



National Audit Office

**REPORT BY THE  
COMPTROLLER AND  
AUDITOR GENERAL**

**HC 284  
SESSION 2010–2011**

**14 JULY 2010**

---

# Taking the Measure of Government Performance

Our vision is to help the nation spend wisely.

We apply the unique perspective of public audit to help Parliament and government drive lasting improvement in public services.

---

The National Audit Office scrutinises public spending on behalf of Parliament. The Comptroller and Auditor General, Amyas Morse, is an Officer of the House of Commons. He is the head of the National Audit Office which employs some 900 staff. He and the National Audit Office are totally independent of Government. He certifies the accounts of all Government departments and a wide range of other public sector bodies; and he has statutory authority to report to Parliament on the economy, efficiency and effectiveness with which departments and other bodies have used their resources. Our work leads to savings and other efficiency gains worth many millions of pounds: £890 million in 2009-10.



National Audit Office

# Taking the Measure of Government Performance

---

Ordered by the House of Commons  
to be printed on 12 July 2010

**Report by the Comptroller and Auditor General**

HC 284 Session 2010–2011  
14 July 2010

London: The Stationery Office  
£14.75

This report has been  
prepared under Section 6  
of the National Audit Act  
1983 for presentation to  
the House of Commons  
in accordance with  
Section 9 of the Act.

Amyas Morse  
Comptroller and  
Auditor General

National Audit Office

8 July 2010

Since 2003, the National Audit Office has examined the quality of data systems used to monitor and report progress against the PSA framework. This report takes stock of the PSA framework: we look at its main achievements and areas for improvement, in the light of the fiscal challenges the public sector faces in the coming years.

© National Audit Office 2010

The text of this document may be reproduced free of charge in any format or medium providing that it is reproduced accurately and not in a misleading context.

The material must be acknowledged as National Audit Office copyright and the document title specified. Where third party material has been identified, permission from the respective copyright holder must be sought.

# Contents

Summary **4**

Part One  
Introduction **7**

Part Two  
Robust objectives  
and measures **10**

Part Three  
Using the framework to manage  
and improve performance **15**

Part Four  
Robust data and reporting **19**

Appendix One  
Evolution of the PSA  
Framework since 1998 **23**

Appendix Two  
Summary methodology  
and findings **27**

Appendix Three  
Summary of risks, and  
mitigations of risk, to  
data quality **30**

---

The National Audit Office study team consisted of:

Vicky Davis, Diane French, Daniel Lambauer, Vincent McCarthy and Sarah Pearcey, under the direction of Nick Sloan

This report can be found on the National Audit Office website at [www.nao.org.uk/measuring-government-performance-2010](http://www.nao.org.uk/measuring-government-performance-2010)

For further information about the National Audit Office please contact:

National Audit Office  
Press Office  
157-197 Buckingham Palace Road  
Victoria  
London  
SW1W 9SP

Tel: 020 7798 7400

Email: [enquiries@nao.gsi.gov.uk](mailto:enquiries@nao.gsi.gov.uk)

Website: [www.nao.org.uk](http://www.nao.org.uk)

Twitter: @NAOorguk

# Summary

**1** Measuring Government performance is vitally important. A good framework of measures shows the taxpayer what they are getting for their money. It also enables the Government itself to assess whether it is achieving its key objectives and to learn how to achieve them more effectively and at lower cost.

**2** In 1998, the then Government introduced a framework of Public Service Agreements (PSAs) as the primary means to set its key, top priority objectives and measure performance against them. This was a step-change in the systematic formulation and measurement of Government's objectives and performance. Through PSAs, the Government aimed to 'prioritise its interventions and secure the greatest possible efficiency for every pound of taxpayers' money it spends'<sup>1</sup>.

**3** Departments and the Treasury agreed PSAs as part of the Spending Review process held every two to three years. In return for funding, departments agreed to deliver key outcomes such as reducing child poverty, tackling climate change, and improving healthcare. Since 2007, all these key outcomes have cut across several departments. In 2007, the Government added Departmental Strategic Objectives (DSOs) to the framework, designed to formulate and measure specifically departmental objectives. Each PSA and DSO was measured using a small number of indicators.

**4** Since 2003, the National Audit Office has examined the quality of data systems used to monitor and report progress against the PSA framework. This report takes stock of the PSA framework: we look at its main achievements and areas for improvement, in the light of the fiscal challenges the public sector faces in the coming years. Those challenges will place a premium on the ability to define top priority objectives, and allocate resources to the most cost-effective responses. We have identified, from our work assessing the data systems supporting the PSA framework and other audit work, four key issues relevant to this situation:

- Setting clear objectives which capture the outcomes that matter most to the Government.
- Distinguishing the Government's contribution to progress from other factors which the Government did not influence.
- Providing information that highlights the cost of progress and how to improve cost-effectiveness.
- Reporting reliable, easy to interpret progress information.

<sup>1</sup> *Working Together – Public Services on your side*, HM Government, 2009, p.13.

## Clear objectives and suitable indicators

**5** Over the series of Spending Reviews, PSAs became progressively more focused on key priorities, and better described. Under CSR 2007, each PSA included a Measurement Annex specifying how indicators would be measured and a Delivery Agreement setting out who would deliver the PSA and how. These helped to make the intention of the PSA clearer. In addition, the use of indicators to assess progress against each PSA better reflected the complexity of the outcomes sought. However, problems remained. For 9 per cent of PSA indicators, the data system did not measure an important part of the indicator. For 36 per cent of PSA indicators, we found the basis for claiming success was unclear or contestable. Such lack of clarity hinders not only accountability, but also the focusing of scarce resources on only the most pressing performance gaps.

## Government contribution to outcomes

**6** PSA indicators did not track the result of Government activity alone: for example, health outcomes may be the result of improved health services or reflect the influence of government health campaigns but may also be the effect of life-style choices over which the Government had limited influence. However, the PSA indicators generally did not make this distinction clear, rarely measuring the effect of what the Government did. There was no requirement to identify and report Government delivered or funded outputs that contribute to outcomes. As a result, movements in PSA indicators have not been a sufficient basis for assessing Government performance. This weakness hindered accountability as well as performance management, and meant there was no clear business model or set of assumptions to refine in light of experience.

## Assessing cost-effectiveness

**7** Financial information has been poorly linked with the PSA indicators. Annual departmental expenditure has been apportioned by DSO, but this apportionment is not broken down by the indicators used to report progress, and so is not readily usable for deeper analysis of the cost of progress. Separate value for money targets have been set in successive Spending Reviews, but these targets have centred on cost cuts and transfers, and have not been closely linked to PSA or DSO programme efficiency. This situation hinders informed strategic decision-making<sup>2</sup> because it is not clear what allocation of available resources could achieve the best overall results.

<sup>2</sup> National Audit Office, *Performance Frameworks and Board Reporting*, 2009.

