

## Child restraint use by children under 5 years: Results of national survey, 2009.

The latest annual national survey of child restraint use in New Zealand by children under 5 years was carried out in October 2009. Children in more than 5,300 cars were observed at 112 sites throughout New Zealand. As in previous years, sites were surveyed during school hours in the school term in order to target pre-schoolers. Results were weighted to reflect the population under five in each local authority.

The results from 2009 showed that across all sites, **91%** of children under the age of 5 years were either in an infant seat, child seat, booster seat, or restrained by a child harness.

Fifty two percent of the children in the survey were appropriately restrained in child seats, 18% in booster seats, 20% in infant seats and less than half a percent in child harnesses. A further 5% were restrained by adult safety belts only. The remaining 4% were not restrained, including less than 1% who were held on the knee of other passengers (see Table 1).

**Table 1: Restraint type used by children under 5 (%)**

Category	1999	2000	2001	2002	2003 <sup>1</sup>	2004	2005	2006 <sup>1</sup>	2007	2008	2009
Appropriate restraint used	75	79	82	86	86	87	89	91	91	90	91
Adult safety belt used	11	11	9	9	8	8	7	6	7	5	5
Unrestrained	14	11	9	5	5	5	4	4	2	5	4

### Regional Wearing Rates

National surveys are designed to provide a consistent measure of child restraint use over time, by surveying the same sites in each region each year. Table 2 shows the child restraint wearing rates by children under the age of five years in each Local Government region. In 2009 at least 200 children were surveyed in each region, except in Gisborne where 62 were observed and the West Coast where 93 were observed.

Overall, the wearing of child restraints has changed little since 2007. Child restraint wearing in Waikato and Taranaki decreased this year. Wearing rates have increased in Manawatu-Whanganui and Wellington. Wearing rates in all other regions are being maintained.

<sup>1</sup> Rounded figures given; actual percentages add to 100%.

**Table 2: Child restraint wearing rates, by region (%)**

<b>Local Government Region</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Northland	61	70	69	85	84	95	98	100	95	88	89
Auckland	70	75	77	83	82	81	86	92	90	90	89
Waikato	80	78	81	88	90	87	89	87	89	93	89
Bay of Plenty	75	79	78	87	78	81	91	89	86	87	84
Gisborne	47	68	79	69	76	88	92	83	100	94	90
Hawkes Bay	74	67	90	94	83	92	98	89	92	92	94
Taranaki	82	77	78	95	91	94	87	95	96	96	88
Manawatu - Whanganui	71	83	81	84	89	94	91	94	97	95	99
Wellington	81	81	83	82	90	89	91	92	90	81	97
Nelson - Marlborough	65	73	79	94	92	93	91	93	91	96	96
West Coast	80	82	84	92	92	92	92	93	96	99	99
Canterbury	87	88	94	91	93	93	83	85	90	91	94
Otago	89	87	97	97	90	95	91	91	98	96	93
Southland	84	87	76	81	88	83	94	92	90	95	92
All NZ	75	79	82	86	86	87	89	91	91	90	91

### Metropolitan Area Wearing Rates

Child restraint wearing rates for selected metropolitan areas are presented in Table 3. The observed wearing rates have increased for Waitakere, Auckland and Wellington and decreased for Hamilton. All other metropolitan areas showed a steady wearing rate.

**Table 3: Child restraint wearing rates, by metropolitan area (%)**

<b>Metropolitan areas</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
North Shore	84	91	90	79	88	80	94	93	92	98	97
Waitakere	76	80	78	86	91	95	91	90	89	82	94
Auckland City	71	81	82	88	85	88	86	86	89	95	99
Manukau	59	64	69	82	68	66	76	96	91	86	82
Hamilton	84	81	84	90	95	80	94	87	88	96	88
Wellington City	88	91	87	86	84	86	87	87	89	84	97
Christchurch	84	88	94	90	93	91	77	85	89	98	98
Dunedin	87	85	98	99	91	96	91	98	100	97	95

## 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 80%, the margin of error (based on a 95% confidence interval for the wearing rate) is approximately 8%.

Child restraint wearing rates at Local Authority level are presented in Table 4. Results are likely to fluctuate where sample sizes are small and caution should be taken, particularly when samples are smaller than 100. No wearing rate has been estimated where fewer than 60 children were sampled. Where appropriate, neighbouring local authority areas have been combined to enable estimation of the child restraint wearing rate.

