A LONGITUDINAL STUDY OF THE USE OF PERFORMANCE MEASURES IN THE ANNUAL REPORTS OF UK EXECUTIVE AGENCIES

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ABSTRACT

The way in which central government services are delivered in the UK has changed significantly in the last nine years. Executive Agencies have been established and an emphasis placed on the need to develop performance measurement systems. This paper discusses the importance of performance information and, through a longitudinal study of annual reports, examines changes over time. The paper highlights an increasing use of performance information in external reporting and a shift in emphasis towards the use of effectiveness measures based on quality targets.

INTRODUCTION

The manner in which UK central government services have been delivered has changed significantly since 1988. The Next Steps Initiative (NSI) was launched following a report by the UK Government's Efficiency Unit (1988). This resulted in: a separation of policy formulation from service delivery; the creation of Executive Agencies (Agencies); and a considerable emphasis being placed on improving and reporting performance. The articulated aim was to deliver services more efficiently and effectively, within available resources, for the benefit of customers, taxpayers and staff.

By November 1995, 109 Agencies had been established, with 52 other units of government operating on Next Steps lines. Furthermore, another 55 candidates for Agency status had been announced. More than 360,000 civil servants were working in such organisations by this time, 63 per cent of all central government civil servants. Already established Agencies include the Social Security Benefits Agency (66,650 employees), HM Prison Service (38,935 employees), Historic Scotland (635 employees) and National Weights and Measures Laboratory (45 employees). These changes, together with changes brought about by the Citizen's Charter (HM Government, 1991a), have resulted in much more direct reporting of information to the public.

This paper discusses the importance of performance information in the discharge of accountability by Agencies. On the basis of a time-series study of the performance information contained in three sets of Agency annual reports, the extent of performance reporting and changes over time are highlighted. These results are then analysed and discussed.

ACCOUNTABILITY, PERFORMANCE INFORMATION AND NFPOS

Accountability

Accountability has been defined by the Government Accounting Standards Board (GASB, 1987, p. 21) as:

> ... being obliged to explain one's actions, to justify what has been done ... accountability requires governments to answer to the citizenry – to justify the raising of public resources and the purposes for which they are used.

A priori discussions of this concept, in the context of not-for-profit organisations (NFPOs), have been commonplace in the last decade (Likierman and Creasey, 1985; Laughlin, 1990; Patton, 1992; Mayston, 1992). The GASB (1987), in its *Concepts Statement No 1*, views accountability as the 'paramount objective' in financial reporting, although it is acknowledged that the term suffers from imprecise meaning.

Patton (1992), in a detailed discussion of accountability, concurs with this (p. 166):

> In most settings one party (individual, group, company, government, organisation, etc.) is said to be directly or indirectly 'accountable' to another party for something, action, process, or outcome. However, the precise meaning and implication of the concept of accountability are often left unclear.

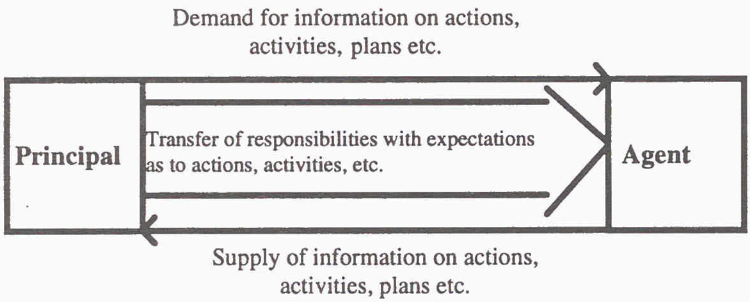
The concept of accountability seems inextricably linked with the contemporary view of accounting, which is seen in terms of providing information to satisfy the needs of users (AAA, 1966; ASC, 1975; CICA, 1980; ICAS, 1988). Similar themes occur in discussions on a conceptual framework for the public sector (Jones, 1992; Lapsley, 1992; Mayston, 1992). These writings focus on issues such as the objectives of financial reporting and the information rights and needs of users. Summarising this position, Mayston (1992) states that (p. 228):

> As a normative objective for financial reporting, the meeting of users' needs has now been widely accepted as the central objective by a long series of reports on the objectives of financial reporting in the private sector ... and in the public sector.

However, similar to the concept of accountability, the application of the user-needs model may present difficulties. Likierman and Creasey (1985) argue that caution needs to be exercised because of, *inter alia*, the imperative to set out the basis for any assertion about needs or rights, the resolution of conflicts that arise when attempting to fulfil such requirements, and the lack of clarity in some of the statements of reporting objectives.

Notwithstanding these *caveats*, this accountability relationship (or user-needs model) can be summarised in **Figure 1**, which is an adaptation of Laughlin's (1990) skeletal model.

Figure 1: Accountability relationship



The principal transfers to an agent resources and expectations regarding the transfer. These expectations form the basis of the accountability relationship. As Laughlin highlights, these expectations are complex and may be written and explicit or unwritten and implicit.

