



2010

PARLIAMENT OF TASMANIA

# **AUDITOR-GENERAL SPECIAL REPORT No.92**

## **Public sector productivity: a ten-year comparison**

**October 2010**

*Presented to both Houses of Parliament in accordance with the provisions of Audit Act 2008*

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14 October 2010

President  
Legislative Council  
HOBART

Speaker  
House of Assembly  
HOBART

Dear Madam President  
Dear Mr Speaker

**SPECIAL REPORT NO. 92**  
**Public sector productivity: a ten-year comparison**

This report, relating to my audit of productivity of the public sector over the period 1999–00 to 2008–09, has been prepared consequent to examinations conducted under section 23 of the *Audit Act 2008*.

Yours sincerely

H M Blake  
**AUDITOR-GENERAL**



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## Foreword

Determining the productivity or efficiency of the public sector is difficult. This is particularly so for departments dominated by policy development or provision of services or activities other than to the public. Also difficult is the growing multitude and often complex and less tangible nature of the services provided by the public sector. To determine productivity or efficiency is likely also to require the development of new systems capturing relevant data thus facilitating internal and external reporting.

At the same time, difficult though this may be, there is I believe a need for the public sector to be able to demonstrate how productive or efficient it is in providing its services and functions. Of relevance is that efficiency is not only about 'cost' — a service can cost more but be more efficient. Also of relevance is the need to balance accessibility of public services and their costs particularly in education and health.

This audit, our first aimed predominantly at assessing efficiency, examines the productivity, by reference to more than 70%, based on budget allocations, of the activities provided by government departments over a ten-year period. In carrying out this audit, I acknowledge the inherent difficulties associated with such an exercise, many of which are referred to in the submissions we received from Heads of Agencies.

Despite these difficulties, I consider the conclusions we reached are robust. Importantly, we concluded that the quantum of services provided, based on levels of activity, increased by more than the growth in public sector employee numbers over the 1999-2000 to 2008-09 period indicating that productivity over this period improved. This finding is contrary to reports by other parties that the growth in employee numbers in Tasmania is too high without linking this to what these employees do. Not surprising is that the 3774 growth in employee numbers was primarily in health, police and education.

However, wages growth over this period, not unexpectedly, resulted in our conclusion that increases in activity were not matched by the growth in total employee costs.

Our report provides a prompt for further consideration by policy setters and, possibly academics, on how to better assess and report public sector productivity.

H M Blake

Auditor-General

14 October 2010

## List of acronyms and abbreviations

DEDTA	Department of Economic Development, Tourism and the Arts
DoE	Department of Education
DHHS	Department of Health and Human Services
DIER	Department of Infrastructure, Energy and Resources
DPEM	Department of Police and Emergency Management
DPIPWE	Department of Primary Industries, Parks, Water and Environment
FTE	Full time equivalent
Justice	Department of Justice
PWS	Parks and Wildlife (part of the Department of Primary Industries, Parks, Water and Environment)
Treasury	Department of Treasury and Finance

## **Executive summary**

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## Executive summary

### *Background*

Life in modern societies involves collective access to many publicly provided goods and services. There are numerous situations where it may be preferable for goods and services to be delivered by governments because it is more efficient and effective to provide them on that basis, for example:

- It is impossible to restrict benefits to those people that would be willing to pay for services. Examples include courts, prisons and policing services.
- Some goods and services provide benefits to the whole community and not just the immediate recipient. An example is education and immunisation programs.
- Some goods and services are of such critical importance to the community that government provision is required to guard against the risk of commercial failure of private sector business. Examples are hospital services and fire fighting.

In the private sector, competitive market conditions mean that businesses must match or exceed the efficiency of competitors if they are to succeed. For much of the public sector there is no such equivalent pressure to maximise efficiency, which leaves the risk that governments will be less efficient.

That lack of competition, or of a price signal, is one of the reasons that public bodies are now commonly subject to independent audits of efficiency, such as those performed by this Office. Normally, this is done at the micro level (that is, for a particular service or service provider). However, this audit looked at the macro level and sought to form an opinion on overall public sector efficiency by measuring increases in employee numbers, average employee costs and service delivery over the period 1999–00 to 2008–09.<sup>1</sup>

Our hope is that our work in this area will lead to more advanced analyses by academic and other bodies.

### *Audit Approach*

In conducting this audit, we intended to examine long-term changes in public sector efficiency. Doing so obliged us to make a number of assumptions relating to various factors, including:

- choice of representative measures of activity
- the need to subjectively apply weightings

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<sup>1</sup> Chapter 1 of this report ('Audit approach') outlines the parameters that we applied in conducting the audit.

- recognition of quality changes.

Despite the assumptions that we made and constraints due to limited data availability, we believe that our work is robust. We have particular confidence in the most influential measures, namely those for the hospital, police and education sectors. For the starting and end points upon which the audit is based, namely 1999–00 and 2008–09, the measures that we selected have covered three quarters of public sector activities when viewed as a proportion of budget allocations.

### *Audit conclusion*

The increase in service delivery has exceeded growth in full time equivalent (FTE) employee numbers but total employee costs have increased more than service delivery over the ten-year period. It follows that output per FTE has increased, but that output per employee dollar has decreased. It should be emphasized that our methodology took the conservative approach of only recognising objectively measureable quality improvements. Accordingly it excluded less visible quality changes such as greater consultation on service delivery and accountability.

The audit was intended to provide information about changes in public sector efficiency over a period. It did not aim to point out individual areas where efficiency could be improved or to provide recommendations as to how any such areas could be made more efficient.

Nonetheless, we believe that analyses, such as this one, would be a useful element of the departmental budget process and enable greater scrutiny of public sector productivity. However, to conduct these analyses, departments would in some cases need to improve the quality of their service delivery data.

### *List of recommendations*

The following table reproduces the recommendations contained in the body of this Report.

<b>Rec No</b>	<b>Section</b>	<b>We recommend that ...</b>
1	11.3	... departments develop indicators of efficiency and quality and publish those indicators in their annual reports with a view to long-term comparability.
2	11.3	... departments measure changes in service delivery and employee costs and that this information be used as an input to Budget processes.
3	11.3	... Treasury conduct and publish 5-year reviews of changes in service delivery and employee costs.

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**Audit Act 2008 section 30 — Submissions and comments received**

## *Audit Act 2008* section 30 — Submissions and comments received

### *Introduction*

In accordance with section 30(2) of the *Audit Act 2008*, a copy of this Report was provided to the nine departments with a request for comment (their management responses are included in the respective chapters). A summary of findings was also provided to the Treasurer and respective Ministers with a request for comment or submissions.

The comments and submissions provided are not subject to the audit nor the evidentiary standards required in reaching an audit conclusion. Responsibility for the accuracy, fairness and balance of those comments rests solely with those who provided a response or comment.



## **Introduction**

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## Introduction

Before considering the productivity of government services, it is worthwhile to consider why we have governments and the expectations that citizens place upon them. Those expectations are not static but evolve over time.

Life in modern societies involves collective access to many publicly provided goods and services. There are numerous situations where it may be preferable for goods and services to be delivered by governments because it is more efficient and effective to provide them on that basis, for example:

- It is impractical to restrict benefits to those people that would be willing to pay for services. Examples include courts, prisons and policing services.
- Some goods and services provide benefits to the whole community and not just the immediate recipient. Examples are education and immunisation programs.
- Some goods and services are of such critical importance to the community that government provision of at least the essential services is required to guard against the risk of commercial failure of private sector business. Examples are hospital services and fire fighting.

Private companies cannot readily supply such goods and services for reasons that include: an inability to recover all the benefits in price; high fixed costs and low marginal costs; free rider problems (where users cannot be excluded).

In the private sector, competitive market conditions mean that businesses must match or exceed the efficiency of competitors if they are to succeed. For much of the public sector there is no such equivalent pressure to maximise efficiency.

Despite the need for some goods and services to be publicly provided, there is a risk that governments will not provide them efficiently, a perception that is commonly expressed in the media. For that reason, it is important that reliable information about efficiency is publicly reported. However, our previous audits of performance information have consistently criticised the lack of detailed information about efficiency.

To fill that gap, we have undertaken this audit to compare the efficiency of the whole public sector today with ten years ago. In this report there is no in-depth discussion about the reasons for changes. Instead, we quantify what the changes were.

### *Audit objective*

The objective of the audit was to form an opinion on public sector efficiency by measuring increases in employee numbers, average employee costs and service delivery.

### *Audit scope*

We covered all government departments over the period 1999–00 to 2008–09.

### *Audit approach*

Our approach has been to:

- identify services delivered
- select representative activity measures for each department
- measure change in the selected activities
- include qualitative changes where possible
- determine average changes in activity levels
- ascertain changes in employee numbers and costs
- analyse activity and employee changes.

The approach is discussed in more detail in Chapter 1.

### *Timing*

Planning for this audit commenced in December 2009. Fieldwork was completed in July and reporting finalised in September 2010.

### *Resources*

The total cost of the audit was \$147 000.

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## **1 Audit approach**

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# 1 Audit approach

Our approach has been to:

## *1.1 Identify services delivered*

The first stage in identifying whether there had been an increase in service delivery from the public sector was to identify the services provided, both in 1999–00 and in 2008–09. In order to identify those services, we reviewed budget papers and department annual reports, as well as having discussions with senior officers.

## *1.2 Select representative activity measures for each department*

Ideally, all substantial service delivery would be included in our analysis. However, some major public sector activities such as providing legal and policy advice cannot be reliably measured. Instead, we selected labour-intensive and measurable activities with the aim of covering as much of the state's budget as possible. From that data, we extrapolated total service delivery to the public by the public sector. Some complications arose in comparing 1999–00 to 2008–09 and are discussed in the following subsections.

### *1.2.1 Complication: changes in departmental structures*

Over the audit period, there have been changes which have altered the allocation of government's business activities to individual departments through 'administrative rearrangements'. An example is 'the Arts' which has variously been included in three different departments. Fortunately for our analysis, the net change over the ten-year period has been small.

The substantial changes we identified, and adjusted for, included:

- Workplace Standards was transferred from Department of Infrastructure, Energy and Resources (DIER) to Department of Justice.
- The Resource Management and Planning Appeal Tribunal, Resource Planning and Development Commission and Integrated Land Use Planning Services were transferred from the Department of Primary Industries, Parks, Water and Environment (DPIPWE) to the Department of Justice.
- The creation of Polytechnic and Academy resulted in a movement of staff from Department of Education (DoE) to the newly established service providers.
- Environment Division and Parks and Wildlife (PWS) were transferred from Department of Primary Industries, Water and Environment (DPIWE) to the now defunct Department of Environment Parks, Heritage and the Arts (DEPHA).

