

IAN McCHESNEY

ENERGY > TRANSPORT > STRATEGIC POLICY

93 Rattray St <
Christchurch < New Zealand <
ph: 64 3 348 5551 <
fax: 64 3 348 5566 <
mcchesney@inet.net.nz <
mobile: 027 412 8104 <

Canterbury Land Transport Expenditure and Income

Report for year ending 30 June 2008

Report to Environment Canterbury

April 2009

Acknowledgements

The author thanks the following persons who provided information for this study: - David Stenhouse, Simon Milner, Charles D’Ath, Mark Ross (Environment Canterbury); Tony Pinn, Colin MacKay, Peter Connors (NZ Transport Authority); Neil Campbell (Ontrack); Gerald Rawson (Ministry of Education); Sheryl Poulsen (Kaikoura District Council); Jason Beck (Hurunui District Council); Adrian Seagar (Christchurch City Council); Jeff Millward (Waimakariri District Council); Tina Rogers (Timaru District Council).

Disclaimer:

Although every effort has been made to ensure the accuracy of the material and the integrity of the analysis presented in this report, the author accepts no liability for any actions taken on the basis of its contents.

Contents

SECTION A. OVERVIEW	1
Summary of key findings for 2007/08	1
1 Introduction	2
2 Framework	3
3 Nominal expenditure	3
4 Income	7
5 Time series of regional expenditure	10
SECTION B. APPENDICES	12
Appendix 1 Methodology, data sources and interpretation	12
Appendix 2 Territorial Local Authorities	17
Appendix 3 NZ Transport Authority (state highways)	22
Appendix 4 Environment Canterbury	24
Appendix 5 NZ Police	27
Appendix 6 Ontrack	29
Appendix 7 Ministry of Education	31
Appendix 8 Indexing	32
Glossary of terms and acronyms	33

Figures

Figure 1. Framework - flows of public funding to outcomes areas.....	3
Figure 2. Regional transport expenditure by category and institution (2007/08).....	4
Figure 3. Time series of regional transport expenditure 2002/03 to 2007/08 (nominal \$).....	6
Figure 4. Yearly expenditures by transport outcomes: 2002/03 to 2007/08.	6
Figure 5. Yearly expenditures by transport institution: 2002/03 to 2007/08.....	7
Figure 6. Sources of revenue broken down by provider 2007/08	8
Figure 7. Comparison of yearly income sources: 2003-2008.....	9
Figure 8. Change in the origin of funding for the current data series 2003-2008	10
Figure 9. Time series of public expenditure on transport in Canterbury.....	10
Figure 10. Time series of real public expenditure on transport per capita (\$(2007/08)).....	11
Figure 11. Trend in subsidised TLA expenditure 2000-2008 (nominal \$ and real \$).....	21
Figure 12. Canterbury regional state highway expenditure (nominal \$).....	23
Figure 13. Public transport expenditure (1) showing funding source; (2) real expenditure.....	25
Figure 14. Canterbury allocated Police time by output (30 June years).....	28

Tables

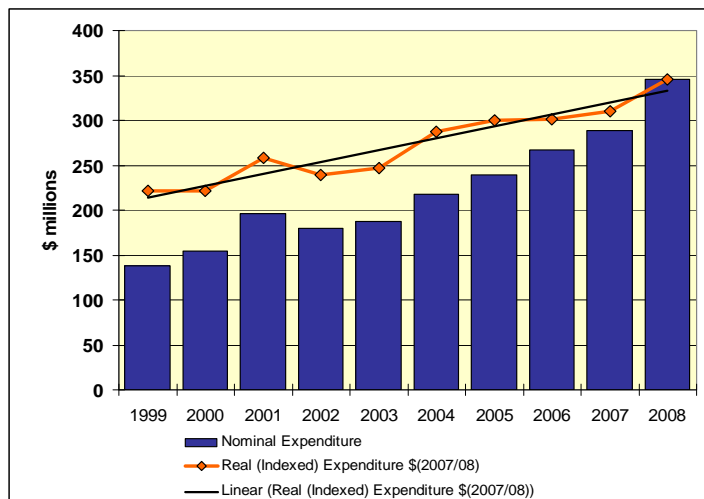
Table 1. Summary of regional transport expenditure 2007/08 (\$M).....	4
Table 2. Nominal public expenditure on transport 2002/03 to 2007/08.....	6
Table 3. Summary of regional transport revenue sources 2007/08 (\$M).....	8
Table 4. Income sources for public expenditure on transport 2002/03 to 2007/08	9
Table 5. TLA estimated total transport expenditure 2004/05 to 2007/08 (nominal \$).....	18
Table 6. Subsidised and unsubsidised expenditure by individual TLAs 2007/08.....	19
Table 7. Subsidised expenditure for the nine Canterbury TLAs 2007/08	20
Table 8. TLA Community Road Safety Programme 2007/08 – TLA expenditure (\$(000)).....	21
Table 9. Summary of state highways expenditure for Canterbury \$(000)	23
Table 10. ECan passenger transport expenditure and income sources 2007/08 \$(000) ¹	25
Table 11. ECan regional transport expenditure 2007/08 (\$(000))	26
Table 12. Allocation of Local Authority Policing Time 2007/08 – FTE's	28
Table 13. Ontrack expenditure in the Canterbury region*	30
Table 14. MoE expenditure for schools transport and special education assistance.....	31
Table 15. Transport cost multipliers used in this report.....	32

SECTION A. OVERVIEW

Summary of key findings for 2007/08

The regional expenditure and income patterns found in 2007/08 continue the trend of increasing year-to-year nominal and real expenditure observed over the last decade.

In 2007/08 nominal expenditure was \$345M compared with \$289M in 2006/07, a \$56M increase (+19%). With input cost inflation averaging about 7% in 2007/08 this represented a real increase in expenditure of about 12%. Compared with levels of expenditure typical of the mid-late 1990s real expenditure in 2007/08 was over 50% higher, indicating significantly higher levels of public investment and maintenance of the transport system in the Canterbury region over the last decade. In particular, increased capital investment has been made on roading and infrastructure, and increased spending on passenger transport services and infrastructure.



Expenditure highlights 2007/08: Almost \$100M was spent on new capital (excluding renewals). This is some \$36M higher than the previous year. The main items of new capital were:

- Over \$40M on new roading (local authority and state highway projects)
- \$26M on roading/pedestrian assets vested to territorial local authorities (TLAs) mainly associated with subdivision development. Half of the regional total was in Waimakariri district, with Pegasus township accounting for about \$6M.
- \$19M was spent by the Christchurch City Council (CCC) on land for the new Christchurch bus exchange
- \$11M was spent purchasing new land for future state highway development in the region.

Operational roading expenditure increased to \$98M, compared with \$82M the previous year. The increase was partly due to higher input costs for road works, particularly resealing. Operational expenditure on public transport increased by \$3M to \$35M in 2007/08. Most of the increase related to contract readjustments for inflation indexing.

Income: The increases in expenditure were primarily met by increases in local rates/other local authority income sources (+\$26M), central government funding (+\$19M), and an increase in developer sourced funding (+\$9M). In 2007/08 locally derived sources provided 56% of funding (c.f. 51% in 2002/03).

1 Introduction

Environment Canterbury (ECan) is required by the Land Transport Management Act 2003 to prepare a three-yearly Monitoring Report on the implementation of the Canterbury Regional Land Transport Strategy (RLTS). The monitoring report tracks trends in key outcome areas of the RLTS, as well as reporting on a range of information related to regional transport provision. Since 2004, as part of this monitoring, ECan has commissioned an annual survey to bring together region-wide information on public expenditure on transport and income sources¹. This is the fifth report and provides detailed transport expenditure and income information for the financial year 1 July 2007 to 30 June 2008.

This report continues with much of the format adopted in the previous two reports. Sections 3-5 provide an overview of findings on expenditure and income. Further details of the analysis, methods and information collected are provided in Appendices 1-8.

Correction to previously reported information: Two changes have been made in this year's report relating to information previously reported:

- (a) A minor correction to expenditures reported for Hurunui and Timaru District Councils in 2006/07 (Table 5, Appendix 2)
- (b) Revision of the weighted cost index used to calculate real expenditure for roading. Whereas previously the index used for all roading expenditure comprised an average of 'construction' and 'maintenance' indices, this year the 'resealing' index has been also included as part of the overall weighted roading index. The new weighted index is also used for estimating real expenditure in previous years, and this has caused some slight change in the estimates reported in previous years for real expenditure. Details of the change, and the rationale, are set out in Appendix 8.

New information: Two additional streams of public expenditure on transport were reported for the first time in 2005/06 - rail infrastructure and the rural school bus service. Updated information for both is included in this report. As previously, these items of expenditure are identified within the framework of transport expenditures and income streams (next section), but the information is reported separately in Appendices 6 & 7 and has not yet been added into the ongoing time series database. It is intended that the information will become incorporated once reliable multi-year data has been established.

Institutional changes and terminology: On 1 August 2008, Land Transport New Zealand and Transit New Zealand were merged to form the NZ Transport Agency (NZTA). While this occurred after the reporting dates for this report, all references in this report are to the new agency rather than the previous ones.

In 2007/08 a new categorisation of work output classes for the National Land Transport Programme (NLTP) was adopted by the NZTA, replacing the categories under which some

¹ The initial report provided a detailed breakdown of expenditure and income for 2002/03, as well as providing estimated information for previous years. Subsequent reports have updated annual expenditure and income each year since. All reports are available on the ECan website:

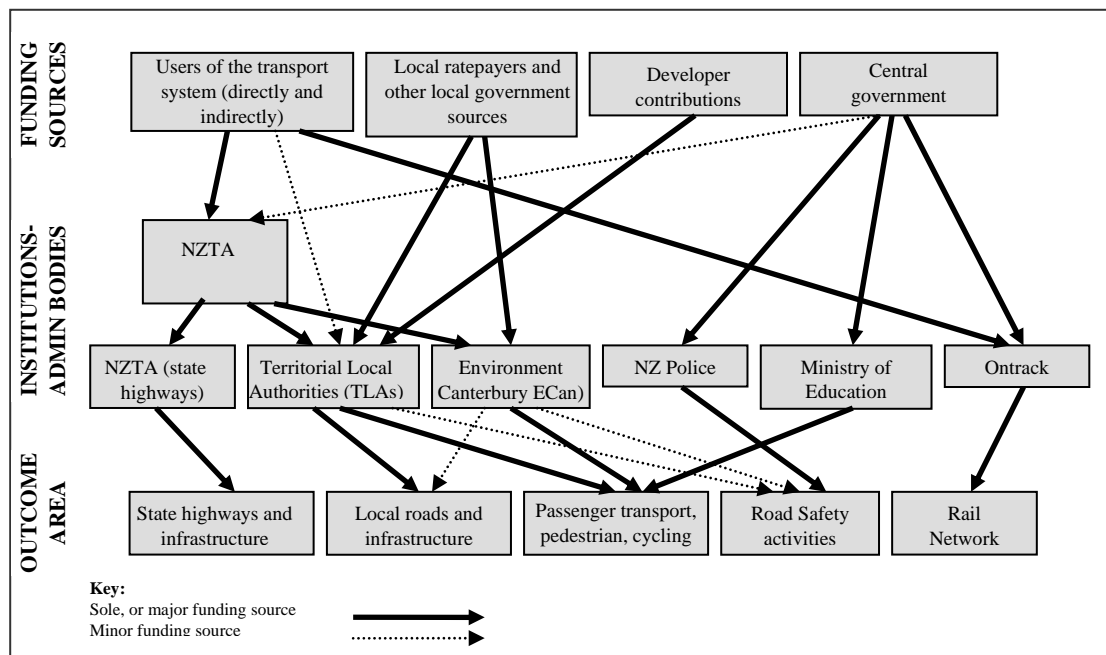
<http://www.ecan.govt.nz/Plans+and+Reports/transport/Regional+TransportExpenditureSurvey.htm>

expenditure was reported in previous reports. This has meant that some tables previously reported in Appendix 2 of earlier reports have been discontinued in that form. Also, funding and administration of the Community Road Safety Programme (CRSP) is now fully integrated into the NLTP – previously it had sat as a separate funding stream from government.