The question to whom a public sector organisation is accountable then arises. The Government Accounting Standards Board (GASB, 1987) highlights three groups as primary users of public sector organisations' reports: the citizenry, legislative and oversight bodies, and investors and creditors. Similar lists have been provided by other writers (AICPA, 1973; Skousen, Smith and Woodfield, 1975; Anthony, 1978; FASB, 1980). An examination of these lists shows a common position where it is accepted that there is a need to report to those outside the immediate management of a public sector organisation.

Performance Information

If the performance of an organisation is viewed in terms of the usual production model consisting of three stages (inputs, outputs and results), we can then judge performance in terms of efficiency and effectiveness. Effectiveness is the relationship between an organisation's outputs/results (for ease of use, this will merely be referred to as outputs) and its objectives, while efficiency is the ratio of outputs to inputs, or the amount of output per unit of input. With both business enterprises and NFPOs, there is a consensus regarding the importance of performance information in meeting the information needs of a variety of users (ASC, 1975; FASB, 1980; ICAS, 1988).

A major difference between a public sector organisation, or any NFPO, and a business enterprise is that of entity purpose. A business has a profit objective while an NFPO does not. It is argued by Anthony (1980) that in businesses both the inputs and the outputs can be measured in money terms. Furthermore, because the overall objective is profitability, then profitability – the difference between inputs (expenses) and outputs (revenues) – is useful for evaluating efficiency and effectiveness. With most NFPOs there is no corresponding monetary measure of output, except to the limited extent that revenue is earned from the sale of services, and no profit objective. Therefore, the 'profit' figure does not have the same meaning. In NFPOs, where often multiple, non-financial objectives exist, it may be difficult to measure output and therefore difficult to evaluate performance.

Regarding accountability, there may be different bases. Stewart (1984) suggests a ladder of accountability, distinguishing between, *inter alia*, 'performance accountability' and 'accountability for probity and legality'. Stewart argues that an accountability information system should report on all levels of accountability, and this will result in a system that reports both financial information and also output and result (or outcome) information. Similarly, Patton (1992), when specifically discussing public sector organisations, suggests that accountability (p. 169) 'for inputs, process, outputs, outcomes and policy may exist'.

A number of writers have argued that there may be a tendency to overemphasise the discharge of accountability through traditional financial accounts at the expense of wider performance information. Gray (1983) argues that financial accounts only fully discharge accountability in the 'special case', the best example of which is the business enterprise/shareholder relationship, and can only go a small way towards discharging accountability in an NFPO. Furthermore, it has been argued that a concentration on the provision of traditional financial accounting information may reduce accountability by focusing on the less important (Gibson, 1978; Hedlund and Hamm, 1978; Hyndman, 1990). However, it may be that some NFPOs come close to operating in a fully commercial environment and therefore traditional financial accounting information may be of paramount importance in discharging accountability.

Even in these cases it is probable that some wider performance information would be of value to external users.

In the majority of NFPOs it is likely that the need for extensive performance information would be high in order to discharge adequately the accountability of the organisation. Gray (1984), in arguing for more disclosure of performance information by charities, expressed the view that (p. 84) 'financial accounts can provide useful additional information. However, the financial accounts can only play a subsidiary role'. The importance of performance information in the discharge of accountability by public sector organisations is argued forcefully by both Miah (1991) and Boyne and Law (1991). In the latter case it is stated that, in the absence of such information (p. 179) '... the concept of accountability ... is simply a sham'. A similar view is taken in a research report funded by the GASB (Hatry, Fountain, Sullivan and Kremer, 1990, p. iii), where it is stated that:

> ... the GASB believes that SEA (Service Efforts and Accomplishments) reporting will become a major element of governmental financial reporting, assisting in fulfilling government's duty to be publicly accountable and in enabling citizens, elected officials, and other users of financial reports to assess that accountability.

The importance of disclosing performance information is widely recognised as at least part of the process of discharging accountability in NFPOs. While traditional financial accounting may be important, in many cases wider performance information is paramount.

AGENCIES

Development and Structure of Agencies

The UK Efficiency Unit was asked to prepare a report with terms of reference that included a requirement to recommend further measures that should be taken to improve the management of central services. The three main recommendations of the report (Efficiency Unit, 1988) were: the executive functions of government, as distinct from policy advice, should be carried out by units clearly defined within departments called Agencies; staff should be properly trained and experienced in the delivery of services to ensure that Agencies are managed in a way that can maximise results; and a project manager should be appointed to ensure that change takes place. The government promptly endorsed the report's main findings.

Agencies work within well-defined structures in which the policy, budget, specific targets and results are set out. An Agency, which is separate from central government, develops a contract between central government and itself. The contract (called the framework document) typically covers, *inter alia*: the aims and objectives; the reporting and accountability; and the financial regime. The management framework of each Agency is governed by a corporate plan, usually covering a five year period, with annual business plans being developed from this base. Key targets, financial projections, assessment of prospects and other information are included in these plans. All Agencies are required to produce an annual report and accounts for each year of operation, which provides information on such matters as the Agency's financial performance and its achievements against key targets.

