

Safety belt wearing by adult rear seat passengers: Results of national survey, November/December 2008

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 2008. A small number of sites were surveyed in February 2009 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 2008, the safety belt wearing rate for rear seat adult passengers was **87%**. This result is the same as in 2007 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	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Males	61	72	66	76	78	82	84	86	84	83
Females	72	79	73	83	84	88	89	91	90	89
Van passengers	62	67	50	69	72	72	75	79	75	75
New Zealand	67	76	70	80	81	86	86	89	87	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 86%. More teenage girls were wearing their safety belts (88%) than teenage boys (84%). These are similar to the corresponding adult rates.

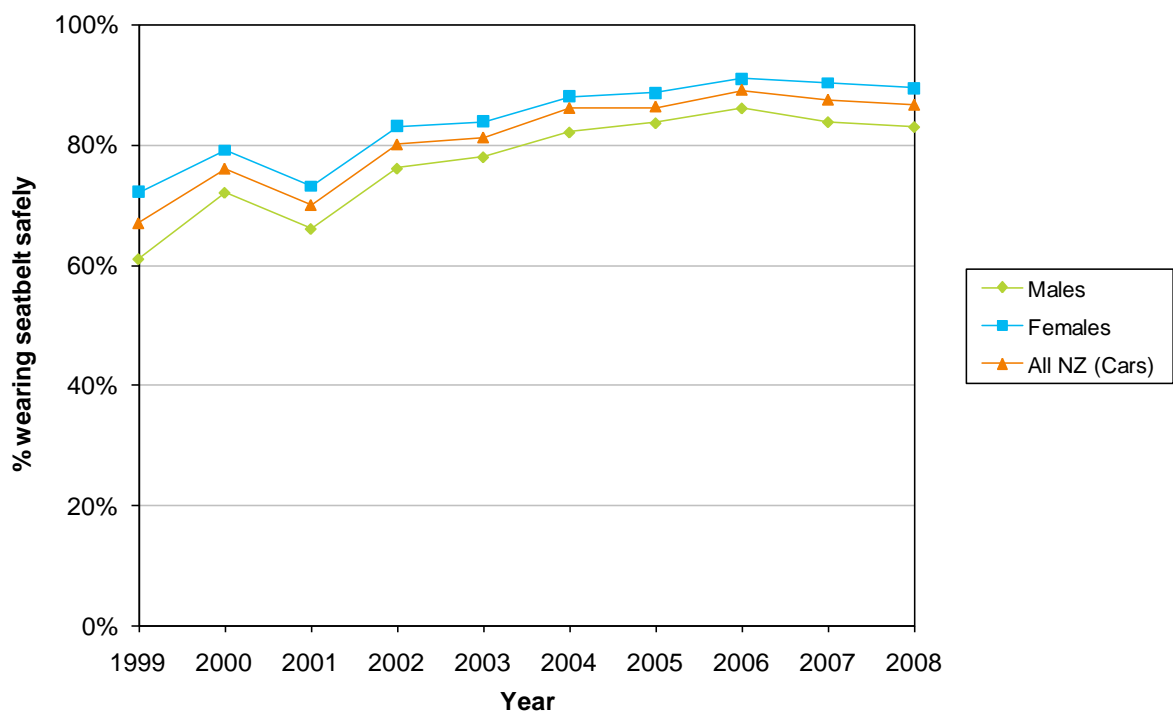


Figure 1. Safety belt wearing rates for adults in the rear seat, 1999-2008

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 2008, at least 200 vehicle occupants were surveyed in each region, except in Gisborne where 65 people were surveyed and on the West Coast where 170 people were surveyed.

The number of vehicles with rear seat passengers observed in Gisborne was too small to provide a wearing rate in 2008. The survey sites for Gisborne will be reviewed in the next survey to ensure maximum traffic is being captured.

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 over the last year in Auckland, Waikato and Otago. The Bay of Plenty has returned to the level observed in 2005. The Gisborne rate appears to have declined from 2005 – 2007 levels but this may be due to the atypically small sample.

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	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Northland	76	88	72	84	87	89	94	99	71	73
Auckland	57	84	84	84	82	90	82	93	92	88
Waikato	75	78	80	78	82	85	83	83	88	83
Bay of Plenty	73	66	53	79	70	78	85	90	76	86
Gisborne	39	53	55	54	69	59	97	86	92	Sample too small
Hawkes Bay	64	47	52	81	76	87	96	90	84	87
Taranaki	71	66	65	81	83	81	92	91	93	94
Manawatu-Wanganui	60	83	73	79	85	85	87	94	92	92
Wellington	85	78	71	77	82	87	84	89	87	89
Nelson-Marlborough	74	85	82	77	90	93	89	88	87	83
West Coast	61	75	82	79	78	85	89	95	91	91
Canterbury	58	76	58	76	82	88	85	87	91	92
Otago	71	87	85	88	79	78	88	92	84	79
Southland	64	74	76	67	88	74	70	64	71	78
All NZ	67	76	70	80	81	86	86	89	87	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.

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 error¹ 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 75 people were sampled.

