2001/2002 Annual Report

on the Regional Land Transport Strategy

Prepared for the
Transport Policy Department,
Wellington Regional Council

September 2002

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for **Wellington Regional Council**

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Executive summary

Wellington Regional Council (WRC) recognises that an annual monitoring report (AMR) that merely meets legal requirements is of limited value to regional transportation network planners. This 2001/2 report is, therefore, the first to present extensive results of monitoring every aspect of the network, in the hope of setting a New Zealand standard and guiding those who plan transport infrastructure.

Network performance indicators have been established. These cover the five objectives in the Wellington Regional Land Transport Strategy (WRLTS), with two additional categories reporting trends in demographic and inter-regional travel variables that drive travel demand.

This report's main conclusions are:

- **Implementation of WRLTS continues to be slower than anticipated**
- **The WRLTS set high expectations for the development of the region's transport system and it appears that these expectations have not been met**
- **Funding available from both central and local levels of government continues to be lower than anticipated in the WRLTS**
- **Present and future demands reinforce the need for reliable connections to and through the region**
- **Demand for the movement of people and freight continues to rise faster than indicators relating to population and economic activity**
- **The private car is the dominant mode of transportation and its continuing growth will require a balance of construction of new infrastructure and changes in patterns of use.**
- **Passive methods designed to change the use of motor vehicles at peak times of the day are likely to fail unless combined with more active measures**
- **The regions road toll continues to be too high in both casualties and social costs, with some groups particularly over represented**

- **Transportation activities continue to have an adverse impact upon the physical environment of the region and environmental legal processes continue to have adverse impacts upon transport proposals that may have net beneficial impacts for the physical environment**

- **The costs of congestion for the region are already high and will continue to rise unless the transport network is used more effectively**

WRC gratefully acknowledges support from numerous agencies that supplied information for the monitoring exercise.

1 Background to the report

1.1 Statutory Context

1.1.1 Regional Land Transport Strategy

The 1998 Land Transport Act requires every regional council to prepare a land transport strategy. WRC published its RLTS[1] in November 1999, fulfilling legal obligations for the period 1999 to 2004 but also setting out objectives, policies and plans for regional land transport for the 20 years to 2019.

The RLTS is a "live" document, responsive to change. After submissions and hearings, WRC adopted the Western Corridor Implementation Plan as an addition to the RLTS on 4 July 2000. Other corridor studies, planned or in progress, will also be added.

The RLTS was prepared by a regional land transport committee (RLTC). To ensure the strategy complied with all statutory requirements the RLTC was given delegated powers, and was also responsible for 1993 and 1996 RLTS documents.

1.1.2 Annual monitoring report

Every regional council required to prepare an RLTS must also, under the 1998 Land Transport Act, prepare an annual report on progress towards implementing its strategy.

This AMR must be available within three months of the end of the financial year to which it relates; for WRC, this is 30 June and hence this AMR is due 30 September.

The first AMR, for the year 1999/2000, was published in November 2000[2]; the second, for the year 2000/1, was available September 2001[3].

1.2 Annual monitoring report contents

1.2.1 Enhanced monitoring

The law offers little specific guidance on what an AMR should contain. WRC sees value in monitoring that goes beyond minimal legal requirements, reporting on trends in a range of demographic variables that drive transportation demand, both within the region and across its boundaries.

Extensive reporting on road and public transport network performance, and on environmental measures, yields a detailed picture of regional performance

[1] The Wellington Regional Land Transport Strategy 1999-2004 (Wellington Regional Council, 1999)
[2] 1999/2000 Annual Report on the Wellington Regional Land Transport Strategy 1999-2004 (Wellington Regional Council, November 2000)
[3] 2000/2001 Annual Report on the Wellington Regional Land Transport Strategy 1999-2004 (Wellington Regional Council, September 2001)

and trends. Making this information available as a single resource will, in turn, facilitate more informed regional planning decisions in the future.

A study was commissioned in May 2001 to set out a strategy for preparing an enhanced monitoring report. The study reported in December 2001[4], and its strategy was implemented for this AMR.

This AMR contains all information necessary to meet legal requirements; it also presents indices that encapsulate performance indicator trends, to give a picture of the entire regional transportation network.

1.2.2 Section outlines

Section 2 presents the changing demographic variables driving regional transportation demand.

Section 3 presents changing measures of passenger and freight transport activity across Wellington regional boundaries.

Sections 4 to 8 describe regional transportation network performance in respect of each RLTS objective area:

- accessibility and economic development
- economic efficiency
- affordability
- safety
- sustainability/environment.

Section 9 details progress in implementing RLTS projects and policies.

Section 10 summarises progress in implementing the strategy and identifies obstacles.

Section 11 presents conclusions and recommendations.

1.2.3 Obstacles to collecting monitoring indicators

Most agencies co-operated in supplying information for the monitoring programme, and WRC acknowledges this. Sometimes, however, relatively straightforward information proved hard or impossible to obtain, suggesting that certain organisations put a low priority on collating and supplying information. An anticipated effect of this report's publication is that it will heighten awareness of the importance of such information, and improve future availability.

While scoping the survey work, it became clear that collecting key information on air and surface water quality would be expensive. Such surveys are, therefore, more cost-effectively combined with other monitoring initiatives being promoted by WRC and the Ministry for the Environment. The need to

[4] A Monitoring Strategy for the Wellington RLTS: Technical Report (Tim Kelly Transportation Planning Ltd & Douglass Consulting Services Ltd, December 2001)

co-ordinate these initiatives has delayed the survey programme and means no information is available for this year.

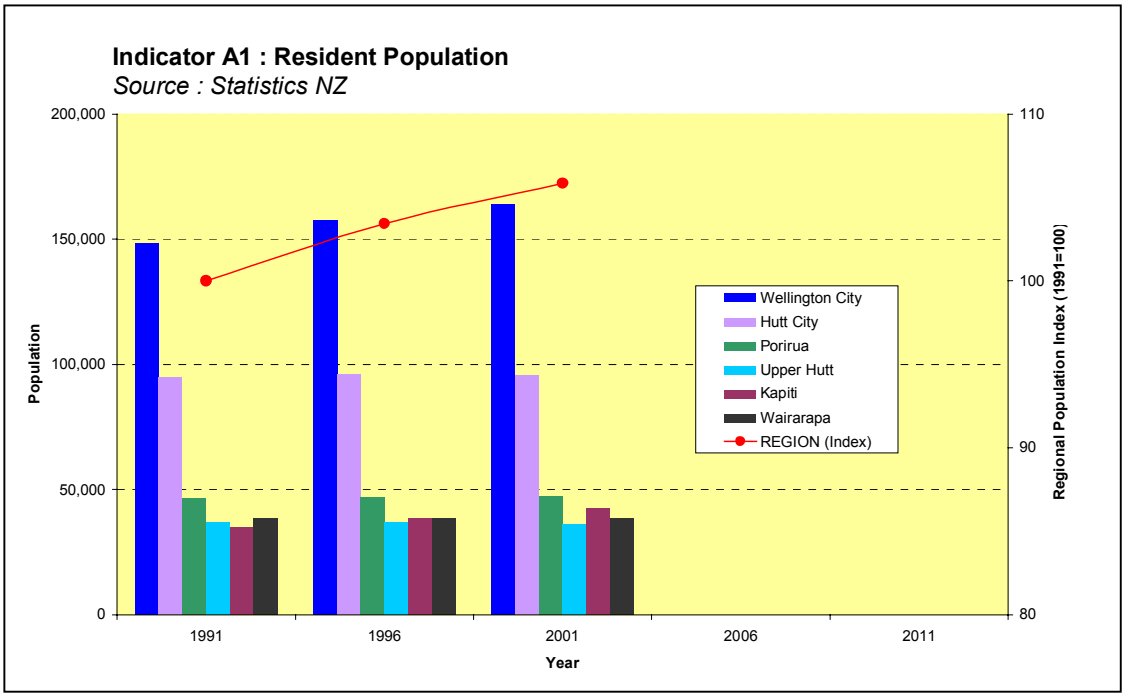
2 Regional demographic indicators

This section sets out and discusses trends in the following regional demographic variables driving transport demand:

A. resident population
B. occupied dwellings
C. unemployment rate
D. regional economic activity
E. building activity
F. vehicle ownership.

2.1 Indicator A1: Resident population

Source: Statistics New Zealand



Definition: The table shows usually resident populations by district. Census data is collected five-yearly.

Interpretation: Total 2001 regional population was 423,700. Thirty-eight percent lived in Wellington city; 32 percent in the Hutt Valley; 11 percent in Porirua; 10 percent in Kapiti; nine percent in the Wairarapa.

Table 1 shows wide variation in district growth rates. Kapiti has seen at least two percent growth since 1991, while the Hutt Valley and Wairarapa have experienced de-population. Regional population growth has averaged 2,340 people per annum since 1991, with a slight slowing since 1996. Current growth is 0.5 percent per annum (2001 figures).

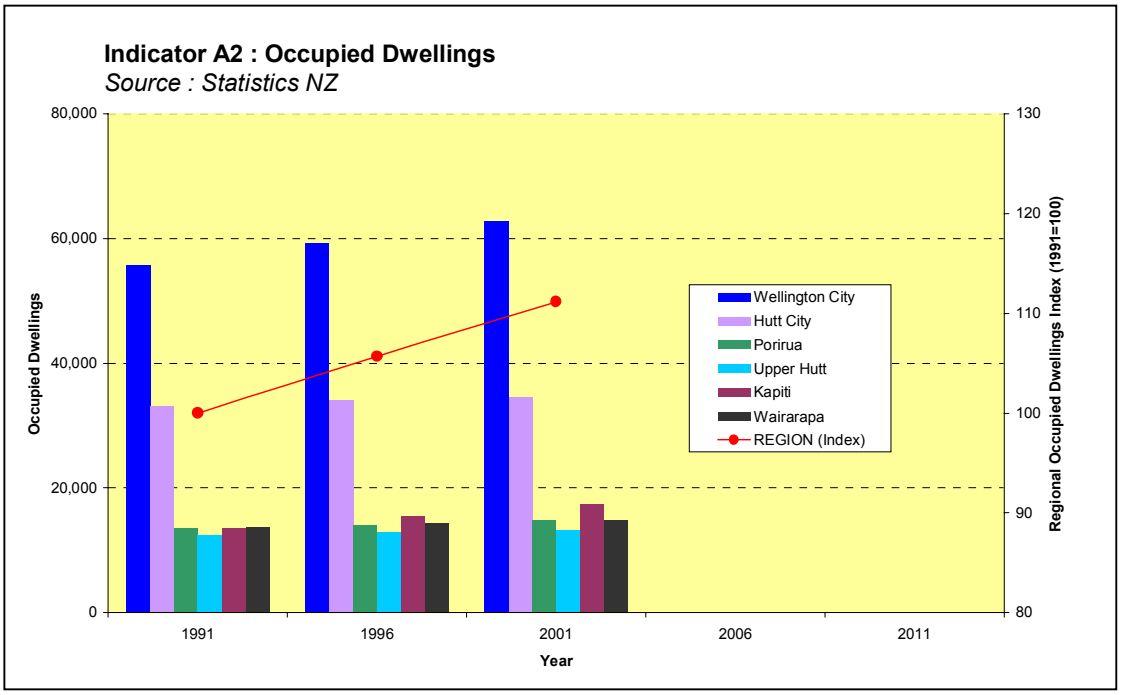
Comments: Population growth fuels regional demand for travel. Kapiti's faster growth is partly driven by families relocating from Wellington and elsewhere in the region. This strong growth will create further demand for travel both within Kapiti, and between Kapiti and Wellington, putting the existing area road network under more strain.

District	Growth rates per annum					
	1991 – 1996		1996 – 2001		1991 - 2001	
	No.	%	No.	%	No.	%
Wellington	1,856	1.3	1,221	0.8	1,538	1.0
Hutt City	198	0.2	-79	-0.1	60	0.1
Porirua	16	0.0	149	0.3	83	0.2
Upper Hutt	-34	-0.1	-69	-0.2	-51	-0.1
Kapiti	729	2.1	772	2.0	751	2.1
Wairarapa	-17	0.0	-60	-0.2	-38	-0.1
REGION	**2,749**	**0.7**	**1934**	**0.5**	**2,342**	**0.6**

TABLE 1: Population growth rates, by district

2.2 Indicator A2: Occupied dwellings

Source: Statistics New Zealand



Definition: The table shows occupied dwellings by district. Census data is collected at five-yearly.

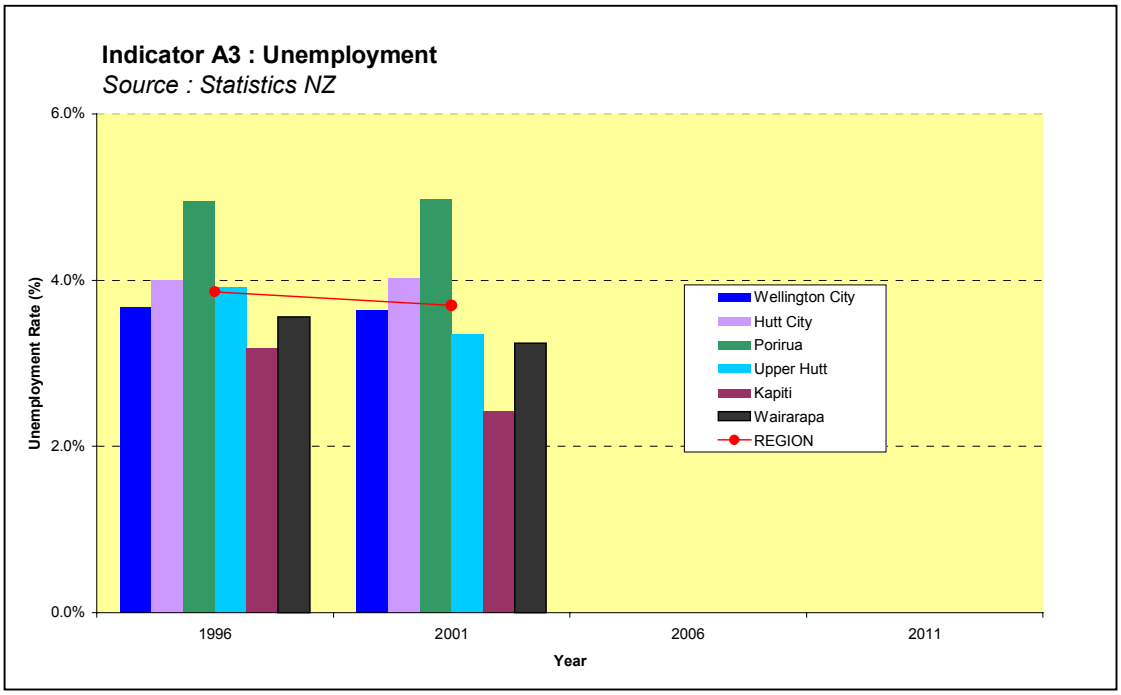
Interpretation: Patterns of absolute and relative growth are closely linked to population. Table 2 shows movements in the average number of people per occupied dwelling, derived from indicators A1 and A2. Household size is falling across the region; the largest households are in Porirua, the smallest in Kapiti, reflecting this area's large retirement population.

District	Number of persons per occupied dwelling		
	1991	1996	2001
Wellington	2.7	2.7	2.6
Hutt City	2.9	2.8	2.8
Porirua	3.4	3.3	3.2
Upper Hutt	3.0	2.9	2.7
Kapiti	2.6	2.5	2.4
Wairarapa	2.8	2.7	2.6
REGION	**2.8**	**2.8**	**2.7**

TABLE 2 : Change in number of persons per occupied dwelling, by district

2.3 Indicator A3: Unemployment

Source: Statistics New Zealand



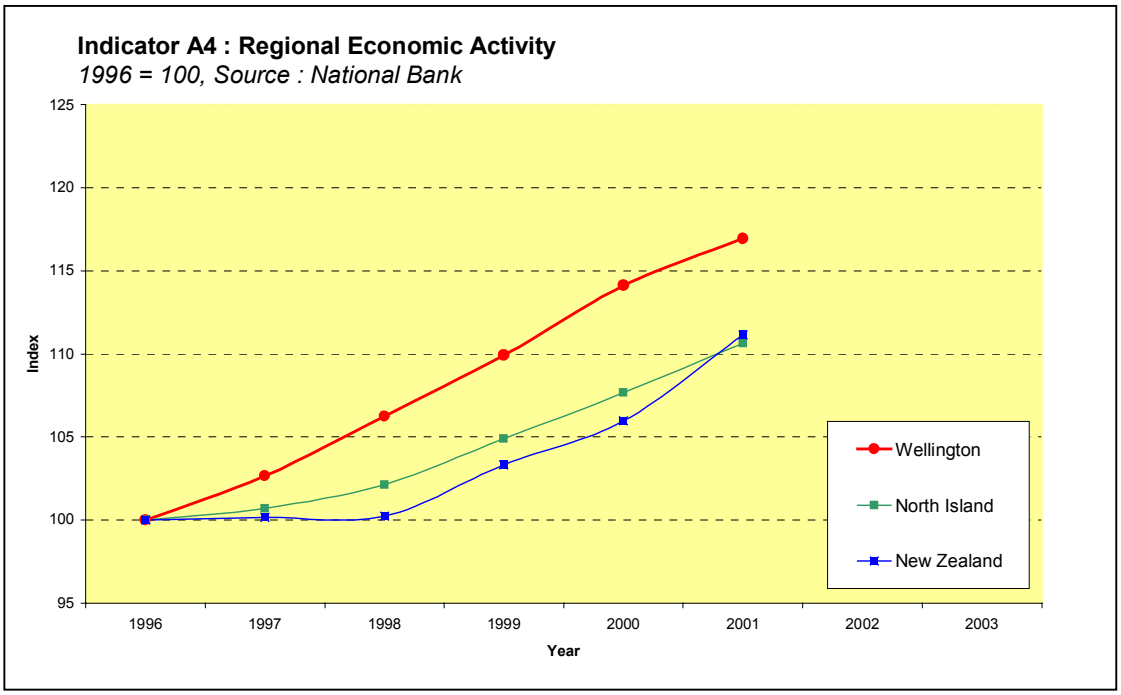
Definition: The table shows district labour force status, with unemployment as a percentage of population. Census data is collected five-yearly.

Interpretation: A downward regional trend masks inter-district differences. Unemployment rates have fallen most markedly in Upper Hutt, Kapiti and Wairarapa, while Porirua has experienced a small increase. Porirua unemployment rates are the highest in the region.

Comments: Data are available for only two years, and apparent trends should be treated with caution. Transportation demand is likely to be inversely correlated with unemployment rates: the highest levels of unemployment result in the lowest levels of transportation demand.

2.4 Indicator A4: Regional economic activity

Source: National Bank



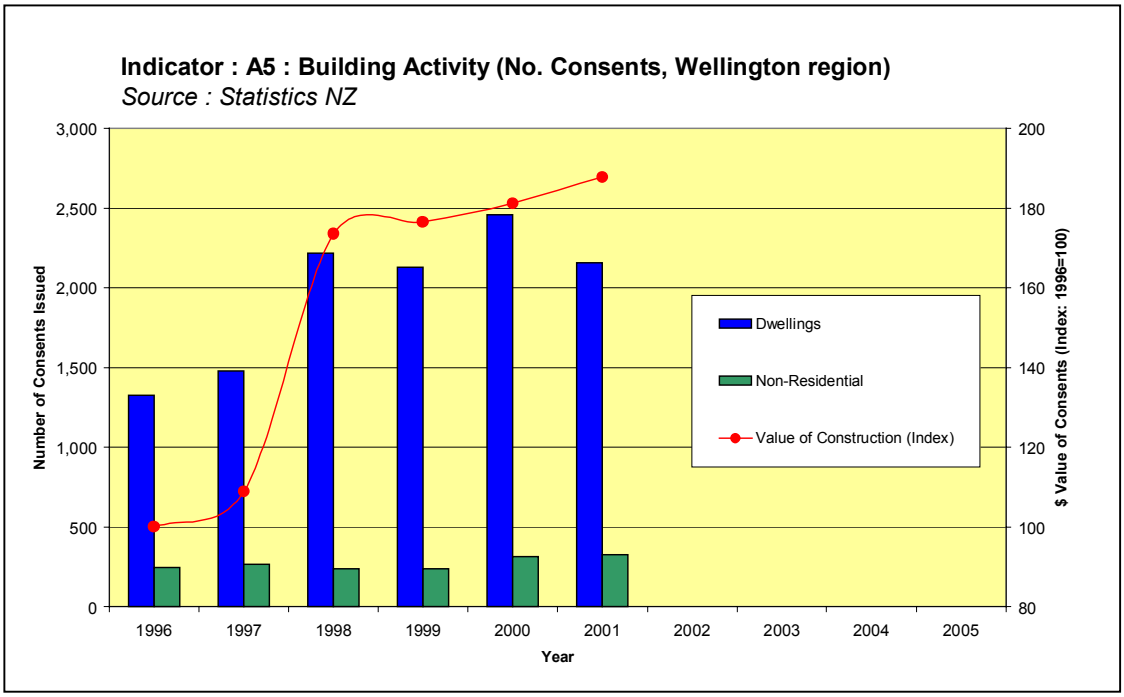
Definition: The table shows a composite measure of economic activity that includes business and consumer confidence; retail sales; new motor vehicle registrations; regional exports; registered unemployment; building permits; real estate turnover; job advertisements; accommodation; and, results from the household labour force survey.

Interpretation: There has been steady regional growth, although it slowed somewhat over the last year. The rate is higher than that of the North Island, and of New Zealand as a whole.

Comments: Indications are that Wellington region is enjoying robust economic activity compared with the rest of the country. It can be expected to increase demands for movement of people and freight.

2.5 Indicator A5: Building activity

Source: Statistics New Zealand



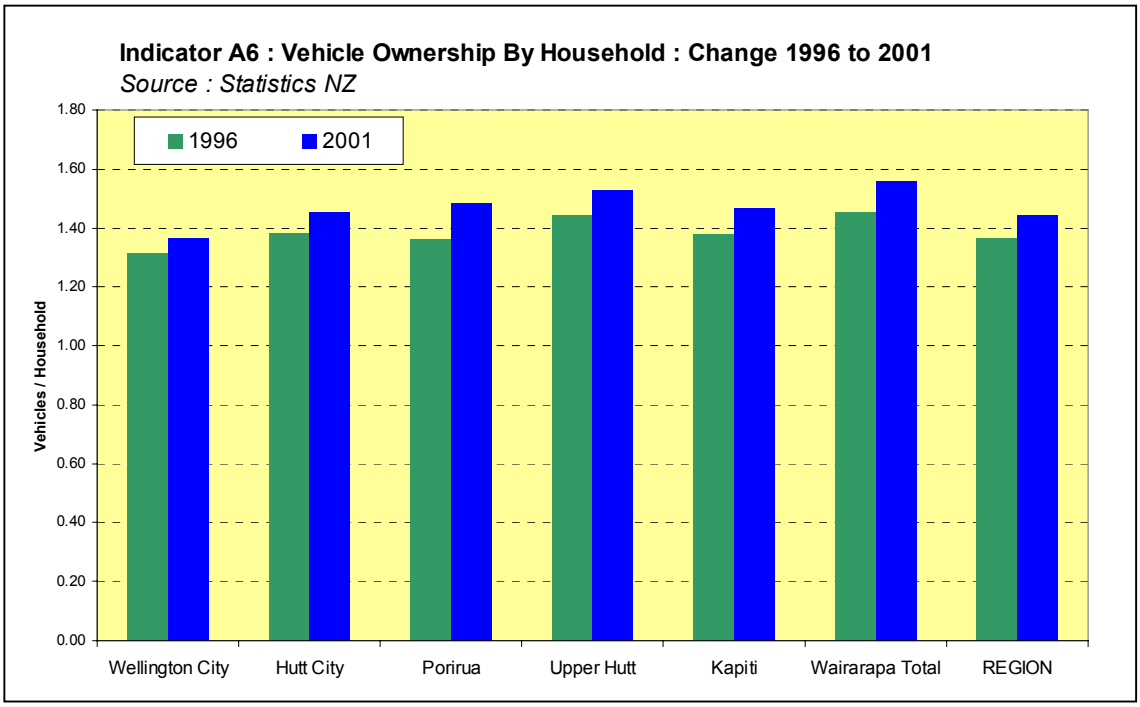
Definition: The table shows the number of residential and non-residential building permits issued. Figures are available monthly.

Interpretation: There has been strong growth in residential dwelling permits from 1998. Growth in non-residential permits was slower until 2000/2001.

Comments: The construction industry itself generates demand for transport as well as being a “barometer” of regional economic activity. Demand for travel (both freight and passenger) is positively correlated with regional economic activity.

2.6 Indicator A6: Vehicle ownership

Source: Statistics New Zealand



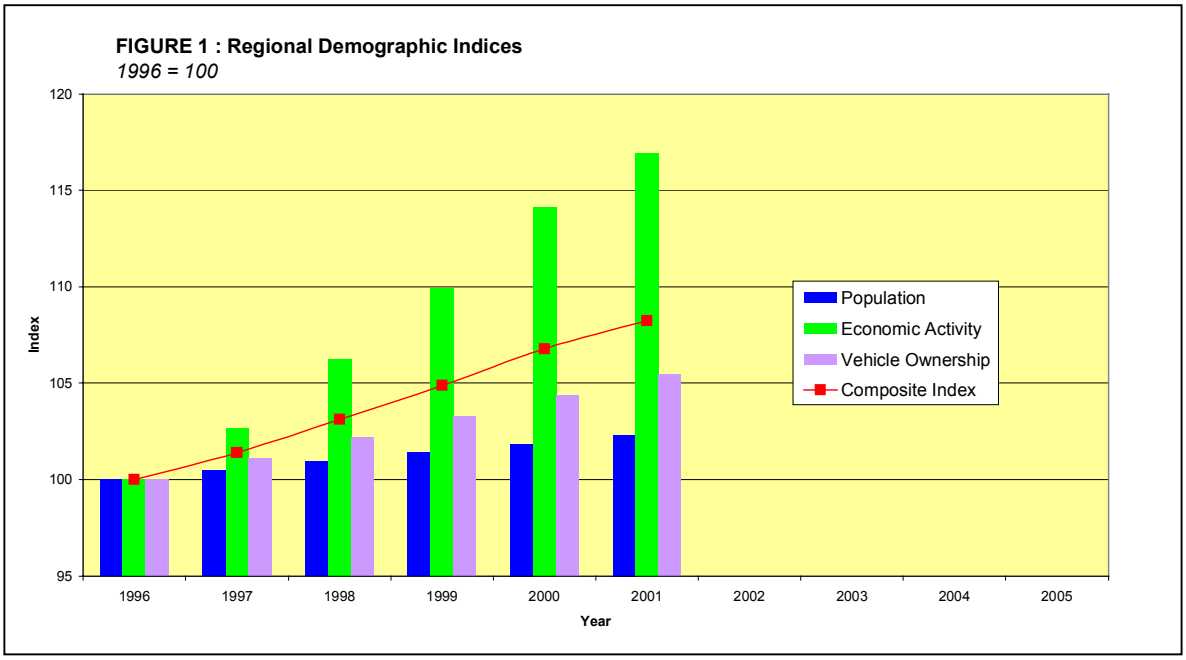
Definition: Census figures are available five-yearly.

