

Unclassified

GOV/PGC(2007)16/ANN

Organisation de Coopération et de Développement Economiques
Organisation for Economic Co-operation and Development

06-Mar-2008

English - Or. English

**PUBLIC GOVERNANCE AND TERRITORIAL DEVELOPMENT DIRECTORATE
PUBLIC GOVERNANCE COMMITTEE**

Cancels & replaces the same document of 04 October 2007

INSTITUTIONAL DRIVERS OF EFFICIENCY IN THE PUBLIC SECTOR

Wouter Van Dooren (University of Antwerp), Zsuzsanna Lonti (OECD GOV Directorate), Miekatrien Sterck and Geert Bouckaert (University of Leuven)

**36th Session of the Public Governance Committee
16-17 October 2007**

For more information, please contact Zsuzsanna LONTI:
Tel: +33 1 45 24 16 39; Email: zsuzsanna.lonti@oecd.org

JT03241899

Document complet disponible sur OLIS dans son format d'origine
Complete document available on OLIS in its original format

GOV/PGC(2007)16/ANN
Unclassified

English - Or. English

TABLE OF CONTENTS

INSTITUTIONAL DRIVERS OF EFFICIENCY IN THE PUBLIC SECTOR	3
1. Introduction	3
2. What is efficiency and why is it important?	3
3. Measurement challenges in the public sector	4
4. Theoretical and empirical evidence on the likely institutional drivers	6
4.1. Results orientation	6
4.2. Increased flexibility	9
4.3. Strengthening competitive pressures	14
4.4. Workforce issues	16
5. Conclusion	20
BIBLIOGRAPHY	22
ANNEX I: MEMBERSHIP OF STEERING GROUP	29
ANNEX II: DATA DESCRIPTION OF THE REVIEWED LITERATURE	30

This paper has been prepared under the guidance of a Steering Group (see membership details in Annex I) and has benefited from comments from: Nick Manning (World Bank), Dirk-Jan Kraan, Theresa Curristine, Barry Anderson (OECD GOV Directorate), Espen Erlandsen (OECD Economics Directorate). Special thanks to Maarten Luts for preparing the summary tables in Annex II: Data Description of the Reviewed Literature.

INSTITUTIONAL DRIVERS OF EFFICIENCY IN THE PUBLIC SECTOR

1. Introduction

This technical paper has been prepared as a contribution to the *Government at a Glance* publication. The major objective of *Government at a Glance* is to present relevant and reliable data on how governments work, what resources they use and what they achieve with those resources, offering valuable international comparisons. Providing public services efficiently is a stated goal of all OECD member country governments. This paper explores the available empirical evidence on the institutional drivers of government efficiency, aiming to show which institutional arrangements work and under what circumstances. It also creates a good foundation for the inclusion of selected institutional variables in *Government at a Glance*.

The evidence on the institutional drivers of efficiency in the public sector is surprisingly limited. Available research provides a very limited assessment of the impact on efficiency of varying the mix of inputs used (more staff on contract, less permanent employees, for example) or of changing structural and managerial arrangements.

The paper starts by discussing the definition of efficiency and assessing whether and how the concept can be used in the public sector, focusing on some of the distinctive features of the public sector. It then summarises some of the key problems in the measurement of efficiency, reviewing several methods to measure inputs and outputs. The review of institutional arrangements is divided into four main groups: *i*) results orientation; *ii*) strengthening competitive pressures; *iii*) increased flexibility; and *iv*) workforce issues. For each institutional driver the report sets out the major theoretical propositions concerning its impact on efficiency and the empirical evidence available from the literature to assess these claims.

2. What is efficiency and why is it important?

Productivity and efficiency are regularly used interchangeably in colloquial language. Yet there is a distinction between them in economic theory. This paper follows the standard definitions of productivity and efficiency from economic theory.

Productivity is interpreted as a ratio of a volume measure of output to a volume measure of input (OECD, 2001). If there is only a single input and a single output, the calculation is obvious. If there are multiple inputs and outputs, then a method for aggregating inputs and outputs into a single index of inputs and outputs are needed to create a ratio measure of productivity. When referring to productivity we mean *total factor productivity*, which is a productivity measure where all factors of production are considered. Productivity can also be measured for separate inputs. In that case the contribution of a single input to the outputs is isolated. For instance (average) *labour productivity* defines the amount of output for each unit of labour (Coelli *et al*, 1999). However, partial measures of productivity can be misleading when considered in isolation. We have to take other production factors into account when we compare partial measures over time or between countries.¹

In layman's terms, *efficiency* means doing the right thing the right way. In economics, efficiency has two dimensions: *i) technical or operational efficiency* refers to the output-input ratio compared to a standard ratio, which is considered optimal or ideal (and so can never exceed 100%). Both output- and input-oriented efficiency can be defined. Output efficiency focuses on the maximization of output for a given set of inputs, or alternatively, input orientation aims at the minimization of inputs for a given set of outputs. *ii) allocative efficiency* refers to the use of inputs in optimal proportions given their respective prices and production technology. For example, allocative efficiency in input selection involves selecting the mix of inputs (*e.g.* labour and capital) which produce a given quantity of output at minimum costs, based on prevailing input prices. *Economic (or cost) efficiency* is the product of technical and allocative efficiency. Further when we refer to efficiency in the text we mean economic efficiency.

Efficiency and productivity measures are in essence concerned with delivering more outputs for the resources consumed. Their definition means that they do not capture the intrinsic value of those outputs – an organisation can be technically efficient in producing the wrong services. There is however, a strong case for focusing on the production side – as they are very relevant to issues faced by policy makers and managers.

Efficiency can also be improved by exploiting economies of scale. However, this is not necessarily a viable option for public sector organisations, as output and/or input levels are seldom their own decision, as they are constrained by political principals and legal requirements.²

Preset output levels. In most welfare states, citizens have a legal right on a number of public services. Reducing output is usually not an option for public services such as hospitals, courts and unemployment agencies. These institutions however can attempt to minimize inputs. In other words, they should be input-efficient.

Preset input levels. Input levels are often also predetermined in advance. In the private sector, a budget is an estimate. Companies can deviate from the budget, amongst others in order to exploit economies of scale. In the public sector, the budget is not only an estimate, but also an authorization. It is an expression of a political desire that a specific amount of resources is used to attain societal outcomes as well as a guarantee that overall public budget is in balance. For instance cultural institutions, agencies for economic promotion and environmental agencies usually have a fixed input. These institutions however can attempt to maximize outputs. In other words, they should be output-efficient.

3. Measurement challenges in the public sector

The quantification of efficiency is the most critical challenge in efficiency analysis. There are many reasons why public sector organisations have difficulties in collecting performance information. We discuss some of these difficulties and suggest how to deal with them. In some cases, the problems of measurement will be hard to overcome. It is an illusion to think that everything is measurable. However, even if meaningful quantification is not achievable, it will usually be worthwhile to raise the efficiency questions on a conceptual level.

Measurement of efficiency requires quantitative information on both input or costs and output (or volume) of public service provision. *Measuring output* requires capturing the quantity and quality of products and services. Quality is to be understood as the degree to which outputs contribute to outcomes, consequently, it needs to be incorporated in any measures of outputs. Micro level measures capture the outputs of individual organisations, intermediate measures capture outputs at the sectoral level, and macro measures at the government-wide level.

Macro efficiency measurement may be useful to distinguish trends but is less useful for managerial purposes. Typically, macro level data encompass a diffuse set of activities of numerous units. However, managers should only be accountable for concrete outputs that are controlled by the units they manage. Moreover, macro level data do not show where an efficiency problem occurs, and thus do not tell where managers need to intervene. Micro level measurement has more to offer for public managers. A micro level focus is required if we want to gain understanding of the underlying causes.

Micro level measurements are the building blocks and higher order measures require aggregation, which poses several problems (Murray, 1992). First, only the final outputs (the products and services that are produced for the public or business) should be counted, as the inclusion of intermediate outputs will lead to double-counting. However, in the public sector it is much more difficult to identify that final output. First, in the private sector the output of a firm is roughly everything that has a price tag. In the public sector because of the absence of price information this is much harder to do. Second, aggregation requires weights. In the absence of price information there is no obvious way for adding up, for example road patrols and detective work of a police agency. The third issue concerns how quality of goods and services should be incorporated also in the absence of price information.

Another challenge is that the output mix of many public sector organisations includes intangibles. Hackman and Oldham (1980) distinguishes between three types of outputs with progressively less tangible outputs: routine based tasks, human relations based activities, and process based activities. A diplomatic service, for example, has many process based activities (*e.g.* negotiating, interest representation), some human relations based (*e.g.* issuing immigration permits) and some routine processes (*e.g.* security checks). Although such outputs can be captured, the risk is of focusing on the measurable outputs and to neglect other outputs. Experience has shown that measurement can concentrate too much on the measurable proxies of public service provision to the detriment of less tangible aspects (Shepard, 1990; Smith and Rottenberg, 1991).

A related risk is that the measuring of the outputs creates incentives to “game” or cheat, particularly when output measures directly affect monetary or career incentives (Bouckaert and Balk, 1991; Smith, 1995). Incentives can be monetary as well as reputational. This generally happens in one of two ways (Van Dooren, 2006). Data can be deliberately captured in a misleading way. In the United Kingdom, for example, ambulance response-times were misrepresented by using incorrect definitions of when the clock has to start and stop running (UK House of Commons, Public Administration Select Committee, 2003). Alternatively, organisational behaviour can be adapted specifically in order to change the output measures regardless of other perverse consequences.

Measuring inputs is more straightforward. Accounting systems can be regarded as institutionalised measurement systems for the input side. Efficiency analysis requires cost accounting, and cost accounting requires an accounting system that registers costs and not only cash flows. A cash-based system is insufficient.

Cash-based accounting is a method of bookkeeping that records financial events based on cash flows and cash position. Revenue is recognised when cash is received and expense is recognised when cash is paid. Accruals-based accounting records financial events based on events that change the net worth. In an accrual based system, a transaction is registered when the activity generating revenue or when resources are consumed, regardless of when the associated cash is received or paid. Accrual based systems record transactions both on an accruals basis and on a cash basis (Blöndal, 2003).

The benefits of accrual accounting are twofold. Efficiency and productivity measures can only be calculated when costs can be allocated to outputs. Secondly, accrual accounting systems report information

that reflects better the economic reality of the organisation. Nearly one-third of OECD member countries have adopted full accrual accounting.

For costs to be imputed to outputs, it is not only necessary to maintain a system of accrual accounting but also to maintain a management accounting system that splits out all costs to separate outputs. This requires a financial administration at the agency level that records all costs of all outputs produced.

Only the governments of Australia, New Zealand and the United Kingdom have adopted full accrual budgeting (Sterck & Scheers, 2006). Accrual budgeting is less popular among OECD member countries as it is believed to risk budget discipline and is considered too complex.

However, even input information in monetary terms is not always available. In order to circumvent the absence of monetary input information, proxies of the input are used in the same way researchers make use of proxies to assess output volumes. . Most commonly, labour (number of full time equivalents) is used as a proxy for the input. In some sectors, such as education, labour costs make up the bulk of the total inputs. In these cases, the use of a proxy is a good strategy. In other sectors, such as hospitals, labour costs are a considerably lower portion of the total input mix. In this case, other (additional) proxies will be needed.

It is simply not possible to apply private sector accounting systems in the public sector. An important issue is the presence of assets and liabilities that do not exist in the private sector, such as heritage assets, military assets and social insurance programs. The definition of valuation rules (historic cost method versus current costing) is an important choice that has to be made. There is a need for independent development of harmonized public sector accounting standards and the International Public Sector Accounting Standards is an important step in this direction. Implementing accrual accounting and budgeting is a costly business that needs to be supported by ICT reforms, training and communication efforts. Overall, accrual accounting and budgeting is not a “magic bullet” of public sector performance improvement, but only a tool for better financial information that must be used in combination with other management instruments (Blöndal, 2003: 55).

4. Theoretical and empirical evidence on the likely institutional drivers

As there is a large amount of literature on the subjects in this review we included primarily studies that contain a meta-analysis, meaning that they summarise the empirical evidence from a large number of related studies. The literature is discussed under four main headings as mentioned in the introduction.

4.1. Results orientation

4.1.1. A broader view: performance measurement arrangements

Theoretical proposition

Bouckaert and Peters (2002) argue that performance measurement is the Achilles heel in public sector reform. It is a critical success factor for many reforms to succeed. Public managers increasingly have to make use of performance information in performance contracts, performance budgets, performance related pay, etc. (Van Dooren, 2006) some of which will be discussed later in section 4.2.4 under Human Resources Management (HRM) practices.

A crucial feature of performance measurement arrangements is the coupling of performance information to decision making (Van Dooren *et al.*, 2006). Decisions can be of two types; planning or accountability and control. Planning decisions are about future action, while accountability and control decisions settle on the consequences of past performance. Systems that induce yardstick competition are an

important example of a performance arrangement for improved accountability (Dawson, Goddard and Street, 2001).

A tight coupling implies that measurement leads to the decision in a direct way. Decisions are driven mainly by measurement. Other sources of information play a negligible role. The underlying reasoning is that the tight relationship between measure and decision will put external pressure on institutions to perform better. Target setting is a crucial element in this respect.

In case of a loose coupling, output measurement is one source of information to be incorporated with others. Other sources of information are used to interpret the output measurement data and decisions are informed by output measurement, but also by other sources of information such as experience, qualitative information, etc. The underlying reasoning usually is that institutions are staffed by professionals who have an intrinsic motivation to perform. Performance arrangements have to provide these professionals with information in order to better do their job.

Looking at the relationship between performance measurement and decision making, a tight coupling for planning seems not feasible because of political and technical constraints. Politicians do not want their hands tied by measures. Technically, it is hard to predict future developments by means of indicators of past performance. Tight coupling for accountability has a strong enforcement effect, but will more often than not be undermined by gaming. Loose coupling offers more prospects for planning, but the impact of the measures can be diluted. In any case, the direct enforcement effect of a loose coupling will be lower. However, when measures are agreed upon by principals and agents, there can be an indirect effect of persuasion

Empirical evidence

Researchers point to the fact that performance arrangements are not neutral devices and may have negative consequences. Yet, their positive effects are seldom investigated. The question whether performance measurement and management does lead to better performance remains largely unanswered.

There is growing empirical evidence about the negative effects of performance arrangements (Van Dooren *et al.*, 2006). The potentially negative effects occur because organizations act tactically in order to obtain better scores. Bevan and Hood (2005) document three important gaming problems.

First, the ratchet effect refers to the consequences of central resource managers basing next year's targets on this year's performance. The impact of this practice is that managers have an incentive to reduce their output increases to a modest increment so that expectations and future targets will be set at a low level. Secondly, the threshold effect describes the tendency to focus agency attention on those outputs that are near to the required level of output. This leads to the concentration of effort on outputs that are just below the required level at the expense of others, ignoring the best (on the basis that these outputs will meet the test without effort) and the worst (on the basis that the effort required is outweighed by the cost of improving these to the minimum standard). Thirdly, distortion refers to the achievement of output improvements in areas that are measured at the expense of unmeasured aspects of performance.

It seems reasonable to assume that the impact of performance arrangements on performance will depend on the nature of the performance arrangement. As we have argued, a crucial feature of a performance arrangement is its coupling with decision-making. Negative effects will mainly occur in tight systems. Gaming can be mitigated by loosening up the performance arrangements. This was also the recommendation of the Public Administration Select Committee of the House of Commons (2003). They reviewed the United Kingdom's experience with performance arrangements and suggested to move from a measurement culture to a performance culture.

In many OECD countries, performance arrangements that are more loosely coupled to accountability and planning decisions are in place. These systems are set up to inform professionals and politicians in public organizations rather than to punish or reward them. Askim (forthcoming) for instance found that Norwegian counselors' do use performance information. Yet, performance information is not tightly coupled to decisions, but is used to set decision agendas, to map out consequences of alternative policies, to signal rationality, and to win debates.

4.1.2. *Budget practices and procedures*

Theoretical proposition

Modern budgeting practices aim to provide more financial autonomy for managers and better information. The use of accrual accounting helps to make the true cost of government activities more transparent. This will enhance financial management practices and increase efficiency. The modernisation of the financial cycle is not merely a technical exercise. New forms of financial and non-financial information have to meet the needs of various users. Moreover, budgeting, accounting and audit should optimally support the policy and management cycle.

