

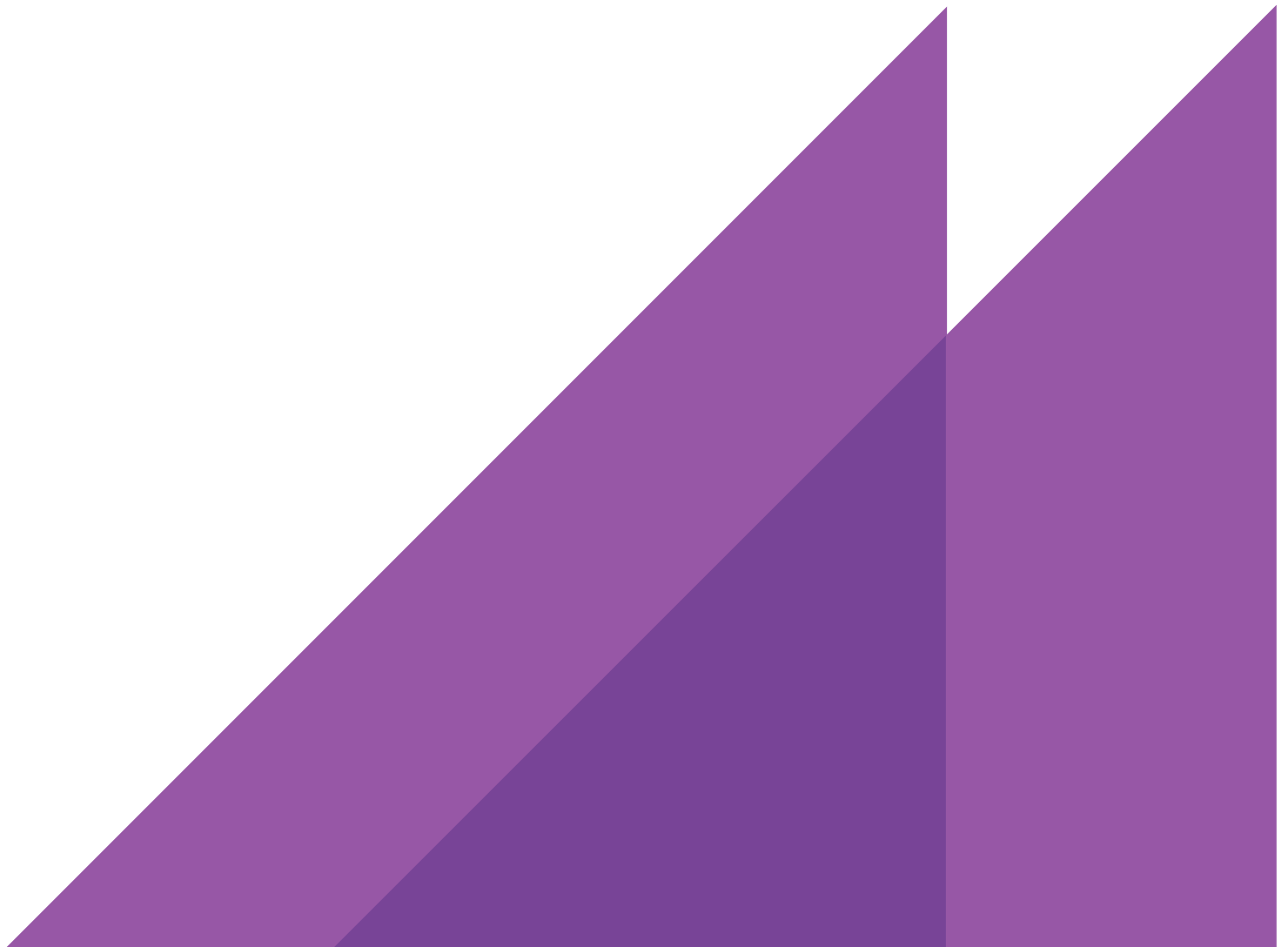
REPORT TO
THE ROYAL AUTOMOBILE CLUB OF WESTERN
AUSTRALIA

28 AUGUST 2015

MOTORIST TAXATION REVENUE AND ROAD SPENDING



WESTERN AUSTRALIA
FINAL REPORT





ACIL ALLEN CONSULTING PTY LTD
ABN 68 102 652 148

61 WAKEFIELD STREET
ADELAIDE SA 5000
AUSTRALIA
T +61 (0)412 089 043

LEVEL FIFTEEN
127 CREEK STREET
BRISBANE QLD 4000
AUSTRALIA
T+61 7 3009 8700
F+61 7 3009 8799

LEVEL TWO
33 AINSLIE PLACE
CANBERRA ACT 2600
AUSTRALIA
T+61 2 6103 8200
F+61 2 6103 8233

LEVEL NINE
60 COLLINS STREET
MELBOURNE VIC 3000
AUSTRALIA
T+61 3 8650 6000
F+61 3 9654 6363

LEVEL ONE
50 PITT STREET
SYDNEY NSW 2000
AUSTRALIA
T+61 2 8272 5100
F+61 2 9247 2455

LEVEL TWELVE, BGC CENTRE
28 THE ESPLANADE
PERTH WA 6000
AUSTRALIA
T+61 8 9449 9600
F+61 8 9322 3955

ACILALLEN.COM.AU

REPORT PREPARED BY

ANTONIA HODBY & SIMON SAGERER

RELIANCE AND DISCLAIMER THE PROFESSIONAL ANALYSIS AND ADVICE IN THIS REPORT HAS BEEN PREPARED BY ACIL ALLEN CONSULTING FOR THE EXCLUSIVE USE OF THE PARTY OR PARTIES TO WHOM IT IS ADDRESSED (THE ADDRESSEE) AND FOR THE PURPOSES SPECIFIED IN IT. THIS REPORT IS SUPPLIED IN GOOD FAITH AND REFLECTS THE KNOWLEDGE, EXPERTISE AND EXPERIENCE OF THE CONSULTANTS INVOLVED. THE REPORT MUST NOT BE PUBLISHED, QUOTED OR DISSEMINATED TO ANY OTHER PARTY WITHOUT ACIL ALLEN CONSULTING'S PRIOR WRITTEN CONSENT. ACIL ALLEN CONSULTING ACCEPTS NO RESPONSIBILITY WHATSOEVER FOR ANY LOSS OCCASIONED BY ANY PERSON ACTING OR REFRAINING FROM ACTION AS A RESULT OF RELIANCE ON THE REPORT, OTHER THAN THE ADDRESSEE.

IN CONDUCTING THE ANALYSIS IN THIS REPORT ACIL ALLEN CONSULTING HAS ENDEAVOURED TO USE WHAT IT CONSIDERS IS THE BEST INFORMATION AVAILABLE AT THE DATE OF PUBLICATION, INCLUDING INFORMATION SUPPLIED BY THE ADDRESSEE. UNLESS STATED OTHERWISE, ACIL ALLEN CONSULTING DOES NOT WARRANT THE ACCURACY OF ANY FORECAST OR PROJECTION IN THE REPORT. ALTHOUGH ACIL ALLEN CONSULTING EXERCISES REASONABLE CARE WHEN MAKING FORECASTS OR PROJECTIONS, FACTORS IN THE PROCESS, SUCH AS FUTURE MARKET BEHAVIOUR, ARE INHERENTLY UNCERTAIN AND CANNOT BE FORECAST OR PROJECTED RELIABLY.

ACIL ALLEN CONSULTING SHALL NOT BE LIABLE IN RESPECT OF ANY CLAIM ARISING OUT OF THE FAILURE OF A CLIENT INVESTMENT TO PERFORM TO THE ADVANTAGE OF THE CLIENT OR TO THE ADVANTAGE OF THE CLIENT TO THE DEGREE SUGGESTED OR ASSUMED IN ANY ADVICE OR FORECAST GIVEN BY ACIL ALLEN CONSULTING.