Interpretation: Over the five years from 1996 to 2001, the average number of cars per regional household rose from 1.37 to 1.44, or five percent. Levels of car ownership correlate inversely with urban density: the lowest levels are in Wellington city, the highest in the Wairarapa. Car ownership grew in every district, at the highest rate (8.9 percent) in Porirua and the lowest in Wellington city (four percent).

Comments: Increasing car ownership leads to greater car use and more demands on the road network.

2.7 Demographic indices

Figure 1 summarises these indicators relative to the base year 1996.



2.8 Regional level

Over the five years from 1996 to 2001, regional population grew by 2.3 percent, while vehicle ownership increased by 5.5 percent. This stems from the continuing, relatively low cost of vehicle operation and increasing economic activity: 16.9 percent in the same period.

The rate of growth in the composite index (the average of three indices: population, economic activity and vehicle ownership) was 1.7 – 1.8 percent per annum from 1998 to 2000, declining to 1.4 percent in the 2000 to 2001 period, due mainly to a slackening rate of economic activity.

As the focal point of economic activity, and home to 38 percent of the 2001 regional population, Wellington city has a strong influence on regional figures.

2.9 Sub-regional level

Population has declined in the Wairarapa and Upper Hutt, while Kapiti's has grown. There is little change in unemployment rates, which remain highest in Porirua while elsewhere show a steady decline. Growth rates of vehicle ownership are lowest in Wellington City, reflecting a trend for inner-city apartment living and proximity to employment. Conversely, the highest rates and growth of vehicle ownership are in the more remote Wairarapa and Upper Hutt.

Highest rates of growth continue in the western corridor serving Kapiti, while Wairarapa and Hutt Valley growth remains relatively subdued. The trend towards-inner city, CBD living can be expected to suppress growth of travel

demand. This is offset by the desire of many to live outside the Wellington urban area, so increasing demand for peak time commuter travel.

2.10 Outlook

These trends are, in general, expected to continue. To a large extent, however, transport demand is driven by factors over which the RLTS has no control, such as fuel prices and economic activity.

There is optimism in Upper Hutt that upcoming developments will reverse population decline, and this might have a secondary impact on Hutt City. Porirua is having some success attracting “high tech” industries and retailing. These trends may influence the pattern, as well as the total scale, of regional travel demands.

2.11 Implications for transportation planning

Transportation demand is expected to rise markedly, driven by growth of population and economic activity. Current initiatives to discourage peak period car use (ride-share, tele-work etc) rely mainly on persuasion and are unlikely to effect travel behaviour more than marginally. Ultimately, tolls, congestion pricing and parking fees will be needed to give travellers direct financial incentives to change their behaviour, and ensure the network can efficiently accommodate transportation demand.

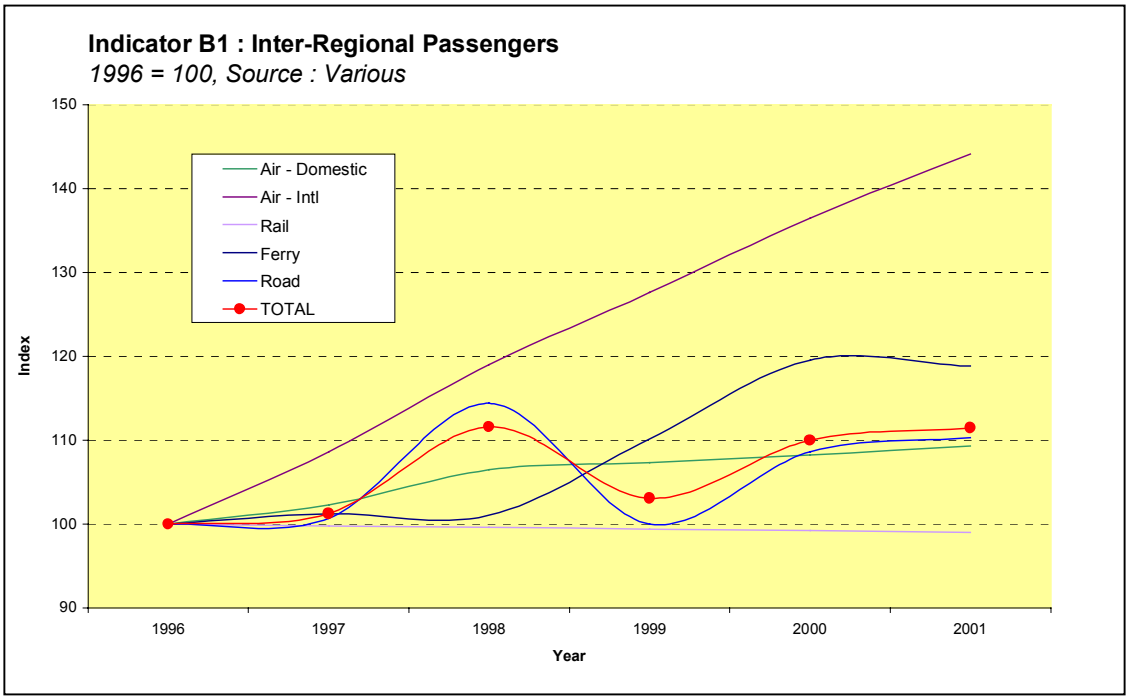
3 Inter-regional travel indicators

This section sets out and discusses trends in total travel to and from the Wellington region in terms of the following indicators:

B1: Inter-regional passenger movements
B2: Inter-regional freight movements.

3.1 Indicator B1: Inter-regional passenger movements

Source: Wellington International Airport Limited; Interisland Line; Tranz Rail; Transit New Zealand



Definition: Available figures relate to numbers of people crossing regional boundaries by air, sea (Interisland ferries only), rail or road (buses are excluded because information is unavailable). An average vehicle occupancy factor has been applied to road traffic counts. Wellington airport's function as a domestic network hub results in many movements not destined for or originating in the region, but which are counted as crossing regional boundaries.

Table 3 shows absolute numbers of travellers; figures for the Interisland Line and Tranz Rail have been omitted to protect commercial confidentiality.

Mode	Number of persons (million, per annum), 2001
Air - domestic	3.2
Air - international	0.5
Rail	N/a
Ferry	N/a
Road (except buses)	10.0

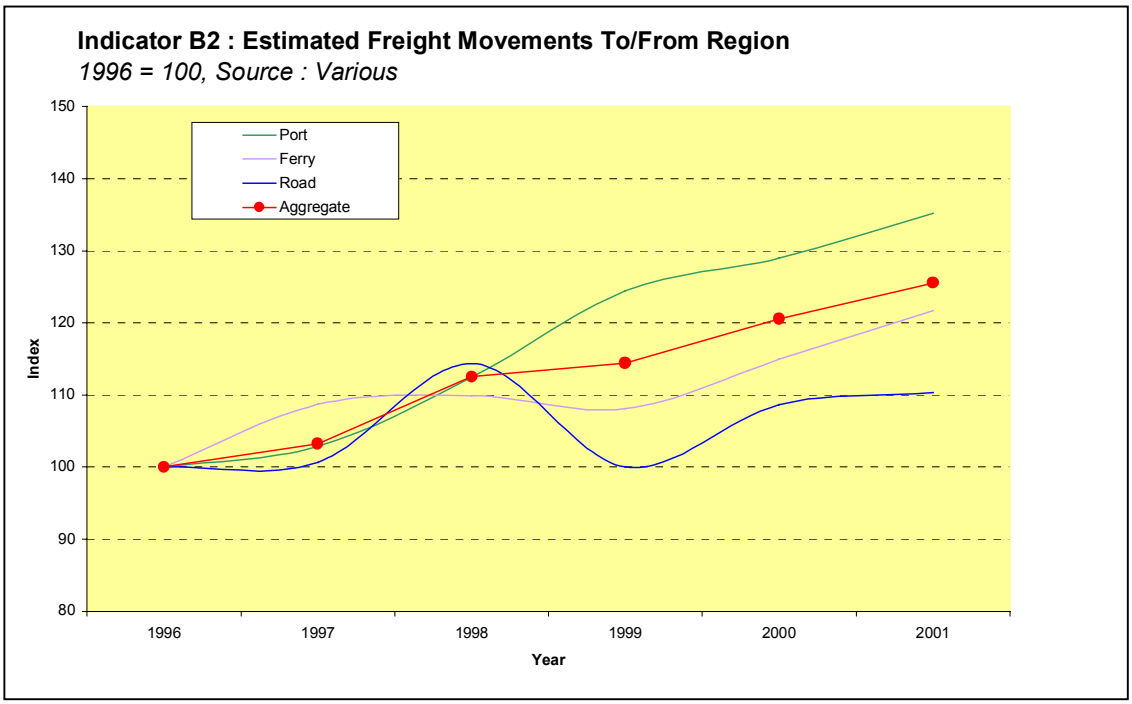
TABLE 3: Number of inter-regional passengers, by mode (2001)

Interpretation: Road transport dominates passenger movement to and from the region. The growth of air travel is volatile, affected by airline industry changes and competition. Overall, the trend is growth, with 11 percent more total passenger trips between 1996 and 2001.

Comments: Road-based travel is vital to the region. Despite this, the two main routes, state highways (SH) 1 and 2 offer poor service and are vulnerable to closure in the event of an earthquake.

3.2 Indicator B2: Inter-regional freight

Source: CentrePort; Interisland Line; Transit New Zealand



Definition: Tranz Rail has not supplied figures for rail freight and these are a significant omission from the analysis. Air freight figures (other than number of non-passenger flight movements, which is considered unreliable) are also unavailable. Freight is measured in a range of non-comparable units. For this reason, and because some data is commercially confidential, absolute numbers are not given. The aggregate measure is based on several assumptions and for indicative purposes only. It is hoped that the volume and quality of available information in this area will improve. Much recorded freight does not have a regional origin or destination and is counted twice in the figures; a container of logs, for example, may enter the region by road and leave by sea.

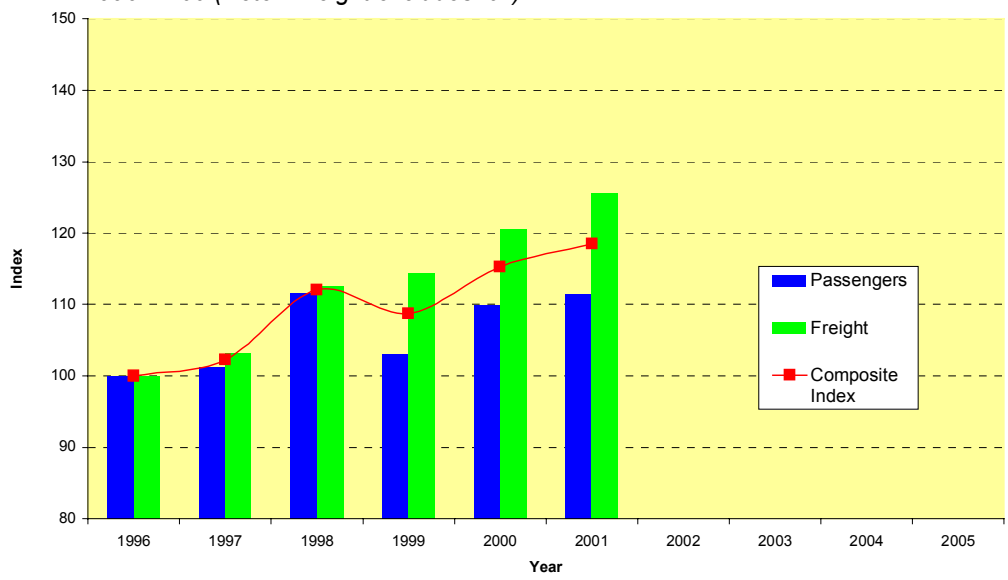
Interpretation: Sea freight through CentrePort has grown markedly: 35 percent between 1996 and 2001. The trend is strong growth, with the aggregate measure suggesting around 26 percent over the same period.

Comments: Strong freight movement growth has occurred despite accessibility problems to and from Wellington on state highways. This reinforces the need to maintain and improve the quality and reliability of the state highway network.

3.3 Inter-regional travel indices

Figure 2 shows movement in indices for inter-regional passenger and freight movements, and a composite index (an average). All are expressed relative to a base-year of 1996.

Figure 2 : Total Movements To/From Region (Indices)
1996 = 100 (Note : Freight excludes rail)



3.4 Regional level

Total passenger movements grew by around 11 percent between 1996 and 2001, although the pattern was not one of constant growth. The 1999 drop was attributable to a decline in road traffic volume over the year. Freight movements in the same period grew by around 25 percent and at a more continuous rate. Composite index growth is around 19 percent, or 3.8 percent per annum.

The figures should not be taken entirely at face value: passengers and freight passing through the region and crossing its boundaries twice are counted twice. Rail freight movements do not appear since this information was unavailable.

The main routes to and from the region, SH1 and 2, account for around two-thirds of passenger movements across the regional boundary. SH1 accounts for approximately 85 percent of total movements, highlighting the road's significance to the whole region.

Road passenger movements grew by 11 percent between 1996 and 2001, while domestic air travel grew by around nine percent. Growth in ferry and international air travel was high at around 19 percent and 44 percent respectively, reflecting strong growth in tourism travel and more, direct international air services.

Rail travel plays only a small part, with the single long distance service being daytime and night-time trains to and from Auckland, and the Capital Connection to and from Palmerston North. The Napier service was discontinued in 2001.

Total freight moved through CentrePort shows strong growth of 35 percent since 1996. Over the same period, the Interisland ferry service increased its freight carriage by around 22 percent. Road freight has increased by around 10 percent over the period, though not at a constant rate. Air freight shows a small reduction.

3.5 Sub-regional level

The figures are, by definition, regional totals, hence disaggregation by district is impossible.

3.6 Outlook

The tourism market is expected to remain buoyant for the foreseeable future; this will contribute to growth in all passenger modes, especially the Interislander ferry service.

Road traffic and freight levels correlate strongly to regional economic activity, so steady growth is expected.

3.7 Implications for transportation planning

Demand for passenger and freight movement to and from the region is expected to grow steadily over the next few years. The predominance of road-based travel requires reliable connections, particularly the SH1 corridor to the north of Wellington. Access to the port, ferry terminal and airport will also become critical as traffic to and from these destinations increases.

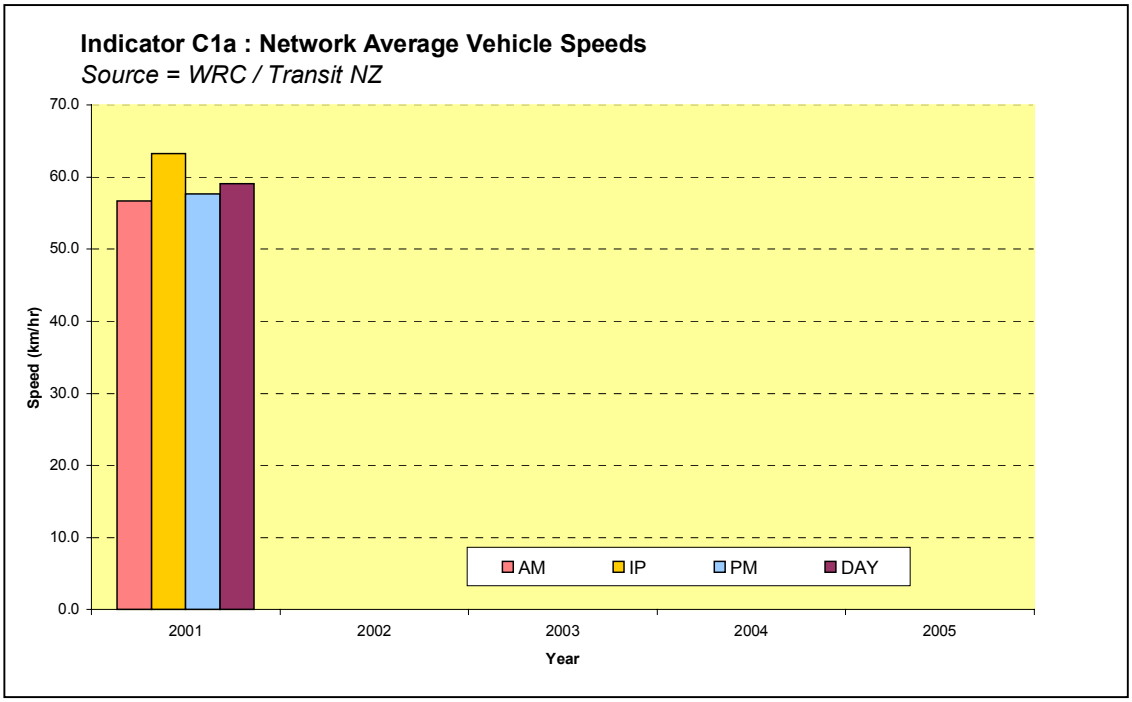
4 Accessibility and economic development indicators

This section sets out and discusses items relating to the RLTS accessibility and economic development objective: *to provide a transport system that optimises access to and within the region.* It considers the following performance indicators:

C1: Key route travel times by road
C2: State highways screenline traffic volumes
C3: Local road traffic volumes
C4: Wellington CBD cordon counts
C5: Road traffic hourly profiles
C6: Heavy vehicles on key routes
C7: State highway vehicle kilometres
C8: Road network usage
C9: Road network level of service
C10: Vehicle occupancy on Wellington CBD cordon
C11: Key route travel times by public transport
C12: Public transport service patronage
C13: Cycle and pedestrian movements
C14: Mode of journey to work
C15: Parking supply in CBDs.

4.1 Indicator C1: Key route travel times by road

Source: Survey



Definition: Travel times have been surveyed on the following representative regional routes:

Route 1: Paraparaumu – Wellington airport
Route 2: Upper Hutt – Wellington airport
Route 3: Porirua – Seaview (via State Highway 58)
Route 4: Airport – Railway Station

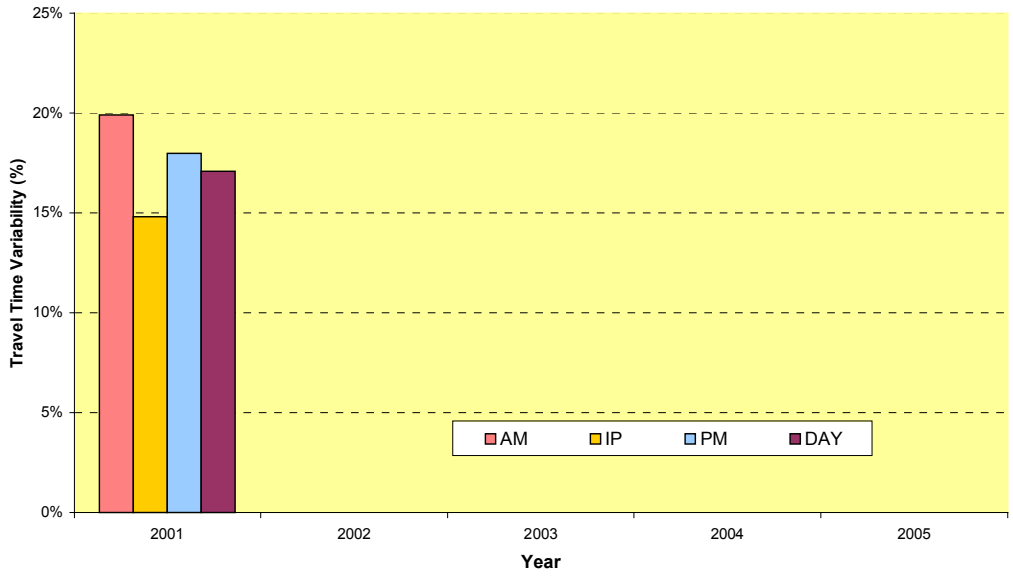
This information yields average network speeds (indicator C1a) and travel time variability (indicator C1b). "Worm" diagrams (indicators C1c and C1d) plot cumulative time against cumulative distance on specific routes.

Interpretation: Only 2001 information is available; trends will be established from future surveys. The 2001 information shows the effects of morning and evening peak period congestion; average speeds are down approximately 10 percent on the inter-peak period, and travel time variability is greatest during commuter peak periods. Until information is available for later years, the "worm" diagrams are of limited value; they do, however, show how speeds vary on each route (slower speeds are represented by a steeper line).

Comments: Results reflect the level of service the road network offers. These are network-wide averages that mask localised problem-areas where congestion occurs.

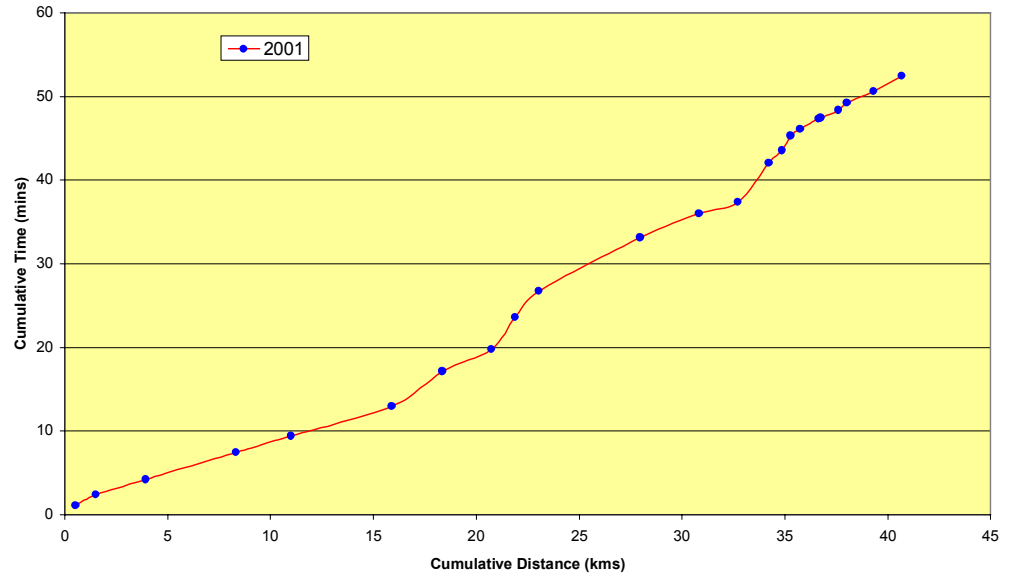
Indicator C1b : Network Average Vehicle Speed Variability

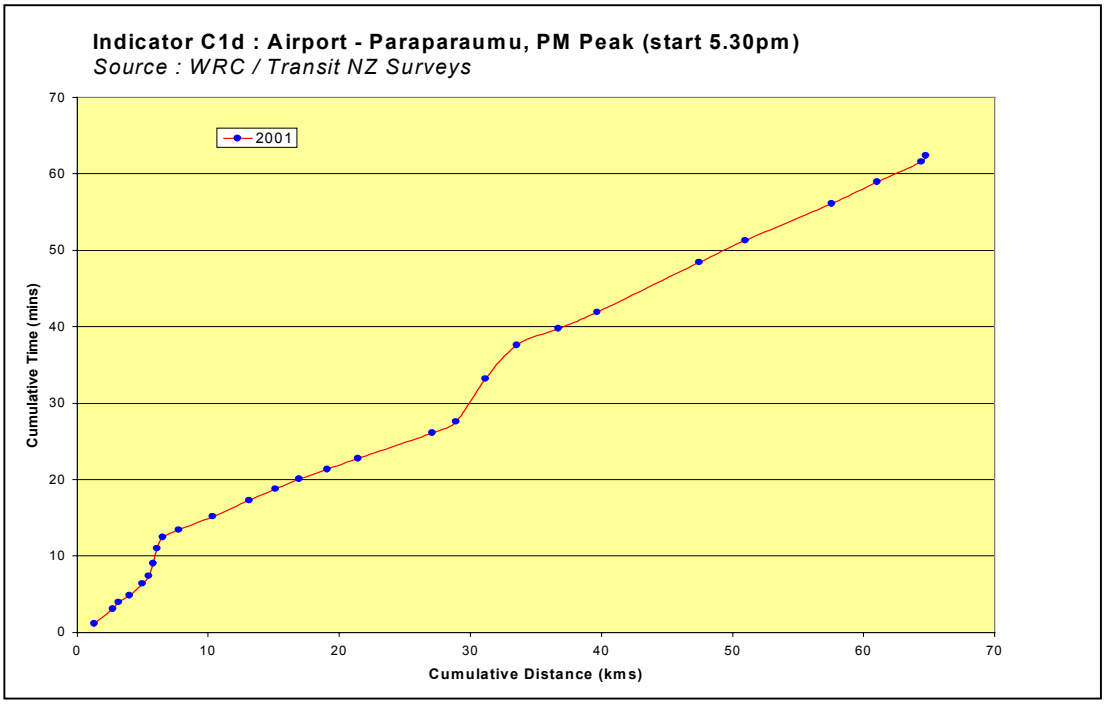
Source = WRC / Transit NZ



Indicator C1c : Upper Hutt - Airport, AM Peak (start 7am)

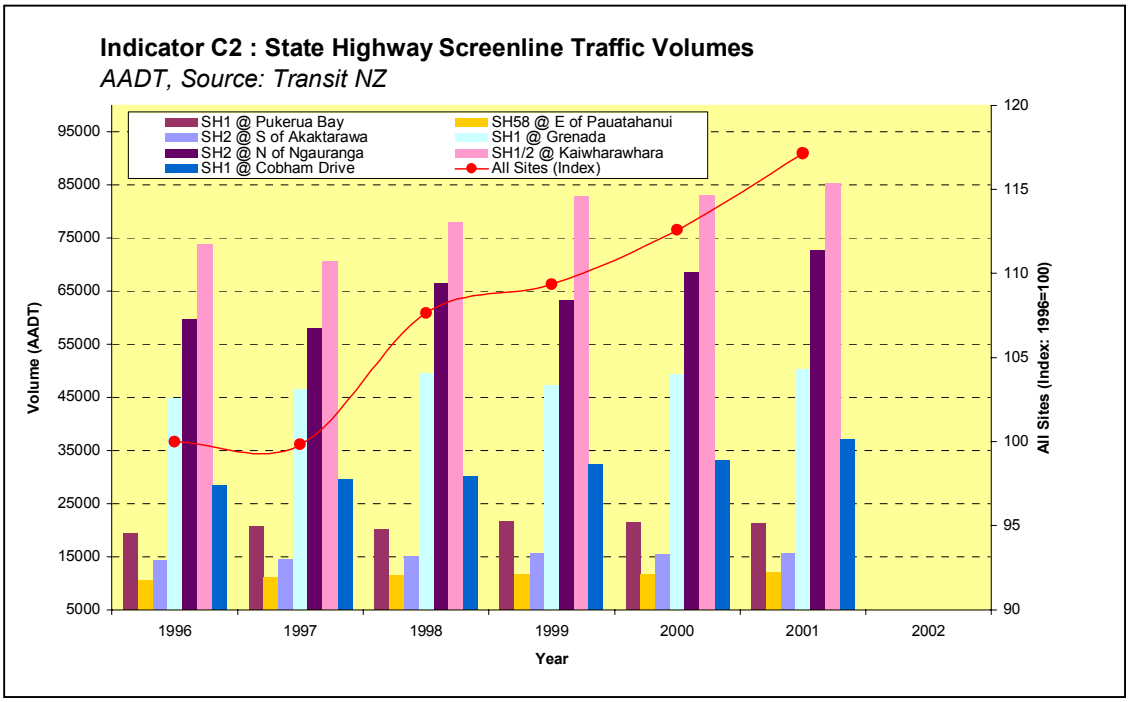
Source : WRC / Transit NZ Surveys




Indicator C1d : Airport - Paraparaumu, PM Peak (start 5.30pm)
Source : WRC / Transit NZ Surveys
2001
Cumulative Time (mins)
Cumulative Distance (kms)
0
10
20
30
40
50
60
70

4.2 Indicator C2: State highway screenline traffic volumes

Source: Transit New Zealand



Definition: Annual average daily traffic (AADT) volumes derive from automatic counters operating on each road section. Results must be interpreted cautiously since many vehicles are counted several times, depending on route through the network. Counts record only vehicles on the network; vehicle trips avoided because of perceived congestion cannot be quantified.

