technical			.9580	.6676				.4599	
Clerical			.6890	.6023	.4661	-.4244		.6543	
Service					.7241				
Craft							1.6609		
Length of service			-.0210	-.0408					.0215
Male									.4308
My work always better than others	.1968	.2387	.3065	.2525					
Gets above average PRP	.5551	.4265	.6107	.4437				-.3098	
Mgrs set targets more clearly	.5682	.2581	.3828	.4801	.5234	-.1139		-.2457	-.2620
Doubt I'll get a good appraisal	-.1685		-.1351			.1641	.1863	.4927	.2663
My last appraisal was fair	.2598							-.2351	-.3405
Mgrs know enough to appraise me		-.0715				-.1001	-.1482		-.1219
Performance hard to measure	-.5208	-.6071	-.3159	-.2547	-.2212	.7015	.6415	.2477	.2667
There is a standard for the job	-.2680	-.1691	-.6589	-.6332	-.2285				
Intrinsic motivation (F1)	.1355				.1184				
Extrinsic motivation (F2)	.1216								
Affective commitment Factor 1	.1534	.1906	.2789	.2712	.2950	-.1373	-.1643	-.1830	-.5957
Goal commitment Factor 2	.1482		.2768	.2299		-.1401	-.1902	-.1440	
Constant	-1.7093	2.4654					-2.2742		-1.6432
% correctly predicted	77.73	71.30	86.21	84.89	72.11	73.62	70.76	74.23	84.79

Note: The organisation and occupation dummies respectively take the Inland Revenue, and management as their benchmark. The coefficients show how much working in a particular organisation or occupation increases (if positive) or decreases (if negative) the probability of agreeing with one of the dependent variable questions (for a fuller explanation of the coefficients see Section 4b above). All independent variables were run for each dependent variable, but we report only coefficients significant at the 5% level or less.

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