## Transparent and reliable reporting

**8** Departments publish a lot of information on progress against PSAs and DSOs. The quality of data systems and of disclosures about measurement policies has risen. We assessed that 58 per cent of CSR 2007 PSA data systems were fit for purpose, up from 30 per cent for SR 2002 data systems. At the same time, a third of CSR 2007 systems needed strengthening either to improve controls or transparency. Ten per cent of systems were not fit for purpose – mainly because of mis-matches between indicator and data system, or because systems originally planned have proven difficult to operate. To aid decision-making, these top-level performance information systems needed to be more reliable, and the associated performance reports easier to interpret by external audiences.

## Overall conclusion and recommendations

**9** The PSA framework provided a clear focus on the objectives that mattered for Government, and was gradually improved over the years. Published Delivery Agreements and associated Measurement Annexes made it easier to understand the contributions expected from the various delivery partners and how they intended to assess progress. The clarity and presentation of PSA monitoring information also improved making it easier to understand the significance of performance issues arising. Weaknesses in the operation and design of the framework, however, mean that accountability has not been as strong as it should have been – particularly in the framework's ability to inform judgements of cost-effectiveness.

**10** Performance measurement arrangements under the new Government will need to be tailored to its objectives and the delivery models it chooses to operate. Lessons from the strengths and weaknesses of the PSA system that it should consider in any new measurement systems include the importance of:

- clearly and unambiguously expressed objectives, indicators and success criteria;
- an explicit published 'business model' linking inputs (the resources used) through outputs (goods and services delivered) to outcomes (the impact on society), used as a basis for measurement and reporting. Such a 'clear line of sight' between inputs and outcomes should help interpret performance, and to promote lesson learning and the refinement of the model over time;
- firm integration of performance measurement into public bodies' management systems, such as budgeting, resource planning and allocation, programme evaluation and performance review processes – so that lower-level management systems feed into and support top-level objectives; and
- departmental information strategies that define the range of contextual and performance information needed to assess progress and value for money. The strategy should state data quality standards, and set up arrangements to provide assurance that those standards are met. This will enable Government to produce clearer and more robust performance information.



# Part One

## Introduction

### Background

**1.1** Measuring Government performance is vitally important for accountability and performance management. Such measurement can show the taxpayer what they are getting for their money. It also enables the Government to assess whether it is achieving its key objectives and to learn how to achieve them more effectively and at less cost. Research in the private sector suggests that effective use of measurement frameworks can result in 10-20 per cent better performance against investment.<sup>3</sup>

**1.2** In 1998, the then Government introduced a framework of Public Service Agreements (PSAs) as the primary means to set its key, top priority objectives and measure performance against them. This was a step-change in the systematic formulation and measurement of Government's objectives and performance. Through PSAs, the Government aimed to 'prioritise its interventions and secure the greatest possible efficiency for every pound of taxpayers' money it spends'.<sup>4</sup>

**1.3** PSAs were agreements that departments made with the Treasury as part of the Spending Review process, held every two to three years. In return for funding, departments agreed to deliver key outcomes such as reducing child poverty, tackling climate change, and improving healthcare. Since 2007, all these key outcomes cut across several departments, so the Government added Departmental Strategic Objectives (DSOs) to the framework: these were designed to formulate and measure specifically departmental objectives. Since 2007, each PSA and DSO was measured using a small basket of indicators, typically between four to six. Until recently, there were 30 PSAs supported by 152 indicators. However, indicator four for PSA 12 used two distinct data systems, one managed by the then Department for Children, Schools and Families and one managed by the Department of Health. **Figure 1** overleaf defines and illustrates the key parts of this system. Appendix One provides a fuller description.

<sup>3</sup> *Public Sector Performance Management – Discussion Draft*, Oracle (Public Sector Performance Management Forum) 2009, p.42.

<sup>4</sup> *Working Together – Public Services on your side*, HM Government, 2009, p.13.

---

## Figure 1

### Definition of PSAs and DSOs and associated terms

**Public Service Agreement (PSA)** – a three-year agreement between departments and Treasury set during the Spending Review process and setting the objectives for the priority areas of the Government's work. Since the Comprehensive Spending Review 2007, each PSA has set cross-cutting objectives that involve working across more than one department or agency.

- For example, PSA 12 was to 'Improve the health and well-being of young people'.

**Departmental Strategic Objective (DSO)** – introduced in CSR 2007, these were specific to each department and set objectives covering the work of the department as opposed to the wider, cross-cutting priorities of PSAs.

- For example, DSO 3 for the then Department for Children, Schools and Families was 'Achieve world class standards in education'.

**Indicators** – each PSA and DSO since CSR 2007 was measured using a set of indicators – usually between four or six. Departments measured directly the indicators, not the PSAs and DSOs. By measuring the indicators, they should, however, indirectly have measured the PSAs and DSOs because the indicators should have captured the key aspects of the latter.

- For example, one of the indicators used to measure PSA 12 (see under **Public Service Agreement** above) was the level of childhood obesity, with a target to reduce the proportion of overweight and obese children to 2000 levels by 2020.

**Spending Review** – set three-year spending plans for Government and, through the PSA, define the key improvements the public can expect from these resources.

*Source: National Audit Office*

---

## The National Audit Office report

**1.4** Since 2003, the National Audit Office has, with the support of both Parliament and Government, validated the quality of the data systems used to monitor and report progress against PSA and, latterly, DSO targets and indicators. Appendix Two describes the methodology for our work on data systems validation and provides a breakdown by department of the results of this work for the latest Spending Review, CSR 2007.

**1.5** Building on our validation work, this report takes stock of the PSA framework under the previous Government. It also draws on National Audit Office audits of Government accounts and examinations of the Value for Money of Government programmes. We look at the main achievements and areas for improvement of the PSA/DSO framework, doing so against the background of the fiscal challenges the public sector faces in the coming years. Those challenges will place a premium on the ability to define top priority objectives, and allocate resources to the most cost-effective responses whatever performance framework is introduced.

**1.6** In our assessment of the PSA Framework, we have used the key principles for a performance measurement framework shown at **Figure 2**. They are the product of a joint analysis by Treasury, the Cabinet Office, the National Audit Office, the Audit Commission, and the Office for National Statistics. Having applied these principles, four factors emerged as crucial for effective accountability and performance management. They were the need for:

- clear objectives that capture the outcomes that matter most to the Government;
- measurement of how far outcomes are attributable to the Government's performance rather than other factors which the Government did not influence;
- information which highlights what performance cost and how to improve cost-effectiveness; and
- reliable, easy-to-interpret progress reporting.

---

### **Figure 2**

The National Audit Office, Treasury, Cabinet Office, Audit Commission and Office for National Statistics have stated that a performance framework should be:

**Focused** on the organisation's aims and objectives;

**Appropriate** to, and useful for, the stakeholders who are likely to use it;

**Balanced**, giving a picture of what the organisation is doing, covering all significant areas of work;

**Robust** in order to withstand organisational changes or individuals leaving;

**Integrated** into the organisation, being part of the business planning and management processes; and

**Cost Effective**, balancing the benefits of the information against the costs.

*Source: Choosing the right FABRIC, National Audit Office et al, 2003*

---

# Part Two

## Robust objectives and measures

### Introduction

**2.1** Objectives, indicators and associated data systems need to be clear, consistent with each other, and focused on the outcomes an organisation is trying to achieve. Unclear or conflicting objectives, measures and systems distort the focus of performance measurement and can lead an organisation to allocate resources inefficiently or engage in activities that do not provide Value for Money.<sup>5</sup> In this Part of the report we examine:

- How clearly specified the PSAs and DSOs were.
- How well matched the indicators which underlie and measure the PSAs and DSOs were to the PSAs and DSOs.
- Whether there were clear success criteria for the indicators.
- How well matched the data systems used to measure the indicators were to the indicators.