Interpretation: Although traffic volumes were virtually static between 1996 and 1997, growth increased rapidly after 1997. Traffic volumes in 2001 are about 17 percent above 1996 levels, an annual growth rate of approximately 3.4 percent. Growth in the 1999 to 2001 period has been slightly higher, at 3.6 percent of 1999 levels.

Comments: Demands on the road network continue to grow significantly. Initiatives encouraging use of public transport, especially for peak period commuter trips, remain important, but road travel will continue to be the region's predominant form of transport. The network requires balanced improvements in capacity and efficiency to properly accommodate demand.

4.3 Indicator C3: Local road traffic volumes

Source: Local authorities

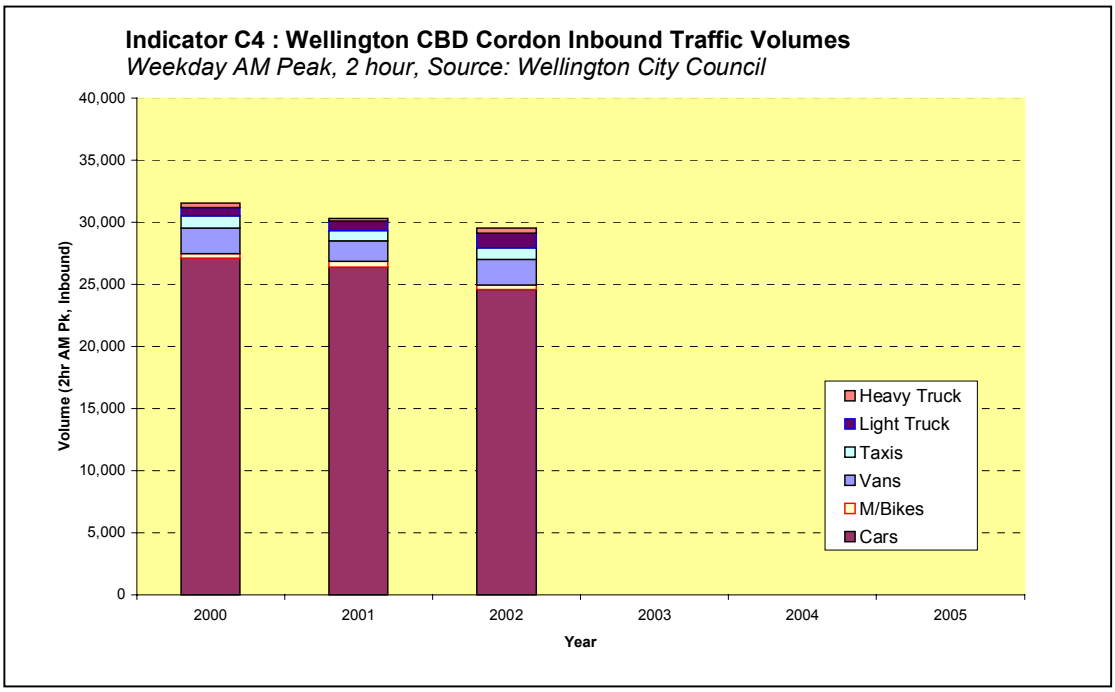
Definition: Information is available for 2001 only, hence historical trends cannot be established. It would be misleading to compare absolute traffic volumes between districts since district counts are influenced by specific sites for which measurements are available. Information for subsequent years will allow district comparison.

Interpretation: Although local traffic growth rates cannot be established yet, they are expected to resemble those of state highways since all state highway traffic at some point uses local roads.

Comments: Demands on the road network continue to grow significantly. Initiatives encouraging use of public transport, especially for peak period commuter trips, remain important, but road travel will continue to be the region's predominant form of transport. The network requires balanced improvements in capacity and efficiency to properly accommodate demand.

4.4 Indicator C4: Wellington CBD cordon counts

Source: Wellington City Council



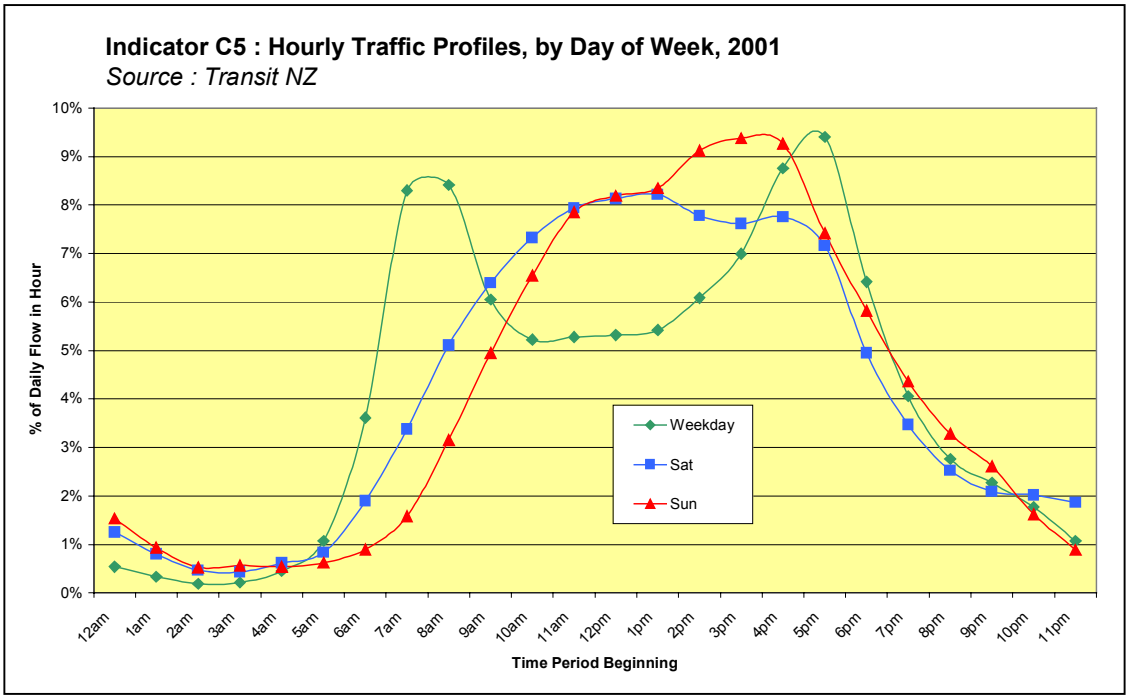
Definition: Wellington City Council commissions twice-yearly classified counts, in March and October; the information here is for March only. The cordon comprises Oriental Parade, Majoribanks Street, Elizabeth Street, Pirie Street, Cambridge Terrace, Buckle Street, Tasman Street, Taranaki Street, Cuba Street, Victoria Street, Willis Street, Aro Street, Abel Smith Street, Vivian Street, Ghuznee Street, Dixon Street, The Terrace, Boulcott Street, Aurora Terrace, Bolton Street, Bowen Street, Hill Street, Hawkestone Street, Murphy Street, Hobson Street, Thorndon Quay and Aotea Quay. Traffic heading into the city is counted during the two-hour morning commuter peak. Buses are not counted.

Interpretation: Total inbound road traffic volumes declined between 2000 and 2002; this is consistent with the decline in the proportion of private car journeys to work (indicator C14). Cars and light utility vehicles comprise more than 87 percent of the total 2002 vehicle flow; heavy trucks, around 1.4 percent.

Comments: As general daily traffic volumes grow, peak period commuter private car use for journeys into Wellington is declining. This is partly a response to increasing congestion and CBD parking charges, as well as a result of an increase in inner city apartment living.

4.5 Indicator C5: Road traffic hourly profiles

Source: Transit New Zealand



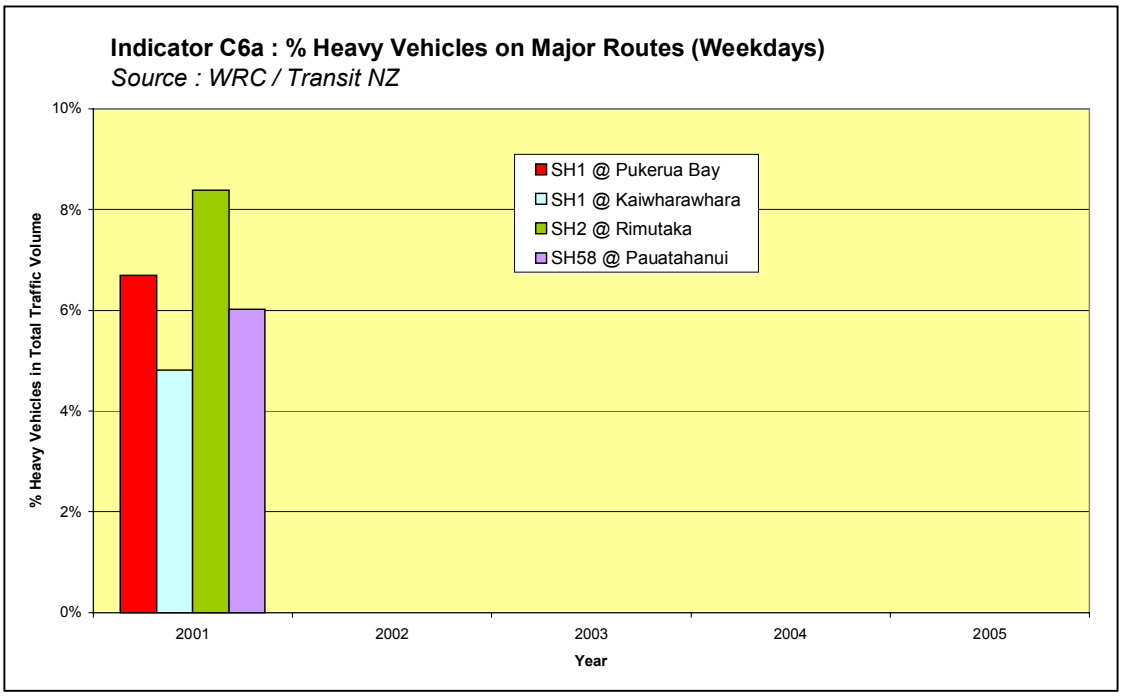
Definition: The table shows daily flow distribution over the course of each day, averaged across state highway network sites for which information is available. Hourly flow is presented as a percentage of daily traffic volume.

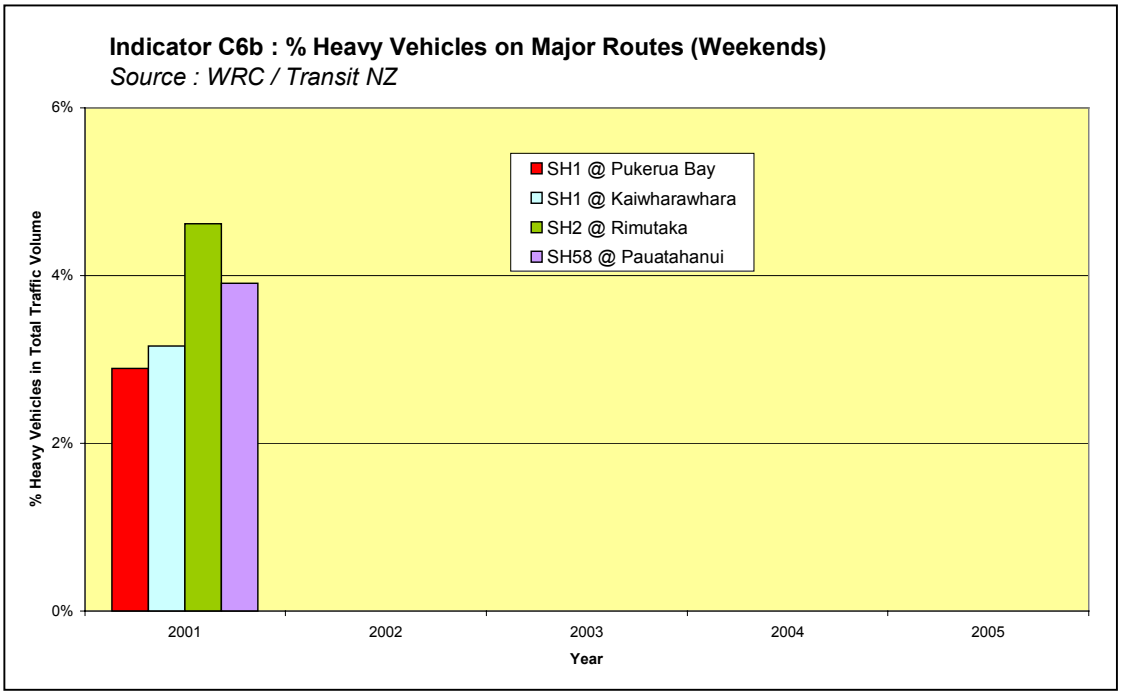
Interpretation: This analysis uses combined two-way traffic volumes. Directional volumes would show more pronounced peaks, especially in the direction of commuter traffic volumes. At this stage, information is available for 2001 only, hence the chart compares weekday, Saturday and Sunday profiles. Information for subsequent years will make it possible to see how profiles change over time. They reflect traditional morning and evening weekday commuter peak periods, when traffic volumes are between eight and 10 percent of daily flow. Weekend profiles are quite different: Saturdays show a broad peak during between 10am and 6pm; the Sunday peak occurs in the late afternoon period as people return home.

Comments: Transport policy often focuses on resolving weekday peak period problems. Weekend travel demands, although more variable, can also be significant and result in network congestion.

4.6 Indicator C6: Heavy vehicles on key routes

Source: Transit New Zealand





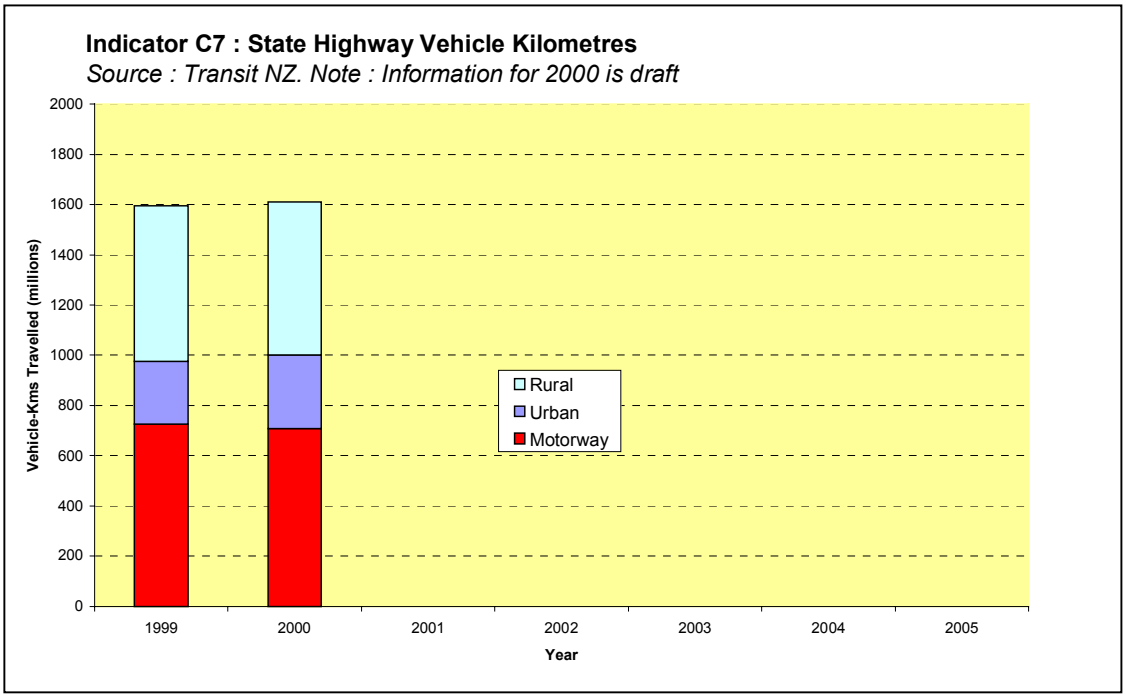
Definition: The heavy vehicle percentage is obtained from permanent telemetry sites recording throughout the year. Sites record the length of each vehicle, with anything more than 5.5 metres defined as heavy. Information is available for 2001 only, hence no historical trends can be established.

Interpretation: Although year-to-year comparisons are impossible, figures show that heavy vehicles make up a greater proportion of total traffic demand at more remote locations, such as SH2 at Rimutaka. Closer to the city and during weekends, there are more light vehicles on the network, resulting in lower absolute and percentage figures for heavy vehicles.

Comments: It is vital that the regional road network provides for heavy vehicles to support commercial activities and make accessible key destinations such as the port and airport.

4.7 Indicator C7: State highway vehicle kilometres

Source: Transit New Zealand



Definition: Transit New Zealand uses information from traffic counters to determine total vehicle kilometres travelled annually on each section of regional state highway. Information for 2000 is draft only and subject to confirmation.

Interpretation: Currently available figures show little growth from 1999 to 2000 (0.9 percent, compared to the 2.9 percent growth in state highway traffic volumes shown by indicator C2). This apparent inconsistency needs further investigation, although it may be partially explained by an increase in shorter distance travel. Table 4 shows that nearly 65 percent of the state highway network is rural but accounts for only 38 percent of total travelled distance. Correspondingly, 17.5 percent of the network classified as “motorway” accounts for nearly 44 percent of distances travelled.

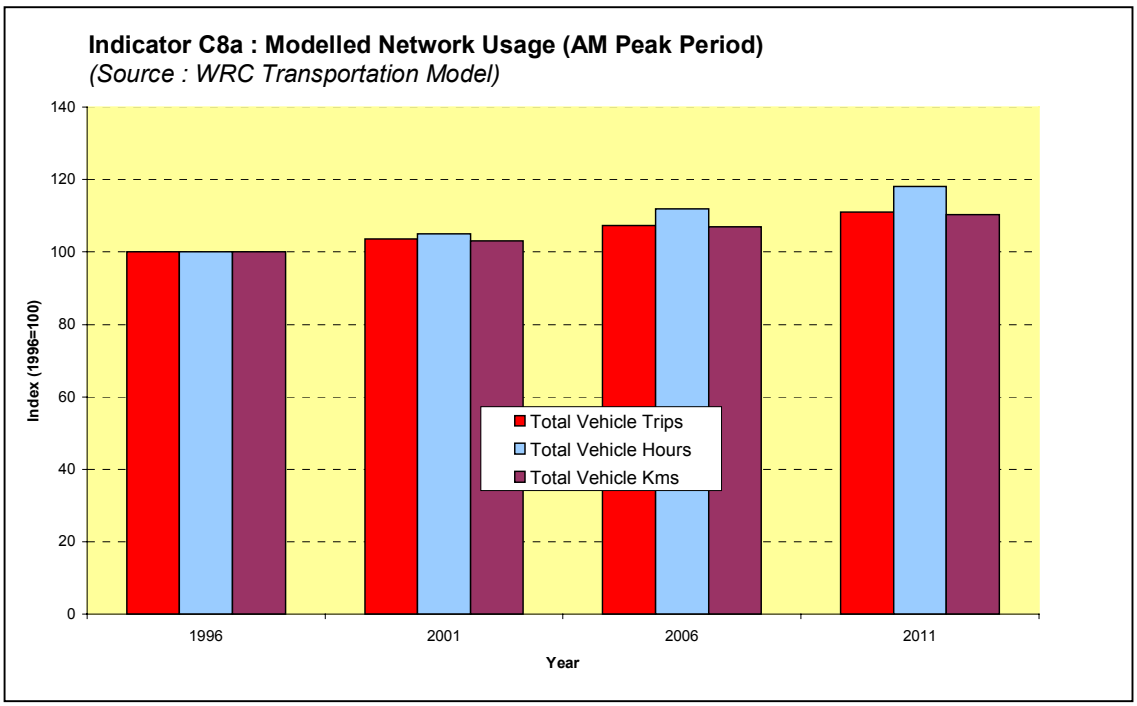
District	State highway network, 2000	
	Percentage of network	Percentage of VKT
Motorway	17.5	43.9
Urban	17.6	18.3
Rural	64.9	37.8
REGION	**100.0**	**100.0**

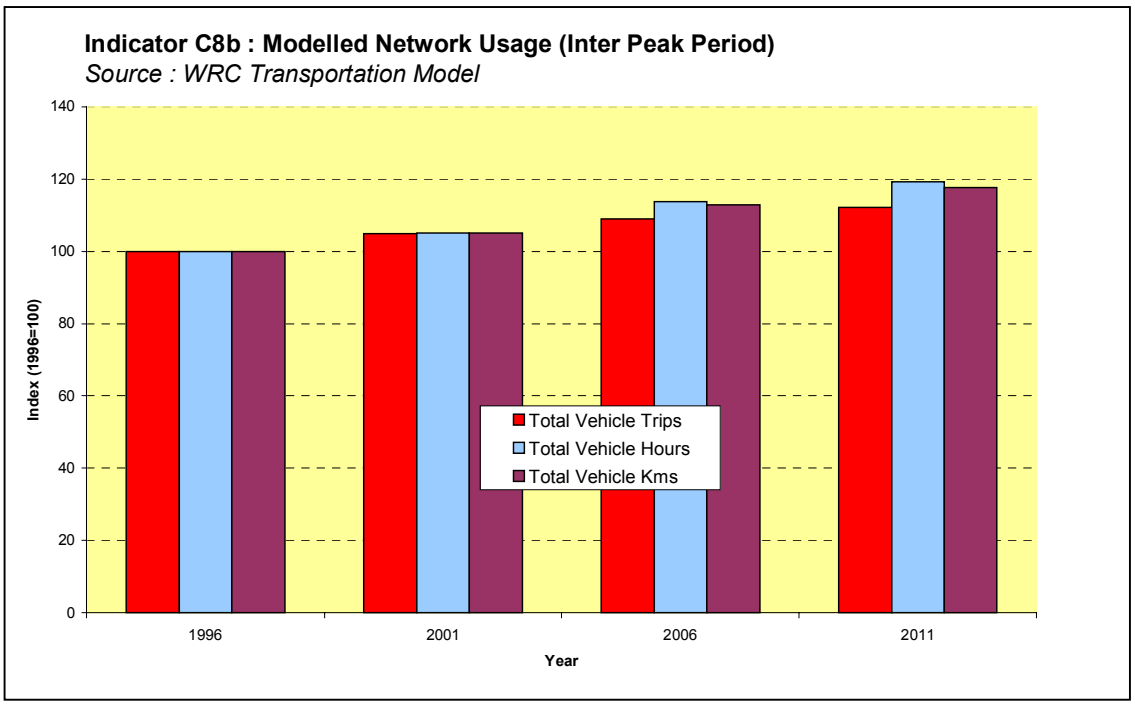
TABLE 4: State highway network characteristics, Wellington region, 2000

Comments: State highway network loadings vary widely by location; rural Wairarapa requirements are entirely different to those of central Wellington. Continued monitoring is needed to ensure state highway network components give the best service possible within topographical and financial constraints.

4.8 Indicator C8: Road network usage

Source: Wellington Regional Council transportation strategy model





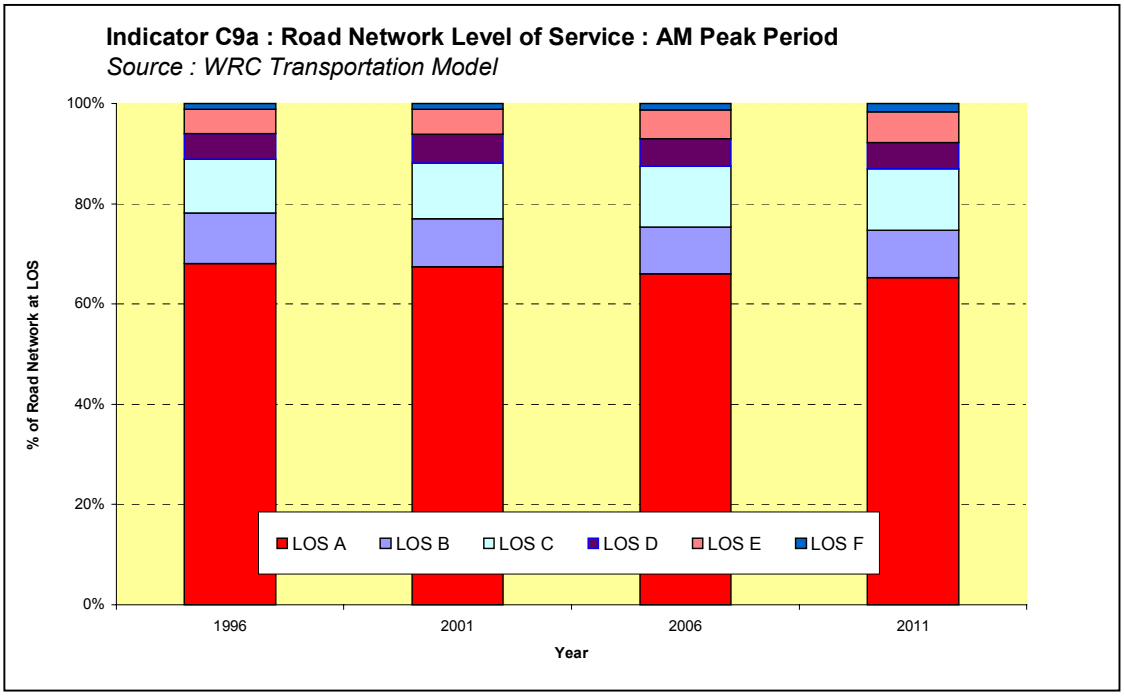
Definition: Information is derived from the WRC's transportation strategy model, which has been confirmed by observation, not from measurement or survey. Since the information is only as reliable as the model, it should be taken as indicative only. The model comprises sub-models for weekday morning commuter peak and inter-peak periods. Totals cover the entire modelled regional network, including all principal routes. Minor local roads are not included.