Performance Information and Agencies

A central theme of the NSI is to focus and report on performance. The idea that measuring and reporting performance will encourage improvement in performance is contained in almost all of the NSI related publications. A main thrust of the Efficiency Unit's (1988) report was to develop a programme that would achieve better performance in the delivery of central government services. This is typified in the three main priorities identified (p. 7):

> First: The work of each department must be organised in a way which focuses on the job to be done; the systems and structures must enhance the effective delivery of policies and services.
>
> Second: The management of each department must ensure that their staff have the relevant experience and skills to do the tasks that are essential to effective government.
>
> Third: There must be real and sustained pressure on and within each department for continuous improvement in the

value for money obtained in the delivery of policies and services.

The programme has as one of its objectives the devolving of financial and managerial responsibility for service delivery away from the central department. However, this creates a need for accountability and a need for performance information. As Greer and Carter argue (1994, p. 88), 'a reliable system of performance indicators allows a department to maintain effective "hands-off" control over an agency which retains its flexibility'. With Next Steps it is argued that, to facilitate better management and to improve reporting, there will be a need for more relevant, more timely and more comprehensive information on all aspects of performance. While the authority of Agency chief executives is delegated to them by Ministers, who are and remain ultimately accountable to Parliament and its Select Committees, a key idea behind the NSI is that Agencies have wider accountability. In *The Financing and Accountability of Next Steps Agencies* (HM Treasury, 1989) it was stated that information on performance will (p. 5) '... improve stewardship reporting by Agencies to their responsible Ministers and to Parliament and the wider public.' In the foreword to *Improving Management in Government: The Next Steps Agencies* (HM Government, 1990), the importance of this wider accountability in terms of bringing pressure on Agencies to improve services is emphasised. It is stated that more information (p. 4) '... has made it much easier to know who to approach to find out about a particular service, to complain, to explain customer needs, or perhaps even to praise.'

ANALYSIS OF AGENCY ANNUAL REPORTS

Methodology

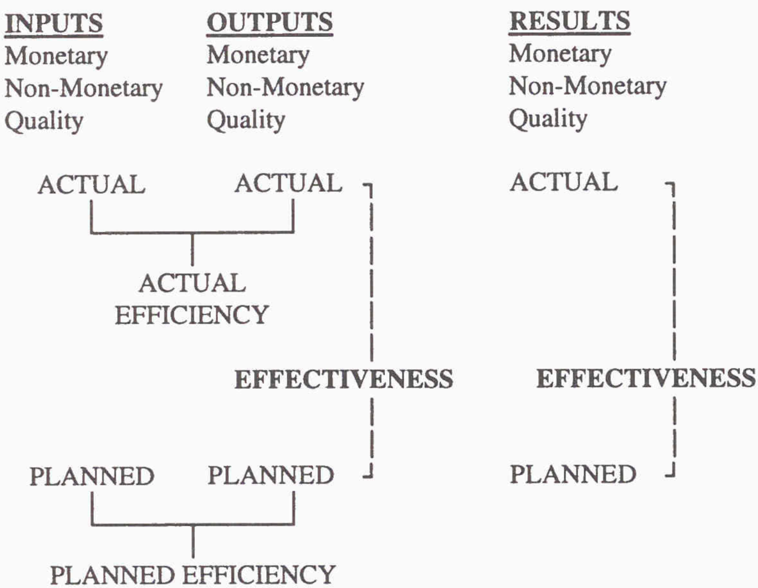
The research sought to identify the type and extent of the reporting of performance information in the annual reports of Agencies and the change over time. Annual reports are generally recognised as key documents in the discharge of accountability to external users. Three sets of Agency annual reports, covering different time periods, were collected and analysed. These related to the first annual reports published by Agencies during or before the period 1990/91 (covering accounting periods of either 1988/89, 1989/90 or 1990/91), the 1991/92 annual reports and the 1992/93 annual reports. Each Agency which could have published a report in each period was asked to supply a copy of the relevant document.

Many studies of performance in the NFPO sector conclude that effectiveness and efficiency are the two main criteria for judging performance. In considering these aspects of performance, it is common to use a simple production model of the operation of an organisation. For example, Brace, Elkin, Robinson and Steinberg (1980) highlight the various stages of input, process, output and result, and identify efficiency and effectiveness by relating either one stage to another, or the planned level of one stage to the actual achievement. Similar approaches are used by AAA (1989), Jackson and Palmer (1989) and Boyne and Law (1991).

The model used in this research is based on the simple three stage taxonomy capturing inputs, outputs and results. Monetary and non-monetary inputs are captured, together with any information on quality of input, within the definition of input. Any throughput, or process, measure is captured within the definition of output, together with any quality information regarding the output. Results information may be either monetary, non-monetary or quality based. Quality measures, other than the composite measure of customer satisfaction which was classified as a result, were deemed to be output measures. It is recognised that such measures may, depending on type, be somewhat akin to results measures. The model used is outlined in **Figure 2**.

