Asset Measurement in the Costing of Government Services

Research Paper

Steering Committee for the Review of Commonwealth/State Service Provision

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Terms of reference for the Review of Commonwealth/State Service Provision

The Review of Commonwealth/State Service Provision was established by heads of government in 1993 to develop objective and consistent data on the performance of services that are central to the wellbeing of Australians.

The Review, to be conducted by a joint Commonwealth/State and Territory working party, is to undertake the following:

- establish the collection and publication of data that will enable ongoing comparisons of the efficiency and effectiveness of Commonwealth and State Government services, including intra-government services. This will involve;

  - establishing performance indicators for different services which would assist comparisons of efficiency and effectiveness. The measures should, to the maximum extent possible, focus on the cost effectiveness of service delivery, as distinct from policy considerations that determine the quality and level of services, and

  - collecting and publishing data that are consistent with these measures. The Review should also address the procedures for the ongoing collection and publication of benchmark data; and

- compile and assess service provision reforms that have been implemented or are under consideration by Commonwealth and State Governments.

The Review will cover all major types of reform, including those involving the separation of policy development from service provision. Case studies of particular reforms could be provided where appropriate.

The Review will need to keep abreast of developments in other relevant reviews and working parties, including the Commonwealth/State Government working party (initiated by the Council of Australian Governments), investigating Commonwealth/State Government roles and responsibilities.

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Acronyms and abbreviations

AAS	Australian accounting standard(s)
AGPS	Australian Government Publishing Service
AIHW	Australian Institute of Health and Welfare
ANAO	Australian National Audit Office
ANU	Australian National University
CCNCO	Commonwealth Competitive Neutrality Complaints Office
CSHA	Commonwealth-State Housing Agreement
CRC	Current replacement cost
DORC	Depreciated optimised replacement cost
DRC	Depreciated replacement cost
PC	Productivity Commission
RCV	Replacement capital value
REIA	Real Estate Institute of Australia
SCNPMGTE	Steering Committee on National Performance Monitoring of Government Trading Enterprises
SCRCSSP	Steering Committee for the Review of Commonwealth/State Service Provision
SRCSSP	Secretariat for the Review of Commonwealth/State Service Provision
UCC	User cost of capital

Key messages

- Differences in asset measurement techniques can have a major impact on reported capital costs. Their influence on total unit cost depends on the importance of capital costs as a proportion of total costs for the particular service area being studied.

- In the areas of corrective services, police services and public hospitals the results reported in this paper indicate that different methods of asset measurement could lead to quite large variations in reported capital costs. Considered in the context of total unit costs, however, the differences created by these asset measurement effects were relatively small as capital costs represent a relatively small proportion of total cost.

- These results suggest that, for those service areas covered by the paper, the potential impact of asset measurement factors on reported total unit costs averaged around 5 per cent of total unit costs. Therefore, if using reported total unit costs for comparison purposes, the potential for asset measurement factors to have an impact of this magnitude should be taken into account.

- The relative capital intensity associated with the provision of public housing increases the scope for differences in asset measurement techniques to have a material impact on total unit costs. The results of this study suggest, however, that the adoption under the Commonwealth-State Housing Agreement of a uniform accounting framework has largely avoided this.

- The results presented in this paper suggest distortions created by different asset measurement techniques are generally relatively small and do not suggest major comparability issues for the cost data featured in the *Report on Government Services.* Nevertheless, the adoption of national uniform accounting standards would be a desirable outcome from the perspective of the Review.

- The analysis centres on the assets that contribute most to total capital costs. While there were inherent difficulties associated with the nature of the study, efforts were made to address any shortcomings associated with the research method where that was possible. Where limitations could not be addressed, they are clearly specified in the paper and the conclusions are accordingly qualified. It is noteworthy that the application of the research method across four service areas saw the results replicated. Further, the overall conclusions remain robust because, if anything, the analysis is likely to overstate the impact of differences in asset valuation methods.

1 Importance of asset measurement techniques

Costs associated with non-current physical assets (such as depreciation and the user cost of capital) are potentially important components of the total costs of many services delivered by government agencies. Differences in the techniques for measuring non-current physical assets (such as valuation methods) may reduce the comparability of these cost estimates across jurisdictions.

The Review of Commonwealth/State Service Provision (hereafter, the Review) uses unit cost comparisons across jurisdictions as an indicator of efficiency in the *Report on Government Services.* Whether high or low cost per unit is appropriate depends on outcomes obtained by clients, in particular the quality of the service provided.

The Review's approach is to report the full costs of a service where they are available. Where the full costs of a service cannot be measured accurately, the Review seeks to report estimated costs that are comparable. Where differences in comparability remain, the Review seeks to document the nature of those differences. In this context, it is important to understand the extent to which cost data are comparable across jurisdictions. The implications of different asset measurement techniques for unit costs are therefore an important issue for the *Report on Government Services* (box 1.1).

In addition, the recent shift from cash to accrual accounting increases the importance of asset valuation techniques. It has been recognised that different valuation methods may be appropriate in different circumstances (SCNPMGTE 1994, PC 2001c). In the case of the areas of service provision discussed in the *Report on Government Services*, however, governments have generally expressed a preference for current (or replacement) cost valuation methods. While historical cost approaches may be appropriate in some circumstances, they do not necessarily reflect current asset values or asset usage costs where inflation, technological change or changes in market conditions lead to changes in asset values over time. That is, no one asset valuation method is universally superior to another, only more appropriate in certain situations. Current value methods are less reliable, yet more relevant than historical cost. Conversely, historical cost is more reliable, yet over time less relevant, than current valuation

methods. Valuation techniques are outlined in appendix A and in the glossary (SCNPMGTE 1994, PC 2001a, PC 2001c).

Box 1.1 **Objectives of the *Report on Government Services***

The annual *Report on Government Services* compares government performance in the provision of key services. The objective is to better inform judgments and public policy actions, and thus promote continuing service improvement.

One objective of the Steering Committee for the Review is to allow users to make comparisons across jurisdictions (bearing in mind that each government may attach a different set of weights to often competing objectives of the efficiency and effectiveness of service delivery).

Efficiency measures focus on the relationship between inputs provided by governments and outputs. The main indicator is cost per unit of service. Comparisons of the unit cost of a service are most meaningful for policy decision making where the data are complete — that is, where they accurately account for all government resources consumed in providing the service.

Complete cost information for government services is also important for other purposes, such as applying competitive neutrality policy.

The Steering Committee, if faced with difficulties and shortcomings in indicators and available data, usually seeks to publish the best available data (even if the initial results are imperfect), then focuses on improving those data over time. The aim of this paper is to assess the importance of differences in asset measurement techniques for data reported by the Review.

In response to concerns regarding data comparability, the Steering Committee for the Review initiated this exploratory study. The aim is to examine the extent to which differences in asset measurement techniques applied by agencies participating in the Review affect the comparability of reported estimates of unit costs.

The paper seeks to answer three questions relating to asset measurement:

1. What are the differences in asset measurement techniques across jurisdictions and service areas?

2. If there are differences, how important or material are they for total unit costs?

3. If the differences are material, how can this be overcome so that data comparability is improved?

For the purposes of this paper, two elements of capital costs are considered:

- Depreciation, defined as an expense recognised systematically for the purpose of allocating the annual consumption of the amount of a non-current asset used in providing a government service over its useful life. Depreciation expenses are usually included in recurrent expenditure but are often reported separately in the *Report on Government Services* because of comparability issues.

- The user cost of capital, defined as the opportunity cost of funds tied up in the capital used to deliver services (for example, houses in public housing). It is the equivalent to the return foregone from not using the funds to deliver other government services, or to retire debt. To improve the comparability of unit costs, the Steering Committee decided that both depreciation and the user cost of capital should be included in unit cost estimates (although the user cost of capital for land is to be reported separately). The user cost of capital rate is applied to all non-current physical assets, less any capital charges and interest on borrowings already reported by the agency (to avoid double counting). The user cost of capital rate is based on a weighted average of rates nominated by jurisdictions (currently 8 per cent).

The way assets are measured can affect estimates of capital costs and therefore total unit costs. In particular, estimates of the user cost of capital and the amount of depreciation will fluctuate according to how highly an asset is valued. In addition, the depreciation expense will fluctuate depending on the assumed useful life of the asset.

Many factors are likely to impact upon capital costs (box 1.2). This paper attempts to measure the impact of five of these factors (revaluation and depreciation *amounts*,[1] useful lives, capitalisation thresholds and revaluation frequency). The study is limited by the difficulty associated with isolating the impact of each individual factor listed in box 1.2. Accordingly, for the purposes of this study some factors are implicitly assumed constant both within and across jurisdictions. Specifically the study attempts to control for factors six, seven and eight by including analysis of data relating to the age, size, and where possible, location of assets. The remaining factors which may impact on asset values are unable to be captured by the research method employed. Similar methodological limitations are apparent in related studies (see for example Deeble, 1992, 1994). This means the results contained in the paper should be treated with care.

[1] Depreciation *rates* are not used in the analysis.

Box 1.2 **Reasons for cost variations**

The purpose of this paper is to determine factors relating to the accounting treatment of assets that can cause variation in capital costs. Reasons asset values may vary within or between jurisdictions include:

1. Valuation methods;
2. Depreciation methods and amounts;
3. Useful asset lives;
4. Capitalisation thresholds;
5. Frequency and timing of revaluations;
6. Asset age;
7. Asset size;
8. Asset location;
9. Prevailing market conditions;
10. Technological advancement and obsolescence;
11. Asset condition; and
12. Completeness of asset registers.

The findings of the paper are based on case studies of particular assets commonly used in selected service areas rather than on a comprehensive survey of all services. While the study is exploratory in nature it is not a pilot study.

The paper is not intended as an assessment of the efficiency of government service provision. Suggested changes to reported unit costs in this paper are for illustrative purposes only. It is not implied that previously reported costs in the *Report on Government Services* have been either understated or overstated. As noted, the purpose of this paper is to determine factors relating to the accounting treatment of assets that may cause differences in capital costs.

Moreover, the paper does not prescribe ways of measuring assets or suggest that some ways of measuring assets are superior to others, although after considering the results of this study, Review participants concerned about comparability may wish to consider uniform accounting frameworks for their particular service area. This study could help inform such consideration.

Lastly, the paper does not consider issues relating to the need for future capital expenditure. The relationship between the need for future capital expenditure and depreciation, or other aspects of asset measurement, is not explored.

2 Research method and extent of differences in asset measurement techniques

Valuations of non-current physical assets (i.e. capital) and the costs associated with capital (depreciation and the user cost of capital) affect many of the indicators in the *Report on Government Services.* Understanding the role asset measurement techniques play in differences in performance reporting across jurisdictions is a step forward in improving comparability of data.

Research method

This paper considers the likely materiality of differences in asset valuation techniques in the areas of corrective services, housing, police services and public hospitals. These service areas were selected due to their differing degrees of capital intensity. The level of capital costs as a proportion of total costs varies across these service areas (see tables 2.1 to 2.4).

The tables indicate that housing can be considered as highly capital intensive, with capital costs accounting for around 71 per cent nationally of the gross cost of providing public housing reported in the *Report on Government Services 2001*. Police tends to be labour intensive with capital costs ranging from between 3 and 9 per cent across jurisdictions. Public hospitals and corrective services fall between these two. Capital costs range from between 7 and 13 per cent of total costs across jurisdictions for public hospitals, while the range for corrective services is between 3 and 20 per cent (tables 2.1 to 2.4). The conclusions on the capital intensity of public hospitals are consistent with the findings of Watts, Richardson and Segal (2000).

Table 2.1 **Corrective Services: capital costs as a proportion of total cost per prisoner per day, 1998-99 (per cent)[a, b, c]**

Jurisdiction	*Proportion of capital costs in total unit costs*
NSW	20.4
Victoria	8.4
Queensland	4.8
WA	11.7
SA	17.1
Tasmania	na
ACT	2.8
NT	na

a Based on *Report on Government Services 2000*. **b** Capital costs refers to depreciation and the user cost of capital. **c** The proportion of capital costs to total costs is sensitive to the method of asset valuation and accounting policies adopted in each jurisdiction.

Source: SCRCSSP (2000).

The analysis in table 2.1 shows large variation between jurisdictions in capital costs as a proportion of the total costs per prisoner per day. This will affect the final results of the study as the capacity for total unit costs per prisoner per day to be affected by differences in asset measurement techniques is largely determined by the proportion of total unit costs made up by capital costs. The capacity of asset measurement techniques to influence total unit costs will, therefore, vary between jurisdictions. This is also true for the other service areas covered by the study, although the variation in the proportion of total unit cost represented by capital costs is not so great (tables 2.2 to 2.4).