Interpretation: By 2011, total vehicle trips are expected to have risen by 11 or 12 percent from 1996. Total travel times are expected to increase at a greater rate (18 to 19 percent) as congestion worsens. Total travel distances will rise as a result of location changes (families moving to rural areas) and in response to congestion (seeking faster but longer routes).

Comments: The road network faces increasing demands as traffic volumes grow and travel distances increase. Over the next few years, higher rates of growth can be expected in inter-peak periods, as commuters choose to travel outside traditional peaks.

4.9 Indicator C9: Road network level of service

Source: Wellington Regional Council transportation strategy model



Definition: Information is derived from WRC's transportation strategy model, which has been confirmed by observation, not from measurement or survey. Since the information is only as reliable as the model, it should be taken as indicative only. The model comprises sub-models for the weekday morning commuter peak and inter peak periods. It compares forecast traffic volumes with network capacity, thus identifying "levels of service". The US Highway Capacity Manual defines this term, but the assessment here is based on the following "proxy" measure (the calculated volume-to-capacity ratios for each section of road):

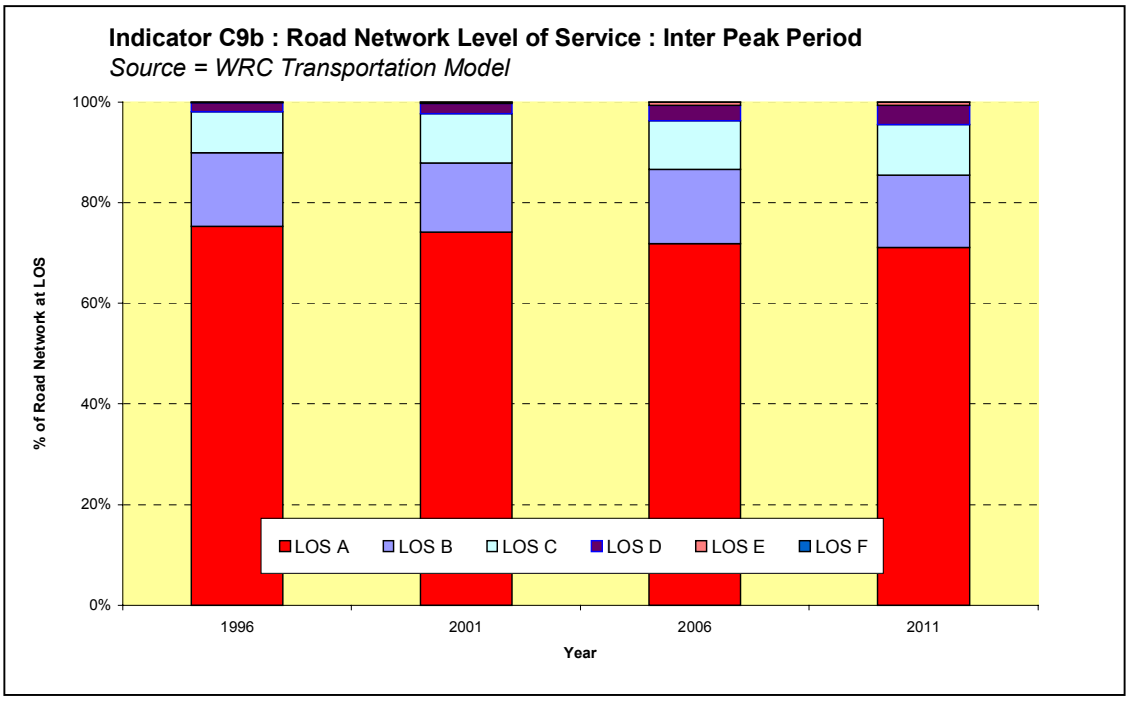
LOS A: primarily light traffic, free-flow conditions
LOS B: mostly light traffic, some disruptions
LOS C: some permanent queuing at intersections
LOS D: high volumes, delays due to congestion
LOS E: operation at capacity
LOS F: over-capacity – breakdown of traffic flow.

Note that the strategic transportation model cannot completely simulate intersection delays; the above categories characterise conditions on sections of road, rather than at intersections.

Graphs show the percentage length of road network operating at each level of service.

Interpretation: More than 75 percent of the network operates at LOS A or B in the morning peak; in the inter-peak, the figure is 85 to 89 percent. Increasing traffic demands will eventually erode level of service as congestion becomes worse and affects a wider area.

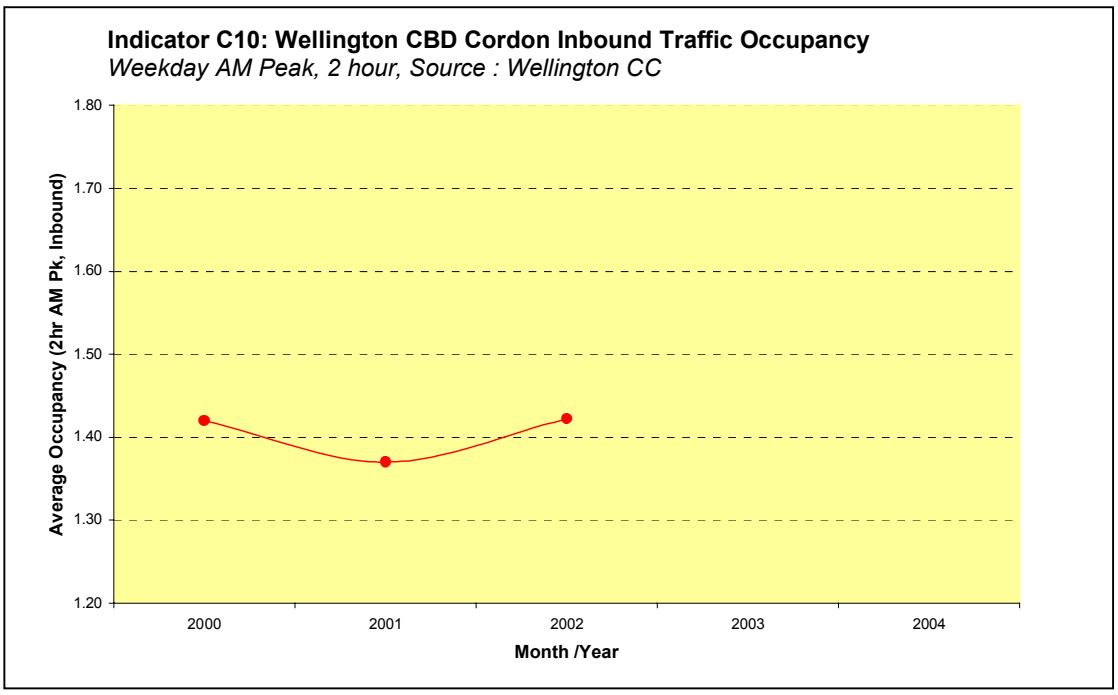
In the 2011 morning peak, around eight percent of the network will operate below LOS D, from six percent in 1996.



Comments: Without improved efficiency or capacity, level of service will progressively deteriorate as traffic demands grow. The results will be greater congestion in existing problem areas, and the spread of congestion to areas now operating satisfactorily.

4.10 Indicator C10: Vehicle occupancy on Wellington CBD cordon

Source: Wellington City Council



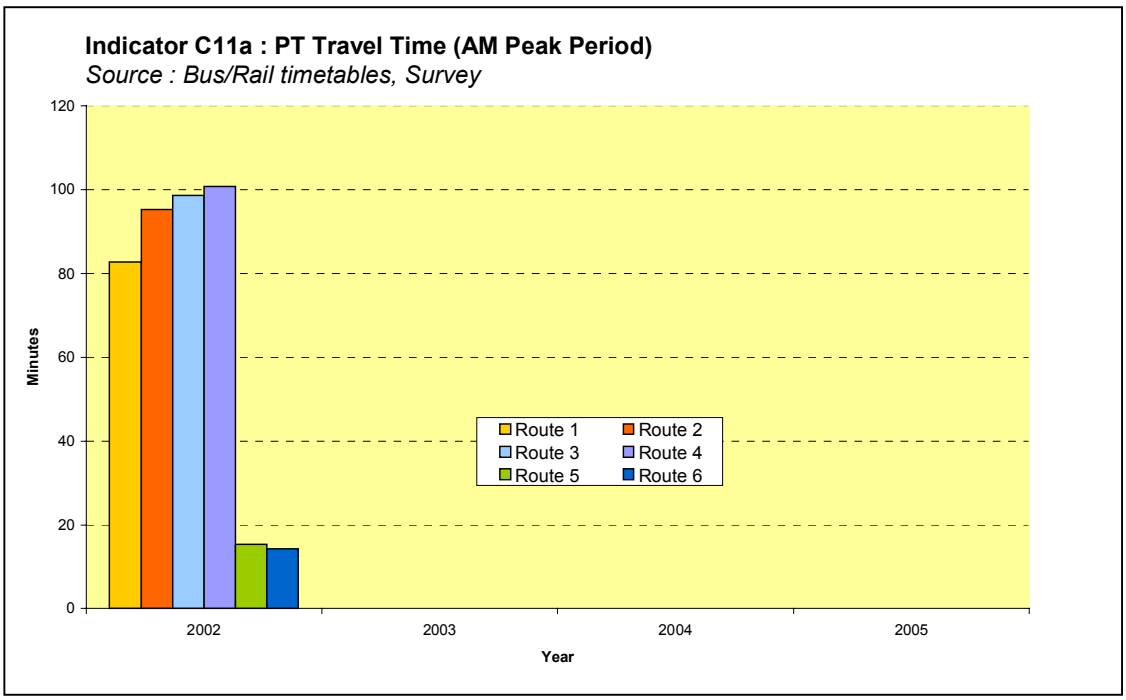
Definition: Wellington City Council commissions twice-yearly surveys, in March and October; information is presented for March only. The cordon comprises Oriental Parade, Majoribanks Street, Elizabeth Street, Pirie Street, Cambridge Terrace, Buckle Street, Tasman Street, Taranaki Street, Cuba Street, Victoria Street, Willis Street, Aro Street, Abel Smith Street, Vivian Street, Ghuznee Street, Dixon Street, The Terrace, Boulcott Street, Aurora Terrace, Bolton Street, Bowen Street, Hill Street, Hawkestone Street, Murphy Street, Hobson Street, Thorndon Quay and Aotea Quay. Only traffic heading into the city is counted, during the two-hour morning commuter peak, and figures show average numbers of vehicle occupants. Buses are not counted.

Interpretation: Reliable trends cannot be established because data does not yet cover a long enough period. Typical occupancy is between 1.3 and 1.5 people per vehicle.

Comments: The high proportion of single or double occupancy vehicles represents an inefficient means of transportation. An emphasis on moving *people* rather than *vehicles* would significantly improve efficiency. Initiatives such as the WRC Rideshare programme aim to address this issue.

4.11 Indicator C11: Key route travel times – public transportation

Source: Survey; timetables



Definition: Travel times derive from timetables for routes one to four. Routes five and six face congestion in the Golden Mile, rendering timetables unreliable; information on these was collected by survey. Routes covered are:

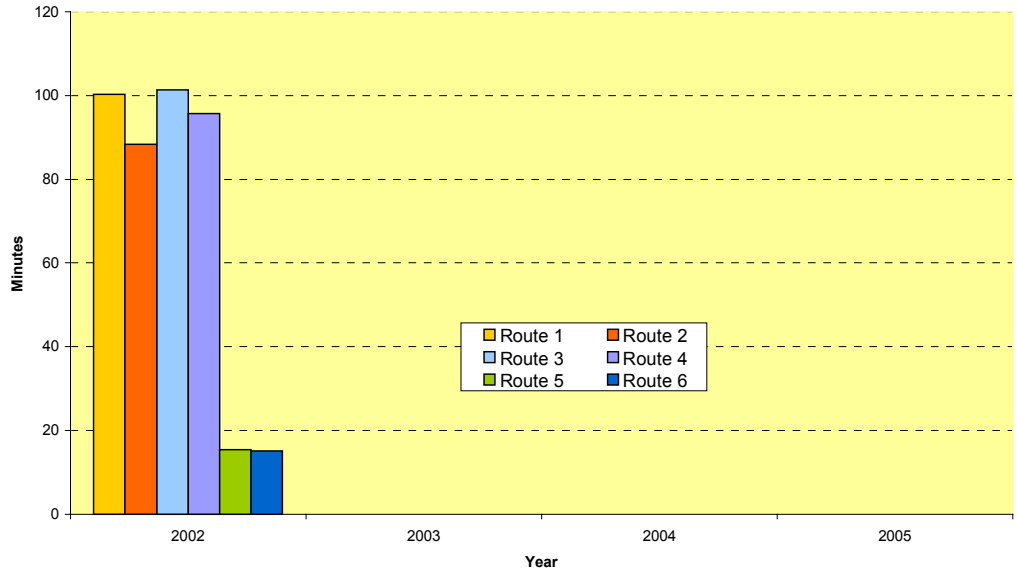
Route 1: Upper Hutt – Wellington Airport (rail/bus)
Route 2: Wellington Airport – Upper Hutt (bus/rail)
Route 3: Paraparaumu – Wellington Airport (rail/bus)
Route 4: Wellington Airport – Paraparaumu (bus/rail)
Route 5: Courtenay Place – Railway Station (bus)
Route 6: Railway Station – Courtenay Place (bus).

Interpretation: It is currently impossible to establish trends in public transport travel times as there is data for 2001 only. In general, journey times are longer during off-peak and weekend periods as there is reduced service frequency and trains stop at all stations along each route. Bus travel times along the Golden Mile are significantly higher for the afternoon peak because of congestion at several points.

Comments: Only a high level of service on the public transport network will encourage travellers to switch from private cars, especially for the peak period commute to work. This requires measures to reduce bus travel time variations, and better integration between bus and rail services to minimise the “cost” of interchange to many passengers.

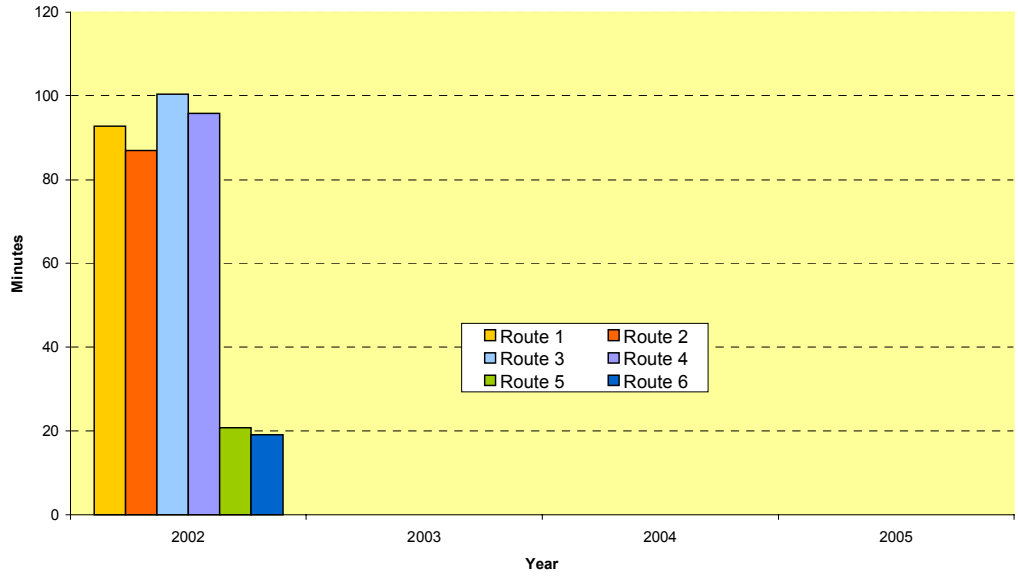
Indicator C11b : PT Travel Time (Inter Peak Period)

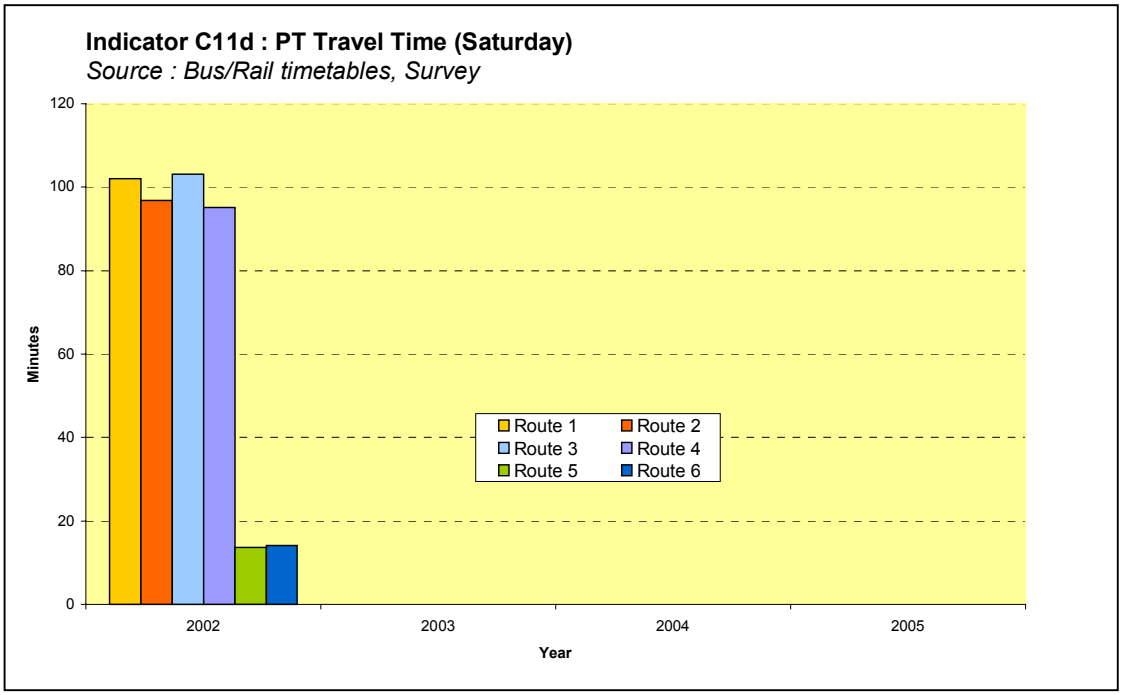
Source : Bus/Rail timetables, Survey



Indicator C11c : PT Travel Time (PM Peak Period)

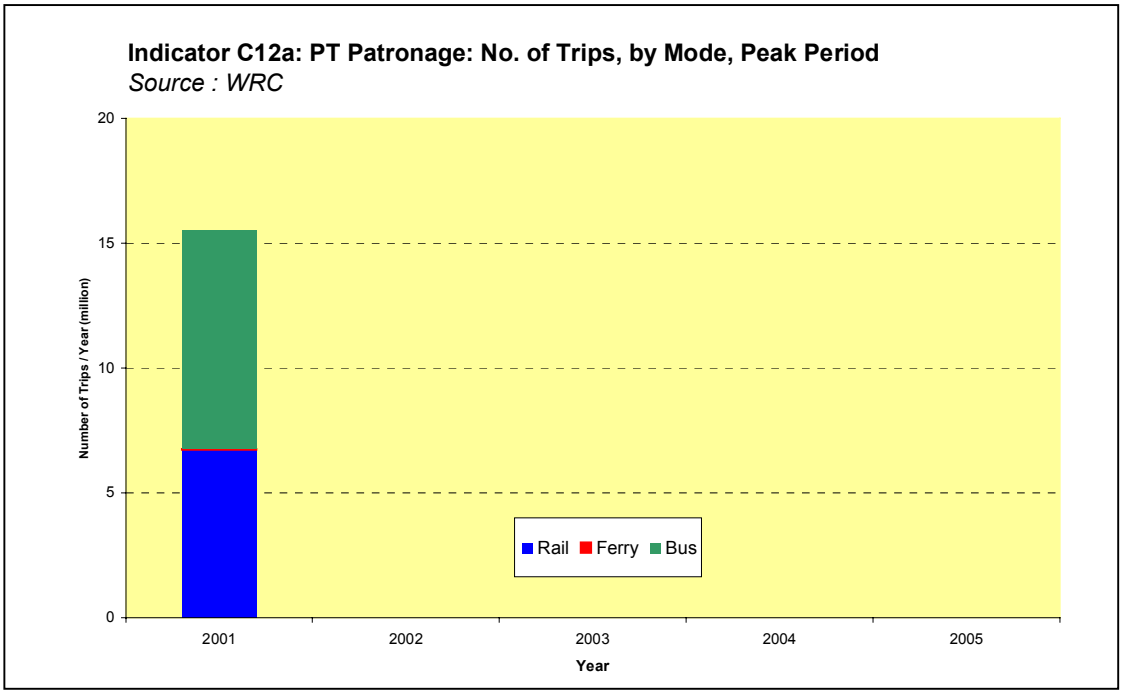
Source : Bus/Rail timetables, Survey

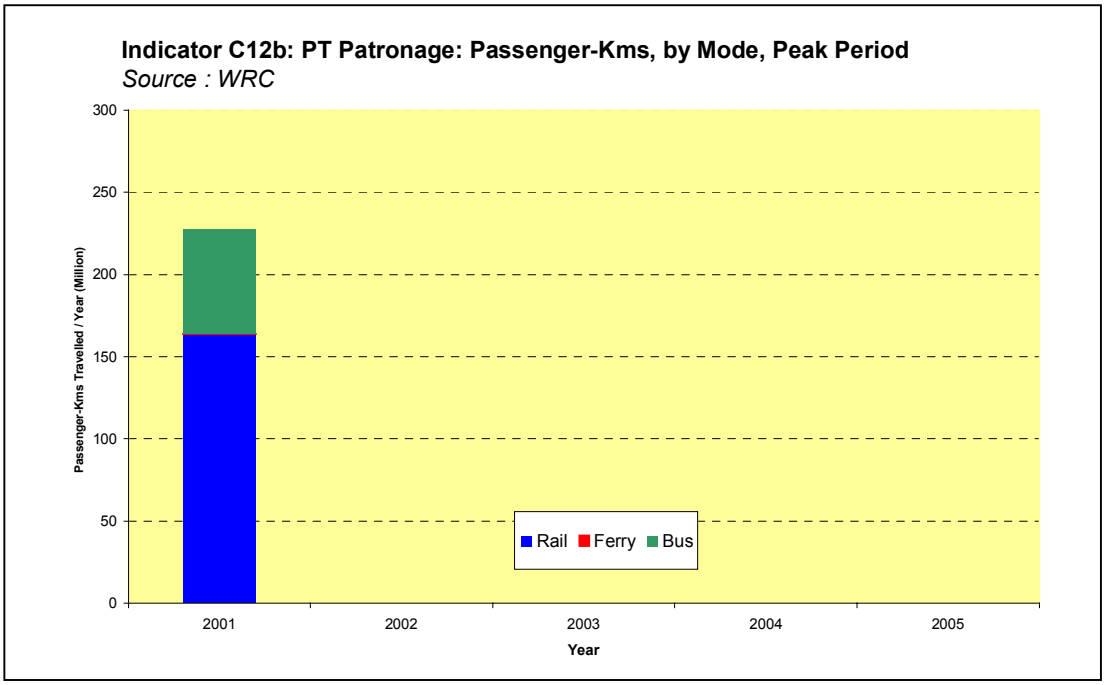



Indicator C11d : PT Travel Time (Saturday)
Source : Bus/Rail timetables, Survey
120
100
80
60
40
20
0
Minutes
Route 1
Route 2
Route 3
Route 4
Route 5
Route 6
2002
2003
2004
2005
Year

4.12 Indicator C12: Public transport service patronage

Source: Wellington Regional Council

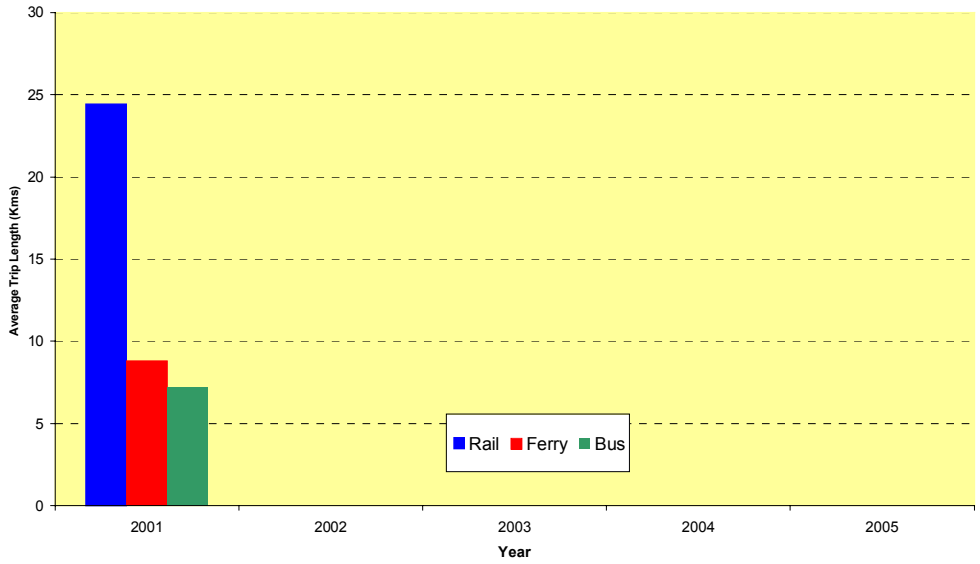




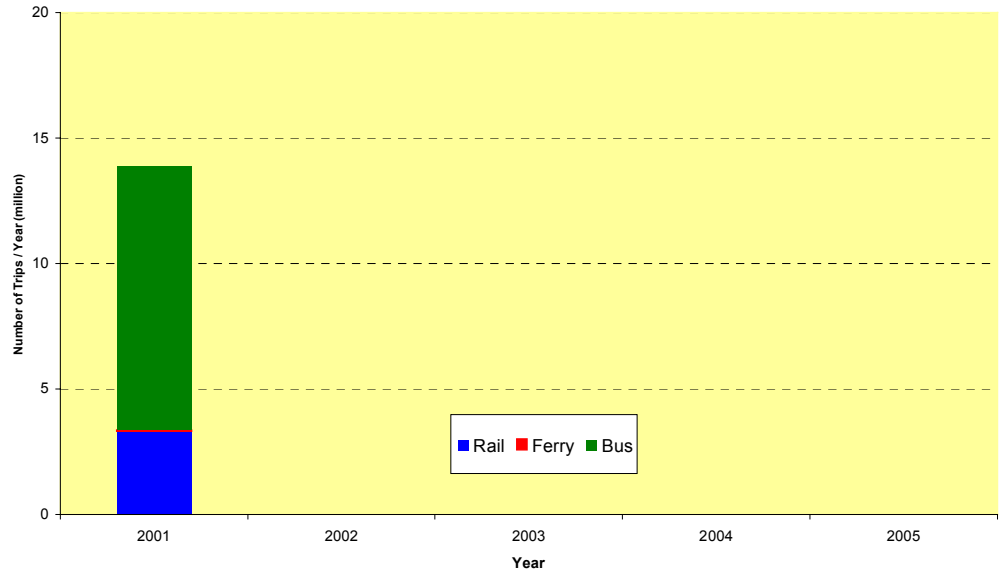
Definition: WRC collates information on public transport patronage for the funding system. Totals for passengers carried and distances travelled are available monthly for rail, bus and (Eastbourne) ferry services.
Interpretation: Full information is currently only available for a single calendar year, 2001; hence it is impossible to establish trends. Buses account for most journeys by public transport (57 percent in peak periods), but rail trips are typically three to four times longer and so rail accounts for most passenger kilometres (72 percent in peak periods).