### Clarity of objectives

**2.2** The headline aims of PSAs were broad statements of purpose which, taken in isolation, could often be vague and open to interpretation. For example, PSA 17 from CSR 2007, led by the Department for Work and Pensions, was 'to tackle poverty and promote greater independence and well-being in later life'. However, these aims were underpinned by a series of subsidiary measures and explanations which generally added clarification and specificity. In previous Spending Reviews, these consisted of Objectives and Performance Targets. CSR 2007 improved on this process and supported the overall aim for each PSA with detailed explanations of the Vision behind the PSA, how the PSA would be delivered, the indicators that would be used to assess progress, and the data sources and analysis which would support the indicator. Where these mechanisms were well-implemented the result was a clear and detailed understanding of the PSA.

<sup>5</sup> National Audit Office, *Good Government*, 2008, p.12.

**2.3** For example, for PSA 17 the Delivery Agreement clarified that ‘independence and well-being in later life’ would be assessed according to five key criteria, arrived at after the conduct of research and after discussion with older people. The criteria included employment and pensioner poverty, and were backed up with a key indicator for each criterion.

**2.4** Despite these mechanisms, problems with lack of clarity persisted in some cases. We identified three types of problem.

- First, the system described above, although often helpful, was not always applied with sufficient rigour. The headline description of PSA 14, for example – to ‘Increase the number of children and young people on the path to success’ – depended on what one meant by ‘the path to success’. The Delivery Agreement sought to spell out what this meant by describing five sub-outcomes, but there was no straightforward read-across from these to the specified indicators used to measure the PSA – one of which was still under development when the CSR was published. This lack of clarity made it more difficult to judge progress against the outcomes sought.
- Second, it was inherently difficult to capture performance against some of Government’s core objectives in clearly measurable terms in a PSA. For example, PSA 30, to ‘Reduce the impact of conflict through enhanced UK and international efforts’ (led by the Foreign and Commonwealth Office) expressed an important aim of Government, but one where it was very difficult to measure the UK’s or others’ contribution to reducing the impact of conflict. As a result of this difficulty, the indicators for this PSA sought to measure the reduction in the impact of conflict and did so robustly (we rated all the supporting data systems fit for purpose), but they were not able to measure how far this was the result of UK or international efforts.
- Third, the measurement mechanisms applied to PSAs were not fully applied to DSOs. During the preparation for CSR 2007, PSAs were developed as a priority, while work on the details of DSO indicators was finalised later. In many cases departments did not publish DSOs until March 2008, just prior to the reporting period. DSOs were supported by general departmental business planning – with no specific requirement for clarification of performance measurement aspects. We found the DSOs to be substantially less well-specified than PSAs, although in principle they represented a useful mechanism to capture the wider business of a department.

## Consistency of indicator sets with PSAs and DSOs

**2.5** PSAs were measured through a small set of indicators that were meant to capture the main thrust of the PSA. So, for example, PSA 19 (to 'Ensure better care for all') is measured by eight indicators, such as:

- Patient-reported experience of GP access.
- Healthcare associated infection rates.

**2.6** The Treasury did not intend that the indicators should provide exhaustive coverage of the PSA objectives. However, it did envisage that coverage should be reasonably comprehensive – clearly necessary if progress towards the PSA objective was to be fairly assessed. As part of our validation work, we reviewed the set of indicators for each PSA and DSO to judge whether they offered a reasonable overview of progress. Our findings were that:

- For most of the PSAs (22 out of 29, or 76 per cent), we concluded they did.
- However, for seven of the PSAs (24 per cent), we concluded that the indicator set needed to be strengthened to provide a reasonable overview of progress against the PSA without material omissions (**Figure 3**).

## Clear success criteria

**2.7** Until CSR 2007, PSA success was defined by reference to targets. At their simplest, these targets specified a discrete, quantified measure of success – for example (from CSR 1998), 'by 31 March 2002 ... reduce the backlog of council house repairs by at least 250,000'.<sup>6</sup> But often the targets were less precise, especially when trying to capture complicated social outcomes. Since CSR 1998, there was, however, a move away from specific targets towards the use of other success criteria (see **Figure 4**). In CSR 2007, the Treasury explicitly directed a move away from setting a specific target unless a department was confident it offered the best approach to driving delivery.<sup>7</sup> However, the Treasury guidance also asked Departments to define how 'success' would be measured.

---

### Figure 3

Example of an indicator set which needed to be strengthened to provide a reasonable overview of progress against the PSA

**PSA 2: Improve the skills of the population, on the way to ensuring a world-class skills base by 2020, led by the Department for Business, Innovation and Skills.**

The indicators selected to measure progress were consistent with the scope of the PSA and afforded a reasonable view of progress, but no formal definition of a world class skills base was given and there was no indicator among the indicator set that measured international ranking.

*Source: National Audit Office analysis*

---

<sup>6</sup> HM Treasury, *Public Services for the Future*, Cm 4181, December 1998, p.27.

<sup>7</sup> HM Treasury, *Guidance on developing PSAs and DSOs*, 2007 – unpublished.

**Figure 4**

## Reducing numbers of specific targets

Comprehensive Spending Review (CSR)/Spending Review (SR)	Total number of targets/indicators	Number of specific targets	Specific targets as percentage of total targets/indicators (%)
CSR 1998 (1999-2002)	560	305	55
SR 2000 (2001-2004)	160	84	53
SR 2002 (2003-2006)	127	71	56
SR 2004 (2005-2008)	106	56	53
CSR 2007 (2008-2011)	152	40	26

**NOTES**

- 1 PSAs were supported by indicators in CSR 2007 and by targets in the previous CSR and SRs.
- 2 The Treasury defined a 'specific target' as a minimum or maximum level an indicator has to fall or rise to within a specified time frame.
- 3 In CSR 2007 there were 152 indicators but indicator four for PSA 12 used two distinct data systems.

Source: National Audit Office analysis of published Treasury documents

**2.8** The move away from targets led to greater emphasis on different ways of measuring success against PSA objectives (**Figure 5** overleaf). This move prompted useful further thought about the levers and incentives that could be used to promote better performance. It also avoided pressures to set poorly informed outcome targets, where research was insufficient to identify a stretching but achievable performance level, or where Government influence over outcomes was too small to make a target meaningful. However, it also made more difficult the task of defining what constituted success. Our work on validation suggests departments did not always successfully meet this challenge. For 36 per cent of all CSR 2007 PSA indicators, the basis for claiming success was unclear or contestable. That in turn caused problems in interpreting performance against a PSA as a whole, where there were several relevant indicators.