© ACIL ALLEN CONSULTING 2015

C O N T E N T S

KEY FINDINGS	1
1	
<i>Introduction</i>	<i>1</i>
2	
<i>Government Revenue</i>	<i>2</i>
2.1 State Government revenue	2
2.2 Federal Government revenue	3
2.3 Total revenue	5
3	
<i>Government expenditure</i>	<i>6</i>
3.1 Main Roads Western Australia	7
3.2 Asset Investment Program: Western Australia	8
3.3 WA Department of Transport	9
3.4 Western Australian local governments	10
4	
<i>Total revenue and expenditure</i>	<i>12</i>
4.1 Major road projects	12
4.2 Conclusions	13
5	
<i>Bibliography</i>	<i>15</i>
A	
<i>Methodology</i>	<i>A-1</i>
B	
<i>Comparison of data sources</i>	<i>B-1</i>
FIGURES	
Figure ES 1 – Vehicle-related government revenue and road expenditure, historic and projected	ii
Figure ES 2 – Detailed vehicle related government revenue and road expenditure, 2014-15 (\$ million, rounded)	iii
Figure 2.1 – Vehicle related government revenue, historic and projected	5
Figure 3.1 – Total spending on roads in Western Australia by agency	7
Figure 4.1 – Vehicle related government revenue and road expenditure, historic and projected	12
Figure 4.2 – Detailed vehicle related government revenue and road expenditure, 2014-15 (\$ million, rounded)	14

C O N T E N T S

Tables

Table 2.1 – Vehicle related State Government revenue, historic and projected	2
Table 2.2 – Federal vehicle related revenue generated in Australia and WA, historic and projected	4
Table 3.1 – Main Roads Western Australia expenditure, historic and projected	8
Table 3.2 – Asset Investment Program Historic and Projected: Western Australia	9
Table 3.3 – WA Department of Transport expenditure, historic and projected	10
Table 3.4 – Local government expenditure, historic and projected	11
Table A.1 – Adjusted CPI weights	A-1
Table A.2 – Western Australian GST contribution proxies	A-2
Table B.1 – Comparison of ABS and ACIL Allen expenditure estimates (\$ million)	B-1



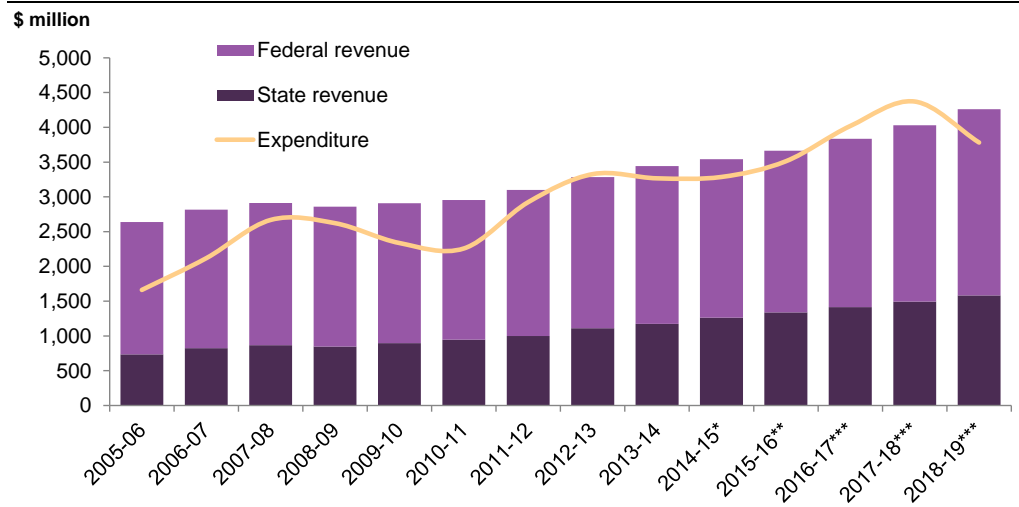
KEY FINDINGS

This report has been prepared by ACIL Allen Consulting (ACIL Allen) for the RAC WA (RAC). The report is an update of the 2014 report for RAC and includes the latest figures from the Western Australian and Federal Government budgets. The report contains estimates of government revenues collected from motorists in Western Australia and spending by governments on Western Australian roads. Key findings based on the latest available budget estimates include the following:

- The Western Australian Government collected approximately \$1.3 billion in fees (licence and registration fees, recording fees and heavy vehicle permits) from Western Australian motorists in 2014-15.
- The Federal Government collected approximately \$2.3 billion from motor vehicle related taxes in Western Australia in 2014-15. This revenue is mainly generated by GST paid on motor vehicles and excise duty on fuel.
- Total spending on roads in Western Australia in 2014-15 is estimated to be around \$3.3 billion. This figure has increased in recent years, and represents around 93 per cent of the revenues collected by the Federal and State Governments from Western Australian motorists (in 2005-06, the ratio was approximately 63 per cent).
- The State Government spends more on roads than it receives from motorists, but the Federal Government does not: approximately 34 cents in every dollar of revenue collected in 2014-15 by the Federal Government from Western Australian motorists will be returned to the State for spending on roads.

An overview of the balance between government spending and revenue is provided in Figure ES 1.

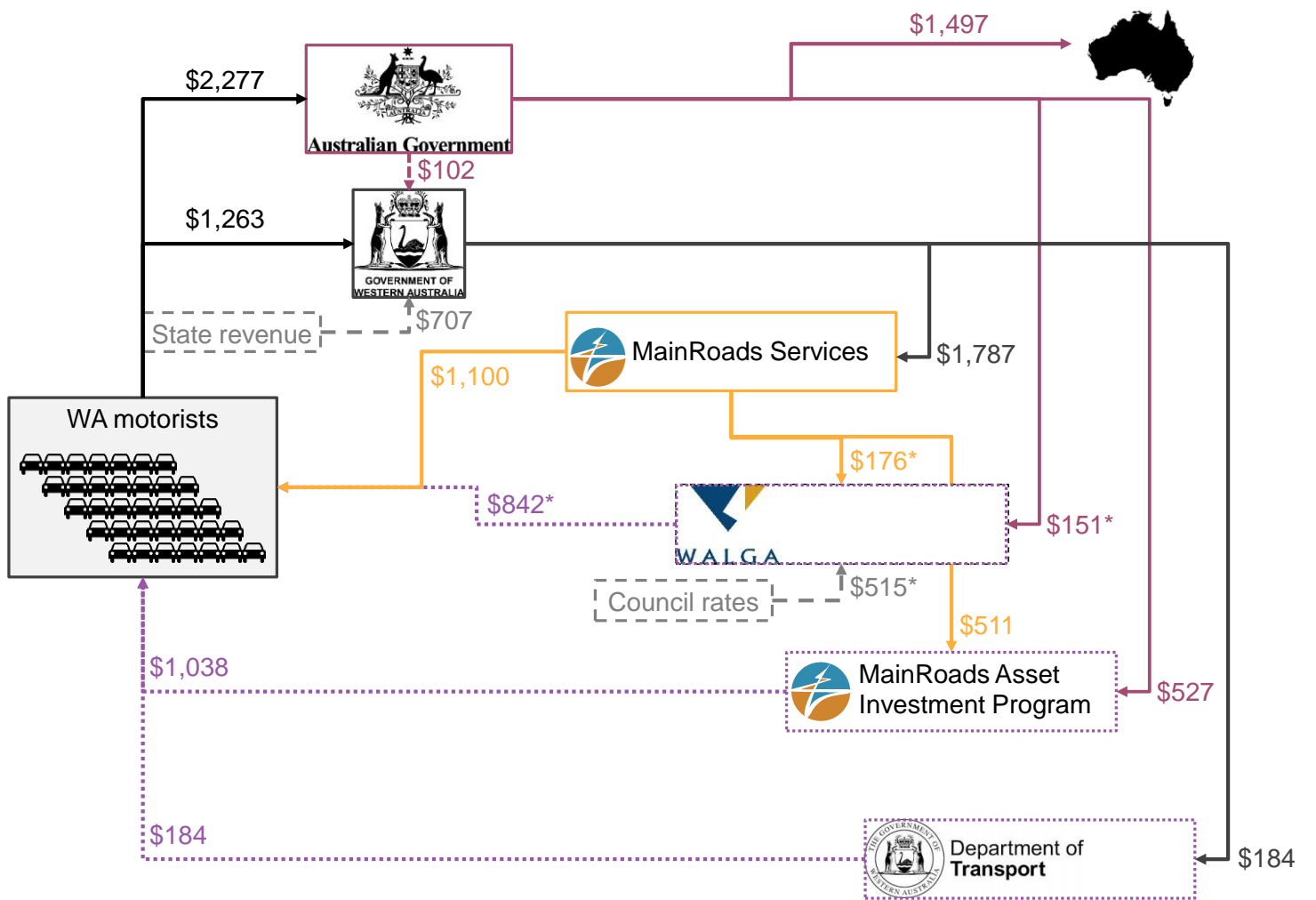
FIGURE ES 1 – VEHICLE-RELATED GOVERNMENT REVENUE AND ROAD EXPENDITURE, HISTORIC AND PROJECTED