The analysis focused on information outside the normal financial statements, and therefore information within such statements was not analysed. For analysis purposes, information was considered disclosed if it was highlighted in some way (hard copy) and not contained in the main narrative of the annual report (soft copy). A similar approach was used by Hyndman (1990) in a study of UK charities, where it was argued that soft copy was difficult for the user to isolate and use and was often (p. 298) 'embedded in a mass of subjective comment'.

Figure 2: Performance model used in this study



The absence of generally accepted definitions of terms was a potential problem with the analysis. This was an issue raised by the Treasury and Civil Service Committee (1991), where it was stated that the (p. 20) 'lack of an agreed vocabulary makes it difficult to assess agencies' performance'. To reduce problems in this area, and thereby reduce subjectivity, a number of steps were taken. A set of definitions was developed to ensure terms were being used in the same way for each Agency. In addition, a set of rules of classification was written to deal with common difficulties of analysis. Furthermore, three individuals, independently and separately, conducted the analysis prior to discussing and agreeing the final results. A piece of information was only classified as a particular type when it accorded with the definition of the information in the developed set, irrespective of the description in the annual report. An example of the operation of this methodology is explained with respect to effectiveness. Effectiveness was defined as 'a measure of the relationship between outputs or results and planned outputs or results. This normally includes all output or result information which is compared with target information'. A rule used for classification was that, if profit was given as a target and the actual profit figure was disclosed, this was counted as a measure of effectiveness (monetary). Another example of the operation of the methodology is with respect to information in tables or charts. If a table or chart included information that was included elsewhere in the annual report in a different form, it was only counted once[1].

Results

The three sets of annual reports comprised 29 reports (first annual reports), 57 reports (1991/92 annual reports) and 71 reports (1992/93 annual reports). The maximum numbers of Agencies that could have reported during these periods were 31, 57 and 73 respectively. The initial analysis classified the information into five main types: inputs, outputs, results, efficiency and effectiveness. Inputs are the resources used in providing a service (for example, expenditure incurred, number of staff). Outputs are the actual goods or services produced for consumption (for example, number of vehicle inspections, number of students completing a course). Results are concerned with the impact upon clients or situations (for example, change in the level of education, overall level of customer satisfaction with the service). Once inputs and outputs (or results) have been measured, it is then possible to measure efficiency and effectiveness. Efficiency is the relationship between inputs and outputs (for example, cost per vehicle inspected, number of cases handled per employee), whereas effectiveness is the relationship between an organisation's outputs and its objectives (for example, actual number of passports issued versus planned number of passports). The total number of Agencies (and percentage) disclosing any information in each category is shown in **Tables 1** and **2**. The total number of measures in each category, together with the average number per annual report, is shown in **Tables 3** and **4**.

Inputs, outputs and results, subdivided in accordance with the model in **Figure 2**, are shown in **Table 5**. The measures of efficiency and effectiveness, subdivided into financial (for example, cost per unit of output) and non-financial (for example, output per employee) for efficiency, and into monetary, non-monetary and quality for effectiveness, are presented in **Table 6**. Examples of effectiveness measures are value of grants awarded *versus* target (monetary), number of training days provided *versus* target (non-monetary), and turnaround time *versus* target (quality). Examples from the annual reports analysed are given in **Appendix 1** (inputs, outputs and results) and **Appendix 2** (efficiency and effectiveness).

Table 1 indicates that at least one measure of inputs, outputs and results was disclosed by between 62 per cent and 76 per cent of Agencies (first annual reports), 47 per cent and 58 per cent (1991/92 annual reports) and 48 per cent and 61 per cent (1992/93 annual reports). For each of the component parts of the production process (inputs, outputs and results), there was a significantly greater disclosure in the earlier annual reports (first annual reports). The percentages of Agencies disclosing at least one measure of inputs, outputs and results were similar in the 1991/92 and 1992/93 reports. It should be noted that a particular piece of information was classified once according to the explicit nature of the content, rather than implicit representations. Thus, if cost (input) was given beside units of service (an output), this was considered to be two separate items. However, if the organisation divided the cost by the units of service this was considered to be an efficiency measure.

The reporting of the higher measures of performance (effectiveness and efficiency), rather than the component parts of performance (inputs, outputs and results), was much more widely used in the later annual reports. **Table 2** shows that 94 per cent (1992/93 annual reports) and 86 per cent (1991/92 annual reports) of Agencies included at least one measure of effectiveness, as compared with 59 per cent of the first annual reports. With regard to efficiency, the pattern was similar. Fifty-four per cent of the 1992/93 annual reports included at least one measure of efficiency, with the figures being 58 per cent for 1991/92 and only 38 per cent in the first annual reports. Again, the pattern appears to show a significant increase in reporting between the earlier annual reports and the 1991/92 reports and then a levelling off.