Comments: Demands on the road network continue to grow significantly. Initiatives encouraging use of public transport, especially for peak period commuter trips, remain important, but road travel will continue to be the predominant form of regional transport. Travel demands will only be met by balanced improvements to network capacity and efficiency.

Indicator C12c: PT Patronage: Average Trip Length by Mode, Peak Period
Source : WRC

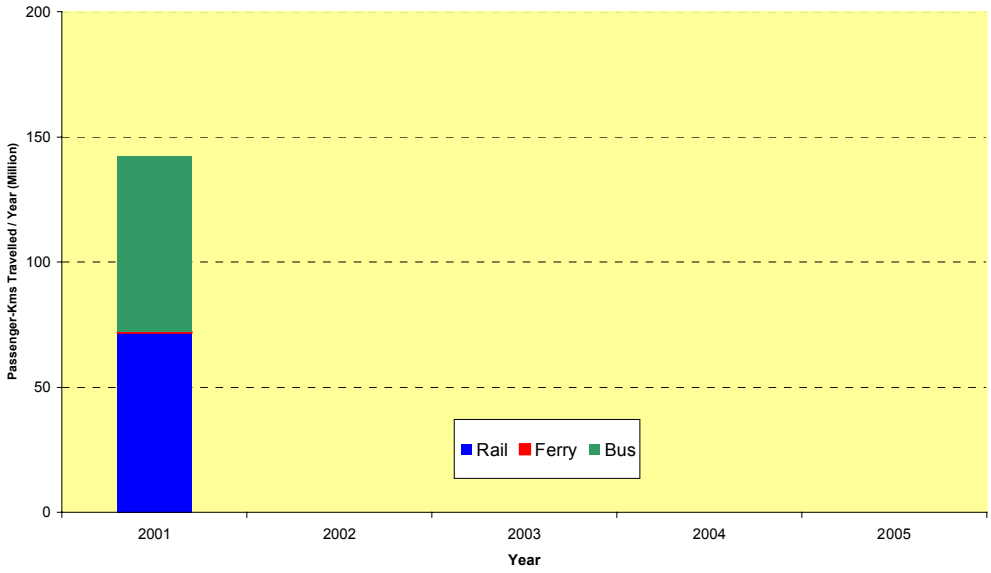


Indicator C12d: PT Patronage: No. of Trips, by Mode, Off Peak Period
Source : WRC



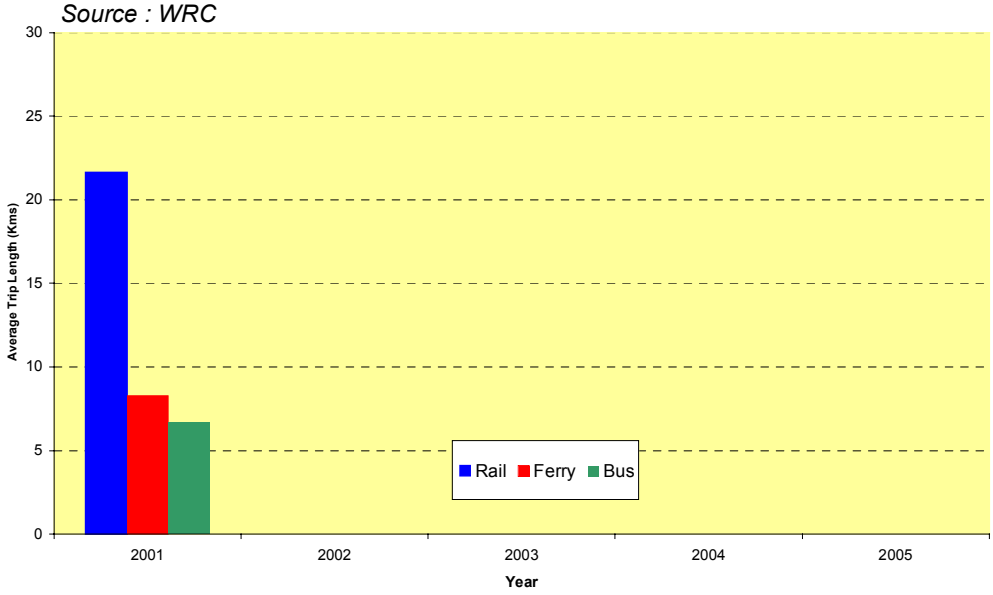
Indicator C12e: PT Patronage: Passenger-Kms, by Mode, Off Peak Period

Source : WRC



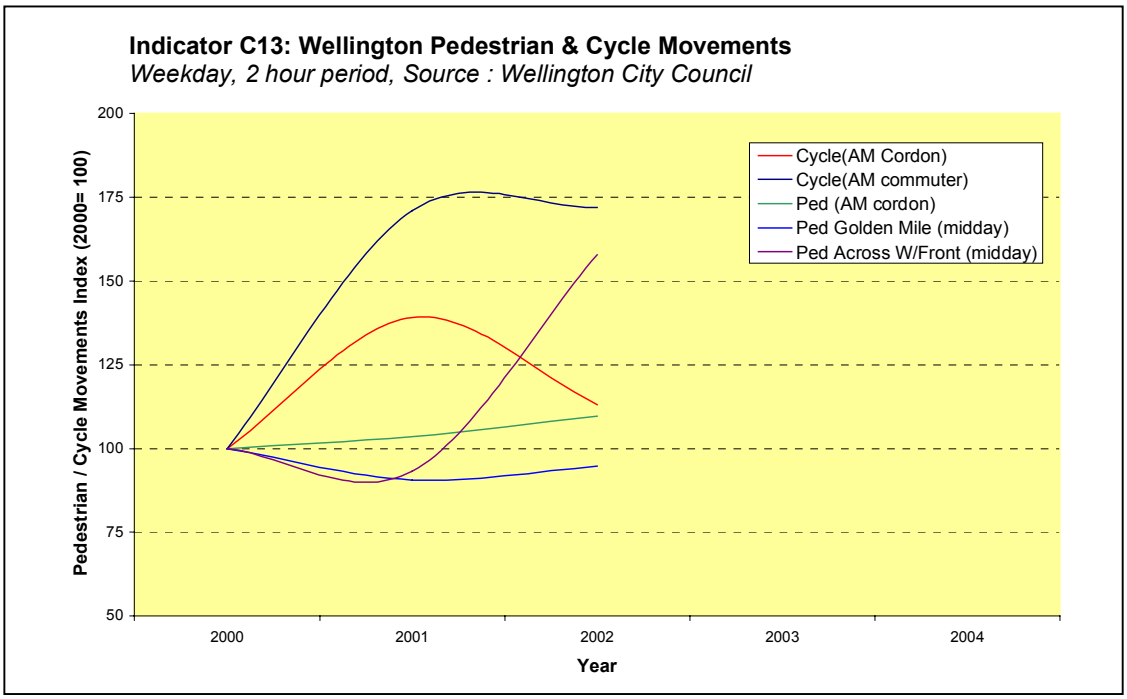
Indicator C12f: PT Patronage: Average Trip Length by Mode, Off Peak Period

Source : WRC



4.13 Indicator C13: Cycle and pedestrian movements

Source: Wellington City Council



Definition: Wellington City Council undertakes cordon and screenline location surveys every March and October; information here is for March only, and no information is available for other local authority areas. The following aspects are surveyed:

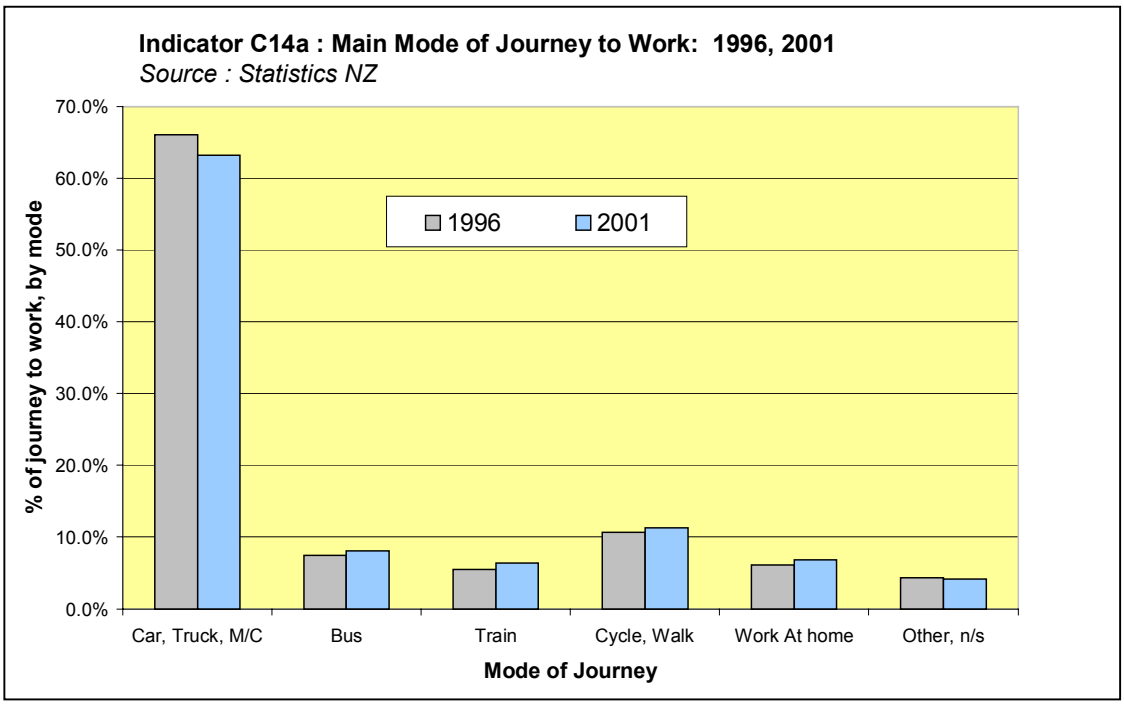
- pedestrians inbound to the central city during the morning peak period
- cycles inbound to the central city during the morning peak period
- cycles at suburban locations during the morning peak period
- pedestrians along the Golden Mile during weekday lunch-times
- pedestrians between the CBD and waterfront during weekday lunch-times.

Interpretation: Cycle and pedestrian counts vary widely according to weather conditions when surveyed. More reliable trends will eventually be established.

Comments: Walking and cycling are becoming more popular means of travelling to work. Demands must be accommodated and encouraged by provision of a safe and convenient route network for pedestrians and cyclists.

4.14 Indicator C14: Mode of journey to work

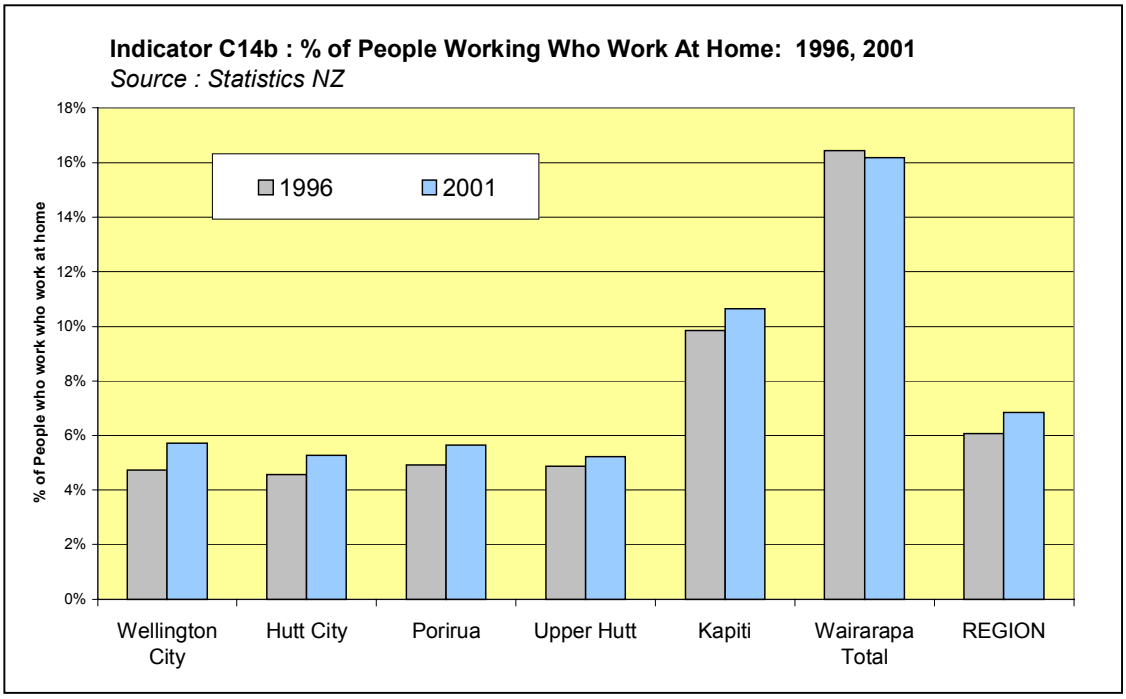
Source: Statistics New Zealand



Definition: Census information is collected five-yearly and covers a single day. Data are available for 1996 and 2001.

Interpretation: These results must be interpreted with care; reliable trends cannot be established from two data points, particularly as yearly results are influenced by the weather on census day. While private cars still account for nearly two-thirds of journeys to work, there appears to have been a shift towards public transport and slow modes (walking, cycling). The percentage of those working from home has increased in all districts except the Wairarapa.

Comments: The decrease in numbers of car journeys to work is encouraging. Technological advances which make it easier for people to work from home or to tele-work at least some days each week are reducing peak period traffic demands.



4.15 Indicator C15: Parking supply in CBDs

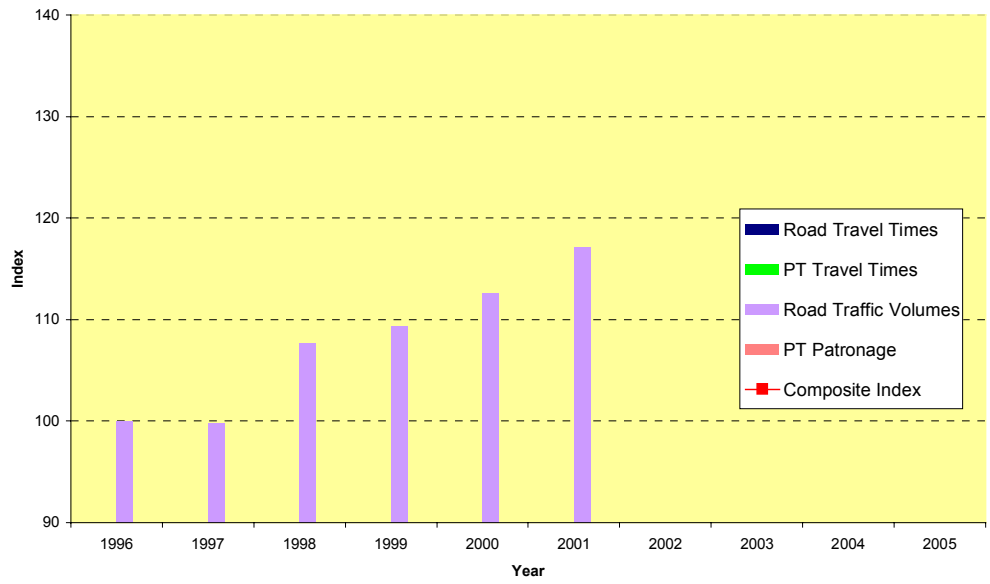
Source: Local authorities

Definition: Information is available only from some local authorities and there are difficulties with definitions of parking categories. It is hoped to resolve this problem and have more data available for the next AMR.

4.16 Accessibility and economic development indices

The key indicators forming the basis of this category's indices were recorded for the first time in 2001, the base-year. It is impossible to plot movement in these indices or the composite index (the combined average of indices) until the 2003 AMR is prepared. Figure 3 shows movement in the road traffic volumes index, information on which is available for every year from 1996 (the base-year).

Figure 3 : Accessibility & Economic Development (Indices)
1996 = 100



4.17 Regional level

State highway traffic volumes increased by around 17 percent between 1996 and 2001, or 3.4 percent per annum. The rate of increase in the last year, 2000 to 2001, was just over four percent. Vehicle distances travelled on the state highway network have, however, increased by less than one percent between 1999 and 2000. This apparent anomaly is partially explained by an increase in average length per vehicle journey, a trend forecast by the regional transportation model for the inter-peak period.

That model also forecasts that while total vehicle trips will rise by about seven percent to 2011, total travel times will increase by 13 percent. The percentage of the road network operating at level of service A-D (uncongested) in the morning peak period will drop from 94 to 92 percent.

There is not enough information from which to establish trends in vehicle occupancy or cycle/pedestrian movements.

Census results suggest that fewer people in the Wellington region are travelling to work by private car, although this mode still accounts for around 71 percent. There have been corresponding gains in walking, cycling and

public transport. More people are also now working from home, as technological advances release them from working in offices.

4.18 Sub-regional level

Trends cannot be established for many indicators since insufficient information is available.

Daily traffic volumes on the state highway network show differential growth by area for 1996 to 2001. At more remote SH1 and SH2 locations, volumes have grown by nine percent; closer to Wellington CBD, growth has been around 12 to 20 percent. Cobham Drive growth has exceeded 30 percent.

Morning peak traffic volumes inbound to Wellington CBD declined by around six percent[5] between 2000 and 2002. This suggests volumes are growing mainly in shoulder-peak or off-peak periods; future data will allow this trend to be quantified.

Wairarapa has the highest 2001 rate of home working at 16.2 percent, followed by Kapiti at 10.6 percent. The rate for all other areas is between five and six percent. The strongest growth in home working between 1996 and 2001 was in Wellington (26 percent) and Porirua (25 percent), and the lowest in the Wairarapa (two percent).

An average regional decrease in use of the private car for the journey to work in proportion to total trips to work during 1996 to 2001 (-2.7 percent) masks regional variations between Wellington (-5 percent) and the Wairarapa (plus one percent).

4.19 Outlook

In future, an outlook will be based on reliable trends established from available information. Trends established to date seem likely to continue. Daily traffic volumes will continue to grow by around three to four percent per annum, with some decline in the proportion of private car journeys to work.

Take-up rates of home and tele-working are likely to continue, driven by demands for lifestyle change, though this will have a marginal effect on regional travel demands. Slow modes will remain variable day-to-day, but their use is expected to increase along with growing awareness of potential health benefits and provision of more cycle and pedestrian routes.

4.20 Implications for transportation planning

Wellington region's dispersed development (and New Zealand's in general) means the private car will continue to be the dominant form of transport in the foreseeable future. Traffic volumes will grow alongside economic activity.

Increasing traffic demand will not be met without the construction of significant new infrastructure. RLTS proposals seek to maximise road network efficiency

[5] Absolute drop based on the two-hour period

while encouraging travellers to use public transport for appropriate journeys. Current measures are relatively passive and rely on voluntary behavioural change. It is likely that direct incentives, such as road charges, congestion pricing and tolls, will be required in future to change travel behaviour.

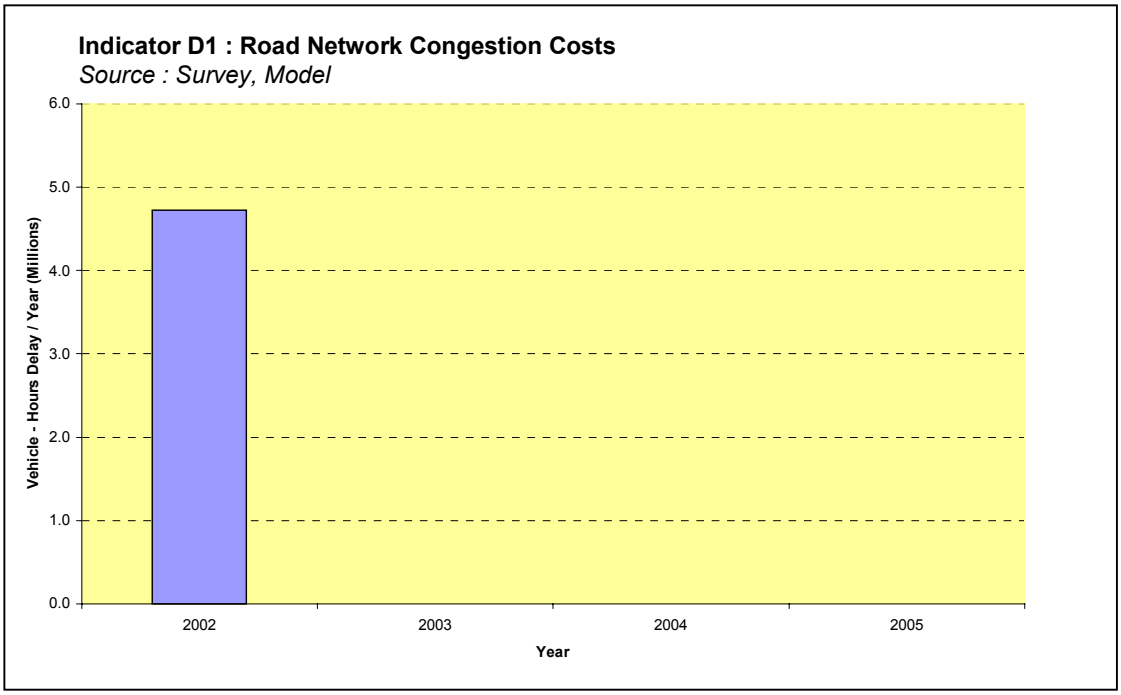
5 Economic efficiency indicators

This section sets out and discusses items relating to the RLTS economic efficiency objective: *to implement the most efficient options and to ensure that all users of land transport are subject to pricing and non-pricing incentives and signals which promote decisions and behaviours that are, as far as possible, in accordance with efficient use of resources and of optimal benefit to the user.* It considers the following performance indicators:

D1: Road network congestion costs
D2: Total system user costs
D3: Public transport user costs
D4: Vehicle operation costs.

5.1 Indicator D1: Road network congestion costs

Source: Surveyed travel times



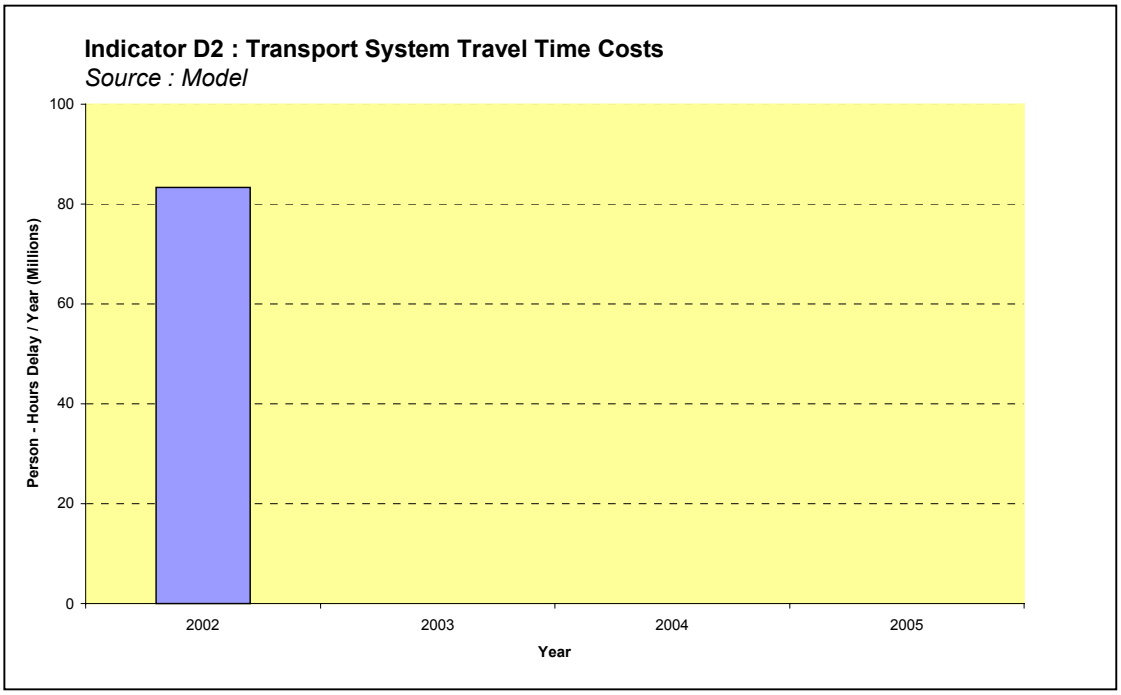
Definition: Road travel time survey findings (see indicator C1) were used to calculate congestion indicators (CGIs). These are derived from the difference between recorded travel time in each period and travel time in uncongested, free-flow conditions, weighted for road section length and traffic volume. CGIs are expressed as delay per kilometre of road in each period. They are multiplied by estimates of total network vehicle kilometres (from the transportation model – see indicator C8) to arrive at a figure for total delays in each time period; expansion factors are applied to yield annual estimates. As unit time values are frequently revised, totals are expressed in vehicle-hours rather than financial values. At this stage, information is available for 2002 only, making it impossible to compare years.

Interpretation: Current estimates are that 4.7 million hours per year vehicle delay are experienced on Wellington roads. Applying a general unit time value of $20 per hour suggests an overall financial cost of around $94 million.

Comments: While growing congestion is a concern, Wellington region does not yet experience it on the scale of Auckland, or European cities. There is no reason to be complacent, however; opportunities should be taken to pre-empt the regional financial costs of congestion by improving the roading and public transport networks' capacity and efficiency.

