

## Child restraint use by children under 5 years, 2012.

The latest annual national survey of child restraint use in New Zealand by children under 5 years old was carried out in October 2012. Children in more than 4,800 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 years in each local authority.

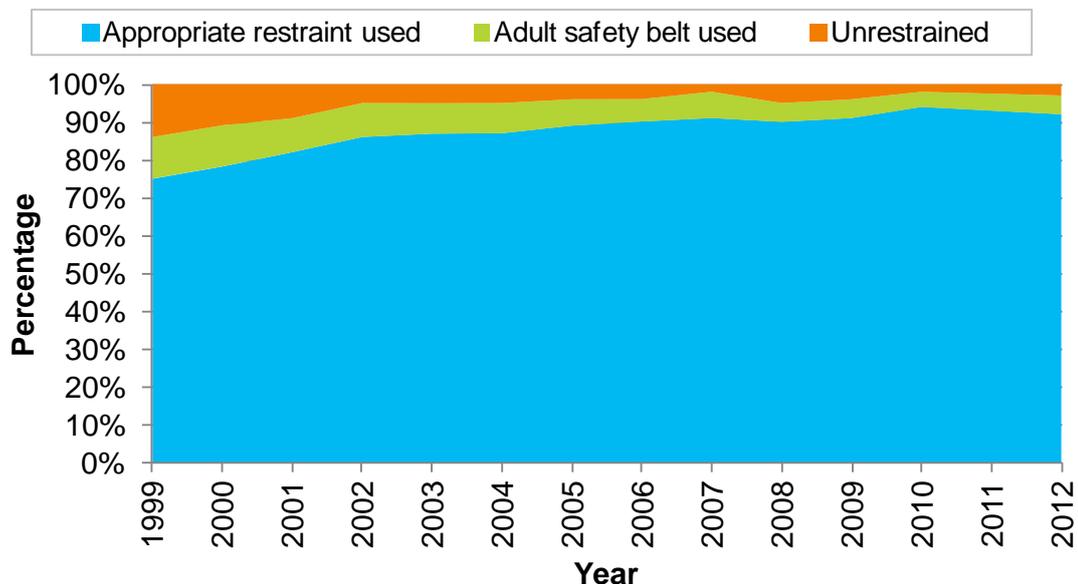
In 2012, **92 percent** of children under 5 years were either in an infant seat, child seat, booster seat, or restrained by a child harness. This is a decrease from 93 percent in 2010, but higher than previous years.

Fifty-two percent of the children in the survey were appropriately restrained in child seats, 19 percent in infant seats, 18 percent in booster seats and 0.7 percent in child harnesses. A further 5 percent were restrained by adult safety belts only. The remaining 2.6 percent were not restrained, including less than 1 percent who were held on the knee of other passengers (see Table 1).

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

Category	2001	2002	2003 <sup>1</sup>	2004	2005	2006 <sup>1</sup>	2007	2008	2009	2010 <sup>1</sup>	2012
Appropriate restraint used	82	86	86	87	89	91	91	90	91	93	92
Adult safety belt used	9	9	8	8	7	6	7	5	5	4	5
Unrestrained	9	5	5	5	4	4	2	5	4	2	3

**Figure 1: National restraint use patterns for children under 5 years**



In this report, changes have been commented on when the change is considered to be statistically significant<sup>2</sup>; that is, the change in the wearing rate observed in the survey is likely to reflect a real change in the wearing rate.

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

<sup>2</sup> Margin of error based on 95 percent confidence interval.

## 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 five years in each local government region. In 2012 at least 190 children were surveyed in each region, except in Gisborne where 84 were observed, the West Coast where 118 were observed and Otago where 82 were observed.

Table 2 shows that overall, the wearing of child restraints has decreased since 2010. Some regions have shown increases or decreases in wearing rates. For example, child restraint wearing in Wellington is at its highest recorded rate at 98 percent, up from 91 percent in 2010. Wearing rates have decreased by 8 percent in Auckland, and have increased by 4 percent in the Waikato. Wearing rates in all other regions are at similar levels to previous years.