TABLE 1: Information content – Disclosure of information (Inputs, Outputs and Results)

	Inputs						Outputs						Results					
	First* Annual Reports		1991/92** Annual Reports		1992/93*** Annual Reports		First Annual Reports		1991/92 Annual Reports		1992/93 Annual Reports		First Annual Reports		1991/92 Annual Reports		1992/93 Annual Reports	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Disclosing	18	62	32	56	37	52	22	76	33	58	43	61	18	62	27	47	34	48
Not Disclosing	11	38	25	44	34	48	7	24	24	42	28	39	11	38	30	53	37	52
Total	29	100	57	100	71	100	29	100	57	100	71	100	29	100	57	100	71	100

* Based on the analysis of 29 Agency annual reports of the first 31 Agencies.
** Based on the analysis of 57 annual reports.
*** Based on the analysis of 71 Agency annual reports of the first 73 Agencies.

TABLE 2: Information content – Disclosure of information (Efficiency and Effectiveness)

	Efficiency						Effectiveness					
	First * Annual Reports		1991/92** Annual Reports		1992/93 *** Annual Reports		First Annual Reports		1991/92 Annual Reports		1992/93 Annual Reports	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Disclosing	11	38	33	58	38	54	17	59	49	86	67	94
Not Disclosing	18	62	24	42	33	46	12	41	8	14	4	6
Total	29	100	57	100	71	100	29	100	57	100	71	100

* Based on the analysis of 29 Agency annual reports of the first 31 Agencies.

** Based on the analysis of 57 annual reports.

*** Based on the analysis of 71 Agency annual reports of the first 73 Agencies.

TABLE 3: Information content – Number of measures per Annual Report by information type (Inputs, Outputs and Results)

	Inputs			Outputs			Results		
	First Annual Reports	1991/92 Annual Reports	1992/93 Annual Reports	First Annual Reports	1991/92 Annual Reports	1992/93 Annual Reports	First Annual Reports	1991/92 Annual Reports	1992/93 Annual Reports
Total Measures	43	52	89	168	197	328	50	46	94
Average per report (all)*	1.48	0.91	1.25	5.79	3.46	4.62	1.72	0.81	1.33
Average per report (disclosing)**	2.39	1.63	2.41	7.64	5.97	7.63	2.78	1.70	2.76
Range (all)	0-9	0-4	0-22	0-39	0-25	0-35	0-18	0-8	0-22
Range (disclosing)	1-9	1-4	1-22	1-39	1-25	1-35	1-18	1-8	1-22

* Average calculated by dividing total measures by 29 (first annual reports), 57 (1991/92 annual reports) and 71 (1992/93 annual reports) respectively.

** Average calculated by dividing total measures by number of Agencies disclosing a particular information type.

TABLE 4: Information content — Number of measures per Annual Report by information type (Efficiency and Effectiveness)

	Efficiency			Effectiveness		
	First Annual Reports	1991/92 Annual Reports	1992/93 Annual Reports	First Annual Reports	1991/92 Annual Reports	1992/93 Annual Reports
Total Measures	30	93	114	111	385	540
Average per report (all)*	1.03	1.63	1.61	3.83	6.75	7.60
Average per report (disclosing)**	2.73	2.81	3.00	6.53	7.86	8.06
Range (all)	0-8	0-15	0-12	0-20	0-49	0-26
Range (disclosing)	1-8	1-15	1-12	2-20	1-49	1-26

* Average calculated by dividing total measures by 29 (first annual reports), 57 (1991/92 annual reports) and 71 (1992/93 annual reports) respectively.

** Average calculated by dividing total measures by number of Agencies disclosing a particular information type.

The average number of disclosures per report of the different information types is shown in **Tables 3** and **4**. The average number per report in the 1992/93 annual reports was 1.25 (inputs), 4.62 (outputs), 1.33 (results), 1.61 (efficiency) and 7.60 (effectiveness). The change over time is similar to that indicated in **Tables 1** and **2**. The number of disclosures per report was lower in the 1992/93 annual reports for inputs, outputs and results and higher for efficiency and effectiveness, compared with the first annual reports. The actual pattern found showed a significant decrease in reporting of the component parts of production (inputs, outputs and results) between the first annual reports and the 1991/92 reports, with some increase in 1992/93. With respect to the higher measures of performance (efficiency and effectiveness), there was a significant increase in the number of disclosures per report of efficiency between the first annual reports and the 1991/92 reports, with a subsequent levelling off. Regarding effectiveness, there was a major increase between the first annual reports and the 1991/92 reports and a further, smaller increase in 1992/93. Including only those Agencies that disclosed information of a particular type, the number of disclosures per report remained relatively steady for inputs, outputs and results, when comparing the first annual reports with the 1992/93 reports. However, there was a significant decrease in the 1991/92 reports. The number of efficiency and effectiveness measures per report increased during each of the later periods.

Subdivisions of the above measures in accordance with the model in **Figure 2** are given in **Tables 5** and **6**. **Table 5** shows that 57 per cent of input measures in the 1992/93 annual reports were monetary (for example, costs incurred), while a significant minority were non-monetary (for example, number of employees). This was similar to the first annual reports, although the pattern had been reversed in 1991/92. In each period, the overwhelming majority of output measures were non-monetary (for example, number of units of service provided), although, over time, there had been increasing use of quality-based output measures (for example, time to handle an application). The majority of the results measures (57 per cent) in the 1992/93 annual reports were of a monetary nature. This had increased over time. The figure may be high in each of the periods because statements regarding the sale of goods and services (given outside the financial statements) were included as results measures on the basis that the customer is free to purchase from any supplier and it is therefore an indication of user satisfaction.