2 Framework

The framework adopted has been slightly refined from previously to identify the changed institutional arrangements around central government land transport funding, and specifically identifying the role played by the NZTA. The framework identifies four main funding sources, with funding channelled through at least 14 separate administrative/operational institutions into five main outcome areas (Figure 1). Further details on each of these categories are in Appendices 1-7. Information on rail (Ontrack) and the Ministry of Education (MoE) school bus services are reported in Appendices 6 and 7.

Figure 1. Framework - flows of public funding to outcomes areas



3 Nominal expenditure

2007/08 highlights: In 2007/08 public expenditure on land transport (as being tracked by this series) was estimated at \$345M (Table 1 & Figure 2). Capital and operational expenditure on roads accounted for 65%, with the other main areas being public transport, pedestrian services (footpaths etc) and road safety activities. There was an overall increase of \$56M or 19% compared with expenditure in 2006/07.

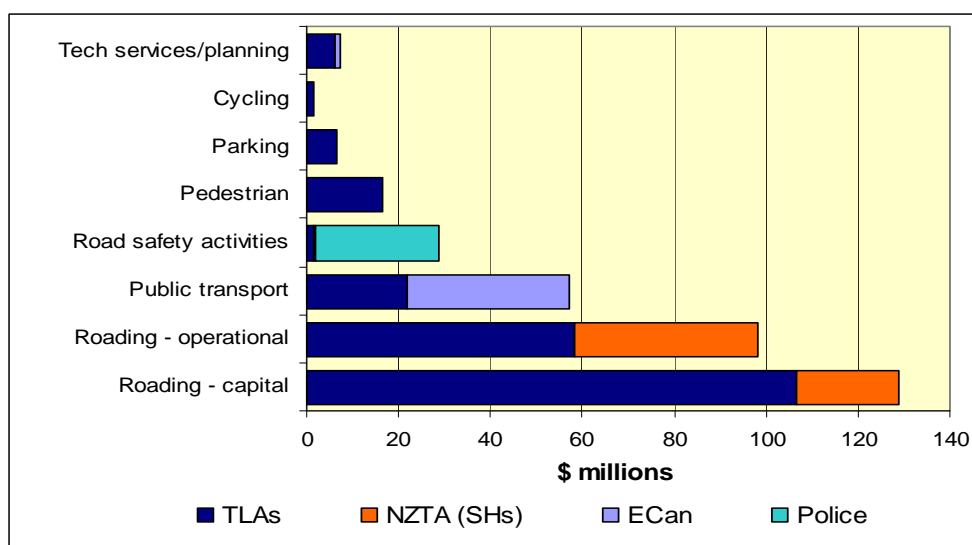
Table 1. Summary of regional transport expenditure 2007/08 (\$M).

Expenditure category	Notes	Transport provider/institution				Total	%
		TLAs	NZTA (state h/ways)	ECan	Police		
Roading - capital	1	106.5	22.4			128.9	37
Roading - operational	2	58.4	39.7			98.1	28
Parking	3	6.4				6.4	2
Public transport	4	22.0		35.0		57.0	17
Pedestrian	5	16.7				16.7	5
Cycling	6	1.6				1.6	0
Road safety activities	7	1.5		0.2	27.0	28.8	8
Tech services/planning	8	6.3		0.8		7.1	2
Total		219.4	62.1	36.1	27.0	344.7	
% of total expenditure		64	18	10	8		

Notes:

- 1 New roads and renewals of existing roads and roading infrastructure.
- 2 Covers maintenance of existing roads, associated drainage works, emergency works, safety works etc., and also incorporates services - street lighting, signals and operations, street cleaning.
- 3 Capital and operational expenditure of parking facilities.
- 4 Public transport infrastructure (bus stops, bus exchange, real time information etc), public transport service contracts, Total Mobility services, *Metro* information, overheads and administration (includes both capital and operational expenditure).
- 5 Footpaths, pedestrian facilities etc. (includes both capital and operational expenditure)
- 6 Dedicated cycling expenditure e.g. cycleways
- 7 Covers operational road safety activities (policing, road safety co-ordinators, advertising). Does not include road works designated as “safety works” or safety improvements on roads.
- 8 Road/transport design and planning, identified TLA overheads associated with transport.

Figure 2. Regional transport expenditure by category and institution (2007/08)



Expenditure highlights in 2007/08 include:

- Almost \$100M was spent on new capital (excluding renewals). This is some \$36M higher than the previous year. The main items of new capital were:
 - Over \$40M on new roading (TLA and state highway projects)
 - \$26M on roading/pedestrian assets vested to TLAs mainly associated with subdivision development. Half of the regional total was in Waimakariri district, with Pegasus township accounting for about \$6M.
 - \$19M was spent by the CCC on land for the new Christchurch bus exchange
 - \$11M was spent purchasing new land for future state highway development in the region.
- Operational roading expenditure increased to \$98M, compared with \$82M the previous year. Routine maintenance and minor safety works on state highways increased from \$30M to \$39M. The increase was partly due to higher input costs for road works, particularly resealing.
- Operational expenditure on public transport increased by \$3M to total \$35M in 2007/08. Most of the increase related to contract readjustments for inflation indexing.
- Expenditure on emergency works was only \$0.6M, significantly less than the \$3.7M spent the previous year, and reflected the lack of severely damaging natural events.

Input cost inflation is estimated to have averaged 7% for the year ending 30 June 2008. Inflationary pressures were driven in particular by rising oil prices and this especially affected items that have a high fuel component (e.g. bitumen reseals). The price indices used in this report are tabulated in Appendix 8.

In real terms (i.e. inflation adjusted) expenditure in 2007/08 was about 12% higher than the previous year.

Outcome areas - time series: a time series over the last 6 years for the expenditure categories is shown in Figure 3. Further time series breakdowns are shown in Table 2 and Figure 4 grouped by five main outcome areas – local roads/infrastructure, state highways, public transport, pedestrian/footpaths and road safety activities. The largest absolute increase in expenditure in the 6 years is for local roads/infrastructure (+\$76M), while the largest percentage increase is for public transport (although somewhat inflated in 2007/08 by the one-off capital expenditure for the new bus exchange). Road safety activities increased by \$9M (+44%). ‘Cycling’, which in Table 2 and Figure 4 is aggregated with local roads/ infrastructure varied between \$1.4M and \$2.2M over the 6 years but with no discernable trend².

² The reason for aggregating cycling with local roads/infrastructure in these time series is concern that not all legitimate expenditure on cycling is captured by the ‘cycling’ category. Cycling infrastructure expenditure can sometimes be hidden within more general roading expenditure. Presenting only partial information in a time series can be misleading.

Figure 3. Time series of regional transport expenditure 2002/03 to 2007/08 (nominal \$)

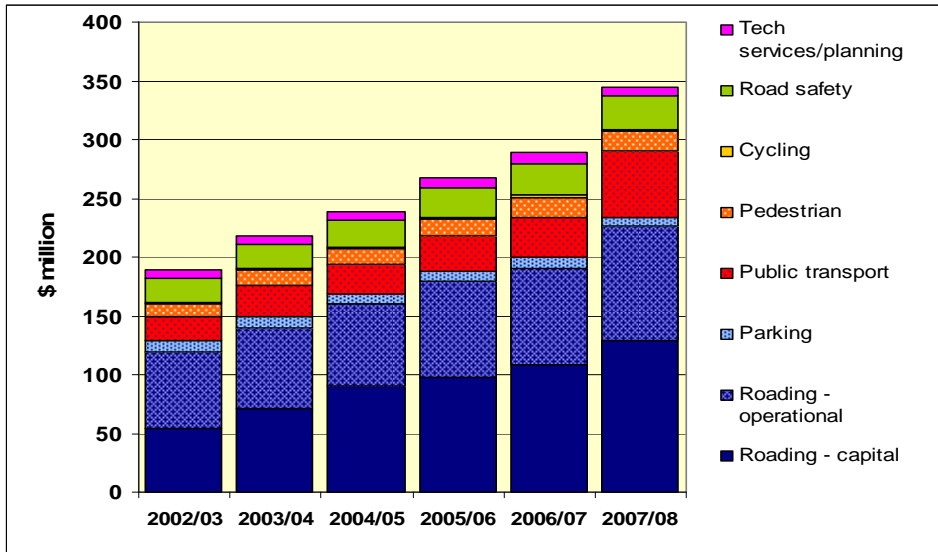
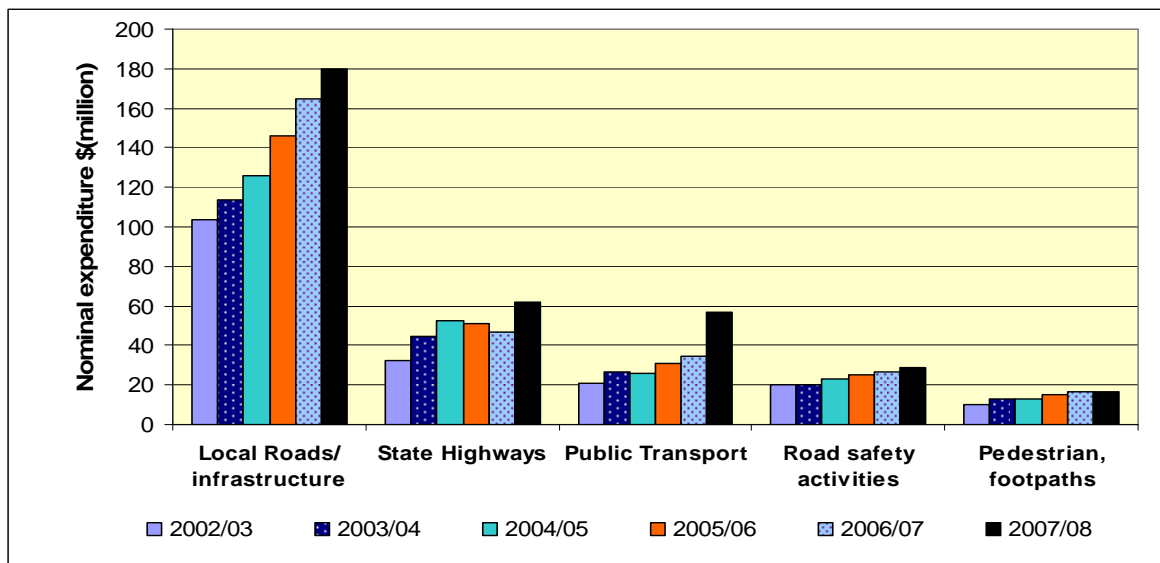


Table 2. Nominal public expenditure on transport 2002/03 to 2007/08

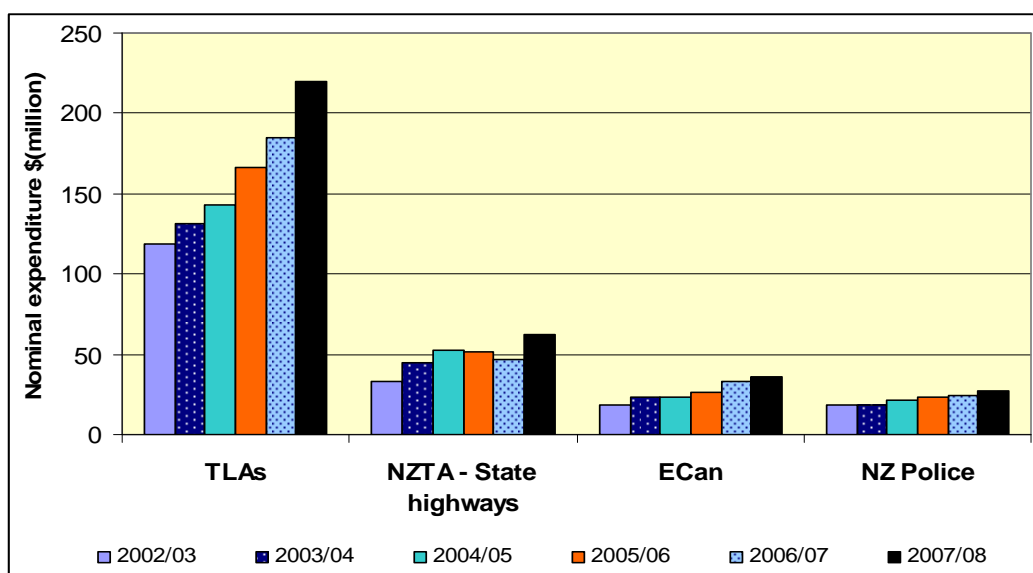
Outcome area	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
	\$(millions)					
Local Roads/ infrastructure/ cycling	103.7	113.5	125.9	145.7	164.6	180.1
State highways	32.7	44.5	52.3	51.1	46.4	62.1
Public Transport	20.8	26.3	25.8	30.7	34.6	57.0
Road safety activities	20.0	20.3	22.9	24.9	26.5	28.8
Pedestrian and footpaths	10.4	13.0	12.8	15.2	16.6	16.7
Total	188	218	240	268	289	345
% increase from previous year		+16%	+10%	+12%	+8%	+19%

Figure 4. Yearly expenditures by transport outcomes: 2002/03 to 2007/08.



