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Research Paper no. 8/05

**Results-based Rewards - Leveraging
Wage Increases?**

The Case of Danish Local Government

Kirsten Bregm

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**Research Papers from the Department of Social Sciences,
Roskilde University, Denmark.**

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Abstract

A good seven years ago, as a part of a large-scale pay reform, the Danish public sector introduced results-based rewards (RBR), i.e. a pay component awarded for achieving or exceeding targets set in advance. RBR represent a possibility for combining wage-earners interests in higher wages with a general interest in higher efficiency in the public sector. With RBR, both parties get “something for something”. Thus it seems as if RBR could be a lever with which to increase wages. However, RBR have not gained ground in the local government. The present paper will discuss several reasons for the very limited use of RBR, illustrated with examples. The Danish experiences should give food for thought, given that pay systems used by the public sector are currently under transformation in practically all OECD countries.

Keywords: Results-based rewards, performance-related pay, wages, public sector, local government

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Results-based Rewards - Leveraging Wage Increases?

The Case of Danish Local Government

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TABLE OF CONTENTS

Introduction.....	6
RBR use in councils and counties	6
Data basis.....	7
Spread and development	8
RBR: pros and cons.....	10
Arguments favouring RBR.....	10
<i>Economic incentive to show results</i>	10
<i>Focus on goals</i>	11
<i>Bringing information to the fore</i>	11
<i>Quid pro quo</i>	11
<i>Alternative to outsourcings</i>	12
<i>Demonstration effect and political arguments</i>	12
Arguments against RBR.....	12
<i>The risk of getting what you pay for</i>	12
<i>The result reflects something other than employees' efforts</i>	13
<i>Administrative costs</i>	14
<i>Crowding out of intrinsic motivation</i>	15
<i>Spill-over effects and bargaining culture</i>	15
<i>Reward and price</i>	16
<i>RBR are not pensionable income</i>	16
Reasons for the limited spread of RBR.....	16
Conclusion	17
References.....	19

Introduction

The restructuring of the public sector in the OECD countries over the last decades has involved the introduction of new management tools, including new pay systems known from the private sector (Hood and Peters 2004, Christensen and Lægveid 2002, Lane 2000). Most OECD member countries have introduced performance-related pay i.e. variable pay according to performance. This has particularly been the case with senior managers, but increasingly also for non-managerial employees (OECD 2005). A specific form of PRP is results-based rewards (RBR), i.e. a pay component awarded for achieving or exceeding targets set in advance (OECD 2005:107). RBR are paid as lump-sum bonuses (one-off payments which are not consolidated into basic pay). The bonus can be a fixed amount for meeting certain pre-defined targets, or it can be dependent on the level of target achievement within the agreed period of time. RBR can be agreed for a single, or for more periods.

Following the 1997 Danish public sector pay reform for central government and local government employees (Bregne 1998a), RBR became an optional pay element that could be awarded in addition to basic pay and supplements which could be given according to functions and qualifications. The present paper deals with RBR in the local government.¹ Danish local government comprises counties and councils.² Counties primary responsibilities are hospitals and high schools, while those of councils are primary schools and care facilities for children, the elderly, and disabled persons.

RBR provide the possibility of combining wage-earners' interests in higher wages with a general interest in higher efficiency in the public sector. RBR entail that both parties get "something for something". Thus it seems as if RBR could be a lever for increasing wages.

RBR, in the form of piece-rates, bonuses, commission schemes, etc. are familiar from the private sector (Prendergast 1999, Brown and Heywood 2002). Remarkably, however, RBR have not gained ground when it comes to services provided by local government, and RBR have not been a lever for increasing wages in the local government. This paper summarises developments and the spread of the use of RBR in local government. It will do so based on statistics relating to councils' and counties' salary payments and other studies. We will look into the limited use of RBR, using the arguments for introducing RBR as our point of departure. Thereafter counter-arguments will be taken into consideration providing examples with RBR in the local government. By way of introduction, we will outline the development and spread of RBR in councils and counties.

RBR use in councils and counties

The pay system previously used by the Danish public sector was based on education and seniority, and pay scales were largely decided by collective bargaining (Bregne 1998a). With the 1998 pay reform, new pay systems were introduced, featuring a basic pay and the possibility of obtaining supplements according to functions and qualifications, plus, possibly, RBR. Basic pay rates were to be set by collective agreements, which would also go for certain

¹ RBR in the central government are described in OECD (2005).