* ESTIMATED; ** BUDGET ESTIMATE; *** FORWARD ESTIMATE
 Source: ACIL Allen analysis

The relationships between collection and spending at the different levels of government are depicted in Figure ES 2, and discussed in detail in Chapter 4.

FIGURE ES 2 – DETAILED VEHICLE RELATED GOVERNMENT REVENUE AND ROAD EXPENDITURE, 2014-15 (\$ MILLION, ROUNDED)



* Extrapolation
Source: ACIL Allen analysis



This report is the latest in a series of reports prepared by ACIL Allen for RAC to identify fees and taxes paid by motorists in Western Australia and the expenditure on roads and activities directly related to road networks in Western Australia. The report contains analyses of data from the 2015-16 Federal and State Government Budgets.

The remainder of the report is structured as follows:

- Chapter 2 contains estimates of government revenue generated by road-related activities in Western Australia. Specifically, the chapter contains calculations of the amount of revenue collected in fuel taxes, vehicle registration fees and other government charges associated with vehicle acquisition, operation and ownership in Western Australia.
- Chapter 3 contains estimates of total government expenditure on road infrastructure in Western Australia.
- Chapter 4 contains key conclusions and the identification of relationships between State Government and Federal Government revenue and expenditure as it pertains to Western Australia.



2

GOVERNMENT REVENUE

Motorists pay a range of fees and taxes associated with their vehicle. Vehicle ownership related fees and duties are mostly collected by the State Government whereas taxes generated by the usage of vehicles are collected by the Federal Government. This chapter contains ACIL Allen's estimates of the total motor vehicle related government revenue generated from Western Australian motorists.

2.1 State Government revenue

The Western Australian State Government collects various fees associated with motor vehicles, including:

- Vehicle licence duties: collected by the State Government when a vehicle is licenced or a vehicle licence is transferred
- Motor vehicle registrations: collected by the State Government for the ongoing registration of motor vehicles, and
- Other fees: includes taxes from oversized motor vehicles and motor vehicle recording fees.

Table 2.1 depicts historic and projected State Government vehicle related revenue in Western Australia for the 2005-06 to 2018-19 period.

TABLE 2.1 – VEHICLE RELATED STATE GOVERNMENT REVENUE, HISTORIC AND PROJECTED

Financial year	Vehicle licence duty (\$ million)	Motor vehicle registrations (\$ million)	Other (\$ million)	Total (\$ million)	Annual growth (%)
2005-06	342	361	33	736	
2006-07	393	396	36	825	12.1%
2007-08	393	434	39	866	5.0%
2008-09	318	486	44	848	-2.1%
2009-10	332	516	48	896	5.7%
2010-11	338	557	51	946	5.6%
2011-12	357	589	52	998	5.5%
2012-13	404	650	56	1,110	11.2%

Financial year	Vehicle licence duty	Motor vehicle registrations	Other	Total	Annual growth
2013-14	385	728	60	1,173	5.7%
2014-15*	369	834	60	1,263	7.7%
2015-16**	395	879	63	1,337	5.9%
2016-17***	424	924	67	1,415	5.8%
2017-18***	455	971	68	1,494	5.6%
2018-19***	491	1,023	70	1,584	6.0%

* Estimated; ** Budget Estimate; *** Forward Estimate.

Note: Budget estimates may have varied from those of previous years.

Source: Department of Treasury and Finance Western Australia: Budget Paper No. 3 (2007-08 to 2015-16).

2.2 Federal Government revenue

Federal Government revenue sources include:

- GST: raised from motor vehicle related transactions such as the purchase of motor vehicles and fuel
- Luxury car tax: paid on the purchase of new cars for which the value exceeds the Government's luxury threshold¹
- Excise duty petrol and diesel: taxes paid on the purchase of petrol and diesel, and
- Passenger motor vehicle customs: customs duties that are paid on imported vehicles on entry into Australia.

Estimating the amount of Federal Government revenue associated with motor vehicles in Western Australia involves some degree of uncertainty as the Federal Budget does not report on the shares of tax revenues generated by each state and territory. The methodology used by ACIL Allen to estimate Federal Government revenue is detailed in Appendix A.

The total motor vehicle related revenue collected by the Federal Government is depicted in Table 2.2, as are ACIL Allen's estimates of Federal Government revenue that is collected from Western Australian motorists.

¹ Current thresholds are \$75,375 for fuel efficient vehicles and \$63,184 for other vehicles. See, <https://www.ato.gov.au/Rates/Luxury-car-tax-rate-and-thresholds/>, accessed 8 July 2015.