### 1.2.2 *Complication: Evolution of public sector services*

Over the course of time, some public sector functions have been initiated, some discontinued and others outsourced. One example is the growth in e-government. However, our approach assumes that the selected activities represent the same proportion of FTEs in 1999–00 and in 2008–09.

To determine whether that assumption was valid, we compared the proportion of the public sector budget represented by our selected activities in 1999–00 and in 2008–09. We found that the selected activities represented 75.9 per cent of the budget in 1999–00 as opposed to 76.4 per cent in 2008–09. Given that slight variation and the imprecision of our approach, we decided no adjustment was necessary.

### 1.3 *Measure change in the selected activities*

To measure changes in service delivery we needed meaningful, objective and credible data for both 1999–00 and 2008–09. Two choices that we needed to make are discussed below.

#### 1.3.1 *Activity or outcome?*

One decision was whether to measure changes in activity or in outcomes. To illustrate:

- Preventative medicine can have a positive effect on the desired outcome of community health but could lead to a decrease in the activity measure of ‘operations performed’.
- Community policing could lead to a safer community but a reduction in the activity measure of ‘crimes investigated’.

We chose to measure activity because the desired outcome can be hard to define. An example: is the objective of PWS to maximise visitors, maximise economic return or keep the parks pristine? We also took note that policy directions are largely determined by government and therefore activity measures were more relevant for our purpose.

#### 1.3.2 *Departmental or publicly available data?*

We had to rely on available data recorded by departments for both 1999–00 and 2008–09. A problem from our perspective was that the data was compiled for in-house use and had never been intended for an analysis of the kind that we undertook. Unsurprisingly, the data was not always:

- consistent
- indicative of performance
- suitable for matching FTE numbers to activities.

Also, much of the available data came directly from the departments. Whilst we have no particular reason to doubt the validity of information

provided, publicly provided information is more credible and we opted to rely on that wherever possible.

#### *1.4 Include qualitative changes*

In most cases, we could get at least reasonable quantitative information for activities. However, it was also necessary to take into account any changes in the quality of services provided. For example, possible quality changes that we considered included:

- reduced post-surgical re-admissions
- reduced recidivism for released prisoners
- improved roads
- reduced class sizes.

Typically, in private industry, quality information is incorporated in the price and is measurable on that basis. No such ‘objective’ measure of quality is available for most of the public sector. Nevertheless, there have undoubtedly been quality changes in the delivery of some services. There have also been less visible quality changes such as:

- greater accountability (e.g. information availability)
- meeting of increasingly complex legal and other process requirements (e.g. procurement, anti-discrimination legislation and human resource management)
- meeting of imposed standards (e.g. nurse numbers per hospital bed)
- community consultation (e.g. Brighton Bypass).

We have taken the conservative approach of adjusting only for measurable qualitative factors. We also discussed non-measurable quality changes in the following chapters of this Report, where applicable.

#### *1.5 Determine average changes in activity levels*

In order to extrapolate from our representative activities to total departmental service delivery, we needed to weight our representative activities so that the change in the level of each activity had an impact on our overall evaluation, proportional to its scale. To illustrate that point of proportionality, a change in surgery levels should have much greater impact on our assessment of the overall change in DHHS’s level of service delivery than the same percentage change in the number of dentures fitted.

To accurately match activities with costs, we needed to make some adjustments that recognised funds used directly by departments as opposed to funds administered for other purposes. Therefore, as a basis for our weightings, we used 2008–09 department budgets but deducted grants, subsidies and transfer payments.



So, having determined quantitative and qualitative changes we computed each activity's contribution to the overall departmental increase (weighted increase) as follows:

$$\text{Weighted increase for each activity} = (\text{quantity increase} + \text{quality increase})^2 \times \text{a weighting for scale of activity}^3.$$

Similarly, in Chapter 11 we use the 2008–09 public sector budget to estimate the overall increase in service delivery for the whole public sector from individual department estimates.

### 1.6 *Ascertain changes in employee numbers and costs*

For employee numbers, we relied, wherever possible, on FTE numbers published in the State Service Commissioner's Report. However, that information excludes casuals, and people not employed under the *State Service Act 2000*. Where the number of staff excluded from the State Service Commissioner's data was substantial enough to impact on our analysis, we added the numbers using departmental data. The major grouping in the latter category was sworn police officers.

For cost information, we relied on audited financial statements and adjusted the information for changes in the CPI<sup>4</sup>.

### 1.7 *Analyse activity and employee changes*

Our approach compares changes in activity levels with changes in employee numbers and costs. In doing so, it ignores other inputs which also contribute to changes in activity levels, including:

- outsourcing to private contractors
- outsourcing to other non-government bodies
- capital infrastructure and technology.

<sup>2</sup> We cannot actually do a simple addition of the quantity and quality increase. Instead, we calculate the combined effect using the formula:  $((100 + \text{quantity increase } \%) \times (100 + \text{quality increase } \%) - 100)$ .

To illustrate, we have used data for Housing Tasmania (see Table 2): Housing stock in 1999–00 was 14 242 compared to 2008–09 when it reduced to 13 338. This equated to a quantity increase of -6.35%. Quality, as measured by the occupancy rate improved from 95% to 98% over the same period, yielding an overall improvement in quality of 3.26%. So, using the above formula the net impact of quantity and quality changes is:

$$(100 + -6.35) \times (100 + 3.26) - 100 = -3.29\%$$

<sup>3</sup> In applying weightings, consider a department with three outputs; A, B and C. If our representative activities are A and B, we would use their budgets to weight their respective increases. The extrapolation of Activities A and B stands for the entire department. Activity C would be ignored in the calculations since we are only interested in a weighted average for changes in the levels of our representative activities.

So, continuing with the example from Footnote 2, when the relevant proportion of the DHHS budget is applied to Housing Tasmania, the net effect is:

$$-3.29 \times 12.6 = -0.41\%$$

<sup>4</sup> The reason that we used CPI rather than Average Weekly Ordinary Time Earnings (AWOTE) was that we were interested in the cost impact over time rather than relativity to other wage movements.

In theory, capital changes could be factored into the analysis using financial statement valuations. However, in practice those valuations are based on compliance with accounting standards rather than providing an economic measure of capacity.

Inclusion of this input would require greater sophistication than our resource restrictions allow. Our hope is that our work in this area will lead to more advanced analyses by academic and other bodies.

### *1.8 Summary*

In conducting this audit, we intended to examine long-term changes in public sector efficiency. Doing so obliged us to deal with various difficulties as we have pointed out in the foregoing sections of this Chapter. Despite the assumptions that we made and constraints due to limited data availability, we believe that our work is robust. We have particular confidence in the most influential measures, namely those for the hospital, police and education sectors. For the starting and end points upon which the audit is based, namely 1999–00 and 2008–09, the measures that we selected have covered three quarters of public sector activities when viewed as a proportion of budget allocations.

## 2 Health and Human Services

---

## 2 Health and Human Services

The Department of Health and Human Services (DHHS) is responsible for delivering integrated services that maintain and improve the health and wellbeing of Tasmanians.

### 2.1 Employees

Table 1 summarises the changes in DHHS' employee numbers and employee costs for the period 1999–00 to 2008–09.

**Table 1: Changes in DHHS' employee profile**

Labour inputs	1999–00	2008–09	Increase (%)
Employees (FTE numbers)	5965.74	8990.33	50.70
Average cost per FTE (\$)*	75,500	92,700	22.84
Total employee costs (\$'000)*	450,200	833,500	85.12

\*Employee expenses excludes payroll tax and workers' compensation premiums and are adjusted using CPI to reflect 2009 dollars.

Over the ten-year period, there has been a 50.7 per cent increase in FTE numbers and a 22.8 per cent increase in the average cost per FTE, resulting in a substantial increase in total employee costs.

### 2.2 Activities

The principal responsibilities of DHHS include the delivery of:

- acute health services, via hospitals, primary and community health services and ambulance services
- care for older Tasmanians
- accommodation and support services for people with a disability
- statutory responsibilities for vulnerable children and young people
- housing and support to low-income Tasmanians and those experiencing homelessness.

We chose to look at Acute Health Services, Housing Services, Disability Services, and Children and Family Services. These areas were selected because they involve significant employee costs (rather than grants, subsidies and other transferred funds). The selected activities represent outputs that constitute 73.4 per cent of the departmental budget.

#### 2.2.1 Acute Health Services

The major activities of Acute Health Services include emergency medicine, elective surgery, day care procedures and ambulance services. We obtained respective data from budget papers, the Productivity

Commission's *Report on Government Services* and directly from DHHS. The measures that we chose and gave equal weight to were:

- admitted patients — weighted separations
- Department of Emergency presentations
- ambulance responses
- same day separations.

There have undoubtedly been qualitative changes in service delivery in Acute Health Services. However, we were unable to find a reliable basis for quality adjustment. We considered using change in post-surgical readmissions as a quality adjustment but we were unable to obtain reliable data from 1999–2000.

### *2.2.2 Children and Family Services*

This area of the department provides, amongst other things, child protection, child health and parenting, psychological support, therapeutic services as well as family violence counselling and support. The measure we selected to represent the change in service delivery in this area was the number of children in long-term out-of-home care.

### *2.2.3 Disability Services*

Disability Services provides accommodation and community support, community access, respite advocacy and research and development for people with a disability. The measures that we chose and gave equal weight to were:

- community access clients
- community support clients
- respite clients.

### *2.2.4 Housing Services*

Housing Services provide access to secure, affordable housing and support to low-income Tasmanians, as well as accommodation and support for people experiencing homelessness. The measure selected to evaluate the change in this service delivery area was total housing stock. We considered that total housing stock would be proportional to the level of maintenance and processing performed.

In this instance, a quality adjustment was performed as occupancy rates have increased from 95 per cent to 98 per cent over the period in scope.

### 2.2.5 Summary of activity changes

Table 2 summarises output changes for our selected activity measures.

**Table 2: Ten-year change in DHHS's service delivery**

	1999–00	2008–09	Quantity Change (%)	Quality Change (%) <sup>*</sup>	Budget (%)	Weighted increase (%)
<b>Acute Health Services</b>						
Admitted patients – weighted separations	77,628	100,957	30.05	N/a <sup>†</sup>	16.82 <sup>**</sup>	5.05
Department of Emergency presentations	81,151	125,954	55.21	N/a	16.82	9.29
Ambulance responses	41,681	65,057	56.08	N/a	16.82	9.43
Same day separations	34,393	53,857	56.59	N/a	16.82	9.52
<b>Children and Family Services</b>						
Long-term number of children in out-of-home care	343	808	135.57	N/a	8.25	11.18
<b>Disability Services</b>						
Community access clients	194	180	-7.22	N/a	3.96 <sup>***</sup>	-0.29
Community support clients	206	1489	622.82	N/a	3.96	24.66
Respite clients	124	206	66.13	N/a	3.96	2.62
<b>Housing Services</b>						
Total housing stock	14,242	13,338	-6.35	3.26 <sup>*</sup>	12.60	-0.41
<b>Overall change in service delivery</b>						<b>71.05</b>

<sup>\*</sup>The only measurable quality adjustment for DHHS was the occupancy rate of its housing stock, measured at 3.26% improvement.