Table 2.2 **Housing: capital costs as a proportion of gross cost per dwelling per day, 1999-2000 (per cent) [a, b, c]**

Jurisdiction	*Proportion of capital costs in total unit costs*
NSW	76.0
Victoria	75.0
Queensland	71.1
WA	65.3
SA	58.2
Tasmania	na
ACT	64.8
NT	61.8
Australia	71.7

a Based on *Report on Government Services 2001*. **b** Capital costs refers to depreciation and the user cost of capital. **c** The proportion of capital costs to total costs is sensitive to the method of asset valuation and accounting policies adopted in each jurisdiction.

Source: SCRCSSP (2001).

Table 2.3 **Police Services: capital costs as a proportion of total police expenditure, 1999-2000 (per cent)[a, b, c]**

Jurisdiction	*Proportion of capital expenditure in total expenditure*
NSW	6.0
Victoria	3.0
Queensland	8.8
WA	4.4
SA	5.3
Tasmania	5.7
ACT	5.2
NT	na

a Based on *Report on Government Services 2001*. **b** Capital costs refers to depreciation and the user cost of capital (excluding land). **c** The proportion of capital expenditure to total expenditure is sensitive to the method of asset valuation and accounting policies adopted in each jurisdiction.

Source: SCRCSSP (2001).

Table 2.4 **Public Hospitals: capital costs as a proportion of total cost per casemix adjusted separation, public acute hospitals, 1998-99 (per cent)[a, b, c]**

Jurisdiction	*Proportion of capital costs in total unit costs*
NSW	10.0
Victoria	8.0
Queensland	9.5
WA	9.8
SA	12.7
Tasmania	7.4
ACT	11.8
NT	na

a Based on *Report on Government Services 2001*. **b** Capital costs refers to depreciation and the user cost of capital (excluding land). **c** The proportion of capital costs to total costs is sensitive to the method of asset valuation and accounting policies adopted in each jurisdiction.

Source: SCRCSSP (2001).

While it is possible to hypothesise that — where capital costs contribute substantially to total unit costs, differences in asset measurement techniques could potentially have a material impact on total unit costs — it is not possible to determine without further analysis whether the impact is in fact material. The further analysis in this study enables the actual effect of differences in asset measurement techniques on reported unit costs to be estimated.

The research method used is summarised in box 2.1 and explained in detail in appendix B. This research method is not inconsistent with that utilised in Australian studies performed on hospital asset valuation (see Deeble, 1992, 1994). Specifically

the number of hospital beds were used in calculations performed in this study, as in the Deeble studies.[1] Comparisons are made of assets that are as similar as possible across jurisdictions (see chapters 3, 4, 5 and 6).

Box 2.1 **Summary of research method**

Essentially, the study poses the question:

> If all assets in all jurisdictions were exactly the same and the only factor leading to differences in outcomes was the way those assets were measured, how would this affect reported costs?

While data were collected for a range of assets (buildings, information technology equipment and cars), property assets are the focus of the study because they account for the greater part of the total value of capital assets in each area of service provision in each jurisdiction. Ostensibly comparable property assets were selected for analysis (the largest correctional facilities, average value dwellings, police complexes in larger urban areas, and principal referral hospitals).

In each service area, a reference asset was selected as the standard for comparison. In most cases, reference assets were the most recently constructed or acquired building to provide an estimate of the cost of replacing the asset. In the case of housing, however, average dwelling by value was selected as the reference asset due to insufficient data. In the area of police services, the average police complex in urban areas by value was selected as the reference asset for the same reason.

Current asset values per unit were measured using the current book value of the asset provided by each jurisdiction. In addition, a further asset value based on depreciated replacement cost was calculated for each jurisdiction by multiplying the current book value of a unit of the reference asset by the number of units in each jurisdiction.

Two sets of capital costs were then calculated for each jurisdiction — one based on the current book value of assets, and the other based on the estimated depreciated replacement cost value obtained using the reference asset. These were compared and the percentage difference for each jurisdiction was used to adjust the capital costs reported in the *Report on Government Services 2001* (or *2000* for corrective services, as capital costs were unavailable for the 2001 Report). The resulting percentage change in total unit costs was then assessed for importance.

A more detailed summary of the research method used in the paper is contained in appendix B.

The analysis was carried out using depreciated replacement cost (DRC) valuations. DRC is defined in the glossary. Using DRC valuations should allow for maximum comparability of assets between jurisdictions (because this method accounts for

[1] The Deeble (1992, 1994) studies were focused upon estimating replacement spending of public hospital capital stock.

differences in both acquisition time, by revaluing to current cost, and condition of the asset).

In addition, two sets of analysis were undertaken — one based on the depreciation amount applied by each individual jurisdiction, and the other based on the depreciation amount applied in the reference jurisdiction. The paper concentrates on the analysis performed using the jurisdictional depreciation amounts, while the reference asset depreciation analysis is featured in appendix C.

The data collected for the paper were obtained from a survey of government agencies involved in the provision of some of the services covered by the Review. The survey sought information on the value and accounting treatment of assets typically held by such agencies.

It is important to note the limitations of this study. For each separate case study (i.e. service area), the characteristics of a subset of assets were used to draw inferences for the entire range of assets within the service area. Even within these subsets of assets, there will be differences in the types of assets being compared that are likely to affect their value (e.g. the size, age or location of buildings) and there may be scope for economies of scale. Asset definitions may also vary between agencies (for example, fixtures and fittings may be included in dwelling valuations in some jurisdictions but not others).

It is not possible to fully isolate these factors and therefore in the analysis they are implicitly held constant. More specifically, the reference asset is assumed to be identical to the other assets within the subset both within and across jurisdictions. However, in reality, an individual asset chosen for analysis may differ significantly from other assets in the same subset. For example, while the analysis for hospitals was based on a comparison across jurisdictions of the largest building in the largest principal referral hospital, the type of building selected in SA had a substantial impact on the results (chapter 6). The most likely explanation for this is differences in the mix of outputs associated with each individual asset selected for analysis in each jurisdiction — something which this study was unable to control for.

The degree to which the data collected allowed assets of a comparable nature to be analysed and the amount of useful data obtained varied between service areas. The study was unable to control, for example, for dwelling size in the housing analysis. These limitations mean that the study is likely to overstate the impact of asset measurement on capital costs. The analysis provides an indication of the maximum differences likely to arise.

Sources of potential difference

Treasury and finance departments in each jurisdiction have developed guidelines on how assets should be measured. These guidelines were based on *Guidelines on Accounting Policy for Valuation of Assets of Government Trading Enterprises* and relevant Australian accounting standards, such as AAS 10 *Accounting for the Revaluation of Non-current Assets.*[2] These guidelines have been designed to cover a number of aspects of asset measurement including methods of asset valuation, frequency of asset revaluations, depreciation of assets, and asset capitalisation thresholds (see glossary for definitions). The guidelines differ between jurisdictions and leave scope for differences in asset treatment within jurisdictions. Details of the accounting methods used by jurisdictions are outlined in tables 2.5 to 2.8.

Asset revaluation

Australian accounting standards have traditionally been more concerned with the reporting of revaluations rather than the methodologies applied in the initial valuation (PC 2001b). Following the shift of governments to accrual accounting, jurisdictions have increasingly adopted the concept of deprival value for asset revaluation.[3] Deprival value is the value to an agency of the future economic benefits that an entity would forego if deprived of the relevant asset. Revaluation methods other than deprival are available although the deprival method is generally considered preferable by departments of treasury and finance. Common current valuation methods other than deprival are current market (selling) price and net present value in current use. The deprival method is described in appendix A. Other methods are outlined in the glossary.

The following analysis found no examples of agencies using historical cost valuations for assets that were likely to have a material effect on capital costs,

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2 The *Guidelines on Accounting Policy for Valuation of Assets of Government Enterprises* were published in 1994 by the Steering Committee on National Performance Monitoring of Government Trading Enterprises. The Australian accounting standard referred to is that which was applicable for the year 1999-00. It should be noted that AAS 10 has been reissued as two standards: AAS 10 *Recoverable Amount of Non-Current Assets* and AAS 38 *Revaluation of Non-Current Assets* with the new standards applying to reporting periods beginning on or after 1 July 2000. Following the issue of the new standards, Queensland Treasury, for example, has issued revised public sector guidelines applying from 1 July 2001 providing agencies with guidance on applying 'fair value' rather than 'deprival value' principles for valuing land, buildings, infrastructure, heritage and cultural assets, and recommending historical cost valuations for other assets. The data analysed in this paper belong to accounting periods beginning before 1 July 2000.

3 Assets are revalued to ensure their values reflect current prices as opposed to historical costs.

except for newly acquired assets.[4] Assets of material importance are generally revalued using either the deprival method or market value except in public hospitals where use of replacement cost is also prevalent. In the area of housing, all material assets (i.e. properties) were valued using market valuations. Historical cost valuations (except in the case of newly acquired assets) were used exclusively for assets that, due to their relatively low value, are unlikely to have a material impact on capital costs.

The analysis in this paper suggests no particular current valuation method leads to consistently higher asset valuations than other current valuation methods. In certain circumstances, the deprival method requires the use of current market value or net present value (appendix A). Use of the deprival method, therefore, may result in the same valuations that would be obtained from other valuation methods.

Frequency of revaluations

Accepting that current valuations are most commonly used by agencies, it then becomes important to assess whether assets are revalued on a regular basis. This paper argues that it is unlikely that differences in the frequency of asset revaluation would have a material impact on unit costs, particularly as assets having a material impact on capital costs are generally revalued regularly. That is, the use of current asset valuation methods requires that asset values be contemporary. There are some differences between jurisdictions and service areas that are explored in the following analysis.

Depreciation and useful asset lives

Depreciation amounts and the useful asset lives adopted for asset classes and individual assets can have an impact on the comparability of cost data. The paper assesses how amounts of depreciation and useful asset lives vary across jurisdictions and agencies, and attempts to assess whether these differences would have a material effect on estimates of unit costs. It appears from the analysis that the influence of these factors is less important than that of different valuation methods, although it can be difficult to separate the effect of revaluations and depreciation. Revaluations mean that depreciation expenses may be variable under current valuation methodologies, reflecting technological and market change, and this makes the impact of differing depreciation amounts and useful asset lives more difficult to isolate (PC 2001b). The extent to which depreciation may reduce

[4] The NT values hospital buildings using historical cost, however, not enough information was available to perform analysis on the impact of this.

comparability of cost data is partly determined by the amount and frequency of revaluations.

Table 2.5 **Treatment of assets by corrective services agencies**

	Asset type	*NSW*	*Vic*	*Qld*	*WA*	*SA*	*Tas*[a]	*ACT*	*NT*[b]
Revaluation method[c]	Land	Current use	Market	Deprival	RCV	Deprival	DORC	Market	Deprival
	Buildings	Current use	Market	Deprival	RCV	Deprival	DORC	Market	Deprival
	Other assets	Historical cost	Historical cost	Varies	Historical cost	Historical cost	Historical cost	Historical cost	Historical cost
Year of last revaluation	Land, buildings	1997	2000	2000	1999	1996-2000	1997	1999	2001
Useful asset lives	Buildings	50 yrs	40 yrs	40-50 yrs	50 yrs	40-60 yrs	na	15-75 yrs	30 yrs
	Plant and equipment	na	na	na	15 yrs	4–15 yrs	5–20 yrs	3-20 yrs	..
	IT and computer equipment	na	na	na	10 yrs	4 yrs	na	na	..
	Office equipment	na	na	na	5-10 yrs	na	na	na	..
	Motor vehicles	na	na	na	2-8 yrs	20 yrs	7 yrs	na	..
Threshold capitalisation levels	All	$5 000	na	$2 000	$5 000	$10 000	$5 000	$2 000	..
Assets capitalised individually or in groups	All	Grouped	na	Individually	Individually	Individually (IT equip. grouped)	Grouped	Individually	..

a Tasmania employs declining balance depreciation in contrast to the straight-line method of other jurisdictions. **b** NT services currently report under cash based accounting. **c** DORC is the depreciated optimised replacement cost; RCV is replacement capital value; Market value is the current (net) value market selling price or exchange value; and deprival value may be either the DRC of an asset of a similar service potential or the stream of its future economic benefits. **na** Not available. **..** Not applicable.

Table 2.6 **Treatment of assets by housing agencies**

	Asset type	*NSW*	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*[a]
Revaluation method[b]	Land	Market	Market	Market	Market	Market	Market	Market	..
	Buildings	Market	Market	Market	Market	Market	Market	Market	..
	Other assets	Historical cost	Historical cost	Historical cost	Historical cost	Historical cost	Historical cost	Historical cost	..
Frequency of revaluations	Land, buildings	3 yrs	1 yr by index; 5 kerbside	1 yr	1 yr	1 yr	1 yr	1 yr	..
Useful asset lives	Residential properties	50 yrs	50 yrs	50 yrs	50 yrs	50 yrs	50 yrs	50-80 yrs	..
	Vehicles	2 yrs	..	..	2 yrs	..	2 yrs	..	..
	Office equipment	3 yrs	10 yrs	5yrs	10 yrs	10 yrs	5 yrs	2-10 yrs	..
	IT equipment	3 yrs	4 yrs	2.5 yrs	5 yrs	3 yrs	3 yrs	7 yrs[c]	..
Threshold capitalisation levels	All	$5 000	$1 000	$5 000	$1 000	$5 000	$5 000	$2 000	..
Assets capitalised individually or in groups	All	na	Individually	Individually	Individually	Individually	Individually	Grouped	..

a Currently report under a cash-based accounting framework. **b** *DRC* is the depreciated replacement cost; market value is the current (net) value market selling price or exchange value; and deprival value may be either the DRC of an asset of a similar service potential or the stream of its future economic benefits. **c** Refers to IT systems not hardware. **na** Not available. **..** Not applicable.