To this end, governments initiated accrual accounting, cost accounting, multi-year planning and more performance information in budgeting. A good, medium-year system of budget estimates and hard budgetary constraints may also provide further incentives for efficiency. This may go hand in hand with increased budget transparency and reduced budget fragmentation, by monitoring extra-budgetary funds and contingent liabilities (*e.g.* loan guarantees and public pension schemes) (Joumard *et al.*, 2004: 110).

Empirical evidence

In order to enhance the efficiency of the budget process, different countries have strengthened fiscal rules since the latter half of the 1990s. Examples are limits on budget deficits, expenditures, tax or debt. However, it appears to be difficult to enforce these fiscal rules throughout a medium-term cycle and political willingness to respect the fiscal objectives is crucial. Fiscal consolidation efforts carried out within a short time may cause cuts in investments. On the other hand, the small initial amounts required for many investment programs may protect them from disproportionate impact from fiscal rules. Expenditure ceilings may also lead to gaming, creating incentives to use off-budgetary funds, public-private partnerships and loan guarantees which may hide spending commitments (Joumard *et al.*, 2004).

Seventy-two percent of OECD member countries include non-financial performance data in their budget documentation but only 18% of the countries specifically link expenditure to all or most of their output or outcome targets. In 46% of OECD member countries there are no rewards or sanctions applied if a target is met or not met (Curristine, 2005b: 134).

Public managers have more autonomy in their spending decisions. Carry-over-provisions should avoid inefficient end-year spending splurges. In a large number of countries the line-item approach has been gradually abandoned and managers receive a single appropriation for all their operating costs.³

Various researchers have posed critical remarks regarding the implementation of results-oriented financial management (Rubin & Kelly, 2005). The lack of high-quality performance data and well formulated objectives is one of the most crucial causes for the failure of reforms (Carlin, 2006). Too strong an emphasis on the efficient production of outputs can lead to compartmentalization and requires an adaptation of the system towards more horizontal coordination mechanisms. Some authors question whether New Public Management type reforms can really improve management (Carlin & Guthrie, 2000).

It tends to be even more difficult to use results and cost information in allocation decisions. Performance data seem to play a more important role in the preparation of the budget than in the budgetary decision-making (Jordan & Hackbart, 1999; Melkers & Willoughby, 2005). Further, a major challenge is strengthening transparency and accountability in order to better serve councillors and citizens. When implementing an accrual accounting system with preservation of the traditional cash budget, the accrual information is mainly used as a managerial instrument rather than as an instrument to support budgetary decision-making (Paulsson, 2006).

The research on the direct formula performance budgeting is more straightforward. Robinson and Brumby analyzed the system of output-based funding in hospitals. They concluded that this system led to strong productive efficiency gains without major unintended effects. “This case showed that performance measurement, management accounting and the relaxation of input controls are crucial underpinnings of successful performance-based funding” (Robinson & Brumby, 2005: 44).

Very little evidence exists that performance information is used in the political budgetary decision-making process. The major impact of results-oriented budget reform is situated in the internal management of departments and agencies. Performance information is used to allocate resources and set priorities. “While the shift of focus from control of inputs to outcomes may deliver efficiency gains, it is important to recognise that this can also create an upward drift in public spending” (Joumard *et al.*, 2004: 130). At the level of legislative oversight, there is no information whether members of Parliament are extensively and systematically using the information on outputs, outcomes, and costs.

4.2. Increased flexibility

4.2.1. Devolution/decentralization

Theoretical proposition

The devolution of functional responsibilities is accelerating. In this paper we confine the concept of devolution to the transfer of responsibilities from central to sub-national governments (*i.e.* regions and local governments). In principle, devolution of functional responsibilities, if accompanied by appropriate fiscal and political decentralization, provides incentives for sub-central governments to deliver locally preferred services more efficiently.

The core logic of fiscal and political decentralization is that “governments closest to the citizens can adjust budgets (costs) to local preferences in a manner that best leads to the delivery of a bundle of public services that is responsive to community preferences” (Ebel and Yilmaz, 2002: 4). The burden and the benefits of public service delivery both accrue in the communities. In other words, the allocative optimum is best determined at a decentralized level because spending and taxing decisions go hand in hand.

It is also argued that decentralization has an impact on the size of government. The Leviathan hypothesis argues that federalism and decentralization will strengthen competition between governments and therefore will reduce the size of government (Brennan and Buchanan, 1980).

There are limits to fiscal decentralization, mainly because of a too strong tax and service competition between sub-national governments. Therefore, most countries have systems (*e.g.* municipal funds) that fund governments with a weak tax base (socio economic indicators), with outputs that produce benefits beyond the local boundaries (the so-called regional function) or with exceptional demands on outputs (*e.g.* rural areas with a disproportionate road infrastructure). There is clearly a tension between increasing efficiency through decentralization and its potentially negative distributional effects.

Empirical evidence

Decentralization seems to be beneficial. Swiss cantons provide robust evidence that more decentralization is associated with higher educational attainment (Barankay and Lockwood, 2006). Huther and Shah (1998) apply several governance indices on the level of fiscal decentralization in developed and developing countries. They conclude that “the relationship between the level of decentralized expenditures and governance quality appears to be strictly increasing but clearly there must be some form of “Laffer Curve” – it is easy to construct cases where complete decentralization of expenditures would lead to lower quality governance than where there is a mix of national and sub-national expenditures” (p.17). In addition, it has been argued that the high performance of Scandinavian countries on quality of life indices is partly caused by the high level of local autonomy (Social and Cultural Planning Office, 2004).

Most studies seem to support the Leviathan hypothesis that decentralized taxation reduces the size of government (Feld *et al.*, 2003). However, support for this hypothesis is derived primarily from studies that compare sub-national governments within federal countries (mainly by comparing US states). Evidence on the comparison of nations is inconclusive.

4.2.2. *Delegation through agencification*

Theoretical proposition

The two main arguments for creating agencies are the need for more management and policy autonomy. Our focus is on increased management autonomy as a driver for improved performance. More management autonomy would lead to better management due to clear, specific objectives and incentives. The assumption is that the performance of public agencies can be enhanced only if more managerial autonomy (*i.e.* less input controls on financial and human resource matters) is devolved to agencies; if they receive incentives to align their interests with those of the government; and if they have to report on their performance to the government (Verhoest, 2005: 236). Autonomy is considered a necessary condition to motivate managers to improve their performance by rewarding them for accomplishing the goals or expected results. When agencies are allowed to retain surpluses, then they will strive to improve efficiency.

There are different theoretical schools which predict positive effects of agencification on efficiency and effectiveness. Agency theory states that actors are motivated to perform well to the extent that they are considered to be residual claimants. Property rights theory assumes that the more property rights are centralised in one actor, the more this actor will be induced to perform in an efficient way. Network theories state that increasingly complex environments require more delegation. In the case of UK agencies the argument is that networks offer a way of preserving some of the original efficiency objectives of agencification whilst reducing the fragmentation of the public sector.

Empirical evidence

Different scholars have pointed at the lack of systematic evidence on the relationship between agencification and performance (Pollitt *et al.*, 2001; Pollitt, 2004). “Most contemporary studies on the effect of autonomization and control of public agencies on performance seem to show ambivalent results” (Verhoest, 2005: 236). An immediate and overall improvement in the efficiency and effectiveness of policy implementation is not found. “One should not exaggerate the situation: there are certainly case studies and performance indicator data showing how specific agencies have improved specific aspects of performance. However, it is usually difficult if not impossible to connect such improvements to agency status per se” (Pollitt *et al.*, 2001: 278).⁵³ In Sweden, it is proven that the efficiency of the agency-

ministry system is based on the strength of informal networks. Informal mechanisms of policy advice and coordination have proven critical to the system (Pierre, 2004).

There is some scientific evidence that a reduction of input controls combined with steering on results, financial incentives and competition will lead to savings and increased efficiency. However, the impact on the quality of service delivery and policy effectiveness is less clear. There is some scientific evidence that service characteristics (*e.g.* measurability) influence the effect of agencification.

At the same time, several scholars have pointed at the negative effects of agencification. They have raised the issue of fragmentation caused by agencification and have questioned the feasibility of directing agencies through contracts. There are different possible explanations for the negative effects of agencification: difficulties of managing by the numbers; gaming; lack of competent parenting (as agencies can consistently outgun the understaffed, unqualified ministries as their personnel rules allow them to hire experts); lack of internal management capabilities in agencies; and budgetary instability. The major risks of agencification that can threaten overall government efficiency and efficacy and accountability are: the risk of losing control of agency operations; the abrogation of political accountability; evasion of general rules for staffing and budgeting; exposure of government to financial and employment risks; and opportunities for political patronage and corruption (Laking, 2005).

4.2.3. *Intra-governmental coordination*

Theoretical proposition

The need for a more coordinated approach in the public sector arose from a necessity to deal with a growing number of interconnected policy issues and the challenge to manage an administration which has experienced a fairly large degree of decentralization. There is also a need to counterbalance the performance management systems that are mainly focusing on individual organisations and to take into account the growing importance of specific client groups demanding a coordinated range of services (Peters, 2003). It can also be explained from more general, recent tendencies of interconnectedness and mutual interdependence in the modern, networked society (Boelinck, 2007).

Theoretically, one can distinguish between three major types of coordination mechanisms: *i*) hierarchy-type mechanisms that focus on objective- and rule-setting, on allocation of tasks and responsibilities, and on lines of control (*e.g.* creation of mega departments); *ii*) market-type mechanisms, focusing on the creation of incentives to enhance the performance of public actors; and *iii*) network-type mechanisms, focusing on the establishment of common knowledge, common values, and common strategies between partners (*e.g.* linking info systems, consolidating financial documents, chain management).

Empirical evidence

Verhoest and Bouckaert (2003) analysed coordination mechanisms in six countries. Countries have followed the three trajectories identified above. There is little evidence on the effectiveness of coordination mechanisms. Moreover, the relationship between coordination mechanisms and efficiency is unclear. The efficiency argument is mainly used as an argument for reorganisation and specifically for mergers. Merging organisations would lead to efficiency gains through economies of scale and reduction of duplications. However, merging different organisations into mega departments may hide the coordination problems as these may still occur within this mega department.

4.2.4. *HRM arrangements*

Theoretical proposition

Management literature emphasises that people are the most important organisational resources and that human resource management is a key driver for performance (Osborne & Gaebler, 1992). Civil service systems are, however, often depicted as rigid and rule bound. Public managers complain that personnel systems impede their ability to manage and make critical personnel decisions. Employees are frustrated because they are not adequately compensated and do not receive sufficient recognition (Selden, Ingraham & Jacobson, 2001: 598). The public sector would not be able to compete with the private sector to attract high-performing staff. Human resources management reforms try to cope with this issue. The flexibility of the civil service systems is increased both through individualisation of HR policies and delegation of HR decisions. Moreover, incentives for high performance are created by linking individual objectives to the organisational mission and objectives.

Traditionally, civil service systems have been classified as either position-based or career-based systems. Position-based systems are believed to allow for more individualisation and decentralisation than career-based systems. As flexibility could lead to more efficiency, this would imply that position-based systems are more efficient than career-based systems.

Delegation of HR practices can take different forms, for example by introducing more flexible working-time arrangements, increased mobility, easier deployment, simplified/flexible recruitment arrangements, open recruitment, flexible terms of employment, simplified employee termination/laying off, more flexible and less complex classification, flexible pay arrangements, introducing operating costs, and central HR bodies oriented towards more strategic concerns.

Theories on human resources distinguish between hard and soft styles of human resource management. The former treats personnel as instruments that can be manipulated to obtain organisational ends. Hard incentives are needed to motivate employees. The latter approach thinks that effective personnel management takes care of the needs and aspirations of individuals. A satisfied and motivated workforce will lead to higher performance.

Empirical evidence

The strict division between career-based systems and position-based systems does not reflect reality. There are many countries that fall in between. They are characterised by relatively high level of delegation to line ministries and a relatively low level of individualisation (lifelong careers and minimum lateral entry). These hybrid systems are named department-based systems (OECD, 2005a). There are also countries with a high level of individualisation and a low level of delegation.

Individualisation has mainly taken place in the selection process, the terms of appointment, termination of employment, performance management and pay. Staff can, increasingly, be treated differently according to the changing needs of organisations and depending on their performance.

An OECD (2005e) study showed that performance-related pay initiatives appear to have a low impact on staff motivation. "Staff surveys showed that only a small percentage of employees thought their existing performance pay schemes provided them with an incentive to work beyond job requirements and in many cases they found it divisive" (OECD, 2005e: 1). Staff are less motivated than might have been expected by the prospect of more money for working better. This study corroborates earlier findings on the failure of the performance system in the United States in the 1980s, both in terms of organisational effectiveness and motivation (Dailey, 1992; Halachmi and Holzer, 1987). This is not only the case in the public sector. Ingraham (1993) argues that the success of performance pay in the private sector is also unconvincing. Yet, she argues that rewarding performance does make sense. Therefore, systems that are adapted to public sector context need to be designed. Group incentives are a good example.

A 2002 survey of 17 states and 284 local governments in the United States showed that the performance bonuses accounted on average for 6% of the income (Lewin, 2003). Even where performance-pay schemes allow for variable payments, most employees tend to receive similar ratings as managers appear unwilling to differentiate among their subordinates (World Bank). However, performance-related pay can help improve performance as it may facilitate organisational changes by linking bonuses to new objectives. Performance-related pay can also act as a recruitment incentive. “In Denmark for 57% of managers, performance-related pay leads to better opportunities for recruitment. Similar experiences occurred in attracting and retaining top quality school teachers in England and Wales” (OECD, 2005e).

Brewer (2005) studied human resources management in 22 United States’ federal agencies. The study shows that human resources management matters a great deal. High-performing agencies tend to have skilful upper-level managers, strong cultures that value employees and emphasise the importance and meaningfulness of the agency’s work, and policies that empower those employees. Boyne (2003) analysed eight quantitative studies that looked at the impact of human resource management on performance. Boyne’s overview suggests that soft aspects of human resource management, such as employee satisfaction and morale, are more important drivers of performance than hard aspects of personnel management, such as performance-related pay and job security. These findings are consistent with studies in the 1980s that stress the importance of soft HRM. Brewer and Selden (2000) showed that human capital building and retaining high performing people correlate positively with organisational performance. The level of training did not explain the level of performance

Zigarelli (1996) found a positive correlation between staff morale and student achievement in American schools. This study also supported the hypothesis that a higher level of autonomy in personnel decisions (such as hiring and firing teachers) correlates positively with student achievement.

To conclude it is safe to put that human resource management does matter. The soft aspects of human resource management appear to be more important than the hard aspects. “The greater the ability of the organisation to reorganise processes and match individuals to the right position within a mission-based organisation, the greater the ability of the organisation to achieve performance” (Moynihan & Pandey, 2005: 427).

4.2.5. *E-government*

Theoretical proposition

There is a general tendency in the public sector towards automating bureaucratic procedures and processes, and electronic interaction with citizens. However, e-government is a very broad concept, ranging from electronic communications, via online services to e-democracy and e-participation. The OECD defines e-government as “the use of information and communication technologies, and particularly the Internet, as a tool to achieve better government”.

There are different stages in the development of e-government (Moon, 2002: 426): *i*) one-way communication (billboard stage); *ii*) two-way communication (request and response); *iii*) transaction: service delivery and financial transaction (*e.g.* tax online); *iv*) vertical and horizontal integration: inter-governmental and intra-governmental integration (*e.g.* data sharing); *v*) political participation (*e.g.* voting online).

The basic assumption is that e-government leads to better government, by enabling better policy outcomes, higher quality services, greater participation of citizens, and by improving efficiency, contributing to economic policy objectives and advancing the public reform agenda. Investment in e-

government can lead to more efficiency and savings due to a decrease in the number of civil servants. Trimming down the back-office, it would release significant extra resources for high priority areas.

In the discussion on the impact of e-government on efficiency there is a need to differentiate between the efficiency gains expected from innovations in ICT in trimming administration and its substantial impact on the efficiency of service delivery.

