

Costing of Services

Australian National Audit Office

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Canberra ACT
11 December 1998



Dear Madam President
Dear Mr Speaker

The Australian National Audit Office has undertaken a Financial Control and Administration audit of the costing of services in Commonwealth entities in accordance with the authority contained in the *Auditor-General Act 1997*. I present this report of this audit, and the accompanying brochure, to the Parliament. The report is titled *Costing of Services*.

Following its tabling in Parliament, the report will be placed on the Australian National Audit Office's Homepage—<http://www.anao.gov.au>.

Yours sincerely

A handwritten signature in black ink, which appears to read 'P. J. Barrett', is positioned below the closing 'Yours sincerely'.

P. J. Barrett
Auditor-General

The Honourable the President of the Senate
The Honourable the Speaker of the House of
Representatives
Parliament House
Canberra ACT

AUDITING FOR AUSTRALIA

The Auditor-General is head of the Australian National Audit Office. The ANAO assists the Auditor-General to carry out his duties under the *Auditor-General Act 1997* to undertake performance audits and financial statement audits of Commonwealth public sector bodies and to provide independent reports and advice for the Parliament, the Government and the community. The aim is to improve Commonwealth public sector administration and accountability.

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Results in Brief

Introduction

1. An understanding of the full cost of delivery of goods and services and the ability to control those costs are essential elements of effective operational decision making. Unfortunately, they have often received only limited attention from agency management in the Australian Public Service (APS).
2. The ANAO examined the way public sector organisations generally process and use cost information. Specifically, it considered a number of matters which influence the appropriateness and effectiveness of the costing approach. These include the supporting environment; whether the approach reflects the organisation's actual requirement for cost information; the accuracy and completeness of the cost information; and the effective application of cost information. The environment is complicated by the move from a cash to an accrual accounting based approach.

Findings

3. The audit found that:
 - ♦ most organisations had simple cost systems where the collection and use of cost information was limited to particular purposes in satisfaction of mainly external requirements rather than to service internal management needs;
 - ♦ the systems to capture the necessary data were largely unstructured;
 - ♦ a small number of organisations had progressed to a stage where full cost information was used to support their decision making processes; and
 - ♦ no organisation had reached the stage where costing information on an accrual basis played a key strategic role in overall decision making.

4. While the audit identified that some organisations had a good understanding of the basic requirements of costing, most organisations needed to develop more sophisticated cost approaches if they are to effectively fully cost outputs and monitor performance as required in the new accrual budgeting framework from 1999-2000.
5. A significant effort in a short period of time is required by most organisations if the benefits from the focus on outputs, performance and outcomes under this new framework are to be achieved.
6. In the majority of organisations, not all the requirements of an effective control framework were in place. Weaknesses identified included shortcomings in the content of policy and procedural documentation; cost allocation techniques; and the decision making processes associated with setting prices/user charges. In addition, at times, cash data were not correctly adjusted to reflect full cost nor was a sufficient level of relevant training available to the staff concerned.

Chapter One

Executive Summary

Executive Summary

Background to the audit

1.1 This 'across-the-board' audit examined costing approaches and methodologies in a number of organisations. Such audits are undertaken to obtain an indication of the situation likely to confront public sector organisations generally. As such, they highlight potentially significant risks as well as providing a degree of assurance for agency management. In addition, they draw attention to, and consideration of, relevant issues for the Parliament and Executive.

1.2 Information on costs is regarded as a fundamental input to the key strategic and operational decision-making processes in any organisation. The efficient and effective collection of complete, accurate and reliable information on costs is therefore important to management at all levels. The absence of such information inhibits effective management of an agency.

1.3 Cost is simply a financial measure of the resources consumed by organisations. The APS has traditionally *measured* resource consumption on a 'cash' basis, recognising cash based costs only as and when payments were made.

1.4 The Government has recently announced the introduction of an accrual-based budgetary framework from the 1999-2000 financial year. This will require public sector organisations to measure resource consumption on an 'accrual' basis, recognising full costs when they are incurred.

1.5 This reform gives added urgency to the need for, and importance of, adequate and relevant cost information for decision making and reporting purposes particularly in a more contestable environment.

Objectives, scope and criteria

1.6 This audit dealt with the way public sector organisations process and use information about the cost of their activities. It examined relevant processes from the dual perspective of the approach (or methodology) used to identify and allocate costs, and the appropriateness and robustness of the supporting costing systems.