**Matching data systems to indicators**

**2.9** The indicators measured the PSAs and DSOs and were themselves supported by data systems. The National Audit Office for its validation work defined a data system as 'the complete process by which all performance data is collected, analysed and reported for an indicator'. For the PSA Framework to operate successfully, it was clearly necessary that the data systems matched the indicators they were meant to support. However, in our CSR 2007 work, we found that there were mis-matches for a significant number of indicators: in 41 per cent of cases the data system was not wholly appropriate to the indicator for data monitoring purposes, and in 9 per cent of cases the data system did not measure all elements of the indicator (see **Figure 6** overleaf).

**Figure 5**

## Ways of measuring success other than using targets

<b>Overall objective aimed at (PSA)</b>	<b>PSA 1:</b> Raise the productivity of the UK economy	<b>PSA 22:</b> Deliver a successful Olympic games and Paralympic games with a sustainable legacy ...	<b>PSA 14:</b> Increase the number of children and young people on the path to success
<b>Way of measuring success</b>	Benchmarking/Rankings	Milestones	Direction of travel
<b>Success measure (PSA indicator)</b>	<b>Indicator 2:</b> International comparisons of labour productivity (per worker, per hour worked)	<b>Indicator 1:</b> Meet critical milestones for venues and infrastructure up to 2011 within budget and applying effective change control	<b>Indicator 4:</b> Reduce the under-18 conception rate

Source: National Audit Office analysis

**Figure 6**

## Example of a data system that did not wholly measure significant aspects of the indicator (taken from Ministry Of Justice – PSA 24, Indicator 1)

The data systems under the indicator to 'Increase the efficiency and effectiveness of the Criminal Justice System (CJS) in bringing offences to justice' tracked budgeted, not actual spend, and did not compare costs to the number of offences brought to justice. The data systems therefore did not wholly support measurement of efficiency.

Source: National Audit Office analysis



# Part Three

## Using the framework to manage and improve performance

### Introduction

**3.1** Clear objectives and indicators are prerequisites for an effective Government performance framework, but they are not enough. If they are to be used to monitor and improve Government performance, they must also measure:

- what the effect is of Government action – the strength of the causal links between Government action and desired outcomes;
- the cost of progress against performance objectives; and
- the drivers and levers of Government performance.

### Measuring the effect of Government action

**3.2** PSAs aimed for change in social or economic conditions – changes which are in principle influenced by factors external to Government, as well as by Government programmes. The extent to which Government action was likely to be the prime force behind any movement in a given PSA indicator varied widely: **Figure 7** gives an illustration of the range.

### Figure 7

Levels of Government influence varied

#### Uncertain how far attributable to UK Government action

PSA 27 Indicator 1: Global CO<sub>2</sub> emissions to 2050

#### Government one of multiple influencers

PSA 16 Indicator 5: Proportion of offenders under probation supervision in employment at the end of their order or licence

#### Clear line-of-sight to Government activity

PSA 22 Indicator 1: Olympics – Meet critical milestones for venues and infrastructure up to 2011 within budget and applying effective change control

Source: National Audit Office analysis

**3.3** Research in the private sector has shown that businesses that not only have a clear model of how business actions affect results, but also validate (and amend as necessary) that model by reference to actual results, are more profitable.<sup>8</sup> By contrast, while departments can map their activities to intended outcomes, few have models that can quantify the contribution or cost of each activity. Departments often face technical difficulties in constructing such models because of lack of a clear line-of-sight between their actions and outcomes.

**3.4** PSA 27 Indicator 1 in Figure 7, which measured 'Global CO<sub>2</sub> emissions to 2050', illustrates this point. The Measurement Annex for this indicator specified that the data used will be those produced by the International Energy Agency for CO<sub>2</sub> emissions from fuel combustion. These were used as a proxy for total global CO<sub>2</sub> emissions. The indicator measured the most recent projections to 2050 compared to a baseline calculated in 2006 of what emission would be in 2050 on the basis of policies then adopted by governments across the globe. However, the indicator did not measure the contribution of UK Government to this outcome. As the National Audit Office's validation report on this indicator concluded: 'The indicator is a useful measure of global performance in reducing carbon emissions. However, it is questionable how much influence [departmental] policies can have on this indicator.' To help address this problem, the Department concerned had a DSO indicator to measure progress in international negotiations on climate change, an area policies can more effectively influence.

**3.5** This problem was not just evident in the measurement of PSAs and DSOs. Our Value for Money work also provides examples where departments have not measured the benefits and impacts their programmes generate, with a consequent impairment of the capacity to monitor and manage these programmes (**Figure 8**).

---

### **Figure 8** Example from our Value for Money study programme

#### **Department of Health – NHS Pay Modernisation in England: Agenda for Change**

'Agenda for Change was expected to achieve specific and measurable benefits, but there has been no formal assessment of the programme by the Department or by individual trusts. Regular measurement of the productivity, efficiency and quality improvements attributable to Agenda for Change represents an important lever to bring about new and innovative ways of working and performance improvement'.

(Comptroller & Auditor General, Department of Health, *NHS Pay Modernisation in England*, Session 2008-2009, HC 125, National Audit Office, January 2009)

*Source: National Audit Office analysis*

---

8 Christopher D Ittner and David F Larcker, *Coming Up Short on Nonfinancial Performance Measurement*, Harvard Business Review, November 2003, p.91.

## Measuring the cost of Government action

**3.6** PSAs were designed to promote accountability for spend. PSAs, and later DSOs, were announced as part of each spending review but there was no mechanical link between the budgets set and performance sought. In fact, in CSR 2007 some departmental budgets were settled before the PSA set was announced, although development of PSAs was occurring in parallel with negotiations. Work on DSOs continued well after that.

**3.7** Since the start of CSR 2007, fiscal pressures have highlighted the need to be able to cost delivery of PSAs and DSOs. Government has not, however, developed an accountancy approach to link expenditure with outcomes (**Figure 9** overleaf). In general, there is a lag between outputs being delivered and outcomes achieved – a lag of several years in areas such as education for example. The Treasury designated DSOs as the basis for segmentation of total expenditure in schedule five of a department's published accounts, but this approach merely split annual expenditure by ultimate objective: there was not necessarily any direct relationship between a given year's expenditure under a DSO, and the outcomes being reported in the same year for that DSO. Outputs, more readily costed, had little prominence in the PSA framework: only 15 per cent of PSA indicators measure outputs. There was no requirement to publicly report on outputs (or their costs). Treasury issued guidance for CSR 2007 that, in reporting performance to their boards, departments should link outputs to objectives and allocate costs to outputs. Treasury considered that take-up of the guidance was a matter for departments and so did not enforce its implementation.

**3.8** The goal was for DSOs to enable 'rigorous financial management' by defining fully measurable outcomes, related directly to outputs and expenditure, and covering the full scope of each department's business, for reporting to departmental boards.<sup>9</sup> It was clear that there was further work to be done if DSOs were to achieve that goal.