5.2 Indicator D2: Total system user costs

Source: Wellington Regional Council transportation strategy model



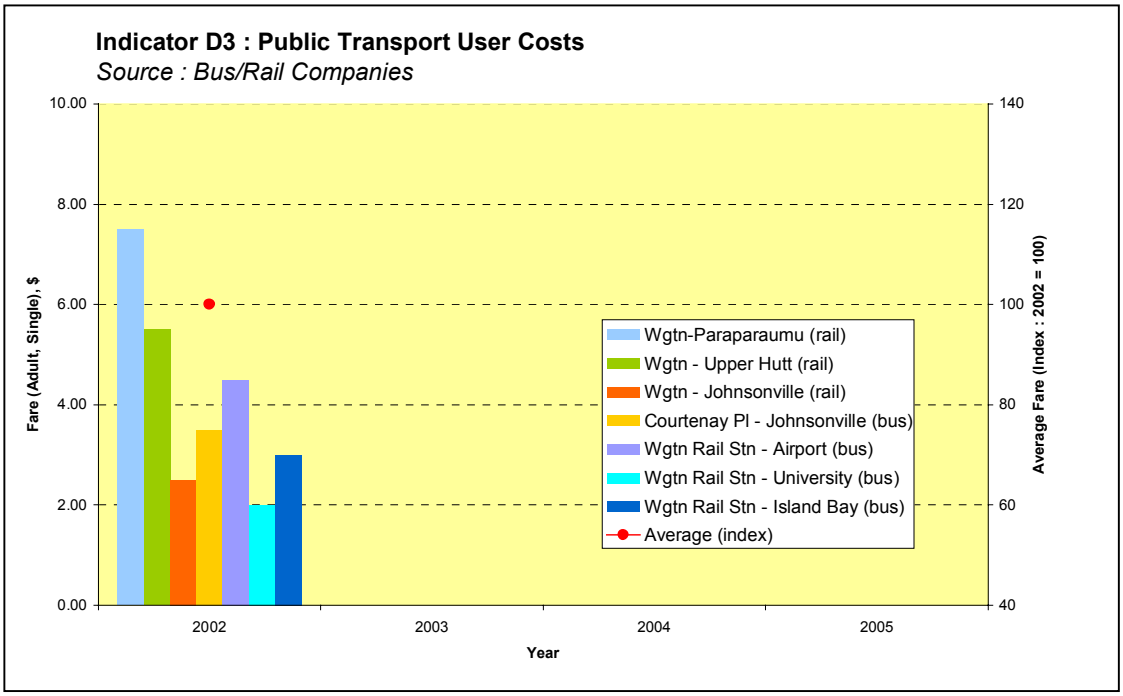
Definition: The WRC transportation strategy model forecasts total hours spent travelling by all means (including walking and cycling). Applying expansion factors yields estimates of total annual hours spent travelling.

Interpretation: Around 83.3 million hours are likely to be spent travelling on the regional transportation network in 2002, or an average of 32 minutes per person per day.

Comments: Based as they are on model outputs and a number of broad assumptions, these figures should be taken as indicative only.

5.3 Indicator D3: Public transport user costs

Source: Bus and rail operators



Definition: The table shows single adult fares on several key routes in the morning commuter peak period (preceding the July 2002 rail fare increase):

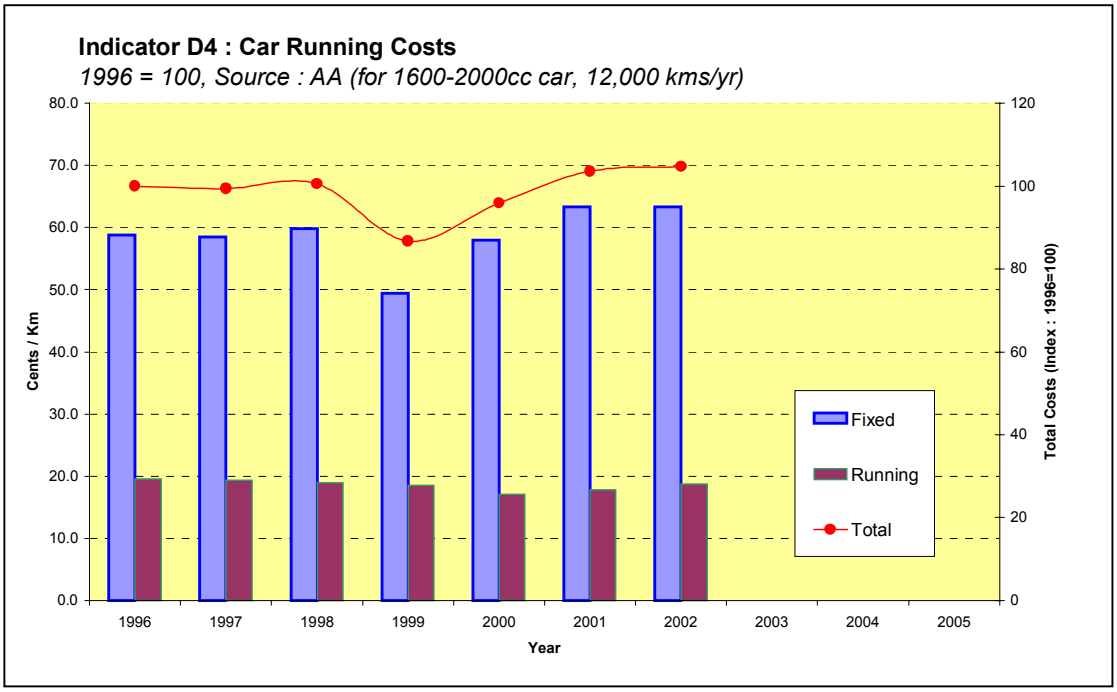
- airport – railway station (bus)
- railway station – university (bus)
- Island Bay – railway station (bus)
- Johnsonville – Courtenay Place (bus)
- Paraparaumu – Wellington (rail)
- Upper Hutt – Wellington (rail).

Interpretation: A year-by-year comparison is impossible until more information is collected.

Comments: Public transport must remain competitive to ensure travellers continue to be attracted away from private car use, especially for peak period journeys to work. Fares are a significant element of this competition, along with perceived service quality and convenience.

5.4 Indicator D4: Vehicle operation costs

Source: Automobile Association (AA)

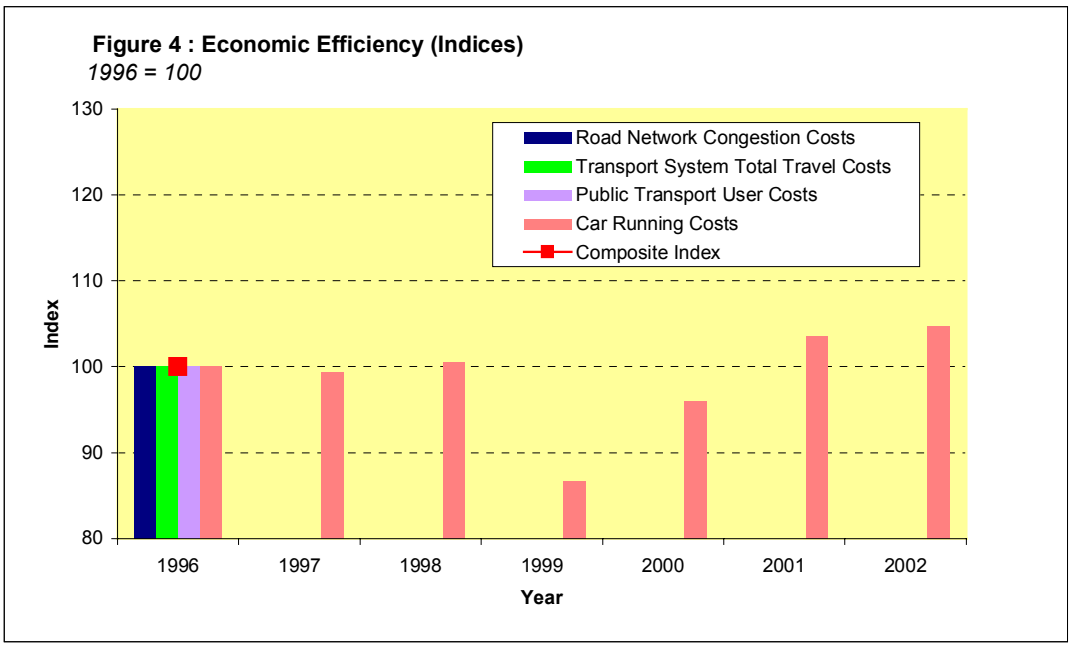


Definition: The AA collects detailed information on the cost of running private vehicles in New Zealand. Presented here are the costs of running a two-litre petrol engine car for 12,000 kilometres a year. They are broken down into fixed costs (unrelated to vehicle usage) and variable costs (proportional to usage). Parking charges are not included.

Interpretation: Fixed costs are highly affected by interest rates on finance for car purchase; lower 1999 rates reduced fixed, and hence overall, costs.

Comments: The cost of owning and running a car is a factor usually taken into account when choosing a mode of transport for regional journeys, but the choice is often made by comparing public transport costs with the variable, or marginal, cost of running a car only. Parking charges (not included in these figures) are a means of increasing car use cost relative to that of public transport.

5.5 Economic efficiency indices



The key indicators on which this category's indices are based were recorded for the first time in 2001, the base-year. It will, therefore, be impossible to plot movement in the indices, or the composite index, until the 2003 AMR. Figure 4 shows movement in the index of vehicle operation costs, information on which is available for every year from 1996 (the base-year).

5.6 Regional level

Around 4.7 million hours of vehicle time were spent on congested regional roads in 2002. Total travel time by all modes of transport was around 83 million hours, or an average of 32 minutes per person per day.

The cost of running a private car (two-litre; 12,000 kilometres a year) has risen by around five percent since 1996. Costs dropped in 1999 when lower interest rates reduced the cost of borrowing money to buy a vehicle.

5.7 Sub-regional level

No sub-regional information is available.

5.8 Outlook

Time spent using the transport network is likely to increase with population and economic activity. While congestion is not yet on the scale of Auckland, and European cities, average times spent on the road network will rise as congestion intensifies and spreads to previously uncongested areas and times of days.

5.9 Implications for transportation planning

The costs of congestion will rise as regional demand for travel increases. This situation must be pre-empted by encouraging more efficient use of the road network, use of public transport for peak period commuter trips, use of “slow” modes for shorter trips, and an overall reduction in travel demand.

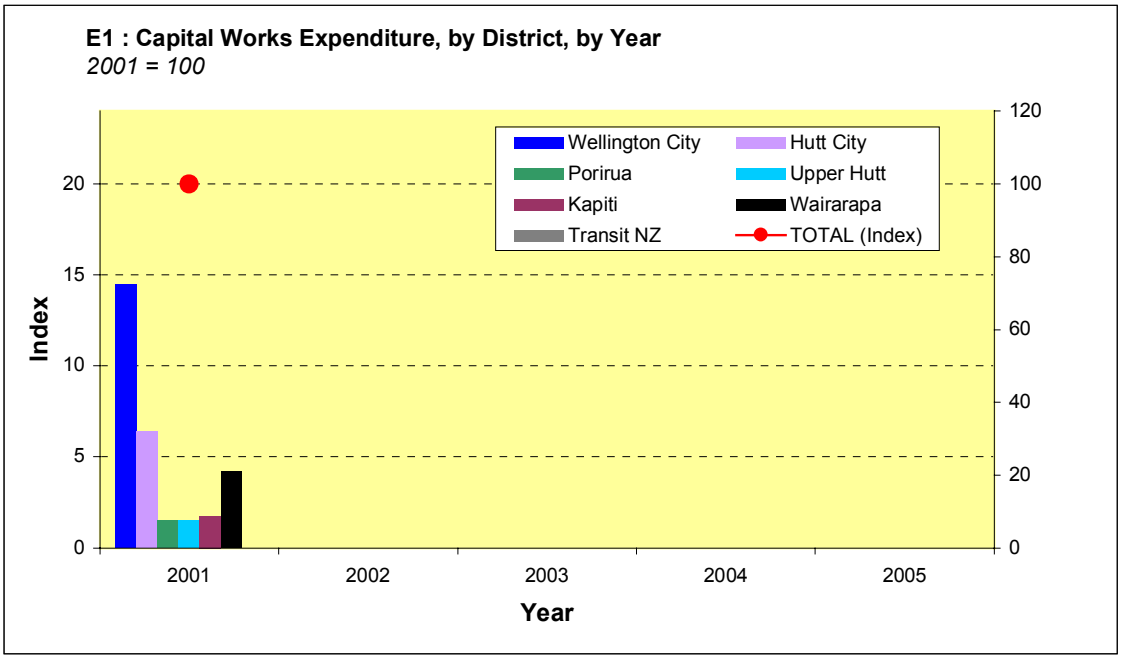
6 Affordability indicators

This section sets out and discusses items relating to the RLTS affordability objective: *to plan for a land transport system that recognises funding constraints and ability to pay.*
It considers the following performance indicators:

E1: Capital works expenditure
E2: Maintenance works expenditure
E3: Household travel expenditure.

6.1 Indicator E1: Capital works expenditure

Source: local authorities; Transit New Zealand



Definition: This covers total annual expenditure on capital works associated with the road network.

Interpretation: Data is not yet available for a sufficiently long period with which to establish reliable trends. Once data has been gathered in the following years it will provide an indication of expenditure on the roading network.

Comments: Transit NZ have not been able to supply the information.

6.2 Indicator E2: Maintenance works expenditure

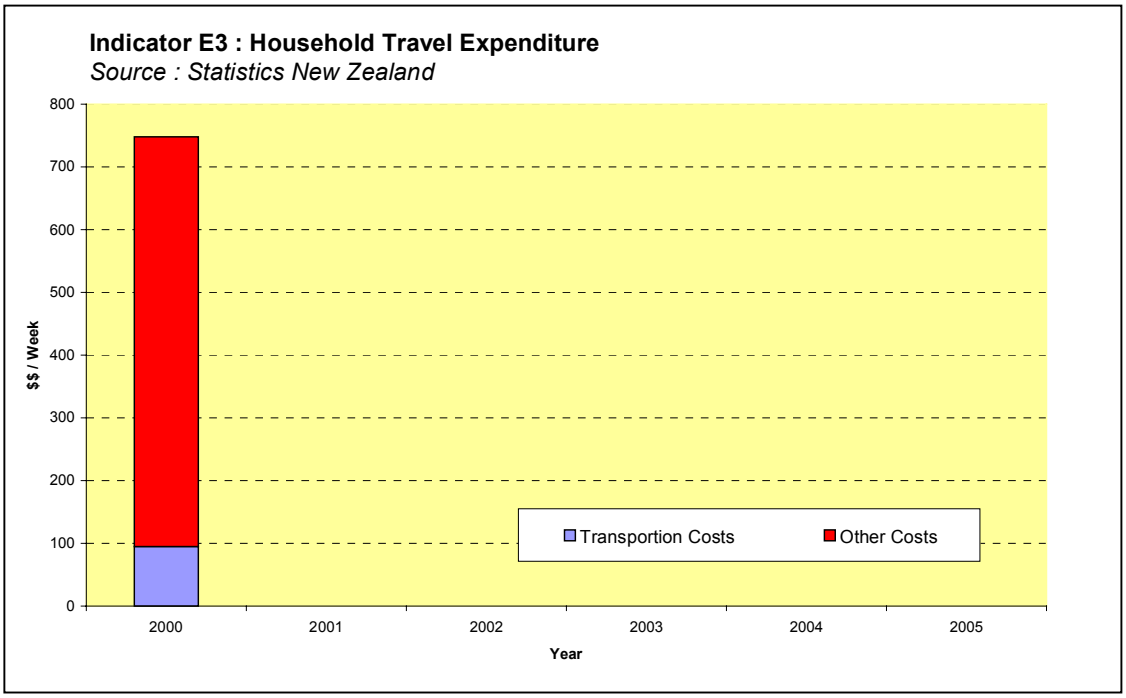
Source: Local authorities; Transit New Zealand

Definition: This covers total annual expenditure on maintenance works associated with the road network.

Comment: Information is only currently available from some local authorities; Transit NZ, Wellington City Council, Kapiti Coast District Council, and the Wairarapa have not been able to supply this information; and there are problems with the definitions of the maintenance expenditure used. It is hoped to resolve this problems with data becoming available for the next edition of the monitoring report.

6.3 Indicator E3: Household travel expenditure

Source: Statistics New Zealand



Definition: The Household Economic Survey collects this information, and last did so in 2000/1. The table shows national averages; disaggregation by region is unavailable.

Interpretation: A year-by-year comparison will be impossible until more information is collected. The total average weekly household expenditure for 2000/1 was $747.50, of which domestic travel accounted for $94.50.

Comments: Like any economic good or service, consumption is influenced by price; if the cost of travel increases relative to other costs, there is likely to be a reduced total travel demand, and vice versa.

6.4 Affordability indices

There is not enough information available to establish indices for this category is unavailable.

6.5 Regional level

There is not enough information from which to establish trends in capital and maintenance expenditure. Household expenditure survey results are unavailable at the regional level. National 2000 figures suggest the average household spends around $94.50 on domestic transport, or around 12.6 percent of total expenditure.

6.6 Sub-regional level

Trends cannot be established for capital and maintenance expenditure since insufficient information is available.

6.7 Outlook

Capital and maintenance expenditure information comes mainly from Transfund New Zealand. At national level, an additional $94 million been allocated for 2002/3 on top of the $973 million currently spent on roading. This will be targeted mainly at the most severe congestion, particularly in Auckland. The outlook for regional Wellington expenditure is unclear. Projects such as the Paremata Bridge duplication are proceeding, and the inner city bypass is expected to do so, subject to resolution of Environment Court and funding issues. The proposed Transmission Gully motorway project is longer-term, and unlikely to attract funding for several years.

6.8 Implications for transportation planning

The network needs on-going investment to maintain and improve efficiency levels. Seen from a national perspective, Wellington's road congestion is not severe enough to warrant substantial funding. It will, therefore, be necessary to look at low-cost ways of improving network efficiency, discouraging peak period commuter car trips and increasing car occupancy.

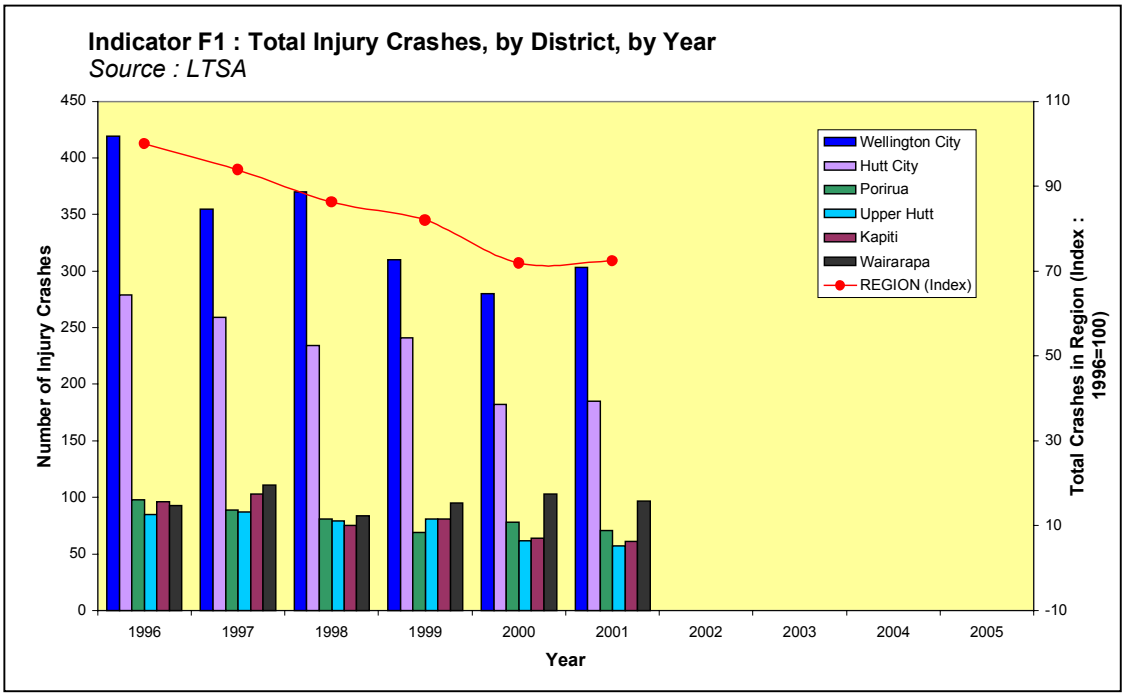
7 Safety indicators

This section sets out and discusses items relating to the RLTS safety objective: *to provide a safer community for everyone through a transport system that achieves or improves on the targets of the National Road Safety Plan through the Regional Road Safety Strategy.* It considers the following performance indicators:

- F1: Total injury crashes
- F2: Total casualties
- F3: Total casualties
- F4: Pedestrian casualties
- F5: Motor-cycle casualties
- F6: Bicycle casualties
- F7: Injury crashes and casualties per 100,000 of population
- F8: Injury crashes per 10^8 vehicle-kilometres.

7.1 Indicator F1: Total Injury Crashes

Source: Land Transport Safety Authority



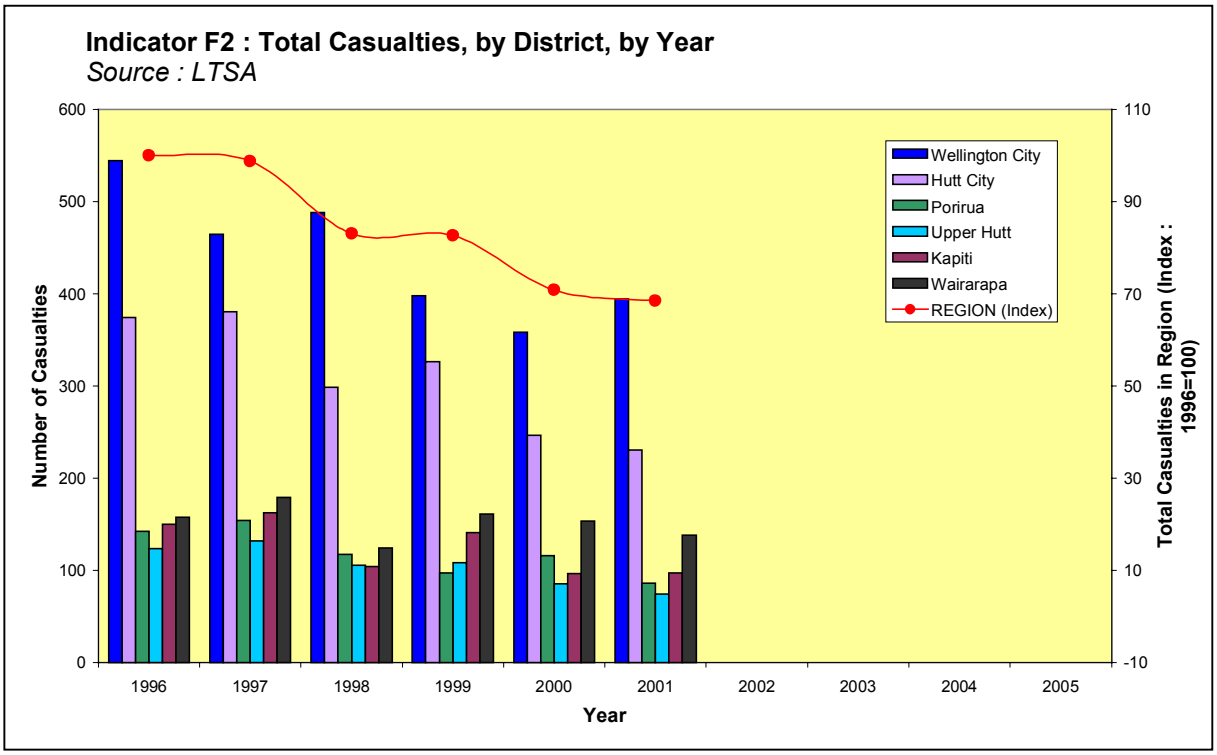
Definition: The table shows total recorded injury crashes for all vehicle types.

Interpretation: There is a general, longer term downward trend in most districts and across the whole region. Crash numbers took an upturn between 2000 and 2001, driven by increases in Wellington City and Lower Hutt.

Comments: Vehicle safety improvements, driver education and pro-active safety engineering on local roads have all contributed to reductions in crash numbers; however, since crash numbers show the biggest rise in Wellington and Lower Hutt shows there is no room for complacency.

7.2 Indicator F2: Total casualties

Source: Land Transport Safety Authority



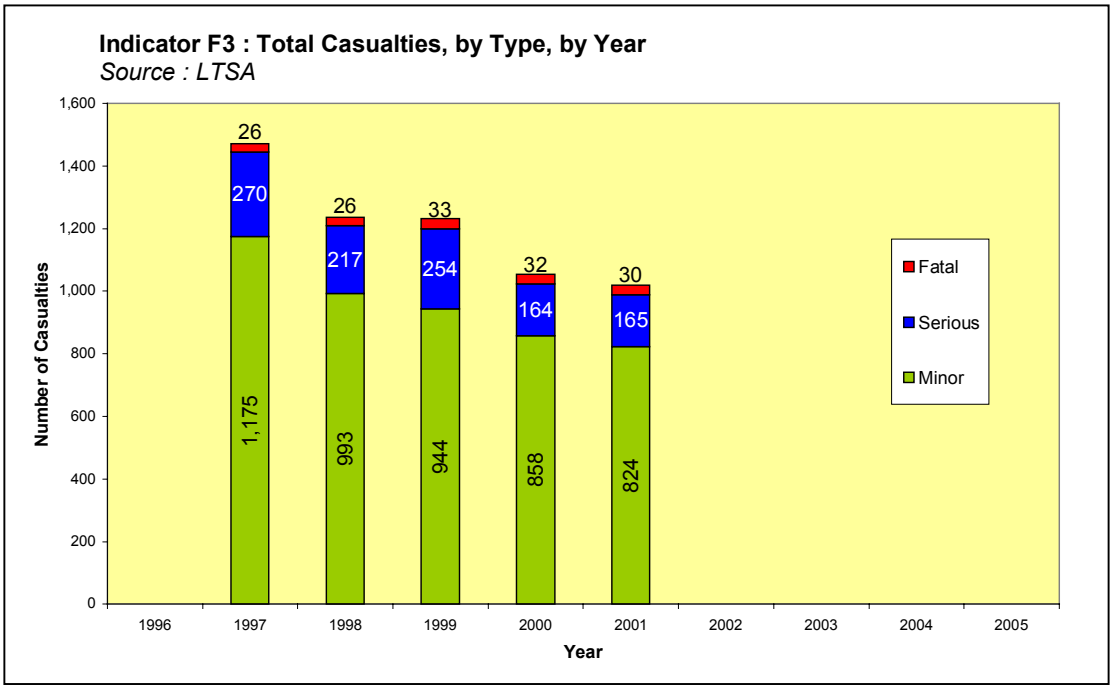
Definition: The table shows total recorded casualties for all vehicle types

Interpretation: There is a general, longer term downward trend in most districts and across the region as a whole, although Wairarapa casualty totals show no such trend.

Comments: In 1999, the RLTS set a ceiling for 2001 casualties of 1,200 or less; it was achieved in 2000 when the total fell to 1,054.