1.7 The audit examined use from the perspective of the relevance of the computed costs to specific decision-making; and from the general perspective of how widely and effectively cost information was being utilised in strategic decision-making.

1.8 The areas of decision-support examined in this audit, where cost information could be expected to be a fundamental input, were in:

- ♦ setting prices or user charges;
- ♦ establishing the 'baseline' cost of service delivery as part of an outsourcing decision¹;
- ♦ the internal allocation of resources; and
- ♦ performance monitoring.

1.9 The objective established for the audit was to form an opinion on whether the costing processes and uses of cost information in the organisations reviewed were:

- ♦ valid;
- ♦ cost-effective; and
- ♦ in accordance with principles of better practice.

1.10 Given the introduction of accrual budgeting from the 1999-2000 financial year the audit objective was extended to include an assessment of the extent to which costing processes in organisations affected by the new arrangements are sufficiently developed to support this initiative.²

¹ The audit was not designed to evaluate overall compliance with Commonwealth Competitive Tendering and Contracting requirements or the tender evaluation process.

² Details of the announcement were outlined by the Secretary of the Department of Finance and Administration in a letter to all APS organisations dated 4 August 1998.

Audit opinion

1.11 Many public sector organisations are yet to integrate the use of information on the full cost of activities systematically into their strategic decision-making processes.

1.12 To fully realise the potential for improved decision-making, these organisations will need to develop more sophisticated cost models and implement more robust cost systems.

1.13 In addition, a significant effort will be required, in a relatively short period of time, if these organisations are to satisfy the externally imposed requirements to fully cost outputs effectively and to monitor performance as required in the new accrual budgeting framework.

1.14 These opinions are based on the findings summarised below which are discussed in greater detail in chapters two and three of this report.

Audit findings

1.15 The audit findings deal with the use of cost information and the processes undertaken to generate such information. They are inter-related to the extent that use should largely dictate process and, much less desirably, that process may dictate use. Nevertheless good process should ensure good outcomes.

Use of cost information

1.16 The *use* of cost information in most of the organisations subject to audit was found to be limited to specific, generally particular, purposes relating mainly to either price setting/user charging or to establishing baseline costs in out-sourcing decisions.

1.17 A common feature of these two purposes are that they arise mainly from externally imposed requirements of the Government rather than from the internal demands of management.

1.18 The use of cost information for a particular purpose also meant that costing activity was limited to the specific operational areas responsible for decisions relating to the purpose. Awareness of the concepts of costing and the benefits of using cost information, outside these areas, was found to be low.

1.19 As a consequence, full cost information was unlikely to be an input to strategic decision-making at the overall organisational level. Where cost information was used in resource allocation or performance monitoring it was, in most cases, cash-based, historic data that was input focused. Consequently this data did not reflect full costs.

1.20 A small number of organisations had progressed to a stage of development where cost information was being used in a decision-support role. However, none had reached the stage where full cost information played a key role in overall decision making at the organisational level.

Processes for producing cost information

1.21 The audit found that costing *processes* in most organisations were based on simple cost models that relied on arbitrary or subjective allocation measures. These models were, with some exceptions, considered by the ANAO to produce materially valid results *for the limited purpose* for which the cost data were used. Nevertheless they are not and will not be, valid for the determination of the *full* costs of *all* outputs, nor for higher level management purposes at an organisational level.

1.22 The costing systems encountered in the organisations examined are able to be generally characterised as simple, unstructured or ‘purpose-built’, designed to capture data relevant only to the purpose for which the data were required. They were not integrated into, or efficiently interfaced with, financial systems from which relevant cost data could be extracted. These situations, of necessity, limited the uses to which the cost data could be put.

1.23 In addition, most organisations did not exhibit all the fundamental elements of an effective control framework to support the proper collection and use of cost information.

Recommendations

1.24 Our recommendations are summarised below.

1.25 In relation to costing systems, it is recommended that organisations:

- ♦ assess the extent to which they use costing information in terms of the components of the development model referred to in chapter two; and, for those organisations that are not at the 'Final Stage', develop and implement a plan to move the focus of their costing system progressively to one that meets total organisational demand; and
- ♦ ensure the cost information system is part of, or at least integrated with, their FMIS (paragraphs 2.9 to 2.38 refer).