Empirical evidence

There has been little empirical evidence to test the claims about e-government. The evidence of the benefits of e-government is rather anecdotic than based on empirical research. Some studies are based on perceptions of the impact of e-government and not on actual results. For example, a survey with chief information officers of 50 states and 38 major federal agencies in the United States reported that 83% of respondents believed that e-government had made government more efficient and 63% claimed that e-government has reduced government costs (West, 2004:17). A survey on of e-government among American municipalities was, however, less optimistic (Moon, 2002). This study concluded that e-government has been adopted by many municipal governments, but is still at an early stage and has not obtained many of the expected outcomes such as cost savings and downsizing. Few cities have experienced cost savings, procurement cost savings or reductions in the numbers of staff, while many cities have observed changing roles of staff and changes in business processes. It appears that e-government practices reduce time demands but increase task demands on staff. E-government initiatives save time but require more technical skills from staff members.

Until now, the expected efficiency gains have been the major driver for e-government reform. The current movement towards improvement of service delivery through the use of ICTs is very technology-driven (Snijkers, 2005: 2). There is a need to consider the impact of these innovations on public administration values such as openness, transparency, accountability and social equity. The OECD E-government project concluded: “The initial impressive visible results of e-government (government websites, a number of sophisticated transactional services, development of portals) contrast with the next stage of e-government which requires the development of hidden infrastructure, connected back office arrangements and more complex services. Greater collaboration across levels of government, higher funding levels and deeper organisational change will be needed” (OECD E-Government Task Force, 2003).

4.3. *Strengthening competitive pressures*

4.3.1. Privatisation

Theoretical proposition

The input categories for public service production in the National Accounts are labour, procurement of goods and services, gross capital investment, social benefits in kind and subsidies. These input categories are building blocks of the ‘mode of production’ (Manning *et al.*, 2006), a potentially important driver of efficiency.

The mode of production issue leads to a central theme in the efficiency literature: public versus private ownership. The claim of the literature is that publicly owned organizations will be less efficient than privately owned ones (Boardman and Vining, 1989). This is attributed to an inherently different incentive structure that exists for public managers compared to private managers. Wilson (1989) argues that “*whereas business management focuses on the 'bottom line' (that is, profits), government management focuses on the 'top line' (that is, constraints)*”. Public managers, and, to a lesser extent, non-profit managers, have to cope with three constraints that private managers do not have. They are not able to

allocate the production factors in accordance with the managers' preferences; they cannot lawfully retain and devote the earnings of the organisations to the private benefit of their members; and they must serve goals that are set by principals outside the organisation.

Empirical evidence

Evidence on the impact of ownership on efficiency is inconclusive.⁴ Some studies found that *public-owned institutions* are more efficient than privately owned ones. Hollingsworth *et al.* (1999) reviewed 35 studies of hospitals mostly in the United States, but also in Europe. They conclude that public hospitals are more efficient than private hospitals. Mobley and Magnusson (1998), who did a comparative study of Norwegian and Californian hospitals, explain this higher efficiency by the beneficial effects of regulation. Through regulation, Norwegian hospitals had better capital utilisation compared to Californian hospitals. Hammerschmidt and Staat (2000) found that non-profit hospitals in Germany are less efficient than public hospitals.

However, other studies conclude the opposite. In education, *non-profit* owned schools seem to outperform both public and private schools. Dronkers and Robert (2004) assessed the effectiveness of public and private schools based on the PISA data. After controlling for student intake, social background of parents and social composition, they concluded that private, government-dependent schools have a higher effectiveness than purely public and purely private schools.

Finally, there is evidence from the refuse collection sector showing that contracting with *private companies* is more efficient than public provision. Savas (2000) reviews studies from the United States, Canada and the United Kingdom and finds that private contracting is 35% cheaper than municipal collection without any loss in quality of services. In addition, equity of service delivery is not affected since local governments still pay for the service. He finds comparable evidence from bus services. Public services were found more costly than private bus services.

4.3.2. *Competition*

Theoretical proposition

The dominant theme of public management reform in the 1980s and 1990s was not ownership, but competition. The pressure of competition in public organisations is expected to induce efficiency gains in their operations. Savas (2000) argues that the issue is not public versus private ownership, but monopoly versus competition in service provision. Pollitt and Bouckaert (2004) demonstrate that switching to private ownership (privatization) is only one of the strategies for injecting competition into public service delivery. Competition can be introduced within government as well. Internal (quasi) markets are an example of this strategy. At the same time, a shift from public to private ownership is not necessarily a shift towards competition. The main hypothesis is that increased competition leads to efficiency improvements.

Empirical evidence

The empirical evidence for the impact of competition hypothesis is also inconclusive. Boyne (2003) reviewed 18 studies on the impact of the market structure on efficiency and found positive, negative and insignificant results. Most studies on competition assess the relationship between *the degree* of competition and efficiency. Seldom is a competitive case compared with a non-competitive case. The studies also struggle with the operationalisation of competition in the public sector. For public schools, the number of children in private schools is often used as an indicator of competitive pressure (Arum, 1996; Duncombe *et al.*, 1997; Dee, 1998). It can be argued, however, that children in private schools are another segment of the education market for which public schools never intended to produce.

The divergence of the findings of the empirical studies points to the conditional nature of the potential benefits of competition. Low asset specificity and low information costs are in this respect requirements for competition (Williamson, 1975). An asset is specific if it makes a necessary contribution to the production of a good and it has much lower value in alternative uses. Information costs are high when it is hard to assess the performance level of the service. One can observe immediately when refuse is not collected properly; the streets are littered. However, the benefits of education will only show in the longer term, *i.e.* when students are entering the labour market.

In a sector with high asset specificity and high information costs, such as hospitals, the introduction of competition will encounter problems. Andersen and Blegvad (2006) describe how competition in the Danish dental care system for children (which is public) is nullified by the professional self-regulation by the dentist profession. Yet, in a sector with relatively low asset specificity and information cost, such as refuse collection and bus services, it is a lot easier to exploit the benefits of competition.

4.4. Workforce issues

4.4.1. Workforce size

Theoretical proposition

There are two, contradictory hypotheses regarding the impact of workforce size on efficiency. According to the first hypothesis, larger organisations are more efficient than smaller ones. This effect is attributed to economies of scale which result from savings in overhead costs and fixed costs in tangible assets (Scherer and Ross, 1990). The reverse hypothesis states that size leads to diseconomies of scale through excessive rigidity or conservatism/resistance to change. Slack and bureaucratic behaviour can be found in all large organisations. Specifically for the public sector, public choice theorists such as Downs (1967) and Niskanen (1971) argued that bureaucrats strive towards budget maximization, even though these resources are not required for achieving the organisational objectives. In a more moderate approach Dunleavy (1991) argues that bureaucrats are primarily seeking to improve the prestige of their office (bureau shaping). The second hypothesis asserts that for efficiency and effectiveness “small is beautiful”, as smaller organisations are more easily monitored and are more responsive to principals and citizens.

Empirical evidence

Boyne (2003) concludes from a reading of 26 studies that there is a positive effect of resources on service performance. These studies are mostly about the impact of workforce size on output and outcome levels, and not about the impact of workforce size on the input levels relative to the output levels, which is the definition of efficiency. Most of the studies are thus not directly related to technical efficiency in the strict sense. These studies, however, refute the radical public choice arguments that bureaucratic dysfunctions will dissolve most of the benefits of growth in public sector spending.

If we focus on efficiency in the strict sense (input versus outputs relative to a production frontier), several studies seem to suggest that increasing the size of organisations does have a positive influence on efficiency. Ruggiero and Duncombe (1995) found that larger schools are more technically efficient. Similar conclusions were drawn from studies of the Belgian public sector for secondary schools (de Brabander and Vos, 1992), day care centres for children (Donni, 1993) and refuse collection (Lawarree, 1986). McCallion *et al.* (1999) analysed the efficiency of the Irish hospital services and concluded that the Irish strategy of concentrating hospital services in six large hospitals supported by medium-sized hospitals is appropriate.

The empirical evidence seems to support the hypothesis that efficiency gains can be obtained by increasing the scale of operations. However, the potential losses on other public service values (equity,

access to services, robustness) as well as on quality need to be taken into account when adopting these type of strategies for efficiency improvements.

4.4.2. *Workforce composition*

Theoretical proposition

Two streams of research theorize on the impact of workforce composition on performance considering the impact of representative bureaucracy and diversity of the workforce (Pitt, 2005).

Representative bureaucracy attempts to match the population on indicators such as ethnicity, linguistic group, or gender (Selden, 1997). The central assumption is that because all groups in the population are represented in the bureaucracy, policy formulation and implementation will benefit the interests of diverse groups. Representation then would lead to better results for all groups in society.

The second stream of research focuses on the effects of diversity. The argument is that members of a diverse workforce will draw from the differences in the group and take the best of each others' background (Adler, 1997) thereby producing better results. However, other scholars argue the opposite. They assert that individuals look for sameness. The more one's self is reflected in other group members, the more one will trust others and value their work (Pitt, 2005).

Empirical evidence

Little work has considered the impact of representative bureaucracy on performance. Rather, studies examine whether a particular group benefits from its representation. An exception is the study of Andrews *et al.* (2005). They found that ethnic diversity is negatively associated with consumer perceptions of the performance of English local governments. However, they also found that representative bureaucracy is not negatively related to audited performance, which is a better proxy of objective performance than subjective perceptions.

There is not much research on the impact of diversity on workforce performance either. A public administration study is offered by Brewer (2005), who asserts from a survey of front line supervisors that high performing agencies tend to strive towards workforce diversity. Pitt (2005) however, found a negative relationship between teacher diversity and two performance indicators of student achievement, but he also found a positive relationship between diversity and a third indicator of student achievement. There was no relationship between manager diversity and performance. This study proves again the importance of the choice of the proxy for outputs or outcomes. Different indicators may lead to substantially different results.

In social psychology, more studies on the effects of diversity are conducted. Yet, the findings are inconclusive too (Pitt, 2005). Some studies point to higher creativity and implementation ability in diverse organisations. Other studies find no link between diversity and performance. Furthermore, there are studies that find negative effects of diversity, such as increased absenteeism. Baugh and Graen (1997) found that ethnically diverse teams are more likely to receive negative evaluations than homogeneous teams.

Almost no studies exist on the impact of workforce diversity and representation on efficiency. Representation and diversity are typical examples of values which public employers attach importance to because of their social, non-monetary effects. For example, representation of different linguistic groups in government will have a negative impact on efficiency. Translation and communication costs are necessarily higher. Yet, the outcomes of such a linguistic policy in terms of legitimacy and trust of citizens in government may far outweigh these inefficiencies.

4.4.3. *Extent and nature of unionisation*

Theoretical proposition

Unions play an important role in the labour relations in the public sector. Public sector union density surmounts private sector union density with approximately 30% in most developed countries (Visser, 2000). Unionisation in German public sector was 56%, compared to 22% in the private sector (1997). In the United States, 37% of public employees were members of a union compared to 9% of private sector employees (1999). It should also be mentioned that overall union membership is on the decline in most developed countries with the exception of the Nordic countries and Belgium. In some countries, this decline can be attributed solely to private sector. In Austria, Canada, Norway, Spain, and the United States, public sector unionisation remains constant or has increased between the 1980s and the end of the 1990s (Visser, 2000).

In one view, trade unions can be expected to have a positive impact on efficiency. The concept of the “collective voice” expresses the underlying mechanism (Freeman and Medoff, 1984). Unions are expected to improve productivity by various means, such as reducing staff turnover, increasing job security, and reducing grievances. They can be a vehicle for reconciling employers’ and employees’ interests. Also, unions may play a constructive role during public sector reforms by expressing the often legitimate concerns of the staff, and pointing to shortcomings or inconsistencies.

Craft (2003) predicts that management – union cooperation in the United States will be reinforced, since they are increasingly interdependent. Both managers and unions will continue to be subjected to pressure from the public and legislators to cut costs and improve service delivery. From this perspective, union density would be a facilitating factor for change and productivity, provided unions and managers succeed in establishing a constructive relationship.

In the second view, high unionization is associated with negative performance (Menezes-Filho and Van Reehnen, 2003). Firstly, unionization is believed to lead to higher compensation and thus a relative inefficient cost structure. Secondly, unions may lower performance through featherbedding, striving for more personnel than strictly necessary. Thirdly, it is argued that union density can lead to more antagonism in the workplace.

Empirical evidence

Research on the impact of unions on public sector performance is scant compared to research on the private sector. There is some empirical evidence from local school districts and fire services in the United States that suggests that high levels of unionization constrain both flexibility and productivity (Donahue *et al.*, 2000). Methé and Perry (1980) found that collective bargaining in local government in the United States led to increased municipal expenditures. They add, however, that the impact on issues of efficiency and effectiveness is unclear.

The scarcity of research on public sector unions is all the more remarkable because, in all probability, the role of unions in the public sector will differ from the private sector substantially as public sector unions are more prominent; bargaining is not strictly a managerial, but also a political affair and many of the public services are considered essential. In addition, the lesser ability to measure public sector output may shift the focus of unions towards the definition of output. Craft (2003) even argues that in the next two decades, union membership in the public sector in the United States will increase mainly as a defence against the on-going pressure on the public sector for cost-saving and efficiency gains.

4.4.4. *Attractiveness of the public sector*

Theoretical proposition

A competent and highly motivated workforce is essential for government performance. The central question is how to recruit and retain high-skilled staff. Due to ageing, many countries will be forced to hire a high number of new employees to replace current employees as they reach retirement age. How can the public sector compete with the private sector and attract and retain well-educated personnel?

Many scholars have examined the determinants of job satisfaction. Individual factors such as gender or age hardly determine job satisfaction, but the job context appears to be very important. Herzberg (1966) identifies intrinsic factors, such as job content, as “satisfiers” and extrinsic factors, such as remuneration, as “dissatisfiers”. This means that job content can make a real difference to job satisfaction, while adequate wages are considered as a basic condition that do not act as a motivator, but acts as a demotivator in case of perceived inadequate wage levels. Hackman and Oldham (1975; 1980) developed a model of job satisfaction in which not only objective job characteristics, but also the needs and expectations of the individual employee play an important role.

The basic assumption is that the public sector should pay attractive salaries in order to recruit and retain high-skilled staff. Another proposition is that a high status and/or prestige accorded to civil servants can increase the attractiveness of the public sector. Moreover, the introduction of performance-related pay systems could provide additional incentives for people to choose the public service as employer. Another issue is whether there exists a specific motivation to serve the public interest opposite to the typical self-interest that is assumed in rational choice theories

Empirical evidence

There is an extensive literature on wage differences between public sector and otherwise comparable private sector workers covering many OECD member countries (Gregory and Borland, 1999; Lee, 2004; Melly, 2002; Mueller, 1998; Postel-Vinay and Turon, 2005). In most countries there exists a substantial public sector premium (Gregory and Borland, 1999) although its size varies over time and across countries. At the same time significant differences are found in the differential by various worker characteristics, such as gender and occupation. For example, in Germany wages for men were lower in the public sector than in the private sector, but the opposite was found for women. In addition, the public sector wage premium was the highest at the lower end of the wage distribution and decreased monotonically as one moved up the wage distribution (Melly, 2002) While higher public sector wages could help public sector organisations to attract and retain good quality workers, it could also lead to a higher costs and consequently inefficiencies in public service provision if those wages are not matched by correspondingly higher job performance by public sector workers.

The OECD has studied how 11 OECD member countries cope with the issue of recruiting and retaining highly skilled civil servants. Canada, Denmark, Finland, and Sweden reported recruiting problems, while Austria, Germany, and Norway said that they soon expect to face this problem. Canada, Italy, Korea, Poland, Portugal, and Spain stated that they suffer from critical skills shortages. There are especially shortages of certain groups of professionals, such as IT specialists. Difficulties in retaining staff emerge especially in the 20-34 age group. Wages have proven to be a crucial factor in the retention of staff, especially after two-to-four years of service (Aijälä, 2001). Some governments have adjusted their wages in order to better reflect market conditions (*e.g.* in Finland and Ireland). Sustained budget constraints may also affect the attractiveness of the public sector. Schick (1996) has argued that sustained budgetary constraints employed by successive New Zealand governments led to serious retention and attraction problems.