TABLE 2.2 – FEDERAL VEHICLE RELATED REVENUE GENERATED IN AUSTRALIA AND WA, HISTORIC AND PROJECTED

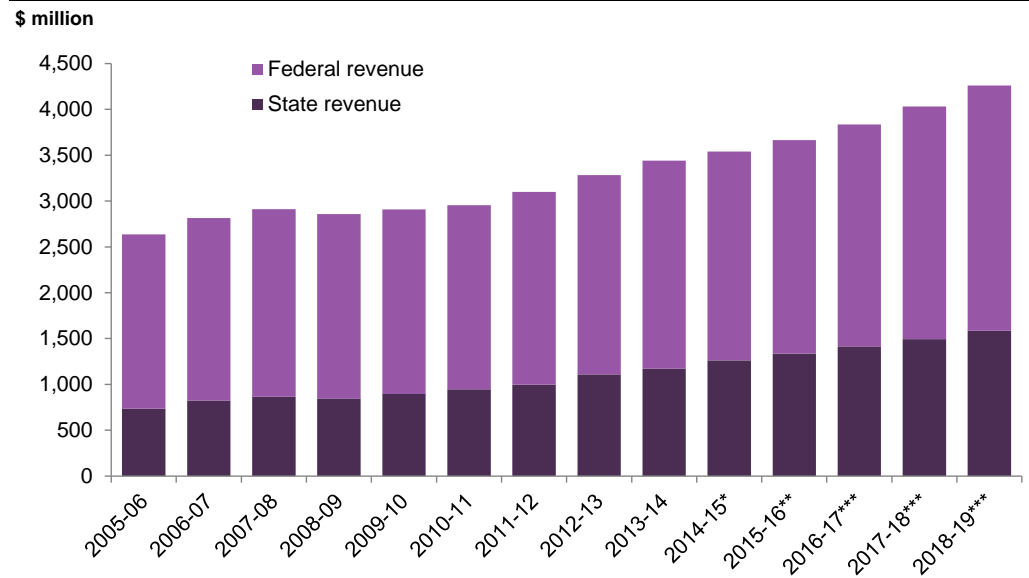
Financial year	Petrol associated GST	New vehicle associated GST	Fleet related GST	Luxury car tax	Excise duty petrol	Excise duty diesel	Passenger MV customs	Total
Federal revenue generated (\$ million)								
2005-06	1,515	2,294	1,686	320	7,280	6,240	1,258	20,593
2006-07	1,663	2,517	1,850	340	7,310	6,420	1,300	21,399
2007-08	1,751	2,651	1,949	464	6,959	6,674	1,400	21,848
2008-09	1,886	2,855	2,099	384	6,461	6,687	1,135	21,507
2009-10	1,812	2,742	2,016	499	6,339	6,886	1,226	21,520
2010-11	2,008	3,039	2,234	540	5,910	7,080	600	21,410
2011-12	1,949	2,950	2,169	435	6,036	8,231	805	22,575
2012-13	2,037	3,083	2,266	430	6000	8600	920	23,335
2013-14	2,184	3,306	2,430	464	6053	8940	921	24,299
2014-15*	2,307	3,492	2,567	500	6,000	8,800	650	24,317
2015-16**	2,436	3,687	2,710	450	6,100	9,110	380	24,874
2016-17***	2,602	3,939	2,896	400	6,250	9,520	290	25,897
2017-18***	2,754	4,169	3,064	410	6,600	9,930	210	27,138
2018-19***	2,912	4,408	3,240	420	7,000	10,490	180	28,651
Generated in Western Australia (\$ million)								
2005-06	152	229	196	49	618	530	127	1,901
2006-07	166	251	215	53	621	545	138	1,990
2007-08	175	265	227	72	591	567	148	2,045
2008-09	189	285	244	59	549	568	117	2,011
2009-10	181	274	235	77	538	585	123	2,012
2010-11	201	303	260	83	502	601	59	2,009
2011-12	195	295	253	67	513	699	80	2,101
2012-13	204	308	264	66	509	730	92	2,173
2013-14	218	330	283	72	514	759	92	2,268
2014-15*	231	349	299	77	509	747	65	2,277
2015-16**	244	368	316	70	518	774	38	2,326
2016-17***	260	393	337	62	531	808	29	2,421
2017-18***	275	416	357	63	560	843	21	2,537
2018-19***	291	440	377	65	594	891	18	2,677

* Estimated; ** Budget Estimate; *** Forward Estimate. Note: Budget estimates may have varied from those of previous years.
Data source: ACIL Allen analysis of Australian Government Budgets 2006-07 to 2015-16.

2.3 Total revenue

Figure 2.1 depicts total Federal and State Government revenue collected from Western Australian motorists. It shows the share of State versus the share of Federal Government revenue over time and highlights the forecast increase in the share of Federal Government revenue.

FIGURE 2.1 – VEHICLE RELATED GOVERNMENT REVENUE, HISTORIC AND PROJECTED



* Estimated; ** Budget Estimate; *** Forward Estimate
 Source: ACIL Allen analysis



3

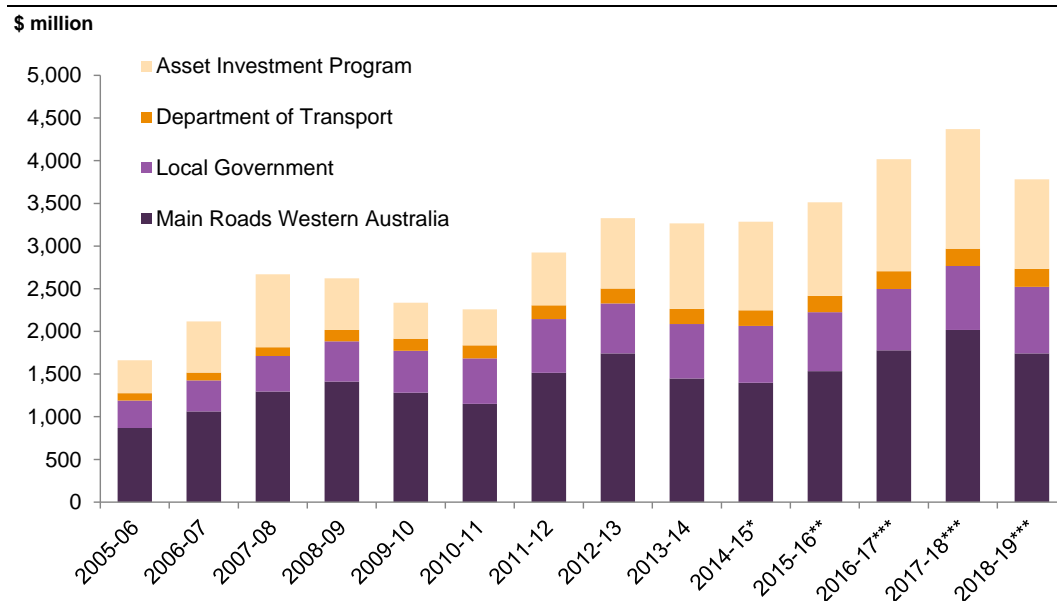
GOVERNMENT EXPENDITURE

While a large share of revenue is collected by the Federal Government, it is the State Government and local governments who are responsible for the provision of motoring-related infrastructure and services in Western Australia. The Federal Government does not spend directly on Western Australian motoring infrastructure and services but does transfer its revenue to the Western Australian Government either as part of transfers for specific projects or as block grants to State Government consolidated revenue.

Total road-related expenditure in Western Australia by State Government agency and local government is depicted in Figure 3.1. At a State Government level, road-related spending is undertaken by Main Roads Western Australia and by the Department of Transport. The largest shares of expenditure are attributable to Main Roads Western Australia and local governments. The share of expenditure attributable to the Department of Transport is relatively low.

Between the 2014-15 and the 2015-16 State budget, the funding structure of Main Roads' Asset Investment Program has changed substantially from one that is primarily funded by State capital appropriation and asset sales to one that is now largely funded by the Federal Government. The Program includes significant funds for a range of projects including Gateway WA, NorthLink WA Swan Valley section, Mitchell Freeway Burns Road to Hester Avenue, and the North West Coastal Highway Minilya to Barradale. ACIL Allen has therefore treated this program as road-related expenditure and included it in the detailed analysis of this current report.

FIGURE 3.1 – TOTAL SPENDING ON ROADS IN WESTERN AUSTRALIA BY AGENCY



Note: * Estimated; ** Budget Estimate; *** Forward Estimate

Source: ACIL Allen analysis

3.1 Main Roads Western Australia

Main Roads Western Australia is responsible for the provision and maintenance of Western Australia's highways and main roads, and also for the provision of road-related services. These services are described in the sections below.²

Road safety

The objective of this program, which is separate from the Road Safety Commission, is to reduce the road fatality rate, minimise road factors contributing to road trauma and reduce the serious crash injury rate. Works undertaken must have safety as the foremost factor and include the State and National Black Spot programs and various projects that improve safety on the existing road network.