TABLE 5: Subdivision of measures of Inputs, Outputs and Results

	Inputs						Outputs						Results					
	First Annual Reports		1991/92 Annual Reports		1992/93 Annual Reports		First Annual Reports		1991/92 Annual Reports		1992/93 Annual Reports		First Annual Reports		1991/92 Annual Reports		1992/93 Annual Reports	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Monetary	25	58	21	40	51	57	0	0	5	3	8	3	24	48	16	34	54	57
Non-Monetary	15	35	26	50	30	34	152	90	168	85	257	78	4	8	15	33	25	27
Quality	3	7	5	10	8	9	16	10	24	12	63	19	22	44	15	33	15	16
Total	43	100	52	100	89	100	168	100	197	100	328	100	50	100	46	100	94	100

TABLE 6: Subdivision of measures of Efficiency and Effectiveness

	Efficiency						Effectiveness					
	First Annual Reports		1991/92 Annual Reports		1992/93 Annual Reports		First Annual Reports		1991/92 Annual Reports		1992/93 Annual Reports	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Monetary	18	60	56	60	79	69	3	3	46	12	72	13
Non-Monetary	12	40	37	40	35	31	62	56	143	37	149	28
Quality	–	–	–	–	–	–	46	41	196	51	319	59
Total	30	100	93	100	114	100	111	100	385	100	540	100

However, the existence of market failure and the almost compulsory nature of some of the services may render this type of information suspect as a results measure. The 1991/92 annual reports demonstrated increasing use of non-monetary results measures (for example, percentage of trainees finding employment) and the 1992/93 reports showed largely similar levels of disclosure of this type of information. There was a significant reduction in the use of quality-based results measures (for example, overall customer satisfaction rating) from 44 per cent (first annual reports) to 16 per cent (1992/93 annual reports).

From **Table 6** it can be seen that the majority of efficiency measures were of a monetary nature (for example, cost per unit of service) and this had increased over time, from 60 per cent in the first annual reports to 69 per cent in the 1992/93 annual reports. A changing emphasis with regard to the reporting of measures of effectiveness is seen, with a shift away from non-monetary measures (for example, actual units of service against planned units of service), towards quality-based effectiveness measures, comparing actual quality with planned quality. In the latter case the proportion of these measures increased from 41 per cent (first annual reports), to 51 per cent (1991/92 annual reports) and then to 59 per cent (1992/93 annual reports).

ANALYSIS AND DISCUSSION

In this paper it is argued that Agencies, and indeed NFPOs, have a responsibility to account to those outside their management and that the annual report is an important mechanism in this process. It is further argued that, while the information contained in traditional financial statements may be important, in the majority of cases wider performance information – in particular information regarding efficiency and effectiveness – is critical in adequately discharging the accountability of Agencies. A review of the Next Steps literature highlights the official adoption of this position.

This research found that a significant proportion of Agencies reported little or no information on efficiency and effectiveness and the various component parts of performance (inputs, outputs and results). Although there had been some improvement over time, 46 per cent of Agencies did not report a single measure of efficiency in their 1992/93 annual reports. The comparable figure for measures of effectiveness was six per cent. The research did not attempt to judge the appropriateness of particular measures, or whether targets set were suitable and 'reasonable'. Nor is it necessarily the case that the production of more measures is always a better thing. In some areas of the public sector it appears that there are too many, often unfocused and low-level, measures of performance. Similarly, within the particular categories of information used in this analysis, there may be different levels. For example, it may be considered that a measure of effectiveness based on a volume of output target (for example, number of passports issued against target) may be of a lower level (and less valuable) than one based on overall customer satisfaction with a service (for example, percentage of customers satisfied with a service against target). The latter measure could be viewed as more related to result (or outcome) rather than output. This issue, although important, is not addressed in this analysis. However, given the explicit call for all Agencies to publish information on effectiveness and efficiency, a lack of publication, especially with respect to efficiency, points to an Agency sector where accountability is not discharged in an adequate manner.

The urgency of the task has been further increased by HM Government's White Paper *Better Accounting for the Taxpayer's Money: Resource Accounting and Budgeting in Government* (HM Government, 1995). This requires central government Departments and their Agencies to produce accounts based on resource accounting principles. Resource accounting comprises a set of accrual accounting techniques for reporting on expenditure and a framework for analysing expenditure by departmental aims and objectives, relating these to outputs where possible. This will be introduced in all Departments by April 1998.

While it is of concern that a number of Agencies do not report externally regarding performance, it is possibly of more concern that this suggests that such information may be unavailable in the internal/management accounting systems. A similar argument was promulgated by Gray (1983). Without the availability of this information, management's ability to plan and control the operations of an Agency is seriously undermined. For example, Reed (1986) has shown that the availability of performance information can enhance the ability of the budget-holder to make more efficient budget allocation decisions. If it is the case that the management information systems of a number of Agencies are deficient in providing performance information, the highminded objectives of the NSI may be frustrated. It seems logical that issues such as the identification of sources of data and the development of adequate decision-support systems should have been addressed prior to the establishment of Agencies. From this research, there seems to be evidence to suggest that this was not the case in all Agencies.