Institutional spending - time series: the change in institutional spending over the last 6 years is shown in Figure 5. Because outcome areas are closely aligned to specific institutions Fig 5 closely resembles patterns shown in Fig 4. In 2007/08 local authorities (TLAs and ECan) were responsible for 74% of total expenditure.

Figure 5. Yearly expenditures by transport institution: 2002/03 to 2007/08.



Additional Expenditures: additional expenditures reported again this year cover:

Rural School Bus Service - in 2007/08 expenditure totaled \$13.2M which comprised expenditure on MoE contracts, direct resourcing of schools for transport services, and payments for special education assistance. This is a \$1.1M (+9.6%) increase over the previous year (nominal).

Rail Network – in 2007/08 approximately \$5.5M was spent in the Canterbury Region by Ontrack, with \$3.5M on capital items and renewals and \$2M on maintenance. Investigations were also undertaken on improvements to the Midland line which would see significant capital expenditure in future years.

Further details are given in Appendices 6 and 7.

4 Income

In 2007/08 locally derived funding sources (rates/other local govt income, developer contributions, parking revenue and developer contributions through direct payments or vested assets) paid for 56% transport expenditure. Central government funding sources, provided through NZTA and NZ Police, contributed the balance of revenue (Table 3 & Figure 6).

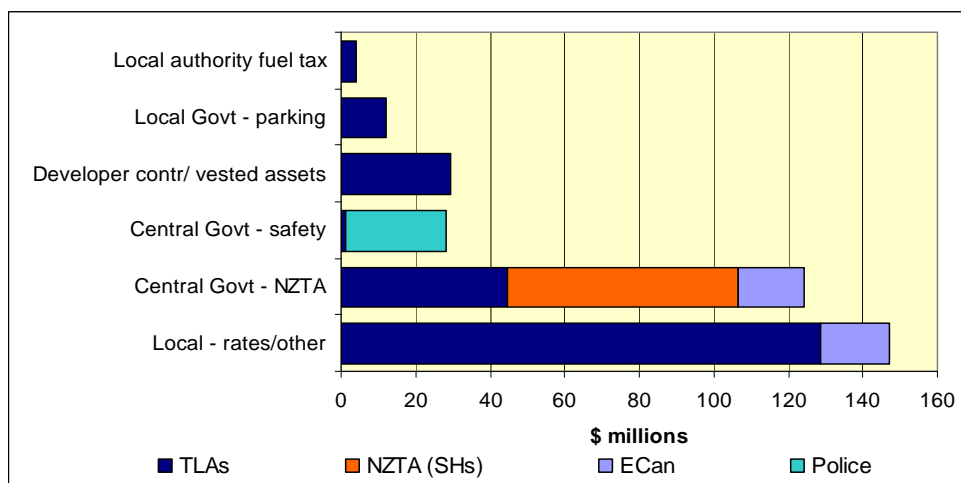
Table 3. Summary of regional transport revenue sources 2007/08 (\$M).

Income sources	Notes	Transport provider/institution				Total	% of total
		TLAs	NZTA (SHs)	ECan	Police		
Local - rates/ other	1	128.6		18.6		147.2	42.7
Central Government - NZTA	2	44.7	62.1	17.4		124.2	36.0
Central Government - safety	3	1.2		0.2	27.0	28.3	8.2
Developer contribution/vested assets	5	29.2				29.2	8.5
Local Government - parking	4	11.9				11.9	3.5
Local authority fuel tax	6	3.9				3.9	1.1
Total		219.4	62.1	36.1	27.0	344.7	

Notes:

1. Local authority rates, levied as a dedicated transport rate, or from general rates. Category also includes other (unspecified) income sources which could include loans, interest or income from investments, and other locally derived funding sources.
2. Revenue mainly derived from the National Roads Fund, distributed by NZTA through the NLTP.
3. Central government revenue stream to fund CRSP and NZ Police. Note that although CRSP funding is now sourced from NZTA, the separation presented here continues the historical reporting.
4. Investments by developers in new transport infrastructure (as a condition of development and being vested back to council this financial year, or as a payment to councils for works done).
5. User charges from local authority parking provision.
6. Local Authority Fuel Tax income received by TLAs.

Figure 6. Sources of revenue broken down by provider 2007/08



Year to year changes in income sources: Figure 7 and Table 4 show changes in income sources over the last 6 years. The largest increase in absolute terms over the period has been the \$72M (+96%) additional income required from local ratepayers and other council-derived funding sources. The largest increase in relative terms is the nine-fold increase (+\$26M) sourced from developer contributions/vested assets. Most of the contribution is via vested assets with a number of large developer-led subdivision developments being vested back to councils on completion. This is one way in which new capital works can be funded without an immediate, direct impact on ratepayer funding.

Figure 7. Comparison of yearly income sources: 2003-2008.

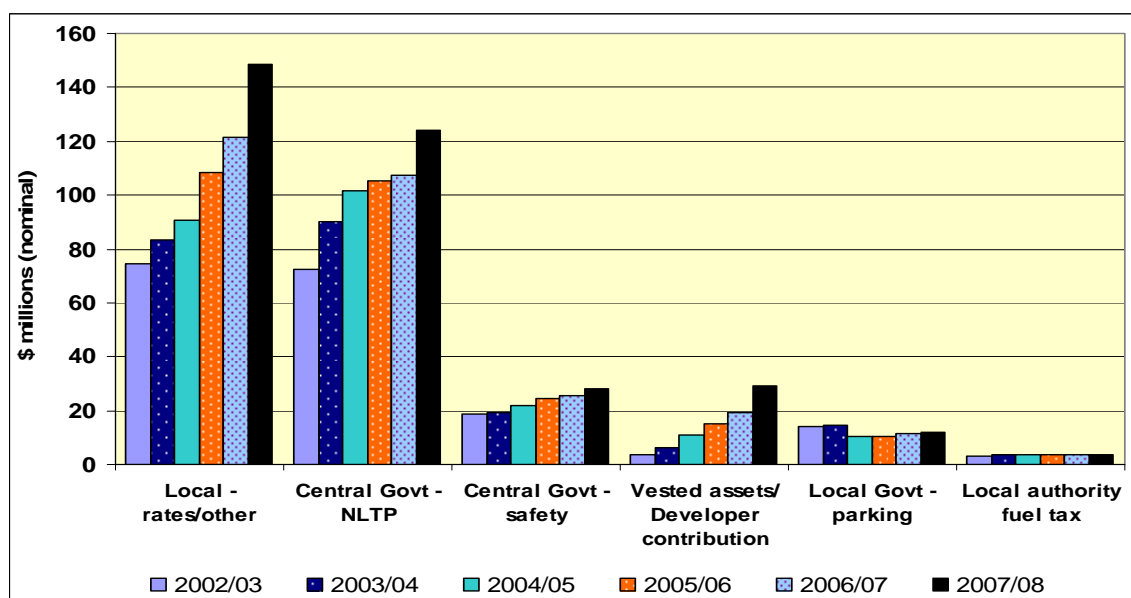


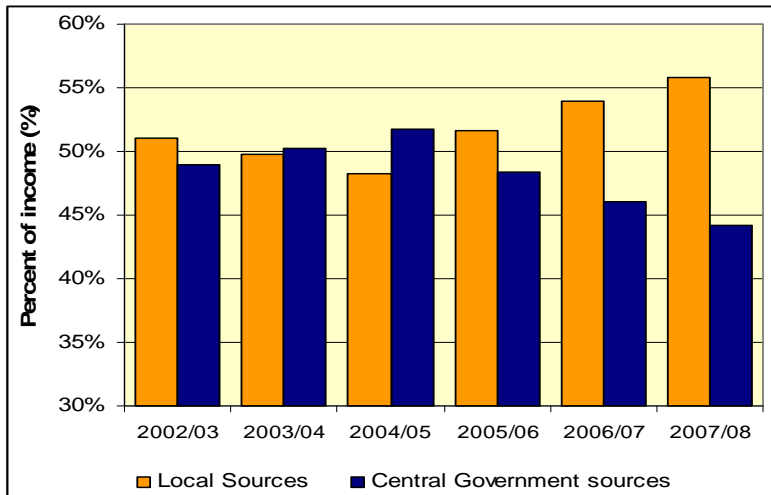
Table 4. Income sources for public expenditure on transport 2002/03 to 2007/08

Income source	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
	\$(millions)					
Local Govt - rates/other	75	84	90	109	121	147
Central Government - NZTA	72	90	102	105	107	124
Central Government - safety	19	19	22	24	26	28
Developer contribution/vested assets	3	6	11	15	20	29
Local Government - parking	14	15	10	11	11	12
Local authority fuel tax	3	4	4	4	4	4
Total	186	218	240	268	289	345

Changes in the origins of funding: in the last few years the balance of funding between central government determined sources and locally derived sources has shifted with a greater proportion having been provided by local sources (Figure 8). In 2002/03 and 2003/04 central government sources and local sources were at similar levels; in 2007/08 central government sources had declined to 44% of total funding and local sources increased to 56%³. To a large extent this is due to the much larger contribution made by developer contributions in the last 2-3 years. But it also reflects a relatively static level of NLTP funding to TLAs over the last four years (in real terms); in 2007/08 NLTP funding to TLAs declined in real terms by 5% (see Appendix 2).

³ Care is needed interpreting these percentages because this time series does not currently include two other funding streams for transport in the region – rural bus services and the rail network – both of which are provided centrally.