Road system management

The objective of this program is to optimise real time management of the network, provide traveller information and support delivery of projects. Works include activities of the traffic operation centre, heavy vehicle operation activities, metropolitan and regional road asset management, road user and customer services, emergency telephones, street lighting, intelligent transport systems, traffic signals and road advisory services, such as traffic alerts, to the community.³

Road efficiency improvements

The objective of this program is to improve the efficiency, capacity and utilisation of the existing road network. Improvements include geometric improvements, bridge strengthening and intersection improvements including roundabouts and interchanges.

Infrastructure for community access

The objective of this program is to provide infrastructure that will improve personal mobility and community access, including increasing the quality of access where appropriate, providing levels of access commensurate with community expectations and meeting minimal levels of appropriate

² Expenditure by the Office of Road Safety has not been captured in this report. The majority of expenditure undertaken by the Office of Road Safety is funded from traffic fine revenues. Traffic fines are designed to change behaviour, rather than to fund roads.

³ Main Roads Western Australia, Annual Reports (various editions), and website, <https://www.mainroads.wa.gov.au>.

access. Works include providing access to remote communities, pedestrian facilities, cyclist facilities, road user amenities, public transport integration and improvements such as new bridges to address flood closures.

Infrastructure for state development

The objective of this program is to expand the road network in accordance with government transport and land use strategies that will facilitate the economic and regional development of the State. These works are mostly aimed at increasing the capacity of the road network through the addition of new links.

Annual levels of expenditure by Main Roads Western Australia by service category are provided in Table 3.1.

TABLE 3.1 – MAIN ROADS WESTERN AUSTRALIA EXPENDITURE, HISTORIC AND PROJECTED

Financial year	Road safety	Road system management	Road efficiency	Infrastructure for community access	Road network maintenance	Infrastructure for State development	Total
\$ million							
2005-06	76	76	69	102	410	134	867
2006-07	68	79	157	135	410	213	1,062
2007-08	81	76	158	105	450	426	1,297
2008-09	141	80	202	97	475	418	1,413
2009-10	166	92	202	32	502	286	1,282
2010-11	102	86	225	41	582	115	1,150
2011-12	117	119	461	35	614	167	1,514
2012-13	114	108	428	56	750	286	1,742
2013-14	81	123	573	57	303	310	1,447
2014-15*	99	138	735	29	277	121	1,399
2015-16**	113	164	811	58	291	96	1,533
2016-17***	109	165	834	20	301	349	1,778
2017-18***	96	189	919	33	377	402	2,016
2018-19***	98	172	762	34	384	291	1,741

* Estimated; ** Budget Estimate; *** Forward Estimate.

Note: Budget estimates may have varied from those of previous years.

Source: Government of Western Australia Budgets 2006-07 to 2015-16

3.2 Asset Investment Program: Western Australia

The Asset Investment Program of Main Roads Western Australia is designed to deliver road improvements which are aimed at increasing the efficiency of the existing road network as part of an integrated transport system. Expenditure under this program is currently budgeted to exceed \$7 billion over six years.

In the 2014-15 State budget, the majority of funding for the Asset Investment Program came from capital appropriation and asset sales. These two sources constitute State funds specifically raised for the purpose of funding roads from sources that are not related to motorist revenue. It is for this reason

that the Asset Investment Program spending was not analysed in detail in previous reports. However, between the 2014-15 and the 2015-16 State budgets, the funding structure of the Asset Investment Program has changed substantially to become one that is now largely funded by the Federal Government. ACIL Allen has therefore treated this program as road-related expenditure and included it in the detailed analysis of this current report.

Table 3.2 shows the estimated expenditure for the Asset Investment Program from 2005-06 through to 2018-19 which highlights the rapid growth in funds allocated to the Program. The projects funded under the program include Gateway WA, NorthLink WA Swan Valley section, Mitchell Freeway Burns Road to Hester Avenue, and the North West Coastal Highway Minilya to Barradale.

TABLE 3.2 – ASSET INVESTMENT PROGRAM HISTORIC AND PROJECTED: WESTERN AUSTRALIA

Financial year	Expenditure	Annual growth
	\$ million	
2005-06	384	-4%
2006-07	600	56%
2007-08	841	40%
2008-09	854	2%
2009-10	605	-29%
2010-11	422	-30%
2011-12	619	47%
2012-13	824	33%
2013-14	1,003	22%
2014-15*	1,038	3%
2015-16**	1,094	5%
2016-17***	1,315	20%
2017-18***	1,401	7%
2018-19***	1,049	-25%

* Estimated; ** Budget Estimate; *** Forward Estimate.

Data source: Government of Western Australia Budgets 2008-09 to 2015-16

3.3 WA Department of Transport

The Department of Transport has a number of roles associated with transport in general, but plays only a minor role in aspects of transport that are directly related to infrastructure delivery. One of the Department's main responsibilities is monitoring and enforcing the registration of motor vehicles and licensing of drivers. Such services are important for road safety and hence are considered to fall into the classification of road-related expenditure. Table 3.3 contains estimates of expenditure undertaken by the Department of Transport.

TABLE 3.3 – WA DEPARTMENT OF TRANSPORT EXPENDITURE, HISTORIC AND PROJECTED

Financial year	Expenditure \$ million	Annual growth
2005-06	87	5%
2006-07	91	13%
2007-08	103	30%
2008-09	134	5%
2009-10	140	8%
2010-11	151	7%
2011-12	161	9%
2012-13	176	1%
2013-14	178	3%
2014-15*	184	5%
2015-16**	193	7%
2016-17**	206	0%
2017-18**	205	3%
2018-19**	211	5%

* Estimated; ** Budget Estimate; *** Forward Estimate.

Data source: Government of Western Australia Budgets 2008-09 to 2015-16

3.4 Western Australian local governments

Local roads account for about 80 per cent of the total road network in Western Australia. Local governments spend a large share of their budgets on preserving, repairing, upgrading and constructing roads. Approximately 21 per cent of local government expenditure is funded by the State Government.⁴ This proportion of expenditure has been discounted from the figures reported below as it has already been included in the estimates of expenditure by Main Roads Western Australia. Local government expenditure is detailed in Table 3.4.

⁴ Western Australian Local Government Association, 2015, *Report on local government road assets and expenditure 2013/14*, p. 7.

TABLE 3.4 – LOCAL GOVERNMENT EXPENDITURE, HISTORIC AND PROJECTED

Financial year	Preservation of existing roads		Upgrades and construction		Flood damage		Total	
	\$ million	share of total	\$ million	share of total	\$ million	share of total	\$ million	Annual growth
2005-06	219	68%	103	32%	1		323	13%
2006-07	254	70%	111	30%			365	14%
2007-08	278	67%	136	33%			414	14%
2008-09	311	66%	159	34%			470	5%
2009-10	342	69%	150	31%			492	9%
2010-11	354	66%	160	30%	21	4%	534	18%
2011-12	445	71%	148	24%	37	6%	630	-7%
2012-13	418	71%	167	29%			585	9%
2013-14***	465	73%	174	27%			638	4%
2014-15***	479	72%	186	28%			665	4%
2015-16***	493	71%	199	29%			692	4%
2016-17***	507	70%	213	30%			720	4%
2017-18***	522	70%	228	30%			749	4%
2018-19***	537	69%	243	31%			780	4%

*** ACIL Allen extrapolation.

Note: Flood damage related expenditure is included in preservation of roads after 2005-06, except where specific data could be found. Also due to rounding some percentages may not add to 100.