Another problem may be the image of the public sector. In the United States, the sustained assaults on the public service encourage many of the best and brightest students to pursue careers in the private sector. The denigration of the public sector and public servants can produce a self-fulfilling prophecy that drives out the most able (Holzer & Rabin, 1987).

There is also a need for governments to identify incentives other than salary if they want to be able to recruit and retain high quality employees. The OECD cited Germany as a positive example, since it has implemented flexible working hours, flat hierarchies and the use of the latest technical equipment. Other non-monetary incentives cited in the report include: co-operative leadership, open communication; sufficient freedom to display initiative and make decisions; good working conditions; good opportunities for training and personal development; telecommuting; family-friendly personnel policies; job rotation; assignments to private sector companies, other public services or international organisations; and opportunities for educational leave or leave for other personal reasons (Reichenberg, 2002).

5. Conclusion

Overall, the evidence on the institutional drivers of efficiency in the public sector is surprisingly limited. Available research provides a very limited assessment of the impact on efficiency of varying the mix of inputs used or of changing structural and managerial arrangements.

Summarising the empirical evidence reviewed, relatively strong findings emerged in three areas.

First, it seems that efficiency gains could be obtained by increasing the *scale of operations*, based on evidence collected mainly in the education and health sectors. However, the impact on other public service values, such as equity, access to services and quality of services needs to be considered when adopting these kinds of strategies for efficiency improvements. Second, *functional and political decentralization* to subnational governments also seems beneficial for efficiency.

Third, *human resource management practices* also matter a great deal. The soft aspects of human resource management such as employee satisfaction and morale are the most important drivers of performance. While wages are still important for staff, non-monetary incentives are essential. High wage levels – compared to similar work in the private sector – could lead to inefficiencies, although governments often are model employers and their wage policies reflect equity concerns as well. Wages are also important for attracting and retaining qualified staff, especially in case of skill-shortages.

Findings are inconclusive on the impact of *ownership, competition and agencification*. While private ownership is not a guarantee for efficiency, public ownership does not necessarily lead to inefficiencies either. It is more probable that it is not ownership but competition that drives efficiency. However, there is a need to further explore for what and with whom public organisations compete. The nature of service delivery, such as low asset specificity and low information costs, is crucial for successful competition in public services.

Regarding agencification there is some evidence that a reduction of input controls combined with steering for results, financial incentives and competition could lead to increased efficiency. However, the impact on the quality of service delivery and policy effectiveness is unclear. The literature also calls attention to the major risks of agencification, including the exposure of government to financial and employment risks and opportunities for political patronage and corruption.

There is very little evidence on impact of workforce diversity and representativeness on efficiency. Relatively uncharted territory is the assessment of union's role in public sector efficiency as well, although union representation is relatively high in the public sector in most countries. The effects of new intra-

governmental co-ordination mechanisms are also not known. Surprisingly, the impact of e-government has not been thoroughly evaluated either by researchers.

There is empirical evidence about the unintended negative effects of performance measurement/management. However, it is related to a very specific type of performance management. The evidence mostly comes from England and from those applications with a very tight coupling between measurement and decisions. More positive effects are found in performance arrangements with a loose coupling between measurement and decisions. These performance arrangements inform rather than punish professionals in the public sector. The evidence on the use of performance information in the political arena is diffuse. . Their major impact is situated in the internal management of departments and agencies.

In summary, while there have been a plethora of public sector reforms in many OECD member countries the research evidence shows fewer success stories that have been claimed by practitioners. There are several reasons for this contradiction. First, research in this area is extremely complicated due to data availability issues, measurement difficulties, and the potential effect of many external factors on efficiency and productivity (the attribution problem). Second, reforms are often driven by ideological considerations and management fads rather than by efficiency concerns. Third, practitioners often have a vested interest in the success of the reforms and may over-claim their impact. Finally, there could be substantial differences between short-term and long-term effects of these reforms, such as efficiency gains dissipating over time.

While this review of the empirical evidence provided an assessment of the current state of the literature, it also helps selecting areas where further research might be fruitful in understanding the various drivers of efficiency in public services. In this we should not rely solely on academic choices of research topics but must also build on the experiences and needs of practitioners.

The lack of robust empirical evidence also points to the importance of collecting good quality comparative data on a regular basis that could contribute to better understanding the impacts of institutional arrangements on the efficiency of the public sector. The proposed publication “Government at a Glance” intends to include information on all institutional variables described in this paper. This might entail the analysis of existing information on new ways – e.g. expenditure and employment data – that could be carried out in the near future, as well as the collection of new data by the OECD – e.g. on the distribution of responsibilities across different levels of government; agencies – that will take place over the longer term.

NOTES

-
1. For instance, an increase in an organisation’s labour productivity does not necessarily tell that labourers work harder than before. It can be the result of an investment in capital too. Equally, a high labour productivity in a country does not necessarily imply that labourers work harder than in other countries, as is sometimes suggested in the media.
 2. Wilson (1989) argues that dealing with these constraints is the main task of public sector managers. He states that whereas business management focuses on the 'bottom line' (that is, profits), government management focuses on the “top line” (that is, constraints).
 3. For example in Australia, Canada, Denmark, Finland, Iceland, the Netherlands, New Zealand, Norway and Sweden.

4. The reason of the inconclusiveness of the findings may be the robustness of Data Envelopment Analysis (DEA) – the most commonly used research method. DEA calculates a production frontier base on an input and output mix. Changes in the input and output mix may substantially alter results. In other words, the results depend on which inputs and outputs are selected to be included in the analysis.

BIBLIOGRAPHY

- Adler, N. J. (1997). *International Dimensions of Organizational Behavior*. Cincinnati, OH: South-Western Press.
- Aijälä, K., (2001). *Public Sector – An Employer of Choice*, Paris: OECD.
- Andersen, L.B. and M. Blegvad (2006). "Does Ownership Matter for the Delivery of Professionalized Public Services? Cost Efficiency and Effectiveness in Private and Public Dental Care for Children in Denmark". *Public Administration*. 84(1): 147-164.
- Andrews, R., G.A. Boyne, K.J. Meier, L.J. O'Toole, Jr. and R.W. Walker (2005). "Representative Bureaucracy, Organizational Strategy, and Public Service Performance: An Empirical Analysis of English Local Government". *Journal of Public Administration Research and Theory* 15(4): 489-504.
- Arum, R. (1996). "Do Private Schools Force Public Schools to Compete?" *American Sociological Review* 61:29-46.
- Askim, Jostein (2007). *Determinants of Performance Information Utilization in Political Decision Making*. In: Van Dooren, Wouter and Van De Walle, Steven (2007). *Utilising performance information: bureaucracy, politics and society*. Palgrave MacMillan, London.
- Barankay, Iwan and Lockwood, Ben, (2006) *Decentralization and the Productive Efficiency of Government: Evidence from Swiss Cantons* (December 2006). IZA Discussion Paper No. 2477.
- Baugh, Gayle, and George Graen. (1997). "Effects of Team Gender and Racial Composition on Perceptions of Team Performance in Cross-functional Teams". *Group and Organizational Management* 22 (3): 366–84.
- Bevan, G. and Hood, C. (2005). *What's Measured Is What Matters: Targets and Gaming in the English Public Health Care System*. The Public Services Programme. London: Economic and Social Research.
- Blöndal, J. (2003). "Accrual Accounting and Budgeting: Key Issues and Recent Developments. *OECD Journal on Budgeting*. 3(1): 43-59.
- Boardman, A. E., and A.R. Vining. (1989). "Ownership and Performance in Competitive Environments." *Journal of Law and Economics* 32 (April): 1-34.

- Bouckaert, G. and W. Balk (1991). "Public Productivity Measurement: Diseases and Cures". *Public Productivity & Management Review*, 15:2. pp. 229-235.
- Bouckaert, G. and B.G. Peters (2002). "Performance Measurement and Management. The Achilles' Heel in Administrative Modernization". *Public Performance and Management Review*. 25:4. pp. 359-362.
- Boyne, G. (2003). "Sources of Public Service Improvement: A Critical Review and Research Agenda." *Journal of Public Administration Research and Theory* 13 (2): 767-94.
- Brennan, G. and S. Buchanan (1980). *The Power to Tax Analytical Foundations of a Fiscal Constitution*, Cambridge University Press.
- Brewer, G. A. (2005) "In the Eye of the Storm: Frontline Supervisors and Federal Agency Performance." *Journal of Public Administration Research and Theory* 15: 505-527.
- Brewer, G. A. and S. Selden (2000). "Why Elephants Gallop: Assessing and Predicting Organizational Performance in Federal Agencies." *Journal of Public Administration Research and Theory*. 10: 685-711.
- Beuselinck, E. (2007). *The Concept of Coordination: A Literature Review*. Unpublished manuscript. Katholieke Universiteit Leven, Belgium.
- Carlin, T. (2006). "Victoria's Accrual Output Based Budgeting System – Delivering as Promised? Some Empirical Evidence." *Financial Accountability & Management*, 22(1), 1-19.
- Carlin, T. and J. Guthrie (2000). "A Review of Australian and New Zealand Experiences with Accrual Output Based Budgeting." Paper presented at the third bi-annual conference of the International Public Management Network. Sydney Australia, 4-6 March.
- Coelli, T., D.S. Prasada Rao and G.E. Battese (2001). *An Introduction to Efficiency and Productivity Analysis*. Kluwer Academic Publishers.
- Craft, J.A. (2003). "Future Directions in Public Sector Labor Relations: A 2020 Perspective." *Journal of Labor Research*, 14(4). pp. 545-560.
- Curristine, T. (2005). "Government Performance: Lessons and Challenges", *OECD Journal on Budgeting*, Volume 5, No. 1.
- Daley, D.M. (1992). "Pay for Performance, Performance Appraisal, and Total Quality Management." *Public Productivity & Management Review*, 16(1). pp. 39-51.
- Dawson, D., M. Goddard and A. Street (2001). "Improving Performance in Public Hospitals: A Role for Comparative Costs?" *Health Policy*, 57: 235-48.
- De Brabander, K. and M. en Vos (1992). *Kostprijsanalyse van scholen in het lager en secundair onderwijs: vrij gesubsidieerd onderwijs*, (HIVA, Leuven).
- Dee, T. (1998). "Competition and the Quality of. Public Schools". *Economics of Education Review*, vol. 17, pp. 419-27.

- Donahue, A. K., S.C. Selden and P.W. Ingraham (2000). "Measuring Government Management Capacity: A Comparative Analysis of Human Resources Management Systems." *Journal of Public Administration Research and Theory* 10 (2): 381-411.
- Donni, O. (1993). *Efficiency of Day Care Centers in Belgium*. Université de Liège, CREPP, Liege.
- Downs, A. (1967). *Inside Bureaucracy*. Glenview, Ill.: Scott, Foresman and Co.
- Downs, G (1986). *The Search for Government Efficiency: From Hubris to Helplessness*. Temple University Press, Philadelphia.
- Dronkers, J. and P. Robert (2004). *The Effectiveness of Public, Private Government Dependent and Private Independent Schools: A Cross-national Analysis*. Florence: European University Institute.
- Duncombe, W., J. Miner and J. Ruggiero (1997). "Empirical Evaluation of Bureaucratic Models of Inefficiency." *Public Choice*. 93 (1). 1-18.
- Dunleavy, P. (1991). *Democracy, Bureaucracy and Public Choice*. Hemel Hempstead: Harvester Wheatsheaf.
- Ebel, R.D. S. and Yilmaz (2002). *On the Measurement and Impact of fiscal Decentralization*. Washington, D.C.: The World Bank.
- Feld, L., G. Kirchgässner and C.A. Schaltegger (2003). *Decentralized Taxation and the Size of Government: Evidence from the Swiss State and Local Governments*. CESifo Working Paper No 1087.
- Freeman, R., and J. Medoff (1984). *What Do Unions Do?* New York: Basic Books.
- Gregory, R.G. and J. Borland (1999). "Recent Developments in Public Sector Labour Markets", in *Handbook and Labour Economics*, Vol. 3C, edited by O.Ashenfelter and D. Card pp. 3573-630.
- Hackman, J. and G. Oldham (1980). *Work Redesign*. Reading, MA: Addison-Wesley.
- Halachmi, A. and M. Holzer (1987). "Merit Pay, Performance Targeting, and Productivity." *Review of Public Personnel Administration*, 7(8). pp. 80-91.
- Halachmi, Arie (2002). "Performance Measurement: A Look at Some Possible Dysfunctions". *Work Study* Volume 51 Number 5.
- Hammerschmidt, M. and M. Staat (2000). *Benchmarking the Health Sector in Germany – An Application of Data Envelopment Analysis*. Mannheim; Universität Mannheim.
- Herzberg, F. (1966). *Work and the Nature of Man*. New York: The World Publishing Co.
- Hollingsworth, B, P. Dawson and N. Maniadakis (1999). "Efficiency Measurement of Health Care: A Review of Non-parametric Methods and Applications." *Health Care Management Science*, 2:3, pp. 161-172(12).
- Holzer, M. and J. Rabin (1987). "Public Service: Problems, Professionalism and Policy Recommendations." *Public Productivity Review*. 11(1): 3-13.

- Huther, J., A. Shah (1998). *Applying a Simple Measure of Good Governance to the Debate on Fiscal Decentralization*. World Bank Working Paper 1894.
- Ingraham, P.W. (1993). "Of pigs in Pokes and Policy Diffusion: Another Look at Pay-for Performance." *Public Administration Review*. 53(4). pp. 348-356.
- Jordan, M. and M. Hackbart (1999). "Performance Budgeting and Performance Funding in the States: A Status Assessment." *Public Budgeting & Finance*, 19(1), 68-88.
- Joumard, I., P.M. Kongsrud, Y. Nam and R. Price (2004). "Enhancing the Cost Effectiveness of Public Spending: Experience in OECD Countries." *OECD Economic Studies* No. 37, 2003/2. Paris: OECD.
- Laking, R. (2005). "Agencies: Their Benefits and Risks." *OECD Journal on Budgeting*. 4(4): 7-25.
- Lawarree, J. (1986). « Une comparaison des performances des secteurs privé et public: le cas des collectes d'immondices en Belgique ». *Cahiers Économiques de Bruxelles*. 25,109,3-31.
- Lewin, D. (2003). "Incentive Compensation in The Public Sector: Evidence and Potential." *Journal of Labor Research*, 14(4). pp. 597-619.
- Manning, Nick, D.J. Kraan and J. Malinska (2006). "How and Why Should Government Activity Be Measured in *Government at a Glance*?" . OECD: Paris.
- McCallion, G., D.G. McKillop, J.C. Glass and C. Kerr (1999). "Rationalizing Northern Ireland Hospital Services Towards Larger Providers: Best-Practice Efficiency Studies and Current Policy." *Public Money and Management* 19 (2), 27-32.
- Melkers and Willoughby (2005). "Models of Performance Measurement Use in Local Governments: Understanding Budgeting, Communication and Lasting Effects." *Public Administration Review*, 65(2), 180-190.
- Melly, B. (2005). "Public-Private Sector Wage Differentials in Germany: Evidence from Quantile Regression." *Empirical Economics*, 505-520.
- Menezes-Filho, N, and J. Van Reenen (2003). *Unions and Innovation: A Survey of the Theory and Empirical Evidence*. Discussion paper No 3792. London: Centre for Economic Policy Research.
- Méthé, D.T. and J.L. Perry (1980). "The Impacts of Collective Bargaining on Local Government Services: A Review of Research." *Public Administration Review*, 40(4). pp. 359-371.
- Mobley, L.R. and J. Magnussen (1998). "An International Comparison of Hospital Efficiency: Does Institutional Environment Matter?" *Applied Economics*. 30. 1089-1100.
- Moon, M.J. (2002). "The Evolution of E-government Among Municipalities: Rhetoric or Reality?" *Public Administration Review*. 62(4): 424-433.
- Moynihan, D.P. and S.K. Pandey (2005). "Testing How Management Matters in an Era of Government by Performance Management." *Journal of Public Administration Research and Theory*. 15: 421-439.
- Mueller, R.E. (1998). "Public –Private Sector Wage Differentials in Canada: Evidence from Quantile Regressions." *Economic Letters*, Elsevier, 60(2): 229-235.

