

## Safety belt wearing by adult rear seat passengers: Results of national survey, November/December 2007

The latest annual national survey of safety belt use in New Zealand by adults in the rear seats of cars was carried out in November and December 2007. A small number of sites were surveyed in February 2008 due to data collection issues. More than 9,000 adults seated in the rear seat of cars were observed at 139 sites around the country. As in previous years, each site was surveyed between 2 p.m. and 4 p.m. on Sunday afternoons during the school term. Only adults seated in the rear window positions were included in the survey.

In 2007, the safety belt wearing rate for rear seat adult passengers was **87%**. This result is slightly lower than in 2006 and is similar to 2004 and 2005 wearing rates (see Table 1).

Table 1. Safety belt wearing rates for adults in the rear seat (%)

Category	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Males	55	61	72	66	76	78	82	84	86	84
Females	68	72	79	73	83	84	88	89	91	90
Van passengers	47	62	67	50	69	72	72	75	79	75
New Zealand	62	67	76	70	80	81	86	86	89	87

Female rear seat passengers continued to have a higher rear seat safety belts wearing rate than males (see Table 1). All adult passengers had a lower wearing rate in vans. Rear seat passengers who appeared to be aged 15-19 years were recorded as teenagers. The wearing rate among teenagers was 85%. More teenage girls were wearing their safety belts (86%) than teenage boys (83%). These are similar to the corresponding adult rates, but slightly lower.

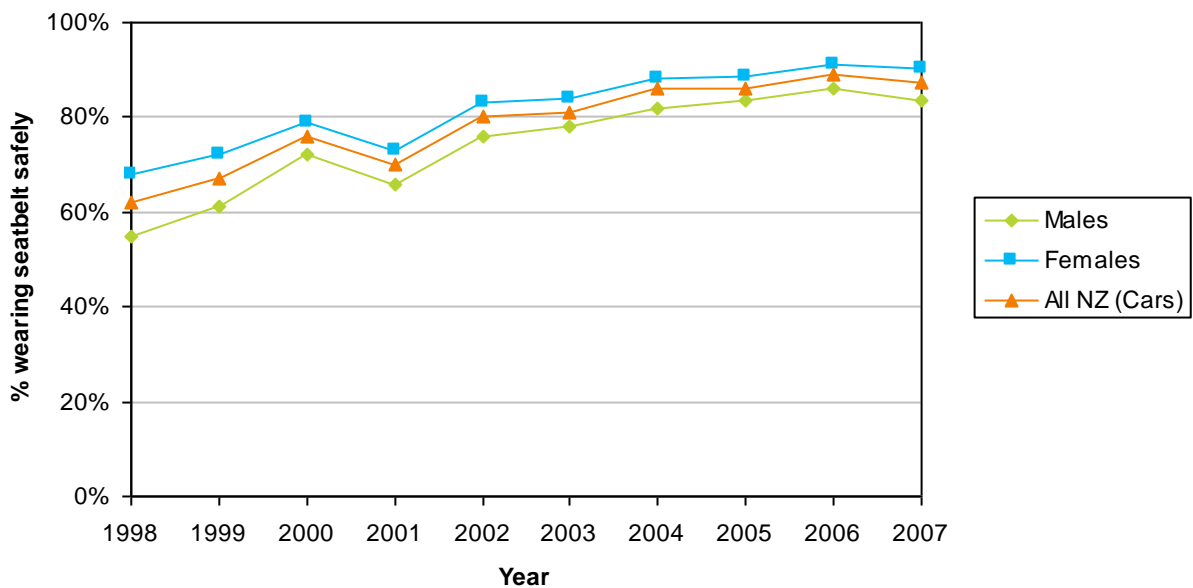


Figure 1. Safety belt wearing rates for adults in the rear seat, 1998-2007

## Regional Wearing Rates

National restraint wearing surveys are designed to provide a consistent measure of safety belt use over time, by surveying the same sites in each region each year. In 2007, at least 200 vehicle occupants were surveyed in each region, except in Gisborne where 167 people were surveyed and West Coast where 145 people were surveyed.

Table 2 shows the rear seat safety belt wearing rates in each Local Government region over the last ten years. Overall, the wearing of rear seat safety belts has decreased slightly. Waikato and Canterbury showed the greatest statistically significant improvements in 2007. Northland, Bay of Plenty, and Otago all decreased significantly. Southland improved on its wearing rate for 2006, back up to approximately 2005 levels.