Table 2.7 **Treatment of assets by police agencies**

	Asset type	*NSW*	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*[a]
Revaluation method[b]	Land	DRC	Market	Deprival	Current use	Deprival	Market	Market	..
	Buildings	DRC	Market	Deprival	Current use	Deprival	Market	Market	..
	Other assets	Historical cost	Market	Historical cost	Historical cost	Historical cost	Deprival	..	..
Frequency of revaluations	Land, buildings	3 yrs	4 yrs	5 yrs	1 yr	2 yrs	5 yrs	5 yrs	..
Useful asset lives	Buildings	40 yrs	50 yrs	50 yrs	40 yrs	60 yrs	35-70yrs[c]	25-60 yrs	..
	Communications equipment	6.5 yrs	1–20 yrs	6–11 yrs	5 yrs	7 yrs	2–20 yrs	5 yrs	..
	IT equipment	4 yrs	na	3 yrs	4 yrs	3–7 yrs	3 yrs	5 yrs	..
	Vehicles	2-6.5 yrs	na	2 yrs	2 yrs	10 yrs	2 yrs	5 yrs	..
	Office equipment	10 yrs	10 yrs	5 yrs	7 yrs	10 yrs	3 yrs	5 yrs	..
Threshold capitalisation levels	All	$5 000 ($500 for IT equipment)	$1 000	$1 000	$5 000	$2 000	$5 000	$2 000	..
Assets capitalised individually or in groups	All	Grouped	Individually	Individually (police cars grouped)	Individually	Individually	Individually	Individually	..

a Northern Territory services currently report using cash-based accounting. **b** *DRC* is the depreciated replacement cost; market value is the current (net) value market selling price or exchange value; and deprival value may be either the depreciated replacement cost of an asset of a similar service potential or the stream of its future economic benefits. **c** Derived from information provided. **na** Not available. **..** Not applicable.

Table 2.8 **Treatment of assets by health agencies**

	Asset type	*NSW*	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*
Revaluation method[a]	Land	Replacement	Replacement	Deprival	RCV	Market/ Deprival	Deprival	DRC	Historical cost
	Buildings	Replacement	Replacement	Deprival	RCV	Market/ Deprival	Deprival	DRC	Historical cost
	Other assets	Historical cost	na	Deprival	Historical cost	Historical cost	Deprival	Historical cost	Historical cost
Frequency of revaluations	Land, buildings	5 yrs	na	4-8 yrs	1 yr	3 yrs	na	2-3 yrs	5 yrs
Useful asset lives	Hospitals	40 yrs	45 yrs	20-51 yrs	50 yrs	15-75 yrs	25-60 yrs	40-60 yrs	..
	Vehicles	na	na	10 yrs	2-10 yrs	2-3 yrs	na	2 yrs	2-3 yrs
	Medical equipment	8-10 yrs	na	9-10 yrs	5-20 yrs	7-10 yrs	na	5-10 yrs	8-9 yrs
	Computers	3-5 yrs	na	5 yrs	3-15 yrs	3-5 yrs	na	3 yrs	3 yrs
Threshold capitalisation levels	All	$5 000	na	$5 000	$1 000	$2 000-$5 000	$5 000	$2 000-$5 000	$2 000-$5 000
Assets capitalised individually or in groups	All	na	na	Individually	Individually	Varies	Individually	Individually	Individually

[a] *DRC* is the depreciated replacement cost; *RCV* is replacement capital value; market value is the current (net) value market selling price or exchange value; and deprival value may be either the DRC of an asset of a similar service potential or the stream of its future economic benefits. **na** Not available. **..** Not applicable.

Capitalisation thresholds and asset recognition

The value at which items are capitalised (the capitalisation threshold), rather than included in recurrent expenditure, can impact on capital and recurrent expenditure data. Items below the capitalisation threshold would be treated as recurrent expenses in the year they were purchased, while items above the threshold would be recognised as assets and depreciated over their useful lives. The study finds that capitalisation thresholds are universally very low (ranging from $1 000 to $10 000) and therefore all assets that would potentially have a material impact on unit costs would be capitalised. It is therefore unlikely that variations in capitalisation thresholds could have a material impact on unit costs.

The issue of whether assets are recognised individually or in groups could potentially affect capital costs. If jurisdictions had identical capitalisation thresholds but some recognised assets individually and others recognised them in groups, the jurisdictions recognising them individually would treat some items as recurrent expenditure (as they would fall below the capitalisation threshold) and other jurisdictions would treat the same items as depreciable assets. The study finds that assets are generally recognised and valued individually rather than in groups. The near uniformity of this treatment means that the issue of recognition and valuation of individual/grouped assets is unlikely to have a material impact on capital costs, particularly given that it only applies to assets of relatively low value.

The following four chapters describe the analysis and results of the study as they relate to the four services selected (corrective services, housing, police and public hospitals). The results are structured into separate chapters to facilitate the discussion of service specific issues. Chapter seven attempts to draw together a set of generic conclusions.

3 Corrective services

To estimate the influence of asset measurement techniques on capital costs in corrective services, agencies provided details (where possible) of the accounting treatment of individual correctional facilities. The analysis suggests that different asset measurement techniques can result in substantially different reported capital costs between some jurisdictions. In the context of total unit costs, however, the impact of differences in accounting methods is generally relatively small (box 3.1).

A detailed summary of the research method is at attachment B.

Box 3.1 **Corrective services – key messages**

- Differences in asset measurement techniques can have a major influence on reported capital costs. Once both recurrent and capital costs are taken into account, however, the impact on total unit costs is relatively small.
- Other influences apart from accounting factors affect asset treatment, such as the age of facilities. Results for individual prisons, therefore, may not necessarily be replicated across all prisons in a jurisdiction.

In this chapter, results for a comparison of the five largest correctional facilities in each jurisdiction are presented. The NSW Metropolitan Remand and Reception Centre was chosen as the reference asset because it was the most recently acquired prison for which data were available.

Two sets of analysis were undertaken. First, capital costs were calculated using the depreciation amounts reported by each jurisdiction. In this case, capital costs derived from estimates of depreciated replacement costs based on the reference asset ranged from 20 per cent below those based on the current book value in Tasmania to 141 per cent above those based on the current book value in Victoria (table 3.1).

Table 3.1 **Analysis for largest correctional facility (applying depreciation amounts of individual agencies)[a]**

Largest facility from each jurisdiction	*(A) (Facility size (number of beds)*	*Build date/security status*	*(B) Assumed asset life*	*(C) Annual depreciation amount ($)*	*Valuation method*	*(E) Current book value at 30 June 2000 ($)*	*(F) = (E/A) Current asset value per bed ($)*
MRRC (NSW)[b]	859	1997 (high)	50	2 397 540	current use	73 957 095	**86 097**
Ararat (Vic)	256	1860 (medium)	40	250 408	market	7 314 000	28 570
Arthur Gorrie (Qld)	710	1990 (mixed)	40	1 525 920	deprival	72 908 165	102 688
Yatala (SA)	395	1854 (high)	60	1 017 649	deprival	39 388 775	99 718
Risdon (Tas)[c]	289	1960 (mixed)	na	629 000	replacement	33 022 000	114 263
Belconnen (ACT)	51	1975 (high)	50	41 000	market	2 332 300	45 731

(I) =(Reference F x A) DRC - all beds ($)	*(T) Difference between (E) and (I) (%)*	*(J) = (Ex8%) UCC (1) ($)*	*(K) =(C+J) Capital costs (1) ($)*	*(N) = (Ix8%) UCC (2) ($)*	*(P) =(C+N) Capital costs (2) ($)*	*(R) =Difference between capital costs (K) and (P) (%)*
73 957 095	0	5 916 568	8 314 108	5 916 568	8 314 108	0
22 040 764	201	585 120	835 528	1 763 261	2 013 669	141
61 128 682	-16	5 832 653	7 358 573	4 890 295	6 416 215	-13
34 008 210	-14	3 151 102	4 168 751	2 720 657	3 738 306	-10
24 881 956	-25	2 641 760	3 270 760	1 990 557	2 619 557	-20
4 390 933	88	186 584	227 584	351 275	392 275	72

a DRC is the depreciated replacement cost and UCC refers to user cost of capital. **b** Metropolitan Remand and Reception Centre. **c** Includes the Ron Barwick Medium Security Unit. Bold type denotes reference asset. * Denotes information provided by State and Territory governments.

Second, capital costs were calculated using the same dollar amount of depreciation in per bed terms as the reference asset. In this case, capital costs derived from estimates of depreciated replacement costs based on the reference asset ranged from 14 per cent below those based on the current book value in Tasmania to 197 per cent above those based on the current book value in Victoria (appendix C).

The values for corrective services assets were not available for the *Report on Government Services 2001,* so it is necessary to apply the analysis to the data published in the *Report on Government Services 2000,* for the financial year 1998-99.

If the percentage changes in capital costs obtained from the analysis of the largest correctional facilities in each jurisdiction are applied, based on the figures in table 3.1, capital costs should be decreased by 20 per cent in Tasmania, 13 per cent in Queensland and by 10 per cent in SA, and increased by 72 per cent in the ACT and 141 per cent in Victoria to equate their treatment of assets with that of NSW. This changes the indicative user cost of capital in Victoria from $9 to $22, in Queensland from $18 to $16, in SA from $23 to $20, in Tasmania from $27 to $21 and in the ACT from $4 to $7 (table 3.2). The same adjustments should be applied to the depreciation expense, which was not explicitly reported in the *Report on Government Services 2000,* but for which information is available. The adjustments made for depreciation are shown in table 3.2. The resulting impact of these combined changes is quite large, especially in Victoria. However, their effects are considerably diminished when the full unit cost per prisoner per day is considered (table 3.2).

When capital costs in all jurisdictions are calculated using estimates of depreciated replacement cost based on the reference asset in NSW, total unit costs in Queensland and Tasmania fall by 3 per cent, in SA fall by 2 per cent, but in Victoria increase by 12 per cent and in the ACT increase by 2 per cent (table 3.2). The choice of the largest asset in each jurisdiction, where the largest differences in terms of capital costs were obtained, means that this analysis is likely to overstate the importance of differences in asset measurement techniques.[1] Apart from Victoria, it can be seen that differences in total unit costs due to differences in asset measurement techniques are relatively minor.

[1] It should be noted that the security level of a prison is likely to impact upon asset values. It is assumed that high security prisons are obtained at higher cost than low security prisons. The sample used in the main analysis in this paper controls for security level to some extent by the exclusion of low security prisons.

Table 3.2 **Unit cost per prisoner per day (dollars)[a]**

	Unit	*NSW*	*Vic*	*Qld*	*SA*	*Tas*	*ACT*
Analysis in 2000 Report							
Recurrent cost[b]	$	161.29	130.29	105.65	157.64	139.04	192.27
User cost of capital	$	33.87	9.00	18.46	22.54	26.78	3.92
Total unit cost	$	195.16	139.29	124.11	180.18	165.82	196.19
Based on figures for reference asset							
Recurrent cost[b]	$	161.29	130.29	105.65	157.64	139.04	192.27
Adjustment for change to depreciation[c]	$	-	4.63	-0.72	-0.82	-	1.76
User cost of capital	$	33.87	21.66	16.06	20.29	21.43	6.75
Total unit cost	$	195.16	156.58	120.99	177.41	160.47	200.78
Difference between original and reference asset analysis	%	**-**	**12**	**-3**	**-2**	**-3**	**2**

[a] Analysis is only shown for jurisdictions where enough data are available. [b] Recurrent cost included depreciation in the *Report on Government Services 2000*. [c] This represents the change in the previously reported recurrent cost stemming from the adjustment to depreciation. Tasmania did not report an explicit depreciation expense in the *Report on Government Services 2000.*

The same analysis was applied to the second largest through to fifth largest correctional facilities in each jurisdiction (appendix D). In each case, the same overall conclusion can be drawn. That is, while capital costs are in some cases substantially affected by differences in accounting methods, the impact on total unit costs is relatively small.