<sup>9</sup> HM Treasury, *Guidance on developing PSAs and DSOs, 2007* – unpublished.

---

**Figure 9**

## The National Audit Office, and others, have commented on inadequate links between costs and performance

'Departments could do more to link improved financial management information to information about the quality of public services being delivered. If departments know exactly what has been spent on what programmes and to what effect, they will be better able to assess whether they are achieving value for money and engage more intelligently with delivery partners. Most departments are not sufficiently well placed to do this as they have made limited progress in integrating financial and operational performance information. More than half of departments still report financial and operational performance information to the Board separately. Non-Executive Directors in our workshops expressed frustration that it is not routine for key decisions to be based on a comprehensive assessment of both financial management information and data on service performance'.

(Comptroller & Auditor General, *Managing financial resources to deliver better public services*, Session 2007-2008, HC 240, National Audit Office, February 2008)

'The Department does not fully understand the linkages between costs and performance as measured by its Public Service Agreements and Departmental Strategic Objectives. While accepting the Department's reluctance to invest in a major new costing system, it should consider how it might better develop the relationship between funding and performance measures, so that it improves its understanding of the impact of funding decisions on performance and outcomes'.

(Comptroller & Auditor General, Department for Communities and Local Government, *Financial Management in the Department for Communities and Local Government*, Session 2008-2009, HC 293, National Audit Office, July 2009)

**'Doing the Business – Managing Performance in the Public Sector an external perspective', 2008, HM Government:**

'Another fundamental shortcoming is that financial and non-financial information are not well aligned and there is little understanding of how inputs link to key activities, outputs and, most importantly, outcomes.'

and

'Only once this sort of alignment [between financial and non-financial information – linking inputs to key activities] is in place can the type of informed decisions about resource allocation and priorities that will be required for CSR07 be possible'.

'This is not just an esoteric accounting issue. Not having and using this information represents a failure to understand the basic relationship between what policy objectives are being sought (outcomes), what activities, projects and programmes supporting those objectives are meant to deliver (outputs) and the related cost (input) per standard unit of quantity and quality of product or service being provided. Without this information, it is conceptually and practically hazardous to try to assess value for money – i.e. the cost effectiveness of a given policy.'

*Source: National Audit Office analysis and references shown*

---

# Part Four

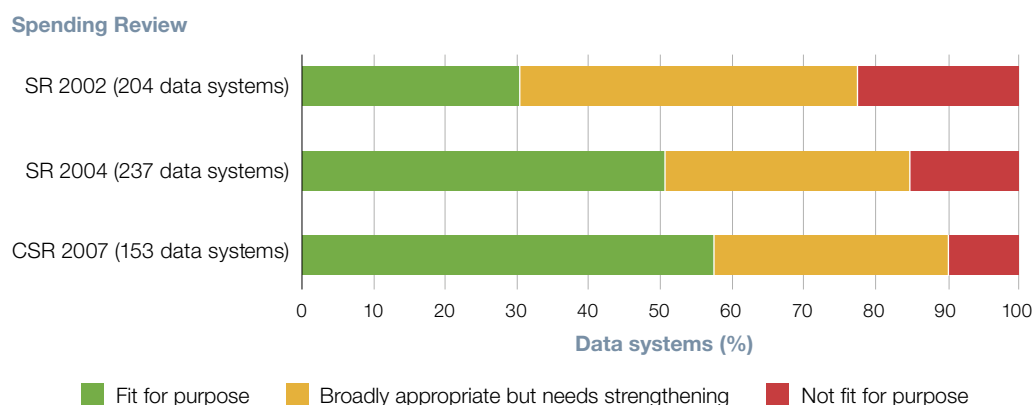
## Robust data and reporting

**4.1** Producing and reporting reliable data are essential elements in accountability and performance management. A performance framework, however well-designed, can only be as good as the base data it is using and how well those data are reported. This Part reviews the reliability of the data systems used to report progress against PSAs and DSOs, and the transparency of that reporting.

### Reliability of PSA and DSO data systems

**4.2** **Figure 10** shows the results of National Audit Office's validation of PSA data systems since Spending Review 2002. Less than a third of SR 2002 systems were fit for purpose, but this rose to more than half in CSR 2007: a clearly substantial improvement. However, 10 per cent of systems remained not fit for purpose and 33 per cent had weaknesses that prevented them being classed as fully fit for purpose. Examples of weaknesses included the need to strengthen controls to mitigate identified risks to data quality, or inadequate disclosure of measurement policies and limitations.

**Figure 10**  
Overall results by Spending Review period



#### NOTES

- 1 Previous Validation Compendiums included a 'White' (not yet established) rating for PSA indicators. These have been included under the 'Red' (not fit for purpose) rating for comparability with CSR 2007, for which the Treasury had required data systems to function from the outset.
- 2 See paragraph 1.3 regarding number of data systems for CSR 2007.

Source: National Audit Office analysis

**4.3** **Figure 11** below shows the situation for the National Audit Office's validation of DSO data systems. DSOs were only introduced in CSR 2007, of course. The situation is appreciably less favourable than for PSAs. Less than half of DSO systems were fit for purpose, and 17 per cent were actually rated not fit for purpose.

**4.4** These findings accord with the results from our Value for Money work. Since 2001, 20 per cent of Value for Money recommendations have related to the inadequacy of performance information.

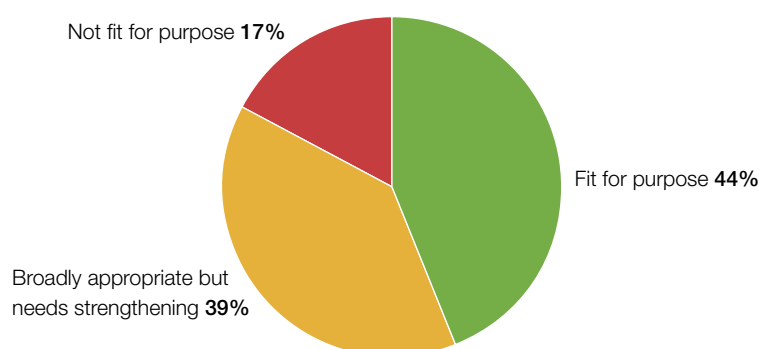
### Time-lags and frequency of data collection

**4.5** From our work on CSR 2007, we found that:

- At least 37 per cent of all PSA indicators had a time-lag of greater than six months. At least 15 per cent had a time-lag of over 12 months.
- At least 59 per cent of all PSA indicators were updated at intervals of greater than six months. At least 7 per cent were updated at intervals of greater than 12 months.

**4.6** The significance of these findings depends on what the data were being used for. If the data were being used for accountability purposes, for external audiences, then relatively infrequent collection (such as once a year) and time-lags of a few months may be acceptable, if the resulting information is reliable. However, where the data were being used for managing performance, more frequent collection of up-to-date data may be at a premium – even at the cost of a certain degree of error or bias: expert internal audiences can judge the significance of any such limitations. Lengthy time-lags and infrequent updating, however, limit the value of information for either purpose.