7.3 Indicator F3: Total casualties by severity type

Source: Land Transport Safety Authority



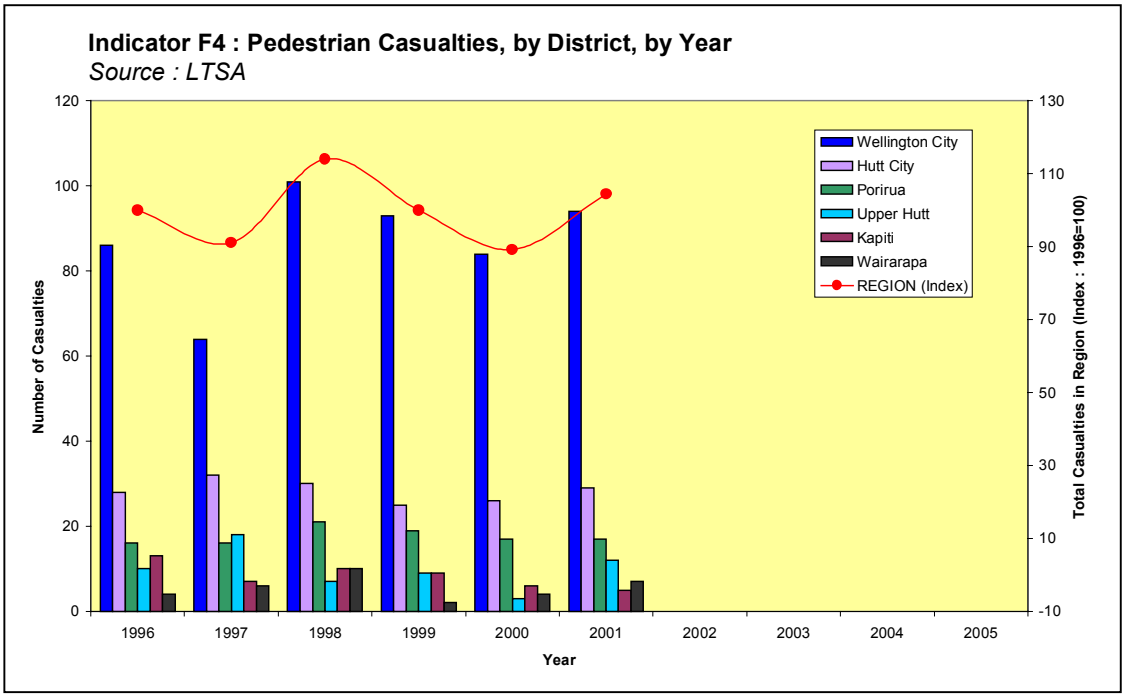
Definition: Casualties are disaggregated by severity: fatal, serious or minor.

Interpretation: There is no sustained reduction in fatality numbers. Although some fatal casualties have a random element, these numbers are cause for concern. There was no change in serious casualty numbers between 2000 and 2001; the drop in total casualties is accounted for by fewer minor casualties.

Comments: Improved vehicle safety, driver education and pro-active road safety engineering have all contributed to the reduction in casualties.

7.4 Indicator F4: Pedestrian casualties

Source: Land Transport Safety Authority



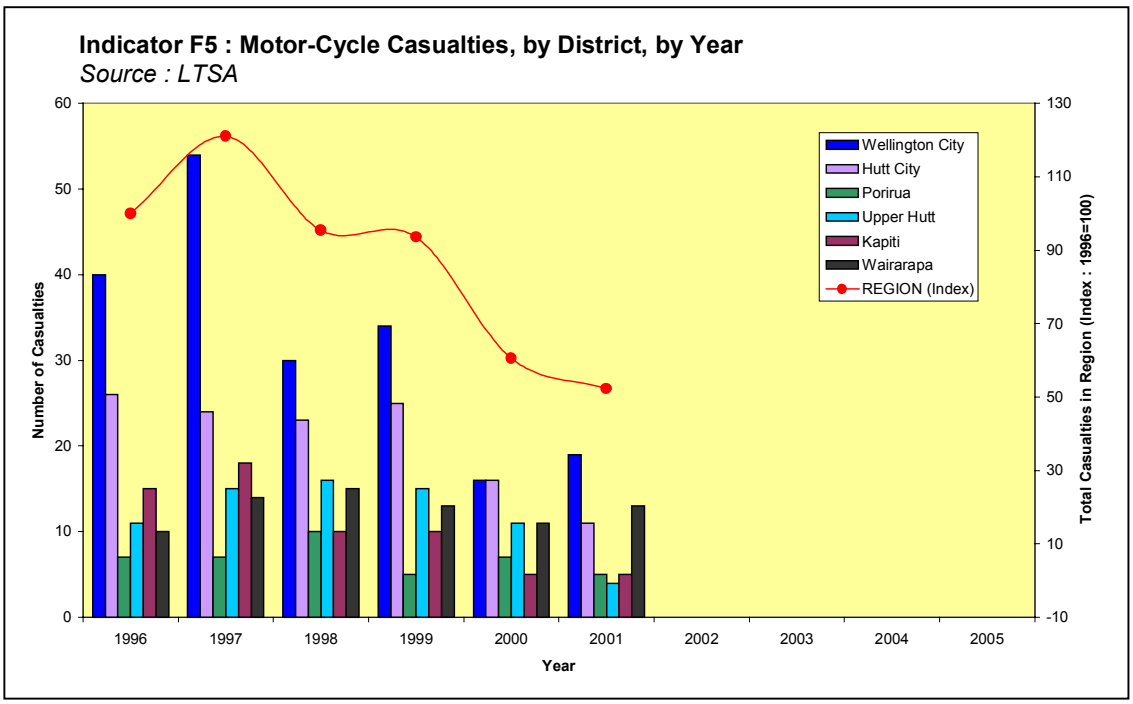
Definition: The table shows pedestrian casualties, disaggregated by district.

Interpretation: There is no sustained downward trend in pedestrian casualties, 57 percent of which, in 2001, occurred in Wellington city. Casualties in both Wellington and Hutt cities increased significantly between 2000 and 2001.

Comments: The sustained level of pedestrian causalities must become a priority for regional road safety initiatives.

7.5 Indicator F5: Motorcycle casualties

Source: Land Transport Safety Authority



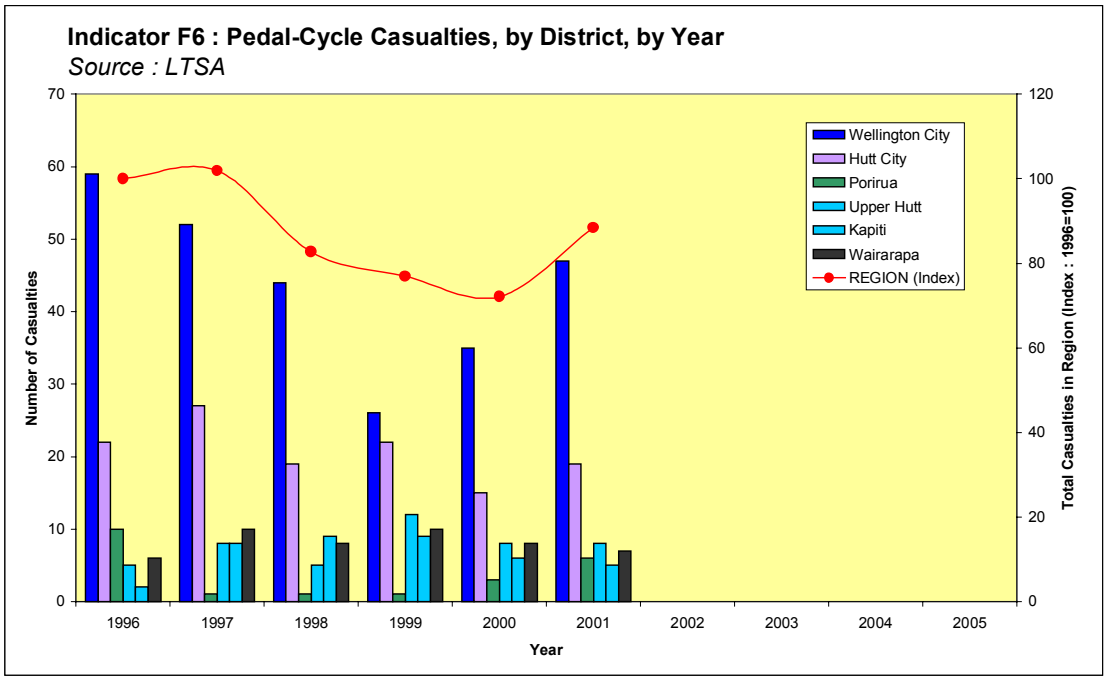
Definition: The table shows motorcycle casualties, disaggregated by district.

Interpretation: There is a clear downward trend in motorcycle casualties, although they rose Wellington and Wairarapa between 2000 and 2001. It is impossible to know whether this drop is due to reduced motorcycle use or safety initiatives.

Comments: While the figures are encouraging, reasons for the drop in casualties need further investigation.

7.6 Indicator F6: Bicycle casualties

Source: Land Transport Safety Authority



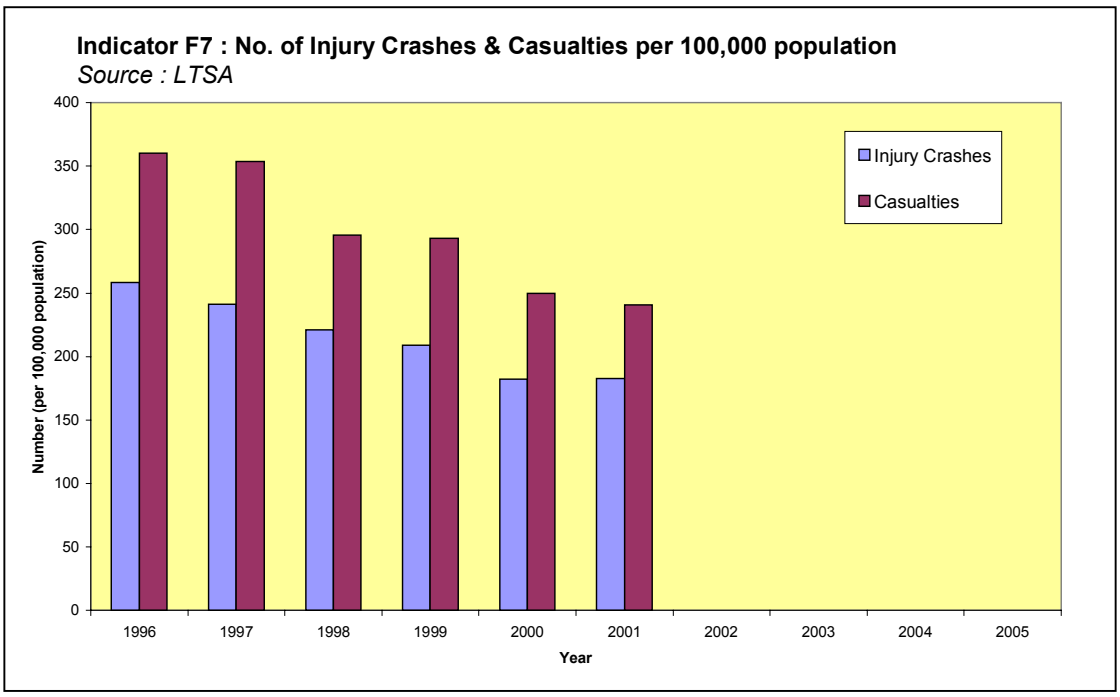
Definition: The table shows bicycle casualties, disaggregated by the district in which they occurred.

Interpretation: There was a clear downward trend in bicycle casualties until 2001, when they increased significantly, mainly because of increases in Wellington and Hutt cities.

Comments: Reasons for the rise in 2001 casualties need further investigation.

7.7 Indicator F7: Injury crashes and casualties

Source: Land Transport Safety Authority



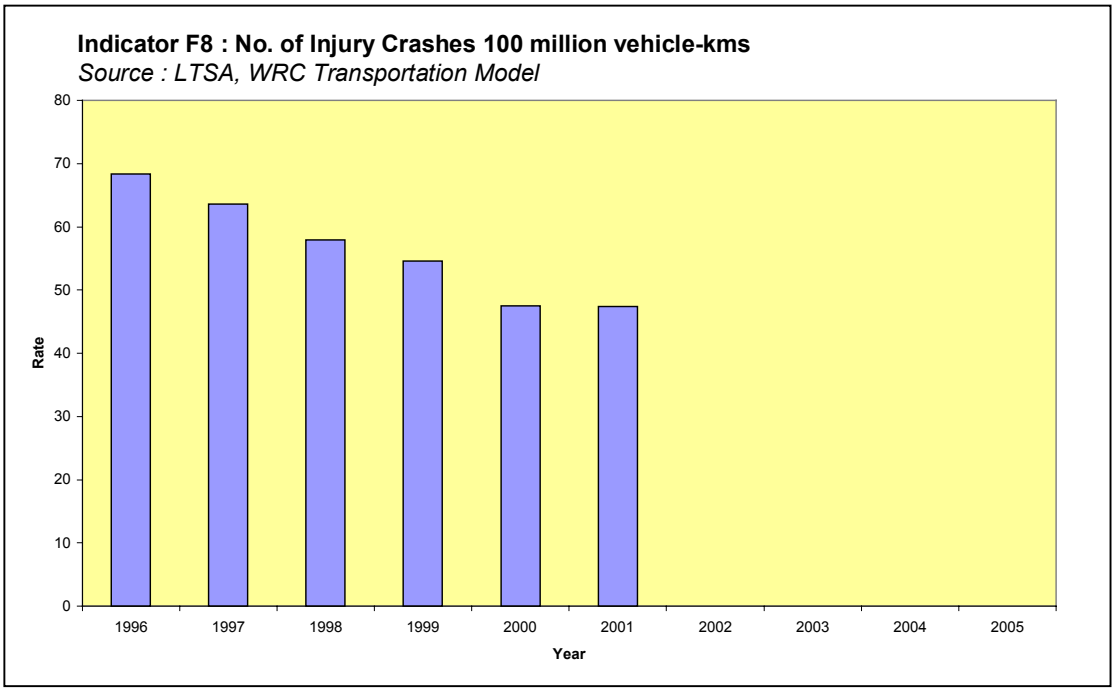
Definition: The table shows total injury crashes per year, per 100,000 of the population.

Interpretation: Both injury crashes and casualties show a steady decline from 1996, with some levelling off in 2001.

Comments: The cost of achieving further marginal improvement of this downward trend is increasing expenditure on road safety engineering.

7.8 Indicator F8: Injury crashes per 10^8 vehicle-kilometres

Source: Land Transport Safety Authority; Wellington Regional Council transportation model



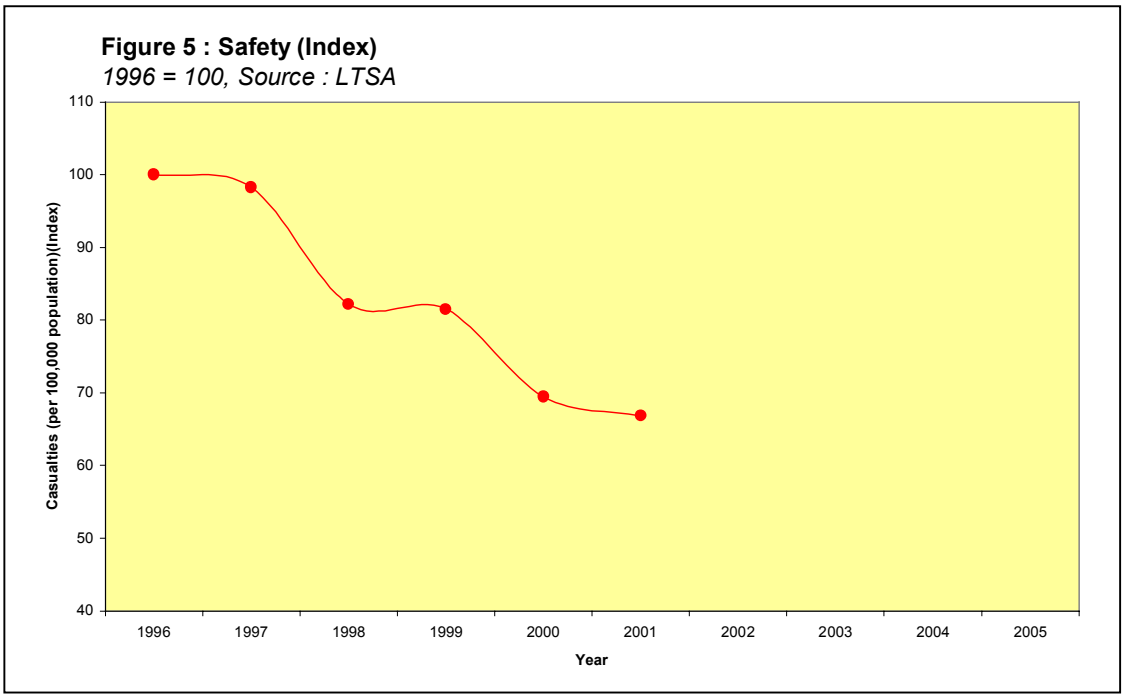
Definition: The table shows total injury crashes per year, per 100 million vehicle kilometres travelled. Total travel distances are derived from the WRC transportation model; these figures are based on several assumptions and should be regarded as indicative only.

Interpretation: The crash rate shows a consistent decline since 1996, though this slowed between 2000 and 2001.

Comments: The crash rate takes account of changes in total network traffic volumes, which is a measure of exposure to crashes.

7.9 Safety indices

Figure 5 shows the index summarising all safety performance indicators, which is the number of casualties per 100,000 of regional population, relative to the base year, 1996.



In the five years between 1996 and 2001, casualties fell by around 34 percent, although the rate of decrease slowed over the last reporting period. Total recorded casualties in 2001 was 1,019, or 241 per 100,000 of population.

7.10 Regional level

The period 1996 to 2000 saw a steady decline in total regional casualties, although that rate slowed considerably in 2001.

7.11 Sub-regional level

Wellington accounted for around 38 percent of total regional casualties from 1996 to 2001; Hutt City for around 25 percent; Porirua, Upper Hutt and Kapiti, eight to nine percent each; Wairarapa, 11 percent. The slowing rate of reduction in regional casualties is attributable to an increase in Wellington city between 2000 and 2001. Both here and in Hutt City, pedestrian and bicycle casualties increased in 2001.

7.12 Outlook

Reductions in the road toll clearly have a finite limit. Further marginal improvements will depend on engineering design and expenditure, and improving vehicle safety standards. The outlook is for continuing reductions, but at a lower rate than in the past.

7.13 Implications for transportation planning

Efforts are required to improve road safety through engineering design, but accidents must also be reduced by reducing total regional traffic volumes. The number of pedestrian and cycle casualties in urban centres must also be addressed.

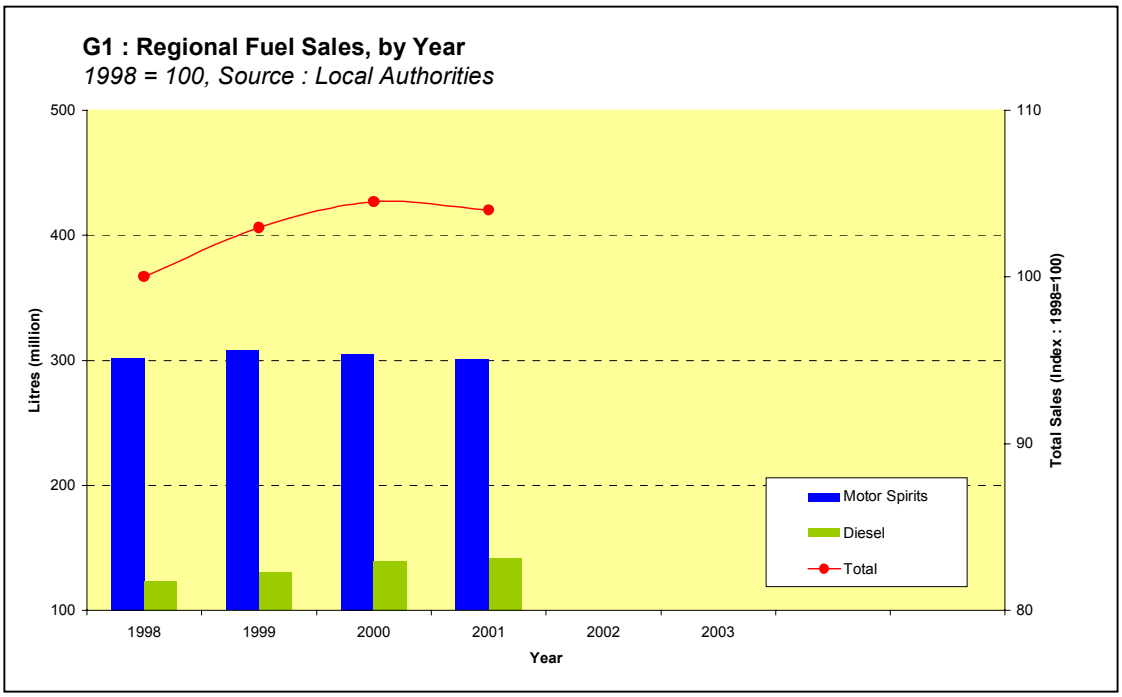
8 Sustainability/environment indicators

This section sets out and discusses items relating to the RLTS sustainability objective: *to provide a land transport system that recognises the needs of the community; avoids, remedies or mitigates against adverse effects; uses resources in an efficient way; supports an optimal demand for energy.* It considers the following performance indicators:

G1: Fuel consumption
G2: Air quality
G3: Noise adjacent to arterial routes
G4: Surface water quality.

8.1 Indicator G1: Fuel consumption

Source: Local authorities



Definition: The table shows total petrol and diesel sales in each local authority, as collected monthly for the local body fuel tax. Although some non-retail sales occur, and some fuel is purchased outside the region but used in it (and vice versa), this is, nevertheless, a reliable measure of total regional fuel consumption. Sub-regional disaggregation adds little value to the data since fuel is not necessarily used in the area in which it is bought.

Interpretation: Diesel sales are rising while petrol sales remain fairly static or are declining somewhat.

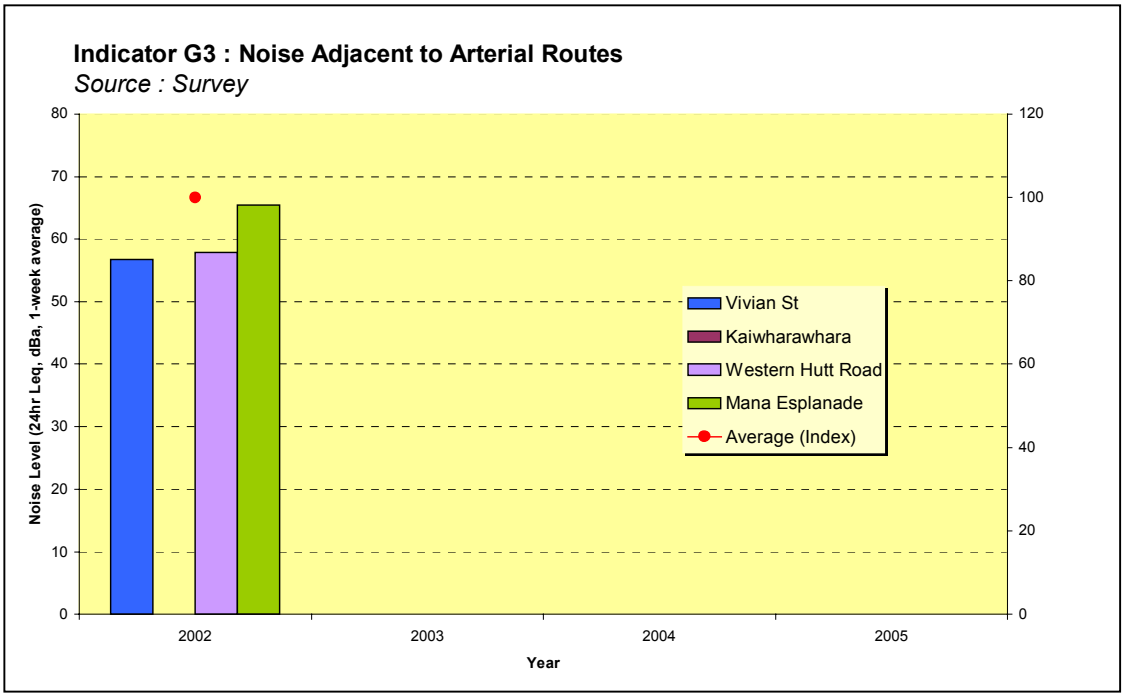
Comments: Carbon monoxide emissions are directly related to fuel consumption. Total fuel sales is, therefore, a good proxy measure for total air pollution attributable to motor vehicles.

8.2 Indicator G2: Air quality

Measurement of this indicator has been suspended pending establishment of a joint monitoring programme with other agencies.

8.3 Indicator G3: Noise adjacent to arterial routes

Source: Survey



Definition: Noise was measured (at 24-hour L_{eq}[6]) for one week at several sites next to the following arterial roads:

- Vivian Street, Wellington
- urban motorway, Kaiwharawhara, Wellington
- Western Hutt Road, Lower Hutt
- Mana Esplanade, Porirua.

Interpretation: The table shows noise levels from 2002 surveys only; no trend can be established. A fault in the Kaiwharawhara monitoring equipment meant no data was collected. Noise levels vary at different sites according to the equipment's precise location, and is therefore irrelevant here.

Comments: No conclusions can yet be drawn from this information

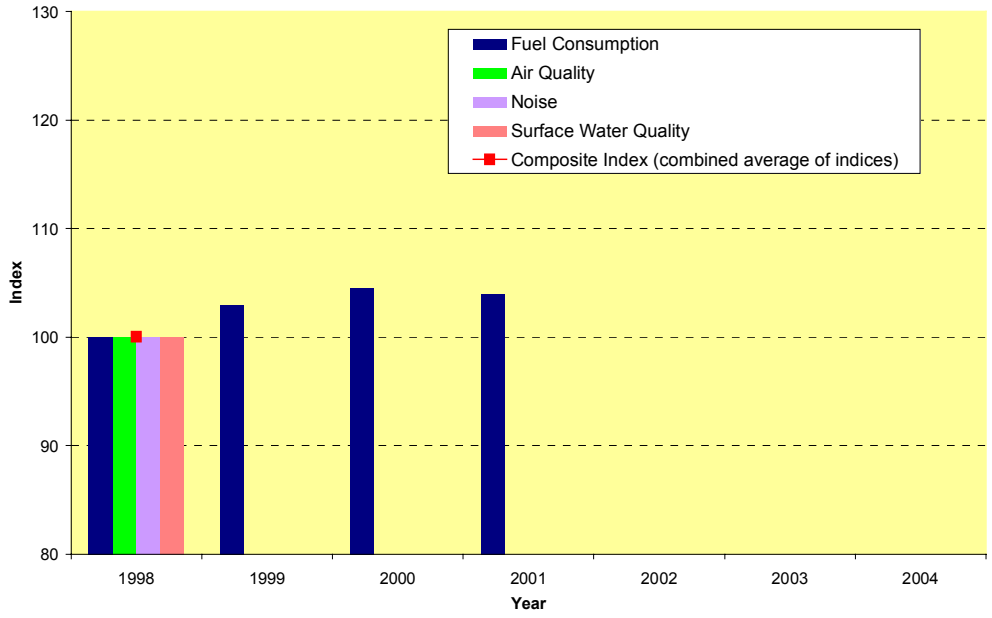
8.4 Indicator G4: Surface water quality

Measurement of this indicator has been suspended pending establishment of a joint monitoring programme with other agencies.