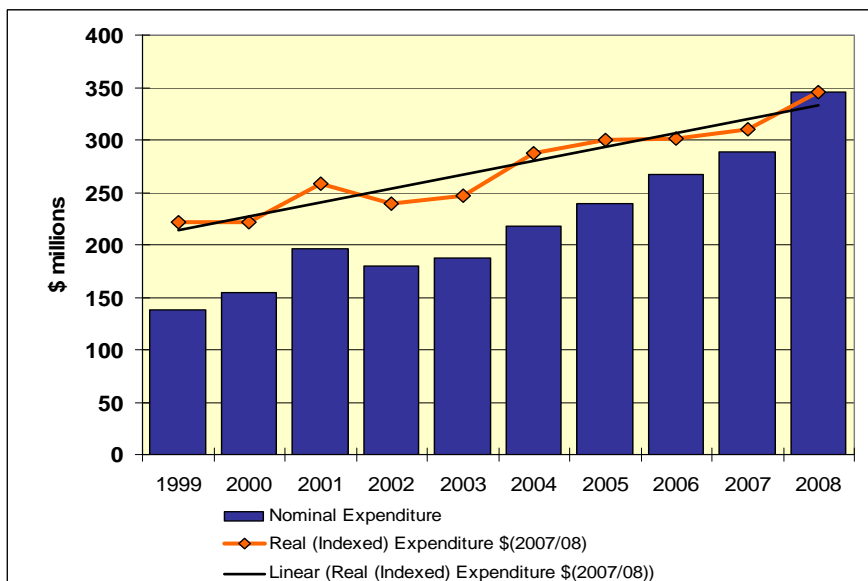
Figure 8. Change in the origin of funding for the current data series 2003-2008



5 Time series of regional expenditure

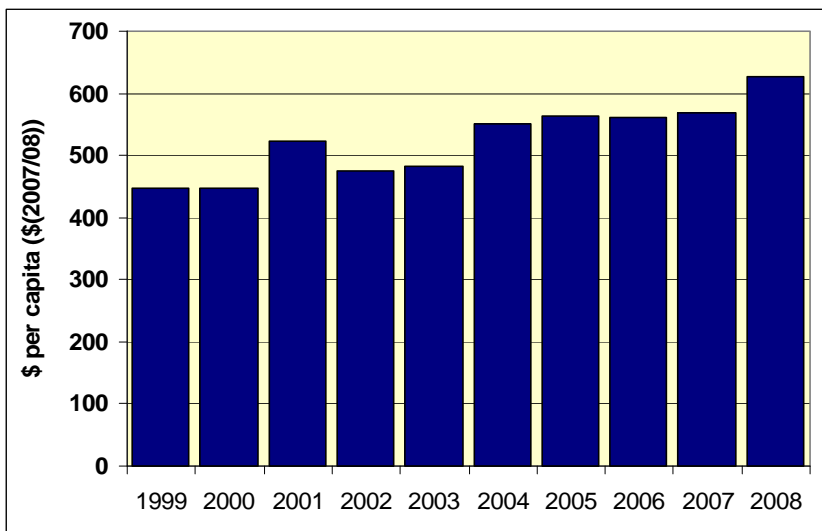
Nominal and real expenditure - A time series of expenditure over the last decade plots nominal expenditure (dollars of the day - blue bars), and real expenditure using 2007/08 as the base year (orange line) (Figure 9). The real (indexed) expenditure was derived using weighted NZTA transport cost indices (see Appendix 8). The trend emphasises the progressive increase in real transport expenditure that has occurred since 2000. Real expenditure in 2007/08 was over 50% higher than levels typical of the mid-late 1990s. In the last decade the increase has approximated a linear trend, increasing by about \$13M (\$2007/08) each year.

Figure 9. Time series of public expenditure on transport in Canterbury.



Real expenditure per capita – Figure 10 shows real expenditure (\$2007/08) over the same 10 year period expressed on a per capita basis. In that time population in the Canterbury region has increased from 490,000 to 550,000⁴ (+12%). Real expenditure per capita in 2007/08 was \$627/person, about 40% higher than in 1999.

Figure 10. Time series of real public expenditure on transport per capita (\$2007/08)



⁴ Average population for 30 June years based on sub-national population estimates from Statistics New Zealand.

SECTION B. APPENDICES

Appendix 1 Methodology, data sources and interpretation

Much of the explanatory text and discussion contained in the initial report is not repeated here. A summary of terms, definitions and acronyms is included as a glossary at the back of this report.

A1.1 Methodology

The methodology used in this reporting is based around constructing an aggregated ‘regional transport account’ for each financial year. This requires identifying various categories of public expenditure on transport, and balancing this with relevant sources of income. The aim is produce an internally consistent set of information which is also consistent from year to year.

Note that this approach does not necessarily align with the way an individual transport service provider in the region might account for transport expenditure and income in their annual accounts. For example the methodology adopted here assigns all income that TLAs receive from the local authority fuel tax into this nominal transport account because it derives from charges paid by transport users within each TLA area. However many TLAs simply regard this as a form of generalised income, not specific to a transport/roading account.

Expenditure

Outcome areas reported cover:

State highways: - includes all operational and capital expenditure on state highways, associated infrastructure and land purchase.

Local roads and transport infrastructure: - includes operational and capital expenditure on local roads and related infrastructure including parking, amenity/ landscaping costs, developer investments etc.

Passenger transport: - includes public funding of public passenger transport services, the rural school bus services, and infrastructural works.

Pedestrian/ footpaths: - capital and operational expenditure on pedestrian facilities.

Cycling: - capital and operational expenditure on cycling. Note however that cycling expenditure is identified only where it is able to be separated from expenditure on roads and sometimes this is not possible.

Road safety activities: - includes regional expenditure under the Community Road Safety Programme (CRSP), and regional police resources allocated to road safety outputs under the Road Policing Programme (RPP).

Rail Network: - includes estimates of expenditure on the Canterbury portion of the national rail network made by Ontrack.

While these outcome areas do not necessarily provide a precise alignment with result areas specified in the Canterbury Regional Land Transport Strategy (RLTS), further breakdowns are provided in Appendices 2-7 to enable a closer matching with RLTS result areas if required.

A1.2 Overview of information collected

State highways: this covers operational and capital expenditure on state highways within the region including bridges, renewals, maintenance, safety works, emergency works, property expenditure etc. Information was sourced from NZTA staff.

Local roads and transport infrastructure, pedestrian and cycling: this covers capital and operational expenditure on local roads, infrastructure, cycling and pedestrian facilities (including information and publicity). Infrastructure includes parking facilities, associated amenity/landscaping costs, developer investment in new roads and facilities (these are counted as an item of capital expenditure (and equivalent income) in the year these assets are vested to councils), property purchase, and associated design and overhead costs. Also included, where identified, are the costs of transport planning and administrative overheads. Information for 2007/08 was sourced mainly from the 2007/08 Annual Reports prepared by the 9 TLAs in the region, supplemented by specific information sourced directly from council staff. Also used was the record of 2007/08 TLA subsidised expenditure under the NLTP. This information was supplied by NZTA staff.

Passenger transport: this covers operational expenditure on the costs of contracts between Environment Canterbury (ECan) and bus service providers, the provision of Total Mobility services, the costs of developing and maintaining fixed infrastructure, the costs of *Metro* information and other services, and staffing and overhead costs within ECan. Also covered is expenditure by TLAs on public transport fixed infrastructure. Information was sourced from TLAs, the NZTA and ECan. For the last three years information on rural bus services in Canterbury has been sourced from the Ministry of Education.

Road safety activities: Covers expenditure under the Community Road Safety Programme (CRSP) by ECan and TLAs in the region, and the allocation of police time to road safety outcomes within each local authority area. The CRSP is now funded and administered under the NLTP. Information was sourced from the NZTA Christchurch office, TLA Annual Plans, and direct communication with parties. The allocation of Police time was sourced directly from the NZ Police Annual Plan and Report.

Note that expenditure on safety works and services associated with roads (e.g. signage, intersection improvements etc) is not included in this outcome class because of the difficulty in consistently separating these expenditures from other roading expenditure.

Rail: Covers identified regional expenditure made by Ontrack including capital and ongoing maintenance.

A1.3 Items of expenditure (or costs) not covered in this report

Specifically not covered in this report are the following:

- Local roading/transport expenditure within that part of the Waitaki District⁵ that falls within the Canterbury Regional Council boundary.

⁵ In terms of Regional Transport Committee constitution, the Waitaki District has chosen to align with the Otago region. As such, reporting and analysis undertaken by the Canterbury RTC specifically excludes the Waitaki District.

- Staffing, administration and overhead costs associated with the regional offices of national transport institutions – i.e. NZTA, NZ Police, Ministry of Transport, Ontrack. Part of the reason for not including these costs is that the geographical coverage of these offices often does not align with the Canterbury region (for example, the Canterbury office of the NZTA also covers the West Coast).
- ACC personal injury costs involving motor vehicles on public roads.
- External costs of the transport network. There are two main externality costs – additional accident costs (not covered by the ACC), and environmental costs (e.g. greenhouse gas emissions, localised emissions of pollutants to air and to waterways, and noise).
- Capital return on recoverable infrastructure. Recoverable infrastructure is defined as having alternative uses, so a capital return is a way of approximating the opportunity cost. Some might consider the land under transport infrastructure as being recoverable infrastructure, for example.
- Private provision of transport services and infrastructure. For example this includes costs associated with localised infrastructure, such as private parking provision. It also includes the proportion of total operating costs that bus operators recover from passengers through fares.
- Private expenditure on transport by individuals and businesses (that are not captured by public authorities as user charges).

A1.4 Items where coverage may be inconsistent

As in previous years the expenditure area where there is likely to be partial (or inconsistent) coverage is the allocation of local authority overheads to transport provision. Most councils provided information on this item, but it is unclear whether consistent criteria have applied, or whether a full accounting of appropriate overheads has been made.

A1.5 Income items

Central Government:

National Land Transport Programme (NLTP) - this represents income sourced and approved as part of the NLTP and administered by the NZTA. Until recently all NLTP-provided income was sourced via the crown Transport Account from road users (i.e. from fuel taxes, road user charges etc.). In the last few years additional funding to support new infrastructure development has been sourced from general taxation and other forms of crown income, although most of the new infrastructure funded in this way is in the Auckland area.

Information on funding to individual TLAs and to ECan was sourced directly from the NZTA Christchurch office. Funding for the state highway programme was sourced from the NZTA state highways office.

Road Safety - CRSP expenditure is core funded by Central Government sources. Information was sourced from the NZTA and NZ Police.

Local sources:

User charges - the main identified user charge is parking. Information was sourced directly from TLA annual reports/accounts supplemented by specific information from council staff.

Local fuel taxes - since 1 February 1971 a Local Authority Fuel Tax has been applied to transport fuels, the income accumulating to the territorial local authority in which geographic area the fuel was sold. The rates applying (unchanged since Feb 1971) are: Petrol (all grades) - 0.66c/litre; Diesel - 0.33c/litre. Most councils report fuel tax income in their Annual Reports. For the purpose of the reporting framework adopted here revenue from local fuel taxes is considered to be part of a regional 'transport account'.

Developer contributions - this can be provided either as a direct payment made to councils for works done on the developer's behalf, but most commonly it is in the form of capital works undertaken at the developer's expense, and then vested to the local authority when completed (i.e. "vested assets"). Aggregated vested asset information is now generally specified in TLA Annual Reports but often the transport component is not separated. Hence this item is specifically requested from individual TLAs.

Rates/other - the process undertaken to identify the "rates/other" income category was to regard this as the balance remaining after deducting all the other identifiable income sources from total expenditure. Rates-based financing is the primary form of income in this category, applied either directly or indirectly. Indirect funding includes the interest derived from rates monies in excess of immediate requirements that has been invested for future use (for example, Environment Canterbury's passenger transport reserve). Other local income sources include the revenue returns from council controlled organisations.

A1.6 Terminology and methodologies

The initial report outlined a number of terminology and methodological issues in some detail, and most of these still apply. The key methodological considerations are as follows:

Treatment of capital expenditure and depreciation (see Glossary for a description of these terms): Depreciation is an accounting requirement of TLAs in which the annual replacement cost of the total asset value of transport infrastructure is entered into the accounts as an item of expenditure. As long as the capital expenditure on "renewals" has been accounted for then it would be double counting to also include depreciation in the overall picture of regional expenditure. In this report, the convention when reporting overall expenditure, has been to include all capital expenditure (because it represents actual expenditure), and to exclude depreciation.

Treatment of vested assets: Vested transport assets are essentially a form of capital expenditure, funded by a 3rd party. Most vested assets at the moment come from private sub-division developments, funded by the developer as a condition of consent, with the asset being vested to council once completed. Vested assets are accounted for in this exercise by identifying the value of the transport asset vested in the financial year. Once identified it becomes both an item of expenditure and an item of income. Where possible the expenditure is broken into its component parts (e.g. roading, footpaths etc). The income is treated as a private capital injection.

Consistency of allocation of expenditure between output categories: Some items of roading expenditure are not necessarily consistently reported by councils. In particular, the category of transport-related "professional services" (which includes planning, design and contract

administration) is allocated by some councils to particular roading output areas, while other councils report this as a separate item of expenditure. Therefore, the reporting of professional services in this report is partial in the sense that it only reports this category if councils have not already re-allocated it.

There are also some issues between separating capital expenditure from operational expenditure, and in the reporting of subsidised and non-subsidised works.