**Figure 11**  
Summary of validation conclusions for DSO data systems



**NOTE**

1 The chart above is for 547 data systems.

Source: National Audit Office analysis

## Transparent reporting

**4.7** Government now publishes a lot of progress information relating to its key objectives, and under CSR 2007, clearer statements of measurement policies and practices. We found, however, some problems with reporting in our work on CSR 2007. For 20 per cent of PSA indicators, we found that departments did not adequately report limitations to measurement or needed to provide more contextual information to assist the reader to understand performance.

**4.8** Since CSR 2007, the Treasury has required departments to publish actual data alongside performance narratives and assessments, but there are no accepted professional standards for reporting departmental performance, unlike financial reporting.

## Scope for improving data quality

**4.9** Government has taken a number of actions to improve data quality, but our validation work has shown scope to get more value from these actions through wider or more rigorous implementation. The paragraphs below describe three areas where further value could be obtained.

### Transferring lessons between different data systems

**4.10** A consistent finding from our validation work has been that data quality tends to improve over time in data systems used from one Spending Review to the next, but the same improvements are not made for data systems which are being put into operation for the first time. While the precise expression of political priorities may change between Spending Reviews, the core business of many departments is much more stable. If due diligence was paid to the core data systems and measurement within each department – for example, the equivalent of DSOs, or at the level of output measurement – then it would be easier to manage the changing priorities.

### More rigorous implementation of initiatives to improve data quality

**4.11** Central initiatives to improve data quality have secured some improvements, but there is scope to secure greater impact from them. For example:

- **Guidance on good practice** – Under CSR 2007, the Treasury issued comprehensive guidance on the development of indicators. Departments did not consistently apply the guidance and the Treasury did not enforce its application.
- **Data Quality Officers** – The Treasury introduced a requirement for designated senior leads responsible for the quality of data, separate from colleagues responsible for performance success. In practice, the degree to which relevant posts have been filled has varied, as has the level of authority and support given to the post.

- **Challenge panels at the point of agreeing PSAs** – The Treasury invited selected stakeholders to challenge the proposed sets of PSA indicators and draft Delivery Agreement prior to sign-off. In practice panels focused mainly on the substance of the indicators and Agreements, not on the more technical aspects of measurement.

### Wider use of existing good practice

**4.12** We have found a number of examples of good practice in individual departments that suggest further scope for improvement if adopted more widely. **Figure 12** sets out some of these examples.

**4.13** Appendix Three provides a more comprehensive list of risks and mitigations to data quality.

---

## Figure 12

### Good Practice in specific departments

#### HM Treasury – Risk management processes for data quality

‘The Department has a Risk Improvement Manager, and a branch who lead on the coordination of departmental risk management, ensuring that the Treasury Board is focusing on the key risks to Treasury business. Day-to-day risk management was delegated to Directors, who were responsible for the delivery and management of individual DSO outcomes. Reporting on the key risks against these DSO outcomes formed an integral part of the regular performance reports which are considered by the Treasury Board, and which also provide an escalation route for those risks.’

This is a good practice, in our view, because having a process to identify and offset risk to data quality makes it significantly more likely data will be robust.

#### Department for Work and Pensions – Clear responsibilities for data quality separate from delivery

‘The Department has a separate Information and Analysis Directorate, which is responsible for the Department’s overall strategy on data quality and statistical sampling as well as providing information and training on compliance with the National Statistics framework and good practice for data quality in general to its analysts.’

This is a good practice, in our view, because separating responsibility for data quality from responsibility for delivery avoids a conflict of interest – those delivering the indicator might have an incentive to require less rigorous data quality.

#### Foreign and Commonwealth Office – Procedures for managing qualitative data

**PSA 30 Indicator 3** aims at ‘More effective international institutions, better able to prevent manage and resolve conflict and build peace.’

The Foreign and Commonwealth Office used to measure this indicator by asking the views of its own staff in foreign posts. Following a recommendation from the National Audit Office, the Foreign and Commonwealth Office now moderates these views via challenge panels, which include an external expert and representatives from other departments – the Ministry of Defence or the Department for International Development.

This is a good practice, in our view, because it introduces an element of external, impartial scrutiny and expert challenge, thereby improving the credibility and reliability of the performance reported.

*Source: National Audit Office analysis*

---



# Appendix One

## Evolution of the PSA Framework since 1998

**1** In 1998, the Treasury published a Comprehensive Spending Review, which reviewed Government spending priorities and indicated departmental budgets for a three-year period. It introduced Public Service Agreements (PSAs) to secure accountability not only for spending but for achievements, and to promote public sector reform and performance improvement.

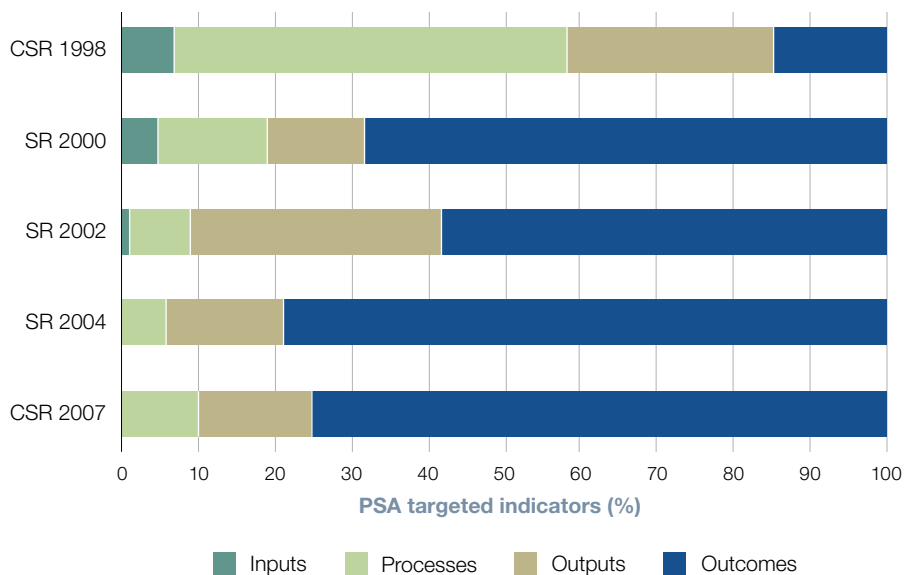
**2** Since 1998 the framework of PSAs evolved through a series of spending reviews, but the twin purposes – of accountability and performance improvement – remained. The latest iteration, under the Comprehensive Spending Review 2007 (CSR 2007), combined 30 cross-cutting priorities at PSA level with Departmental Strategic Objectives (DSOs) for each department. DSOs represented the wider span of departmental business and formed the ‘top-line’ of each department’s business plan.

**3** Since its introduction in 1998 the performance reporting framework in central government evolved in the following ways.