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

Local Government Region	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2012
Northland	70	69	85	84	95	98	100	95	88	89	88	91
Auckland	75	77	83	82	81	86	92	90	90	89	96	88*
Waikato	78	81	88	90	87	89	87	89	93	89	90	94*
Bay of Plenty	79	78	87	78	81	91	89	86	87	84	91	94
Gisborne	68	79	69	76	88	92	83	100	94	90	85	81
Hawke's Bay	67	90	94	83	92	98	89	92	92	94	93	95
Taranaki	77	78	95	91	94	87	95	96	96	88	95	95
Manawatu - Wanganui	83	81	84	89	94	91	94	97	95	99	97	99
Wellington	81	83	82	90	89	91	92	90	81	97	91	98*
Nelson – Marlborough - Tasman	73	79	94	92	93	91	93	91	96	96	93	93
West Coast	82	84	92	92	92	92	93	96	99	99	96	92
Canterbury	88	94	91	93	93	83	85	90	91	94	93	94
Otago	87	97	97	90	95	91	91	98	96	93	96	95
Southland	87	76	81	88	83	94	92	90	95	92	93	91
All NZ	79	82	86	86	87	89	91	91	90	91	93	92*

\* Statistically significant change from previous record.

## Metropolitan Area Wearing Rates

Child restraint wearing rates for selected metropolitan areas are presented in Table 3. Results from the previous cities of North Shore, Waitakere, Auckland and Manukau are now incorporated into Auckland, following their amalgamation in 2010. Auckland has shown a decrease in wearing rate from 96 percent in 2010, to 88 percent in 2012. Increased wearing rates were observed in Hamilton, from 90 to 99 percent, Tauranga, from 85 to 100 percent and Wellington, from 93 to 99 percent. Wearing rates have not changed significantly in the other metropolitan areas shown in Table 3.

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

Metropolitan areas	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2012
Auckland	75	77	83	82	81	86	92	90	90	89	96	88**
Hamilton	81	84	90	95	80	94	87	88	96	88	90	99**
Tauranga			88	80	81	87	97	78	86	85	85	100**
Wellington	91	87	86	84	86	87	87	98	84	97	93	99**
Christchurch	88	94	90	93	91	77	85	89	98	98	91	92
Dunedin	85	98	99	91	96	91	98	89	97	95	95	92

\* Prior to 2010, Auckland regional wearing rate shown. Limited historical Tauranga data is available

\*\* Statistically significant change from previous record.

## Local Authority Wearing Rates

Child restraint wearing rates at territorial local authority (TLA) level are presented in Table 4. At TLA 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 percent the margin of error<sup>3</sup> is approximately 9 percent. While small samples make it difficult to detect small changes in the wearing rate from year to year, these results are useful to local authorities as an indication of how much improvement is needed. Where fewer than 70 children were sampled in a TLA, neighbouring local bodies have been combined for estimation.

<sup>32</sup> Margin of error based on 95 percent confidence interval.

Table 4: Child restraint wearing rates by territorial local authority, 2012

Local authority / authorities	Children in sample	% in child restraints	Local authority / authorities	Children in sample	% in child restraints
<i>Northland</i>			<i>Manawatu-Wanganui</i>		
Far North	83	83	Ruapehu / Rangitikei	102	100
Far North / Kaipara	104	85	Whanganui	74	96
Whangarei	130	98	Manawatu / Tararua / Horowhenua	94	98
<i>Auckland</i>			Palmerston North	99	99
Auckland	1164	88	<i>Wellington</i>		
<i>Waikato</i>			Kapiti Coast / Porirua	94	98
Waikato	78	87	Masterton / Carterton	55	Sample too small
Waipa	111	95	Upper Hutt / Hutt City	190	99
Matamata – Piako	77	86	Hutt City	123	99
Hamilton	167	99	Wellington City	257	99
Taupo / South Waikato	221	92	<i>Nelson / Marlborough / Tasman</i>		
<i>Bay of Plenty</i>			Nelson / Tasman	162	97
Tauranga	95	100	Tasman	98	99
Rotorua	121	98	Marlborough / Kaikoura	77	87
Whakatane / Kawerau / Western Bay of Plenty	131	83	<i>West Coast</i>		
<i>Gisborne</i>			Westland / Buller / Grey	118	92
Gisborne	84	81	<i>Canterbury</i>		
<i>Hawke's Bay</i>			Christchurch	243	92
Napier	85	96	Christchurch / Waimakariri	279	93
Wairoa / Hastings / Central Hawke's Bay	109	95	Ashburton	75	96
<i>Taranaki</i>			Ashburton / Timaru	143	97
New Plymouth	129	96	<i>Otago</i>		
Stratford / South Taranaki	105	93	Waitaki / Central Otago / Clutha / Dunedin	117	95
			<i>Southland</i>		
			Gore	73	89
			Invercargill	110	90