<sup>\*\*</sup>The budget for Acute Services represents 67 per cent of our selected activities. We have given equal weight to each of the measures for that activity, hence 16.82 per cent.

<sup>\*\*\*</sup>The budget for Disability Services represents 12 per cent of our selected activities. We have given equal weight to each of the measures for that activity, hence 3.96 per cent.

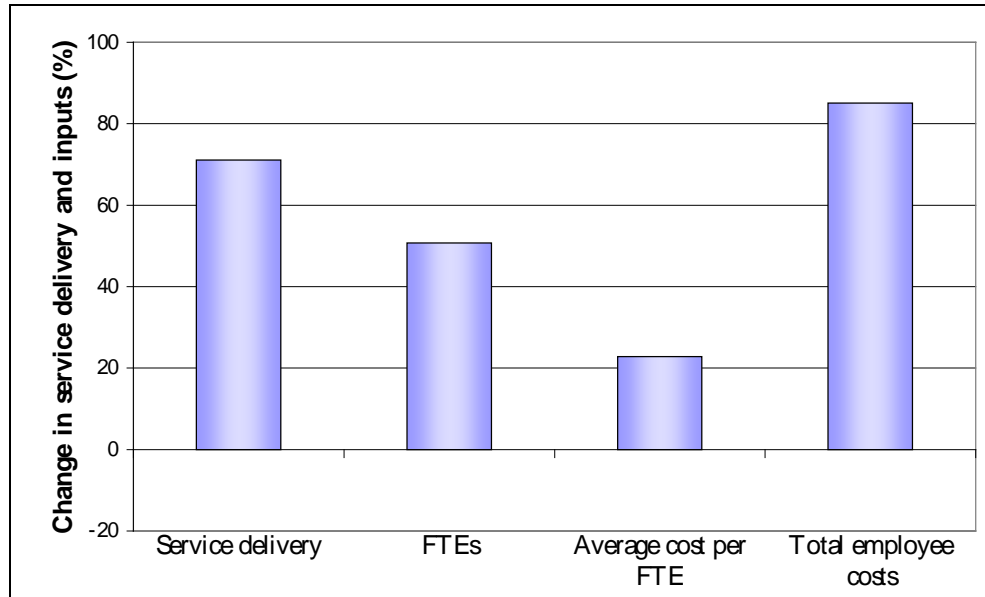
<sup>†</sup>N/a = not available

Overall, there has been a 71.1 per cent increase in the services provided by DHHS, largely in the hospital sector.

### 2.3 Summary

Figure 1 shows changes in activity, employee numbers, average cost per FTE and total employee costs.

**Figure 1: Summary of DHHS changes**



The increase in service delivery has exceeded growth in FTE numbers but total employee costs have increased significantly more than service delivery over the ten-year period.

### 2.4 Management response

The Department of Health and Human Services (DHHS) welcomes the Auditor-General's report on Public Sector Productivity. In general, the Agency accepts the Auditor-General's recommendations, but would like to make the following brief comments:

1. The selected activity indicators used to measure productivity in the report are questionable as they do not consider patient/client outcomes; they instead measure changes in activity. Hence, key performance indicators such as changes in clinical outcomes, waiting times and patient/client experience were not considered as part of the audit.
2. Even though the selected indicators were not, in the Agency's opinion, ideal for the purposes of this report, the audit's conclusions can be interpreted as positive for the DHHS. DHHS has delivered more services with a lower proportion of Full Time Employees (FTE's).
3. It is noted that DHHS employee costs have increased during the period of the review. This could be attributed to numerous individual and award outcomes over this period.

4. Conclusions drawn from the audit are open to individual interpretation, but on the whole, the audit shows that the increase in the Agency's service delivery has exceeded the growth in its FTE numbers. This indicates that the increase in FTE numbers over the ten-year period has had a positive influence on health and human services delivery.



### **3 Education**

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## 3 Education

The Department of Education (DoE) provides services through: Early Years; Learning Services and Schools; Information Services and Community Learning; and Skills Tasmania.

### 3.1 Employees

Table 3 summarises the changes in DoE's employee numbers and employee costs for the period 1999–00 to 2008–09.

**Table 3: Changes in DoE's employee profile**

Labour inputs	1999–00	2008–09	Increase (%)
Employees (FTE numbers)*	7553.64	7717.95	2.18
Average cost per FTE (\$) **	60,700	72,100	18.74
Total employee costs (\$'000)**	458,600	556,400	21.32

\*The FTE number has been adjusted for the 303 FTEs transferred to the Polytechnic and Academy in 2008–09. We have also excluded staff employed for the students with disabilities program (167 FTEs in 1999–00 and 398 FTEs in 2008–09) because of substantial changes to the inclusion policy.

\*\*Employee expenses excludes payroll tax and workers' compensation premiums and are adjusted using CPI to reflect 2009 dollars.

Over the ten-year period, there has been a 2.2 per cent increase in FTE numbers and an increase of 18.7 per cent in average employee expenses, resulting in a substantial increase in total employee costs.

### 3.2 Activities

DoE provides schools, colleges, vocational education and training and community education resources as well as libraries and the Archives Office of Tasmania. DoE also licences and regulates child care and administers post-compulsory qualifications through the Tasmanian Qualifications Authority.

We selected total number of students and library items borrowed to represent the activities of the department as shown in Table 4. The selected activities represent outputs that constitute 100 per cent of the departmental budget.

We noted a decrease of 1.6 students per class (6.8 per cent) over our audit period. The difficulty was to translate the reduction in class size into a quality adjustment, since we were not persuaded that there was a sufficiently direct link between class sizes and quality of education. A 1991 study found that a 25.7 per cent reduction in class size resulted in a 15.1 per cent improvement in the percentage of time which students spent actively engaged on the learning task<sup>5</sup>. On that basis, the 6.8 per cent

<sup>5</sup> Campbell, J. *Class sizes do matter*. Cited in Australian Education Union, 1995, AEU Fact Sheet No. 1.

reduction in average class sizes represents a 4.0 per cent improvement in quality, which we considered reasonable and have included in Table 4.

We were also advised of a number of initiatives for improving the quality of education including: *Raising the Bar*, *Closing the Gap* and *Launch into Learning*. However, these were not quantifiable.

**Table 4: Ten-year change in DoE's service delivery**

	1999–00	2008–09	Quantity Change (%)	Quality Change (%)	Budget (%)	Weighted increase (%)
Total number of students	68,239	61,484	-9.90	4.02	95.65	-6.01
Library items borrowed	4,538,743	5,171,196	13.93	N/a*	4.35	0.61
<b>Overall Change in Service Delivery</b>						<b>-5.40</b>

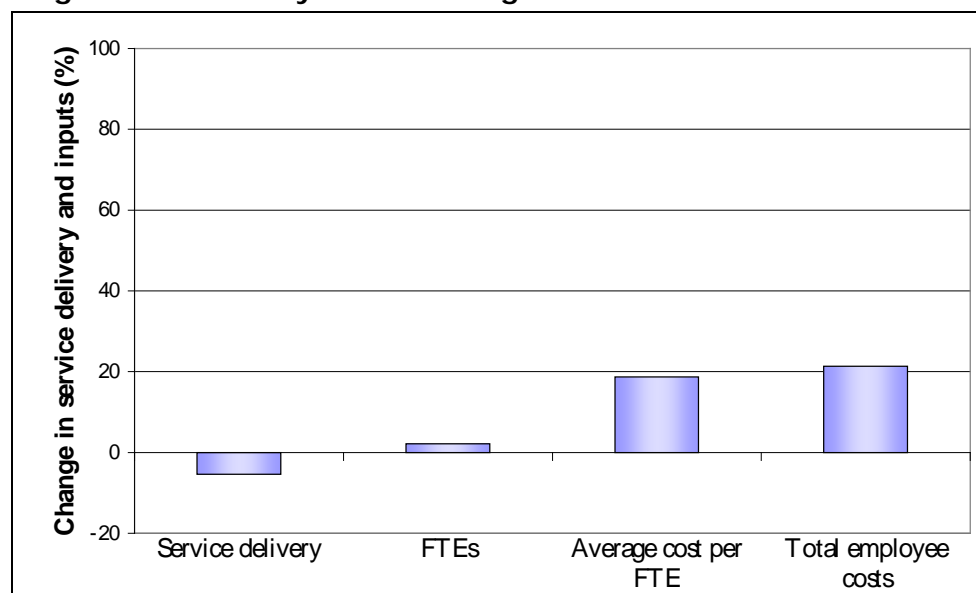
\*N/a = not available

In summary, there has been a 5.4 per cent reduction in the services provided by DoE caused by declining student numbers in public schools.

### 3.3 Summary

Figure 2 shows changes in activity, employee numbers, average cost per FTE and total employee costs.

**Figure 2: Summary of DoE changes**



Although employee numbers and average cost per FTE have increased, service delivery has actually declined. We recognise that in a situation of falling student numbers, there will be a negative impact on efficiency

because of the practical difficulties of reducing employee numbers in the short term.

### 3.4 *Management response*

It should be noted that increases in employee costs would mainly be due to the Teacher Nexus arrangement which has been in place to ensure that the Department remains competitive within the national market for the recruitment and retention of quality teachers.

The Department of Education (DoE) is concerned that quality factors have not been taken into account for this analysis. The Government has committed a significant amount of resources to quality based programs including Raising the Bar and Closing the Gap Literacy Initiative and Launching into Learning. The Provision of Tasmania's Education Performance Report - Government Schools and School Improvement reports since 2007 provide qualitative assessment, track the progress of these initiatives and overall service outcomes.

As part of DoE's inclusion policy (Essential Learnings For All – 2004) parents and students with special needs were provided with further options for integration into the local school environment which meant an increase in students with a disability attending their local school. Again, significant additional resources were provided (e.g. additional teacher aides and teacher professional development).

Having regard to the foregoing, DoE does not believe that the “change in service delivery” measure provides a realistic view of the service delivered by the Department of Education nor of the productivity of the organisation. Utilising only two activities and negating a number of others undertaken by a complex and broad focused department, as well as apportioning 100% of the budget to the two activities only, provides an overly simplistic conclusion. The reality is that the major cost driver in education is Government policy.