**Table 4: Child restraint wearing rates by Territorial Local Authority, 2009**

Local authority / authorities	Children in sample	% in child restraints	Local authority / authorities	Children in sample	% in child restraints
<i>Northland</i>			<i>Hawkes Bay</i>		
Far North/Kaipara	119	78	Wairoa	79	95
Whangarei	89	98	Napier	141	99
<i>Auckland</i>			Hastings	157	93
North Shore	272	97	Hastings / Central Hawkes Bay	182	93
Rodney	87	99	<i>Taranaki</i>		
Waitakere	126	94	New Plymouth	209	86
Auckland	314	99	Stratford	99	96
Manukau	368	82	South Taranaki	95	92
Franklin/Papakura	103	87	<i>Manawatu-Whanganui</i>		
<i>Waikato</i>			Ruapehu / Rangitikei/ Whanganui	130	97
Waikato	85	80	Manawatu / Tararua / Horowhenua	114	99
Waipa	152	93	Manawatu	68	97
Matamata – Piako/ South Waikato	176	90	Palmerston North	62	100
Hamilton	159	88	<i>Wellington</i>		
Taupo / South Waikato	154	92	Kapiti Coast	61	98
<i>Bay of Plenty</i>			Porirua	69	99
Tauranga	131	85	Masterton / Carterton	111	97
Western Bay of Plenty	91	60	Upper Hutt / Hutt City	146	95
Rotorua	72	92	Hutt City	93	95
Whakatane / Kawerau	76	83	Wellington City	226	97
<i>Gisborne</i>			<i>Nelson-Marlborough / Tasman</i>		
Gisborne	62	90	Nelson	85	100
			Tasman	99	96
			Marlborough / Kaikoura	111	87

Table 4 continued. Child restraint wearing rates by Territorial Local Authority, 2009

Local authority / authorities	Children in sample	% in child restraints	Local authority / authorities	Children in sample	% in child restraints
<i>West Coast</i>			<i>Otago</i>		
Westland / Buller / Grey	93	99	Waitaki / Central Otago	111	91
<i>Canterbury</i>			Clutha	67	96
Christchurch	279	98	Dunedin	100	95
Waimakariri	48	Sample too small	<i>Southland</i>		
Ashburton	64	97	Gore	90	92
Timaru	87	93	Invercargill	114	89

## Police District Wearing Rates

National surveys are designed to provide a consistent measure of child restraint use over time, by surveying the same sites in each Police District each year. Waitemata, Auckland and Wellington increased from 2008. The increase observed for Wellington implies that the 2008 low was a one-off fluctuation, however further observation will be needed to confirm this.

In 2009, at least 350 children were surveyed in each district, except in Northland (where 208 children were surveyed) and in Auckland (314 children).

Table 5: Percentage of children in child restraints, by Police District (%)

Police District	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Northland	61	70	69	85	84	95	98	100	95	88	89
Waitemata	79	84	82	83	91	89	93	93	90	87	97
Auckland	71	81	82	88	86	88	86	84	89	95	99
Counties - Manukau	63	64	69	75	69	68	86	97	91	87	83
Waikato	80	80	83	87	91	86	90	86	87	93	89
Bay of Plenty	76	77	76	88	78	83	90	90	87	88	85
Eastern	63	68	86	88	81	91	96	87	94	92	94
Central	77	80	80	88	90	93	90	94	95	95	95
Wellington	81	81	84	80	90	89	91	92	91	81	97
Tasman	70	75	80	94	92	93	91	93	92	97	96
Canterbury	87	88	94	90	93	93	83	85	90	91	94
Southern	88	87	89	93	89	91	92	92	95	96	92
All NZ	75	79	82	86	86	87	89	91	91	90	91

## Police Area Wearing Rates

Child restraint wearing rates at Police Area level are presented in Table 6. Results are likely to fluctuate where sample sizes are small and caution should be taken, particularly when samples are smaller than 100. No wearing rate has been estimated where fewer than 60 children were sampled. Where appropriate, neighbouring police areas have been combined to enable estimation of the child restraint wearing rate.

**Table 6: Child restraint wearing rates by Police Area, 2009**

<b>Police Area</b>	<b>Children in sample</b>	<b>% in child restraints</b>	<b>Police Area</b>	<b>Children in sample</b>	<b>% in child restraints</b>
<i>Northland</i>			<i>Central</i>		
Far North	98	81	New Plymouth	209	86
Whangarei	110	93	Taranaki Rural	194	93
<i>Waitemata</i>			Whanganui	82	98
Rodney	87	99	Ruapehu / Whanganui	130	97
North Shore	272	97	Palmerston North Rural	143	98
Waitakere	126	94	Palmerston North City	62	100
<i>Auckland</i>			<i>Wellington</i>		
Auckland West	105	99	Kapiti - Mana	172	98
Auckland East	209	99	Wellington	155	97
<i>Counties / Manukau</i>			Lower Hutt	93	95
Counties-Manukau West	180	82	Upper Hutt / Lower Hutt	146	95
Counties-Manukau East	156	90	Wairarapa	111	97
Counties-Manukau Central / South	135	71	<i>Tasman</i>		
<i>Waikato</i>			Nelson Bays	184	98
Hamilton	159	88	Marlborough	111	87
Waikato East	65	89	West Coast	93	99
Waikato West	237	88	<i>Canterbury</i>		
<i>Bay of Plenty</i>			Northern Canterbury	142	88
Taupo	154	92	Christchurch Central	67	99
Western Bay of Plenty	222	79	Southern Canterbury	151	95
Eastern Bay of Plenty	76	83	Mid-South Canterbury	118	100
Rotorua	72	92	<i>Southern</i>		
<i>Eastern</i>			Dunedin	167	95
Gisborne	141	92	Otago Rural	111	91
Napier	141	99	Southland	204	91
Hastings	182	93			