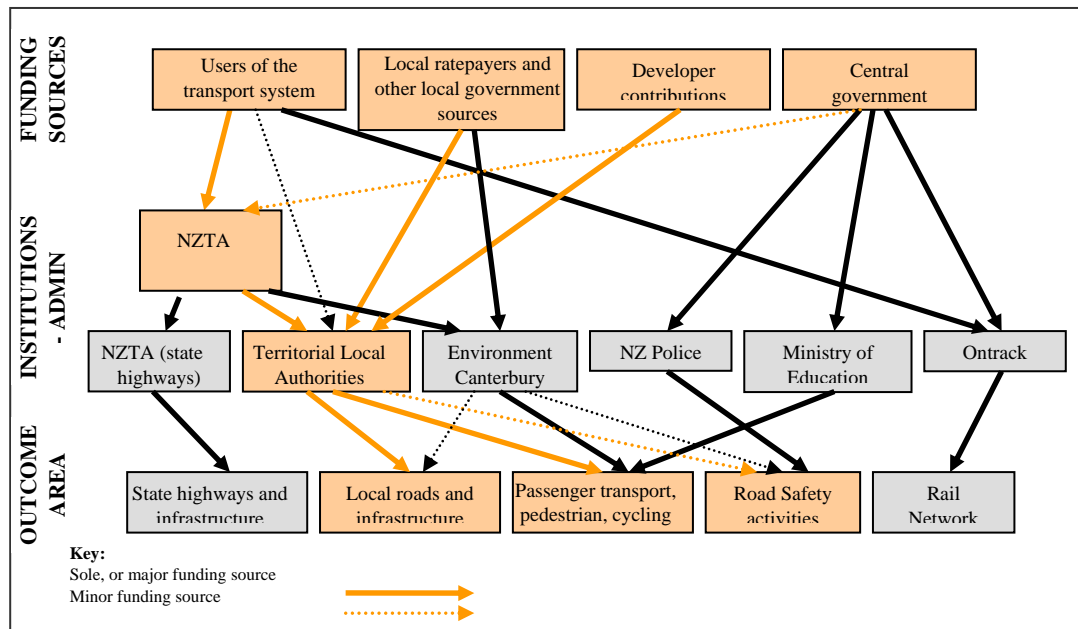
GST: All costs/expenditures are exclusive of GST.

A1.7 Geographic coverage

For the purpose of this report the Canterbury region is taken to be the area covered by the 9 territorial local authorities - Kaikoura District, Hurunui District, Waimakariri District, Christchurch City (including the former Banks Peninsula District), Selwyn District, Ashburton District, Timaru District, Mackenzie District, and Waimate District. This is slightly different from the geographical area coverage of the Canterbury Regional Council which includes the catchment of the Waitaki River, part of which lies within the area administered by the Waitaki District Council. Transport expenditure within the Waitaki District, regardless of whether it can be identified as being spent on land transport within the area covered by the Canterbury Regional Council, is not included for the reasons noted previously.

Appendix 2 Territorial Local Authorities

A2.1 Functional Areas:



- Territorial Local Authorities (TLAs) play a key role in local transport provision, contributing directly or indirectly to several outcome areas⁶.
- TLAs have a relatively complicated income regime, drawing funds from a range of central government and local sources. The primary sources of funding are the NLTP and local ratepayers, although more diversified income sources are becoming increasingly important, in particular non-ratepayer Council income, and contributions from developers.
- Expenditure is similarly complicated. Some expenditure attracts NLTP funding through the NZTA ('subsidised expenditure'). Over recent years an increasing amount of expenditure has not attracted NLTP funding ("unsubsidised expenditure") and is funded entirely by local funding sources.

A2.2 Information reconciliation

Expenditure and income information for TLAs was derived and reconciled as follows:

- 1) Filling in a template for each TLA by combining information gleaned from Annual Reports and annual accounts obtained directly from TLA personnel, and from the record of subsidised expenditure obtained from the NZTA.

⁶ Some TLAs also contribute indirectly to state highway outcomes through sub-contracting for services, or through providing roading infrastructure which is subsequently designated as a state highway and passed over to the NZTA to administer and maintain.

- 2) Income and expenditure was reconciled for each TLA by:
- Calculating total actual expenditure for the year as the sum of:
 - Operational expenditure + capital expenditure (including all subsidised and non-subsidised expenditure, and the value of all new transport assets vested during the year) minus depreciation (if depreciation has been included within the total of operational expenditure).
 - Total income was assumed to equal total actual expenditure. Total income was split into a number of components:
 - Actual known or specified income sources (i.e. NZTA subsidy, parking income, local authority fuel tax, developer contribution including vested assets, interest (if specified)) were identified and deducted from total income to leave a residual.
 - The residual was assumed to be the income from local sources, mainly rates but also including income from TLA investments, interest etc. (categorised as “rates/other”).

Note that TLAs in general do not run a comprehensive transport account as such. For instance excess parking income is not necessarily assigned to help fund other transport outcomes. Hence in order to develop an internally consistent ‘transport account’ for this study it has been necessary to use the synthesised approach outlined above.

A2.3 Overall expenditure estimates

In 2007/08 total TLA expenditure was estimated at \$219.4M, an increase of \$34.9M (+19%) over the previous year. Table 5 provides a split of total expenditure by individual TLA showing expenditure over a four year period. Some TLAs have recorded very large increases, and significant year-to-year changes. This is mainly due to large capital projects such as subdivision assets being vested during the year.

Table 5. TLA estimated total transport expenditure 2004/05 to 2007/08 (nominal \$)

District Council	2004/05	2005/06	2006/07	2007/08
	\$(million)			
Kaikoura	1.3	1.2	3.9	2.6
Hurunui	4.8	4.7	6.5*	6.3
Waimakariri	12.8	10.9	19.2	25.2
Christchurch	85.9	102.1	101.5	131.7
Selwyn	10.0	16.2	20.1	18.6
Ashburton	10.5	10.9	12.4	12.9
Timaru	11.9	14.7	15.7*	15.8
MacKenzie	2.7	2.3	2.5	3.3
Waimate	3.0	2.8	2.7	3.0
TOTAL	142.9	165.9	184.5	219.4

* Note revised data for Hurunui DC and Timaru DC for 2006/07 – Hurunui previously reported as \$5.9M, and Timaru previously reported as \$16.2M.

Expenditure for 2007/08 is further split between *subsidised* expenditure and *unsubsidised* expenditure (Table 6). Subsidised expenditure is approved by the NZTA under the Land Transport

Programme and meets particular qualifying criteria. Pre-set rates of assistance (known as Financial Assistance Rates (FARs – see Glossary)) are applied to determine the amount of subsidy that the NZTA pays. The balance of expenditure, unsubsidised expenditure, does not attract NZTA subsidies. In 2007/08 across all TLAs subsidised expenditure comprised 42% of total transport expenditure with an average FAR of 49.3%. This means that payment from the NZTA comprised 21% of TLA transport expenditure in total. This continues a decline in funding contribution rate observed over the last few years – in the three years up to 2004/05 for example the funding rate was 26-27% and last year 24%. The result in 2007/08 was exacerbated by some large unsubsidised capital investments (e.g. \$18M for bus exchange land; a large number of vested assets). The Christchurch City Council (CCC) had a particularly low rate of subsidy at 14%, while the average rate of subsidy for all the other TLAs was 30%.

Table 6. Subsidised and unsubsidised expenditure by individual TLAs 2007/08.

TLA	Subsidised expenditure		Unsubsidised expenditure	TOTAL
	NZTA payment	Locally funded		
	\$(millions)			
Kaikoura	0.5	0.5	1.6	2.6
Hurunui	3.1	2.7	0.6	6.3
Waimakariri	6.2*	5.4	13.5	25.2
Christchurch	19.2*	22.6	89.8	131.7
Selwyn	4.5	4.5	9.6	18.6
Ashburton	4.1	4.3	4.4	12.9
Timaru	5.6	4.8	5.3	15.8
MacKenzie	1.2	0.9	1.1	3.3
Waimate	1.5	1.3	0.2	3.0
TOTAL	46.0	47.2	126.3	219.4
% of total expenditure	21%	21%	58%	

* Includes NLTP payment for passenger transport via ECan

A2.4 Subsidised expenditure⁷

In 2007/08, \$90.9M of TLA transport expenditure was directly subsidised by the NZTA, with NZTA payments amounting to \$44.8M (Table 7). In addition, a further \$1.2M of NZTA subsidy was paid via ECan for Output Class 09 Passenger Transport (at 50% FAR)⁸. Most was paid to the CCC with a smaller amount to Waimakariri. However, note also that from 2007/08 payments to TLAs under the Community Road Safety Programme are now accounted for within these NZTA payments (Output Class 08: sub-codes 431-433). In 2007/08 road safety payments totalled \$1.16M at a FAR of 75% (Section 5 contains details).

⁷ Subsidised expenditure, on its own, provides a very limited view. However, the database (from NZTA records) provides a level of detail and (until now) a consistent record over many years, and so has some value in being able to track trends.

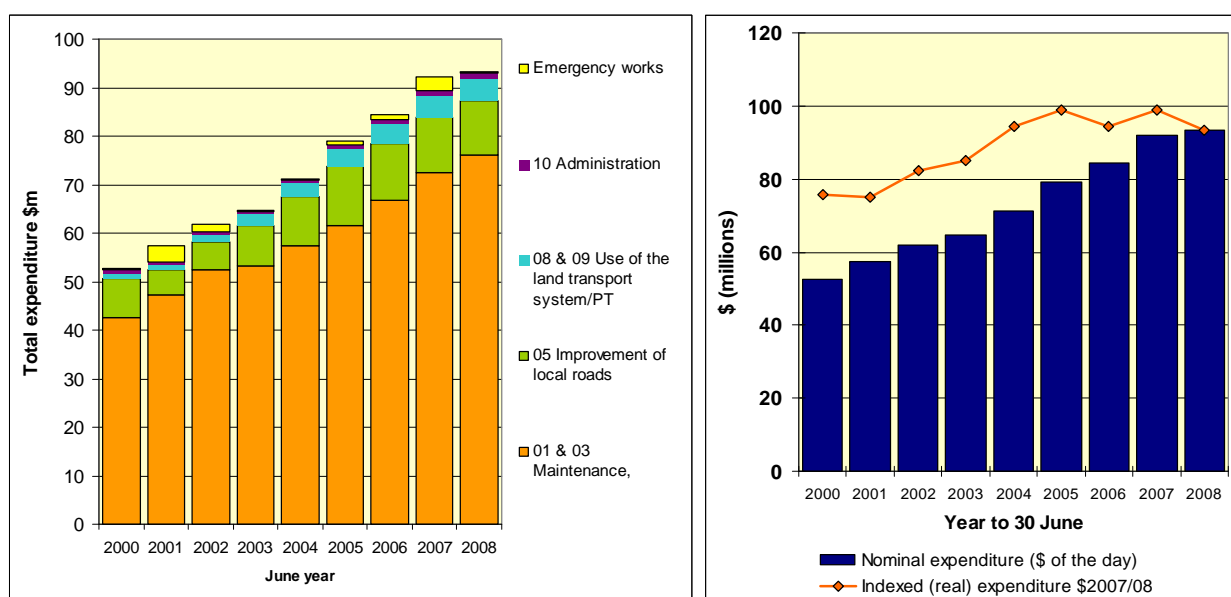
⁸ Because of slightly different cut-off periods adopted between NZTA, ECan and the CCC at the end of their financial year the expenditure on this outcome is not recorded consistently between the three parties. This also results in different levels of carry-over from year to year between ECan and the CCC. Over successive years these pluses and minuses even out, but it does result in some apparent inconsistencies for individual years.