In recent years, as indicated above, strategies have been implemented by Governments which have directly contributed to increased employment of staff, despite enrolment declines. For example, State Government election commitments have supported smaller class sizes and targeted the improvement of learning outcomes (e.g. literacy and numeracy). Scrutiny of annual Budget Papers will reveal many other examples across the period analysed. To conclude that Government investment in staff to improve student outcomes in some way constitutes a reduction in productivity is a conclusion that cannot be supported by the Department of Education.

## **4 Police and Emergency Management**

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## 4 Police and Emergency Management

The Department of Police and Emergency Management (DPEM) is responsible for delivering policing and emergency services and plays a lead role in developing confident, friendly and safe communities.

### 4.1 Employees

Table 5 summarises the changes in DPEM employee numbers and employee costs for the period 1999–00 to 2008–09.

**Table 5: Changes in DPEM's employee profile**

Labour inputs	1999–00	2008–09	Increase (%)
Employees (FTE numbers)	1422.83	1658.91	16.59
Average cost per FTE (\$) *	69,900	85,500	22.30
Total employee costs (\$'000) *	99,500	141,900	42.59

\* Employee expenses excludes payroll tax and workers' compensation premiums and are adjusted using CPI to reflect 2009 dollars.

Over the ten-year period, there has been a 16.6 per cent increase in FTE numbers and a 22.3 per cent increase in average employee expenses.

### 4.2 Activities

The services provided by DPEM are driven by public demand for safety, both in communities and on the state's roads. The department's main objectives are to reduce crime, enforce traffic laws, respond to emergencies and promote public safety.

We selected four activity measures which reliably represent DPEM activities as shown in Table 6. The selected measures represent 100 per cent of the outputs that constitute the departmental budget.

**Table 6: Ten-year change in DPEM service delivery**

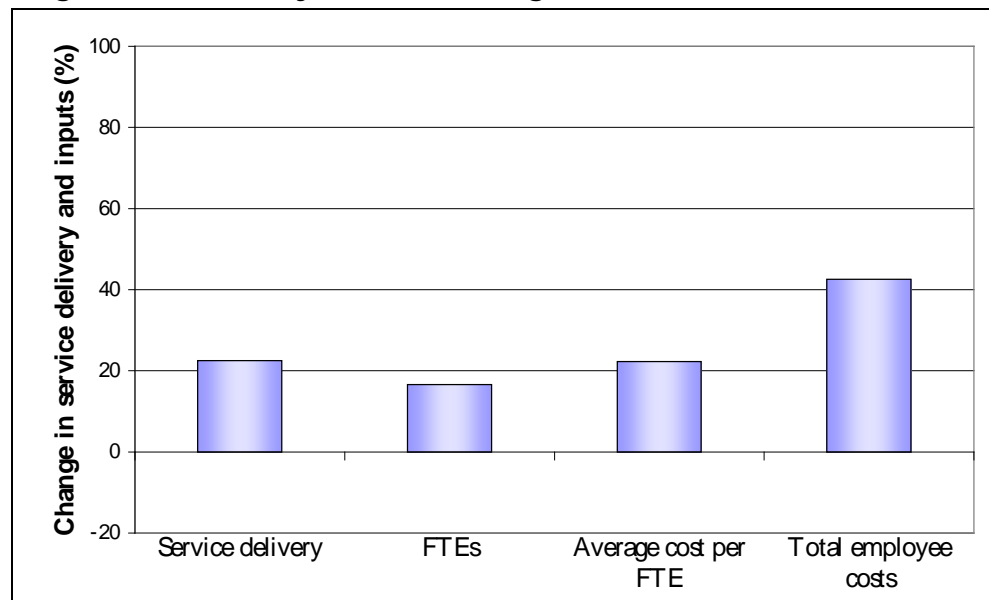
	1999–00	2008–09	Quantity Change (%)	Quality Change (%)	Budget (%)	Weighted increase (%)
Operational radio dispatch — number	116,854	127,464	9.08	N/a*	57.92	5.26
Number of offences cleared	13,313	14,478	8.75	N/a	28.66	2.51
Random breath tests conducted	304,094	678,140	123.00	N/a	8.75	10.76
Number of SES call outs	404	751	85.89	N/a	4.68	4.02
<b>Overall Change in Service Delivery</b>						<b>22.54</b>

\*N/a = not available

There was a 22.5 per cent increase in the services provided by DPEM. The largest single element was the 10.8 per cent increase in the number of random breath tests.

### 4.3 Summary

Figure 3 shows changes in activity, employee numbers, average cost per FTE and total employee costs.

**Figure 3: Summary of DPEM changes**

The increase in service delivery has exceeded growth in FTE numbers but total employee costs have increased significantly more than service delivery over the ten-year period.

#### 4.4 Management response

The performance outcomes have been based upon a select number of indicative activities without regard to the totality of activities or preventative measures undertaken by the Department of Police and Emergency Management. The DPEM measures and reports on 140 activities. These activities are captured to reflect matters relating to Public Order, Traffic – examining types of offences and high risk offences and offenders, Crime – relating to serious crime, property matters and person crime, Marine policing and of particular importance, those incidents relating to Family Violence.

The results do not reflect the depth of policing activities or reflect the expectations of Tasmania Police and the wider Department by our community. There are preventative and community based activities undertaken by Tasmania Police that contribute to the safety and well being of our community that are difficult to measure and assign a value. These activities include but are not limited to:

- Police in Schools Program
- Inter-Agency Support Team (IAST) Program
- Community Respect Order Program
- Safe At Home
- Crime Stoppers
- Neighbourhood Watch
- Police Citizens Youth Clubs
- Adopt-A-Cop
- Police In Schools program
- Violence In Schools program
- Road Safety Task Force

Legislative reform also influences our activities and response. The Safe at Home program, managing family violence incidents necessitates a comprehensive response. A comprehensive response by its nature will be resource intensive, however the safety and wellbeing of the parties involved must remain our primary concern.

Although employment costs are one indicator of efficiency, a number of non salary savings achieved over the period are not measured within the framework which may also influence efficiency outcomes.

While highlighting some of the more simplistic measures, the results do not balance sufficiently the expectations of the community, the reassurance that a police presence provides our communities and the preventative initiatives that form part of a modern policing approach.





## 5 Justice

The Department of Justice provides services that maintain and promote rights and responsibilities, resolve disputes, and contribute to the aim of a safer and more inclusive society.

### 5.1 Employees

Table 7 summarises the changes in Justice's employee numbers and employee costs for the period 1999–00 to 2008–09.

**Table 7: Changes in Justice's employee profile**

Labour inputs	1999–00*	2008–09	Increase (%)
Employees (FTE numbers)	813.05	1022.69	25.78
Average cost per FTE (\$) **	77,600	79,300	2.09
Total employee costs (\$'000)**	63,100	81,100	28.41

\*The 1999–00 Labour Input figures have been adjusted to account for the movement of Workplace Services Tasmania from DIER to Justice and the movement of the Resource Management and Planning Appeal Tribunal, Resource Planning and Development Commission and Integrated Land Use Planning Services from DPIPWE to Justice. See Section 1.2.1.

\*\*Employee expenses excludes payroll tax and workers' compensation premiums and are adjusted using CPI to reflect 2009 dollars.

A 2.1 per cent increase in the average cost per FTE and a 25.8 per cent increase in FTE numbers led to an increase in total employee costs.

### 5.2 Activities

Services provided by Justice are delivered by a number of organisations including Corrective Services, Crown Law, the Office of Consumer Affairs and Fair Trading and the Registry of Births, Deaths and Marriages amongst others. By working closely with the community, other government agencies and statutory bodies, the department aims to:

- increase the effectiveness of the justice system
- protect and foster rights and responsibilities
- improve access to the justice system.

We selected three measures to represent Justice activities as shown in Table 8. The selected activities represent outputs that constitute 69.1 per cent of the departmental budget.

**Table 8: Ten-year change in Justice's service delivery**

	1999–00	2008–09	Quantity Change (%)	Quality Change (%)	Budget (%)	Weighted increase (%)
Supreme Court Cases Lodged	2,833	1,816	-35.90	N/a*	18.34	-6.59
Magistrates Court Cases Lodged**	31,658	26,920	-14.97	N/a	24.74	-3.70
Daily Average Prisoner Population***	359	522	45.40	-2.82	56.91	23.50
<b>Overall Change in Service Delivery</b>						<b>13.21</b>

\* N/a = not available

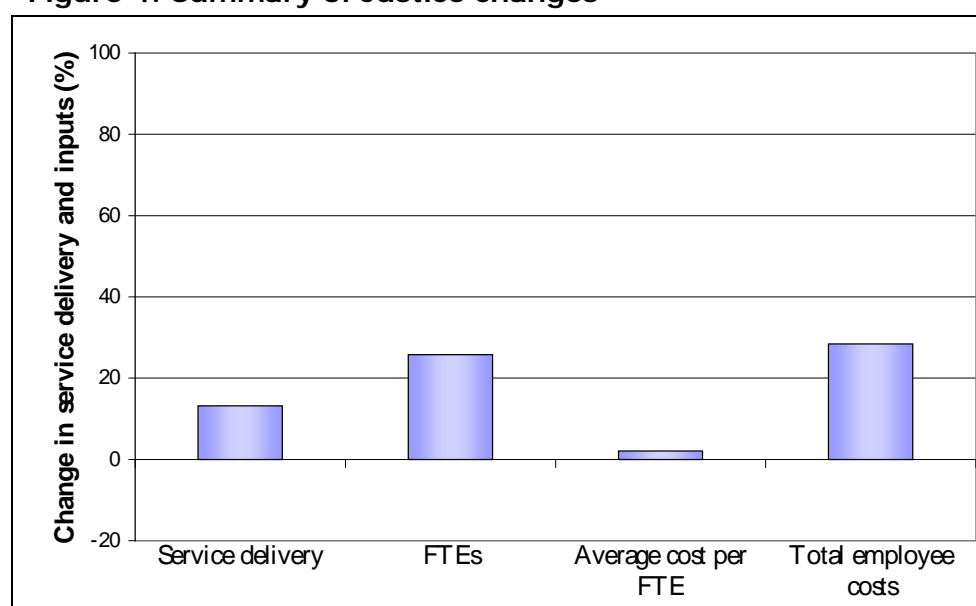
\*\* Net of minor traffic offences

\*\*\* The quality decrease reflects a small increase in recidivism.

There was a 13.2 per cent increase in the services provided by Justice. The largest single element was the 45.4 per cent increase in the daily average prisoner population.

### 5.3 Summary

Figure 4 shows changes in activity, employee numbers, average cost per FTE and total employee costs.

**Figure 4: Summary of Justice changes**

Over the ten-year period, Department of Justice had a slight increase in CPI-adjusted average employee cost. However, it is also one of only two departments where the increase in FTE numbers exceeded the increase in

activity. A possible reason included a period of short-term adjustment to the impact of the *Monetary Penalties Enforcement Act 1995* which shifted a significant number of cases away from the courts.