Source: Report on Local Government Road Assets & Expenditure 2010-11 to 2013-14

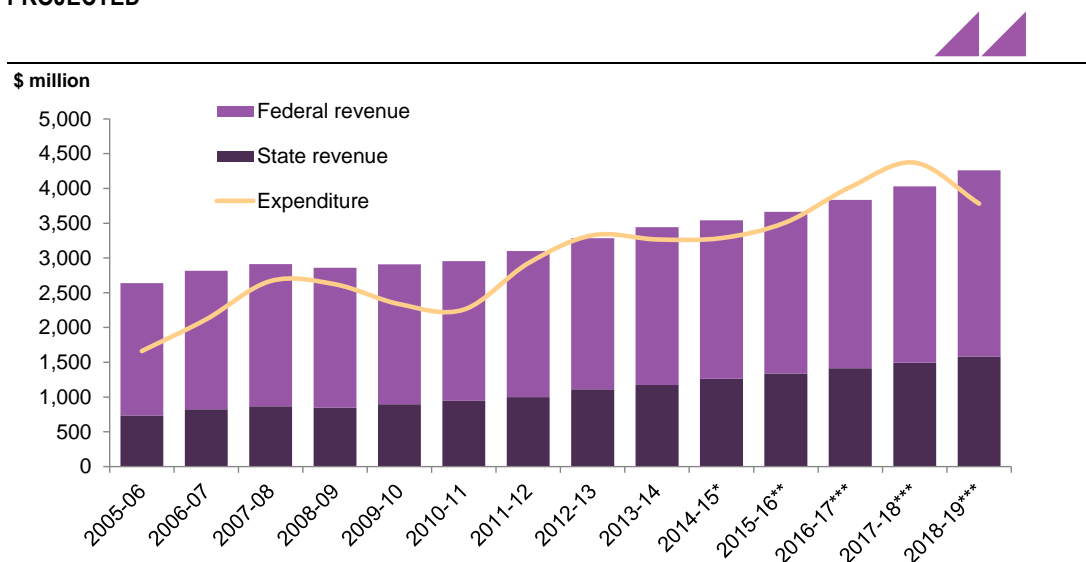
4

TOTAL REVENUE AND EXPENDITURE

ACIL Allen estimates that in 2014-15, total road-related expenditure in Western Australia equated to about \$3.3 billion. Also in 2014-15, total Federal and State Government revenue collected from Western Australian motorists equated to about \$3.6 billion. The ratio between road-related expenditure and motorist-related revenue for 2014-15 was approximately 93 per cent. Updated figures suggest that the 2013-14 ratio was 95 per cent.

Budget forecasts suggest that the existing level of road-related expenditure in Western Australia will increase until 2017-18 when the ratio of expenditure to revenue is expected to exceed 100 per cent. In the last forecast year it is expected to drop to under 90 per cent as the projects currently committed under the Asset Investment Program near completion (see Figure 4.1).

FIGURE 4.1 – VEHICLE RELATED GOVERNMENT REVENUE AND ROAD EXPENDITURE, HISTORIC AND PROJECTED



* Estimated; ** Budget Estimate; *** Forward Estimate.

Source: ACIL Allen analysis

4.1 Major road projects

Recent government budgets both at a Federal and State level have a strong infrastructure focus. As part of the 2015-16 budget the Federal Government announced that the Commonwealth will provide an additional \$499.1 million to Western Australia for infrastructure that will “boost jobs and growth”.

Funding will be allocated to the development of the Mitchell Freeway and to increase the Federal Government's contributions to other projects under the National Partnership Agreement on Land Transport Infrastructure.

As a result of focussing on infrastructure investment, total planned expenditure on major road projects almost doubled between the 2012-13 and the current (2015-16) State budget from \$3.6 billion to \$7.4 billion. In 2012-13 there were only two projects with a construction value above \$200 million; Gateway WA and the upgrade of Great Northern Highway in Port Hedland. Now there are eight of which three have estimated construction cost in excess of \$500 million. Most major road projects are expected to reach their construction peak in 2016-17 or 2017-18 which is why road expenditure is currently anticipated to drop off in 2018-19. The eight major projects detailed in the 2015-16 State Government Budget are:

- **Gateway WA – Perth Airport and Freight Access** - estimated total cost of \$973 million, of which \$137 is allocated to 2015-16 and \$26 million will occur in 2016-17
- **Great Northern Highway- Muchea to Wubin Stage 2** - estimated total cost of \$387 million, of which \$116 million is allocated to 2015-16 and \$225 million is allocated from 2016-17 through to 2017-18
- **North West Coastal Highway- Minilya to Barradale** - estimated total cost of \$218 million, of which \$58 million is allocated to 2015-16 and \$119 million is allocated to the following three years to 2017-18
- **North Link WA- Swan Valley Section** - estimated total cost of \$837 million, of which \$39 million is allocated to 2015-16 and \$738 million will occur between 2016-17 and 2018-19
- **North Link WA- Tonkin Highway Grade Separations** - estimated total cost of \$281 million, of which \$370,000 is allocated to 2015-16 and \$274 million will occur between 2016-17 and 2018-19
- **Mitchell Freeway – Burns Road to Hester Avenue** - estimated total cost of \$261 million, of which \$116 million is allocated to 2015-16 and \$135 million will occur in 2016-17
- **Perth Freight Link - Construct** - estimated total cost of \$1.6 billion, of which \$144 million is allocated to 2015-16 and \$1.4 billion will occur between 2016-17 and 2018-19
- **Reseal Capitalisation Program** - estimated total cost of \$252 million, of which \$60 million is allocated to 2015-16 and \$192 million will occur between 2016-17 and 2018-19.

The Asset Recycling Initiative may have an influence on Western Australian roads funding. This initiative will provide funding of \$5 billion over five years in the form of financial incentives to jurisdictions that sell assets and reinvest the sale proceeds into new productive infrastructure. The program will work on a first come, first served basis. Note however, this initiative is applicable to all types of infrastructure and there is not enough detail in the Budget to determine what influence it may have for Western Australian roads.

4.2 Conclusions

A total of \$3.3 billion was estimated to be spent on Western Australian roads in 2014-15, of which, approximately 60 per cent was attributable to the State Government.

State Government expenditure on Western Australian roads is typically greater than the value of revenue that it collects from Western Australian motorists. In 2014-15, the State Government estimated that it spent approximately \$2.0 billion⁵ on Western Australian roads and collected approximately \$1.3 billion in revenue from Western Australian motorists.

In contrast, Federal Government expenditure on Western Australian roads is typically less than the value of revenue that it collects from Western Australian motorists. In 2014-15, the Federal Government estimated that it spent approximately \$780 million on Western Australian roads⁶ and collected approximately \$2.3 billion from Western Australian motorists.⁷ In effect, for every dollar of revenue collected by the Federal Government from Western Australian motorists, approximately 34 cents is returned to Western Australia as Federal Government expenditure on Western Australian roads

⁵ Made up of \$1.3 billion of direct funds and \$707 million of own source consolidated revenue.