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

Local authority/ authorities	People in sample	Wearing rate 2008	Local authority/ authorities	People in sample	Wearing rate 2008
<i>Northland</i>			Whakatane / Opotiki / Kawerau	102	99
Far North	101	74	<i>Gisborne</i>		
Whangarei	127	72	Gisborne	65	Sample too small
Whangarei/Kaipara	169	73	<i>Hawkes Bay</i>		
<i>Auckland</i>			Hastings	107	89
North Shore	270	86	Napier	125	85
Rodney	398	92	Central Hawkes Bay	83	93
Waitakere	181	73	Wairoa / Hastings	164	82
Auckland	319	83	<i>Taranaki</i>		
Manukau	256	90	New Plymouth	368	93
Papakura / Franklin	238	100	Stratford	83	100
Franklin	188	100	Stratford / South Taranaki	151	94
<i>Waikato</i>			<i>Manawatu-Wanganui</i>		
Thames-Coromandel	165	95	Rangitikei / Ruapehu	157	88
Hauraki	77	78	Wanganui	124	88
Waikato	352	92	Manawatu	110	92
Hamilton City	301	85	Palmerston North	186	95
Matamata-Piako	84	90	Tararua	86	94
Waipa / Otorohanga	170	80	Horowhenua	103	96
South Waikato	189	85	<i>Wellington</i>		
Waitomo	76	82	Kapiti Coast	211	86
Otorohanga	98	77	Porirua	94	81
Taupo	269	80	Upper Hutt	105	92
<i>Bay of Plenty</i>			Hutt	339	91
Tauranga / Western Bay of Plenty	159	97	Wellington City	79	76
Western Bay of Plenty	97	96	Masterton	110	91
Rotorua	237	64	Carterton/ South Wairarapa	180	96

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

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

Local authority/ authorities	People in sample	Wearing rate 2008	Local authority/ authorities	People in sample	Wearing rate 2008
<i>Nelson-Marlborough / Tasman</i>			Timaru	152	89
Nelson / Marlborough	145	73	Mackenzie / Waimate	135	84
Marlborough	88	65	<i>Otago</i>		
Tasman	149	93	Waitaki	128	84
<i>West Coast</i>			Central Otago / Queenstown-Lakes	155	84
Buller / Westland	81	94	Queenstown-Lakes	81	80
Grey	89	91	Dunedin	210	61
<i>Canterbury</i>			Clutha	121	100
Kaikoura / Hurunui	123	85	<i>Southland</i>		
Waimakariri	151	99	Gore	140	79
Christchurch City	195	94	Invercargill / Southland	132	77
Selwyn	97	90			
Ashburton	80	95			

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 2008, at least 270 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 2008. Waitemata and Auckland Police Districts showed a decrease in rear safety belt wearing. Counties / Manukau 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	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Northland	76	88	72	84	87	89	94	99	71	73
Waitemata	59	90	94	85	82	93	91	96	96	86
Auckland	54	79	72	78	87	80	72	98	97	83
Counties Manukau	56	73	79	86	78	89	70	83	83	95
Waikato	78	77	80	79	81	85	83	84	86	83
Bay of Plenty	71	72	60	79	74	81	85	88	84	84
Eastern	58	49	53	77	75	84	96	89	87	84
Central	64	75	68	80	85	84	89	93	92	93
Wellington	85	78	71	77	82	87	84	89	87	89
Tasman	64	79	82	74	89	91	88	89	85	85
Canterbury	58	76	58	78	81	87	85	87	93	93
Southern	68	81	59	81	82	77	83	84	81	79
All NZ	67	76	70	80	81	86	86	89	87	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 error² 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 75 people were sampled.

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

Police Area	People in sample	Wearing rate 2008	Police Area	People in sample	Wearing rate 2008
<i>Northland</i>			<i>Central</i>		
Far North	101	74	New Plymouth	368	93
Whangarei	169	73	Taranaki rural	151	94
<i>Waitemata</i>			Wanganui	215	88
North Shore	270	86	Ruapehu	66	Sample too small
Waitakere	181	73	Wanganui/ Ruapehu	281	88
Rodney	398	92	Palmerston North City	186	95
<i>Auckland</i>			Palmerston North rural	299	94
Auckland	266	83	<i>Wellington</i>		
<i>Counties Manukau</i>			Kapiti-Mana	305	85
Manukau West	88	72	Wellington	79	76
Manukau Central	168	99	Lower Hutt	339	91
Manukau South	238	100	Upper Hutt	105	92
<i>Waikato</i>			Wairarapa	290	94
Hamilton	301	85	<i>Tasman</i>		
Waikato East	284	74	Nelson Bays	206	91
Waikato West	598	87	Marlborough	161	70
<i>Bay of Plenty</i>			West Coast	170	92
Western Bay of Plenty	159	97	<i>Canterbury</i>		
Eastern Bay of Plenty	102	99	Northern Canterbury	201	99
Rotorua	230	71	Christchurch Central	89	94
Taupo	558	82	Southern Canterbury	287	87
<i>Eastern</i>			Mid-South Canterbury	283	93
Gisborne	122	74	<i>Southern</i>		
Napier	125	85	Dunedin	331	76
Hastings	190	91	Otago Rural	283	84
			Southland	272	78

Safety belt wearing by adult rear seat passengers was prepared by Transport Monitoring, March 2009.

For more information see the Ministry of Transport Research website at: <http://www.transport.govt.nz/research-2/>

² Margin of error such that *wearing rate* \pm *margin of error* describes a 95% confidence interval for the wearing rate.