Wearing rates in all other regions have not changed markedly since last year, and are continuing to follow a similar pattern to the national wearing rate.

Table 2. Rear seat adult safety belt wearing rates by region (%)

Local Government Region	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Northland	64	76	88	72	84	87	89	94	99	71
Auckland	62	57	84	84	84	82	90	82	93	92
Waikato	71	75	78	80	78	82	85	83	83	88
Bay of Plenty	46	73	66	53	79	70	78	85	90	76
Gisborne	38	39	53	55	54	69	59	97	86	92
Hawkes Bay	53	64	47	52	81	76	87	96	90	84
Taranaki	64	71	66	65	81	83	81	92	91	93
Manawatu-Wanganui	67	60	83	73	79	85	85	87	94	92
Wellington	77	85	78	71	77	82	87	84	89	87
Nelson-Marlborough	51	74	85	82	77	90	93	89	88	87
West Coast	59	61	75	82	79	78	85	89	95	91
Canterbury	49	58	76	58	76	82	88	85	87	91
Otago	68	71	87	85	88	79	78	88	92	84
Southland	54	64	74	76	67	88	74	70	64	71
All NZ	62	67	76	70	80	81	86	86	89	87

*Note.* The accuracy of the wearing rates shown here depends on the sample sizes (the number of car occupants observed). If the sample size is small, the data may show large random fluctuations in the observed wearing rate.

## Territorial Local Authority Wearing Rates

At Local Authority level, sample sizes are relatively small and results should be treated with caution. For example, with a sample size of 100 and a wearing rate of 75% the margin of error<sup>1</sup> is approximately 9%. While small samples make it difficult to detect small changes in the wearing rate from year to year, these results are useful as an indication of how much improvement is needed. No wearing rate has been estimated where fewer than 80 people were sampled.

Table 3. Rear seat adult safety belt wearing rates by Territorial Local Authority (%)<sup>2</sup>

Local authority/ authorities	People in sample	Wearing rate 2007	Local authority/ authorities	People in sample	Wearing rate 2007
<i>Northland</i>			Whakatane/ Opotiki/ Kawerau	151	74
Far North	117	80	<i>Gisborne</i>		
Whangarei	196	67	Gisborne	167	92
Whangarei/Kaipara	232	67	<i>Hawkes Bay</i>		
<i>Auckland</i>			Hastings/ Napier <sup>2</sup> / Central Hawkes Bay	131	92
North Shore	251	96	Wairoa	105	74
Rodney	296	98	<i>Taranaki</i>		
Waitakere	148	93	New Plymouth	449	92
Auckland	234	97	Stratford	92	97
Manukau	291	77	South Taranaki	91	97
Papakura	141	94	<i>Manawatu-Wanganui</i>		
Franklin	67	Sample too small	Rangitikei/Ruapehu/ Wanganui	189	86
<i>Waikato</i>			Manawatu	117	93
Thames-Coromandel/ Hauraki	165	95	Palmerston North	261	95
Waikato	263	79	Tararua/ Horowhenua	129	91
Hamilton City	345	82	<i>Wellington</i>		
Matamata-Piako	51	Sample too small	Kapiti Coast	267	98
Waipa	220	92	Porirua	76	95
South Waikato	307	99	Upper Hutt	129	84
Waitomo	100	83	Hutt	153	71
Otorohanga	128	89	Wellington City	75	80
Taupo	238	89	Masterton	176	85
<i>Bay of Plenty</i>			Carterton/ South Wairarapa	169	88
Tauranga	158	84			
Western Bay of Plenty	137	90			
Rotorua	237	64			

<sup>1</sup> Margin of error such that *wearing rate*  $\pm$  *margin of error* describes a 95% confidence interval for the wearing rate.

<sup>2</sup> Sample sizes in the Napier and Hastings areas were reduced due to survey problems in 2007. Full surveys will be obtained in 2008.