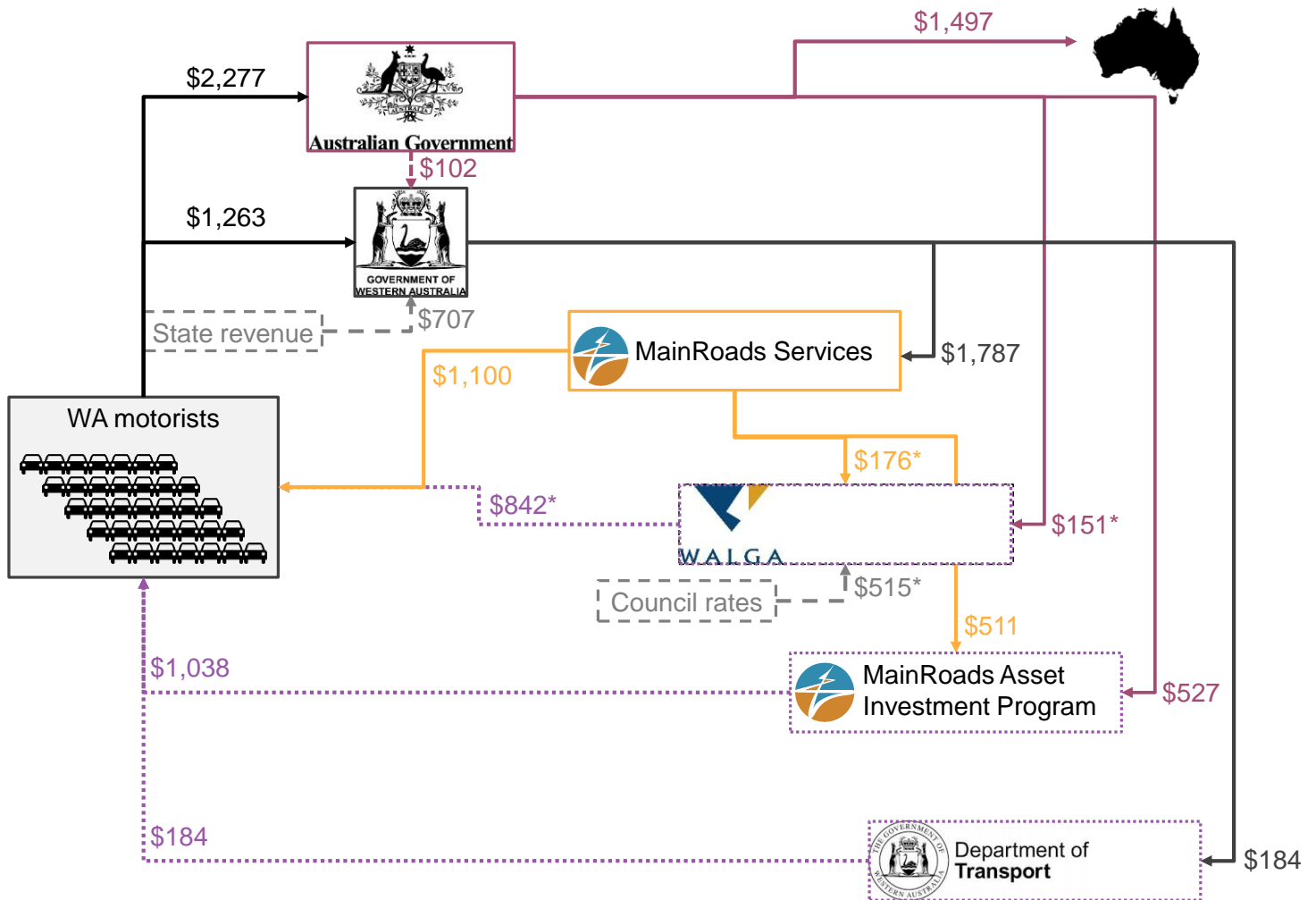
⁶ Made up of direct spending of \$527 million in special purpose payments; \$151 million in the Local Road Financial Assistance Grant; and \$102 million as a result of the Federal Government contribution to State consolidated revenue.

⁷ Collected from GST, excise duty, luxury car tax and customs duties.

Local governments spent approximately \$842 million on Western Australian roads of which \$327 million is funded by Federal or State grants and are therefore included in the above figures. The remaining \$515 million was funded by local government rates.

These revenue and expenditure flows are depicted diagrammatically in Figure 4.2. A detailed explanation of how the estimates have been derived is provided in Appendix A.

FIGURE 4.2 – DETAILED VEHICLE RELATED GOVERNMENT REVENUE AND ROAD EXPENDITURE, 2014-15 (\$ MILLION, ROUNDED)



* Extrapolation
Source: ACIL Allen analysis

5

BIBLIOGRAPHY

- Australian Bureau of Agriculture and Resources Economics and Science. (2009). *Australian Consumption of Petroleum Products*.
- Australian Bureau of Statistics. (2002). *Cat. 9208.0: Survey of Motor Vehicle Use*.
- Australian Bureau of Statistics. (2005). *Cat. 5514.0: Australian System of Government Finance Statistics: Concepts, Sources and Methods*.
- Australian Bureau of Statistics. (2005). *Cat. 6461.0: Australian Consumer Price Index: Concepts, Sources and Methods*.
- Australian Bureau of Statistics. (2012). *Car Census*.
- Australian Bureau of Statistics. (2013). *Cat. 9314: Sales of New Motor Vehicles*.
- Australian Bureau of Statistics. (2015). *Cat. 5512.0: Government Finance Statistics 2013-14*. Canberra, WA.
- Australian Government. (2005-06). *Budget: Financial Statements*.
- Australian Government. (2006-07). *Budget: Financial Statements*.
- Australian Government. (2007-08). *Budget: Financial Statements*.
- Australian Government. (2008-09). *Budget: Financial Statements*.
- Australian Government. (2009-10). *Budget: Financial Statements*.
- Australian Government. (2010-11). *Budget: Financial Statements*.
- Australian Government. (2011-12). *Budget: Financial Statements*.
- Australian Government. (2012-13). *Budget: Financial Statements*.
- Australian Government. (2013-14). *Budget: Financial Statements*.
- Australian Government. (2014-15). *Budget: Financial Statements*.
- Australian Government. (2015-16). *Budget: Financial Statements*.
- Bureau of Infrastructure, Transport and Regional Economics. (2009). *Australian Transport Statistics Yearbook*.
- Department of Infrastructure and Regional Development. (2014). *Financial Assistance Grants to Local Government*. Retrieved June 10, 2014, from Department of Infrastructure and Regional Development: <http://www.regional.gov.au/local/assistance/>
- The Government of Western Australia. (2005-06). *Budget Paper No. 2 & 3*.

- The Government of Western Australia. (2006-07). *Budget Paper No. 2 & 3.*
- The Government of Western Australia. (2007-08). *Budget Paper No. 2 & 3.*
- The Government of Western Australia. (2008-09). *Budget Paper No. 2 & 3.*
- The Government of Western Australia. (2009-10). *Budget Paper No. 2 & 3.*
- The Government of Western Australia. (2010-11). *Budget Paper No. 2 & 3.*
- The Government of Western Australia. (2011-12). *Budget Paper No. 2 & 3.*
- The Government of Western Australia. (2012-13). *Budget Paper No. 2 & 3.*
- The Government of Western Australia. (2013-14). *Budget Paper No. 2 & 3.*
- The Government of Western Australia. (2014-15). *Budget Paper No. 2 & 3.*
- The Government of Western Australia. (2015-16). *Budget Paper No. 2 & 3.*
- Western Australian Local Government Association. (2012). *Report on local government road assets and expenditure 10/11.*
- Western Australian Local Government Association. (2013). *Report on local government road assets and expenditure 11/12.*
- Western Australian Local Government Association. (2014). *Report on local government road assets and expenditure 12/13.*
- Western Australian Local Government Association. (2015). *Report on local government road assets and expenditure 13/14.*



Below is the apportioning methodology for each motorist related revenue stream, as discussed in Chapter 2.

GST

The GST is apportioned in two steps:

1. Calculation of the amount of GST raised from motor vehicle related transactions, and
2. Determination of Western Australia's contribution to each category.

GST contribution of motor vehicle related transactions

The GST contribution of motor vehicle related transactions is determined by applying the weights of motor vehicle related groups from the Consumer Price Index (CPI) to the total GST revenue. The group specific weight is estimated by the Australian Bureau of Statistics and measures what share of its income an average household spends on a certain good. Therefore it is a good proxy for the share of total spending on this good in Australia and thus the generated GST revenue. ACIL Allen adjusted the weights by excluding GST free products such as dairy products, bread, vegetables etc. from the weighting to ensure consistent results.