1.26 To assist the development of their costing systems, it is also recommended that organisations:

- ♦ review their current processes to ensure the costing fundamentals discussed at paragraphs 3.8 to 3.15 are in place; and
- ♦ as part of that review, ensure the audit findings discussed at paragraphs 3.21 to 3.40 are considered and addressed.

Chapter Two

Use of Cost Information

Use of Cost Information

Introduction

Public sector reform

2.1 To be relevant and useful, an evaluation of the present state of the processes used to cost goods and services needs to take account of the ongoing financial management and organisational reforms, and in particular, the impact of these reforms on the way organisations cost their goods and services.

2.2 Significant reductions in government spending; restructuring of agencies and programs, including the separation of policy and service delivery functions; the requirement for contestability, including the increasing trend towards outsourcing; and the accrual budgeting initiative, including the focus on outputs and outcomes; are examples of the nature and pace of change being experienced by the public sector.

2.3 The accrual budgeting framework, which is to be introduced for the 1999-2000 budget, will require agencies and authorities in the General Government sector to:

- ♦ specify and set the price for the outputs they will deliver and describe planned outcomes to which these outputs contribute;
- ♦ specify the performance information required to monitor, manage and account for output delivery and the achievement of identified outcomes; and
- ♦ report performance.³

2.4 The new framework will require, among other things, a clearer idea of the costs of providing goods and services. Organisations will need to plan and manage the cost and price of their outputs and, in order to sustain operations over time,

³ *Specifying Outcomes and Outputs*—Implementing the Commonwealth's Accrual-based Outcomes and Outputs Framework, Department of Finance and Administration, Commonwealth of Australia, 1998

recover through the budget or if appropriate, from user charging, their full costs including capital costs and other overheads.

2.5 To meet these challenges, organisations will require more effective financial management systems and more sophisticated cost information. The current drive to introduce new financial management information systems will provide the necessary framework for the development of enhanced cost information. But personal skills will also have to be developed in order to make best use of such systems and the resultant cost information.

Strategic use of cost information

'Cost management, properly designed and operated is an open invitation

⁴

2.6 An understanding of the cost of the components and processes which comprise the delivery of goods and services and the ability to manage these costs is fundamental to good management and particularly enables managers to influence performance.

2.7 A study of costing systems commissioned by the New Zealand Treasury in 1995 ⁵ reported that the implementation and use of costing information could be portrayed as a three stage development process. This model, which was recently reproduced by the Management Advisory Board, ⁶ maps the development of costing systems from being immature, with a largely external demand focus, to a highly mature, total organisational demand focus.

2.8 Table 1 provides a summary of this model.

⁴ Mould, R C *Activity Costing for Public Sector Organisations*, paper delivered to the International Consortium on Government Financial Management in Washington D.C., U.S.A September 1994

⁵ Coopers and Lybrand, *Review of Costing Systems and User Charges*, Wellington September 1995

⁶ Management Advisory Board, *Beyond Bean Counting - Effective Financial Management in the APS 1998 & Beyond*, Canberra December 1997, p. 75

Table 1: Implementation of a costing system

	<u>Primary Stage</u>	<u>Secondary Stage</u>	<u>Final Stage</u>
Uses	often one off including cost identification, allocation	support decision making through regular monitoring and reporting	fully integrated into overall decision making framework
Demand	often one off requests and external accountability requirements	internal reporting to line management about their activities	data is a key driver in management reporting and decision making process
Support	a secondary or support system	a primary or key internal reporting system	key system for both internal and external reporting
Ownership	finance section	driven by finance section but used by all managers	owned and supported by whole organisation

Source: 'Review of Costing Systems and User Charges - Commissioned by New Zealand Treasury', Coopers and Lybrand, Wellington September 1995

2.9 The ANAO found that most of the organisations' costing systems reviewed in this audit were in the primary stage of development because the organisations:

- ♦ only used cost information for single-use purposes, for example, to establish the cost of a specific activity for the purpose of setting a price level or user charge;
- ♦ captured and used costing information to satisfy mainly external requirements as opposed to the requirements of internal management;
- ♦ had systems to capture cost information which were unstructured and unsophisticated; and
- ♦ used cost allocation methods which did not correctly reflect the usage of resources and provide suitable information on the source and behaviour of costs.

2.10 A small number of the organisations reviewed have progressed to the secondary stage of development by using cost information to support their decision making processes and either integrating or interfacing the costing system with their Financial Management Information System (FMIS).