Table 7. Subsidised expenditure for the nine Canterbury TLAs 2007/08

		Subsidised expenditure	NZTA share	Subsidised expenditure - Total	NZTA share
\$(000)					
Output Class 01 - Maintenance and operation of local roads					
111	Sealed pavement maintenance	11,197	5,190		
112	Unsealed pavement maintenance	3,057	1,515		
113	Routine drainage maintenance	4,372	2,012		
114	Structures maintenance	924	433		
121	Environmental maintenance	4,120	1,936		
122	Traffic services maintenance	8,598	3,872		
123	Operational traffic management	1,117	484		
124	Cycle path maintenance	322	139		
131	Level crossing warning devices	274	274		
151	Network and asset management	5,018	2,373		
Subtotal Output Class 01				38,998	18,229
Output Class 03 - Renewal of local roads					
231	Associated improvements	605	304		
211	Unsealed road metalling	4,396	2,147		
212	Sealed road resurfacing	17,267	8,146		
213	Drainage renewals	4,976	2,303		
214	Pavement rehabilitation	5,982	2,815		
215	Structures component replacements	1,249	578		
222	Traffic services renewals	2,624	1,197		
Subtotal Output Class 03				37,099	17,490
Total Output Class 01 and 03 (incl SPR)				76,097	35,719
Emergency Works & Preventative Maintenance					
	Construction	332	143		
Subtotal - Emergency Works				332	143
Output Class 05 - Improvement of local roads					
311	Transport studies, assessments	549	291		
322	Bridge renewals - construction	824	480		
324	Intersections & road widening	3,961	2,287		
325	Seal extensions	601	355		
332	Intersection property purchase	150	72		
341	Minor improvements - local roads	5,221	2,964		
Subtotal Output Class 05				11,305	6,449
Output Class 08 - Use of the land transport system					
412	Studies	194	144		
431	Community co-ordination - implementation	350	262		
432	Community programmes - implementation	845	634		
433	Community advertising	351	263		
452	Cycleway - construction	321	183		
Subtotal Output Class 08				2,060	1,486
Output Class 09 - Passenger transport					
531	Investigations	79	42		
Subtotal Output Class 09				79	42
Output Class 10 - Administration					
621	Territorial authority administration support	984	984		
Subtotal Output Class 10				984	984
Grand Total				90,858	44,823

Figure 11 has been constructed to provide an historical record consistent with 2007/08 expenditure (i.e. including previous CRSP expenditure and the PT funding passed through by ECan). The two graphs show (1) an approximate breakdown of nominal \$ based on the new output class structure and (2) real subsidised expenditure (i.e. indexed to account for inflationary effects). This second plot shows there has been no increase in real expenditure over the last 5 years, and in fact reduced by 5% in 2007/08 compared with the previous year.

Figure 11. Trend in subsidised TLA expenditure 2000-2008 (nominal \$ and real \$).



Community Road Safety Programme: the CRSP is now housed within the NLTP – Output Class 08. The programme provides for road safety initiatives based out of local councils and includes funding for road safety co-ordinators, specific projects, and other activities such as local advertising and awareness raising. In 2007/08 there was also a significant lift in the level of government funding for the programme, with approved spending being funded at a FAR of 75%. Table 8 shows the total funding under the programme, and while this is a similar level to the previous year, the level of government funding at \$1,159K was some \$612K higher.

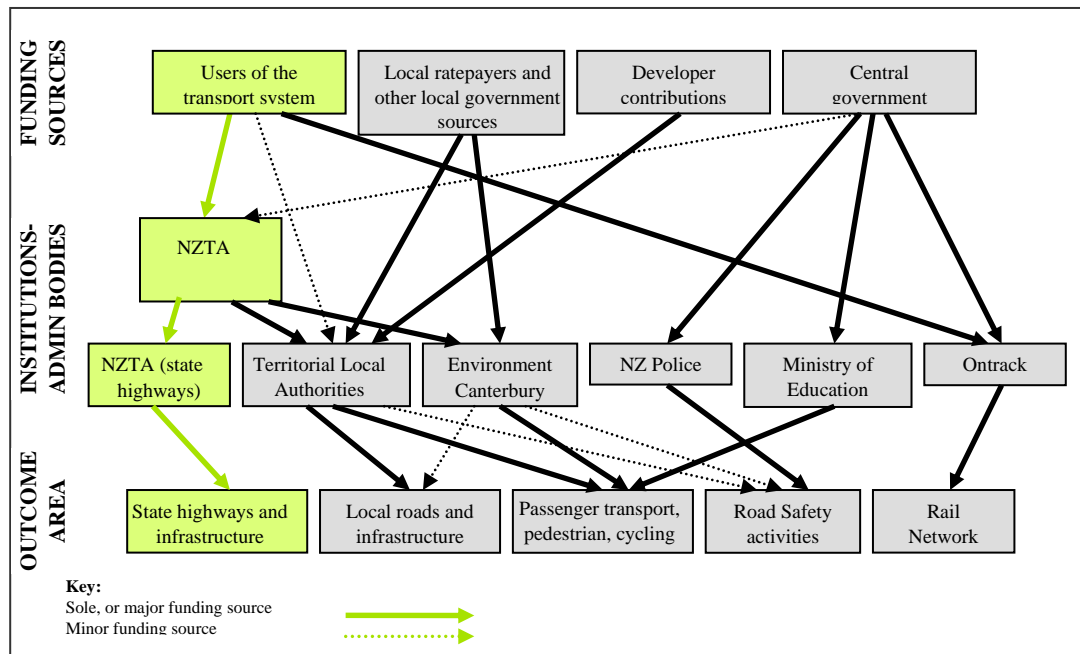
Table 8. TLA Community Road Safety Programme 2007/08 – TLA expenditure (\$'000)

TLA	Community Implementation		Advertising (Output 433)	Total
	Co-ordination (Output 431)	Programmes (Output 432)		
Kaikoura	28	3		32
Hurunui	28	27		55
Waimakariri	50	52	13	115
Christchurch	78	641	280	999
Selwyn	67	34	15	116
Ashburton	37	42	2	81
Timaru (South Canterbury)	61	46	41	148
TOTAL	350	845	351	1,545

Source: NLTP returns (NZTA)

Appendix 3 NZ Transport Authority (state highways)

A3.1 Functional Areas:



- The NZTA has responsibility for state highways in the region (12.4% of the country's state highways) through its state highways operational arm.
- Funding for state highways is 100% from government.

A3.2 Expenditure

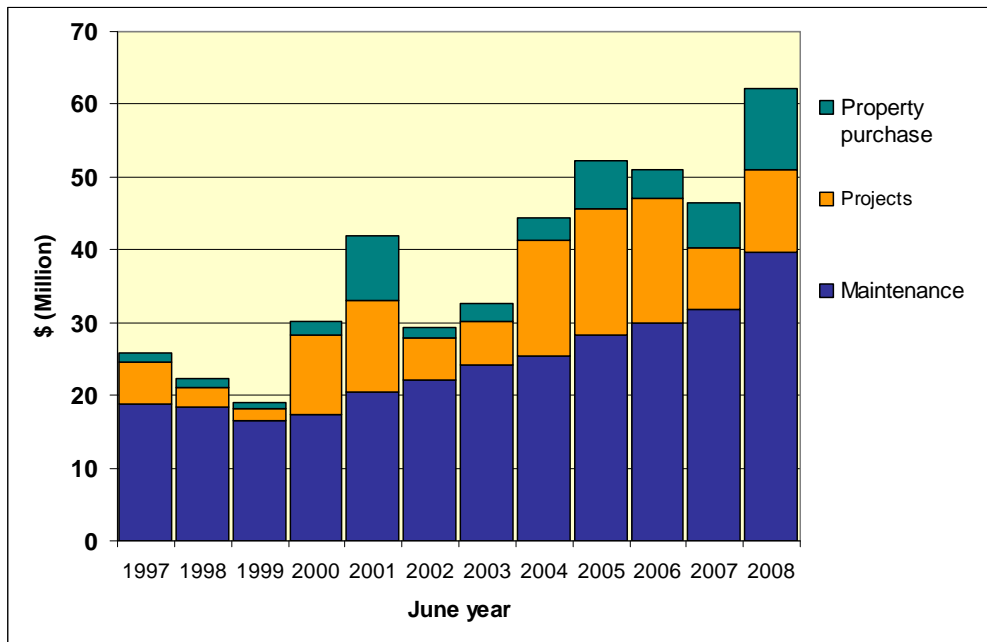
Total expenditure on state highways in 2007/08 was \$62.1M, an increase of some \$16M compared with the previous year (2006/07 recorded relatively low expenditure compared with the previous 3 years). There was a big increase in routine maintenance expenditure and a large increase in property purchase expenditure (Table 9 and Figure 12).

Table 9. Summary of state highways expenditure for Canterbury \$(000)

Description	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
Bridge Renewals	820	2278	166	837	662	214	1432	95	0
New Roads & Bridges	2,051	1,831	2,086	168	194	151	67	424	2,106
Road Reconstruction	8,159	8,035	3,265	4,902	14,886	16,802	15,394	7,433	8,684
Strategy / Transportation Studies	57	386	276	118	73	46	294	556	510
Total Project Expenditure	11,088	12,530	5,792	6,025	15,815	17,213	17,187	8,508	11,299
Routine Maintenance	16,824	18,562	20,046	22,349	23,044	26,157	27,272	28,087	36,268
Preventive Maintenance	0	0	159	57	0	115	20	100	100
Emergency Works	0	1,342	927	818	157	179	623	1,135	282
Minor Safety	449	621	903	955	2276	1927	1988	2460	3,080
Total Maintenance Expenditure	17,273	20,524	22,035	24,180	25,476	28,377	29,903	31,782	39,730
Property Expenditure	1,861	8,958	1,558	2,498	3,171	6,676	4,014	6,137	11,115
Total Expenditure	30,222	42,012	29,385	32,703	44,461	52,266	51,104	46,427	62,144

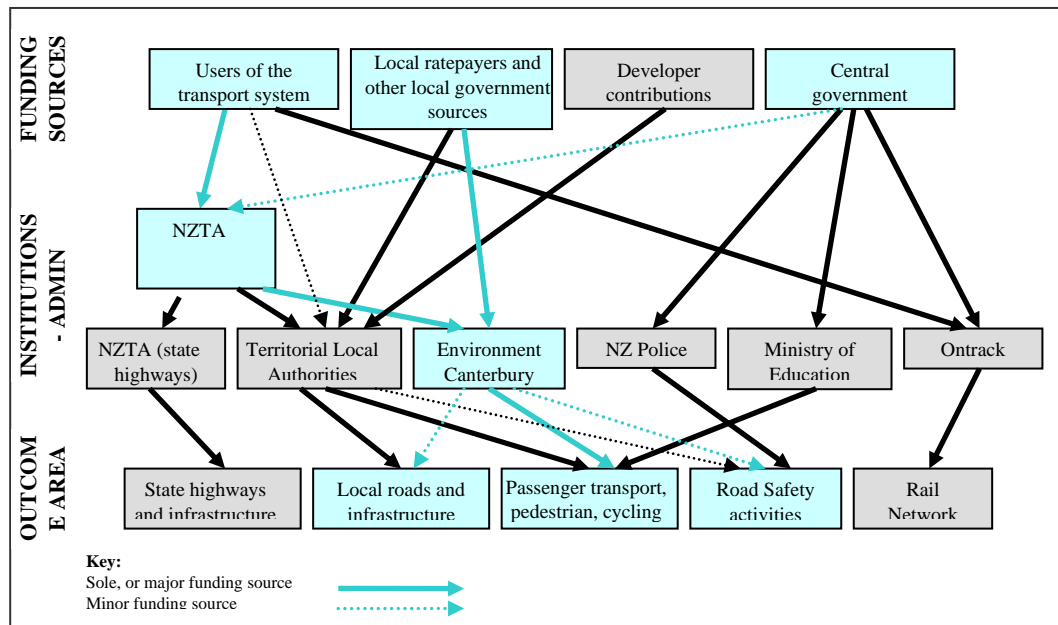
Source: NZTA Christchurch office (state highways).

Figure 12. Canterbury regional state highway expenditure (nominal \$).