Three relevant private expenditure groups were identified: motor vehicle sales, automotive fuels and repairs, accessories etc. The derivation of the adjusted CPI weights is outlined in Table A1.

TABLE A.1 – ADJUSTED CPI WEIGHTS

Goods category	Weight
GST free	9.1%
Dairy	1.5%
Bread/cereal	2.2%
Meat/Seafood	2.6%
Fruit/vegetable	2.3%
Eggs	0.1%
Tea/coffee	0.3%
Adjustment factor	1.1001
Unadjusted motor vehicle related	
Motor vehicles	5.9%
Automotive fuel	4.3%

Goods category	Weight
Repairs, accessories etc.	4.3%
Adjusted motor vehicle related	
Motor vehicles	6.4%
Automotive fuel	4.7%
Repairs, accessories etc.	4.7%

Note: Rounded values

Data Source: Australian Bureau of Statistics, Cat. 9208.0

Western Australian contribution

The GST associated with each these groups generated in Western Australia is calculated by applying the relevant share of consumption of motor vehicles, petrol and vehicle repairs in Western Australia. Statistics for the three groups are provided either by the ABS new car sales (Cat. 9314: Sales of New Motor Vehicles, 2013) and motor vehicle census (Australian Bureau of Statistics, 2012) or by ABARES (Australian Consumption of Petroleum Products, 2009). In order to estimate the Western Australian contribution to Federal tax revenue, ACIL Allen applied 10 year averages of historic data to the national GST revenue of each category (details in Table A2).

TABLE A.2 – WESTERN AUSTRALIAN GST CONTRIBUTION PROXIES

Weight	WA contribution proxy
Motor vehicles	New motor vehicles sales WA / new motor vehicles sales Australia
Automotive fuel	Fuel consumption WA / fuel consumption Australia
Repairs, accessories etc.	Number of cars WA / number of cars Australia

Luxury car tax

The Western Australian contribution to the luxury car tax revenue was estimated by determining the share of luxury cars in the State based on the Motor Vehicle Census 2012 and applying it to the Federal revenue from this tax.

Excise duty on petrol and diesel

Commercial vehicles can reclaim 50 per cent of the excise duty on petrol and diesel. Therefore it is necessary to estimate the fuel consumption of commercial vehicles in Western Australia.

In 2002 the ABS conducted a detailed survey on fuel consumption in Australia in which it reports total fuel consumption in this year of passenger vehicles and commercial vehicles (Cat. 9208.0: Survey of Motor Vehicle Use, 2002). The Bureau of Infrastructure, Transport and Regional Economics (BITRE) in turn, publishes figures on the total number of driven kilometres per year, state and vehicle class (Australian Transport Statistics Yearbook, 2009). From these datasets, ACIL Allen calculated an average consumption per kilometre for both vehicle classes which the number of kilometres travelled in Western Australia by the vehicles of the respective class was applied. This provides an estimate of total fuel consumed in Western Australia by vehicle class and thus the share of excise duty generated in the State.

This number was applied to excise duty revenues for petrol and diesel to correct for the 50 per cent rebate for commercial vehicles.

Customs on passenger motor vehicles

Customs duties are paid on imported vehicles when they enter the country. Since transport to Australia tends to be expensive, it has been assumed that all imported vehicles are new⁸. Therefore the share of new vehicles sold in Western Australia (Cat. 9314: Sales of New Motor Vehicles, 2013) was applied to determine customs revenues attributable to Western Australia.

Derivation of funding sources by level of government for 2014-15

ACIL Allen has undertaken a detailed assessment of road-related revenue and expenditure by level of government for 2014-15 to map the flows of road-related funds to and from governments. In 2014-15:

- Total spending on Western Australian roads is estimated at \$3,286 million.
- Of this amount, approximately \$1,263 million will be directly funded by the State Government through its collection of road-related revenue (primarily vehicle licence fees and motor vehicle registration fees).
- This leaves a preliminary funding gap of just under \$2,023 million.
- Part of this preliminary funding gap will be directly funded by the Federal Government:
 - the Federal Government transferred \$527 million to Western Australia as specific purpose payments related to the Asset Investment Program. This program includes black spot projects, the bridges renewal program, heavy vehicle safety and productivity, a road investment component, the off-network projects program, roads to recovery, and interstate road transport
 - the Federal Government provided \$151 million to Western Australian local governments through the Local Road Financial Assistance Grant.⁹
- After taking these Federal funding sources into account, there remains a funding gap of \$1,345 million. This is the value of road-related expenditure that cannot be directly attributed to Federal road funds allocated to the State and nor can it be attributed to revenue that the State Government collects from Western Australian motorists.
- The majority of the local government expenditure is funded through council rates. Specifically rate payments contributed \$515 million.
- The majority of the non-federal funds for the Asset Investment Program come from capital appropriation, asset sales conducted by the State Government and from Main Roads internal funds and balances. From these and other sources, the State Government funded \$511 of the program.
- The remaining gap of \$319 million is funded from State Government consolidated revenue. State Government consolidated revenue consists of the State Government's own source revenue collected through its own revenue raising instruments and contributions from the Federal Government (for example GST distributions).
- Using available State Budget data, ACIL Allen estimates that State Government consolidated revenue consists of State Government own source revenue (approximately 68 per cent) and Federal Government grants (approximately 32 per cent).
- Based on the above proportions, ACIL Allen estimates that about \$217 million of the funding gap is funded by the State Government while about \$102 million of the funding gap is ultimately funded by the Federal Government.
- In sum, this means that the **State Government** spent more on roads (approximately **\$1.9 billion**) than it collected from motorists (approximately \$1.3 billion). Whereas the Federal Government allocated about 34 per cent of Federal road related revenue to Western Australia in the form of road spending. That is, the **Federal Government** collected approximately \$2.3 billion from Western Australian motorists and effectively spent approximately **\$780 million** on Western Australian roads. **Local governments** spent approximately \$842 million of which \$327 million are funded by either Federal or State grants and **\$515 million** is self-funded.

⁸ It is recognised that imports of used vehicles do occur, but this does not change the overall conclusions of this report.

⁹ Estimate



ACIL Allen has compiled our estimates by making use of primary sources, such as government budget papers, as it is believed that this to be the most accurate way in which to make the estimates. However, secondary sources also exist, in particular work undertaken by the ABS (Cat. 5512.0: Government Finance Statistics 2013-14, 2015). The estimates of the ABS differ from our estimates, and it is useful to explore what these differences are and how they arise. The two data series are presented in Table B1.

TABLE B.1 – COMPARISON OF ABS AND ACIL ALLEN EXPENDITURE ESTIMATES (\$ MILLION)

Year	ACIL Allen	ABS
2005-06	1,661	798
2006-07	2,118	860
2007-08	2,668	954
2008-09	2,622	876
2009-10	2,336	894
2010-11	2,258	1,021
2011-12	2,924	1,143
2012-13	3,327	1,346
2013-14	3,266	1,482

Source: ABS and ACIL Allen Analysis

In order to understand this difference, ACIL Allen spoke with the ABS and the Department of Treasury and Finance Western Australia (DTFWA). The methodology ACIL Allen employed in this report was also discussed with these agencies to explore sources of difference.

The ABS only reports operating expenses. For the purposes of this report ACIL Allen regards this definition as too narrow since it excludes the construction and improvement of roads.

Since the ABS definition of road expenses appears too narrow, ACIL Allen numbers have been used as the basis of the analysis.