2.11 These organisations have a better understanding of the basic requirements; have implemented approaches to support increased functionality; and demonstrated an increased understanding of the value of cost information for output and performance measurement.

2.12 At the time of the audit, several organisations were assessing their requirements for cost information as part of the redevelopment of their FMIS. A key aspect driving these assessments was a desire to improve the level and quality of cost information, in particular in the area of decision making and management reporting.

2.13 None of the organisations reviewed had reached the final stage where costing information plays a key role in overall decision making and is being used effectively by the whole organisation.

2.14 One explanation for most organisations being found to have immature cost systems, was a lack of demand for cost information from within the organisation itself, with development driven mainly by externally imposed policy demands. This may be largely a consequence of only having the APS traditional input based appropriation system and the associated cash-based accountability framework.

2.15 This framework did not require the application of better practice cost principles because the management of cash revenues and expenditure was the primary focus of financial control and accountability. This was particularly apparent in resource allocation and management reporting situations reviewed in the audit.

2.16 Consistent with this framework, management were provided with detailed cash expenditure (and revenue) information, budget versus actual variance analysis and in some cases, cash-based performance or activity information. However, most organisations did not report on costs or cost-based performance information.

2.17 A further explanation is that organisations had not considered how cost information could play a valuable role in the ongoing decision making process (concerning either the

goods and services being costed or the performance of the organisation as a whole) and consequently did not appreciate the value of costing for management purposes.

2.18 Only one organisation captured and recorded cost information within its FMIS. The approaches used by the other organisations ranged from relatively simple systems, into which the source data had to be manually input, to complex linked files, which drew information from several sources. In the majority of these organisations, however, the system was not integrated into, or interfaced with the organisation's FMIS.

2.19 One consequence of failure to integrate the cost record with the FMIS is the greater risk, through rekeying of data, that data capture may be prone to error and, as was found, this also contributes to a higher cost of data collection.

2.20 The use of a sophisticated system, such as one based on specialised costing software, which is fully integrated with the FMIS, provides a greater degree of data integrity and a more robust and powerful storage and processing device. It should also produce more useful and timely management reports.

2.21 The challenge for most organisations is to move from the primary to the final stage of the costing model. To do this successfully, organisations firstly need to understand and appreciate the value of cost information in day to day decision making and its potential contribution to the measurement of the overall performance of the organisation.

2.22 Accurate and reliable cost information, which includes all costs (direct and indirect), reflecting the principles of accrual accounting and, when fully integrated with the FMIS, enables an organisation to effectively:

- ♦ establish the full cost of service delivery and goods produced;
- ♦ measure cost recovery and user-pays charges;
- ♦ manage and minimise costs;

- ♦ assess alternatives when implementing new policy initiatives;
- ♦ compare internal delivery against outsourcing options; and
- ♦ measure and assess performance on a total cost basis.

2.23 These opportunities are realised in better performing organisations irrespective of their accountability framework because they are integral to good management. To meet management responsibility for efficient and effective use of resources and to achieve high performance, organisations need to introduce increased rigour and discipline into their costing regimes and provide the necessary skills training.

2.24 The recently introduced accrual budgeting framework will require organisations to define outputs, directly link them to outcomes, and cost the outputs that are delivered, whether these be service delivery to the public or policy advice.⁷

2.25 Currently, Schedule 2 of the Financial Management and Accountability Orders, which are officially titled *“Requirements for the preparation of financial statements under section 49 of the Financial Management and Accountability Act”* requires agencies to present revenue and expense information by program and in particular, clause 11 (4) provides *‘where a program provides goods and services to other programs (primary programs), the costs of those goods and services are to be allocated to those other programs’*.

2.26 An analysis of the approaches adopted by a number of agencies to allocate expenditure to programs has reinforced the finding of this Report that most organisations in the APS do not have effective cost information systems.

2.27 The ANAO found most agencies allocated direct program expenditure as it is incurred, that is, using the coding structure in the organisation’s FMIS.

2.28 On the other hand, the cost of goods and services provided by corporate service programs to primary programs (also known as indirect program costs) were, in the majority of

⁷ Management Advisory Board, op.cit, p. 1

cases, allocated using cost drivers, predominantly on the basis of staff numbers. For the most part, the drivers used were considered to be appropriate because they adequately represented the actual consumption of these indirect program costs. However, in certain cases, the drivers used were considered to be largely arbitrary or subjective, because they did not sufficiently reflect the nature of the cost being allocated or the relationship between the cost and the target program (in these cases, the driver could be said to be a common rather than specific measure).