² The structure will change from 2007 onwards. Instead of counties larger regions are established with hospitals as the primary responsibility. Also the number of councils will be reduced, and the other responsibilities of the former counties will be taken over by the larger councils.

supplements. That apart, the key innovation was that supplements and RBR were agreed locally.

RBR agreements are based on the 1997 frame agreement which was entered into further to the introduction of the new pay systems (KL³ et al. 1997a).⁴ RBR are based on achieving certain pre-defined results, measurable or verifiable, and of a quantitative or qualitative nature (KL et al. 1997b, § 2, section 1). The cited purposes of RBR are:

- Generating qualitative and/or quantitative improvements in task performance
- Supporting local projects with the aim of enhancing professional skills, promoting new working methods, carrying out organisational changes, etc. (KL et al. 1997b, § 2, section 1).

A distinction is made between the following forms of RBR:

- RBR based on quantitative effectivisation, i.e. increasing productivity or services offered without a parallel increase in resource expenditure. Quantitative effectivisation must be measurable.
- RBR based on qualitative effectivisation, i.e. enhancing product quality or offering more services without a parallel increase in resource expenditure. Qualitative effectivisation must be verifiable.
- RBR founded on agreements, in which achieving specific tasks is made the criterion of RBR allocation.

Thus, the three arrangements are based on agreements on a bonus related to pre-agreed criteria. However, a fourth type is in operation, for which, as an exception, no pre-agreement exists, namely RBR based on non-scheduled effectivisations according to which non-scheduled efficiency gains are remunerable “in particular situations”.

RBR can be individual or group-based. RBR agreements are subject to negotiations between the employer and the employees' union or its local representative. This is similar to the principle that generally applies to the new pay systems in the Danish public sector.

Data basis

In the following, the spread of RBR will be examined, based on payroll data of Danish councils and counties, as submitted to Det fælleskommunale Løndatakontor (The National Wage Statistics Office of Danish local authorities) henceforth referred to as "FLD". FLD statistics do not cover the area fully, because a few councils are not included in FLD statistics. However, 97 percent of the staff in Danish councils and counties are covered by the statistics. That is a good 600,000 people or a good half million in full-time equivalents (www.fldnet.dk). In addition to the publicly available FLD statistics, the present information is based on FLD data from a special run.

The FLD statistics report the amount paid in RBR (“resultatløn”). However, the FLD statistics are not quite accurate as the category “other supplements” could also include RBR. The basis of the statistics is payroll data of the councils and counties which include different types of wage elements described in wage-codes. The use of wage-codes in the councils and communities could, however, have a pragmatic character and there are

³ Kommunernes Landsforening (The National Organisation of Local Authorities in Denmark), henceforth referred to as "KL".

⁴ The RBR agreement superseded the effectivisation agreements introduced in 1989 by councils and counties (Frame agreement on the distribution of employees' share of effectivisation and rationalisation benefits) (KL 1991). These agreements only found very limited use (KTO et al. 1996).

ambiguities related to some codes. However, although the FLD statistics underestimate the amounts of RBR paid, the information given about RBR is FLD's best estimate of the volume and is officially reported as the volume year by year.⁵

The definition of RBR in the agreement, compare above, implies that bonuses reported as RBR also include bonuses that are awarded without pre-existing schemes with pre-defined criteria. Thus, some of the payments included in RBR could be ad hoc bonuses paid for an extraordinary effort, etc. This could be a source of overrating RBR in a strict sense, since reported amounts also include salary portions that are not RBR in a strict sense, understood as "a pay component that is paid for achieving or exceeding targets set in advance".

Below, findings based on the FLD statistics concerning RBR will be compared with other estimates of RBR spread.

Spread and development

The development in RBR as reported by FLD is shown in the following table.

Tabel 1. The amount (in DKK and Euro) of results-based rewards (RBR) in local government 1998-2004

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Year	RBR	RBR
	million DKK	million EUR
1998	1.7	0.2
1999	4.6	0.6
2000	6.9	0.9
2001	6.4	0.9
2002	7.4	1.0
2003	14.1	1.9
2004	16.8 ¹	2.2

¹ The City of Copenhagen figures are not included for months June through December as they are not available. As a basis for evaluating the significance of this we should note that aggregate RBR payments for all of 2003 were at only DKK 210,000 [roughly EUR 28,000]. RBR payments for months January through May were only DKK 29,000 [roughly EUR 3900].