#### 5.4 *Management response*

The Department of Justice notes the recommendations in the report.

As the report acknowledges, this Audit has undertaken an inherently difficult task in attempting to measure public sector productivity changes over a ten-year period. Such an exercise inevitably raises very complex methodological issues not all of which appear to have been well resolved. For that reason it would be dangerous to draw significant conclusions from the audit results, particularly those that are expressed as apparently objective quantitative measures. Put simply, there are too many instances where apples have had to be compared with pears.

The three measures selected for the Department of Justice cannot be considered representative of the activities of the department as a whole. There are significant parts of the department that are quite unconnected to crude activity levels in courts and prisons. Examples include planning, workplace relations, consumer affairs, electoral activities and indeed community corrections.

I note there has been some attempt to adjust for factors which might have impacted on activity measures e.g. the introduction of the Monetary Penalties Enforcement Service, but so far as I am aware there was no engagement with the Department to identify other policy or legislative changes impacting on workload.

In terms of the three outputs whose productivity the audit seeks to measure, it is not clear why no quality measures were used in relation to two of them. There are a number of possible measures which could have been considered which would have provided an assessment of quality change.

It is also worth commenting on the single quality measure which has been used: recidivism in connection with prison services. The report calculates a 2.82% decrease in the quality of services between 2000–01 and 2008–09, citing a “small increase in recidivism”.

Recidivism is a highly complex measure affected by a wide range of factors, including not just criminal activity, but also crime detection and prosecution, sentencing patterns and the length of time taken for cases to progress through courts. Imprisonment rates and sentencing trends, which can impact on return-to-corrections figures, have changed significantly in the time period in question.

The most robust and comparable recidivism data available in Australia are the “return to corrections” figures from the Productivity Commission’s Report on Government Services (RoGS), first published in

1995. These measures have been developed and improved over time and the way the data is calculated was changed substantially for RoGS 2006. While some figures were recalculated retrospectively to allow for comparisons over time, they do not go as far back as 1999–2000. This change of calculation affected the figures substantially, often resulting in an increase of several percent.

As an illustration, the national average was reported as 33.1% in 1999–2000 (RoGS 2001) and 39.3% in 2008–09 (RoGS 2010). Tasmania’s reported figure went from 34.2% (RoGS 2001) to 36.4% (RoGS 2010) in this time period. This Audit uses the revised 2000–01 figure of 35.4% (RoGS 2006), but because of the change of calculation method there is no national figure available for comparison.

A better assessment of service quality change in the Tasmania Prison Service would have taken into account that in 1999–00 the TPS operated a 50-year-old facility based on a pre-World War II design, with very limited rehabilitation and case management services for inmates and detainees. By 2008–09, the TPS was operating a modern facility with contemporary security and inmate management features as well as a comprehensive integrated offender management program. The quality and range of these services far exceeds those provided in 2000 and staffing and other resources have increased accordingly.

Time and space limits prevent a deeper analysis of the audit’s conclusions in relation to the Supreme Court and Magistrates Court but they are similarly problematic.

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## 6 Infrastructure, Energy and Resources

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## 6 Infrastructure, Energy and Resources

The Department of Infrastructure, Energy and Resources (DIER) provides physical infrastructure for social and economic development and facilitates forest policy, mineral exploration and land management.

### 6.1 Employees

Table 9 summarises the changes in DIER's employee numbers and employee costs for the period 1999–00 to 2008–09.

**Table 9: Changes in DIER's employee profile**

Labour inputs	1999–00*	2008–09	Increase (%)
Employees (FTE numbers)	502.52	555.38	10.52
Average cost per FTE (\$) **	55,200	76,100	37.92
Total employee costs (\$'000)**	27,700	42,300	52.43

\*The 1999–00 Labour Input figures have been adjusted to account for the movement of Workplace Services Tasmania from DIER to Justice. See Section 1.2.1.

\*\*Employee expenses excludes payroll tax and workers' compensation premiums and are adjusted using CPI to reflect 2009 dollars.

Over the ten-year period, there has been a 10.5 per cent increase in FTE numbers and a 37.9 per cent increase in the average cost per FTE, resulting in an overall increase in total employee costs.

### 6.2 Activities

Services provided by DIER include provision of transport systems, regulation of energy provision and information for land management.

Based on the 2008–09 budget expenditure proportions, we selected the road network (including bridges), licensing and registration. These areas were selected because they involve significant employee costs (rather than grants, subsidies and other transferred funds). The selected activities represented 73.5 per cent of the departmental budget.

#### 6.2.1 Road and bridge networks

The road and bridge network is intended to facilitate a safe and efficient transport system that enhances economic development. We could not find a set of readily measureable activities that would take account of the diversity and differences in scale of activities involved in building and maintaining the road network. Instead we used a measure of the magnitude of the Department's task, which considered:

- quantity: kilometres of road and number of bridges
- impact: number and type of vehicles using the network



- quality: condition of roads and bridges<sup>6</sup>.

Table 10 summarises the changes and provides an estimate of road use (referred to as ‘volume-adjusted road kilometres’) as our proxy for service delivery.

DIER reports information on the quality of its road and bridge network. We have used that information to include quality adjustments to our quantitative data.

### 6.2.2 Licensing and registration

This service is concerned with licensing of motorists and registration of motor vehicles. To measure activity, we used a simple count.

There have been quality changes in delivery of licensing and registration services, but we were unable to find a reliable basis for adjustment.

**Table 10: Ten-year change in DIER’s service delivery**

	1999–00	2008–09	Quantity change (%)	Quality change (%)	Budget (%)	Weighted increase (%)
Road and bridge networks						
Volume-adjusted road kilometres	3768.50	5469.53	45.14	-1.95	34.47*	14.56
Volume-adjusted number of bridges	1182.00	1712.35	44.87	-14.12	34.47	8.41
Licensing and registration						
Total current registrations	412,387	512,812	24.35	N/a **	15.57***	3.79
Total drivers licensed	316,063	362,199	14.60	N/a	15.57	2.27
<b>Overall Change in Service Delivery</b>						<b>29.04</b>

\*The budget for Road and Bridge Networks represents 69 per cent of our selected activities. We have given equal weight to each of the measures for that activity, hence 34.47 per cent.

\*\* N/a = not available

\*\*\*The budget for Licensing and Registration represents 31 per cent of our selected activities. We have given equal weight to each of the measures for that activity, hence 15.57 per cent.

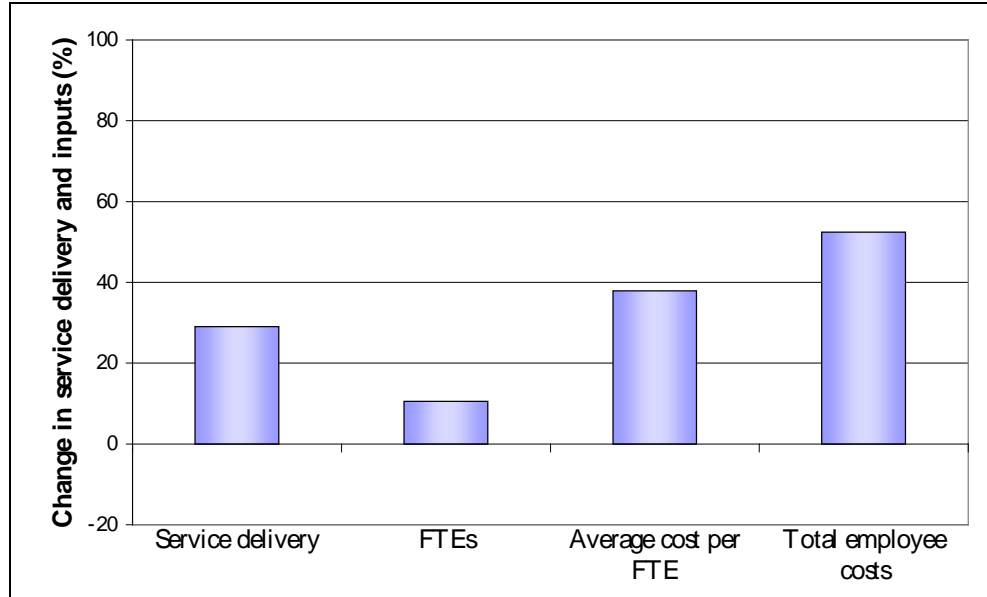
In summary, Table 10 indicates that there is a 29.0 per cent increase in the services provided by DIER. The largest single element was the 14.6 per cent increase in volume-adjusted road kilometres.

<sup>6</sup> One problem with the quality measure is that, to a large extent, it reflects work performed over a period of time rather than quality of work performed at a point in time.

### 6.3 Summary

Figure 5 shows changes in activity, employee numbers, average cost per FTE and total employee costs.

**Figure 5: Summary of DIER changes**



The increase in service delivery has exceeded growth in FTE numbers but total employee costs have increased more than service delivery over the ten-year period due to a large (52.4 per cent) increase in CPI-adjusted average labour costs.

### 6.4 Management response

These results are positive for the Department of Infrastructure, Energy and Resources (DIER) employees, indicating a substantially more productive workforce now than 10 years ago.

As mentioned elsewhere in the report, the high level approach and the use of only quantitative measures makes it significantly difficult to make general judgements about the efficiency of DIER or the wider public sector. There is no ability, for example, to easily measure the integration of mineral exploration tools provided through Mineral Resources Tasmania and the built infrastructure which has led to the improved revenue from mineral royalties flowing to the State of Tasmania.

In the selected activities for DIER, the qualitative improvements in service delivery, the reduction in the number of unregistered and uninsured vehicles and the quality and breadth of the road infrastructure have provided easier access and an increased range of services for those people who use DIER's services, contributed to safer roads and arguably a reduction in the long term road toll trend and the total cost, both personal and economic, from road accidents.

If the arbitrary 50% weightings assumed for DIER's selected services are changed to 75% for roads and 25% for bridges and 60% for registrations

and 40% for licences, which are in line with their quantitative ratios, there is a more than doubling in the overall service delivery figure.



## **7 Economic Development, Tourism and the Arts**

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## 7 Economic Development, Tourism and the Arts

The Department of Economic Development, Tourism and the Arts (DEDTA) facilitates economic and industry development, provides opportunities for Tasmanians to participate in sport, recreation and physical activity, promotes the Tasmanian tourism industry and is responsible for the protection and promotion of the state's cultural assets.

### 7.1 Employees

Table 11 summarises changes in DEDTA's employee numbers and employee costs for the period 1999–00 to 2008–09.

**Table 11: Changes in DEDTA's employee profile**

Labour inputs	1999–00	2008–09	Increase (%)
Employees (FTE numbers)	340.46	416.72	22.40
Average cost per FTE (\$) *	86,700	77,700	-10.32
Total employee costs (\$'000) *	29,500	32,400	9.76

\*Employee expenses excludes payroll tax and workers' compensation premiums and are adjusted using CPI to reflect 2009 dollars.