2.29 Only a small number of agencies allocated program costs on the basis of information provided by their existing cost systems.

2.30 The lack of detailed cost information and the resultant need to use arbitrary or subjective allocation measures, further confirm that a significant effort is required by organisations, in a short period of time, if the benefits from the focus on outputs and outcomes are to be delivered both internally and externally.

2.31 Determining the full cost of an output, for example, will require a more sophisticated understanding of the organisation's cost structure than was necessary to allocate costs amongst programs. In addition, the use of arbitrary or subjective allocations (based on common but potentially unrelated factors) will not provide the level of, or confidence in, information required for the effective management of the performance of outputs.

2.32 As a result of the accrual budgeting initiative, organisations will need to implement better practice costing principles and understand and appreciate the value cost information can provide to management for enhancing departmental performance.

2.33 The implementation of better practice cost principles will facilitate improved control and management of resources by providing more accurate costs, more knowledge on cost structures, including information on the factors which determine costs and a greater understanding of the processes

which contribute to the completion of each output and their relative impacts.

Recommendation 1

2.34 It is recommended that organisations assess the extent they use costing information in terms of the components of the development model referred to in Table 1 at paragraph 2.8. Those organisations that are not at the 'Final Stage' should develop and implement a plan to move the focus of their costing system progressively to one that meets total organisational demand.

Recommendation 2

2.35 It is further recommended that organisations ensure cost information is fully integrated into, or at least efficiently interfaced with, their FMIS.

Implementing the recommendation

2.36 Not all organisations will require the use of a dedicated costing system. Some organisations may be able to obtain sufficient cost information to meet their requirements through regular cost studies or cost identification exercises.

2.37 Each organisation should identify its requirements prior to determining the appropriate costing approach to be used. Some of the factors that should be considered in this assessment include:

- ♦ size and nature of the organisation's operations and environment;
- ♦ existing systems and data handling capabilities;
- ♦ availability of technology and other resources to support the costing system;
- ♦ precision desired/needed; and
- ♦ practicality of developing and cost of data collection.

2.38 The Better Practice Guide, produced in conjunction with this Report, will be designed to provide guidance to organisations on the increased use of cost information through

the development and implementation of better costing systems.

Chapter Three

The Costing Framework

The Costing Framework

The costing function

3.1 At its core, costing methodology aims to establish the cost of the products and services (however defined) that are produced by the organisation.

3.2 In its simplest form, there are two broad steps in the costing process: the identification and collection of cost information and the allocation of that information to the products or services provided.

3.3 Traditionally in the APS, the calculation and use of costing information have been the domain of the corporate accounting staff. While costing information can be used to satisfy a range of diverse requirements, the focus of its use has, as a rule, been re-active or even passive.

3.4 For example, as a result of external requirements, cost information has been used to provide a basis for setting prices or user charges, and to assist in the selection of preferred providers (ie. capital acquisition and outsourcing decisions).

3.5 As mentioned in Chapter two, in the current environment costing information should play a fundamental role in the financial management information framework. Having information on, and controlling the cost of, service delivery is an essential part of management's operational decision making processes to improve performance in many organisations.

3.6 In order to meet this broader role for the costing function, organisations must have in place an adequate framework to support the collection, explanation and use of cost information. There are a number of fundamental components which should be the basis of any effective framework.

3.7 These components are discussed below.

Costing framework

3.8 The following are the fundamental components of an effective costing framework:

- ♦ the existence of a supporting environment;
- ♦ the adoption of an effective approach to obtain appropriate cost information; and
- ♦ an informed application of cost information.

Supporting environment

3.9 An effective supporting environment provides the basis for good understanding and proper calculation and use of costing information.

3.10 Indicators of an effective supporting environment include:

- ♦ clear and relevant policies and procedures, approved by senior management, which detail the basis for costing activities and charging for goods and services;
- ♦ staff familiar with the organisation's structure and processes and who are appropriately qualified or experienced in costing practice and theory and are responsible for implementing costing policies and providing advice on costing matters;
- ♦ appropriate training provided to all staff and managers regarding the cost approach. This training should be designed to provide an understanding of the approach used and ensure an appreciation of the value of cost information. Training should include the method of data collection and the uses of cost information; and
- ♦ roles and responsibilities of staff involved in the management of the costing approach are clearly defined and well understood.