Note: The amounts for 1998-2000 is estimated based on information from 4 months in the middle of the quarters.

Source: FLD

⁵ During 2006 the statistics will be improved as the FLD will get more disaggregated information

Tabel 2. The amount (in DKK and Euro) of results-based rewards (RBR) in local government January-October 2005 compared to January-October 2004

	RBR million DKK	RBR million EUR
January-October 2005	13.4 ¹	1.8
January- October 2004	13.6 ²	1.8

1 The City of Copenhagen figures are not included as they are not available.

2 For comparison purposes the City of Copenhagen figures are not included. However, this makes no real difference as the aggregate RBR payments during January- May 2004 were only 29,000 DKK [roughly 3900 EUR].

Source: FLD

The amount paid in RBR is very small. According to 2004 wages statistics (the last year for which a complete report is available), payments totalled approximately 17 million DKK [roughly 1.9 million EUR].⁶ Computed in relation to the 2004 payroll total of about 160 billion DKK [roughly 21 billion EUR], the amount of RBR payments is practically negligible.

The number of employees in local government who received RBR in 2004 is also very limited, approximately 5,800 staff in full-time equivalents. This means that a good one percent of the local government employees (in full-time equivalents) received RBR. The number of persons could then be larger as some who receive RBR can be part-time employees.

Average amounts of RBR are small. The average for the employees who received RBR in 2004 is less than DKK 3,000 [roughly EUR 400], or approximately one per cent of the average income.

The very limited spread compares with other studies which have also found the use of RBR to be very limited. Based on a study from the spring of 2001, Ibsen and Christensen (2002:242-43) found that RBR schemes practically had not been used by local government. Since 1997, just four to six percent have been covered by a RBR scheme.

In 2004, Gallup carried out a poll based on Gallup's web-based panel, which also included an item regarding RBR (tns Gallup 2004). 2,685 employees in councils and counties answered the questionnaire; no opt-out figure is given. 6 percent of the respondents answered that they had received RBR. However, it is uncertain how often and what is actually considered as being RBR.

As for the trend, we found a significant rise in RBR amounts paid in the first years upon introduction, but this development has levelled out, compare tables 1 and 2. The amount paid in RBR in the first 10 months of 2005 was at the same level as for the first 10 months of 2004.⁷

The total picture is that RBR have a very limited spread in the local government. Furthermore, the average amounts of RBR are small. Moreover, the increase in the RBR amount paid in the first years has levelled out.

⁶ Copenhagen figures are not included for months June through December as they are not available. As a basis for evaluating the significance of this we should note that aggregate RBR payments in Copenhagen for all of 2003 were at DKK 210,000 [roughly EUR 28,000] and for January through May 2004 DKK 29,000 [roughly EUR 3900].

⁷ 13,6 million DKK [roughly 1,8 million EUR] was paid in RBR in the first 10 months of 2004 and 13,4 million DKK [roughly 1,8 million EUR] in the first 10 months of 2005. For comparison purposes the City of Copenhagen figures are not included as they are not available after May 2004. Concerning the aggregate RBR payments in Copenhagen January through May 2004, see note 6.

RBR: pros and cons

Below, we will review some arguments, primarily for public sector managers, in favour of introducing RBR, followed by some arguments that could speak against RBR. These will be the basis of the subsequent discussion of the reasons underlying the limited spread of RBR and their limited importance as an element of wages.

Arguments favouring RBR

Economic incentive to show results

A classic economic argument for RBR is that it motivates people to making an extra effort. Thus, by providing an incentive for employees to show results when remunerated according to these results, one will not have to monitor their inputs. If the RBR scheme which is introduced reflects, for example, the number of cases handled, this provides an incentive to complete tasks. The theory behind this argument has been set out in the principal-agent theory (Milgrom and Roberts 1992, Prendergast 1999).

Managerial monitoring can also provide an incentive for an improved effort. However, this will require that managerial monitoring is actually an option. Most of the time, a manager cannot fully observe what employees are doing. And even when the employees' work does lend itself to observation, a manager may not be able to ascertain whether their efforts are used appropriately. If an employee has access to information about what should be done, including where to put in the effort, that is not available to the manager, then managerial monitoring can be ineffective, while economic incentives would be a more effective means of promoting the desired behaviour.