The study does not suggest that any particular jurisdiction's asset measurement techniques are necessarily most appropriate. The changes made to the unit costs of jurisdictions are purely illustrative to reflect the impact on capital costs if all jurisdictions use the same asset measurement techniques. No suggestion is made that costs of any jurisdiction may have been understated or overstated in previous Reports. The purpose of this analysis has been to compare the effect of different ways of measuring assets on the unit costs reported in the *Report on Government Services* to ascertain whether these accounting factors reduce the comparability of published data.

Notwithstanding the main analysis presented here, one result suggests that other influences on asset measurement need to be considered. Analysis of the Victorian prison resulted in a difference in unit costs of 12 per cent which is greater than the other differences found. This may be because the prison used in our analysis was built in 1860, compared to 1997 for the reference asset, and the age of the facilities could influence the reported cost of service provision. It appears likely that the Victorian asset has a low market value due to its age and that this result would not be replicated across all Victorian prisons.

It is difficult to draw conclusions about the impact of other individual factors in the treatment of asset measurement. The selection of useful asset lives and the time between valuations do not seem to have consistent influences on the results. No jurisdiction has a high capitalisation threshold (with $10 000 being the highest). All assets analysed here are measured individually and corrective services agencies, with the exception of Tasmania, treat virtually all assets in this way.[2]

For the largest prison facility in each jurisdiction, the analysis showed jurisdictions using the deprival method had higher valuations than those using market valuations (i.e. those jurisdictions using market valuations had lower capital costs than those using deprival) (table 3.1). This was not replicated throughout the analysis however, and no conclusions can be drawn suggesting the deprival method would generally result in higher valuations.

Nevertheless, it may be helpful for the purposes of comparison if jurisdictions adopted more similar accounting frameworks, and the results in this paper may provide some useful insights for jurisdictions that wish to consider uniform asset measurement techniques. Uniform accounting methods may ensure more consistent reporting of capital costs, but would have a relatively minor impact on total reported costs.

[2] Tasmania recognises and values its smaller assets in groups. Outside Tasmania the exception to assets being recognised and valued individually are the IT systems in NSW and SA. These assets are grouped.

4 Housing

To estimate the influence of asset measurement on capital costs in housing, agencies provided (where possible) details of the accounting treatment of residential dwellings. The dwelling valuations supplied include land values. The nature of asset registers has resulted in the analysis being confined to comparisons across all dwellings, as it has not been possible for more than a couple of jurisdictions to further disaggregate figures according to dwelling size. This limits the usefulness of the results obtained. There may also be some differences between jurisdictions depending on whether fixtures or fittings are included in dwelling valuations.

Reporting requirements under the most recent Commonwealth-State Housing Agreement mean that the asset measurement techniques of housing agencies are virtually identical. For this reason, it would be expected that differences in capital costs across jurisdictions would primarily be related to either the mix of dwellings or differences in supply and demand for properties in different locations. The results suggest, to the extent that any conclusions can be drawn, that differences in capital costs do appear to be largely driven by the location of housing rather than by accounting factors (box 4.1).

Box 4.1 **Housing – key messages**

- There are large differences in reported capital costs between jurisdictions and material differences in total unit costs, but it appears that these differences are due to location rather than asset measurement techniques.
- Reporting requirements under the Commonwealth-State Housing Agreement mean that the asset measurement procedures of housing agencies are virtually identical and appear to leave little scope for accounting factors to have a material impact on reported costs.

Table 4.1 **Analysis for average dwellings[a]**

Jurisdiction	*(A) Number of dwellings**	*(B) Assumed asset life (years)**	*(C) Annual depreciation amount ($)**	*Valuation method**	*(E) Current book value at 30 June 2000 ($)**	*(F) = (E/A) Current asset value per dwelling ($)*	*(I) = (Reference F x A) DRC - all dwellings ($)*
NSW	130 599	50	147 772 000	market	17 055 088 000	130 591	10 145 795 449
Vic	71 475	50	76 811 460	market	6 187 536 954	86 569	5 552 651 473
Qld	55 059	50	78 201 000	market	4 378 350 000	79 521	4 277 347 848
WA	35 149	50	29 858 714	market	2 730 607 158	**77 687**	2 730 607 158
SA	52 416	50	35 000 000	market	2 987 130 000	56 989	4 072 022 100
Tas	14 086	50	11 467 487	market	719 042 359	51 047	1 094 293 790

(T) Difference between (E) and (I) (%)	*(J) = (E x 8%) UCC (1) ($)*	*(K) = (C+J) Capital costs (1) ($)*	*(N) = (I x 8%) UCC (2) ($)*	*(P) = (C+N) Capital costs (2) ($)*	*(R) = Difference between capital costs (K) and (P) (%)*
-41	1 364 407 040	1 512 179 040	811 663 636	959 435 636	-37
-10	495 002 956	571 814 416	444 212 118	521 023 578	-9
-2	350 268 000	428 469 000	342 187 828	420 388 828	-2
0	218 448 573	248 307 287	218 448 573	248 307 287	0
36	238 970 400	273 970 400	325 761 768	360 761 768	32
52	57 523 389	68 990 876	87 543 503	99 010 990	44

a DRC is the depreciated replacement cost and UCC refers to user cost of capital. Bold type denotes reference asset. * Denotes information provided by State and Territory governments.

Dwellings of average value in each jurisdiction were compared for those jurisdictions able to provide sufficient data. The reference asset was chosen as a dwelling of average value in WA, due to WA's middle ranking in terms of valuations.

A detailed summary of the research method is found in appendix B.

Two sets of analysis were undertaken. First, capital costs were calculated using the depreciation amounts reported by each jurisdiction. In this case, capital costs derived from estimates of depreciated replacement cost based on the reference asset ranged from 37 per cent below those based on the current book value in NSW, to 44 per cent above those based on current book value in Tasmania (table 4.1).

Second, capital costs were calculated using the same dollar amount of depreciation in per dwelling terms as the reference asset. In this case, capital costs derived from estimates of depreciated replacement cost based on the reference asset ranged from 38 per cent below those based on the current book value in NSW to 47 per cent above those based on current book value in Tasmania (appendix C).

These differences in capital costs should be considered in the context of dwelling location. A difficulty with applying the analysis used in this project to housing is that location has a major impact on the value of properties.[1] Two identical dwellings in different locations may have very different valuations depending on the demand and supply for housing in the two locations. When applying a reference asset across jurisdictions, it is therefore difficult to isolate differences in capital costs that are attributable to factors other than location, and it is these factors this paper seeks to measure. The influence of the location of housing on relative costs between jurisdictions may be interesting to note more generally.

Table 4.2 lists the median house and flat prices in capital cities across Australia in June 2000. The differences in capital costs across jurisdictions when dwelling values are based on WA (column R in table 4.1) are in accordance with the differences in median house and flat prices in capital cities when compared with median prices in Perth (table 4.2). For example, when referring to the data in table 4.1, when NSW capital costs are recalculated based on depreciated replacement cost based on WA dwelling values, capital costs fall by 37 per cent. This is in line with Sydney property prices that are on average around 100 or 121 per cent higher (for houses and flats respectively) than those in Perth.

[1] It is evident that housing is substantially more affected by location due to its relative capital intensity as previously demonstrated by tables 2.1 to 2.4.

Table 4.2 **Median capital city house/flat, unit or townhouse prices, June 2000**

City	*Median house price ($)*	*Difference from reference asset (%)*	*Median flat, unit or townhouse price ($)*	*Difference from reference asset (%)*
Sydney	315 000	100	250 000	121
Melbourne	253 000	60	190 000	68
Brisbane	142 000[b]	-10	130 000[b]	15
Perth[a]	157 800	0	113 200	0
Adelaide	135 000	-14	95 000	-16
Hobart	130 000	-18	97 500	-14
Canberra	184 000	17	135 000	19
Darwin	190 400	21	160 000	41

[a] Reference asset capital city. [b] March quarter prices as June prices unavailable.

Source: REIA (2000).

While the direction of the percentage differences in column R in table 4.1 is in line with those in table 4.2, it would not be expected that the percentage differences themselves would be exactly (or even approximately) equal. There are three major reasons for this:

- the median prices are for capital cities while the analysis of public housing in table 4.1 is throughout the state (differences would be much smaller outside capital cities, and may even be reversed);
- the categories of houses and 'flats, units or townhouses' would only be a very rough proxy for public housing dwellings; and
- the median price of categories of properties would also only be an imprecise proxy for public housing dwellings, as most public housing dwellings would be likely to be at the lower end of the housing market.

It should also be noted that the Brisbane numbers for median flats, units or townhouse prices are for March 2000 as June 2000 data were unavailable. This may limit comparability for this city.

After applying the analysis shown in table 4.1 to the public housing financial data reported in the *Report on Government Services 2001* (and considering the implications of the information contained in table 4.2), it can be concluded that the analysis is probably showing differences in unit costs due to locational factors, rather than differences in unit costs stemming from asset measurement techniques.

For those jurisdictions able to provide adequate data for the purposes of this project, capital costs reported in the *Report on Government Services 2001* varied from $5 188 in SA to $11 463 in NSW. When the percentage changes in capital costs in

table 4.1 are applied to the capital costs reported in the *Report on Government Services 2001*, capital costs should be lowered by 37 per cent in NSW, 9 per cent in Victoria and 2 per cent in Queensland, while being increased by 32 per cent in SA to equate their treatment of assets with that of WA. (Tasmania was unable to provide details of capital costs for the *Report on Government Services 2001*, but costs in Tasmania would need to be increased by 44 per cent if these data were available).

This analysis changes the full unit cost of providing public housing (net of rent collected from tenants) from $11 876 per dwelling in NSW to $7 634, from $9 339 in Victoria to $8 478, from $8 874 in Queensland to $8 703 and from $5 527 to $7 186 in SA (table 4.3). It must be remembered that these values are achieved by applying the valuation of the reference asset in WA to dwellings in other jurisdictions, and that this is entirely hypothetical as property values do vary across the country.

The effect of treating all dwellings in the same way as WA has been to decrease gross unit costs for NSW by 28 per cent, Victoria by 7 per cent and Queensland by 1 per cent, while increasing unit costs by 19 per cent in SA. Net unit costs have decreased by 36 per cent in NSW, 9 per cent in Victoria and 2 per cent in Queensland, while they have increased by 30 per cent in SA. In the context of location of dwellings, this suggests that any influence from accounting related factors (eg. depreciation, basis of valuation) is likely to be immaterial (table 4.3).

All housing agencies use 50 years as the useful life of residential properties, and except for apartments and flats in the ACT (with a useful life of 80 years), all revalue properties using market valuations and all revalue properties each year (at least by index). Non-property assets (less material than land and buildings e.g. office equipment, motor vehicles) are almost universally valued at historical cost and no jurisdiction has a high capitalisation threshold. With the exception of the ACT, agencies recognise assets individually rather than in groups.

Table 4.3 **Cost per dwelling, 1999-2000[a]**

	Unit	*NSW*	*Vic*	*Qld*	*WA*	SA
Analysis in 2001 Report						
Total recurrent costs	$	3 617	3 188	3 503	3 867	3 719
Depreciation	$	1 175	1 251	1 583	822	675
Indicative user cost of capital						
-land	$	4 881	3 487	2 995	na[b]	1 897
-other assets	$	5 406	4 825	4 033	na[b]	2 615
-total assets	$	10 287	8 312	7 028	6 461	4 512
Total capital costs	$	11 463	9 563	8 611	7 283	5 188
Full gross costs	$	15 080	12 751	12 114	11 150	8 907
Rent collected from tenants	$	3 204	3 412	3 240	3 160	3 380
Full net costs	$	11 876	9 339	8 874	7 990	5 527
Based on figures for reference asset						
Total recurrent costs	$	3 617	3 188	3 503	3 867	3 719
Depreciation	$	740	1 138	1 551	822	891
Indicative user cost of capital						
-land	$	3 075	3 173	2 935	na[b]	2 504
-other assets	$	3 406	4 391	3 952	na[b]	3 452
-total assets	$	6 481	7 564	6 888	6 461	5 956
Total capital costs	$	7 221	8 702	8 438	7 283	6 847
Full gross costs	$	10 838	11 890	11 943	11 150	10 566
Rent collected from tenants	$	3 204	3 412	3 240	3 160	3 380
Full net costs	$	7 634	8 478	8 703	7 990	7 186
Difference between original and reference asset analysis – gross cost	**%**	**-28**	**-7**	**-1**	**-**	**19**
Difference between original and reference asset analysis – net cost	**%**	**-36**	**-9**	**-2**	**-**	**30**

a Analysis is only shown for jurisdictions where enough data are available. **b** It has not been possible to separate the indicative user cost of capital for land.

Source: State and Territory governments.

The uniform accounting framework used for public housing suggests that there is little scope for differences in asset measurement techniques to have a material impact on costs reported in the *Report on Government Services.* However, difficulties in isolating asset measurement factors from the effects of differing locations, and in obtaining data on narrow categories of housing assets, means that there are limitations to this analysis that make any asset measurement influences impossible to quantify using this methodology.