An effective approach

3.11 The approach adopted to collect cost information should take cognisance of the structure, complexity and

diversity of the organisation, its activities, outputs, outcomes and requirements for cost information.

3.12 The effectiveness of the approach is conditional upon the integrity of the information assembled and the efficiency of the processes used.

3.13 Indicators of an effective approach include:

- ♦ conduct of a needs analysis or cost benefit assessment of the costing approach to be adopted;
- ♦ information collected as part of an ongoing cost or resource management process;
- ♦ collection of full cost information;
- ♦ allocation methods based on the nature and pattern of usage of costs;
- ♦ allocation methods regularly monitored to ensure continued reliability;
- ♦ periodical review of cost information; and
- ♦ cost information collected, accumulated and reported using specialised costing software, which is integrated into, or at least makes use of, automatic interfaces with the organisation's FMIS.

Applying cost information

3.14 Information on the source and behaviour of the full costs incurred in the delivery of goods/services should be captured continuously and consistently and used to support and improve operational decision making.

3.15 Potential applications of cost information include:

- ♦ the basis for setting prices/user charges;
- ♦ an essential element of the management reporting cycle;
- ♦ an integral part of the performance measurement framework enabling management to identify activities which are not efficient or cost effective;
- ♦ a resource allocation tool enabling management to ensure the distribution of resources is properly weighted toward those activities which make the greatest

contribution to the final product and is consistent with the actual pattern of resource usage;

- ♦ benchmarking in a contestable environment; and
- ♦ the means of determining the baseline cost of an activity in an outsourcing project.

Benefits of the framework

3.16 A costing framework exhibiting these fundamentals will provide organisations with the ability to generate cost information which has a greater level of accuracy, accountability and integrity.

3.17 In particular, some of the benefits obtainable, which will assist organisations move their costing systems to meet total organisational demand, are as follows:

- ♦ costing and pricing practices are applied correctly and consistently;
- ♦ advice and skills, including an improved understanding of better practice costing principles are transferred throughout the organisation;
- ♦ corporate memory is retained;
- ♦ useful information is provided to management concerning the source and behaviour of the cost of their activities; and
- ♦ the cost of each service or activity properly reflects the resources which contribute to its production or delivery.

3.18 An effective framework is particularly important in the climate of change generated by the timetable for implementation of accrual budgeting in the year 1999-2000.

Results of the audit

3.19 Audit criteria were developed against the above costing framework and used to assess each organisation's costing processes.

3.20 Overall, the ANAO found not all aspects of an effective framework were in place. The audit findings are discussed below.

Policies and procedures

3.21 A majority of organisations had promulgated official policies and procedures regarding their costing and charging activities and, in a number of those organisations, the ANAO found the following inadequacies in the information provided.

3.22 At times there was a lack of information concerning the specific costing and pricing issues faced by the organisation and, as a result, the policies were of limited assistance in gaining an understanding of the organisation's circumstances.

3.23 On the other hand, a number of policy and procedure manuals outlined the specific costing activities to which they were directed, but lacked general information concerning costing matters, including principles, definitions and methodologies.

3.24 In addition, some policies and procedures had not been approved by the organisation's senior management.

Resources ~~skills~~ and knowledge

3.25 Most organisations had established sections responsible for costing matters, including the coordination and dissemination of policy and advice and the development of costing methodology.

3.26 In more than half of the organisations reviewed, detailed training in costing matters was not available to all staff, including managers.

Cost allocation

3.27 In the majority of cases, allocation methods used by organisations relied on cost drivers (ie. factors that cause changes in, or influence cost levels). The cost drivers used ranged from cause or effect measures which had a strong

correlation to the cost being allocated, to measures which were more arbitrarily or subjectively derived.

3.28 Overall, while such measures were found to produce reasonably accurate results, in many cases the ANAO considered the use of cost drivers to be less effective because the resultant allocation did not correctly reflect the pattern of resource usage nor provide reliable information on the source and behaviour of costs.

3.29 In a minority of cases, a greater level of accuracy and reliability has been achieved through the direct assignment of costs.