Given stable conditions other things being equal, a manager will often be well informed as to what the employee needs to do, while such knowledge may be absent under turbulent conditions. Seen alone, this could speak for introducing RBR schemes in the latter case, encouraging employees to draw on their knowledge in order to show results (Prendergast 2000, 2002). On the other hand, such turbulent conditions can make it difficult to design RBR schemes in such a manner that they do in fact reflect employees' efforts, and not circumstances beyond the employees' control. If there is considerable uncertainty as to the relationship between employees' effort and the outcome, such that the outcome is influenced considerably by circumstances beyond the employees' control, this would speak against RBR. Thus, employees are typically risk-averse, and for good reason. This means that they prefer a guaranteed amount, rather than an amount of the same anticipated value, yet associated with an element of uncertainty. The greater this uncertainty, the less the utility of the same expected amount to a risk-averse individual. Hence, other things being equal, the value of RBR will lessen with the uncertainty. As a result, creating an incentive of a given magnitude will be costlier, the more uncertain it is what the result of putting in an extra effort would be. So while there could be arguments favouring RBR where managerial monitoring is difficult, uncertainty would, on the other hand, speak against RBR.

A number of Danish councils use contract management, i.e. a contract drawn up between the head of an institution and the local authority, specifying the targets to be achieved by the institution (Klausen 2004, Greve and Ejersbo 2005). Here linking a RBR scheme to target achievement can increase the incentive to show results in relation to the contract. Typically, there are far more possibilities of formulating adequate targets at an aggregate level as for the institution than for lower-ranking employees in an organization. As for

uncertainty, it could be adduced that handling uncertainty is precisely what executives and managers are supposed to do.

Focus on goals

RBR make goals visible. Even with RBR payments of a limited size, providing a modest economic incentive, the very formulation of goals can boost efficiency by creating a focus on the goals (Locke and Latham 1990 og 2002). RBR require a setting of goals, which can indirectly contribute towards effectiveness in a given organization (Marsden 2004, OECD 2004a). A successful goal setting process evolves as a dialogue with the employees, and consequently, RBR can also indirectly help promote co-operation between management and staff.

Bringing information to the fore

RBR can also provide management with information as to what results employees can deliver. Often employees have information that managers do not have, for example how much time is needed to complete different types of tasks. Employees know that, but they do not have an inherent interest in disclosing their knowledge to their managers. To the extent a RBR scheme leads to greater productivity, information is also brought to the fore. Such information will be available for the managers for future use, regardless of whether RBR schemes continue or not.

When being introduced RBR schemes will often be designed by trial-and-error, and agreements are typically made for 12 months at a time. Once employees have demonstrated that they are able to increase their output, demands for higher productivity in future RBR agreements can result. This has been termed "the ratchet effect" (Weitzman 1980). It implies that entering RBR agreements can be a mixed blessing for the employees: they may only get a one-off amount for raising their productivity to a level that could be difficult to go back on in the future, even if the RBR schemes are later discontinued.

Quid pro quo

RBR imply that in return for pay bonuses, employees will show results on a current basis. RBR can pave the way for acceptance of new work standards. A greater work effort is rewarded with a better pay. This is why RBR can be used as a very direct tool towards a 'renegotiation of the effort bargain' (Marsden 2004). Using RBR means that both parties get "something for something". Obviously, on the wage earners' part, there is an interest in permanent supplements that provide stable incomes and do not require them to meet new requirements on a current basis. But at the same time, RBR can offer an opportunity to achieve a pay bonus beyond what can be negotiated for permanent pay rises. A project launched by KL, which is the interest group and member authority of local authorities in Denmark⁸ and the Association of Local Government Employees' Organisations (the KTO) in 2005 with the purpose of contributing to the spread of RBR use (primarily through information) can be seen in this perspective.

RBR can also create acceptance of control. When employees are to be awarded RBR, their results need to be inventoried. Creating acceptance of control may be easier if control is introduced in connection with an RBR scheme.

A more specific argument favouring RBR could be that it can be instrumental in maintaining activity during vacancies without needing to hire temps. For some jobs finding qualified temps to help out during short-term

⁸ Apart from the City of Copenhagen and the Borough of Frederiksberg, which attend county authority tasks, all local authorities in Denmark are members of KL.

vacancies can be a difficult matter. Moreover, in some areas, the need for run-in time can make it less practical. Instead, by using a RBR scheme, employees can share in the saving derived from saved wage costs.