- Murray, R. (1992). "Measuring Public Sector Output: The Swedish Report." In: Griliches, Z. *Output Measurement in the Service Sectors*. Chicago: The University of Chicago Press.
- Niskanen, W. (1971) *Bureaucracy and Representative Government*. Chicago: Aldine-Atherton.
- OECD (1997) *Managing Across Levels of Government*. Paris: OECD.
- OECD (2001) *Measuring Productivity – OECD Manual: Measurement of Aggregate and Industry-level Productivity Growth*, OECD: Paris.
- OECD (2003). "The Case for E-government: Excerpts from the OECD Report 'The E-government Imperative'". *OECD Journal on Budgeting*. 3(1): 61-92.
- OECD (2005a), *Modernising Government: The Way Forward*, OECD: Paris.
- OECD (2005b). "Paying for Performance: Policies for Government Employees." *OECD Policy Brief*.
- Osborne, D and T. Gaebler (1992). *Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Sector*. New York: Addison-Wesley.
- Paulsson, G. (2006). "Accrual Accounting in the Public Sector: Experiences from the Central Government in Sweden." *Financial Accountability & Management*, 22(1), 47-62.
- Peters, B. G. (2003). "*The Capacity to Coordinate*". Paper presented at the workshop on Policy Capacity in October 2003, Hong Kong, 39.
- Pierre, J. (2004). "Central Agencies in Sweden: A Report from Utopia". In Pollitt, C. & C. Talbot (2003), *A Critical Analysis of the Global Trend to Agencies, Quangos and Contractualisation*, Routledge.
- Pitt, D. W. (2005). "Diversity, Representation, and Performance: Evidence about Race and Ethnicity in Public Organizations." *Journal of Public Administration Research and Theory*. 15: 615-631.
- Pollitt, C. and G. Bouckaert (2004). *Public Management Reform. A Comparative Analysis*. Oxford: Oxford University Press.
- Pollitt, C. (2004). "Theoretical Overview." In Pollitt, C. & C. Talbot *Unbundled Government. A Critical Analysis of the Global Trend to Agencies, Quangos and Contractualisation*. Routledge Studies in Public Management. 1. London and New York: Routledge (pp. 319-342).
- Postel-Vinay, F. and H. Torun (2005). *The Public Pay Gap in Britain: Small Difference that (don't) Matter*. Centre for Market and Public Organisation: University of Bristol no. 05/121.
- Reichenberg, N. (2002). "Branding the Government as an Employer of Choice". *International Recruitment and Selection Strategies*. Washington, D.C.: IPMA-HR.
- Robinson, M. & J. Brumby (2005). *Does Performance Budgeting Work? An Analytical Review of the Empirical Literature*. IMF Working paper. WP05/210.
- Rubin, I. and J. Kelly (2005). "Budget and Accounting Reforms." In E. Ferlie, L.E. Lynn Jr. & C. Pollitt (Eds.), *The Oxford Handbook of Public Management* (pp. 639-590). Oxford: Oxford University Press.

- Ruggiero, J. and W. Duncombe (1995). "On the Measurement and Causes of Technical Inefficiency in Local Public Services." *Journal of Public Administration Research and Theory*. 5:4. 403-429.
- Savas, E. S. (2000). *Privatization and Public Private Partnerships*. London: Chatham House Publishers.
- Scherer, F. M. and D. Ross. (1990). *Industrial Market Structure and Economic Performance*. 3rd ed. Boston: Houghton Mifflin.
- Schick, Allen (2003). "The Performing State: Reflection on an Idea Whose Time Has Come but Whose Implementation Has Not". *OECD Journal on Budgeting* Vol. 2, No. 2, OECD, Paris.
- Selden, S. (1997) *The Promise of Representative Bureaucracy: Diversity and Responsiveness in a Government Agency*. Armonk, NY, M.E. Sharpe.
- Selden, S.C., P.W. Ingraham and W. Jacobson (2001). "Human Resource Practices in State Government. Findings from a National Survey." *Public Administration Review*. September/October. Vol. 61, n° 5.
- Shepard, L.A. (1990). "Inflated Test Score Gains: Is the Problem Old Norms or Teaching the Test." *Educational Measurement. Issues and Practices*. 9, 15-22.
- Smith, M. L. and C. Rottenberg (1991). "Unintended Consequences of External Testing in Elementary Schools." *Educational Measurement: Issues and Practice*, 10(4), 7-11.
- Smith, P. (1995). "On the Unintended Consequences of Publishing Performance Data in the Public Sector." *International Journal of Public Administration*, 18. pp.277-310.
- Snijkers, K. (2005). "E-government. ICT from a Public Management Perspective." Paper presented at the 13th annual NISPAAce Conference, 19-21 May 2005, Moscow State University.
- Social and Cultural Planning Office (2004). *Public Sector Performance. An International Comparison*. Den Haag: SCP.
- Sterck, M. and B. Scheers (2006). "Trends in Performance Budgeting in Seven OECD Countries." *Public Performance & Management Review*, Vol. 30, No. 1, September, pp. 47-72.
- U.K. House of Commons, Public Administration Select Committee (2003). *On Target Government by Measurement*. Fifth report of Session 2002-2003 (vol1). London: Stationery Office.
- Van Dooren, W. (2006) *Performance Measurement in the Flemish Public Sector: A Supply and Demand Approach*. Leuven: University of Leuven. Faculty of Social Sciences:
- Van Dooren, W. *et al.* (2006) "Issues in Output Measurement", OECD: Paris.
- Verhoest Koen (2005). "Effects of Autonomy, Performance Contracting and Competition on the Performance of a Public Agency." *Policy Studies Journal*. 33(2).
- Verhoest Koen and Geert Bouckaert (2003). *Machinery of Government: Shifting from Effectiveness of Coordination to Coordination of Effectiveness*. International Workshop on State Policy Capacity, Hong Kong. October. p. 32.
- Visser, J. (2000). *Trends in Unionisation and Collective Bargaining*. Geneva: International Labour Office.

GOV/PGC(2007)16/ANN

West, D.M. (2004). "E-government and the Transformation of Service Delivery and Citizen Attitudes." *Public Administration Review*. 64(1): 15-27.

Williamson, O. E. (1975). *Markets and Hierarchies: Analysis and Antitrust Implications*. Free Press, New York.

Wilson, J.Q. (1989). *Bureaucracy: What Government Agencies Do and Why They Do It*. New York: Basic Books.

Zigarelli (1996). "An Empirical Test of Conclusions from Effective Schools Research." *The Journal of Educational Research*. 90: 103-111.

ANNEX I:
MEMBERSHIP OF STEERING GROUP

COUNTRY	NAME	TITLE/POSITION	MINISTRY
AUSTRIA	Elisabeth DEARING	Director	Federal Chancellery Administrative Development, Div III/7
CANADA	Lee MCCORMACK	Executive Director	Treasury Board of Canada
FINLAND	Heikki JOUSTIE	Government Counsellor	Ministry of Finance Public Management Department
FRANCE	Xavier HURSTEL	Sous-Directeur	Ministère de l'Économie et des Finances Direction du Budget
FRANCE	Bernard BLANC	Chef de la mission des relations internationales	Ministère de l'Économie et des Finances
GERMANY	Marga PROEHL	Deputy Head of Public Administration Management Unit	Federal Ministry of the Interior (BMI)
ITALY	Pia MARCONI	Director General	Department of Public Administration
NETHERLANDS	Koos ROEST	Adviser on Strategic Policy	Ministry of the Interior & Kingdom Relations Directorate-General for Management of the Public Sector
NETHERLANDS	Peter VAN DER GAAST	Head of International Civil Service Affairs Division	Ministry of the Interior & Kingdom Relations Directorate-General for Management of the Public Sector
NORWAY	Morten STROMGREN	Senior Advisor, Economic Analysis Unit	Ministry of Government Administration & Reform
SWEDEN	Richard MURRAY	Chief Economist	Statskontoret
UNITED KINGDOM	Alison SHARP	Data Analyst & Data Manager	Cabinet Office, Prime Minister's Strategy Unit

ANNEX II:

DATA DESCRIPTION OF THE REVIEWED LITERATURE

Table A1.1 Cash and accrual in central/federal government whole-of-government financial statements and budget appropriations (Blöndal, 2004)¹

	Use of accrual accounting Whole-of-government financial statements	Use of accrual budgeting Budget appropriations
Australia	Accruals	Accruals
Austria	Cash basis	Cash basis
Belgium	Cash basis	Cash basis
Canada	Accruals	Cash basis and certain transactions on accruals basis
Czech Republic	Cash basis	Cash basis
Denmark	Cash basis and certain transactions on accruals basis	Cash basis and certain transactions on accruals basis
Finland	Accruals	Accruals, except for capitalization and depreciation of assets
France	Cash basis and certain transactions on accruals basis	Cash basis
Germany	Cash basis	Cash basis
Greece	Cash basis	Cash basis and certain transactions on accruals basis
Hungary	Cash basis	Cash basis
Iceland	Accruals, except for capitalization and depreciation of assets	Accruals, except for capitalization and depreciation of assets
Ireland	Cash basis	Cash basis
Japan	Cash basis	Cash basis
Korea	Cash basis and certain transactions on accruals basis	Cash basis and certain transactions on accruals basis
Luxembourg	Cash basis	Cash basis
Mexico	Cash basis and certain transactions on accruals basis	Cash basis and certain transactions on accruals basis
Netherlands	Cash basis	Cash basis
New Zealand	Accruals	Accruals
Norway	Cash basis	Cash basis
Poland	Cash basis and certain transactions on accruals basis	Cash basis
Portugal	Cash basis and certain transactions on accruals basis	Cash basis and certain transactions on accruals basis
Slovak Republic	Cash basis	Cash basis
Spain	Cash basis and certain transactions on accruals basis	Cash basis
Sweden	Accruals	Cash basis and certain transactions on accruals basis
Switzerland	Cash basis	Cash basis

1 Countries are classified as full accrual irrespective of whether heritage and military assets, and non-exchange revenue (taxes), are treated on cash basis. Countries are classified as full cash basis irrespective of whether they have an obligations/commitments system in place.

Turkey	Cash basis	Cash basis
United Kingdom	Accruals	Accruals
United States	Accruals	Cash basis and certain transactions on accruals basis

Table 1. Literature related to results orientation

Reference	Year	Institutional driver	Research question	Theoretical framework (if any)	Data source and sector	Methodology	Country Number of observations	Time frame	Main conclusions
Carlin	2006	Budget practices and procedures	Does the accrual output-based budgeting system result in the creation of measurably improved performance-related information and thus facilitate continuous improvement in a way that traditional public financial management systems are alleged to be less capable of?	n.a.	Victorian Department of Treasury and Finance Public sector	Time series analysis	Australia (state of Victoria) Eight departments of the government in the state of Victoria (Australia)	1998-2002	a. Without adequate historical data reference points against which to benchmark current performance, it is arguable that the difficulty of management is compounded, not reduced in the way that advocates of AOBB systems have typically claimed. b. It is not at all clear that even if we were certain of the benefits claimed to be associated with the use of AOBB technologies to come to fruition, they would outweigh the costs of initial change and subsequent operation. c. Thus, rather than it adding credibility to claims relating to the virtues of AOBB systems, the evidence set out in this paper lends itself to the conclusion that accrual output based budgeting, like so many financial management techniques implemented within public sector entities before, may well represent the latest passing public financial management panacea.
Carlin, Guthrie	2000	Budget practices and procedures	Does accrual output-based budgeting system help in the improvement of public management practices?	n.a.	Finance and Administration Department of Australia, New Zealand Treasury Public sector	Comparative country analysis	Australia, New Zealand	1995-1997	Output Based Budgeting (OBB) Systems can provide welcome assistance in the effort to improve public management practices, but the authors caution that at present, as a result of the types of implementation weaknesses they have identified, OBB systems will not constitute the panacea suggested by some central agency rhetoric.
Curristine	2005	Budget practices and procedures	a. What are the different approaches by OECD member countries to enhance public sector performance? b. Which new levers and approaches to management, budgeting, personnel and institutional structures did OECD member countries adopt in this perspective?	Theories on performance-based governance	OECD/World Bank Budget Practices and Procedures Database Survey Public sector	Cross-country comparison on the base of self-reported surveys	27 OECD member countries	2003	a. The majority of OECD member countries are implementing performance management and performance budgeting, although the extent and the approaches vary widely across countries. b. Most countries continue to struggle with changing the behaviour of public servants and politicians. c. The common assumption that the performance information that is useful for the executive would also serve the legislature remains unproven. d. The combined experiences of OECD member countries highlight the importance of taking a long-term approach and having realistic expectations about the capacity of performance management and budgeting to improve performance and accountability.

Reference	Year	Institutional driver	Research question	Theoretical framework (if any)	Data source and sector	Methodology	Country Number of observations	Time frame	Main conclusions
Jordan, Hackbart	1999	Budget practices and procedures	a. What is the current status of state performance budgeting efforts? b. What is the perceived impact of performance budgeting on budget decision making? c. What is the relationship between performance budgeting and various aspects of state budgeting practices?	n.a.	Survey of state executive branch budget officers (Martin School of Public Policy and Administration Survey) Public sector	Cross tabulations, regression analysis	United States 46 states	1997	a. The predominant form of state level performance budgeting involves the identification of performance indicators. b. Almost two-thirds of the responding states indicate that the governor's executive budget recommendation could be impacted by the achievement of performance standards. c. States seem reluctant to use performance directly as an allocation tool. d. The regression analysis of state characteristics reveals the importance of organisational capacity. d. The budget process is unlikely to be changed substantially until and unless decision makers demand and use information on program performance when making decisions about allocating resources. Having this information is a necessary, but not sufficient, prerequisite to changing the policy process.
Joumard, Kongsrud, Nam, Price	2004	Budget practices and procedures	What is the best way to enhance the cost effectiveness of public spending?	n.a.	OECD data (OECD individual country Economic Surveys) Public spending	Cross-country comparison from public finance data	30 OECD member countries	1997-2002	In most OECD member countries, public spending rose steadily as a share of GDP over the past decades to the mid-1990s, but this trend has since abated. The spending pressures stemming from the continued expansion of social programmes have been partly compensated by transient or one-off factors. Pressures on public spending, however, appear likely to intensify, in particular as a consequence of ageing populations. Since most OECD member economies have very little scope for raising taxation or debt to finance higher spending, reforms to curb the growth in public spending while raising its cost effectiveness are now required. Based on detailed country reviews for over two-thirds of OECD member countries, this paper identifies three main areas for action: the budget process; management practices; and the use of market-type mechanisms in the delivery of public services.