Over the ten-year period, there has been a 22.4 per cent increase in FTE numbers but a 10.3 per cent fall in the inflation-adjusted average cost per FTE, resulting in a slight overall increase in total employee costs. Whilst a decrease in average cost per FTE is counter intuitive, it should be noted that the figures used are CPI adjusted. Decreases in average cost per FTE can be due to a number of factors including:

- an increase in the proportion of lower paid employees
- a decrease in the proportion of higher paid employees.

### 7.2 Activities

DEDTA services are largely driven by Tasmanian business and industries. The department's main roles are to:

- provide grants and information to facilitate new business or expansion of existing business
- secure investment
- promote tourism through advertising and marketing
- promote the arts
- encourage participation in sport and recreation.

By their nature, DEDTA's operations make its achievements difficult to quantify. In the majority of cases, the department's result contributes to

an outcome rather than being measurable in its own right. Another complicating factor in measurement is that the activities tend to be dissimilar in magnitude and are difficult to quantify. Moreover, FTE numbers for DEDTA represent only 1.8 per cent of the public sector total.

Nevertheless, the activities of DEDTA can have a profound impact on the long-term economic wellbeing of the state. For example, DEDTA had a prominent role in:

- Establishment of the Atlantic salmon industry, that now has several salmon and trout hatcheries operating in the state, was originally a joint venture project between the State Government, a Norwegian company and a group of private Australian companies. In 2007–08, the value of salmon production in Tasmania was \$291m compared to \$134m in 2004–05<sup>7</sup>.
- Financially supporting Incat during a period of financial difficulty. In March 2006, the Tasmanian Government provided a fully secured \$15m standby loan to enable Incat to order equipment after an extended downturn in the international fast-ferry market. This offer of support was followed by simultaneous breakthroughs into the Japanese, Spanish and Scandinavian markets<sup>8</sup>.
- Facilitating access to the lucrative domestic Japanese cherry market. The cherry sector has the potential to surpass the value of Tasmania's apple industry this decade<sup>9</sup>.

### 7.3 Summary

Reluctantly, we concluded that we could not reliably measure the outputs of DEDTA and we have excluded its activities from the overall output analysis.

### 7.4 Management response

The department noted the content of the report and had no additional comments.

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<sup>7</sup> Source: Australian Bureau of Agricultural and Resource Economics

<sup>8</sup> Source: Brand Tasmania

<sup>9</sup> Source: Brand Tasmania

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## 8 Premier and Cabinet

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## 8 Premier and Cabinet

The Department of Premier and Cabinet (DPAC) is a central agency of government. DPAC provides a broad range of services to Cabinet, other members of Parliament, Government agencies and the community. The department also provides administrative support to the State Service Commissioner, and the Tasmania *Together* Progress Board.

### 8.1 Employees

Table 12 summarises changes in DPAC employee numbers and employee costs for the period 1999–00 to 2008–09.

**Table 12: Changes in DPAC's employee profile**

Labour inputs	1999–00	2008–09	Increase (%)
Employees (FTE numbers)	225.50	315.10	39.73
Average cost per FTE (\$)*	69,800	86,600	24.11
Total employee costs (\$'000)*	15,700	27,300	73.43

\*Employee expenses excludes payroll tax and workers' compensation premiums and are adjusted using CPI to reflect 2009 dollars.

Over the ten-year period, there has been a 39.7 per cent increase in FTE numbers and a 24.1 per cent increase in the average cost per FTE, generating an overall increase in total employee costs.

### 8.2 Activities

The main purposes of DPAC are to:

- provide support to the Premier, Cabinet and the Executive Council
- co-ordinate inter-governmental relations, state protocol and the delivery of Government services through Service Tasmania
- provide whole-of-government policy advice
- deliver ICT services across Government.

Since 1999-2000 there have been a number of new units have been established or transferred into DPAC including the Office of Youth Affairs, the Disability Bureau, and the Climate Change Office amongst others.

The nature of DPAC's operations means that its achievements are difficult to quantify because they are internal, inherently unmeasurable or dissimilar in magnitude. Nevertheless, DPAC activities can have a profound impact on the state through supporting and directing activities

of other arms of government. FTE numbers at DPAC represent just 1.6 per cent of the public sector total.

### 8.3 *Summary*

Reluctantly, we concluded that we could not reliably measure the outputs of DPAC and we have excluded its activities from the overall output analysis.

### 8.4 *Management response*

The growth in employee numbers is explained by the growth in new areas of advice and service delivery that have become the responsibility of the Department over that period. New policy responsibilities include the creation of the Tasmanian Climate Change Office and the Social Inclusion Unit as well as the establishment of a Disability Bureau, Seniors Bureau and the Office of Children and Youth Affairs. Growth has also occurred in the Telecommunications Management Division (TMD) responsible for essential support services to government including whole-of-government data services, telephony services and computing services. New policy advice and support services in the area of emergency management and counter-terrorism have also been established in response to growing national and international concerns.

Average cost per employee has increased over this period. The report does not explain why this might be but leaves the impression that this is an “efficiency” related issue.

There may be a number of reasons why average cost per employee has increased. Without an analysis of the services provided by DPAC and measures of service delivery including quantity and quality measures, it is not possible to make any meaningful conclusions from the data provided. DPAC accepts that you have excluded the Department from your overall output analysis because of these measurement issues.

DPAC has undertaken significant work recently on the development of performance indicators for policy advice. The Department will provide a copy of this work to show the development of current thinking in this area.

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## **9 Primary Industries, Parks, Water and Environment**

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## 9 Primary Industries, Parks, Water and Environment

The Department of Primary Industries, Parks, Water and Environment (DPIPWE) is responsible for the sustainable management and protection of Tasmania's natural and cultural assets for the benefit of the Tasmanian communities and the economy.

### 9.1 Employees

Table 9.1 summarises changes in DPIPWE's employee numbers and employee costs for the period 1999–00 to 2008–09.

**Table 13: Changes in DPIPWE's employee profile**

Labour inputs	1999–00*	2008–09**	Increase (%)
Employees (FTE numbers)	1308.48	1185.42	-9.40
Average cost per FTE (\$) **	60,100	73,600	22.38
Total employee costs (\$'000)**	78,700	87,200	10.87

\*The 1999–00 Labour Input figures have been adjusted to account for the movement of the Resource Management and Planning Appeal Tribunal, Resource Planning and Development Commission and Integrated Land Use Planning Services from DPIPWE to Justice. See Section 1.2.1.

\*\* Employee expenses excludes payroll tax and workers' compensation premiums and are adjusted using CPI to reflect 2009 dollars. The 2008–09 Labour Input figures have also been adjusted to account for the now defunct DEPHA. See Section 1.2.1.

Over the ten-year period, there has been a 9.4 per cent decrease in FTE numbers, but a 22.4 per cent increase in the average cost per FTE. The combined effect of these changes has caused an increase in total employee costs.

### 9.2 Activities

In its current state, DPIPWE is an amalgamation of the Department of Primary Industries and Water with the majority of the activities of the former Department of Environment, Parks, Heritage and the Arts that was abolished in 2009. The main objectives are to: manage land and water resources; protect and promote natural, built and cultural assets; support primary industry and protect the state from bio-risk.

Based on relativities in the 2008–09 budget, we selected the areas of Information and Lands Services (including *Service Tasmania*), Environment Protection and Analytical Services as well as Parks and Wildlife Management. The areas involved significant employee costs (rather than grants, subsidies and other transfers). The selected activities represent outputs that constitute 55.5 per cent of the departmental budget.

### 9.2.1 *Information and Land Services*

Information and Land Services comprises Land Titles, Valuation, *Service Tasmania* and Crown Land. The measures that we selected to represent this area were:

- number of lodgements received (that is, an instrument lodged that effects interests in land)
- number of *Service Tasmania* transactions
- number of *Service Tasmania* shops.

There have been qualitative changes in the services provided by Information and Land Services, particularly through the medium of e-government. However, we were unable to find a reliable basis for quality adjustment.

### 9.2.2 *Environment Protection and Analytical Services*

Environmental and Analytical Services undertakes activities to ensure development proposals meet appropriate guidelines and standards and provides a range of scientific and analytical services to support environmental management. To measure this activity we used counts of:

- plans and permits
- analyses performed.

There have been qualitative changes in service delivery in Environmental and Analytical Services but we were unable to find a reliable basis for quality adjustment.

### 9.2.3 *Parks and Wildlife Management*

This service aims to develop and maintain a reserves and park system. Activities include development of business opportunities, maintenance of infrastructure and education for visitors. We considered a number of activity measures but were unconvinced that any fairly represented overall activity levels. Instead, we used the area under management as a proxy.

There have been qualitative changes in service delivery in Parks and Wildlife Management but we were unable to find a reliable basis for quality adjustment.

**Table 14: Ten-year change in DPIPWE's service delivery**

	1999–00	2008–09	Quantity change (%)	Quality change (%)*	Budget (%)	Weighted increase (%)
<b>Information and Land Services</b>						
Number of lodgements received	72,950	85,506	17.21	N/a*	16.06**	2.76
Number of <i>Service</i> Tas transactions	862,522	1,463,077	69.63	N/a	16.06	11.18
Number of <i>Service</i> Tas shops	24	27	12.50	N/a	16.06	2.01
<b>Environment Protection and Analytical Services</b>						
Reviews of environmental management plans***	84	61	-27.38	N/a	12.63	-3.46
Number of analyses performed	132,190	211,600	60.07	N/a	2.46	1.48
<b>Parks and Wildlife Management</b>						
Percentage of state covered by reserves (%)	31.65	37.87	19.65	N/a	36.73	7.22
<b>Overall Change in Service Delivery</b>						<b>21.19</b>

\*N/a = Not applicable.

\*\*The budget for Information and Land Services represents 48.2 per cent of our selected activities. We have given equal weight to each of the measures for that activity, hence 16.1 per cent.