5 Police services

To estimate the influence of asset measurement methods on capital costs in the area of police services, agencies provided (where possible) details of the accounting treatment of police assets. In order to obtain a data set of reasonable size and to consider assets of reasonable comparability, the analysis centres around police complexes in larger urban centres.[1] These centres have been compared to measure the effect on capital costs if the same asset measurement techniques had been employed by all jurisdictions. Differences in the size and nature of these assets represent limitations of this analysis.

The results suggest that differing asset measurement techniques can result in major differences in reported capital costs between jurisdictions. In the context of total unit costs, however, the impact of differences in accounting methods is diminished (box 5.1).

A detailed summary of the research method is found in appendix B.

Box 5.1 **Police services – key messages**

- Different asset measurement techniques can result in material differences in reported capital costs between jurisdictions.
- In particular, differences in useful asset lives for accounting purposes and the frequency with which assets are revalued across jurisdictions could have a material impact on reported capital costs.
- In the context of total unit costs, however, the impact of differences in accounting methods is much smaller.
- The inability of the analysis to isolate differences in the nature and size of assets considered means that the analysis may overstate whatever differences do exist in reported capital and total unit costs.

In this chapter, results for a comparison of police complexes in larger urban areas are presented. While complexes in larger urban areas are likely to be of similar size,

[1] A larger urban centre was defined as any population centre with more than 25 000 residents.

the nature of the data available prevented controls for location, age and other factors. The results are, therefore, likely to overstate the influence of accounting methods. Average value police complexes in SA were chosen as the reference asset because of SA's middle ranking in terms of overall valuation per complex.

Two sets of analysis were undertaken for jurisdictions able to provide sufficient data. First, capital costs were calculated using the depreciation amounts reported by each jurisdiction. In this case, capital costs derived from estimates of depreciated replacement cost based on the reference asset ranged from 74 per cent below those based on book value in Queensland to 28 per cent below those based on book value in the ACT (table 5.1).

Second, capital costs were calculated using the same dollar amount of depreciation in per bed terms as the reference asset. In this case, capital costs derived from estimates of depreciated replacement cost based on the reference asset ranged from 84 per cent below those based on book value in Queensland, to 15 per cent below those based on book value in WA (appendix C).

To consider the impact of changes in capital costs on total costs, the capital cost data contained in the *Report on Government Services 2001* were adjusted by the percentage differences in column R of table 5.1. This results in a 7 per cent reduction in expenditure (less own source revenue) for Queensland and a 1 per cent reduction for WA and the ACT (table 5.2).

Table 5.1 **Analysis for police complexes in larger urban areas[a]**

Jurisdiction	(A) Number of complexes*	(B) Assumed asset life (years)*	(C) Annual depreciation amount ($)*	Valuation method*	(E) Current book value at 30 June 2000 ($)*	(F) =(E/A) Current asset value per complex ($)	(I) = (Reference F x A) DRC - all complexes ($)
WA	14	40	344 897	current use	35 264 315	2 518 880	23 774 962
Qld[b]	6	50	980 320	deprival	75 631 847	12 605 308	10 189 270
SA	10	60	559 227	deprival	16 982 116	**1 698 212**	16 982 116
ACT	4	37.5	340 000	market	11 005 000	2 751 250	6 792 846

(T) Difference between (E) and (I) (%)	J = (E x 8%) UCC (1) ($)	(K) = (C+J) Capital costs (1) ($)	(N) = (I x 8%) UCC (2) ($)	(P) = (C+N) Capital costs (2) ($)	(R) = Difference between capital costs (K) and (P) (%)
-33	2 821 145	3 166 042	1 901 997	2 246 894	-29
-87	6 050 548	7 030 868	815 142	1 795 462	-74
0	1 358 569	1 917 796	1 358 569	1 917 796	0
-38	880 400	1 220 400	543 428	883 428	-28

a DRC is the depreciated replacement cost and UCC refers to user cost of capital. Bold type denotes reference asset. **b** Complexes may not be in larger urban areas. *Denotes information provided by State and Territory governments.

Table 5.2 **Police expenditure 1999-2000 (excluding user cost of capital for land)[a]**

	Unit	*Qld*	*WA*	*SA*	*ACT*
Analysis in 2001 Report					
Recurrent expenditure less own source revenue	$	692 835 000	438 249 000	301 483 000	64 617 000
Depreciation	$	31 220 000	7 967 000	8 266 000	1 400 000
Indicative user cost of capital	$	39 559 000	13 203 000	10 279 000	2 180 000
Total expenditure	$	763 614 000	459 419 000	320 028 000	68 197 000
Based on figures for reference asset					
Recurrent expenditure less own source revenue	$	692 835 000	438 249 000	301 483 000	64 617 000
Depreciation	$	8 117 200	5 656 570	8 266 000	1 008 000
Indicative user cost of capital	$	10 285 340	9 374 130	10 279 000	1 569 600
Total expenditure	$	711 237 540	453 279 700	320 028 000	67 194 600
Difference between original and reference asset analysis	**%**	**-7**	**-1**	**-**	**-1**

a Analysis only shown for jurisdictions where enough data are available.

Source: State and Territory governments.

One limitation in this analysis is that the user cost of capital for land was not reported in the *Report on Government Services 2001*, although the data obtained from jurisdictions for this research project contain land values. If a user cost of capital for land is calculated and added to the analysis for Queensland and WA (the only jurisdictions for which this is possible based on information provided for the *Report on Government Services 2001*) then a 9 per cent reduction in expenditure (less own source revenue) for Queensland is obtained relative to the numbers in the 2001 Report, and a 3 per cent reduction is obtained for WA (table 5.3).

Table 5.3 **Police expenditure 1999-2000 (including user cost of capital for land)[a]**

	Unit	*Qld*	*WA*
Analysis in 2001 Report with user cost of capital for land added			
Recurrent expenditure less own source revenue	$	692 835 000	438 249 000
Depreciation	$	31 220 000	7 967 000
Indicative user cost of capital including land	$	48 925 160	20 529 560
Total expenditure	$	772 980 160	466 745 560
Based on figures for reference asset			
Recurrent expenditure less own source revenue	$	692 835 000	438 249 000
Depreciation	$	31 220 000	7 967 000
Indicative user cost of capital	$	12 720 542	14 575 988
Total expenditure	$	713 672 742	458 481 558
Difference between original and reference asset analysis	**%**	**-9**	**-3**

a Analysis only shown for jurisdictions where enough data are available.

Source: State and Territory governments.

The SA police complexes used as the reference asset have an average assumed asset life of 60 years, while the ACT has an average assumed asset life of 37.5 years, WA 40 years and Queensland 50 years (table 2.7). This factor may partially explain some of the differences observed in capital costs.

There is some variation in the frequency with which assets are revalued across jurisdictions. WA revalue building assets annually, SA every two years, NSW every three years, Victoria every four years and Queensland, Tasmania and the ACT every five years (table 2.7). The difference in valuation frequency could potentially have a material impact on capital costs although this is hard to determine due to the difficulty in isolating the impact of valuation frequency.

Differences in asset measurement techniques for assets other than buildings (such as cars and IT equipment) are unlikely to have a material effect on capital costs. These make a relatively small contribution to total asset value (typically 20 to 30 per cent). Most are valued at historical cost (although Victoria revalued its IT equipment in

1998 at current market value, and the ACT revalues most of its assets at market value and IT equipment using deprival value). The values placed on these assets suggest this would not have a material effect.

There is some variation in useful asset lives for non-building assets, although this is not likely to have a material effect (table 5.4). All jurisdictions have a relatively low capitalisation threshold and all jurisdictions except NSW recognise and value assets individually (and also Queensland in the case of police vehicles).

Table 5.4 **Useful asset lives for police assets (years)**

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*
Police stations	40	50	50	40	60	35-70[a]	25-60
Vehicles – owned	6.5[b]	na	2	2	10	2	5
IT equipment	4	na	3	4	3	3	5
Office equipment	10	10	5	7	10	3	5
Communications equipment	6.5	10	7	5	7	3	5

a Derived from information provided. **b** Two years for leased vehicles. **na** Not available.

Source: State and Territory governments.

The analysis suggests that there is the potential for differences in asset measurement techniques to have a material impact on capital costs. Notwithstanding this, in the context of total police expenditure (including recurrent expenditure), it appears unlikely that accounting factors have a substantial impact. It is also worth noting that as this analysis could not isolate differences in the nature and size of the assets considered, it is likely to overstate the impact of differences in accounting methods.

6 Public hospitals

To estimate the influence of asset measurement techniques on capital costs in public hospitals, agencies provided (where possible) details of the accounting methods used by individual hospitals. Hospital data were supplied for: principal referral hospitals, major public acute hospitals and medium public acute hospitals. The asset measurement techniques used by the largest hospital in each category in each jurisdiction have been examined.

This chapter presents the results for the largest principal referral hospitals. Analysis of the largest medium and major public acute hospitals is featured in appendix E.

The analysis suggests that different asset measurement techniques can lead to substantial differences in reported capital costs, but that these differences are much smaller viewed in the context of total unit cost (box 6.1).

A detailed summary of the research method is found in appendix B.

Box 6.1 **Public hospitals – key messages**

- Variations in asset measurement techniques may lead to substantial differences in reported capital costs.
- However, when viewed in the context of total unit cost, these differences in capital costs are generally immaterial. Data therefore appear to be reasonably comparable for the purposes of the *Report on Government Services*.

Table 6.1 **Analysis for largest building in principal referral hospitals[a]**

Jurisdiction	*Build date*	*(A) Hospital building size (number of beds)**	*(B) Assumed asset life (years)**	*(C) Annual depreciation amount ($)*	*Valuation method*	*(E) Current book value at 30 June 2000 ($)*	*(F) = (E/A) Current asset value per bed ($)*
Westmead (NSW)	1978	738	17	12 000 000	replacement	278 633 000	377 551
Alfred (Vic)	1997-99	340	45	2 189 517	replacement	87 580 697	**257 590**
Royal Brisbane (Qld)	1978	234	51	1 410 000	deprival	50 787 000	217 038
Royal Perth (WA)	1989	151	50	2 347 600	RCV	75 906 400	502 691
Flinders (SA) **b**	1976	417	60	4 644 000	deprival	151 075 000	362 290
Canberra (ACT)	1972	200	60	2 040 000	DCV	237 045 000	1 185 225

(I) = (Reference F x A) DRC - all beds ($)	*(T) Difference between (E) and (I) (%)*	*(J) = (E x 8%) UCC (1) ($)*	*(K) = (C+J) Capital costs (1) ($)*	*(N) = (I x 8%) UCC (2) ($)*	*(P) = (C+N) Capital costs (2) ($)*	*(R) = Difference between capital costs (K) and (P) (%)*
190 101 631	-32	22 290 640	34 290 640	15 208 130	27 208 130	-21
87 580 697	0	7 006 456	9 195 973	7 006 456	9 195 973	0
60 276 127	19	4 062 960	5 472 960	4 822 090	6 232 090	14
38 896 133	-49	6 072 512	8 420 112	3 111 691	5 459 291	-35
107 415 149	-29	12 086 000	16 730 000	8 593 212	13 237 212	-21
51 518 057	-78	18 963 600	21 003 600	4 121 445	6 161445	-71

a DRC is the depreciated replacement cost and UCC refers to user cost of capital. **b** Flinders Medical Centre is the second largest hospital in SA, and this has been used in the analysis due to comparability problems using the largest building at the Royal Adelaide Hospital. Bold type denotes reference asset. * Denotes information provided by State and Territory governments.

The largest building in the Alfred Hospital (Victoria) was chosen as the reference asset because it was the most recently built. It should be noted that there were particular difficulties in selecting a comparable asset for SA. While the largest building in the Royal Adelaide Hospital was initially chosen for inclusion in the analysis for principal referral hospitals, the resulting impact on capital costs for SA appeared unusually marked. Advice from SA suggested this was because the largest building at the Royal Adelaide Hospital had relatively fewer clinical facilities compared with the assets selected in other jurisdictions. Analysis based on the entire Royal Adelaide Hospital suggested much smaller differences in capital costs than for the largest building (appendix E). The largest building at the Flinders Medical Centre was seen as more comparable for the purposes of this study, and it was therefore included in the analysis presented in this chapter.

Two sets of analysis were undertaken. First, capital costs were calculated using the depreciation amounts reported by each jurisdiction. In this case, capital costs derived from estimates of depreciated replacement cost based on the reference asset ranged from 71 per cent below those based on the current book value in the ACT to 14 per cent above those based on current book value in Queensland (table 6.1).

Second, capital costs were calculated using the same dollar amount of depreciation in per bed terms as the reference asset. In this case, capital costs derived from estimates of depreciated replacement cost based on the reference asset ranged from 74 per cent below those based on current book value in the ACT to 16 per cent above those based on the current book value in Queensland (appendix C).