Alternative to outsourcings

RBR can also be an alternative to outsourcing. In areas where outsourcing is an option, there will be market rates to compare with, so the cost of producing a given service in a local council framework can be calculated. Thus, for such areas, it is possible to compute actual savings by productivity gains, and employees can be encouraged to contribute via RBR relative to the budget surplus. For employees, this could mean preserving jobs in the public sector. In addition, RBR would allow a pay rise as a result of improved productivity. Indeed, we do find several examples of RBR within the technical sector, such as roads and parks maintenance.

Demonstration effect and political arguments

An argument for adopting RBR for executives and managers, and also in administration could be the demonstration effect of showing that they are prepared to “take their own medicine”. If, as a manager, one intends to make RBR use more widespread, the concept may be easier to sell if one are on RBR oneself. As for the salaries and human resources areas, a specific argument could be that since you will have a consultancy role in spreading and designing RBR schemes, it could be convenient to have first-hand experience with this pay component.

At the political level, RBR can have a positive ring to them. Pay rises linked with results will be legitimate and coincide with targets on results orientation within the public sector.

Arguments against RBR

The risk of getting what you pay for....

A fundamental argument against the use of RBR is that when it comes to public service production, a RBR scheme may be difficult to design without causing dysfunctional behavioral responses. There is a risk that work effort is put into tasks that carry awards, to the detriment of other tasks that belong to the job, yet are not paid extra, since not included in the RBR scheme (Holmstrom and Milgrom 1991). A problem with RBR is, paradoxically, the risk that employees do what the RBR gives them an incentive to do. The fact is that often a RBR scheme cannot be designed so as to produce the desired result when employees do what pays for them. This typically owes to the fact that not all results are directly measurable. A classic problem is related to the quality of work. For instance problems involving legal rights issues may arise during handling cases (Overgaard 1994) if the employees are paid according to the number of handled cases.

One technical administration had introduced RBR for a number of tasks (e.g. number of building permits handled, property data forms, number of building development cases), and in order to avoid misprioritisation of tasks, they also considered including enquiries from citizens – personal, by phone or by e-mail – in their RBR scheme. If the number of phone enquiries is linked up with an award, there is a risk of quality problems, even outright cheating. If the number of calls is recorded, merely disconnecting – regardless why – could cause a renewed call to be recorded. An insufficient answer will require another call, meaning that a complete answer will be counted as two or more calls. Several cases of circumvention of performance measurements are known from

'call centres' (Ferne and Metcalf 1998, comp. also Callaghan and Thompson 2001, Taylor and Bain 2001 for examples of varying patterns of resistance to control at call centres). In a smaller council authority, where people know one another to a certain extent, the employees may be less inclined to respond instrumentally to a RBR scheme linked with the number of phone calls answered. But the more anonymous the relations between local administration and citizens, the greater the potential risk that RBR will result in poorer quality.

A RBR scheme used by one local authority gave RBR to roads and parks maintenance staff for taking on tasks beyond their designated core tasks. As a result, they occasionally gave lower priority to solving core tasks in favour of tasks that would contribute to RBR pay (KL 2004:42).

Aspects such as management monitoring, considerations about obtaining other rewards based on subjective assessments, etc. may counteract such negative effects. All the same, a RBR scheme that encourages behaviour other than the desired will be inappropriate – not least due to the symbolic value associated with rewards, however small they are. Moreover, rewards based on subjective assessments have other inherent problems, including the risk that assessments are not felt to be fair and have a divisive effect (Prendergast 1999, Marsden 1994, 1998, 2004, Heery 1998, OECD 1993, 1997, 2005).

Whether or not a RBR scheme can be designed to encourage the desired results depends on the concrete context and in particular whether the formulation of adequate and measurable results' targets are possible. Generally, the fact that adequate results' targets are easier to design for an aggregated level (e.g. an institution) than for individual employees would justify greater use of RBR for executives and managers than for other staff.

The result reflects something other than employees' efforts

An effective RBR scheme should be designed so the result depends maximally on the employees' work effort (Milgrom and Roberts 1992). However, such a requirement can be difficult to meet in practice (Bregn 1998b). The result achieved by an individual or a group of employees can be coloured by internal circumstances, including the efforts – or lack thereof – of others within the institution. Achievable output may also hinge on external circumstances beyond the influence of the relevant organisation. The number of solvable tasks depends on e.g. how difficult and comprehensive they are. Differentiating the results target, by letting the more difficult and time-consuming tasks weigh more heavily in the results account would limit uncertainty, since employees would no longer be influenced by changes in task composition. However, sorting and attributing weights to tasks can be a difficult and costly undertaking.