GOV/PGC(2007)16/ANN

Reference	Year	Institutional driver	Research question	Theoretical framework (if any)	Data source and sector	Methodology	Country Number of observations	Time frame	Main conclusions
Melkers, Willoughby	2005	Budget practices and procedures	<p>a. What is the effect of performance-measurement information on budgetary decision-making, communication and other operations of U.S. local governments?</p> <p>b. How pervasive is performance-measurement use in local governments?</p> <p>c. What types of measures are perceived as most useful in these governments?</p> <p>d. Where in the budget cycle are performance measures documented?</p> <p>e. How important are performance measures at various phases of the budget process?</p> <p>f. Are budgeting and other effects of performance measurement evident in local governments?</p> <p>g. What factors influence the effects of performance measurement?</p>	n.a.	<p>Survey data from national survey of city and county administrators and budgeters + community-level data from International City/county Management Association Municipal Yearbook 2002</p> <p>Local governments (cities and counties)</p>	Multiple-regression analysis	<p>United States</p> <p>277 responding city and county administrators and budgeters</p>	2000-2002	<p>a. The use of performance measurement is pervasive, although survey respondents are less enthusiastic about measurement effectiveness.</p> <p>b. The consistent, active integration of measures throughout the budget process is important in determining real budget and communication effects in local governments.</p> <p>c. The implication of performance measurement adds value to budgeting decisions by providing relevant information about results, as well as costs and activities.</p> <p>d. Respondents are less enthusiastic about the effectiveness of using performance measures to influence budgeting processes and outcomes in particular.</p> <p>e. Performance measurement's greatest applicability seems to be in the budget-development phase.</p>
Paulsson	2006	Budget practices and procedures	What does the Swedish case of the use of accrual accounting information tell us about the prospects of using that kind of accounting in public organisations?	New Public Management reform	<p>Survey data, collected by authors</p> <p>Central government agencies and government offices</p>	Survey: 2 questionnaires + 2 series of interviews	<p>Sweden</p> <p>124 financial managers of central government agencies and 60 senior advisors of government offices</p>	2003	<p>a. Accrual accounting information is used less for both budgetary politics and policy making in public sector organisations where the budget is still based upon a cash principle, as is the case in Sweden.</p> <p>b. The accrual accounting information is used mostly as a tool in the management of the agencies.</p>

Reference	Year	Institutional driver	Research question	Theoretical framework (if any)	Data source and sector	Methodology	Country Number of observations	Time frame	Main conclusions
Robinson, Brumby	2005	Budget practices and procedures	a. What light does the empirical literature shed on the efficacy of performance budgeting? b. Does that literature support the contention that efforts to link funding to results in government budgeting have failed? c. What are the effects of output-based funding in hospitals?	n.a.	Empirical literature Hospitals	Literature review	United States	1970-2002	a. The empirical literature on government-wide performance budgeting is disappointingly limited in scope and methodology, and does not provide a basis for strong conclusions about the efficacy of these systems. Nevertheless, it does appear to provide some support for the proposition that, where the necessary investment in the development of performance measurement and other performance information has been made, it is possible to use that information in budgeting to improve both allocative and productive efficiency. b. There is quite strong evidence of the efficacy of the sectoral system chosen —“casemix” funding of hospitals.
Rubin, Kelly	2005	Budget practices and procedures	a. What kind of public budgeting reforms have been proposed? b. What are they intended to accomplish? c. How are they working out?	New Public Management	Data collected by authors Public budgeting	Survey of budget and accounting reforms and analysis: cross-country comparative analysis	Australia, Japan, New Zealand, Sweden, United Kingdom, United States, China, South Africa	2002	a. There is a story of ongoing change and adaptation. New Zealand, Australia and the United Kingdom may be seen as leaders in the field of public budgeting but these countries continue to struggle with problems that many claim the NPM resolves. b. Reforms have been adopted differentially, emphasis placed on different elements; they have evolved differentially in the countries that have adopted them; they have abandoned in places, in others they accomplish different goals than intended initially; and they have sometimes set in motion unintended consequences such as increases in the legislative role to compensate for the overwhelmingly administrative or executive branch focus of some of the reforms. c. In the end NPM seems to have settled into the public administration landscape as one model that has strengths and weaknesses just like all other approaches.

GOV/PGC(2007)16/ANN

Reference	Year	Institutional driver	Research question	Theoretical framework (if any)	Data source and sector	Methodology	Country Number of observations	Time frame	Main conclusions
Ammons	2002	Performance measurement arrangements	Does performance measurement lead to service improvement?	n.a.	n.a. Public sector	n.a.	n.a.	n.a.	<p>a. The performance improvement proposition, that measurement is a catalyst for performance improvement, deserves a serious test by practitioners and researchers. It deserves a test that is fair, one that excludes systems built solely to address accountability objectives, often in a minimal manner.</p> <p>b. The key to design measurement systems that will produce performance gains, especially in organisations with empowered departments and employees, is the careful development of measures that cause supervisors and operating personnel to reflect thoughtfully on the adequacy of services and to consider strategies of service improvement. In short, measures that inspire managerial thinking. This means that the measures must address dimensions of service that operating personnel consider important, focusing on the efficiency, quality, and effectiveness of these services and providing regular and reliable performance information.</p>
Bevan, Hood	2006	Performance measurement arrangements	How robust is the regime of targets and terror ? Is it performing?	Theory of governance by targets	National Audit Office (2001; 2004) English Public Health Service	"Before" and "after" comparisons (United Kingdom)	United Kingdom 600 National Health Service organisations	1997-2005	<p>a. The implicit theory of governance by targets requires two sets of heroic assumptions to be satisfied: of robust synechdoche, and game-proof design. The data suggest that these assumptions are not justified.</p> <p>b. There are three important gaming problems:</p> <ol style="list-style-type: none"> 1. ratchet effects refer to the consequences of central resource managers basing next year's targets on this year's performance; 2. threshold effects lead to the concentration of effort on outputs that are just below the required level at the expense of others, ignoring the best and the worst; 3. distortion refers to the achievement of output improvements in areas that are measured at the expense of unmeasured aspects of performance. <p>c. Although there were indeed dramatic improvements in reported performance, we do not know the extent to which these were genuine or offset by gaming that resulted in reductions in performance that was not captured by targets.</p>
Halachmi	2002	Performance measurement arrangements	Are the same schemes that measure performance as a means of improving accountability as suitable for facilitating better performance or greater value for money?	Management theory on performance measurement	n.a.	n.a.	n.a.	n.a.	<p>a. Performance measurement can involve the siphoning of resources from "production" to overhead (under noble pretences) and that this may not foster greater value for money.</p> <p>b. The possible dichotomy between the attributes of performance measurement and the attributes of scorecards that are meant to enhance performance may resemble Mintzberg's (1994) dichotomy between strategic thinking and planning.</p> <p>c. Performance reports should be able to grade organisations on their ability to meet the challenges as they are carrying out their mission. Unfortunately most performance measurements still fall short of meeting this challenge.</p>

Reference	Year	Institutional driver	Research question	Theoretical framework (if any)	Data source and sector	Methodology	Country Number of observations	Time frame	Main conclusions
House of Commons	2003	Performance measurement arrangements	Is there a proper measurement culture?	n.a.	a. The Comprehensive Spending Review and the Public Service Agreements b. Data collected by the authors throughout 11 evidence sessions and two visits	Qualitative assessment	United Kingdom 11 evidence sessions (39 witnesses, leading to 63 memoranda) and two observations visits	1998-2002	a. The increase in accountability and transparency which targets have brought with them has been valuable. b. But because of the lack of proper integration between the building of an organisation's capacity through what the authors call "the performance culture" and tracking quantitative achievement in the public services through the "measurement culture", the laudable aims the government set for its targets, are in many cases not being fulfilled nor widely recognised as such by those on the front line whose job is to deliver them. c. The perverse effect of gaming can be mitigated by loosening up the performance arrangements. d. There must be a move from a "measurement culture" to a "performance culture".
Van Dooren	2006	Performance measurement arrangements	a. Why are organisations measuring performance? B. Does administrative supply meet political demand? C. What are the system requirements for different purposes of performance information? D. What are the effects of performance information?	Organisational theory	Public sector (especially health; education, local government and criminal justice system) Flemish government officials and documents Regional government departments	Unstructured interviews; content analysis, survey, semi-structured interviews	Belgium 155 sections	2000-2005	a. The impact of factors on adoption (having PM) and implementation (doing PM) of measurement is as follows: - Measurability of output has a positive correlation with both adoption and implementation. - Political interest does not affect adoption or implementation of performance measurement. Yet, many organisations see it as a potential hindrance. - Large organisations have a higher adoption and implementation. - The reduction of discretion plays a role in the implementation of measurement systems, not for adoption. - The lack of resources does not affect adoption or implementation. Many sections experience a lack of resources. Some cope with it, while others do not. - Coupling measurement with goals is neutral to adoption, but significant for implementation. b. Political interest in PM is substantial, but differs significantly between policy sectors. c. Perverse effects of measurement are a consequence of the way PM is used. - Accountability use leads to many perverse effects. - Management use leads to moderate effects. - Learning use leads to minimal effects.

Table 2. Literature related to increased flexibility

Reference	year	institutional driver	Research question	Theoretical framework (if any)	Data source and sector	Methodology	Country and number of observations	Time frame	Main conclusions
Barankay, Lockwood	2006	Intra-governmental structures and functional responsibilities	a. Does fiscal decentralization increase the efficiency of delivery of government services?	Theories of fiscal federalism	Swiss Federal Statistical Office Education	Panel regression (regression analysis)	Switzerland 26 Swiss cantons	1982-2000	a. More decentralisation is associated with higher educational attainment. b. Expenditure decentralisation is more beneficial when central governments are less competent.
Brewer	2005	Workforce composition	a. What is the role of frontline supervisors in the 22 largest American federal agencies? b. What about their contributions to organisational performance and effectiveness?	Boyne's (2003) model of government performance and service improvement (supplemented by other sources)	The 2000 Merit Principles Survey, U.S. Merit Systems Protection Board Federal Agencies	Descriptive statistics	United States 22 US federal agencies, and 6 958 Federal Agency respondents	2000	a. Public managers must motivate and empower employees; create sustainable organisational cultures; emphasise performance at the individual, work unit, and organisational levels. b. Frontline supervisors are an important part of the management team. These employees play a crucial role in improving federal agency performance. c. Human resource management matters a great deal. High-performing agencies tend to have skilful upper-level managers, strong cultures that value employees and emphasise the importance and meaningfulness of the agency's work, and policies that empower those employees.
De Borger, Kerstens	1994	Intra-governmental structures and functional responsibilities, agencification, delegation	a. What are the differences in productive efficiency of the municipal governments in Belgium? b. How can we explain these variations?	Non-parametrical theoretical literature	Data collected by authors Municipalities	A non-parametric method based on the Free Disposal Hull reference technology	Belgium 589 Belgian municipalities	1985	a. The scale and the fiscal revenue capacity of municipalities are important determinants of efficiency. b. The financing mechanism of local public service provision and the political characteristics of municipal governments were estimated to affect inefficiencies.
Laking	2005	Intra-governmental structures and functional responsibilities, agencification, delegation	a. What benefits and risks are there from "genetic engineering" of public organisation structures?	Theories on the effects of the creation of agencies	n.a. Agencies	Literature review	n.a.	1980s and 1990s	a. In most OECD member countries, agencies work generally well and meet important needs of good governance. There is indeed some evidence that in the appropriate roles they have improved both the quality and the credibility of public performance. b. In the developing world and transitional economies, some appear to have created benefits, others have caused significant problems for public governance. c. The major risks of agencification that can threaten overall government efficiency and efficacy and accountability are: 1. loss of control of agency operations; 2. abrogation of political accountability; 3. evasion of general rules for staffing and budgets; 4. exposure of government to financial and

Reference	year	institutional driver	Research question	Theoretical framework (if any)	Data source and sector	Methodology	Country and number of observations	Time frame	Main conclusions
									employment risks 5. opportunities for political patronage and corruption.
Pollit	2004	Intra-governmental structures and functional responsibilities, agencification, delegation	What is the usefulness of the existing theories about agencies, how are they used, and for what purposes?	Theories on agencification	Data (theories and literature from other authors) collected by author	Literature review/ theoretical overview	n.a.	n.a.	a. One might say that there are three broad families of theories assessing the phenomenon of agencification: 1. "traditional" mainstream social science: innovation diffusion theory, some network theory, contract specification and design, Kingdon's model of the policy process. 2. economic approaches: rational choice theory; 3. interpretive/ constructivist theories: historical institutionalism, institutional isomorphism, some (other) network theory, Latour's translation theory. b. The different theories have been more or less successful in answering different questions.
Pollit, Bathgate, Caulfield, Smullen, Talbot	2001	Intra-governmental structures and functional responsibilities, agencification, delegation	What are the reasons for, and depth of, the trend towards "agencification"?	a. Path-dependency theories b. Historically informed institutionalism	Data collected by author Public sector	Literature review	Finland, the Netherlands, Sweden, and the United Kingdom	1996	a. General evidence of agencification as the cause of greater efficiency, higher quality, etc. is conspicuous by its absence.

GOV/PGC(2007)16/ANN

Reference	year	institutional driver	Research question	Theoretical framework (if any)	Data source and sector	Methodology	Country and number of observations	Time frame	Main conclusions
Verhoest	2005	Intra-governmental structures and functional responsibilities, agencification, delegation	What effects do new control mechanisms have that governments use to monitor the performance of quasi-autonomous public agencies?	Principal-agent theory	Data collected by author <i>Vlaamse Openbare Instellingen'</i> (VOI's)	Case study Flemish Employment Service (FES): a. An extensive document analysis and time series analysis with quantitative data. b. A "subjective" analysis of the perception of the involved key-actors, of the evolution of the variables	Belgium (Flanders) a.32 ' <i>Vlaamse Openbare Instellingen'</i> (VOI's) b. In-depth case study of two embedded cases (the job brokerage decision and the vocational training division) within the critical case of the Flemish Employment Service (FES) c. 23 semi-structured interviews with the top management of the FES	1992-1999	a. Most contemporary studies on the effect of autonomization and control of public agencies on performance seem to show ambivalent results. b. This case shows that the four control mechanisms – managerial autonomy, performance contracts, financial incentives, and competition – seem to induce the public agency to performance-enhancing behaviour through ways assumed in the theoretical model, but only under very specific conditions. c. Both FES-divisions were motivated to performance-enhancing behaviour by an urge to strengthen or restore its legitimacy towards its customers, stakeholders, and, most importantly, its political principals (<i>i.e.</i> ministers; cabinet, and Parliament).
Verhoest, Bouckaert	2003	Intra-governmental structures and functional responsibilities: coordination	a. How does the basic structure of government change over time: is specialisation and fragmentation a common evolution (descriptive research question)? b. How does the coordination strategy of government change over time (descriptive research question)? c. How can eventual variations in strategies and trajectories be	a. Path dependency of policy capacity building b. Trajectory choice of policy capacity building	Data collected by authors Public sector	Comparative static analysis	Belgium, France, Netherlands, New Zealand, Sweden, and the United Kingdom (France, New Zealand, Netherlands are described more in detail)	1980-2000	There has been a growing awareness for the issue of coordination since the second half of the 1990s. Countries have followed three trajectories to expand their policy capacity: 1. renewing existing capacity using hierarchy type mechanisms: e.g. creating holding ministries and mega departments, 2. creating new capacity using network type mechanisms: e.g. linking information systems (Strategic Results Areas in New Zealand), consolidating financial documents (consolidated budgets, consolidated accounts, consolidated audits) according to policy portfolios (see Canada), (value added) chain management (see the Netherlands), 3. focusing on present capacity. Market-type mechanisms are mainly used for support services and

Reference	year	institutional driver	Research question	Theoretical framework (if any)	Data source and sector	Methodology	Country and number of observations	Time frame	Main conclusions
			explained theoretically (explanatory research question)?						logistic activities and less for core business.
Verhoest, Peters, Bouckaert, Verschuere	2004	Intra-governmental structures and functional responsibilities, agencification, delegation	a. Do scholars mean the same thing when they refer to “autonomy” (or independence or discretion) of public organisations? b. Are the inconclusive results of the reviewed research on autonomy partly a function of different conceptualisations, operationalisations and measurements of 'autonomy' by the involved researchers?	Public management theories on the “autonomy” concept (of public organisations)	A range of studies concerning the link between organisational autonomy of public agencies and their performance. b. Survey conducted by the authors in 2002-2003 Government organisations	a. Literature overview b. Survey along Flemish public organisations	Belgium (Flanders) 84 Flemish government organisations	2002-2003	a. Contemporary research on the influence of organisational autonomy on performance in public organisations uses a diverse and a too restrictive conceptualisation of “autonomy”. b. The authors propose a six dimensions-concept of “autonomy” in public organisations. c. The formal-legal status of a public organisation is not the appropriate indicator of its autonomy. the reason why is because there exists a substantial heterogeneity of organisations with the same formal-legal status on each (of the six presented) dimension of autonomy.
Yamamoto	2006	Intra-governmental structures and functional responsibilities, agencification, delegation	a. What is the relationship between autonomy and performance? b. The more operational autonomy agencies have, the more their performance will improve? c. Will performance increase by downsizing the agency? d. What is the effect of competition on agencies' performance? e. Does the level of dependency on government influence the efficiency of the agencies?	Kingdon's Policy Process Model	Mail survey of chief executives, directors and senior managers in 57 semi-autonomous public bodies in Japan, in 2003 Semi-autonomous public bodies	Regression analyses	Japan 181 responses received from 57 semi-autonomous public bodies	2003	a. There is a causal relationship between operational autonomy and performance. b. There is a partial causal linkages between other types of autonomy like structural or legal autonomy and performance. c. The majority of respondents stated that autonomy in operational management had increased. This, however did not imply a decrease in accountability. d. The autonomy in budget execution and organisational structure was also high. e. In general, employees agree that agencification has led to improved efficiency. Employees say that they have become more cost conscious and customer oriented to earn more income.

