

## Safety belt wearing by adult rear seat passengers: Results of national survey, November/December 2009

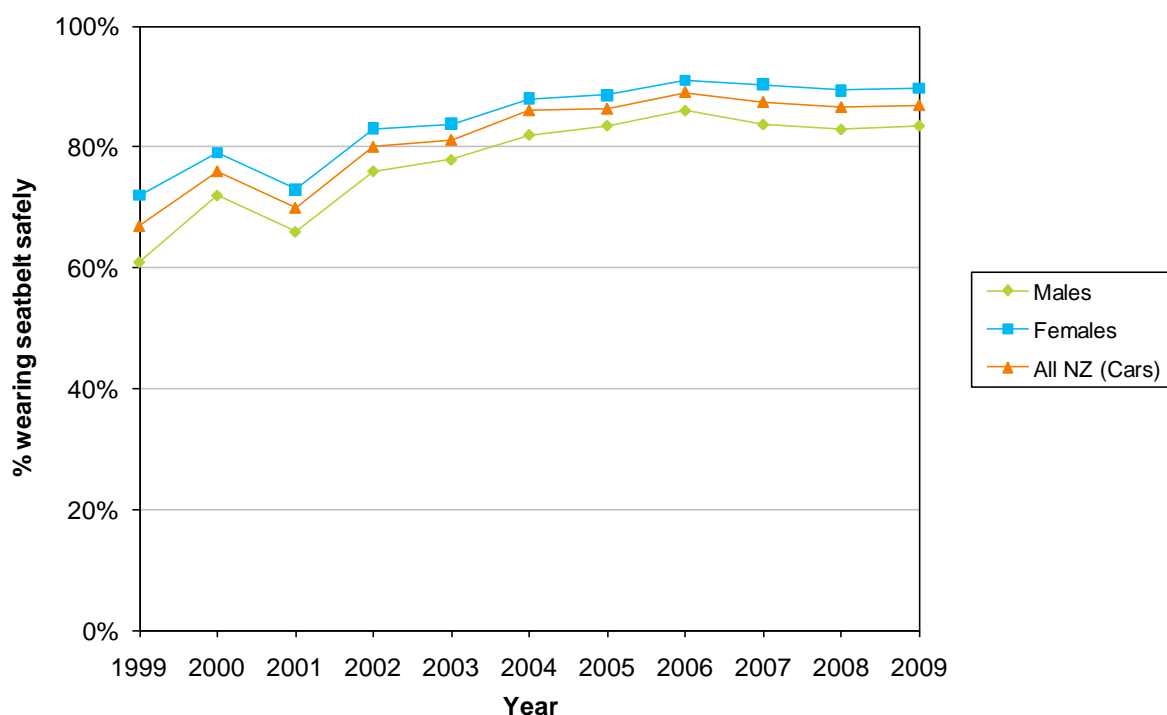
The latest annual national survey of safety belt use in New Zealand by adults in the rear seats of cars was carried out in November and December 2009. More than 12,000 adults seated in the rear seat of cars were observed at 139 sites around the country. As in previous years, each site was surveyed between 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 2009, the safety belt wearing rate for rear seat adult passengers was **87%**. This result is the same as in 2007 and 2008 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	2009
Males	61	72	66	76	78	82	84	86	84	83	84
Females	72	79	73	83	84	88	89	91	90	89	90
Van passengers	62	67	50	69	72	72	75	79	75	75	75
New Zealand	67	76	70	80	81	86	86	89	87	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 88%. More teenage girls were wearing their safety belts (91%) than teenage boys (86%). These are similar to the corresponding adult rates.



*Figure 1.* Safety belt wearing rates for adults in the rear seat, 1999-2009

## 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 2009, at least 200 vehicle occupants were surveyed in each region, except in Gisborne where 90 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 over the last year in Auckland, Manawatu/Whanganui, Wellington and Canterbury. Northland, Waikato, Hawkes Bay and Otago have all increased.

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	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Northland	88	72	84	87	89	94	99	71	73	94
Auckland	84	84	84	82	90	82	93	92	88	76
Waikato	78	80	78	82	85	83	83	88	83	91
Bay of Plenty	66	53	79	70	78	85	90	76	86	87
Gisborne	53	55	54	69	59	97	86	92	Sample too small	79
Hawkes Bay	47	52	81	76	87	96	90	84	87	94
Taranaki	66	65	81	83	81	92	91	93	94	94
Manawatu-Whanganui	83	73	79	85	85	87	94	92	92	87
Wellington	78	71	77	82	87	84	89	87	89	84
Nelson-Marlborough	85	82	77	90	93	89	88	87	83	85
Canterbury	75	82	79	78	85	89	95	91	91	87
West Coast	76	58	76	82	88	85	87	91	92	93
Otago	87	85	88	79	78	88	92	84	79	90
Southland	74	76	67	88	74	70	64	71	78	77
All NZ	76	70	80	81	86	86	89	87	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 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. Where fewer than 75 people were sampled in a TLA, neighbouring local bodies have been combined for estimation.