One RBR scheme awarded RBR to a group of employees whose task was to get clients out of the social support system, according to how much they could reduce the number of social support recipients. However, the number of social support recipients does not just depend on the employees' zeal in trying to find jobs for them, but also reflects general market trends. So when the scheme generated considerable RBR payments for these employees in the first year following its introduction, one reason was favourable market trends (Bregn 1997).

You can try to design results' targets to make up for such aspects. On the other hand, this could make results' targets complex, and hence less transparent. A possible option is to include a renegotiation clause in the scheme, implying that it can be renegotiated should conditions for target achievement change in a decisive way. But a renegotiation will require both parties to accept an amendment of the scheme, otherwise, it will be binding for the entire agreement period.

Where a target is linked with quality, user surveys could be considered as a quality indicator. However, this would mean that the appraisal could be influenced by irrelevant circumstances. One RBR scheme included customer satisfaction as a target for a transport manager whose responsibilities included transfer of disabled citizens to council facilities. Customer satisfaction was measured based on statements by three council managers, including the manager of the Adults and Disabled Section, who appraises whether time schedules are observed so there are no waits, and the chief officer of Culture and Welfare, whose appraisal is based on politicians' statements, plus the opinions of school principals, parents, and the local community group. The latter appraisal in particular is very uncertain. An argument for the scheme is its quality benefits, because the transport manager actually has to take an interest in his reputation, and may enquire with the relevant persons on an ongoing basis. The agreement was entered for a single year, so it carried a limited risk for the employee, presumably acceptable given the potential bonus pay built into the agreement. More comprehensive and valid satisfaction surveys would entail greater transaction costs, without necessarily improving their utility.

A RBR scheme for group managers in a section servicing elderly and disabled included a quality target. It was computed based on the number of "relevant complaints". The district management (district manager, home care manager and activity manager) will decide whether a complaint is "relevant", or just a "querulous complaint". This may involve a considerable discretionary element, so confidence in their judgment is all-important.

There is increasing awareness about the importance of user time percentages, also termed "face-to-face time" and expressing the amount of time available to citizens receiving services such as senior care. The results target of the aforementioned scheme included "face-to-face time". The amount of time actually spent with the user will depend on for example absence due to sickness. While the frequency of sickness absence can be a work environment indicator, sick absence also reflects circumstances beyond the management's control. In particular, long-term sickness absence due to serious illness can impact heavily on sickness absence figures in smaller units. If the management focuses on reducing short-term sickness absence, this may cause employees to remain absent for longer, thus changing short-term into longer-term sickness absence.

A scheme used in the roads and parks section was designed so as to include quality as a results target. However, RBR would be payable only when efficiency improvements have led to savings. This caused discontent among employees in situations when they had delivered work of a quality justifying RBR payments, yet did not receive any because – for reasons beyond the employees' control – there was no sum to distribute (KL 2004:43).

Administrative costs

One argument against RBR schemes is the involved costs, in the form of time spent designing, negotiating, administering, and adjusting the RBR scheme, if need be. Also including time spent negotiating amendments of the scheme, should conditions change. Such transaction costs may reflect the fact that this can be difficult to handle – due to the work tasks themselves. However, the reason could also be incomplete knowledge of whatever goes on within a given unit, and uncertainty as to the core tasks involved. Clearing up such questions can have a value on its own and also lead to an organizational check-up, which in turn could result in organizational development and efficiency gains. Also costs involved in appraising target achievement, including quality assessment, can have a value per se and should not merely be seen as an RBR-related cost. Moreover, the administrative costs of RBR should be considered against a possible reduction in the cost of managerial monitoring.

Transaction costs can also arise from conflicts of interest. One technical administration under a local authority introduced contract management of their roads and parks section along with a RBR scheme. It implied that employees of the roads and parks section would receive a share of the amount accrued by taking on tasks beyond those outlined in the results contracts. However, this led to discussions as to whether or not a service is covered by the contract. Moreover, invoices for tasks not included in the contract have been larger than they should according to the price basis normally used. These are all familiar problems when contracting with private enterprises.⁹ With RBR such problems also occur within a local council. Apart from being time-consuming and therefore costly, such discussions can also increase costs in a wider sense by eroding the co-operative climate (KL 2004:44).