Appendix 4 Environment Canterbury

A4.1 Functional Areas:



- Environment Canterbury (ECan) has primary responsibility for providing public passenger transport in the region.
- It also has primary responsibility for matters which require an overview of regional transport e.g. development of the RLTS, regional road safety co-ordination and other projects.
- Funding is derived almost equally from the NZTA through the NLTP, and from ratepayers within the region.

A4.2 Passenger Transport

Expenditure covers the costs of contracts for passenger transport services, the public cost of the Total Mobility voucher scheme, and the administrative costs incurred by Environment Canterbury which includes contract administration, passenger transport planning, information services (e.g. timetables), and other costs associated with the *Metro* brand. Most of the costs (>95%) are incurred within the greater Christchurch area.

ECan nominal net expenditure on passenger transport in 2007/08 was \$35.0M, an increase of \$3M compared to the previous year (Table 10). Most of the increase in expenditure in 2007/08 was through inflation indexing of bus contracts through the year. Note that \$0.96M of funding from the NZTA for shelters and infrastructure was recorded as passed on to TLAs (mainly the CCC) in the year. This is slightly different from the \$1.2M of TLA funding specified in Section A2.4. The discrepancy is accounted for end-of-year carry over effects which results in a slightly different record between ECan and the TLAs.

Table 10. ECan passenger transport expenditure and income sources 2007/08 \$(000)¹

	Funding sources		
	LTNZ	Local	Total
Contracts - ferry and bus all Canterbury	13,882	14,262	28,144
Total Mobility/wheelchair hoists	1,015	1,067	2,082
Information, marketing operational overheads, QA etc	1,305	1,703	3,008
Administration	813	813	1,625
New assets	80	80	159
Shelters/infrastructure ²	964	na	964
TOTAL (incl \$ passed on to TLAs)	18,058	17,923	35,981
Net total ECan expenditure	17,094	17,923	35,017

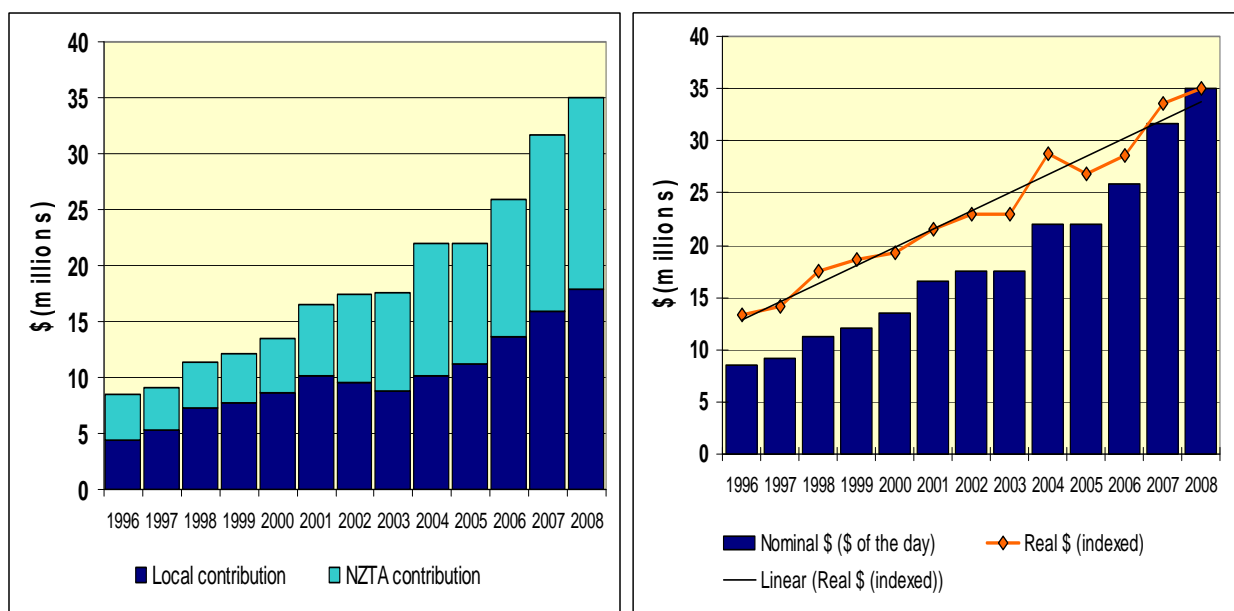
Notes:

1 Information from Environment Canterbury and NZTA Claims.

2 ECan claim the subsidy from NZTA but pass it through to TLAs who undertake shelter and fixed infrastructure construction.

Time series: nominal expenditure on passenger transport has trebled since the late 1990s, while real expenditure has doubled in the same period (Figure 13).

Figure 13. Public transport expenditure (1) showing funding source; (2) real expenditure.



A4.3 Regional transport

Regional transport responsibilities include regional road safety co-ordination, regional transport planning, monitoring and communication overheads. Total expenditure in 2007/08 was \$1.1M, a reduction of \$0.2M from the previous year (Table 11). The main output areas were:

- Land transport planning
- Regional road safety programme
- Christchurch Transportation Model update/investigations

Table 11. ECan regional transport expenditure 2007/08 (\$'000)

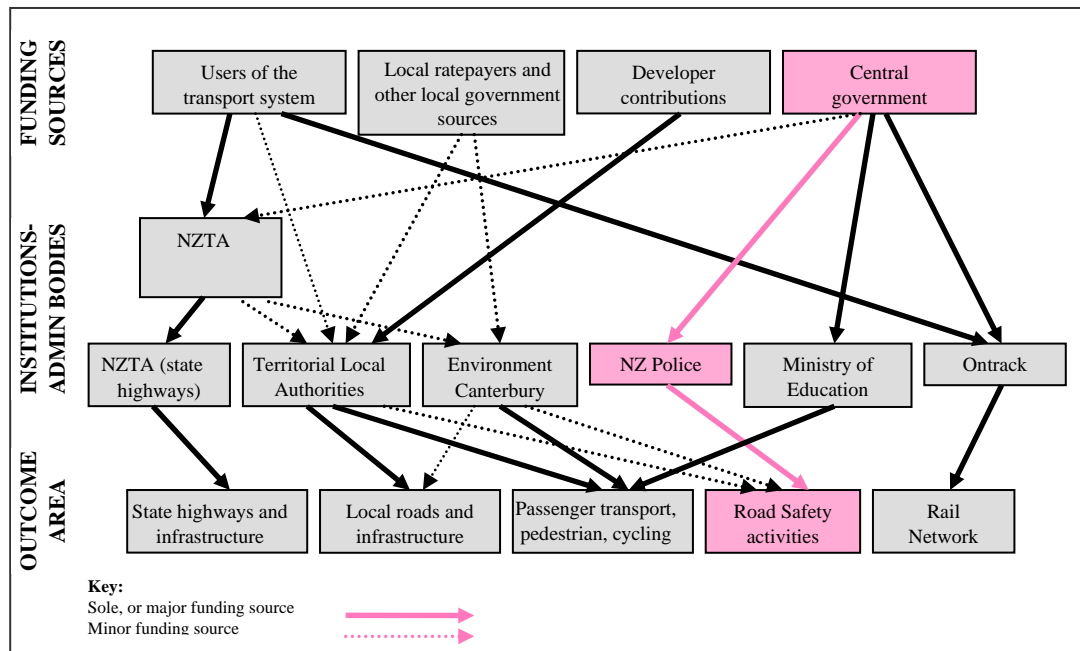
	Notes	Funding sources		
		LTNZ	Rates & other local	Total
Road Safety Programme	1	176	71	247
Regional land transport planning	1	144	467	562
Stock truck effluent disposal sites				49
Chch transportation model update/ investigations	1	138	101	239
TOTAL	2	458	639	1,097

1 From NZTA final claim forms and ECan-supplied data.

2 From ECan Annual Report 2007/08

Appendix 5 NZ Police

A5.1 Functional Areas:



- The Road Policing Programme (RPP) delivered by the Police is the core national road safety programme. The RPP specifies planned levels of central government funding for road safety, and the outputs to be delivered by the Police within the various geographic areas in the country.

A5.2 Police Time

Police time for road safety comprises a range of outputs:

- Local Authority outputs - strategic road policing (drink driver control, speed, restraints etc); traffic incidents and management; and community programmes (e.g. through education programmes).
- Highway Patrol – a national level programme introduced in 2001 with allocated time to the Canterbury region.
- A Traffic Alcohol Group (TAG) programme – a national programme with allocated time to Canterbury (formerly known as Enhanced Alcohol breath testing).
- CVIU (Commercial Vehicle Inspection Unit) – heavy vehicle inspections, weighing etc⁹.
- Speed camera operations.

⁹ The allocation of hours to Canterbury has been estimated as half of the hours allocated to the total South Island area.

In total just under 180 FTEs (full time equivalent staff) were allocated to these outputs in Canterbury in 2007/08, a 2% increase over the previous year (Figure 14). Local Authority area-based road safety outputs comprise about 70% of police time, with strategic road policing being the most important focus (Table 12). There has been little change in aggregate police time for local authority outputs for some years, although there has been some year-by-year re-prioritising of time. For example, compared with 2003/04, speed control has decreased and drink/drugged driver control increased.

In 2007/08 Police time was valued at an average of \$150,600 per FTE. Overall, the value of Police time was estimated at \$27M.

Figure 14. Canterbury allocated Police time by output (30 June years).

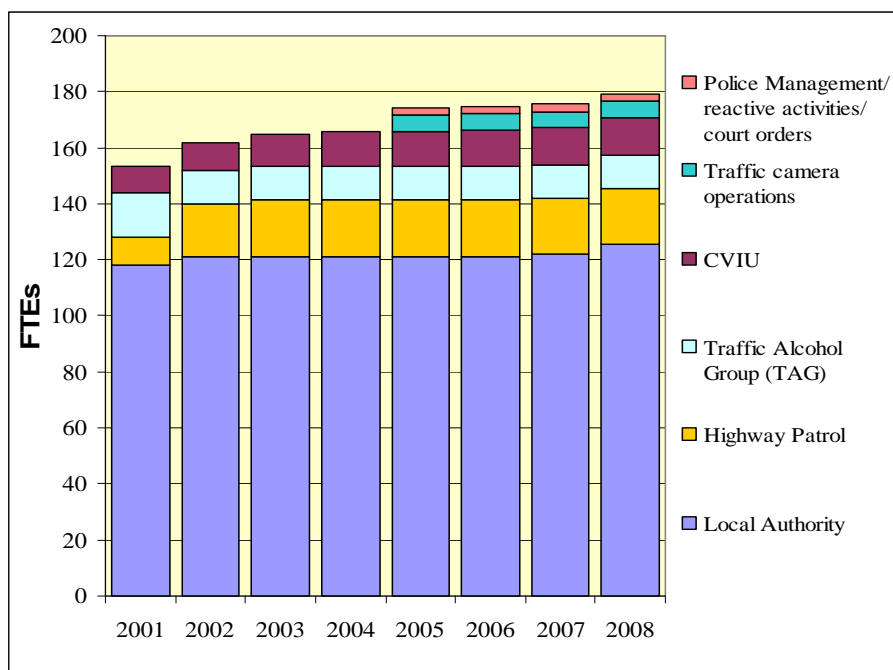


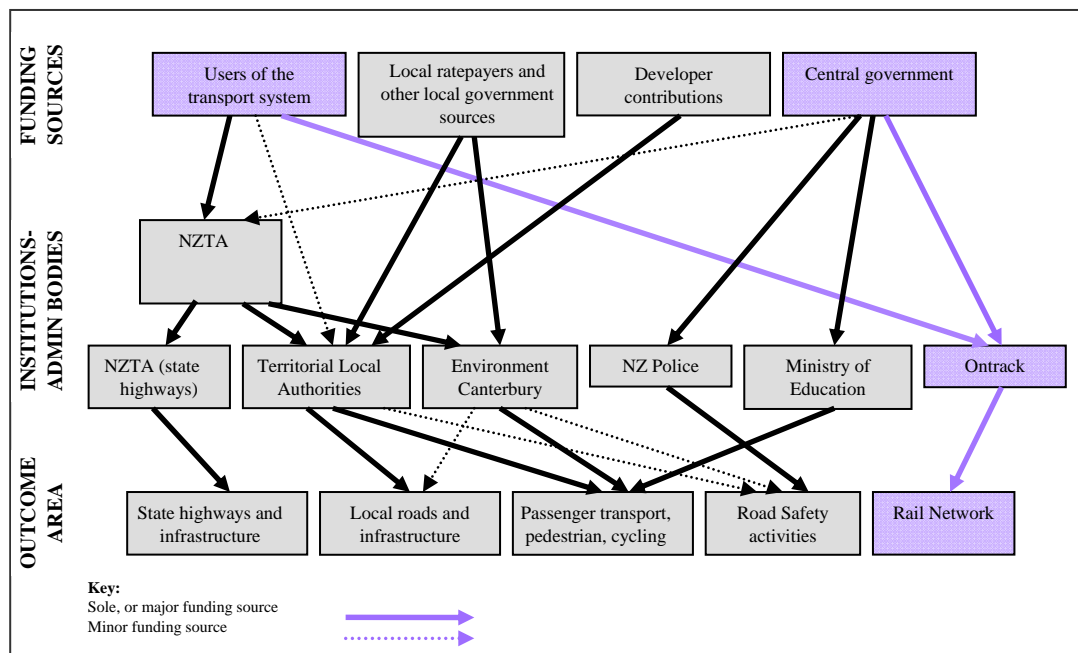
Table 12. Allocation of Local Authority Policing Time 2007/08 – FTE's