Table 3. Rear seat adult safety belt wearing rates by Territorial Local Authority (%)

Local authority/ authorities	People in sample	Wearing rate 2007	Local authority/ authorities	People in sample	Wearing rate 2007
<i>Nelson-Marlborough / Tasman</i>			Selwyn	180	99
Nelson	88	88	Ashburton	86	99
Marlborough	100	82	Timaru	143	97
Tasman	113	90	Mackenzie/ Waimate	90	93
<i>West Coast</i>			<i>Otago</i>		
Buller	23	Sample too small	Waitaki	101	89
Grey	88	86	Central Otago	82	70
Buller/ Grey/ Westland	145	91	Queenstown-Lakes	167	72
<i>Canterbury</i>			Dunedin	155	98
Kaikoura	115	74	Clutha	71	Sample too small
Hurunui	88	100	<i>Southland</i>		
Waimakariri	98	91	Gore	133	70
Christchurch City	226	83	Invercargill/ Southland	105	73

## Police District Wearing Rates

National restraint wearing surveys are designed to provide a consistent measure of safety belt use over time, by surveying the same sites in each Police District each year. In 2007, at least 220 vehicle occupants were surveyed in each district. Table 4 shows the rear safety belt wearing rates in each Police District over the last ten years.

Overall, rear safety belt wearing stayed relatively constant in 2007. Northland and Bay of Plenty Police Districts showed a decrease in rear safety belt wearing. Canterbury showed an increase in wearing rate. Wearing rates in all other police districts were approximately constant over the last year.

Table 4. Rear seat adult safety belt wearing rates by Police District (%)

Police District	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Northland	64	76	88	72	84	87	89	94	99	71
Waitemata	65	59	90	94	85	82	93	91	96	96
Auckland	76	54	79	72	78	87	80	72	98	97
Counties Manukau	44	56	73	79	86	78	89	70	83	83
Waikato	73	78	77	80	79	81	85	83	84	86
Bay of Plenty	54	71	72	60	79	74	81	85	88	84
Eastern	50	58	49	53	77	75	84	96	89	87
Central	66	64	75	68	80	85	84	89	93	92
Wellington	77	85	78	71	77	82	87	84	89	87
Tasman	55	64	79	82	74	89	91	88	89	85
Canterbury	49	58	76	58	78	81	87	85	87	93
Southern	61	68	81	59	81	82	77	83	84	81
All NZ	62	67	76	70	80	81	86	86	89	87

## Police Area Wearing Rates

Sample sizes for many Police Areas are relatively small compared to those for Police Districts and results should be treated with caution. For example, with a sample size of 150 and a wearing rate of 75% the margin of error<sup>3</sup> is approximately 7%. While a sample as small as this makes it difficult to detect small changes in the wearing rate from year to year, these results are useful as an indication of how much improvement is needed. No wearing rate has been estimated where fewer than 80 people were sampled.

Table 5. Rear seat adult safety belt wearing rates by Police Area (%)

Police Area	People in sample	Wearing rate 2007		
<b>Northland</b>			<b>Central</b>	
Far North	117	80	New Plymouth	449 92
Whangarei	232	67	Taranaki rural	183 97
<b>Waitemata</b>			Wanganui	61 Sample too small
North Shore	251	96	Ruapehu	65 Sample too small
Waitakere	148	93	Wanganui/ Ruapehu	126 87
Rodney	296	98	Palmerston North City	261 95
<b>Auckland</b>			Palmerston North rural	246 92
Auckland	234	97	<b>Wellington</b>	
<b>Counties Manukau</b>			Kapiti-Mana	343 97
Manukau West	149	76	Wellington	75 80
Manukau Central	142	77	Lower Hutt	153 71
Manukau South	208	93	Upper Hutt	129 84
<b>Waikato</b>			Wairarapa	345 86
Hamilton	345	82	<b>Tasman</b>	
Waikato East	216	94	Nelson Bays	201 89
Waikato West	711	86	Marlborough	215 78
<b>Bay of Plenty</b>			West Coast	145 91
Western Bay of Plenty	295	86	<b>Canterbury</b>	
Eastern Bay of Plenty	151	74	Northern Canterbury	186 95
Rotorua	237	64	Christchurch Central	121 68
Taupo	545	94	Southern Canterbury	233 95
<b>Eastern</b>			Mid-South Canterbury	371 99
Gisborne	272	85	<b>Southern</b>	
Napier	42	Sample too small	Dunedin	226 97
Hastings	89	97	Otago Rural	350 76
			Southland	238 71
Police Area	People in sample	Wearing rate 2007		

<sup>3</sup> Margin of error such that  $wearing\ rate \pm margin\ of\ error$  describes a 95% confidence interval for the wearing rate.