Crowding out of intrinsic motivation

A marked feature with many public sector jobs is that employees have an intrinsic motivation, which involves commitment and a wish to "do a good job", e.g. for the elderly, children, the disabled, etc. (Francois 2000). Introducing RBR may cause this job-related "intrinsic" motivation to be crowded out by a motivation linked with the "extrinsic" award (Frey 1997, Frey and Jegen 2001). If RBR schemes are designed to include the right incentives, and thus encourage the desired behaviour – then the net outcome can be positive, even though an intrinsic motivation is undermined. But there is a problem if the RBR schemes cannot be designed to encourage the behaviour desired from the home care assistant, nurse, educationist, teacher, etc. This can happen, for one thing because several jobs do not lend themselves easily to coining adequate and complete targets (Fehr and Schmidt 2004). The inner voice prompting one to do the right thing may then be drowned by another voice telling one to do whatever pays. What is more, RBR schemes can also make people feel they can legitimately do whatever is most rewarding in financial terms, since the scheme has already announced what counts as results. In this way professional norms may be eroded.

Spill-over effects and bargaining culture

RBR can also produce spill-over effects where RBR for one group create expectations of RBR for other groups, and where RBR in one area create expectations of RBR in other areas (Frey 1997) – including those for which RBR schemes are less suited. For example, when RBR are awarded for specific tasks, for joining project groups, for undertaking the management of project groups etc., this naturally builds expectations that such tasks will also qualify for RBR in the future.

Generally, there is a risk for RBR schemes to contribute to a mercenary and bargaining culture with ongoing discussions and negotiations as to what is included in basic pay, and what is new, extra or more that requires separate RBR pay. One organisation had worked up a case backlog which their management wanted to have settled.¹⁰ Staff workers could then take on a number of cases, to be paid with RBR. Moreover, a system was in place, setting standards for the case-working output to be achieved by the individual offices. As a result of the RBR scheme, employees raised demands for day-to-day casework to also carry RBR, whenever the number of cases worked exceeded the set standard.

⁹ Concerning the choice between market or hierarchy, see Williamson (1985)

¹⁰ This example is from the central government.

Reward and price

While RBR can be seen as a reward for taking on specific tasks, it can also be interpreted as the price to be paid for not taking them on (Gneezy and Rustichini 2000a). If RBR are so low that they do not reflect the costs of taking on a task, then the individual employee can take the situation to imply that you can buy yourself out of such tasks by renouncing RBR. One organisation distributed RBR among employees according to their individual scores. These scores were, among other things, given for taking on less popular tasks, such as "out-of-the-house activities" requiring them to be out for longer than a normal working day. While the intention is to encourage staff to take on such tasks on a voluntary basis, the actual effect may be the opposite, since the rewards scheme suggests that you can buy your way out of those tasks by renouncing RBR. The moral incentive to stand shoulder to shoulder on tasks can be dampened by the fact that a bonus is now being paid to those who take them on. If the bonus do not reflect the inconvenience associated with the tasks, this could make employees reluctant to take them on, quite opposite to the intended effect (Gneezy and Rustichini 2000b).

RBR are not pensionable income

Although of minor importance a circumstance of particular relevance for Denmark is that the 2002 collective labour agreements included an agreement that all supplements given for functions and qualifications are pensionable, while RBR payments basically are not. From a wage earner viewpoint, this makes RBR less attractive. However, RBR can be pensionable, provided that specific agreements are made between the parties.

Reasons for the limited spread of RBR

From the private sector there is evidence that RBR, in the form of piece-rates, will boost productivity. This effect owes in part to a selection effect, i.e. that piece-rate pay will attract the more productive, and in part to a motivational effect that boosts achievements among those already employed (Lazear 2000, Prendergast 1999). We also typically find that when converted into hourly pay, piece-rate pay is higher than hourly pay in the sector. Thus, introducing RBR in the public sector would suggest itself. A salary system encouraging staff to show results should be a potent salary system, in terms of improving public sector efficiency.

Even so, RBR are not in wide use in the local government today, which may reflect the fact that often there are no adequate objective results targets, on which to base an RBR scheme. And to the extent objective targets exist, pay according to these will lead to dysfunctions whenever there are targets other than those rewarded. The risk is that you will get what you pay for, and not what you hope (Kerr 1975).