To calculate the impact on total unit costs of these suggested adjustments to capital costs, the analysis shown in table 6.1 must be applied to the public hospitals financial data reported in the *Report on Government Services 2001*.

For those jurisdictions able to provide adequate data for the purposes of this project, capital costs per casemix adjusted separation (excluding the user cost of capital for land) reported in the *Report on Government Services 2001* varied from $210 in Victoria to $446 in the ACT. These data are presented in table 6.2. The percentage changes in capital costs derived in table 6.1 are applied to each jurisdiction to obtain a new estimate of total cost per casemix adjusted separation based on all jurisdictions using the same asset value as Victoria. This analysis changes the full unit cost per casemix adjusted separation from $3 074 to $3 009 in NSW, from $2 710 per separation in Queensland to $2 755, from $3 356 in WA to $3 241, from $2 783 in SA to $2 709 and from $3 772 to $3 455 in the ACT (table 6.2). It must be remembered that these values are achieved by applying the valuation of the reference asset in Victoria to hospitals in other jurisdictions, and that this is entirely hypothetical as hospital values vary across the country.

Table 6.2 **Total cost per casemix adjusted separation, public acute hospitals (excluding user cost of capital for land), 1998-1999[a]**

	Unit	*NSW*	*Vic*	*Qld*	*WA*	SA	ACT
Analysis in 2001 Report							
Total recurrent costs	$	2 766	2 413	2 390	3 026	2 430	3 326
Total capital costs	$	308	210	320	330	353	446
Total cost per separation	$	3 074	2 623	2 710	3 356	2 783	3 772
Based on figures for reference asset							
Total recurrent costs	$	2 766	2 413	2 390	3 026	2 430	3 326
Total capital costs	$	243	210	365	215	279	129
Total cost per separation	$	3 009	2 623	2 755	3 241	2 709	3 455
Difference between original and reference asset analysis	**%**	**-2**	**-**	**2**	**-3**	**-3**	**-8**

a Analysis is only shown for jurisdictions where enough data are available.

Source: State and Territory governments.

The effect of treating all hospitals in the same way as Victoria has been to decrease unit costs for NSW by 2 per cent, WA and SA by 3 per cent and the ACT by 8 per cent, while increasing unit costs by 2 per cent in Queensland. The large differences in capital costs shown in table 6.1 therefore represent relatively small differences in total costs once recurrent expenditure is taken into account (table 6.2).

One possible limitation of this analysis could be that the user cost of capital for land was not reported in the *Report on Government Services 2001*, while land values have not been separated in the data provided for this research project. To see if this has any impact, the analysis can be repeated including user cost of capital values for land (table 6.3).

Table 6.3 **Total cost per casemix adjusted separation, public acute hospitals (including user cost of capital for land), 1998-1999[a]**

	Unit	*NSW*	*Vic*	*Qld*	*WA*	*SA*	*ACT*
Analysis in 2001 Report							
Total recurrent costs	$	2 766	2 413	2 390	3 026	2 430	3 326
Total capital costs	$	339	na	330	362	371	467
Total cost per separation	$	3 105	na	2 720	3 388	2 801	3 793
Based on figures for reference asset							
Total recurrent costs	$	2 766	2 413	2 390	3 026	2 430	3 326
Total capital costs	$	268	na	376	235	293	135
Total cost per separation	$	3 034	na	2 766	3 261	2 723	3 461
Difference between original and reference asset analysis	**%**	**-2**	**na**	**2**	**-4**	**-3**	**-9**

a Analysis is only shown for jurisdictions where enough data are available.

Source: State and Territory governments.

The inclusion of user cost of capital for land has limited impact on the results. Relative to the costs reported in the *Report on Government Services 2001*, unit cost per separation has now been lowered by 2 per cent in NSW, 4 per cent in WA, 3 per cent in SA and 9 per cent in the ACT, while increasing by 2 per cent in Queensland (table 6.3).

In the analysis of medium acute hospitals, the results for the Osborne Park Hospital in WA appeared unusual — suggesting capital costs would increase by 480 per cent if the per value unit of the reference asset were applied to WA (table E.3). This may relate to the fact that the hospital building in question was ten years older than the other hospital buildings analysed. It is clear from the other WA hospitals analysed that this result is not typical of hospitals in WA. Further evidence to suggest that age may be important to the results of public medium acute hospitals is that other jurisdictions' hospitals (Victoria, Queensland, SA and Tasmania) in this category were built more recently.

As with the other service areas, it is difficult to isolate the effects of individual elements of asset measurement techniques. The useful life of hospitals varies both within and between jurisdictions, although most hospitals are allocated useful asset lives of between 40 and 60 years.

There is slightly greater variation in revaluation methods with hospitals than with the other services considered. It is difficult to isolate the impact of these variations on the results obtained from the analysis.

It is unlikely that non-property assets would have a material effect on overall costs given that they represent a relatively small proportion of total assets. In any case, there are no substantial differences in the accounting treatment of these assets. Non-property assets are generally valued at historical cost, although Queensland and Tasmania value them using the deprival method. No jurisdiction has a high capitalisation threshold, and virtually all agencies recognise assets individually rather than in groups (with the exception of a minority of hospitals in SA).

The results obtained for the overall analysis of public hospitals suggest that, while variations in asset measurement may lead to substantial differences in reported capital costs, these differences are much smaller when viewed in the context of total unit cost, and are generally of little importance. This conclusion is based on the overall analysis of public hospitals and not just that contained in table 6.1. One limitation, however, of the research method used in this study is that individual hospitals with very low valuations can exaggerate differences between jurisdictions. The more substantial differences in capital costs suggested by this analysis are possibly due to jurisdictions maintaining a relatively low book value for individual hospitals because of factors other than the asset measurement techniques used. For example, in the analysis of the second largest principal referral hospital (table E.1), the Gold Coast Hospital was substituted for the Princess Alexandra Hospital. The book value for the acute unit at Princess Alexandra appears to be very low with patients being relocated from this building to a new facility.[1] As with the other service areas analysed in this paper, the inability of the research method to isolate factors such as quality, location or condition from accounting methods represents a limitation of the analysis.

In summary, the large differences in capital costs observed in the public hospitals data have minimal impact on total costs. This finding suggests that data are of reasonable comparability for the purposes of the *Report on Government Services*. Notwithstanding this, the relatively large range in differences in public hospitals' capital costs compared to those of the other services studied may be of interest for operational reasons at jurisdictional or even hospital level. Furthermore, these differences may be minimised if a standard national accounting framework were adopted for public hospitals.

[1] Discussion of this relocation is contained in the March 2001 edition of *Health Matters*, published by Queensland Health.

7 Conclusion

The results in this paper suggest differences in asset measurement techniques can have a major impact on reported capital costs. Notwithstanding this, the influence of these factors on total unit cost depends on the importance of capital costs as a proportion of total costs for the particular service area being studied.

The analysis centres on the assets that contribute most to total capital costs. While there were inherent difficulties associated with the nature of the study, efforts were made to address any shortcomings associated with the research method where that was possible. In particular, the study adjusts for asset size, and attempts to adjust for the state of property markets in housing. There were some difficulties in ensuring that assets were comparable and representative in terms of output mix, especially in hospitals. Where limitations could not be addressed, they are clearly specified in the paper and the conclusions are accordingly qualified. It is noteworthy that the application of the research method across four service areas saw the results replicated. Further, the overall conclusions remain robust because, if anything, the analysis is likely to overstate the impact of differences in asset valuation methods.

In the areas of corrective services, police services and public hospitals the results reported in this paper indicate that different methods of asset measurement could lead to quite large variations in reported capital costs. In practice, the differences created by these asset measurement effects were relatively small, as capital costs represent a relatively small proportion of total cost.

These results suggest that, for those service areas covered by the paper, the potential impact of asset measurement factors on reported total unit costs averaged around 5 per cent of total unit costs. Therefore, if using reported total unit costs for comparison purposes, the potential for asset measurement factors to have an impact of this magnitude should be taken into account.

The relative capital intensity associated with the provision of public housing increases the scope for differences in asset measurement techniques to have a material impact on total unit costs. The results of this study suggest, however, that the adoption under the Commonwealth-State Housing Agreement of a uniform accounting framework has largely avoided this.

The adoption of uniform asset measurement techniques would minimise the potential for any material differences in capital costs stemming from accounting practices. The results presented in this paper suggest that the distortions created by different asset measurement techniques are generally relatively small. Nevertheless, the adoption of national uniform accounting standards would be a desirable outcome from the perspective of the Review.

A Deprival value

Table A.1 **Summary of deprival value methodology**

Asset category	*Where service potential would be replaced if the agency was deprived of the asset*	*Where service potential would not (or could not) be replaced if the agency was deprived of the asset*
Asset held for continued use		
	The greater of:	
Land (including land under infrastructure)	*Current market buying price*, taking into account the nature of the parcel, the legal restrictions on use, the opportunities and impediments to development that are inherent to the specific parcel of land or other constraints that exist in respect of that land, or any special attributes that the land may possess (value in use); and *Current market value (selling price)* of its feasible potential alternative use taking into account the costs of achieving that potential.	Greater of net present value and current market value (selling price).
Heritage assets	Current market buying price, current replacement cost or current reproduction cost, as applicable, of the gross service potential utilised by the agency if the service potential were otherwise acquired.	Greater of net present value and current market value (selling price).
General assets		
– where there is a secondary market for the asset (non-specialised asset)	Current market buying price of the gross service potential of the existing asset – where new assets are normally acquired, new prices are relevant and where second hand assets are normally acquired, second hand prices are relevant.	Greater of net present value and current market value (selling price).

(continued on next page)

Table A.1 **(continued)**

– where there is no secondary market for the asset (specialised assets)	Lower of the current replacement cost or current reproduction cost of the gross service potential or future economic benefit of the existing asset.	Greater of net present value and current market value (selling price).
Surplus assets		
All such assets	Not applicable.	Current market selling price.

Source: SCNPMGTE (1994, appendix A).

B Research method

Summary of research project method

Agencies in the areas of corrective services, housing, police and public hospitals were sent a survey form and asked for details of how they treated assets for accounting purposes.

From the results received, for each service area assets from each jurisdiction were selected for comparison on the basis of size and function. The degree to which this was possible varied across service areas. For corrective services, the largest correctional facilities were compared, then the second largest through to the fifth largest, resulting in five sets of analysis. Data of this detail were not available in housing, so average value dwellings in each jurisdiction were compared. For police services, the comparison was made using police complexes in urban areas, the only category where enough data existed for meaningful analysis. For public hospitals the comparisons were made using the largest hospital building in the largest hospital in each of the categories of principal referral hospitals, major public acute hospitals and medium public acute hospitals.

Jurisdictions provided information on the number of beds/dwellings/police complexes (A), the assumed asset life of assets (B), annual depreciation for the year to 30 June 2000 (C), the current book value of the asset at 30 June 2000 (E) and other information seen as relevant to the study.

The current asset value per bed/dwelling/complex (F) was derived by dividing the current book value for the asset(s) (E) by the number of beds/dwellings/complexes (A).

A reference asset (the most recently built or acquired, if possible, otherwise a middle ranking asset in terms of valuation) was chosen. The depreciated replacement cost for all beds/dwellings/complexes for each jurisdiction (I) was derived by multiplying the current asset value of the reference asset (F **bold**) by the number of beds/dwellings/complexes (A) in each jurisdiction.

Current book values at 30 June 2000 (E) were multiplied by 8 per cent to obtain an indicative user cost of capital charge (J). This was added to the depreciation

expense for the asset (provided by each jurisdiction) (C) to obtain the total capital cost figure (call this capital cost figure 1) (K).

The calculated depreciated replacement cost figure (I) was multiplied by 8 per cent to obtain an indicative user cost of capital charge had all assets been valued in this way (N). This was summed with the depreciation expense supplied by jurisdictions (C) for the asset to obtain a total capital cost figure (call this capital cost figure 2) (P).

Capital cost figures 1 and 2 were compared to provide a comparison of what capital costs actually were compared to what they would have been had all jurisdictions treated their assets in the same way as the reference asset using depreciated replacement cost (R).

To supplement the analysis, the difference between the current book value estimates based on jurisdictions' own valuations (E) and the depreciated asset valuations based on the values of the reference asset (I) are shown. This is represented as (T). This shows the impact of applying the value of the individual reference asset on the value of total assets, rather than on capital costs.

Supplementary analysis was also done applying the same dollar amount of depreciation per unit for all assets analysed as for the reference asset, and the results of this supplementary analysis are featured in appendix C.

To measure the effect on costs as reported by the Review, the capital costs reported in the *Report on Government Services 2001* (or *2000* for corrective services) were adjusted by the amounts suggested by the analysis to calculate the impact on total unit cost.