3.30 For example, two organisations regularly obtained statistics or estimates of resource usage (mainly staff time) to provide the basis for tracing costs to particular activities or outputs. In addition to providing greater costing accuracy, these techniques furnished managers with a higher level of information and confidence concerning the costs incurred by their activities.

3.31 A further technique, which was only used in a small number of cases, was the direct assignment of costs through their identification and accumulation using the organisation's FMIS.

3.32 The audit also found that, in a majority of organisations, there was no system of periodically monitoring allocation techniques to ensure the latter remained valid and provided reasonably accurate information.

Full cost

3.33 Accrual information was not generally available from organisations' accounting systems. Therefore, full cost was determined by adding an allowance for non-cash items to approved cash budgets. Two organisations, however, used their most recent audited financial statements to obtain full cost information.

3.34 In most organisations, the audit found accrual accounting principles were properly applied. Where this was

not the case, the most common deficiency was that the calculation of costs was not adjusted for non-cash items, for example depreciation of non financial assets. In the case of depreciation, the ANAO found the error was compounded by incorrectly including an estimate of capital expenditure in the assessment of costs as well.

Setting prices/user charges

3.35 The audit generally found that cost information was being properly used for the purposes of setting prices and user charges.

3.36 Overall, while the level of documentation supporting pricing decisions was adequate, in a small number of cases the ANAO considered that the level of documentation for pricing decisions, including details of assumptions and other analysis, could be improved.

3.37 In several organisations, the audit also found potential for the incorrect assessment of fees, including cross subsidisation, due to:

- ♦ indirect costs not being properly considered in the assessment of user charges; and
- ♦ underlying assumptions relating to the cost allocation rules not being revalidated to ensure that they remained accurate and appropriate.

Calculating baseline costs

3.38 Overall, the audit found baseline cost exercises, while generally producing reasonably accurate results, were often undertaken in an unstructured way and, at times, did not include an allowance for all overhead costs, for example, costs associated with corporate support functions.

3.39 In addition, the approach used by the majority of organisations had not fully addressed all relevant considerations, such as the full cost of contracting out (which includes contract management and transition costs).

3.40 Only one organisation had formally documented and approved the costing methodology it used, including the

sources of information, for the determination of the baseline cost of the activity.

Recommendation 3

3.41 To assist moving the focus of their cost information towards satisfying total organisational demand (paragraph 2.34), it is recommended organisations review their current processes to ensure the costing fundamentals discussed at paragraphs 3.8 to 3.15 are in place.

3.42 As part of this review, it is further recommended, organisations ensure that the audit findings discussed at paragraphs 3.21 to 3.40 are also considered and addressed as necessary to their individual circumstances.

Implementing the recommendation

3.43 Organisations should refer to Appendices 2 (Cost allocation) and 3 (Policy documentation), which have been included to provide guidance on these aspects of an effective framework. Additional guidance on baseline costing is available from the following documents produced by the Department of Finance and Administration:

- ♦ “Performance Improvement Cycle - Guidance for
- ♦ “Competitive Tendering and Contracting - Guidance

Canberra ACT
11 December 1998



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Appendices

Appendix 1

About the audit

Background

The ANAO decided to undertake a review of the use and collection of costing information at this time because it identified that effective costing of government activities will play a significant role in the implementation of the financial management reforms facing the APS.

Foremost in this regard is the introduction of the accrual budgeting framework and the Performance Improvement initiatives, both of which require organisations to identify the full cost of the services they deliver.

Objectives, scope and focus

The objectives of the audit were to assess the appropriateness and effectiveness of approaches adopted for capturing and using costing information and to identify better practices which could be disseminated throughout the APS.

An assessment has also been made as to whether these approaches are sufficiently developed to support the requirement for cost information following the introduction of the accrual budgeting framework.

Evaluation criteria

In satisfying the objectives of the audit, the merits of the costing approaches were evaluated against the following criteria:

- ♦ existence of a supporting environment;
- ♦ adopting an effective approach to obtain cost information; and
- ♦ applying the cost information appropriately.

Approach

Evidence supporting the audit findings and conclusions was obtained from discussion with organisation management and staff and through review of relevant documentation.

Performance information

The total cost of the fieldwork phase of the audit, including production of this Audit Report was \$260,000. The average cost of the fieldwork at each of the 10 organisations reviewed was \$12,300.

A total of 23 recommendations for improvement were made in relation to the results of the fieldwork in each organisation.