Output area	Kaikoura	Hurunui	Waimakariri	Christchurch (including Banks P)	Selwyn	Ashburton	Timaru/Mackenzie/Waimate	TOTAL	%
Strategic Road Policing	0.9	3.9	5.9	54.0	5.8	5.6	12.6	88.7	71%
Traffic incidents and management	0.2	0.6	1.2	19.0	2.0	0.8	3.0	26.8	21%
Community Engagement	0.1	0.3	0.6	5.7	0.8	0.5	1.8	9.8	8%
TOTAL	1.2	4.8	7.7	78.7	8.6	6.9	17.4	125.3	100%

Note that the Kaikoura District is included under the Tasman police district, and is lumped together with Marlborough District – FTE's are estimated based on previous outputs.

Appendix 6 Ontrack

A6.1 Functional Areas:



- This covers expenditure on the rail network in Canterbury by Ontrack, the government entity that owns and manages New Zealand's rail network.
- Consideration of rail system income and expenditure for 2007/08 is limited to the Ontrack operation at this stage. During the year the Government completed the purchase of Toll NZ's rail and ferry operations, but the businesses were not formally transferred to the Crown until 1 July 2008.
- At present it is difficult to obtain a full picture of regionalised expenditure because the system is organised more as a national network.

A6.2 Expenditure

In 2007/08 approximately \$5.5 million was spent in the Canterbury region, with \$3.5M spent on capital renewals, significantly higher than the previous year (Table 13). The expenditure covers track, bridging, signals and rail crossing works.

During the year Ontrack also investigated potential daylighting of two tunnels on the Midland Line and replacement of the Midland Line signalling system. In recent years the Midland line has experienced a 50% increase in traffic, and the present signalling system is aging and vulnerable to the extreme weather conditions. The re-signalling work is expected to start in 2009 – it is a \$13 million project, of which half is within the Canterbury Region.

Table 13. Ontrack expenditure in the Canterbury region*

Output area	2005/06	2006/07	2007/08
	\$(million)		
Track maintenance	13.2**	1.3	2.0
Track renewals (incl rail crossing upgrades)		1.6	3.5

* Source: Neil Campbell, Ontrack

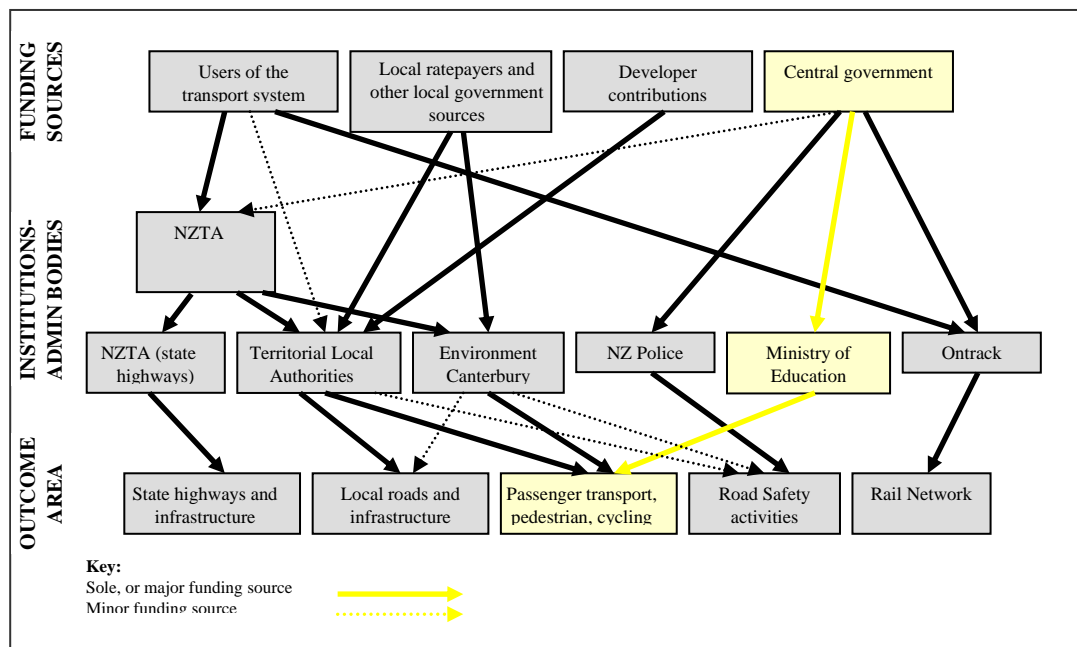
** A large proportion of expenditure in 2004/05 and 2005/06 was upgrades to the Midland line (\$15M spent across the two years)

A6.3 Income

In 2007/08 across the whole country 37% of Ontrack income was derived from revenue, mainly track access fees, and 57% from grants, mainly Crown capital grants associated with developing rail in the Auckland area. Within Canterbury, expenditure is largely supported by revenue-based income.

Appendix 7 Ministry of Education

A7.1 Functional Areas



- This covers public funding of the rural school bus service, and special education assistance. This particular data stream has now been collected for 3 years.

A7.2 Expenditure

Total expenditure in 2007/08 was \$13.2M, an increase of \$1.2M or 9.6% on the previous year (Table 14). The increase is related to contracted and direct resource services and mainly reflects the increase in input prices experienced during the year, particularly fuel (similar to the cost increases incurred by Environment Canterbury for public transport).

Table 14. MoE expenditure for schools transport and special education assistance

Output area	2005/06	2006/07	2007/08
	\$(000)		
Direct resourced services	2,413	3,313	4,119
Ministry contracted services	4,087	5,909	6,316
Special education transport assistance	2,700*	2,842	2,786
TOTAL	9,200	12,065	13,220

* Rounded number provided by Ministry of Education.

Appendix 8 Indexing

Indexing has been applied to time series data in order to generate \$ expenditures in equivalent (2007/08) dollars (i.e. sometimes referred to as 'real' expenditure). In previous years three index series were used; "Construction", "Maintenance" and "Passenger Transport", with all information derived from the Land Transport New Zealand website. This year a review of relevant indices was made. The concern was that with high international oil prices some items of expenditure that were particularly susceptible to oil price increases were not being represented in the index. The particular concern was the "Reseals" category of expenditure. Various people were consulted to determine an appropriate weighting. The new weighting applied for roading expenditure is 80% "Maintenance/construction" and 20% "Reseals". Table 16 lists relevant cost multipliers based on 2007/08 = \$1.00, showing the inflation adjusted value of a dollar in previous years. For example, one dollar of maintenance/construction expenditure in 1999/2000 is equivalent to \$1.502 in \$(2007/08).

A 'Fuel & Oil' index, also listed on the NZTA website, but constructed by Statistics New Zealand, is included in Table 15 for comparison.

Table 15. Transport cost multipliers used in this report.

Year to 30 June	Value of \$1.00 in \$(2007/08)				
	Maintenance / construction	Reseals	'Roading' WEIGHTED	Passenger transport	Fuel and Oil
1999	1.502	2.015	1.605	1.546	2.505
2000	1.421	1.496	1.436	1.441	2.088
2001	1.316	1.299	1.313	1.309	1.684
2002	1.313	1.393	1.329	1.318	1.814
2003	1.293	1.395	1.313	1.309	1.812
2004	1.279	1.470	1.317	1.302	1.838
2005	1.201	1.396	1.240	1.222	1.537
2006	1.107	1.160	1.118	1.109	1.207
2007	1.056	1.127	1.070	1.061	1.167
2008	1.000	1.000	1.000	1.000	1.000

Source: Derived from data on NZTA website:

Glossary of terms and acronyms

Term	Description
Capital expenditure	Expenditure associated with either renewing the existing transport system asset base (sometimes referred to as cyclic renewals), or new works that add to the asset base.
Developer contribution	Developer contributions are a form of income for TLAs. Developers are levied by a TLA to pay for transport infrastructure/ facilities provided by the TLA for the development project (see also 'vested assets').
Depreciation	Depreciation is an accounting (book) entry calculated around the depreciation schedules for all roading and transport related assets. Accounting procedures require depreciation to be specified in annual accounts (usually itemised as an operational cost). Depreciation in the annual accounts is not "real" expenditure as such - it can be considered a 'consumption' charge that effectively assigns an annual cost to the asset value.
Financial Assistance Rate (FAR)	Rate of financial assistance, expressed as a percentage, that NZTA provides to local authorities for approved, subsidised activities. Some activities have a standard FAR (e.g. community road safety activities were subsidised at 75% for all service providers); in other cases the FAR varies according to individual TLAs.
<i>Metro</i>	Brand under which public passenger transport services in the greater Christchurch area are operated
Nominal expenditure	Expenditure in dollars of the day, unadjusted for inflationary effects.
Non-subsidised expenditure	Expenditure by local authorities that is not approved for subsidy by the NZTA.
Operational expenditure	Ongoing expenditure on transport infrastructure and services including: <ul style="list-style-type: none"> – Regular repairs and maintenance on roads and other assets – Unplanned repairs and maintenance – say as a result of damage caused by extreme weather events – Contracts for services (e.g. contracts for street cleaning, multi-year contracts for bus services etc.) – Staff and overhead costs associated with transport outcomes (e.g. asset and transport planning staff, road safety personnel)
Real expenditure	Expenditure adjusted to account for inflation in input costs. In this report all real expenditure is expressed in equivalent 2007/08 dollars. Real expenditure is derived by adjusting nominal \$ using the appropriate cost index (Table 16).
Subsidised expenditure	Expenditure by local authorities which attracts NZTA funding. The types of expenditure that qualify for the subsidy, the financial assistance rates (FARs) that apply, and other rules can be found in NZTA's Programme Manual and the 2007/08 National Land Transport Programme (NLTP). It is possible that some TLA expenditure might qualify for the subsidy, but has not been approved through the NZTA process.
Vested assets	Transport assets that have been developed by another party but are vested back to the TLA during the year. The most common form of transport vested assets at present is the roading and associated infrastructure constructed during subdivision development. Vested assets are accounted for as both an item of income (a form of developer contribution), and as capital expenditure.

Acronyms

CBT	Compulsory breath testing
CCC	Christchurch City Council
CRSP	Community Road Safety Programme
ECan	Environment Canterbury
FAR	Financial Assistance Rate
LTMA	Land Transport Management Act 2003
LTCCP	Long-Term Council Community Plan
LTNZ	Land Transport New Zealand
MoE	Ministry of Education
NLTP	National Land Transport Programme
NZTA	NZ Transport Agency
PPT	Public passenger transport
RPP	Road Policing Programme
RLTS	Regional Land Transport Strategy
TDM	Travel demand management
TLA	Territorial Local Authority