- The framework focused more on outcomes than outputs or other measures (**Figure 13** overleaf).
- The framework also increasingly included joint targets and measures of activity undertaken across departmental boundaries (**Figure 14** overleaf). Under CSR 2007 all PSAs were cross-cutting, though each had a lead Department for accountability purposes.
- The framework tended to focus on fewer key priorities, although there was an upward movement in CSR 2007 (see **Figure 15** on page 25). We regard this as on the whole a positive development because of the way it enabled Government to prioritise and focus effort.
- It moved away from specific targets, that is, targets with a quantitative aim, and towards other success measures, such as whether movement is in the right direction (**Figure 15**). On the whole, we regard this as a positive development because it led to a more sophisticated interpretation of performance outturns and reduced perverse incentives.

**Figure 13**  
Move to outcomes

Spending Review



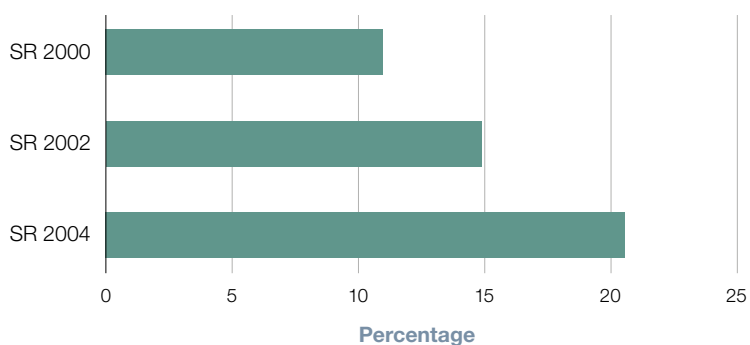
**NOTE**

The figure shows that the proportion of PSA targets/indicators that are outcome measures has increased between CSR 1998 and CSR 2007.

Source: National Audit Office analysis

**Figure 14**  
Move to cross-cutting priorities up to SR 2004

Percentage of PSAs which are shared



**NOTE**

1 For CSR 2007 all PSAs are cross-cutting.

Source: National Audit Office analysis

**Figure 15**

Reducing numbers of specific targets

Comprehensive Spending Review (CSR)/Spending Review (SR)	Total number of targets/indicators	Number of specific targets	Specific targets as percentage of total targets/indicators (%)
CSR 1998 (1999-2002)	560	305	55
SR 2000 (2001-2004)	160	84	53
SR 2002 (2003-2006)	127	71	56
SR 2004 (2005-2008)	106	56	53
CSR 2007 (2008-2011)	152	40	26

**NOTES**

- 1 PSAs were supported by indicators in CSR 2007 and by targets in the previous CSR and SRs.
- 2 The Treasury defined a 'specific target' as a minimum or maximum level an indicator has to fall or rise to within a specified time frame.
- 3 In CSR07 there were 152 indicators but indicator four for PSA12 used two distinct data systems.

Source: National Audit Office analysis of published Treasury documents

**4** The CSR 2007 performance framework that resulted from this evolution consisted of the following elements:

- a set of 30 Public Service Agreements (PSAs) (see Figure 1), containing 152 indicators and articulating the Government's highest priority outcomes for the CSR 2007 period and spanning departmental boundaries;
- a single published Delivery Agreement for each PSA, detailing actions being taken across the public sector in order to achieve the desired policy outcome, including a lead department for each PSA;
- a small basket of national, outcome-focused indicators to support each PSA (see Figure 1), with nationally-set targets reserved for a small subset of PSA indicators allowing for more local target setting;
- a Measurement Annex for each indicator, explaining calculations and data to be used;
- PSA delivery boards with senior representation from each key delivery department to ensure cross-government delivery;

- new Cabinet Committees to drive performance on cross-government PSAs by regularly monitoring progress and holding departments and programmes to account;
- each department publishing a set of Departmental Strategic Objectives (DSOs) covering the wider span of departmental business, as well as supporting delivery of the PSAs (see Figure 1); and
- each DSO underpinned by a small number of indicators in the same way as for PSAs.

# Appendix Two

## Summary methodology and findings

### Report methodology

- 1 The report draws on the following sources and methodologies:
  - Validation of data systems underpinning PSAs and DSOs, published in regular compendium reports and, specifically, findings under CSR 2007.
  - Analysis of recommendations in National Audit Office Value for Money reports between 2001 and 2009.
  - Findings from relevant Value for Money reports and wider work within the National Audit Office.
  - A selection of relevant literature and reports on public sector performance management.

### The National Audit Office's approach to validation of data systems

- 2 Our validation approach is risk-based, using good practice principles for data systems agreed by HM Treasury and other central bodies. We have summarised previous validation results in Compendium reports in 2005, 2006, and 2007.
- 3 For each PSA indicator we assess whether the lead Department has established and operated adequate systems of control to mitigate the risk of significant error in reported data. We do not validate the quality of the PSAs as policy objectives or provide a conclusion about the accuracy of the outturn figures included in the Departments' public performance statements. Sound data system controls reduce but do not eliminate the possibility of error in reported data. In examples in Part 3, we identify the potential errors in actual data caused by weak data systems.