[6] This is a decibel figure with which you can compare the total loudness equivalent noise averaged over the 24 hour day with that calculated by the same method for another point of interest. This gives you a decibel guide to noisy versus quiet situations and can only be arrived at by 24 hour continuous monitoring of each site.

8.5 Sustainability/environment indices

Figure 6 : Sustainability / Environment (Indices)
1998 = 100



Air and surface water quality have not yet been surveyed. The high cost of collecting this data necessitates exploring options for combining surveys with initiatives by other agencies.

Noise has been surveyed, but for the first time in 2002, hence no trend can be established.

Figure 6 shows only the trend in total regional fuel (petrol and diesel) sales, with 2001 sales slightly up (four percent) on 1998 levels.

8.6 Regional level

It is impossible to comment until information has been collected on all indicators in this category.

8.7 Sub-regional level

No currently available information is disaggregated at the sub-regional level.

8.8 Outlook

Fuel sales are likely to grow with more private vehicle ownership and use, although growth will be partially offset by improved engine efficiency and introduction of hybrid vehicles.

8.9 Implications for transportation planning

Transport activity – and especially private vehicle use – significantly affects the environment. Measures to reduce overall car use and improve car travel

efficiency will reduce fuel consumption, air and water pollution, and noise levels adjacent to arterial routes.

9 RLTS project and policy implementation progress

9.1 Context

Current legislation does not permit WRC to own or operate transport infrastructure (although this is likely to change under proposed legislation). WRC must, therefore, rely on agencies responsible for roads and public transportation networks to implement RLTS policies and projects.

This section reports on the progress key agencies have made in the year to 30 June 2002.

9.2 Responsibility matrix

Charts 1 to 4 identify RLTS policy and project proposals, and indicate Wellington region agencies responsible for their implementing them.

Chart 1: Responsibility matrix for Objective 1: Accessibility and economic development											
KEY		WRC	WCC	HCC	UHCC	PCC	KCDC	Wairarapa	Transit NZ	Bus Operators	Tranz Rail
●	Lead Responsibility										
○	Secondary Responsibility										
	Project Completed										
A : POLICIES											
1.1.1: Improve accessibility of public transport Extensions of bus/rail services where reasonable demand exists Provide facilities for parking and carrying cycles where demand exists Enhance physical access onto buses and trains		●	○	○	○	○	○	○		●	●
1.1.2: Maintain urban rail as an arterial priority in the public transport network		●									●
1.1.3: Allow commercial bus and ferry services on parallel routes to rail services where they complement and increase overall public transport use		●									
1.1.4: Enhance the quality, reliability and priority of public transport facilities and services Refurbishment / renewal of bus/rail units Bus services given priority in congested areas		● ●	○	○					●	● ○	●
1.1.5: Improve the interchange between bus, rail, car and cycle Improve Wellington rail/bus interchange Provide commuter car and cycle parks at rail stations		● ●	● ●	●	●	●	●	●		○	○ ○
1.1.6: Improve pedestrian and cycle access to key public transport nodes Provide safe, convenient and sheltered pedestrian access to/from public transport		●	●	●	●	●	●	●			
1.2.1: Improve the existing road network to attain interpeak efficiency		○	●	●	●	●	●	●	●		
1.2.2: Provide heavy traffic bypasses of local communities on the strategic roading network		○	●	●	●	●	●	●	●		
1.2.3: Increase the flexibility of the strategic road network Provision of strategic links Traffic management		●	●	●	●	●	●	●	●		
1.2.4: Provide for freight movement		●	●	●	●	●	●	●	●		
1.2.5: Promote the need to provide for increased tourist movement		●	●	●	●	●	●	●	●		
1.3.1: Promote land development that minimises the total demand for travel		●	●	●	●	●	●	●			
1.3.2: Promote land development that ensures that public transport, walking and cycling are convenient and safe alternatives to the private car		●	●	●	●	●	●	●			
1.4.1: Develop and enhance safe and attractive walking and cycling routes		○	●	●	●	●	●	●	●		

Chart 1: Responsibility matrix for Objective 1: Accessibility and economic development											
KEY		WRC	WCC	HCC	UHCC	PCC	KCDC	Wairarapa	Transit NZ	Bus Operators	Tranz Rail
●	Lead Responsibility										
○	Secondary Responsibility										
	Project Completed										
B : PROJECTS											
Construct the first stage of the Kapiti Western Link Road		○					●		●		
Implement the Active Traffic Management System at Ngauranga Gorge									●		
Construct improvements on the Kaitoke Hill Road		○							●		
Maintain continuous improvements on the Rimutaka Hill Road		○							●		
Construct the Ngauranga – Aotea tidal flow system		○							●		
Design and construct an upgrade of the Korokoro/Dowse intersections on SH2				○					●		
Construct next phase of the inner city bypass through Buckle and Arthur Streets		○	●						●		
Enhance traffic management to improve pedestrian, cycle and vehicle flows		○	●	●	●	●	●	●	●		
Upgrade the route through Newtown on Adelaide Road from the Basin Reserve to John Street		●	●						○		
Develop a Western Corridor Implementation Plan (Otaki – Ngauranga Merge)		●	●			●	●		●		
Continue land purchase on the Transmission Gully route		○							●		
Provide additional commuter car and cycle parks at major railway stations		●	○	○	○	○	○	○			●
Build a new railway station at Raumati		●					○				●
Extend the urban electric rail service to Waikanae		●					○				●
Increase weekday urban rail service frequency from the Kapiti Coast, Hutt Valley and the Wairarapa to Wellington		●									●
Allow commercial commuter bus and ferry services to operate from Porirua and the Hutt Valley to Wellington CBD		●								●	
Increase local bus services to connect with increased rail services		●								●	●
Improve bus/rail connection at Porirua Railway station		●				●				●	●
Investigate the construction of a bus lane from Petone to Ngauranga on SH2 without compromising cycling on this route, construct if possible		●		○					●		
Improve bus priority through CBD traffic		●	●	●							

Chart 1: Responsibility matrix for Objective 1: Accessibility and economic development											
KEY		WRC	WCC	HCC	UHCC	PCC	KCDC	Wairarapa	Transit NZ	Bus Operators	Tranz Rail
●	Lead Responsibility										
○	Secondary Responsibility										
	Project Completed										
Enhance bus/rail interchange at Wellington railway station		●	●							●	●
Establish priority routes from Newtown buses servicing the southern and eastern suburbs		●	●							●	
Integrated ticketing		●								●	●
Improve pedestrian linkages from Wellington station to the CBD		●	●								
Promote additional cycle parks at major railway stations		●									●
Enhance traffic management to improve pedestrian, cycle and traffic flow		○	●	●	●	●	●	●	●		

Chart 2: Responsibility matrix for Objectives 2 & 3 : Economic efficiency and affordability											
KEY		WRC	WCC	HCC	UHCC	PCC	KCDC	Wairarapa	Transit NZ	Bus Operators	Tranz Rail
●	Lead Responsibility										
○	Secondary Responsibility										
	Project Completed										
A: POLICIES											
2.1.1: Provide for additional pricing for the use of the roading network as a step towards ensuring all users pay the cost of their use, including externalities		●							●		
2.1.2: Provide for pricing on major new roads to manage the demand on the road network and to help pay for additional projects and services		●							●		
2.1.3: Advocate for levies on the price of long stay parking in publicly and privately owned facilities in the Wellington CBD		●	●								
2.1.4: Undertake a more detailed investigation of the role of road pricing in the region		●									
2.2.1: Balance the capacity of the existing strategic transport network		●	○	○	○	○	○		●		
2.2.2: Influence management of the number and distribution of long stay parking spaces in major urban centres and encourage short stay parking		●	●	●	●	●	●				
2.2.3: Provide for pricing at peak times to manage road demand and reduce road congestion		●							●		
2.2.4: Promote supporting measures which will help reduce peak road demand		●	○	○	○	○	○		○	○	○
2.2.5: Investigate and plan for the growth in major recreational traffic flows		●	○	○	○	○	○		○		
2.2.6: Introduce traffic calming in residential areas		○	●	●	●	●	●	●			
B: PROJECTS											
Detailed investigation of road pricing in the region		●							○		

Chart 3: Responsibility matrix for Objective 4: Safety											
KEY		WRC	WCC	HCC	UHCC	PCC	KCDC	Wairarapa	Transit NZ	Bus Operators	Tranz Rail
●	Lead Responsibility										
○	Secondary Responsibility										
	Project Completed										
A : POLICIES											
4.1.1: Develop programmes that improve skills and behaviour of people using the transport system		●	●	●	●	●	●	●			
4.1.2: Plan development and design to improve road infrastructure and safety		●	●	●	●	●	●	●	●		
4.1.3: Develop a safety culture with respect to travel assisted by more effective co-ordination of the planning and implementation of road safety programmes		●	●	●	●	●	●	●			
4.1.4: Encourage greater use of cycling and walking for local trips		●	○	○	○	○	○	○	○	○	○
B : PROJECTS											
Complete safety improvements at MacKays Crossing									●		
Complete safety improvements on SH1 North of Paremata									●		
Provide safety improvements to SH58									●		

Chart 4: Responsibility matrix for Objective 5: Sustainability											
KEY		WRC	WCC	HCC	UHCC	PCC	KCDC	Wairarapa	Transit NZ	Bus Operators	Tranz Rail
●	Lead Responsibility										
○	Secondary Responsibility										
	Project Completed										
A : POLICIES											
5.1.1: Promote environmentally benign transport mechanisms		●	○	○	○	○	○	○	○	●	●
5.1.2: Make cycling and walking more attractive		●	●	●	●	●	●	●			
5.1.3: Price at peak times on the road network to mitigate adverse impacts of road use		●							●		

Project Status Explanation

EXPLANATION	STATUS				
	1	2	3	4	5
Work has not begun on this project.					
Initial Design Stage - Initial groundwork conducted (several variations of the project being considered).					
Detailed Design Stage – Preferred option selected and agreed on by transport technicians.					
Public Consultation Stage – Project presented to public.					
Project Implementation Stage – Work has begun on the project.					
Project fully implemented.					

9.3 Wellington Regional Council

Chart 5 reports WRC progress on implementing its own areas of responsibility.

PROJECT	STATUS				
	1	2	3	4	5
Develop a Western Corridor Implementation Plan (from Otaki to Ngauranga Merge) Western Corridor					
	Western Corridor Implementation Plan completed.				
Provide additional commuter car parks at major railway stations All Rail Corridors					
	Several commuter car parks at stations have been or are to be improved. Redwood car park was extended by 40. A hundred new spaces were added at Tawa Station. Plimmerton was sealed for 40 more spaces. Woburn had 40 car parks added, while Waterloo had 50; Trentham, 20; Wallaceville, 10. A new park and ride was developed at Solway, with 20 parking spaces, and Featherston has been expanded by 30. Ngaio station will soon have 22 new spaces and Johnsonville station (off Moorefield Rd) will have 38 new spaces. Contracts are underway at both of these stations.				
Build a new railway station at Raumati Western Corridor					
	This project relies on a long-term contract with an urban rail provider. Given the uncertainty over the future of urban rail services this project has been suspended. Land has been purchased.				
Extend the urban electric rail service to Waikanae Western Corridor					
	This project has been suspended until Tranz Metro has been purchased. Preliminary design has been discussed with Tranz Rail.				
Increase weekday urban rail service frequency from the Kapiti Coast, Hutt Valley and the Wairarapa to Wellington All rail corridors					
	New increased urban rail services started on 5 August 2001on the Paraparaumu, Hutt and Melling lines. Tranz Rail has advised that a third peak Masterton to Wellington service will commence August 2002.				
Improve bus/rail connection at Porirua railway station Western Corridor					
	This project is in the 2003/04 programme for projects.				
Integrated ticketing All corridors					
	This is under investigation.				
Promote additional cycle parks at major railway stations All rail corridors					
	Additional cycle lockers have been provided at Paraparaumu and new ones added at Otaki.				

Detailed investigation of road pricing in the region. All corridors	Information on the worldwide experience of road pricing, a survey on the community response to transport pricing mechanisms and a summary of the modelling technical work has been gathered. A process and work programme has been developed. WRC is currently looking at legal and administration issues for road pricing
Develop proposals for the future of the existing state highway with appropriate agencies for when Transmission Gully is built Western corridor	Under investigation.
Upgrade Paraparaumu railway station building Western corridor	This project has been suspended awaiting the purchase of Tranz Metro.
Increase rail feeder services Western corridor	All Kapiti Coast main bus services: frequency of links to Paraparaumu station stay the same with the exception of Waikanae where the service frequency increases from hourly to half-hourly.
Increase rail feeder services Hutt corridor	Proposals are about to be released for public consultation as part of the review of Hutt Valley bus services. Once these proposals are refined through the consultation process, they will go out to tender for implementation in March/April 2003.
Refurbish Upper Hutt and Petone railway stations Hutt corridor	Hutt City Council has agreed to own the new Petone railway station on condition that the regional council takes ownership as soon as it is legally capable of doing so. As soon as station site ownership details are resolved, tenders will be called for the new Petone station building.
Improve bus priority through CBD Wellington CBD corridor	Three bus lanes have been implemented on a trial basis. Wellington City Council is considering implementation of other bus priority measures.
Enhance the Lambton bus/rail interchange Wellington CBD corridor	Progress on the interchange is on schedule with an expected completion date of February/March 2003.

WRC is making good progress in providing more public transport, but having major difficulty implementing capital projects; construction of the Lambton Interchange, for example, was delayed by a funding structure failure.

The RLTS lists many public transport projects due for completion by 2004 that are either already operating or about to be implemented. That key rail infrastructure projects are on hold pending the outcome of the Tranz Metro Wellington sale puts the long-term future of rail services at risk.

9.4 Wellington City Council

Chart 6 reports progress WRC has made towards implementing actions for which it is responsible.

PROJECT	STATUS				
	1	2	3	4	5
Enhance bus/rail interchange at Wellington railway station					
	Progress on the interchange is on schedule and completion expected February/March 2003.				
Improve bus priority through CBD traffic Wellington CBD corridor					
	Three bus lanes have been implemented on a trial basis.				
Wellington CBD corridor study					
	This is a joint process with WRC, and also includes Transit New Zealand and Transfund. Stage 1 and 2 modelling have been completed.				
Establish priority routes for Newtown buses servicing the southern and eastern suburbs Wellington South Corridor					
	A bus lane in the morning peak going north on Adelaide Road has been implemented on trial basis; this is only part of the whole exercise – awaiting Wellington South corridor plan before anything else is put in place.				
Enhance traffic management to improve pedestrian, cycle and vehicle flows Wellington CBD corridor					
	This is currently part of a joint Wellington City Council/WRC investigation.				
Improve pedestrian linkages from Wellington station to the CBD Wellington CBD corridor					
	Additional canopies linking Lambton Interchange to the Wellington CBD are included in the interchange development.				
Upgrade the route through Newtown on Adelaide Road from the Basin Reserve to John Street Wellington South corridor					
	This is currently part of a joint Wellington City Council/WRC investigation and awaiting Wellington South corridor plan				

9.5 Hutt City Council

Chart 7 reports progress made by Hutt City Council on implementing actions for which it is responsible.

PROJECT	STATUS				
	1	2	3	4	5
New bus shelters					
	Twenty Adshel shelters installed, in addition to those funded by WRC.				
Improve pedestrian and cycle linkages					
	Four new pedestrian crossings and 17 kea crossings have been installed. $50,000 has been invested in minor cycleway improvements, mainly to upgrade access to the riverbank cycle/pedestrian path.				

9.6 Porirua City Council

Chart 8 reports progress made by Porirua City Council on implementing actions for which it is responsible.

PROJECT	STATUS				
	1	2	3	4	5
Countdown bus shelter extension					
	Deferred pending city centre traffic study (PCC), which may influence position of the bus shelter extension.				
Porirua station car park upgrade					
	Porirua station car park upgraded to provide 126 new parking spaces and improved security through removal of potential hiding palaces within the car park.				
Plimmerton station car park upgrade					
	Project delayed due to difficulties with land definition. WRC's property consultants are addressing this.				
New bus shelters (2)					
	Bus shelters constructed in Discovery Drive and Ayton Drive.				
Concrete pads at bus stops					
	Concrete pads installed at all bus stops where passengers boarded the bus from a grass berm.				
Bus/rail interchange Mungavin Bridge					
	This project is in the 2003/04 programme for design and construction.				
Porirua station car park, lighting					
	WRC are investigating security measures at station car parks along the Paraparaumu line.				
Promote cycle parks at major railway stations					
	WRC have been requested to provide cycle lockers at Porirua railway station.				

9.7 Kapiti Coast District Council

Chart 9 reports progress made by Kapiti Coast District Council on implementing actions for which it is responsible.

PROJECT	STATUS				
	1	2	3	4	5
Construct the river crossing stage of the Kapiti local connector road Western corridor					
	Hearings for the Western Link Road designation were held in 1998 with commissioners confirming the designation. Funding policy adopted by the council in June 2000 planned for construction to commence in 2004-2005. Resource consents have been obtained but are currently being appealed to the High Court				

9.8 Upper Hutt City Council

Chart 10 reports progress made by Upper Hutt City Council on implementing actions for which it is responsible.

PROJECT	STATUS				
	1	2	3	4	5
Norana Road traffic calming					
	Detailed design stage.				
Silverstream Bridge seismic strengthening					
	Present stage investigating consent requirements and discussion with Transit and Hutt City. Due for detailed design and construction 2004/5.				
Totara Park Bridge Widening at access onto SH2					
	Investigating consent requirements – pre-planning.				
Cycle network review					
	Under investigation.				
River Road Transportation Study					
	Currently preparing documentation to obtain funding for study. Joint study with Transit New Zealand in 2003/4.				
Land Transport Strategy					
	Preliminary stage.				
Akatarawa Road economic development study					
	Not yet started; due to commence Oct/Nov 2002. The study will determine the economic benefits to Upper Hutt if Akatarawa Road was to be upgraded to two lanes.				

9.9 Wairarapa councils

Chart 11 reports progress made by Wairarapa councils on implementing actions for which they are responsible.

Masterton District Council

PROJECT	STATUS				
	1	2	3	4	5
Eastern bypass investigation					
	To investigate options for heavy vehicles to bypass the Masterton urban area on the east, with future logging traffic particularly in mind. Work has not yet begun on this project.				
Review of forestry logging impacts					
	To review harvesting projections and forecast the impact on the pavements on the various logging routes. Work has not yet begun on this project.				
Cycle strategy					
	A statement of actions on encouragement, education, engineering and enforcement for cycling in Masterton District. Initial groundwork has been conducted.				

9.10 Transit New Zealand

Chart 12 reports on progress made by Transit New Zealand on implementing actions for which it is responsible.

PROJECT	STATUS				
	1	2	3	4	5
Implement the Active Traffic Management System (ATMS) at Ngauranga Gorge Western corridor	Being further refined. Recent statistics show a 29 percent reduction in crashes along the gorge over the last year.				
Construct improvements on the Kaitoke Hill Road Wairarapa corridor	Design being finalised. Construction to begin October 2002. Funding has been requested and tenders were put out for construction 27 July 2002.				
SH 2 Rimutaka corner easing Wairarapa corridor	Easing corners 500 metres south of the summit. Transit New Zealand discussed scheme with Rimutaka Hill Road Committee, who requested extending project to a further bend. Investigations have been completed, with recommendations to the Transit Authority to proceed to designation for a 60km/hr alignment.				
Construct the Ngauranga-Aotea tidal flow system Western corridor	Contract documents being developed.				
SH 2 Dowse to Petone upgrade Hutt Corridor	Notice of requirement has been lodged and notified, with approximately 30 submissions received. The commissioners' hearing was held in October 2001and recommended that the designation be confirmed. Twelve appeals have been received. Transit New Zealand currently working to a resolution and have applied to Transfund for design funding.				
SH1 Wellington inner city bypass Wellington CBD corridor	In May20 02, the New Zealand Historic Places Trust gave Transit New Zealand archaeological approval for the bypass to be built through Te Aro, subject to conditions. Two appeals were lodged; the Environment Court hearing will hear these 7 to 18 October. Transit New Zealand is also finalising the detailed design and evaluating the final cost of the bypass.				
Transmission Gully motorway Western corridor	Transit New Zealand now own 19 of the 63 properties along the route. Planting has been carried out along 44 hectares the corridor for slope stabilisation. Work is proceeding, subject to resolving outstanding appeals to the designation. The route has been surveyed using aerial laser technology.				

Complete the safety improvements at McKays Crossing junction Western corridor					
	The commissioner gave a positive recommendation on designation and resource consents. Two appeals have been received on the designation. A pre-hearing conference is being held at the end of August to decide on the future direction of the appeals.				
SH1 Plimmerton to Paremata Western corridor					
	Construction of the duplicate Paremata Bridge began July 2002. It is expected the bridge will be completed late 2003. Transit New Zealand expects to apply for funding to carry out improvements to the northern section of this project (north of James Street to Plimmerton weighstation). Continuing detailed design and land negotiations for improvements to the urban section (south of James Street to Paremata Bridge and roundabout).				
Complete the safety improvements on SH1 north of Paremata Western corridor					
	This project has been completed.				
Implement the ATMS at Ngauranga Gorge and three lanes in each direction south to the SH1and 2 merge Western corridor					
	This project has been completed.				
SH1 Western Link Road Western corridor					
	In July 2002 the Environment Court upheld its decision confirming designation. There have been two appeals to this decision; the case will be heard by the High Court but no date has been set yet.				
SH1 Hadfields Road to Peka Peka improvements Western corridor					
	Construction began last year. Work is expected to be completed in September 2002.				
SH1 Otaihanga Road intersection Improvements Western corridor					
	Transit New Zealand has decided it is inappropriate to proceed with this scheme at present, when the four laning of the Western Link Road has not been finalised. The Western Link Rd would bypass this intersection.				
SH1 Lindale to Nikau Palms Drive Western corridor					
	Design is now complete. Hearings on the Notice of Requirement and Resource Consents for this project are being held 2 August 2002.				
SH1 Paekakariki Beach Road intersection Western Corridor					
	Transit New Zealand is waiting on the investigation of long-term options for improvement of this intersection. Once this is received, it and KCDC will advise the local community about the long-term options, and hold workshops to receive feedback.				

SH2 Te Marua curves improvements Hutt corridor					
	Transit New Zealand has finished geotechnical testing of the surrounding area and a detailed survey of the water main. It is currently negotiating with one property owner regarding quantity of land required for the designation. Following this, Notices of Requirement and resource consents will be undertaken.				
SH2 Waiohine Bridge replacement Wairarapa corridor					
	Transit New Zealand is waiting for funding approval to proceed with purchasing land, and obtaining resource consents and the Notice of Requirement.				
SH2 intersection improvements and SH58 summit to SH2 four-laning Porirua to Hutt Valley corridor					
	Appeals have been lodged against the resource consents and Notices of Requirement.				
Replacement of the Pauatahanui Bridge					
	This project has been completed.				
New roundabout on SH58					
	This project has been completed.				

Transit New Zealand reports good progress in implementing RLTS projects, although long Environment Court delays pose a major risk. These projects implement the RLTS by ensuring balanced provision of increased capacity.

10 Strategy implementation

10.1 Overall progress achieved

RLTS implementation continues slowly, delayed by various national events. Tranz Metro's decision to exit passenger rail services, and ongoing lack of legislative back-up for the Government's "Moving Forward" package continue to hamper progress. A perception that Transfund New Zealand is inconsistently applying funding regulations, and continuing difficulties in providing new public transport infrastructure are undermining the potential to increase public transport use. Also, the Resource Management Act is continuing to provide challenges for progress on regionally agreed projects.

Many local agencies appear not to understand or accept the RLTS as an agreed regional transport plan. Some local success implementing bus priority measures has occurred but in the absence of an overall plan isolated success may be of limited value.

10.2 Major 2002/3 actions programmed

WRC looks forward to the coming year with optimism, with many of the above obstacles removed. Resolution of uncertainties about Tranz Metro should allow progress on public transport elements of the Western Corridor Implementation Plan. Starting work on the inner city bypass may at last be the catalyst for an overall Wellington city transport plan, benefiting city and regional users. Those who fought for the Kaitoke Hill realignment will welcome the start of work on this project.

WRC is optimistic that, after several slow years, significant progress will be made implementing the RLTS in 2002/3.

10.3 Obstacles to implementing the RLTS

1. Specific projects

Several projects have fallen behind the RLTS implementation programme:

Western Corridor implementation plan

Public transport elements have been delayed by the impending Tranz Metro sale.
Road improvements, particularly progress on the Transmission Gully motorway, have been delayed by lack of an appropriate legal framework.

Inner city bypass

Extensive appeals under the Resource Management Act continue to delay this project.

Kapiti western link road

Extensive appeals under the Resource Management Act continue to delay this project.

Rail service improvements

Some improvements to the regional rail service have been delayed by the impending sale of Tranz Metro and negotiation of a long-term rail contract.

2. General impediments

The 2000 WRC Wishbone Study Report[7] identifies two categories of general impediment to implementing the RLTS:

Legislative/institutional: a weak requirement for agencies to act simply in a manner "not inconsistent" with the RLTS, which results in little commitment by some agencies to RLTS provisions, as well as no overall national transport strategy.

Financial: a funding regime that does not recognise the importance of single projects within an overall strategy, that gives priority to short-term benefits, and promotes incremental improvements over longer term strategic investment**.**

Necessary reform in these areas would provide a framework for implementing the RLTS more successfully.

[7] The Wishbone Study; Delivering Land Transport Outcomes in the Wellington Region (Wellington Regional Council, October 2000)

11 Conclusions

- Implementation of WRLTS continues to be slower than anticipated
- The WRLTS set high expectations for the development of the region's transport system and it appears that these expectations have not been met
- Funding available from both central and local levels of government continues to be lower than anticipated in the WRLTS
- Present and future demands reinforce the need for reliable connections to and through the region
- Demand for the movement of people and freight continues to rise faster than indicators relating to population and economic activity
- The private car is the dominant mode of transportation and its continuing growth will require a balance of construction of new infrastructure and changes in patterns of use.
- Passive methods designed to change the use of motor vehicles at peak times of the day are likely to fail unless combined with more active measures
- The regions road toll continues to be too high in both casualties and social costs, with some groups particularly over represented
- Transportation activities continue to have an adverse impact upon the physical environment of the region and environmental legal processes continue to have adverse impacts upon transport proposals that may have net beneficial impacts for the physical environment
- The costs of congestion for the region are already high and will continue to rise unless the transport network is used more effectively

Glossary

AA	Automobile Association
AADT	annual average daily traffic
AMR	annual monitoring report
CBD	central business district
CGI	congestion indicator
Golden Mile	Lambton Quay to Courtenay Place
LTSA	Land Transport Safety Authority
RLTC	regional land transport committee
RLTS	Regional Land Transport Strategy
SH	state highway
WRC	Wellington Regional Council

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