Although it is officially recognised that measuring and reporting on performance is vital in achieving the objectives of the NSI, formal guidance on how to do this was not provided until 1992 (HM Treasury, 1992). Agencies have been operating since 1988 and have been publishing annual reports since 1989. The guidance that has been provided may have had some impact on the 1991/92 annual reports, but is unlikely to have had a significant impact until the 1992/93 annual reports. This research highlights certain deficiencies in the measuring and reporting of performance. It seems probable that the absence of formal guidance for the first four years of the NSI has hampered progress in this area. To expect Agencies to develop good performance measurement systems to support the achievement of the NSI without formal technical and conceptual support appears optimistic.

An additional problem exists specifically with regard to the measurement and allocation of costs. Traditionally, public sector organisations have used cash accounting principles. The intention is that Agencies will produce commercial style accounts on an accruals basis, although this was not the case for all Agencies and periods covered in this analysis. Furthermore, because of the rather underdeveloped nature of costing systems, the ability of Agencies to produce meaningful unit costs can be questioned. A related problem is that the measure used as the cost object in the development of a unit cost is rarely the ultimate result, but rather some intermediate output measure related to activity. With regard to each of these issues, which are discussed more fully in Pendlebury, Jones and Karbhari (1994), difficulties may exist that restrict the ability of an Agency to evaluate and therefore report in the area of unit costs, a key measure of efficiency. Moreover, inadequacies in the costing systems may have long-term consequences as Agencies are required to market test many of their activities under the *Competing for Quality* White Paper (HM Government, 1991b).

A further issue that needs to be addressed, and one which is described by Pendlebury et al. as (p. 45) 'the most significant technical problem', is that of the reliability of externally-reported performance information. If no verification of the numbers reported by an Agency is required, there may be a temptation to exaggerate performance. Given that external parties may use externally-reported performance information to make judgements and decisions regarding an Agency, the case for some degree of independent verification appears strong. While cost/benefit issues need to be considered, the increasing emphasis placed by HM Treasury on externally reporting performance information would appear to provide a *prima facie* case for some degree of verification (for a discussion of cost/benefit considerations, see Patton, 1992). Mayston (1985) has argued for bringing to bear similar disciplines on the external reporting of performance measures that are imposed on financial accounting information – disclosure requirements, external auditing and standard-setting after consultation with interested parties. It should be noted that the performance information analysed in this study had not been subject to independent verification, as is the case with performance information reported by the vast majority of UK public sector organisations.

Notwithstanding the above comments, this paper shows a change in extent and emphasis in reporting performance. The average number of performance disclosures per report, as captured by the model used in this research, increased from 13.85 (first annual reports) to 16.41 (1992/93 annual reports). The study shows increased reporting of the higher levels of performance (efficiency and effectiveness) over time, and relatively stable levels of reporting of the component parts of performance (inputs, outputs and results). Furthermore, there is a greater emphasis in the later annual reports on the use of quality as the basis for measures of effectiveness. This may have been caused by the increasing articulation of the importance of measuring quality in the NSI-related publications. For example, the Efficiency Unit (1991), in commenting on the measures of performance used by Agencies, stated that (p. 12) 'more work was required to refine these measures' and 'few targets included adequate measures of service quality'.

Carter (1991) has suggested that there is an innovation cycle in developing performance measurement systems. Initially, there is perfunctory compliance with requests to provide performance information expressed in the production (often over-production) of performance measures through the (p. 98) 'mass baptism of existing statistics as PIs'. Eventually, through a process of criticism, analysis and refinement, a more parsimonious and useful system emerges. This research provides limited support for Carter's view, demonstrating that while the overall number of measures of performance did not reduce over time, the emphasis moved from lower-level to higher-level, and possibly more useful, measures of performance as the basis for reporting. While acknowledging that the majority of the first annual reports (20 out of 29) were from 1990/91, and that the period covered by the analysis was rather short to assess whether or not changes are substantive, the research provides some indication of an evolution in the reporting of performance information towards higher-level measures, and in particular towards effectiveness measures based on quality. Given the lack of formal published guidance on performance measurement, this perhaps provides hope for the continuing improvement in performance reporting.

A comparison of the results of this study with other similar studies in various NFPO sectors indicates that Agencies' annual reports contain significantly more performance information than annual reports from other NFPO sectors (Brace et al., 1980; Hyndman, 1990; and Boyne and Law, 1991). These studies show relatively low levels of reporting in the areas of efficiency and effectiveness. For example, in the Brace et al. (1980) study only 18 instances of effectiveness measures were found in 120 reports, and in the Hyndman (1990) study no measures of effectiveness were found in 163 reports. Thus, while criticising Agencies for not achieving as much as they could in terms of the reporting of performance information, it must be recognised that they appear to have made significantly more progress in this area than other NFPOs.