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

Local authority/ authorities	People in sample	Wearing rate 2009	Local authority/ authorities	People in sample	Wearing rate 2009
<i>Northland</i>			Whakatane / Opotiki	129	86
Far North	145	84	Kawerau	122	60
Whangarei	227	100	<i>Gisborne</i>		
Whangarei / Kaipara	292	99	Gisborne	90	79
<i>Auckland</i>			<i>Hawkes Bay</i>		
North Shore	208	74	Napier / Hastings	224	93
Rodney	373	89	Napier	177	92
Waitakere	244	51	Central Hawkes Bay	107	91
Auckland	344	59	Wairoa	501	95
Manukau	391	91	<i>Taranaki</i>		
Papakura / Franklin	161	86	New Plymouth	410	92
Papakura	102	87	Stratford	79	100
<i>Waikato</i>			South Taranaki	95	100
Thames-Coromandel	535	99	<i>Manawatu-Whanganui</i>		
Hauraki	130	93	Rangitikei / Ruapehu	184	95
Waikato	352	95	Whanganui	104	74
Hamilton City	327	86	Manawatu	114	92
Matamata-Piako	198	80	Palmerston North	220	86
Waipa	182	84	Tararua / Horowhenua	174	86
South Waikato	257	99	Horowhenua	122	83
Waitomo	124	92	<i>Wellington</i>		
Otorohanga	109	86	Kapiti Coast	369	84
Taupo	403	81	Porirua	182	86
<i>Bay of Plenty</i>			Upper Hutt	300	89
Tauranga	250	88	Hutt	190	91
Western Bay of Plenty	305	97	Wellington City	204	87
Rotorua	448	86	Masterton	186	74

<sup>1</sup> 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 2009
<i>Wellington cont</i>		
Carterton / South Wairarapa	228	78
<i>Nelson-Marlborough / Tasman</i>		
Nelson / Tasman	97	85
Marlborough	93	85
<i>West Coast</i>		
Buller / Westland	123	89
Grey	133	95
<i>Canterbury</i>		
Kaikoura / Hurunui	235	88
Waimakariri	144	92
Christchurch City	197	90
Selwyn	130	72

Local authority/ authorities	People in sample	Wearing rate 2009
Ashburton	167	100
Timaru	196	78
Mackenzie / Waimate	133	92
<i>Otago</i>		
Waitaki/ Central Otago	77	91
Queenstown-Lakes	246	93
Dunedin	161	78
Clutha	112	100
<i>Southland</i>		
Gore	149	70
Invercargill / Southland	156	83

## 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 2009, at least 340 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 2009. Waitemata, Auckland Counties/Manukau, Central, Wellington and Canterbury Police Districts showed a decrease in rear safety belt wearing. Northland, Waikato, Bay of Plenty, Eastern and Southern 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	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Northland	88	72	84	87	89	94	99	71	73	94
Waitemata	90	94	85	82	93	91	96	96	86	74
Auckland	79	72	78	87	80	72	98	97	83	59
Counties Manukau	73	79	86	78	89	70	83	83	95	89
Waikato	77	80	79	81	85	83	84	86	83	91
Bay of Plenty	72	60	79	74	81	85	88	84	84	87
Eastern	49	53	77	75	84	96	89	87	84	92
Central	75	68	80	85	84	89	93	92	93	90
Wellington	78	71	77	82	87	84	89	87	89	84
Tasman	79	82	74	89	91	88	89	85	85	88
Canterbury	76	58	78	81	87	85	87	93	93	88
Southern	81	59	81	82	77	83	84	81	79	85
All NZ	76	70	80	81	86	86	89	87	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 error<sup>2</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 75 people were sampled.

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

Police Area	People in sample	Wearing rate 2009	Police Area	People in sample	Wearing rate 2009
<i>Northland</i>			<i>Central</i>		
Far North	145	84	New Plymouth	410	92
Whangarei	292	99	Taranaki rural	174	100
<i>Waitemata</i>			Whanganui	220	84
North Shore	208	74	Ruapehu	68	Sample too small
Waitakere	244	51	Whanganui/ Ruapehu	288	87
Rodney	373	89	Palmerston North City	220	86
<i>Auckland</i>			Palmerston North rural	288	89
Auckland	344	59	<i>Wellington</i>		
<i>Counties Manukau</i>			Kapiti-Mana	551	84
Manukau West	266	97	Wellington	204	87
Manukau Central	125	78	Lower Hutt	190	91
Manukau South	161	86	Upper Hutt	300	89
<i>Waikato</i>			Wairarapa	414	76
Hamilton	327	86	<i>Tasman</i>		
Waikato East	863	94	Nelson Bays	97	85
Waikato West	767	91	Marlborough	271	85
<i>Bay of Plenty</i>			West Coast	256	93
Western Bay of Plenty	555	93	<i>Canterbury</i>		
Eastern Bay of Plenty	251	73	Northern Canterbury	201	94
Rotorua	448	86	Christchurch Central	114	96
Taupo	660	88	Southern Canterbury	329	83
<i>Eastern</i>			Mid-South Canterbury	380	87
Gisborne	591	92	<i>Southern</i>		
Napier	177	92	Dunedin	273	87
Hastings	154	94	Otago Rural	323	92
			Southland	305	77

Safety belt wearing by adult rear seat passengers was prepared by Transport Monitoring, February 2010.

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

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