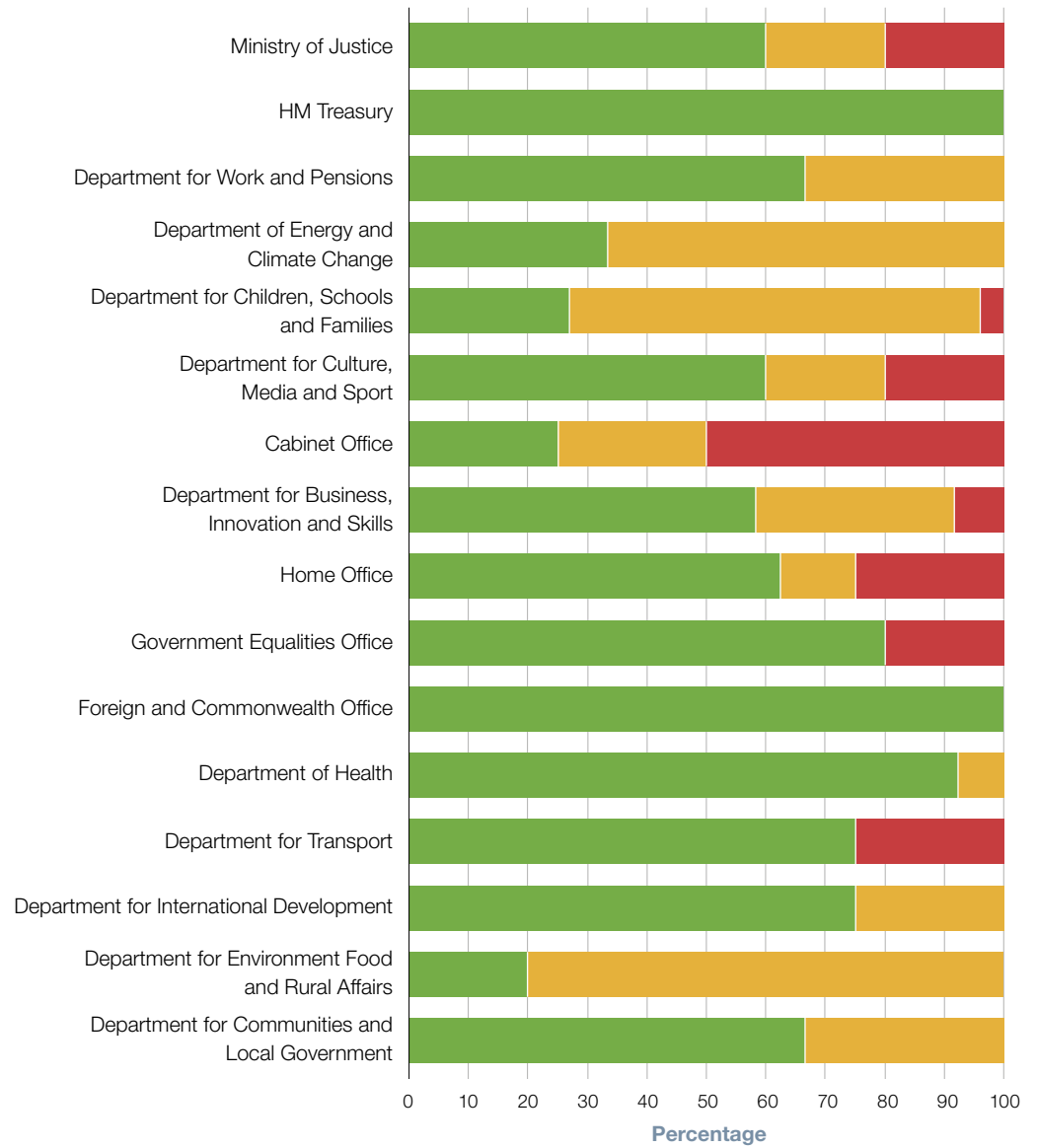
- 4 We examine the risks and controls under three main headings:
  - **Specification of data system:** whether the data used are relevant to the PSA indicator, adequately covering all significant aspects of performance.
  - **Operation of the system to collect, process and analyse data:** whether the system is well-defined, documented and capable of producing data that are reliable and comparable over time.
  - **Reporting of results:** whether reporting is clear, transparent and comprehensive, providing latest outturn data for all significant elements of the indicator and explaining any data quality issues.
- 5 We provide a conclusion for each data system, based on its adequacy to meet the requirements of reporting performance against the specified indicator. Where it is not possible to cost-effectively address all significant risks to data quality, we assess whether the Department has explained fully the implications of such limitations (**Figure 16**).
- 6 If the Department had not developed the data systems needed to report progress, we conclude that the data system is not fit for purpose.<sup>10</sup> Where a department has specified but not yet operated a data system, we have limited the scope of our conclusion to the system's design.
- 7 We apply the following definitions:
  - **Data system** – the complete process by which all performance data are collected, analysed and reported for an indicator.
  - **Data stream** – an individual part of the system contributing one element of the source data for a system e.g. a survey, may provide the numerator of a ratio and the Census, the denominator.

<sup>10</sup> Previously we used a 'white' rating for systems that were not established or in the very early stages of operation, but Treasury guidance was clear that data systems should be ready for the start of the CSR period.

## Validation findings by Department

**Figure 16**

PSA data systems validation results by lead Department



Source: National Audit Office analysis

# Appendix Three

## Summary of risks, and mitigations of risk, to data quality

### Risks

**Complexity of data collection.** The degree of risk increases with the number of data sources and providers, as the number of data-handling procedures increase.

**Complexity of data processing and analysis.** The more complex the processing or analysis required, the greater the risk of error through, for example, incorrect data entry or flaws in calculation routines.

**Level of subjectivity.** Where analysis and assessment requires qualitative and/or subjective judgements, there is a risk of inconsistency between staff and over time.

**Stability and maturity of the data system.** The risks to reliability increase for new data systems implemented in the real world for the first time. Changes in key personnel or processes (for example, changes in survey methods or choice of data stream) can also affect data quality.

**Expertise of those who operate the data system.** Risks increase if non-specialist staff have to handle complex data systems.

**Use of data to manage and reward performance.** Risks may be greater if the results of data systems are used to determine ratings, pay, funding or autonomy of those involved in operating the system.

**Lack of oversight of data sourced from third parties.** Risks occur where the requirements of data quality are not specified and checked by those responsible for using and reporting data that is collected and/or analysed by others on their behalf.



## Mitigations

**Raise the profile of data quality issues.** So decision makers understand the limitations of the data presented and question its adequacy.

**Plan and coordinate the data needs for new systems.** Many weaknesses stem from inadequate attention to data issues when PSAs are selected and specified.

**Allocate clear responsibility for data quality.** As separate from those with responsibility for delivery – so that data quality is owned and managed.

**Develop a corporate information strategy setting out any risks to data quality, and risks arising from poor data.** So the requirements and importance of data quality are clear and so risks can be managed.

**Adequately document systems and significant changes.** Documentation helps to secure common definitions and understanding, and ensures data processing is consistent and not reliant on a small number of people in the analytic community.

**Seek opportunities for low cost credibility checks to data.** Particularly when new measures are introduced it is important to validate the measures against expectations and other 'intelligence'.

**Using data that are subject to known quality controls.** We have found that where data systems used National Statistics for example, the incidence of problems was reduced. However, departments must still check that these data are appropriate for monitoring progress against the PSA.

**Make users aware of underlying limitations in data systems.** When reporting progress, departments should explain the implications of any data limitations that might affect how outturn figures are interpreted. This approach builds trust in public reporting by helping users make informed assessments of reported results.

*Source: Compilation of National Audit Office validation findings across spending reviews*



Design and Production by  
NAO Communications  
DP Ref: 009319-001

This report has been printed on Consort 155 and contains material sourced from responsibly managed and sustainable forests certified in accordance with FSC (Forest Stewardship Council).

The wood pulp is totally recyclable and acid-free. Our printers also have full ISO 14001 environmental accreditation which ensures that they have effective procedures in place to manage waste and practices that may affect the environment.

Published by TSO (The Stationery Office) and available from:

**Online**

[www.tsoshop.co.uk](http://www.tsoshop.co.uk)

**Mail, Telephone, Fax & Email**

TSO

PO Box 29, Norwich, NR3 1GN

Telephone orders/General enquiries: 0870 600 5522

Order through the Parliamentary Hotline

Lo-Call 0845 7 023474

Fax orders: 0870 600 5533

Email: [customer.services@tso.co.uk](mailto:customer.services@tso.co.uk)

Textphone: 0870 240 3701

The Parliamentary Bookshop

12 Bridge Street, Parliament Square,  
London SW1A 2JX

Telephone orders/General enquiries 020 7219 3890

Fax orders: 020 7219 3866

Email: [bookshop@parliament.uk](mailto:bookshop@parliament.uk)

Internet: <http://www.bookshop.parliament.uk>

**TSO@Blackwell and other Accredited Agents**

Customers can also order publications from:

**TSO Ireland**

16 Arthur Street, Belfast BT1 4GD

028 9023 8451 Fax 028 9023 5401

£14.75