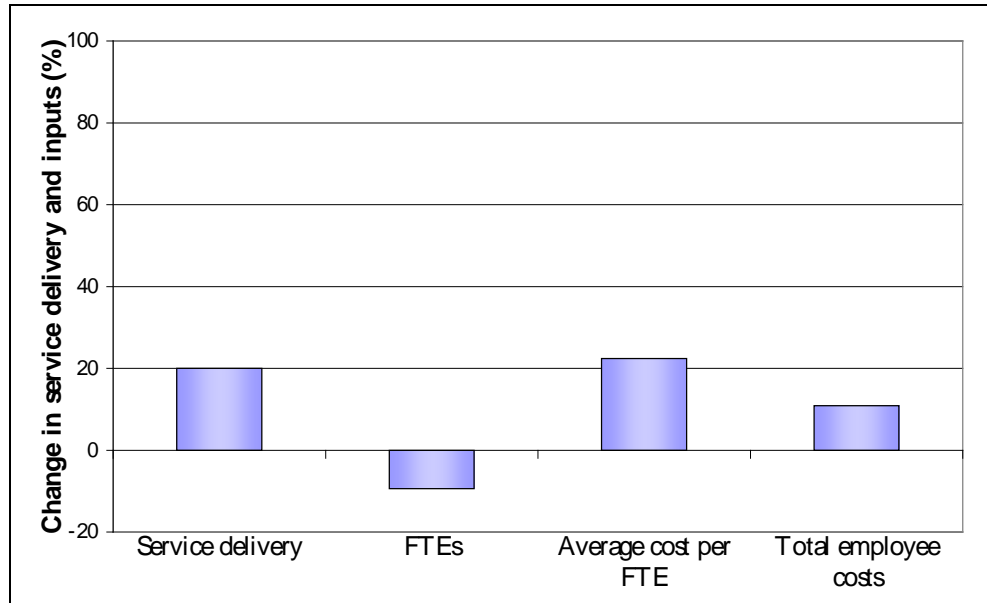
\*\*\*This information was extracted from budget papers. We added 20 for new approvals that were not included in 2008–09. The department has advised that it has doubts about the reliability of the 2000–01 data (used as a proxy for 1999–00 as this was the first year that data was collected for this indicator), but was unable to provide a corrected figure other than to indicate that it believed the true figure for the base year was substantially less. We noted that, if for example, the true figure for the base year were 60 instead of 84, the overall change in the department's service delivery would be increased to 25 per cent. However, the impact on total efficiency of the public sector, as discussed in Chapter 11, would be minimal.

In total, there has been a 21.2 per cent increase in the services provided by DPIPWE.

### 9.3 Summary

Figure 6 shows changes in activity, employee numbers, average cost per FTE and total employee costs.



**Figure 6: Summary of DPIPWE changes**

The increase in service delivery has exceeded the increase in total employee costs.

#### 9.4 *Management response*

##### Environmental Protection and Analytical Services

###### Review of plans and permits

The performance information for 2008-09 differs from the comparison data for the base year in certain key respects.

Since 2004 the EPA Division has undertaken a rationalisation of Environmental Management Plans (EMP), which are all-encompassing documents prepared at significant expense to proponents. EMP reviews are now only required for larger and more complex activities and in many cases the frequency of review has been pushed out from 3-yearly to 5-yearly. In place of EMP reviews, the requirement for annual reporting against permit conditions has been significantly strengthened over the past decade, though this effort is not reflected in the performance data.

In addition to EMPs, the EPA Division routinely deals with a plethora of other types of management plans which address matters of particular concern, such as environmental monitoring, waste management, decommissioning and rehabilitation, management of problematic pollutant emissions and other case-specific issues. These management plans may substitute for more comprehensive EMP reviews. The considerable level of effort expended in critiquing and enforcing such management plans is not reflected in the performance data.

In short, the figures used in the report for 1999-00 versus 2008-09 do not compare like with like and cannot be used to provide a meaningful indicator of productivity over time.

The EPA Division is in the process of developing performance measures for a Balanced Scorecard reporting system which will replace past measures of performance. The new performance measures will track progress toward achievement of organisational objectives and may address productivity issues to a lesser extent.

#### Analytical Services

In relation to the comment that the auditor was unable to find a reliable basis for quality adjustment, it should be noted that the majority of analyses performed under “Environment Protection and Analytical Services” are for tests for which the Analytical Services Tasmania laboratory is accredited by the National Association of Testing Authorities (NATA). NATA accreditation provides a nationally recognised basis for quality assurance. It is likely that a greater proportion of the total number of analyses performed were for NATA accredited tests in 2008–09 than in 1999–2000.

#### General Comment

In a more general sense the use of data to measure productivity does not address significant changes to the way business is now being done in a number of activities undertaken throughout the Agency which has resulted in improved service delivery and access to direct information using internet services. For example, the ability to book on-line for walking the Overland Track creates ease of access to booking for the public and greater control of the management processes supporting this facility. It is considered the investment made in developing internet information and systems enables a connection to be made with the public and the business community that is in effect a more productive way of delivery services. It is therefore submitted that recognition of service delivery in this sense should be mentioned in the report.

## 10 Treasury and Finance

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## 10 Treasury and Finance

The Department of Treasury and Finance (Treasury) is responsible for implementing strategies to achieve the Government's economic and financial objectives. It is also the central agency responsible for the management of Government financial resources.

### 10.1 Employees

Table 10.1 summarises the changes in Treasury's employee numbers and employee costs for the period 1999–00 to 2008–09.

**Table 15: Changes in Treasury's employee profile**

Labour inputs	1999–00	2008–09	Increase (%)
Employees (FTE numbers)	278.00	321.24	15.55
Average cost per FTE (\$)*	55,100	74,300	34.94
Total employee costs (\$'000)*	15,300	23,900	55.93

\*Employee expenses excludes payroll tax and workers' compensation premiums and are adjusted using CPI to reflect 2009 dollars.

In the ten-year period, there has been a 15.6 per cent increase in FTE numbers and a 34.9 per cent increase in the average cost per FTE, resulting in an overall increase in total employee costs.

### 10.2 Activities

Treasury aims to improve the well-being of Tasmanians by providing:

- advice to the Treasurer
- financial, regulator and client services
- leadership in economic and financial reform.

Over the period in scope, Treasury has undertaken a range of additional activities including:

- resourcing of a number of significant projects including Basslink and National Electricity Market entry, TasGovNet Telecommunications and reform of water and sewerage
- a full review of the external financial reporting framework and associated legislation
- streamlining of government procurement practices
- an integrated computer system for the management of gaming and licensing.

### 10.3 *Summary*

Reluctantly, it was concluded that we cannot reliably measure the change in service delivery resulting from Treasury's output as its core business is supporting new policy. We also noted that FTE numbers for Treasury represent only 1.4 per cent of the public sector total.

### 10.4 *Management response*

With regard to the recommendations made in the Report, changes in service delivery and employee costs are a factor in any normal Budget development process and will continue to be so for the foreseeable future. We are supportive of the recommendation to undertake and publish 5-year reviews of changes in these factors and will further examine the benefits and practicality of doing so.

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## 11 Efficiency of the Public Sector

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## 11 Efficiency of the Public Sector

In this Chapter, we examine overall trends in the public sector. The 2008–09 budget figures that have been excluded, on the basis of materiality, are: Finance-General and Ministerial and Parliamentary Support.

### 11.1 Employees

Table 16 shows the changes in public sector employment from 1999–00 to 2008–09.

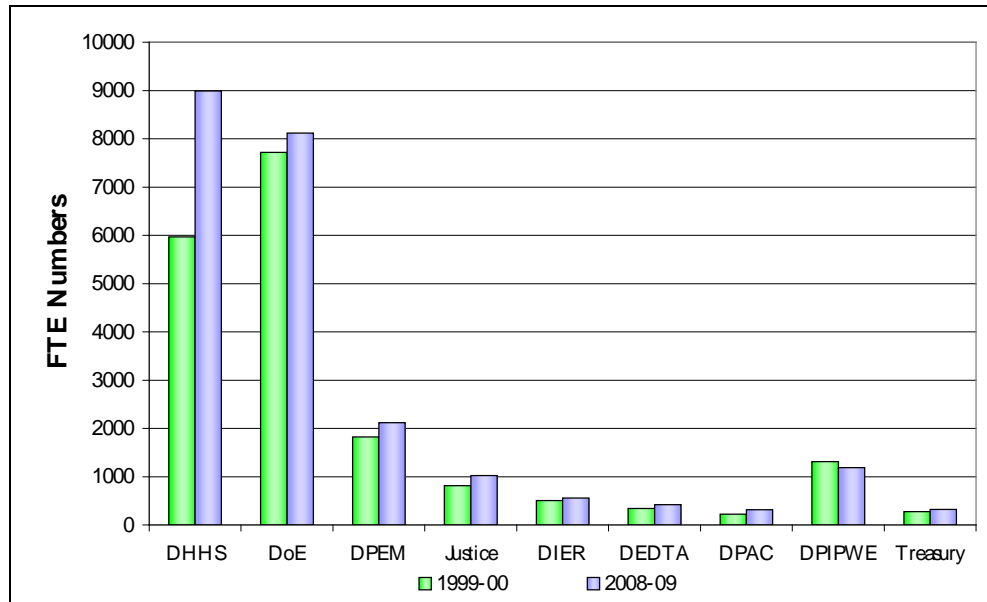
**Table 16: Public sector employment from 1999–00 to 2008–09**

Labour inputs	1999–00	2008–09	Increase (%)
Employees (FTE numbers)	18,410.22	22,183.74	20.50
Average cost per FTE (\$)*	67,300	82,300	22.35
Total employee costs (\$ 000)*	1,238,500	1,825,900	47.43

\*Employee expenses excludes payroll tax and workers' compensation premiums and are adjusted using CPI to reflect 2009 dollars.

Over the ten-year period, there has been a 20.5 per cent increase in FTE numbers and a 22.4 per cent increase in average employee expenses, resulting in a substantial increase in total employee costs. Figure 7 provides a comparison of total public sector employment in 1999–00 and 2008–09 by department.

**Figure 7: Departmental breakdown of total public sector employment from 1999–00 to 2008–09**

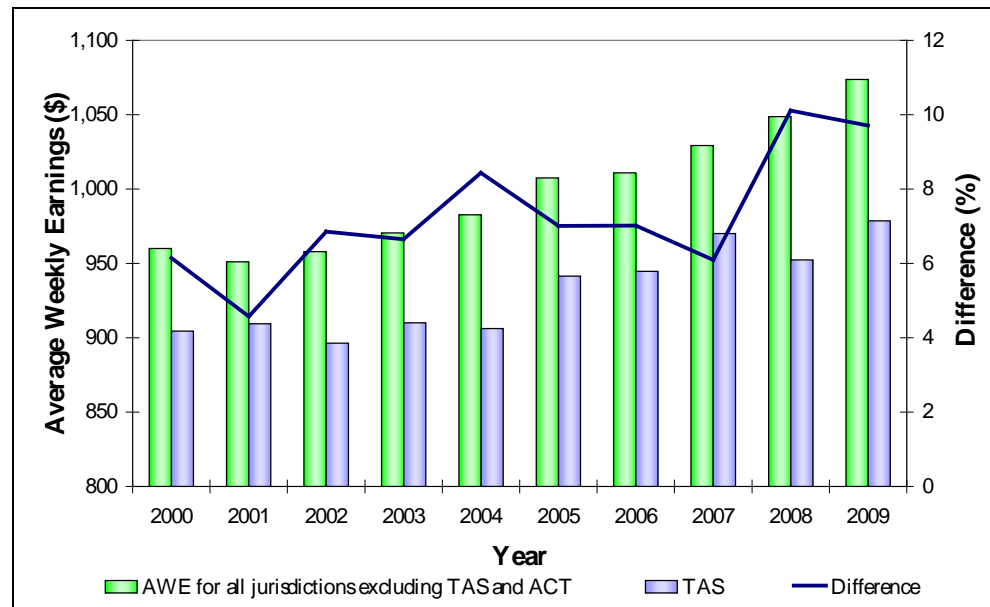




### 11.1.1 Cross-jurisdictional comparison

To provide a comprehensive analysis of the change in average salary over the ten-year period, we compared Tasmanian public sector wages and equivalent wages to other jurisdictions.