GOV/PGC(2007)16/ANN

Reference	year	institutional driver	Research question	Theoretical framework (if any)	Data source and sector	Methodology	Country and number of observations	Time frame	Main conclusions
Boyne	2003	Workforce size	What are the sources of public service improvement?	Theories on service improvement	n.a. Included are studies of states, counties, municipalities school districts, schools, police and fire departments, hospitals, libraries, drug abuse agencies, other agencies	Meta analysis; literature study of statistical studies explaining public performance	Studies are mainly from the United States (54) and the United Kingdom (6) n=65	1970-2002	<p>a. Quality of evidence is in general very meagre; underlying theoretical models are vague, analyses are static, independent variables are not related to each other, evidence is mainly from the United Kingdom and the United States.</p> <p>b. There is no evidence of a link between financial resources and service improvement (most studies are flawed however, because they control for real resources rather than seeing financial resources as a way of purchasing real resources).</p> <p>c. The impact of regulatory reforms on performance is not sufficiently substantiated.</p> <p>d. The impact of competition on performance is mixed; positive, negative and insignificant results are found.</p> <p>e. The impact of size on performance shows no pattern; all kinds of relations are found.</p> <p>f. The impact of management on performance is positive; management seem to matter.</p> <p>g. The mixed results are cases in point for developing a research agenda on determinants of performance.</p> <p>h. Soft aspects of human resource management, such as employee satisfaction and morale, are more important drivers of performance than hard aspects of personnel management, such as performance-related pay and job security.</p>
Brewer, Selden	2000	Human resource management arrangements	What are the key variables of organisational performance in federal agencies?	n.a.	The 1996 Merit Principles Survey (U.S. Merit Systems Protection Board) Public sector: 23 largest federal agencies	Regression analysis	United States 23 federal agencies (9 710 federal agencies employees were included)	1996	<p>a. The variables that most affect organisational performance are efficacy, teamwork, building human capital, structure of task/work, protection of employees, concern for the public interest, and task motivation: all elements of a high-involvement workplace strategy.</p> <p>b. The relationship between agencies and their employees and clients is important: employees want to be valued by their agencies and involved in management and decision-making processes.</p>

Reference	year	institutional driver	Research question	Theoretical framework (if any)	Data source and sector	Methodology	Country and number of observations	Time frame	Main conclusions
Moynihan, Pandey	2005	Human resource management arrangements	Which external environmental influences and internal management factors combine to create performance?	n.a.	National Administrative Studies Project survey of state government health and human services officials State-level primary health and human services agencies	Descriptive statistics, ordinary least squares tests, multivariate tests	United States 274 managers (involved in information management)	2002-2003	a. Management matters to performance, it is reasonable to expect managers to undertake actions to improve performance. b. Among the external environmental variables we find that the support of elected officials and the influence of the public and media have a positive impact on effectiveness. c. Among internal management choices, the ability to create a developmental organisational culture, establish a focus on results through goal clarity, and decentralise decision-making authority are all positively associated with organisational effectiveness.
OECD	2005b	Human resource management arrangements	What are the trends in performance-related pay in the OECD member countries?	n.a.	Empirical country studies (OECD member countries) and extensive staff surveys in some OECD member countries Public services	Comparative country analysis	OECD member countries	1980-2005	a. Staff are less motivated than might have been expected by the prospect of more money. Extensive staff surveys, conducted notably in the United Kingdom and the United States, showed that despite broad support for the principle of linking pay to performance, only a small percentage of employees thought their existing performance pay schemes provided them with an incentive to work beyond job requirements and in many cases they found it divisive. b. Performance-related pay can help improve performance when it is applied properly in the right managerial context, if not because of the financial rewards then indirectly through the changes in work and management organisation needed to implement it. c. Some common trends are emerging: 1. long-running standardised PRP schemes have evolved into more decentralised systems; 2. a notable development in recent years has been the extension of PRP from senior management to non-managerial staff; 3. several countries have strongly encouraged the move to a more collective approach to PRP over the past five years (e.g. Finland, Korea, the United Kingdom). d. Overall, the most important criteria for assessing civil servants' performance are the following: outputs achieved which include the pre-identified objectives; competencies and technical skills; interpersonal skills and teamwork; leadership and management skills.

GOV/PGC(2007)16/ANN

Reference	year	institutional driver	Research question	Theoretical framework (if any)	Data source and sector	Methodology	Country and number of observations	Time frame	Main conclusions
OECD	2005a	Human resource management arrangements	What are the trends in human resource management policies in OECD member countries?	Theories on human resource management	The OECD Survey on Strategic Human Resources Management Public sector (civil service)	Cross-national comparisons	29 OECD member countries	1980s and 1990s	a. While we continue to have a group of countries with traditional career-based systems and a group with position-based systems, there are now many countries that fall in between; there are countries with a relative high level of delegation and a relative low level of individualisation. These countries' HRM systems tend to emphasise lifelong career in the civil service with minimum lateral entry (career based). However, there is a high level of delegation to line ministries and to lower administrative levels in terms of hiring numbers and policies, promotion, and pay to a certain extent (position-based). The authors call this hybrid system "department-based system". b. Austria, Belgium, the Czech Republic, Germany, Italy, Mexico, the Netherlands, Poland and Portugal tend to fall into this new category.
Weisman, Nathanson	1985	Human resource management arrangements	What is the relationship between the aggregate job satisfaction level of nursing staff in family planning clinics and two outcomes: 1) the aggregate satisfaction level of teenage clients with contraceptive services obtained in the clinic? 2) the subsequent rate of client compliance with contraceptive prescriptions?	n.a.	Longitudinal study of the professional staff and clients of 78 county health department family planning clinics Family planning clinics	Regression analysis, path analysis	United States (the state of Maryland) 77 family planning clinics (interviews with 344 family planning and community health nurses + 2 900 clients)	1980-1982	a. The job satisfaction level of nursing staff is the strongest determinant of the aggregate satisfaction level of clients. b. Client satisfaction level, in turn, predicts the rate of clients' subsequent contraceptive compliance.
Zigarelli	1996	Human resource management arrangements	What are the correlates of effective schooling?	n.a.	The National Educational Longitudinal Study (1988, 1990 and 1992), initiated by the Department of Education, the National Opinion Research Centre and the Educational Testing Service	Regression analysis	United States 24 599 students (participants in the base survey of 1988)	1988-1992	The most important characteristics of effective schools are an achievement-oriented school-culture, principal autonomy in hiring and firing teachers, and high teacher morale.

Reference	year	institutional driver	Research question	Theoretical framework (if any)	Data source and sector	Methodology	Country and number of observations	Time frame	Main conclusions
Moon	2002	E-government preparedness	<p>a. Examination of the rhetoric and reality of e-government at the municipal level.</p> <p>b. What is the current state of municipal e-government implementation and its perceptual effectiveness?</p> <p>c. Which institutional factors contribute to the adoption of e-government among municipalities?</p>	Hiller and Bélanger's Electronic Government Framework	<p>Schools</p> <p>a 2000 E-government Survey (conducted by International City/County Management Association and Public Technologies Inc.)</p> <p>Municipal governments</p>	E-government surveys of municipal governments + descriptive statistics	United States 1 471 municipalities	2000	<p>a. Overall, this study concludes that e-government has been adopted by many municipal governments, but it is still at an early stage and has not obtained many of expected outcomes (cost savings, downsizing, etc.) that the rhetoric of e-government has promised.</p> <p>b. There are some widely shared barriers (lack of financial, technical, and personnel capacities) and legal issues (such as privacy) to the progress of municipal e-government.</p> <p>c. City size and manager-council government are positively associated with the adoption of a municipal Web site as well as the longevity of the Web site.</p>

GOV/PGC(2007)16/ANN

Reference	year	institutional driver	Research question	Theoretical framework (if any)	Data source and sector	Methodology	Country and number of observations	Time frame	Main conclusions
OECD	2003	E-government preparedness	a. What is the potential and impact of e-government? b. What are the changes (budgetary barriers) required to maximise the benefits of e-government?	n.a.	Deliberations and guidance of the OECD E-Government Working Group (12 OECD member countries); a series of project seminars, involving commissioned papers and seminar deliberations; papers and information prepared by member countries; and analyses of countries' e-government strategies Public sector (e-government)	Cross-country comparison	12 OECD member countries	n.a.	The initial impressive visible results of e-government (government websites, a number of sophisticated transactional services, development of portals) contrast with the next stage of e-government which requires the development of hidden infrastructure, connected back office arrangements and more complex services. Greater collaboration across levels of government, higher funding levels and deeper organisational change will be needed.
Snijders	2005	E-government preparedness	What can we say about ICT and e-government from a public management perspective?	Public management perspective	n.a. Social security sector (public sector)	Case study	Belgium	1990-2005	a. In the Belgian case of the Crossroad Bank for Social Security, ICTs were successfully used to improve public administration in all its aspects. b. Many e-government benchmarks score the front-office use of ICTs, but fail to understand, analyse or score the improvement of back-office processes and the impact of these process innovations on public administration values.

Reference	year	institutional driver	Research question	Theoretical framework (if any)	Data source and sector	Methodology	Country and number of observations	Time frame	Main conclusions
West	2004	E-government preparedness	<p>What are the consequences of e-government for service delivery, democratic responsiveness, and public attitudes?</p> <p>b. Is there a potential for governments using e-government, to influence citizens' views about government and their confidence in the effectiveness of service delivery?</p>	Hiller and Bélanger's Electronic Government Framework	<p>a. The National Association of State Information Resource Executives (1998, 1999, 2000)</p> <p>b. Two detailed content analyses of U.S. state and federal government Web sites performed by the authors.</p> <p>c. Survey data from the polling firm of Peter Hart/ Robert Teeter of Washington (on behalf of the Council for Excellence in Government)</p> <p>Federal and state government</p>	Content analysis public sector web sites + national public opinion survey regression analysis) + interviews with state officials	<p>United States</p> <p>a. 27 states</p> <p>b. 1 813 government Web sites in 2000, 1 680 government Web sites in 2001</p> <p>c. 1 003 American citizens</p>	1998-2001	<p>a. In many respects, e-government is developed incrementally, although in a few cases, technology is transforming the type of material available to people.</p> <p>b. While technology has the potential to alter government service delivery in the future and to enhance overall system performance, its current usage has not produced dramatic changes or much evidence of the fourth stage of e-government-interactive democracy.</p> <p>c. In both surveyed years, technology was being used to enhance democratic performance and responsiveness to citizen questions.</p> <p>d. With educational effort about e-government, citizen beliefs can be transformed in a positive direction for beliefs about government effectiveness, but not about spending priorities.</p>

Table 3. Literature related to strengthening competitive pressures

Reference	Year	Institutional driver	Research question	Theoretical framework (if any)	Data source and sector	Methodology	Country and number of observations	Time frame	Main conclusions
Dronkers and Robert	2004	Privatisation	a. What is the degree of effectiveness differences in reading (and partly mathematical) performance of individual students in public and private secondary schools in 19 modern countries, controlling for the characteristics of students and parents and compositional characteristics of schools?*	Theories on school effectiveness	OECD PISA 2000 Survey Education; secondary schools	Multi-level analysis	19 countries, Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Hungary, Ireland, Italy, Netherlands, New Zealand, Poland, Portugal, Spain, Sweden, Switzerland, United Kingdom, and the United States (selection of countries where both the public and private sectors of education are developed, and which represent a wide-range of comparable societies)	2000	a. The main differences in the gross effectiveness of private and public schools in these 19 modern countries can be explained by differences in their student intake and by the related differences in school composition. b. Private government-dependent schools have a higher net effectiveness in reading (and math) than comparable public schools with the same students, parents and social composition. c. The explanation of this higher net effectiveness is the better school climate in the former, in comparison to the latter. d. Private independent schools are less effective than public schools with the same students, parents and social composition. e. These effects of private independent and private government-dependent schools are more or less equal in the different modern countries.
Hollingsworth, Dawson, Maniadakis	1999	Privatisation	a. Are DEA approaches for measuring the performance of health care appropriate? b. What is the efficiency of health care institutions?	Production frontier	Studies on hospital efficiency + studies on general health organisation efficiency + studies on productivity analysis Health care; hospitals, nursing homes, physicians	Meta analysis; literature study of Data Envelopment Analysis studies	United States and European Union n=91 of which 35 studies on hospitals	1983-1997	a. DEA techniques work better when the product is homogeneous and one-dimensional (for example, kilowatt/hour in the electricity industry) and not multiple and heterogeneous as in health care. b. Little statistical testing and sensitivity analysis has been done in the DEA studies. c. Efficiency measurement will be more accurate if researchers concentrate on homogeneous and small segments of the health care system. d. In the United States, public hospitals outperform private hospitals. e. European hospitals outperform American hospitals. f. DEA is appropriate, but it should not be relied upon as the sole decision-making mechanism.

GOV/PGC(2007)16/ANN

Reference	Year	Institutional driver	Research question	Theoretical framework (if any)	Data source and sector	Methodology	Country and number of observations	Time frame	Main conclusions
Mobley, Magnussen	1998	Privatisation	Do institutional environment and level of market competition significantly affect the degree of productive efficiency in hospitals?	The Property Rights School and Public Choice Theory of Organisational Behaviour	Data collected by authors Hospitals	Data Envelopment Analysis	United States (California) and Norway 228 hospitals of which 50 Norwegian hospitals and 178 Californian hospitals	1991	There is no support for the hypotheses that hospitals operating in an environment that is private and largely unregulated perform better than hospitals operating in one that is public and heavily regulated.
Staat and Hammer-schmidt	2000	Privatisation	a. Are DEA approaches for measuring the performance of health care appropriate? b. What are the explanations for the observed productivity differences?	Production frontier	Krankenhaus Report 1995, 1996 Health care; hospitals providing basic care without any large-scale technical facilities or with some minor technical facilities	DEA	Germany n=160	1994-1995	a. The most inefficient hospitals could half their cost by applying an efficient technology. b. Ownership seems to play a role for the efficiency of a hospital, as the hospitals run by non-profit organisations seem to be less efficient than other hospitals. c. DEA is useful as a technique to evaluate hospitals.
Andersen, Blegvad	2006	Competition	a. Does private provision of child dental care lead to higher efficiency in terms of lower costs per child, given the professional regulation of both public and private dentists? b. Does the effectiveness of child dental care services differ between private and public providers, again given the same professional regulation?	Theories on professionalism and efficiency	a. National SCOR which registers oral health b. Statistics Denmark for cost data c. Local Authority Key Data of the Danish Ministry of the Interior for socio economic data d. Organization of General Dental Practitioners and Association of Public Health Dentists for ownership data Municipal-ities, organising dental care for children	Regression analysis	Denmark n=271	1996-2002	a. Ownership per se has no bearing on the delivery of Danish dental care services to children; cost-efficiency and effectiveness almost identical in public and private provision. b. Regulation, in particular from the professions, nullifies the effect of ownership on performance.