In areas as the technical operations sector (notably roads and parks maintenance), RBR are facilitated as results targets could largely be based on market rates, including calculations of savings derived from improved productivity. However, this also implies that several problems known from market transactions can now turn up within the public organisation when individual agents try to maximise their own financial benefits. A RBR scheme may come in as an interim solution to be used during preparations for outsourcing. Hence, outsourcing can narrow the ground for task areas that would make a good basis for RBR use.

Under stable conditions, management has considerable knowledge of tasks and the conditions for completing them. Here, management monitoring could provide incentives to greater efficiency. With unstable conditions, there may be arguments for RBR, if the employees know better than their manager

what should be done, so efficiency by managerial monitoring cannot be secured fully. However, designing RBR schemes will also be difficult and costly, since these will need adjustments as tasks and conditions of work change. What is more, this instability also implies that there may be a considerable uncertainty in correlation between the employees' efforts and their outcomes, meaning that results reflect things other than the employees' effort. These aspects speak against RBR.

Many activities within the public sector involve teamwork with co-operative elements, which makes it difficult to prepare individual result targets. Generally, targets are easier to design for an aggregated level (e.g. groups and sections, or an entire institution) than for individual employees, which would justify a wider use of RBR for executives and managers. Moreover, managerial transactions carry particularly significant consequences. However, RBR schemes for executives and managers may create tensions in relation to the employees who are to produce the output, for which executives and managers are awarded RBR. In turn, this may also trigger demands for RBR for the remaining staff, meaning that RBR for executives and managers can work as a lever for RBR to all employees.

If RBR schemes cannot be designed to encourage the behaviours that the relevant employees consider professionally correct such schemes may eventually demotivate public employees. For a number of areas, an effort towards developing professional "best practice" standards and general managerial monitoring may be a better alternative than pay systems that shift the behaviour of the employees towards what is most profitable for themselves, and which carries a risk of several undesirable socio-psychological effects.

There might be arguments for paying special tasks with RBR in the form of a lump sum for completing the task. However, the risk of spill-over effects may call for some caution, since RBR for a given task could generate expectations that RBR will also be paid for other tasks. More generally, RBR can inspire a mercenary culture that may obstruct management and co-operation.

Conclusion

RBR were introduced in Danish local government more than seven years ago, as a possible pay component in a new pay reform. The main principle was that wage increments above the increments obtained through collective agreements should be obtained by supplements according to qualifications and functions and possibly RBR. RBR could seem to be a way to wage increases which is also in the interests of the public sector because the amounts paid corresponds to improvements in public sector efficiency. However, the developments has shown that RBR have not been a source of wage increments. The spread is very limited and the average amount paid to the rather few employees are small.

Several circumstances can account for the exceedingly limited use of RBR. For many task areas, defining adequate targets for the desired results is difficult. This may cause dysfunctional behavioral responses where employees allocate effort to show results in relation to the targets to the detriment of other desired results which are not paid extra, since not included in the RBR scheme. Moreover, results will often reflect influences other than the employees' efforts, meaning that the correlation between their efforts and output is an uncertain one. The consequence could be frustration if efforts and output do not add up, because other circumstances interfere with target achievement. When explicit payment for specific tasks is introduced, there is also a risk of undesirable socio-psychological effects and changes in norms, which could cause the market's problems to be introduced into a public organisation. Due to spill-over effects, the introduction of RBR in one area may meet with demands for RBR in other areas, and groups for whom it is less suited. Moreover, the costs

of having to negotiate, design and administer schemes may be considerable, including amendments whenever circumstances change.

The optimal potentials for RBR are where outputs are easy to measure, including sections where savings can be based on market prices, e.g. within technical operations. On the other hand, once these requirements have been met, a basis will have been made for outsourcing, which in turn will limit the distribution range for RBR use. For managers and leaders RBR could gain increasing importance as contract management gain ground. This development can be accelerated by the reform of the local government which means fewer and larger units, as contract management is more spread in larger councils than smaller (Greve and Ejersbo 2005.). However, for the broad group of employees there are no signs of RBR as a lever of wage-increases. The Danish experiences with RBR in local government should give food for thought, in an era when pay structures used by the public sector in practically all OECD countries are under transformation.

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