This paper argues the importance of performance information as a basis for discharging the accountability of Agencies to external parties. The research is exploratory and the results are presented in a fairly aggregated manner. No attempt is made to analyse the appropriateness of particular measures for individual Agencies, or whether output measures being used are consistent with the ultimate result being sought. Furthermore, the important issues of the reliability of information and the cost/benefit considerations of information provision are not discussed in detail. The extent to which the targets used as the basis for measures of effectiveness were the 'best' or 'highest level' is not considered. Whether different types of Agencies, for example trading fund Agencies or research-focused Agencies, have or should have different patterns of performance reporting is not examined. Information on these matters would aid understanding of present reporting practices and help in developing good performance measurement systems to support both external and internal reporting. Although the issues are beyond the scope of this paper, it is acknowledged that studies in these areas are necessary.

The analysis of current reporting practice highlights the inadequacies of performance reporting at present. It is suggested that the lack of early guidance for Agencies regarding setting targets and measuring performance is likely to have inhibited their ability to deliver in this area. In addition, a concern is raised regarding the possible adequacy of internal accounting systems to support the management planning and control function. By comparing three sets of annual reports from different time periods, this study suggests that the emphasis of the reporting of performance information has changed, with a much greater emphasis being placed on both the reporting of effectiveness and efficiency and the use of quality targets as the basis for measuring effectiveness. These changes are viewed as improvements. When a comparison is made with other NFPO sectors, it is seen that Agencies' reports contain significantly more measures of performance, especially with regard to efficiency and effectiveness. Overall, while issues of appropriateness of measures, reliability of information and the costs and benefits of such systems need to be addressed, this research points to a sector which, over time, is developing more comprehensive and more focused performance measurement systems.

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NOTES

1 Copies of the definitions and rules of classification are available from the authors.

APPENDIX 1: Examples of Measures of Inputs, Outputs and Results — Agency Annual Reports

INPUTS		
Measure	**Example**	**Agency**
Monetary	Salary costs £525.4m	Employment Service
Non-Monetary	Total staff employed: 1,861	Vehicle Inspectorate
Quality	76% of staff undertaking further education or training	Fire Service College

OUTPUTS		
Measure	**Example**	**Agency**
Monetary	£20,000 was paid out in grants to owners of 19 monuments Grants of over £2.02 million made to companies	Historic Scotland Industrial Research and Technology Unit
Non-Monetary	Number of vehicles tested: 974,395 Number of vehicle inspections (cars and motorcycles): 237,081	Vehicle Inspectorate Driver and Vehicle Testing Agency
Quality	Processed 74% of applications for licence within 120 days Processed 82% of applications for licence within 200 days Document processing time: 7 days	Veterinary Medicine Directorate Companies House

RESULTS		
Measure	**Example**	**Agency**
Monetary	Total income: £855,000 Total sales for year: £110m	Ordnance Survey of Northern Ireland Royal Mint
Non-Monetary	7.4% of HGV vehicles prohibited at roadside checks on immediate inspection 69.1% of pupils aged 17 or more continuing into higher education and 14.4% going into employment	Vehicle Inspectorate Service Children's Schools North-West Europe
Quality	Satisfaction levels of customers: Valuation accuracy 90% Timeliness of service 69% Integrity 98% Speed of response 72% Rating of service by customers: Very good 25% Good 52% Fair 19% Poor/Very fair 4%	Valuation Office Intervention Board

APPENDIX 2: EXAMPLES OF EFFICIENCY AND EFFECTIVENESS — AGENCY ANNUAL REPORTS

EFFICIENCY		
Measure	**Example**	**Agency**
Monetary	Cost per planning appeal decided by written representation: Target: Not to exceed £706 Actual: Achieved	The Planning Inspectorate
	Target: To reduce the unit cost of processing claims by 2% Actual: Actual reduction in unit costs 5.8%	The Compensation Agency
	Unit cost per document produced to readers: £1.77	Public Records Office
Non-Monetary	Productivity of vehicle testing: Target: 15.75 units per man day Actual: 16.01 units per man day	Driver and Vehicle Testing Agency
	Target: To increase the productivity of Trade Mark examination by an average of at least 3% a year Actual: Target achieved	The Patent Office
	Surveys and inspections per member of staff in post was 82.2	Marine Safety Agency

EFFECTIVENESS		
Measure	**Example**	**Agency**
Monetary	Target: To break even Actual: Surplus of £21,000	Central Office of Information
	Target: To achieve a surplus on commercial activities of £3.8 million Actual: Surplus £4.3 million	Historic Royal Palaces
Non-Monetary	Number of student days: Target: 86,000 Actual: 93,000	Civil Service College
	Target: To deliver 3,600 man-days of uniformed personnel in support of exercises and military training Actual: 4,858 man-days delivered	Military Survey
Quality	Accuracy of payment of unemployment benefit: Target: 96.5% Actual: 96.4%	Employment Service
	Percentage of examinations completed within 16 weeks: Target: 75% Actual: 89%	National Weights and Measures Laboratory

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