GOV/PGC(2007)16/ANN

Reference	Year	Institutional driver	Research question	Theoretical framework (if any)	Data source and sector	Methodology	Country and number of observations	Time frame	Main conclusions
Arum	1996	Competition	a. Does the size of the private school sector affect student performance in the public schools? b. Are the effects on student outcomes a result of changes in the peer climate, changes in school resources, or simply varying rates of organisational efficiency brought about by market competition? c. Does competition from private schools affect the organisational structure of public schools? d. Does completion from the private school sector affect student outcomes in the public schools, by changing the organisational structure of the public schools?	Organisational theory	a. Statistical Abstract of the United States 1982-1983 (U.S. Bureau of the Census 1983) b. Biennial Survey of Education in the United States 1948-1950 (U.S. Department of Health, Education, and Welfare 1954) c. Digest of Educational Statistics 1982 (National Centre for Education Statistics 1982) d. High School and Beyond dataset Public schools	Regression analysis	United States a. 10 673 public school students b. 50 states and the District of Columbia	a. 1950 b. 1980	a. State-level student/teacher ratios differ substantially between public and private school sectors in states with relatively few private schools, and are closer to equality in states with a larger private school sector. b. The student/teacher ratios affect student outcomes and are responsible for much of the difference in public school student performance related to competition from the private school sector. c. Competitive forces do change the behaviour of public secondary schools, but they improve public schools through increased funding, not increased efficiency.
Dee	1998	Competition	Does competition have a positive effect on quality?	Theories on school effectiveness	National Centre for Educational Statistics (NCES) Common Core of Data (CCD). School districts	Two-stage least-square regression	United States (18 states) n=4 488	1993-1994	a. Exogenous variation in competition from private schools does appear to improve the quality of public schools. b. The success of private schools can proxy for omitted determinants of student achievement in public schools. c. The demand for private schools and the quality of public schools are simultaneously determined.

GOV/PGC(2007)16/ANN

Reference	Year	Institutional driver	Research question	Theoretical framework (if any)	Data source and sector	Methodology	Country and number of observations	Time frame	Main conclusions
Duncombe, Miner and Ruggiero	1997	Competition	What explains inefficiency of schools?	Public choice	a. Standardised test scores b. administrative data on expenses, salaries School districts	Data Envelopment Analysis	United States (New York) n=585	1990-1991	a. Efficiency is negatively related to school district size, percent tenured teachers, district wealth, non-residential property values and labour intensity, and positively related to the percent of adults who are college educated. b. Contrary to expectations, efficiency is found to be negatively associated with the relative number of private school students and percent of households with school-age children.
Lawarree	1986	Competition	a. How efficient is garbage collection?	n.a.	Municipalities	Cost function	Belgium (Brussels and Wallonia) 118 municipalities	1983	a. Private garbage collection is cheaper. b. There are increasing returns to scale for municipalities that organise their garbage collection together.
Feld, Kirchgässner; Schaltegger	2003	Devolution	a. What is the effect of different federalist institutions on the size and structure of government revenue?	Leviathan model	Swiss Federal Tax Administration, Swiss Federal Finance Administration, Statistical Yearbook of Switzerland	Regression analysis (using a pooled cross-section time-series model)	Switzerland 26 Swiss cantons	1980-1999	a. Tax exporting has a revenue expanding effect. b. Tax competition favours a smaller size of government. c. Fragmentation has essentially no effect on the size of government revenue. d. Overall revenue decentralisation favours a smaller size of government revenue and shifts government revenue from taxes to user charges.
Huther, Shah	1998	Devolution	Is there a relationship between the level of fiscal decentralisation and governance quality?	Theories of fiscal federalism	World Bank, Transparency International, United Nations Development Program, International Monetary Fund and some data collected by author Public sector	Regression analysis	80 developed and developing countries	1995-1996	a. the use of an index of governance quality allows them to reach unambiguous conclusions regarding the net positive effects of fiscal decentralization on public sector performance in a majority of countries. b. the relationship between the level of decentralized expenditures and governance quality appears to be strictly increasing but clearly there must be some form of "Laffer Curve" – it is easy to construct cases where complete decentralization of expenditures would lead to lower quality governance than where there is a mix of national and sub national expenditures. c. highly centralized countries can improve their governance quality through more decentralized expenditures without the risk of engaging in excessive decentralisation.

GOV/PGC(2007)16/ANN

Reference	Year	Institutional driver	Research question	Theoretical framework (if any)	Data source and sector	Methodology	Country and number of observations	Time frame	Main conclusions
Social and Cultural Planning Office	2004	Devolution	<p>a. To what extent do countries differ in terms of public performance in the fields of education, health care, law and order and public administration?</p> <p>b. To what extent do differences exist between countries in terms of productivity, quality and effectiveness in the delivery of these public services?</p> <p>c. To what extent are public services taken up by target groups of government policy?</p> <p>d. To what extent can the differences in public performance be ascribed to national institutions?</p>	n.a.	<p>Eurostat, OECD, World Bank and Council of Europe</p> <p>Public sector</p>	Regression analysis	25 EU member states + 4 non-EU countries which are OECD member countries (Australia, Canada, New Zealand, United States)	2004	<p>a. The score on various government functions can be combined in one overall index of public sector performance. the index consists of: <i>i)</i> stabilisation and growth of the economy; <i>ii)</i> distribution of welfare; <i>iii)</i> allocation of public services; and <i>iv)</i> quality of public administration.</p> <p>b. The same clusters of countries repeatedly emerge in analyses of public sector performance, regardless of the policy area reviewed, or the level of analysis: northern European countries, western European countries, southern European countries, central European countries, Anglo-Saxon countries.</p> <p>c. In many cases, more money does not guarantee more effective policy outcomes.</p> <p>d. In many instances there is no one-to-one relationship between the quality of public sector services as perceived by citizens or the business community and quality measured by objective performance standards.</p> <p>e. High performance in Scandinavian public sectors is partly caused by the high levels of local autonomy.</p>

Table 4. Literature related to workforce issues

Reference	Year	Institutional driver	Research question	Theoretical framework (if any)	Data source and sector	Methodology	Country and number of observations	Time frame	Main conclusions
de Brabander and Vos	1992	Workforce size	a. How efficient are secondary schools? b. What are the determinants of efficiency in the educational system?	Micro-economical theory of cost function	Two mail surveys (performed by authors) and administrative data sets Primary and secondary schools	Descriptive and econometric analysis	Belgium 209 schools	1988-1989	a. School size has a negative and dominant effect on the average cost/ student. b. Vocational and technical education is more expensive than secondary education. c. Amalgamations of schools with a comparable offer of studies is reduces costs because of the increasing returns to scale of staff use.
Donni	1993	Workforce size	a. How efficient are day care centres for children? b. Do the size or the profitability of the day care centres have an effect on efficiency?	n.a.	Day care centres for children	DEA	Belgium (Wallonia) 115 Belgian day care centres (71 public day care centres, 37 private non-lucrative day care centres , 7 private commercial day care centres)	1992	a. Public day care centres are as efficient as the private non-lucrative day care centres. b. Private day care centres (for profit) are overall more efficient than the others. c. Size has a positive effect on technical efficiency.
McCallion, McKillop, Glass, Kerr	1999	Workforce size	a. Is there a difference in efficiency between small hospitals and large hospitals? b. What is the source of the difference between small hospitals and their larger counterparts?	n.a.	Data collected by authors Hospitals	Data Envelopment Analysis	Northern Ireland 23 hospitals (five of which could be classified as large, 10 as medium sized and eight as small)	1989-1992	Larger hospitals display higher cost efficiency, higher allocative efficiency and higher technical efficiency than their smaller counterparts.
Ruggiero, Duncombe	1995	Workforce size	What explains inefficiency of schools?	Public choice	a. Standardised test scores b. Administrative data on expenses, salaries School districts	Data Envelopment Analysis Tobit regression	United States (New York) n=636	1990-1991	a. Theories of inefficiency are not supported. b. Competition hypothesis is not supported; private schooling correlates positively with inefficiency. c. Size hypothesis of monitoring costs is not supported; larger districts and larger schools tend to be more efficient. d. Fiscal stress hypothesis is not supported; wealthier districts are more efficient. e. Tenure hypothesis (more tenure is more inefficiency) is supported.
Andrews, Boyne,	2005	Workforce composition	a. Are representative bureaucracies	a. Representative	Survey of authorities	Regression analysis	Great Britain	2001	a. More representative bureaucracies are associated with lower levels of citizen satisfaction (perceptions).

GOV/PGC(2007)16/ANN

Reference	Year	Institutional driver	Research question	Theoretical framework (if any)	Data source and sector	Methodology	Country and number of observations	Time frame	Main conclusions
Meier, O'Toole, Walker			associated with higher levels of organisational performance? b. Is the relationship between representative bureaucracy and organisational performance contingent on strategic stance?	bureaucracy b. Organisational strategy	Local government (major English local authorities)		314 authorities, 2 355 informants		b. Representative bureaucracies is unrelated to the actual level of performance, as measured systematically and audited. c. As one managerial strategy is pursued aggressively, the negative link between representative bureaucracy and performance can be overcome.
Baugh, Graen	1997	Workforce composition	What effects do team gender and racial composition have on objective and subjective team effectiveness?	n.a.	Data collected by the authors State regulatory agency	a. Literature review b. Tests in a field setting (observation + interviews) c. Univariate and multivariate analyses of covariance on the data	United States 31 teams in a medium-sized state regulatory agency	n.a.	a. Members of cross-functional project teams that vary with respect to gender or racial composition rate their team as less effective than members of homogeneous (all-male or all-white) teams. b. Ratings of external evaluators show no differences based on team composition.
Pitts	2005	Workforce composition	a. Does racial diversity increase or decrease organisational performance? b. Does racial representation – matching agency employees to characteristics of the target population – increase or decrease performance? c. Are these relationships different for street-level bureaucrat diversity and manager diversity?	a. Representative bureaucracy b. Diversity of the workforce	State records (reported by all school districts on an annual basis) School districts	Multivariate regression analysis	United States (Texas) 2 500 school districts in the state of Texas	1995-1999	a. Diversity among managers is unrelated to the three performance outcomes tested. b. Diversity among teachers has a diffuse impact, being negatively related to one and positively related to two performance outcomes. c. Representation among managers is positively related to all three performance outcomes. d. Representation of teachers is negatively related to one of the outcomes.
Donahue, Selden, Ingraham	2000	Extent and nature of unionisation	a. How do major city governments in the United States vary in terms of their human resource management	Authors' model of government management performance/capacity	Government Performance Project (survey) Cities	Descriptive statistics, bivariate and partial correlations	United States 29 (largest) cities (by revenue) (6 561 observations)	1999	a. Higher capacity governments are able to achieve better human resource outcomes. b. More unionised governments and those that lack a senior professional administrative officer generally have lower human resource management capacity.

Reference	Year	Institutional driver	Research question	Theoretical framework (if any)	Data source and sector	Methodology	Country and number of observations	Time frame	Main conclusions
			<p>systems and capacity?</p> <p>b. Is variation in human resource capacity associated with variation in critical environmental contingencies facing city governments?</p> <p>c. Is variation in human resource capacity associated with variation in the outcomes of human resource management systems in the cities?</p> <p>d. Is variation in critical environmental contingencies associated with variation in the outcomes of human resource management systems in the cities?</p> <p>e. What do these findings suggest about the linkage between management capacity and government performance generally?</p>						
Menezes-Filho, Van Reenen	2003	Extent and nature of unionisation	What are the effects of unions on innovation ?	n.a.	<p>Empirical studies of the impact of unions on innovation</p> <p>Establishment, firm and industry level</p>	Literature review (survey of studies)	<p>United States and Europe</p> <p>40 empirical studies of the impact of unions on innovation</p>	1986-2001	<p>a. North American results find consistently strong and negative impacts of unions on research and development.</p> <p>b. European studies (mainly in the United Kingdom) generally do not uncover negative effects of unions on research and development.</p> <p>c. There is no consensus of the effects of unions on the other main measures: technological diffusion, innovation or productivity growth even in the North American studies.</p> <p>d. Unions have a clear positive effect on wages and a clear negative effect on profitability.</p>

GOV/PGC(2007)16/ANN

Reference	Year	Institutional driver	Research question	Theoretical framework (if any)	Data source and sector	Methodology	Country and number of observations	Time frame	Main conclusions
Visser	2000	Extent and nature of unionisation	What are the trends in union membership and union density, bargaining coverage, levels of bargaining, role of governments in bargaining, practices of national social dialogue, works council and bargaining coordination?	n.a.	International Labour Office's World Labour Report, national statistical offices and the DEUS database Public sector	Cross-country comparison	100 countries (25 African, 24 American, 20 Asian and 31 European countries)	1985-1995	a. In all but a few industrialised countries market economies, there unionisation is declining. b. In OECD member countries, union decline most notably affected the private sector. c. The downward trend in unionisation is related to the rise in unemployment during these years and to structural changes in labour market participation and employment. d. Another trend is the introduction of an additional level of bargaining, usually in the firm, articulated within national or – more common – industry level bargaining. e. In all but a few European countries at least two out of three workers in the market sector are covered by a collective agreement.
Aijälä	2001	Attractiveness of the public sector	a. How to enhance the competitiveness of public employers? B. How to solve critical skill shortages?	n.a.	OECD Secretariat (using data from OECD Country Reports) Public sector	Country reports	Austria, Canada, Denmark, Germany, Korea, Italy, Norway, Poland, Portugal, Sweden, and Spain 11 OECD member countries	2000	a. Improving the image of the public sector is one of the most important challenges faced by countries. b. Surveys are a good way to identify critical issues for further development. c. Highlighting the advantages of being a public servant compared to private employment. d. Improving human resource management systems is becoming more and more important and includes ensuring high quality leadership, a professional recruitment system, a fair personnel policy etc. e. Developing pay systems and other incentives may be necessary. f. Putting human resources to full use is one solution to the forthcoming shortage of workforce and critical skills. g. Knowledge management remains a big challenge. h. Regular monitoring and evaluation of strategic actions is a crucial part of the process and is a tool for continuing development and improvement.
Gregory & Borland	1999	Attractiveness of the public sector	Public-private sector wage differentials	Theories of human capital	Journal articles Federal government	Meta study	United States	n.a.	Wage gap is 10 to 20% greater for federal government workers than otherwise comparable private sector workers.
Holzer, Rabin	1987	Attractiveness of the public sector	What are the effects of the sustained assaults on the public service, on the recruitment of public servants?	n.a.	n.a. Public sector	Literature review	United States	1980s	a. Sustained assaults on the public service encourage many of the best and brightest students to pursue careers in the private sector. b. Sustained assaults on the public sector lower the morale of the public service and thus increase attrition. c. Sustained assaults on the public service encourage

Reference	Year	Institutional driver	Research question	Theoretical framework (if any)	Data source and sector	Methodology	Country and number of observations	Time frame	Main conclusions
									elected officials to minimise pay raises for career officials and thereby discourage recruitment and retention of the most able public servants.
Lee	2004	Attractiveness of the public sector	What is the impact of unobserved heterogeneity and selectivity among sectors on the public-private sector wage gap?	Theories of human capital	National Longitudinal Survey of Youth Cohort Federal government	Ordinary least squares regression	United States 12 686 employees		a) For men the wage differential is reduced from 17% to 1% with selectivity correction. b) For women it is reduced from 22% to 4%.
Melly	2005	Attractiveness of the public sector	How large is the public pay gap?	Human capital theories	German Socio-economic Panel Public sector	Quantile regression	Germany 4 770 wage earners	1984-2001	a) Wages are lower in the public sector for men but higher for women. b) Wage premium is highest at the lower end of the wage distribution.
Mueller	2000	Attractiveness of the public sector	Wage differentials between public and private sectors	Theories of human capital	Labour Market Activity Survey Federal, provincial and municipal levels	Fixed-effect pooled cross-sectional regression	Canada 38 360	1988-1990	a) Females in the public sector are paid a wage premium, with federal employees enjoying the highest rents, followed by local and provincial employees. b) Results for males are inconclusive.
Postel-Vinay & Turow	2005	Attractiveness of the public sector	How large is the public wage gap?	Theories of income and employment	British Household Panel Survey, United Kingdom Public sector	Panel data, log-likelihood estimation	United Kingdom 3 791 workers	1996-2002	a) Positive average public premium exists both in income flows and present discounted sum of future income flows. b) Income inequality is lower but more persistent in public sector. c) When taking job mobility into account lifetime public premium disappears for "high-mobility" individuals.
Reichenberg	2002	Attractiveness of the public sector	How can governments both compete successfully for talented applicants and retain high performing employees?	n.a.	OECD Public sector	Review of an OECD study on difficulties in recruiting and retaining civil servants in 11 member countries	Austria, Canada, Denmark, Germany, Korea, Italy, Norway, Poland, Portugal, Sweden, and Spain 11 OECD member countries	2000	If governments are both to compete successfully for talented applicants and retain high performing employees, they need to brand government as an employer of choice that provides challenging work, progressive human resource policies, and opportunities for promotion and career development.