C Supplementary analysis applying reference asset depreciation

Table C.1 **Analysis of largest correctional facility, applying reference asset depreciation[a]**

Largest facility from each jurisdiction	*(C) Annual depreciation amount ($)**	*(S) = (C/A) Annual depreciation per bed ($)*	*(V) = (S for reference asset) Annual depreciation per bed – reference asset ($)*	*(J) = (E x 8%) UCC (1) ($)*
Met Rem and Rec Centre (NSW)	2 397 540	2 791	2 791	5 916 568
Ararat (Vic)	250 408	978	2 791	585 120
Arthur Gorrie (Qld)	1 525 920	2 149	2 791	5 832 653
Yatala (SA)	1 017 649	2 576	2 791	3 151 102
Risdon (Tas)	629 000	2 176	2 791	2 641 760
Belconnen (ACT)	41 000	804	2 791	186 584

(U) = (A x V) Annual reference asset depreciation (2) ($)	*(KR) = (J) + (C) Capital costs (1) ($)*	*(N) (I x 8%) UCC (2) ($)*	*(PR) = (U+N) Capital costs (2)*	*(RR) = Difference between capital costs (KR) and (PR) (%)*
2 397 540	8 314 108	5 916 568	8 314 108	0
714 517	835 528	1 763 261	2 477 778	197
1 981 669	7 358 573	4 890 295	6 871 963	-7
1 102 477	4 168 751	2 720 657	3 823 134	-8
806 623	3 270 760	1 990 557	2 797 179	-14
142 345	227 584	351 275	493 620	117

a UCC refers to user cost of capital. * Denotes information provided by State and Territory governments.

Table C.2 **Analysis of housing dwellings, applying reference asset depreciation[a]**

Jurisdiction	*(C) Annual depreciation amount ($)**	*(S) = (C/A) Annual depreciation per bed ($)*	*(V) = (S for reference asset) Annual depreciation per bed – reference asset ($)*	*(J) = (E x 8%) UCC (1) ($)*
NSW	147 772 000	1 131	849	1 364 407 040
Vic	76 811 460	1 075	849	495 002 956
Qld	78 201 000	1 420	849	350 268 000
WA	29 858 714	849	849	218 448 573
SA	35 000 000	668	849	238 970 400
Tas	11 467 487	814	849	57 523 389

(U) = (A x V) Annual reference asset depreciation (2) ($)	*(KR) = (J) + (C) Capital costs (1) ($)*	*(N) (I x 8%) UCC (2) ($)*	*(PR) = (U+N) Capital costs (2)*	*(RR) = Difference between capital costs (KR) and (PR) (%)*
110 942 507	1 512 179 040	826 525 965	937 468 472	-38
60 717 277	571 814 416	452 346 062	513 063 339	-10
46 772 054	428 469 000	342 187 828	388 959 882	-9
29 858 714	248 307 287	218 448 573	248 307 287	0
44 526 853	273 970 400	331 726 774	376 253 627	37
11 965 912	68 990 876	89 146 508	101 112 420	47

a UCC refers to user cost of capital. * Denotes information provided by State and Territory governments.

Table C.3 **Analysis of police complexes in larger urban areas, applying reference asset depreciation[a]**

Jurisdiction	*(C) Annual depreciation amount ($)**	*(S) = (C/A) Annual depreciation per bed ($)*	*(V) = (S for reference asset) Annual depreciation per bed – reference asset ($)*	*(J) = (E x 8%) UCC (1) ($)*
Qld	980 320	163 387	55 923	6 050 548
WA	344 897	24 636	55 923	2 821 145
SA	559 227	55 923	55 923	1 358 569
ACT	340 000	85 000	55 923	880 400

(U) = (A x V) Annual reference asset depreciation (2) ($)	*(KR) = (J) + (C) Capital costs (1) ($)*	*(N) (I x 8%) UCC (2) ($)*	*(PR) = (U+N) Capital costs (2)*	*(RR) = Difference between capital costs (KR) and (PR) (%)*
335 536	7 030 868	815 142	1 150 678	-84
782 918	3 166 042	1 901 997	2 684 915	-15
559 227	1 917 796	1 358 569	1 917 796	0
223 691	1 220 400	543 428	767 119	-37

a UCC refers to user cost of capital. * Denotes information provided by State and Territory governments.

Table C.4 **Analysis of largest principal referral hospital, applying reference asset depreciation[a]**

Jurisdiction	*(C)* *Annual depreciation amount ($)**	*(S) = (C/A)* *Annual depreciation per bed ($)*	*(V) = (S for reference asset)* *Annual depreciation per bed – reference asset ($)*	*(J) = (E x 8%)* *UCC (1) ($)*
Westmead (NSW)	12 000 000	16 260	6 440	22 290 640
Alfred (Vic)	2 189 517	6 440	6 440	7 006 456
Royal Brisbane (Qld)	1 410 000	6 026	6 440	4 062 960
Royal Perth (WA)	2 347 600	15 547	6 440	6 072 512
Flinders (SA)[b]	4 644 000	11 137	6 440	12 086 000
Canberra (ACT)	2 040 000	10 200	6 440	18 963 600

(U) = (A x V) *Annual reference asset depreciation (2) ($)*	*(KR) = (J) + (C)* *Capital costs (1) ($)*	*(N) (I x 8%)* *UCC (2) ($)*	*(PR) = (U+N)* *Capital costs (2)*	*(RR) = Difference between capital costs (KR) and (PR) (%)*
4 752 540	34 290 640	15 208 130	19 960 670	-42
2 189 517	9 195 973	7 006 456	9 195 973	0
1 506 903	5 472 960	4 822 090	6 328 993	16
972 403	8 420 112	3 111 691	4 084 094	-51
2 685 378	16 730 000	8 593 212	11 278 590	-33
1 287 951	21 003 600	4 121 445	5 409 396	-74

a UCC refers to user cost of capital. **b** Flinders Medical Centre is the second largest hospital in SA, and this has been used in the analysis due to comparability problems using the largest building at the Royal Adelaide Hospital. * Denotes information provided by State and Territory governments.

D Analysis of other correctional facilities

Table D.1 **Analysis for second largest correctional facility[a]**

Second largest facility from each jurisdiction	*(A)* *Facility size (number of beds)**	*Build date/security status**	*(B)* *Assumed asset life (years)**	*(C)* *Annual depreciation amount ($)**	*Valuation method**	*(E)* *Current book value at 30 June 2000 ($)**	*(F) = (E/A)* *Current asset value per bed ($)*
Barwon (Vic)	250	1990 (max)	40	909 576	market	24 952 500	99 810
Woodford (Qld)	600	1996 (mixed)	40	1 931 436	deprival	57 071 199	**95 119**
Port Augusta (SA)	273	1969/1962 (mixed)	60	487 619	deprival	27 126 185	99 363
Hayes (Tas)	68	na	na	91 000	replacement	4 473 000	65 779
PDC (ACT)[b]	50	1994 (low)	15	30 000	market	470 000	9 400

(I) = (Reference F x A) DRC - all beds ($)	*(T) Difference between (E) and (I) (%)*	*(J) = (Ex8%) UCC (1) ($)*	*(K) =(C+J) Capital costs (1) ($)*	*(N) = (Ix8%) UCC (2) ($)*	*(P) =(C+N) Capital costs (2) ($)*	*(R) =Difference between capital costs (K) and (P) (%)*
23 779 666	-5	1 996 200	2 905 776	1 902 373	2 811 949	-3
57 071 199	0	4 565 696	6 497 132	4 565 696	6 497 132	0
25 967 396	-4	2 170 095	2 657 714	2 077 392	2 565 011	-3
6 468 069	45	357 840	448 840	517 446	608 446	36
4 755 933	912	37 600	67 600	380 475	410 475	507

a DRC is the depreciated replacement cost and UCC refers to user cost of capital. **b** Periodic Detention Centre. Bold type denotes reference asset. * Denotes information provided by State and Territory governments. **na** Not available.

Table D.2 **Analysis for third largest correctional facility[a]**

Third largest facility from each jurisdiction	*(A)* *Facility size (number of beds)**	*Build date/security status**	*(B)* *Assumed asset life (years)**	*(C)* *Annual depreciation amount ($)**	*Valuation method**	*(E)* *Current book value at 30 June 2000 ($)**	*(F) = (E/A)* *Current asset value per bed ($)*
Cessnock (NSW)	429	1973 (mixed)	na	1 175 940	na	29 399 983	68 531
Loddon (Vic)	250	1990 (medium)	40	545 347	market	20 839 000	83 356
Wolston (Qld)	600	1999 (mixed)	50	1 898 637	historic cost	74 278 258	**123 797**
Adelaide Rem Centre (SA)	247	1986 (high)	60	702 501	deprival	33 496 492	135 613
Quamby (ACT)	26	1992 (high)	47	90 000	market	3 542 791	136 261

(I) = (Reference F x A) DRC – all beds ($)	*(T) Difference between (E) and (I) (%)*	*(J) = (Ex8%) UCC (1) ($)*	*(K) =(C+J) Capital costs (1) ($)*	*(N) = (Ix8%) UCC (2) ($)*	*(P) =(C+N) Capital costs (2) ($)*	*(R) =Difference between capital costs (K) and (P) (%)*
53 108 954	81	2 351 999	3 527 939	4 248 716	5 424 656	54
30 949 274	49	1 667 120	2 212 467	2 475 942	3 021 289	37
74 278 258	0	5 942 261	7 840 898	5 942 261	7 840 898	0
30 577 883	-9	2 679 719	3 382 220	2 446 231	3 148 732	-7
3 218 725	-9	283 423	373 423	257 498	347 498	-7

a DRC is the depreciated replacement cost and UCC refers to user cost of capital. Bold type denotes reference asset. * Denotes information provided by State and Territory governments. **na** Not available.

Table D.3 **Analysis for fourth largest correctional facility[a]**

Fourth largest facility from each jurisdiction	*(A)* *Facility size (number of beds)**	*Build date/security status**	*(B)* *Assumed asset life (years)**	*(C)* *Annual depreciation amount ($)**	*Valuation method**	*(E)* *Current book value at 30 June 2000 ($)**	*(F) = (E/A)* *Current asset value per bed ($)*
Malabar (NSW)	422	1898 (high)	na	252 876	na	14 778 316	35 020
Melbourne Assessment (Vic)	250	1989 (max)	40	561 300	market	23 005 000	**92 020**
Lotus Glen (Qld)	511	1989 (mixed)	40	1 431 024	deprival	56 296 151	110 169
Mobilong (SA)	240	1987 (medium)	60	389 262	deprival	15 852 838	66 053

(I) = (Reference F x A) DRC - all beds ($)	*(T) Difference between (E) and (I) (%)*	*(J) = (Ex8%) UCC (1) ($)*	*(K) =(C+J) Capital costs (1) ($)*	*(N) = (Ix8%) UCC (2) ($)*	*(P) =(C+N) Capital costs (2) ($)*	*(R) =Difference between capital costs (K) and (P) (%)*
38 832 440	163	1 182 265	1 435 141	3 106 595	3 359 471	134
23 005 000	0	1 840 400	2 401 700	1 840 400	2 401 700	0
47 022 220	-16	4 503 692	5 934 716	3 761 778	5 192 802	-13
22 084 800	39	1 268 227	1 657 489	1 766 784	2 156 046	30

a DRC is the depreciated replacement cost and UCC refers to user cost of capital. Bold type denotes reference asset. * Denotes information provided by State and Territory governments. **na** Not available.

Table D.4 **Analysis for fifth largest correctional facility[a]**

Fifth largest facility from each jurisdiction	*(A)* *Facility size (number of beds)**	*Build date/security status**	*(B)* *Assumed asset life (years)**	*(C)* *Annual depreciation amount ($)**	*Valuation method**	*(E)* *Current book value at 30 June 2000 ($)**	*(F) = (E/A)* *Current asset value per bed ($)*
Silverwater (NSW)	422	1969 (low)	na	779 364	na	47 659 371	112 937
Won Wron (Vic)	127	1964 (low)	40	113 200	market	4 580 000	36 063
Townsville (Qld)	494	1970s (mixed)	40	1 476 664	deprival	38 574 639	**78 086**
Cadell (SA)	149	1960 (low)	50	355 036	deprival	5 234 966	35 134
Risdon Women's (Tas)	23	1963 (mixed)	na	46 000	replacement	2 283 000	99 261

(I) = (Reference F x A) DRC - all beds ($)	*(T) Difference between (E) and (I) (%)*	*(J) = (Ex8%) UCC (1) ($)*	*(K) =(C+J) Capital costs (1) ($)*	*(N) = (Ix8%) UCC (2) ($)*	*(P) =(C+N) Capital costs (2) ($)*	*(R) =Difference between capital costs (K) and (P) (%)*
32 952 424	-31	3 812 750	4 592 114	2 636 194	3 415 558	-26
9 916 962	117	366 400	479 600	793 357	906 557	89
38 574 639	0	3 085 971	4 562 635	3 085 971	4 562 635	0
11 634 861	122	418 797	773 833	930 789	1 285 825	66
1 795 985	-21	182 640	228 640	143 679	189 679	-17

a DRC is the depreciated replacement cost and UCC refers to user cost of capital. Bold type denotes reference asset. * Denotes information provided by State and Territory governments. **na** Not available.