Planning for the audit commenced in February 1998, with detailed fieldwork, including reporting to the selected organisations undertaken in the period April 1998 to August 1998.

The total time elapsed from the commencement of planning to tabling of the report was 9 months, which is outside the 6 month benchmark used by the ANAO as a performance measure for the timeliness of the conduct of FCA audits.

Appendix 2

Cost allocation techniques⁸

Table 2: Cost Allocation Techniques

<u>Technique</u>	<u>Description</u>
Direct Assignment (Cost centre coding)	costs are allocated to cost centres as they are incurred; usually as they are coded for posting to the FMIS
Metering	cost are allocated on the basis of staff time or resource usage (for example photocopier meters, vehicle logs or CPU time)
Cost drivers(cause and effect)	costs are allocated on the basis of relationships which can be demonstrated
Cost drivers(arbitrary or prorata)	costs are allocated on the basis of common but potentially unrelated factors

Source: ANAO

It is preferable to use direct assignment and metering techniques in the allocation of direct costs. It would generally not be cost effective to allocate indirect costs using these techniques.

Although cost drivers can also be used to allocate direct costs, it is generally more appropriate if they are used for the allocation of indirect costs.

Direct costs are those costs which, by their nature, are capable of being traced or assigned to an activity or good/service, and typically include employee related costs, depreciation, printing/stationery and consultancy.

Indirect costs are those costs necessary incurred in the provision of the whole organisation's function and which need to be attributed across its activities or goods/services. This includes for example, utility costs, building costs and corporate support costs.

Cost centre assignment is the most direct form of allocation and is likely to produce the most accurate results. The allocation of costs is based on clear

⁸ This Appendix draws on information contained in *Managing for Outcomes - Draft Output Costing Guidelines*, Queensland Treasury, November 1997

relationships between the cost incurred and the service provided. The ability to use this technique effectively, depends on the capability of the organisation's FMIS to capture and allocate the information.

Metering is a sophisticated technique which is also based on relationships between the cost incurred and the service provided. However, metering can be time consuming and expensive to implement. There are two types of metering, commonly known as direct and appraisal.

Direct methods measure the actual usage of resources on an ongoing basis. The most obvious example is the allocation of labour costs based on the actual time spent on particular activities (information taken from a time recording system).

Appraisal methods allocate costs on the basis of estimates of actual staff time or resource usage using a pattern established over a prescribed time period. An example of an appraisal method is sampling. Sampling measures actual staff time or resource use for a finite period of time and extrapolates it to the longer period. Another form of appraisal is the use of interviews, questionnaires or surveys to establish a pattern at a point in time.

While appraisal techniques will be cheaper to implement than direct allocation methods, the results can be invalidated if the statistics gathered are not appropriate or credible, particularly as a result of workflow variations or if the data collected are not accurate and complete. To overcome these difficulties, workload indicators or other statistics should be regularly collected or monitored and the data collection phase should be supported by implementing a series of checks on the veracity of the data.

Cost drivers are the least sophisticated technique but will be cheaper to implement. It is preferable if the cost drivers used (for example number of staff, number of PCs/terminals, salary expenditure or proportion of floor space) are representative of a relationship between the cost being allocated and the cost object. At certain times, however, the use of arbitrary cost drivers may be appropriate, given the nature of the expenditure being allocated.

The choice between allocation techniques should consider the materiality of the costs being allocated, the cost of the method used, the precision of the output desired and the level of information useful to management.

Appendix 3

Content of Policy and Procedural Documentation

As a minimum, policies and procedures should contain the following information:

Background information

- ♦ discussing the uses of cost information in the organisation
- ♦ providing guidance on cost methodologies which are available

Costing matters

- ♦ describing cost methodology(s) used by the entity
- ♦ outlining the methods of classifying direct and indirect costs
- ♦ detailing the methods of assigning direct costs and attributing indirect costs
- ♦ level of detail to be documented
- ♦ procedures for reviewing cost accounting approaches

Pricing/charging matters

- ♦ defining the circumstances in which the organisation charges for the goods and services it provides and the circumstances when it does not charge
- ♦ defining the basis for setting prices (including the different basis for unit costs eg, hourly rates and flat rates)
- ♦ detailing pricing strategies
- ♦ outlining what costs to include and how these costs are to be obtained
- ♦ providing for charges to be reviewed periodically and whenever changes in cost structure are known to have occurred
- ♦ guidance on competitive neutrality principles.

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