## 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. Child restraint use in Waikato has increased from 89 percent in 2010 to 94 percent in 2012 and in Wellington from 91 percent in 2010 to 98 percent in 2012. Use has decreased in Waitemata from 97 to 92 percent, Auckland from 98 to 87 percent and Counties–Manukau from 94 to 84 percent. Wearing rates have not changed significantly in the other police districts, as shown in Table 5.

In 2012, at least 300 children were surveyed in each district, except in Northland (where 234 children were surveyed), Auckland (227 children) and Eastern (278 children).

**Table 5: Percentage of children in child restraints, by police district (%)**

Police District	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2012
Northland	70	69	85	84	95	98	100	95	88	89	88	91
Waitemata	84	82	83	91	89	93	93	90	87	97	97	92*
Auckland	81	82	88	86	88	86	84	89	95	99	98	87*
Counties–Manukau	64	69	75	69	68	86	97	91	87	83	94	84*
Waikato	80	83	87	91	86	90	86	87	93	89	89	94*
Bay of Plenty	77	76	88	78	83	90	90	87	88	85	92	94
Eastern	68	86	88	81	91	96	87	94	92	94	91	92
Central	80	80	88	90	93	90	94	95	95	95	97	98
Wellington	81	84	80	90	89	91	92	91	81	97	91	98*
Tasman	75	80	94	92	93	91	93	92	97	96	94	93
Canterbury	88	94	90	93	93	83	85	90	91	94	93	94
Southern	87	89	93	89	91	92	92	95	96	92	94	93
All NZ	79	82	86	86	87	89	91	91	90	91	93	92*

\* Statistically significant change from previous record.

## Police Area Wearing Rates

Child restraint wearing rates at police area level are presented in Table 6. At police area 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 percent the margin of error<sup>4</sup> is approximately 9 percent. While small samples make it difficult to detect small changes in the wearing rate from year to year, these results are useful to local police as an indication of how much improvement is needed. Where fewer than 70 children were sampled in a police area, neighbouring local areas have been combined for estimation.

<sup>4</sup> Margin of error based on a 95 percent confidence interval.

**Table 6: Child restraint wearing rates by police area, 2012**

Police Area	Children in sample	% in child restraints	Police Area	Children in sample	% in child restraints
<i>Northland</i>			<i>Eastern cont</i>		
Far North	83	83	Hastings	95	96
Whangarei	151	97	<i>Central</i>		
<i>Waitemata</i>			New Plymouth	129	96
Rodney / North Shore	294	95	Taranaki Rural	105	93
North Shore	229	96	Whanganui	108	97
Waitakere	225	88	Ruapehu	68	Sample too small
<i>Auckland</i>			Palmerston North Rural	120	99
Auckland West / Auckland East	227	87	Palmerston North City	99	99
Auckland East	159	86	<i>Wellington</i>		
<i>Counties / Manukau</i>			Kapiti - Mana	193	97
Counties-Manukau West	126	80	Wellington	219	100
Counties-Manukau East	157	85	Lower Hutt	123	99
Counties-Manukau Central / South	135	89	Upper Hutt / Lower Hutt	190	99
<i>Waikato</i>			Wairarapa	55	Sample too small
Hamilton	167	99	<i>Tasman</i>		
Waikato East	77	86	Nelson Bays	162	97
Waikato West	189	92	Marlborough	77	87
<i>Bay of Plenty</i>			West Coast	118	92
Taupo	221	95	<i>Canterbury</i>		
Western Bay of Plenty	159	99	Northern Canterbury	143	95
Eastern Bay of Plenty	67	Sample too small	Northern Canterbury / Christchurch Central	195	91
Rotorua	121	98	Mid-South Canterbury	84	98
<i>Eastern</i>			Southern Canterbury	143	97
Gisborne	98	82	<i>Southern</i>		
Napier	85	96	Dunedin	73	93
			Dunedin / Otago Rural	117	95
			Southland	183	90

More information is available from [www.transport.govt.nz](http://www.transport.govt.nz)