E Analysis of other hospitals

Table E.1 **Analysis for largest building in second largest principal referral hospitals[a]**

Jurisdiction	*Build date*	*(A) Hospital building size (number of beds)**	*(B) Assumed asset life (years)**	*(C) Annual depreciation amount ($)**	*Valuation method**	*(E) Current book value at 30 June 2000 ($)**	*(F) = (E/A) Current asset value per bed ($)*
John Hunter (NSW)	1991	507	30	6 320 000	replacement	228 338 000	450 371
Monash Clayton (Vic)	1985-94	523	45	4 121 280	replacement	164 800 000	**315 105**
Gold Coast (Qld)[b]	1979	392	31	4 255 000	deprival	52 978 000	135 148
Sir Charles Gardiner (WA)	1982	467	50	3 008 900	RCV	97 288 700	208 327
Flinders (SA)	1976	417	60	4 644 000	deprival	151 075 000	362 290

(I) = (Reference F x A) DRC – all beds ($)	*(T) Difference between (E) and (I) (%)*	*(J) = (E x 8%) UCC (1) ($)*	*(K) = (C+J) Capital costs (1) ($)*	*(N) = (I x 8%) UCC (2) ($)*	*(P) = (C+N) Capital costs (2) ($)*	*(R) = Difference between capital costs (K) and (P) (%)*
159 758 317	-30	18 267 040	24 587 040	12 780 665	19 100 665	-22
164 800 000	0	13 184 000	17 305 280	13 184 000	17 305 280	0
123 521 224	133	4 238 240	8 493 240	9 881 698	14 136 698	66
147 154 111	51	7 783 096	10 791 996	11 772 329	14 781 229	37
131 398 853	-13	12 086 000	16 730 000	10 511 908	15 155 908	-9

a DRC is the depreciated replacement cost and UCC refers to user cost of capital. **b** The Gold Coast Hospital was used in place of the Princess Alexandra Hospital due to the patient relocation from the acute block at Princess Alexandra. Bold type denotes reference asset. * Denotes information provided by State and Territory governments.

Table E.2 **Analysis for largest building in major acute public hospitals[a]**

Jurisdiction	*Build date*	*(A) Hospital building size (number of beds)**	*(B) Assumed asset life (years)**	*(C) Annual depreciation amount ($)**	*Valuation method**	*(E) Current book value at 30 June 2000 ($)**	*(F) = (E/A) Current asset value per bed ($)*
Campbelltown (NSW)	1977	164	15	918 000	replacement	14 684 000	89 537
Royal Children's (Vic)	before 1970	310	45	855 947	replacement	40 200 000	129 677
Logan (Qld)	1989	229	27	1 483 000	deprival	68 896 000	300 856
Bunbury (WA)	1999	98	50	288 700	RCV	9 333 700	**95 242**

(I) = (Reference F x A) DRC – all beds ($)	*(T) Difference between (E) and (I) (%)*	*(J) = (E x 8%) UCC (1) ($)*	*(K) = (C+J) Capital costs (1) ($)*	*(N) = (I x 8%) UCC (2) ($)*	*(P) = (C+N) Capital costs (2) ($)*	*(R) = Difference between capital costs (K) and (P) (%)*
15 619 661	6	1 174 720	2 092 720	1 249 573	2 167 573	4
29 524 969	-27	3 216 000	4 071 947	2 361 998	3 217 945	-21
21 810 381	-68	5 511 680	6 994 680	1 744 830	3 227 830	-54
9 333 700	0	746 696	1 035 396	746 696	1 035 396	0

a CRC is the current replacement cost; DRC is the depreciated replacement cost and UCC refers to user cost of capital. Bold type denotes reference asset. * Denotes information provided by State and Territory governments.

Table E.3 **Analysis for largest building in medium acute public hospitals[a]**

Jurisdiction	*Build date*	*(A) Hospital building size (number of beds)**	*(B) Assumed asset life (years)**	*(C) Annual depreciation amount ($)**	*Valuation method**	*(E) Current book value at 30 June 2000 ($)**	*(F) = (E/A) Current asset value per bed ($)*
Sydney (NSW)	1811	50	22	550 000	replacement	17 500 000	350 000
Dandenong (Vic)	1999	309	45	2 100 000	replacement	84 100 000	**272 168**
Redland (Qld)	1987	105	24	2 108 000	deprival	38 524 000	366 895
Osborne Park (WA)	1977	124	50	136 200	RCV	4 405 000	35 524
Mt Gambier (SA)	1997	88	40	868 000	deprival	21 279 000	241 807

(I) = (Reference F x A) DRC - all beds ($)	*(T) Difference between (E) and (I) (%)*	*(J) = (E x 8%) UCC (1) ($)*	*(K) = (C+J) Capital costs (1) ($)*	*(N) = (I x 8%) UCC (2) ($)*	*(P) = (C+N) Capital costs (2) ($)*	*(R) = Difference between capital costs (K) and (P) (%)*
13 608 414	-22	1 400 000	1 950 000	1 088 673	1 638 673	-16
84 100 000	0	6 728 000	8 828 000	6 728 000	8 828 000	0
28 577 670	-26	3 081 920	5 189 920	2 286 214	4 394 214	-15
33 748 867	666	352 400	488 600	2 699 909	2 836 109	480
23 950 809	13	1 702 320	2 570 320	1 916 065	2 784 065	8

a DRC is the depreciated replacement cost and UCC refers to user cost of capital. Bold type denotes reference asset. * Denotes information provided by State and Territory governments.

Table E.4 **Analysis for largest building in principal referral hospitals using Royal Adelaide Hospital[a, b]**

Jurisdiction	*Build date*	*(A) Hospital building size (number of beds)**	*(B) Assumed asset life (years)**	*(C) Annual depreciation amount ($)**	*Valuation method**	*(E) Current book value at 30 June 2000 ($)**	*(F) = (E/A) Current asset value per bed ($)*
Westmead (NSW)	1978	738	17	12 000 000	replacement	278 633 000	377 551
Alfred (Vic)	1997-99	340	45	2 189 517	replacement	87 580 697	**257 590**
Royal Brisbane (Qld)	1978	234	51	1 410 000	deprival	50 787 000	217 038
Royal Perth (WA)	1989	151	50	2 347 600	RCV	75 906 400	502 691
Royal Adelaide (SA)	1969	452	60	769 000	deprival	23 941 000	52 967
Canberra (ACT)	1972	200	60	2 040 000	DRC	237 045 000	1 185 225

(I) = (Reference F x A) DRC - all beds ($)	*(T) Difference between (E) and (I) (%)*	*(J) = (E x 8%) UCC (1) ($)*	*(K) = (C+J) Capital costs (1) ($)*	*(N) = (I x 8%) UCC (2) ($)*	*(P) = (C+N) Capital costs (2) ($)*	*(R) = Difference between capital costs (K) and (P) (%)*
190 101 631	-32	22 290 640	34 290 640	15 208 130	27 208 130	-21
87 580 697	0	7 006 456	9 195 973	7 006 456	9 195 973	0
60 276 127	19	4 062 960	5 472 960	4 822 090	6 232 090	14
38 896 133	-49	6 072 512	8 420 112	3 111 691	5 459 291	-35
116 430 809	386	1 915 280	2 684 280	9 314 465	10 083 465	276
51 518 057	-78	18 963 600	21 003 600	4 121 445	6 161 445	-71

a The Royal Adelaide Hospital is the largest hospital in SA. The largest building at the Royal Adelaide Hospital is not considered comparable to the other buildings analysed and therefore the result for this hospital should be treated with caution. **b** DRC is the depreciated replacement cost and UCC refers to user cost of capital. Bold type denotes reference asset. * Denotes information provided by State and Territory governments.

Table E.5 **Analysis for largest building in principal referral hospitals using the entire Royal Adelaide Hospital[a, b]**

Jurisdiction	*Build date*	*(A) Hospital building size (number of beds)**	*(B) Assumed asset life (years)**	*(C) Annual depreciation amount ($)**	*Valuation method**	*(E) Current book value at 30 June 2000 ($)**	*(F) = (E/A) Current asset value per bed ($)*
Westmead (NSW)	1978	738	17	12 000 000	replacement	278 633 000	377 551
Alfred (Vic)	1997-99	340	45	2 189 517	replacement	87 580 697	**257 590**
Royal Brisbane (Qld)	1978	234	51	1 410 000	deprival	50 787 000	217 038
Royal Perth (WA)	1989	151	50	2 347 600	RCV	75 906 400	502 691
Royal Adelaide (SA)	1969	634	60	8 400 000	deprival	93 195 000	52 967
Canberra (ACT)	1972	200	60	2 040 000	DRC	237 045 000	1 185 225

(I) = (Reference F x A) DRC - all beds ($)	*(T) Difference between (E) and (I) (%)*	*(J) = (E x 8%) UCC (1) ($)*	*(K) = (C+J) Capital costs (1) ($)*	*(N) = (I x 8%) UCC (2) ($)*	*(P) = (C+N) Capital costs (2) ($)*	*(R) = Difference between capital costs (K) and (P) (%)*
190 101 631	-32	22 290 640	34 290 640	15 208 130	27 208 130	-21
87 580 697	0	7 006 456	9 195 973	7 006 456	9 195 973	0
60 276 127	19	4 062 960	5 472 960	4 822 090	6 232 090	14
38 896 133	-49	6 072 512	8 420 112	3 111 691	5 459 291	-35
163 312 241	75	7 455 600	15 855 600	13 064 979	21 464 979	35
51 518 057	-78	18 963 600	21 003 600	4 121 445	6 161 445	-71

a The Royal Adelaide Hospital is the largest hospital in SA. Analysis was carried out on the entire Royal Adelaide Hospital complex to 'test' the representativeness of the largest building. Analysis of the Royal Adelaide Hospital is therefore done on a different basis to the other hospitals analysed in table E.5 and the result for this hospital should be treated with caution. **b** DRC is the depreciated replacement cost and UCC refers to user cost of capital. Bold type denotes reference asset. * Denotes information provided by State and Territory governments.

Glossary

Asset revaluation	The act of recognising a reassessment of values of non-current assets at a particular date.
Capital	The expenditure related to the acquisition of an asset.
Capital costs	In an accrual sense these relate to the capital used in a particular year rather than cash expenditure incurred in the purchase of capital. For the purposes of this study, these comprise two distinct elements, **depreciation** and the **user cost of capital**.
Capitalisation threshold	The value at which non-current assets are capitalised, rather than expensed in the year of purchase.
Current market buying price	The amount for which an asset with similar service potential could be bought by a knowledgeable, willing buyer from a knowledgeable, willing seller in an arm's length transaction at current prices plus the buyer's transaction costs. This equates to current market (selling) price plus the buyer's transaction costs.
Current market (selling) price	The price that a willing but not anxious seller would accept from a willing but not anxious buyer for an asset in an arm's length transaction at current prices. This does not include transaction costs.
Current replacement cost	This relates to a current cost estimated as the cost per unit of service potential of the most appropriate modern replacement facility. It applies where the asset being valued cannot be replaced by an asset with the same service potential and would be replaced at balance date by a different asset (in terms of scale and/or technology) having a similar service potential which would be used as a reference for determining the replacement cost per unit of service potential as the existing asset.

Current reproduction cost	This relates to a current cost by reference to the cost per unit of service potential of reproducing or replicating the unit. It applies where the asset being valued would be replaced at balance date by a similar asset in terms of both scale and technology.
Depreciated replacement cost	The current cost of replacing an asset with a similar asset providing equivalent services and capacity, adjusted by subtracting accumulated depreciation.
Depreciation	An expense recognised systematically for the purpose of allocating the annual consumption of the amount of a non-current asset used in providing a government service over its useful life.
Deprival value	The loss that could be expected by an agency if it was deprived of the service potential or future economic benefits of an asset (see appendix A).
General assets	Non-current assets other than property or buildings.
Gross replacement cost	The gross current cost of a modern equivalent asset of the same service capacity.
Heritage assets	Assets which a government has decided to preserve for the duration of their physical life because of their unique historical, geographical, cultural or environmental attributes.
Historical cost	The original cost to the organisation of acquiring an asset, including relevant financing and set up costs. The historic valuation can be adjusted for depreciation by subtracting accumulated depreciation.
Net present value in current use	The value of an asset using the present value of the predicted cash flows generated from the use of an asset. It involves estimating the future income generated by an asset, and then discounting that income stream at a discount rate that reflects the risks involved in owning the asset.

Non-current physical assets	Tangible assets that have useful lives greater than one year from acquisition date.
Revaluation threshold	The dollar threshold at which point assets are regularly revalued.
User cost of capital	The opportunity cost of funds tied up in the capital used to deliver services (for example, houses in public housing).

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