**Figure 8: Comparison of Average Weekly Earnings across jurisdictions\***



\* Average Weekly Earnings are adjusted using CPI to reflect 2009 dollars and are inclusive of all public sector employees, including casuals. Source: ABS.

Figure 8 shows there is a widening gap between Tasmanian wages and those in other jurisdictions. The increase in Tasmanian public sector real wages should be seen in that context since the Tasmanian public sector competes for labour in a national market.

## 11.2 Activities

The selected activities used in the previous chapters of the Report represent 76.4 per cent of the relevant departmental budget.

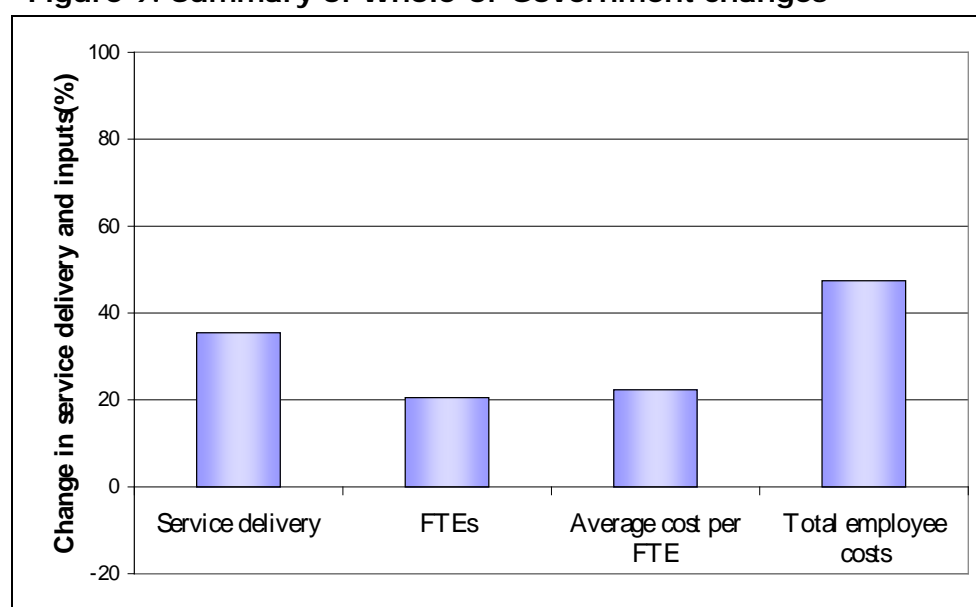
**Table 17: Summary of changes in activity levels from 1999–2009**

Department	Quality adjusted increase (%)	Percentage of State budget (%)	Weighted contribution to increase (%)
DHHS	71.05	41.04	31.57
DoE	-5.40	28.58	-1.67
DPEM	22.54	5.25	1.28
Justice	12.97	3.76	0.53
DIER	29.04	7.29	2.29
DEDTA	-	3.56	-
DPAC	-	2.69	-
DPIPWE	19.99	6.45	1.48
Treasury	-	1.37	-
<b>Overall increase in service delivery</b>		<b>100.00</b>	<b>35.49</b>

Thus the weighted average increase in public sector activity from 1999–00 to 2008–09 is estimated at 35.5 per cent.

### 11.3 Summary

Figure 9 shows changes in activity, employee numbers, average cost per FTE and total employee costs for the public sector.

**Figure 9: Summary of Whole-of-Government changes**

The increase in service delivery has exceeded growth in FTE numbers but total employee costs have increased more than service delivery over the

ten-year period. It follows that output per FTE employee has increased, but that output per employee dollar has decreased.

The audit was intended to provide information about changes in public sector efficiency over a period. It was not intended to point out individual areas where efficiency could be improved or to provide recommendations as to how any such areas could be made more efficient.

Nonetheless, we believe that analyses such as this one would be a useful element of the departmental budget process and enable greater scrutiny of public sector productivity. However, to conduct these analyses, departments would in some cases need to improve the quality of their service delivery data<sup>10</sup>.

**Recommendation 1**

**We recommend that departments develop indicators of efficiency and quality and publish those indicators in their annual reports with a view to long-term comparability.**

**Recommendation 2**

**We recommend that departments measure changes in service delivery and employee costs and that this information be used as an input to Budget processes.**

**Recommendation 3**

**We recommend that Treasury conduct and publish 5-year reviews of changes in service delivery and employee costs.**

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<sup>10</sup>In our Special Report No. 72 — *Public Sector Performance Information* — we criticised the lack of efficiency measures in departmental annual reports.

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## **Independent auditor's conclusion**

## Independent auditor's conclusion

This independent conclusion is addressed to the President of the Legislative Council and the Speaker of the House of Assembly. It relates to my performance audit examining public sector efficiency by measuring increases in employee numbers, average employee costs and service delivery. My audit was based on the audit objective, audit scope and audit approach detailed in the Introduction to this Report and in Chapter 1.

In developing the scope of this audit and completing my work, the nine departments concerned provided me with all of the information that I requested. There was no effort by any party to the audit to limit the scope of my work. This Report is a public document and its use is not restricted in any way by me or by any other person or party.

### *Responsibility of the Secretaries of the nine Departments*

The nine Secretaries were responsible for designing, implementing and maintaining systems to ensure that they provide government services and programs as efficiently as possible. This included ensuring there were systems and controls in place to monitor and report the efficiency of their activities.

### *Auditor-General's responsibility*

In the context of this performance audit, my responsibility was to express a conclusion on whether or not the nine departments managed employee numbers, average employee costs and service delivery efficiently.

I conducted my audit in accordance with Australian Auditing Standard ASAE 3500 *Performance Engagements* which required me to comply with relevant ethical requirements relating to audit engagements. I planned and performed the audit to obtain reasonable assurance as to whether each of the nine departments managed employee numbers, average employee costs and service delivery efficiently.

My work involved obtaining evidence of the efficiency of employee numbers, average employee costs and service delivery based on the approach outlined in Chapter 1. The approach was established by me without influence. The procedures depended on my judgement, based on the approach and on my assessment of the risks of material misstatement of the information obtained by me as part of this audit.

In making this risk assessment, I developed the approach outlined in Chapter 1 which was aimed at examining long-term changes in public sector efficiency. Doing so obliged me to deal with the various difficulties pointed out in that Chapter. I am confident in my conclusions because the measures that we selected to assess efficiency covered three quarters of public sector activities when viewed as a proportion of budget allocations.

I believe that the evidence I have obtained was sufficient and appropriate to provide a basis for my conclusions.

*Auditor-General's overall conclusions*

My conclusions are detailed under the heading 'Summary' at the end of Chapters 2 to 11. These were based on the audit approach detailed in Chapter 1 and for the reasons outlined in each subsequent Chapter. It is my overall conclusion that, for the nine departments collectively, over the period 1999–00 to 2008–09, the increase in service delivery exceeded growth in FTE numbers but total employee costs increased more than service delivery over this ten-year period. It follows that output per FTE employee has increased, but that output per employee dollar has decreased.

My audit resulted in findings leading to three recommendations as follows:

- the first, with a view to long-term comparability, is aimed at the development of indicators of efficiency and quality and publishing resulting indicators in annual reports
- the second is aimed at measuring changes in service delivery and employee costs and applying this information as an input to Budget processes
- the third recommends the conduct and publishing of five-year reviews of changes in service delivery and employee costs.

H M Blake  
Auditor-General  
Hobart  
14 October 2010

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## **Recent reports**

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## Recent reports

	<b>Tabled</b>	<b>Special Report No.</b>	<b>Title</b>
Jun	2007	66	Follow-up audits
Jun	2007	67	Corporate credit cards
Jun	2007	68	Risdon Prison: Business case
Oct	2007	69	Public building security
Nov	2007	70	Procurement in government departments Payment of accounts by government departments
Nov	2007	71	Property in police possession Control of assets: Portable and attractive items
Apr	2008	72	Public sector performance information
Jun	2008	73	Timeliness in the Magistrates Court
Jun	2008	74	Follow up of performance audits April–October 2005
Sep	2008	75	Executive termination payments
Nov	2008	76	Complaint handling in local government
Nov	2008	77	Food safety: safe as eggs?
Mar	2009	78	Management of threatened species
May	2009	79	Follow up of performance audits April–August 2006
May	2009	80	Hydro hedges
Jun	2009	81	Contract management
Aug	2009	82	Head of Agency contract renewal
Oct	2009	83	Communications by Government and The Tasmanian Brand project
Oct	2009	84	Funding the Tasmanian Education Foundation
Nov	2009	85	Speed-detection devices
Nov	2009	86	Major works procurement: Nation Building projects, Treasurer's Instructions 1299 and 1214
Jun	2010	87	Employment of staff to support MPs
Jun	2010	88	Public Trustee — management of deceased estates
Jun	2010	89	Post-Year 10 enrolments
Jul	2010	90	Science education in public high schools
Sep	2010	91	Follow up of special reports: 62–65 and 70

## **Current projects**

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## Current projects

Performance and compliance audits that the Auditor-General is currently conducting:

<b>Title</b>	<b>Subject</b>
<b>Profitability, and economic benefits to Tasmania, of Forestry Tasmania</b>	Evaluates Forestry Tasmania's long-term financial and economic performance.
<b>Fraud control</b>	Assesses the effectiveness of fraud controls in various government entities.
<b>Follow up of special reports</b>	Ascertains the extent to which recommendations from Special Reports 69–73 (tabled from October 2007 to June 2008) have been implemented.
<b>Fire management</b>	Examines whether respective government entities have implemented the recommendations from COAG's 2004 report titled <i>National inquiry on bushfire mitigation and management</i> .
<b>Tourism Tasmania: Value for money?</b>	Examines the effectiveness of Tourism Tasmania with respect to: promotions and advertisements; websites and implementation of planned strategies and initiatives.
<b>Out-of-home care</b>	Assess the effectiveness of some aspects of the efficiency of out-of-home care as an element of child protection.