



Road Safety Authority
Seat Belt and Mobile Phone
Usage Observation Survey

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S18-325

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MMcL/SR

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1. Introduction

In October 2018 Amárach Research were commissioned by the Road Safety Authority (RSA) to carry out research investigating seat belt compliance by drivers and passengers in vehicles on Irish roads, as well as mobile phone usage by drivers of vehicles which were in operation. According to the RSA, driver distraction could be a factor in as many as 20-30% of all collisions in the country. A key driver distraction affecting road safety is mobile phone use by drivers. Making a call when driving makes a person four times more likely to crash with texting making a person twenty-three times more likely. In a review of fatal collisions for the period January to December 2018, there were 142 fatal collisions. Just over a quarter of all drivers and passengers killed were reported as not wearing a seat belt (28%). This increased to 39% when unknown was removed. The results of this study observed that non-wearing of seat belts remains a concern for both drivers and passengers.

This research report identifies the level of seat belt compliance and mobile phone usage among drivers on Irish roads across varying times of the day and road types. Vehicle users are grouped by driver, front passenger, rear adult passenger and child front and rear passengers.

The majority* of observations were conducted during the following time frames:

- Morning: 7 am to 10 am – to catch morning peak
- Afternoon 12 noon to 3pm – to catch routine mid-day traffic
- Evening 3 to 6 pm – to catch the evening commute.

*Observations at schools were conducted from 8.00am – 9.00am to correspond with opening hours and then from 3.00pm-4.00pm (or 1.00pm-2.00pm on a Wednesday for schools which have a half day) to correspond with closing times. Where possible opening/ closing times were checked on school websites to ensure that interviewers were in place at the correct time to observe maximum traffic flow.

Amárach Research, working as a research partner with the RSA, is committed to providing the most accurate data possible. In accordance with ISO 9001 Quality Assurance Standards and ISO 20252 Market, Opinion and Social Research Quality Procedures Amárach has ensured that data reported within will help ensure increased safety on Irish roads.

2. Methodology

2.1 Observation of Seat Belt Compliance and Mobile Phone Usage

In total 167 sites were surveyed, combining urban and rural roads throughout Ireland (see appendix 1). These pre-determined site locations were provided by the RSA and each point was allocated to interviewers.

The 168 sites were divided as follows:

- *Front and Rear Passenger Seat belt Compliance and Driver Mobile Phone Use*
In total 111 sites were identified for capturing information on seat belt compliance among drivers and passengers as well as mobile phone usage among drivers only. These were split into 11 separate road classes. All of the main sites included observations for cars, light goods vehicles and heavy goods vehicles.
- *Rear Seat belt Compliance Rates Among Adult Passenger*
In addition to the 111 surveys capturing seat belt usage, a further 13 sites were identified to capture data on rear adult passengers only, which will boost the overall sample. The data captured for these sites was gender and seat belt wearing of each rear passenger. In this instance mobile phone usage, driver and front passenger information was not captured. The additional 'rear only' sites did not record the vehicle type.
- *Seat belt Compliance Rates of Students Attending Primary and Secondary Schools*
A total of 28 schools were identified (13 primary schools and 15 secondary schools) and information on the child passenger(s), both front and rear, was recorded. Interviewers completed their observations from a site which was at least 100m from the school. Although observers were located at specific schools (either a primary or secondary school), all minor passengers within vehicles were observed. Therefore, compliance among both young and older children was recorded with the average passenger matching the age group of

the particular school. For the primary and secondary school only sites, the vehicle types observed were car and light goods vehicles only.

- *Additional mobile sites observed from a vehicle at the roadside.*

An additional 16 sites were analysed using a different methodology as the observations took place on the side of the road in a car. The sites were observed from a car where the observer had good visibility, adequate height to view passing vehicles and a safe location to pull in and park the vehicle. For the additional mobile phone only sites, cars, light goods vehicles and heavy goods vehicles were all included.

As there was a high level of information required (particularly if the car had a number of occupants), observers located themselves near or at intersections to observe the vehicle as it slowed down or stopped. Information was recorded for each eligible vehicle (cars, light goods vehicles and heavy goods vehicles).

Interviewers were briefed by the Amárach Research team and were provided with briefing packs that included the following items:

- Detailed instructions.
- High visibility vests.
- Bespoke dashboard for data collection.

Interviewers collected data manually to avoid any technical issues that could arise from using electronic handheld devices (particularly under adverse weather conditions).

Pilot Survey

A pilot survey of 6 site locations was conducted prior to fieldwork to allow the executive team to familiarise themselves with the project. This included a primary and secondary school as well as a rear seat passenger only survey. The pilot survey was undertaken partially by executives from Amárach to ensure that all aspects of the planned fieldwork could progress without hindrance.

Minor layout amendments were made to the dashboard after the pilot study based on the feedback received. One such amendment was only recording when a mobile phone was being used. If no mobile phone was present in the hand of the driver then usage was not recorded allowing for Amárach Research staff to record other passenger data more quickly, especially with a heavy stream of cars.

In addition, observers were provided with a comments box to make note of any interesting findings. One such observation was a number of vehicles having tinted windows which made it difficult to observe rear seat passengers. In addition, the cold weather led to many wearing heavy clothing (e.g. bulky coats, hats etc.) which made observations difficult at times as the seat belt was the same colour as the clothing or obscured by clothing.

3. Results and Analysis

The analysis section is comprised of four sections in accordance with requirements outlined by the RSA in the tender documents.

The first half of this report relates to seat belt compliance among drivers and passengers (both adult and child) and will be followed by a section on driver mobile phone usage. The final part of the report deals with the additional sites that were observed through a vehicle on the side of the road. Analysis is provided by gender for drivers and front seat passengers. Unless otherwise stated rear seat passengers relate to adults only.

Seat belt Usage

94% seat belt compliance among adults...

This first section of analysis provides a topline review of the results from the survey regarding seat belt compliance by adults. Over 9 in 10 adults (94%) were observed wearing their seat belt with females showing a higher propensity of compliance (97% for both female drivers and passengers). Adult passengers seated in the rear of vehicles were less likely to wear their seat belt compared to drivers and front seat passengers (89% seat belt compliance).

Incidence of Seat Belts Being Worn By Adults

Total	Total N=19,342	All Drivers N=14,221	All Passengers N=5121	All Front Passengers N=3,886	Rear Adult Passengers N=1,235
Seat Belt Worn	94%	94%	93%	95%	89%
Seat Belt Not Worn	6%	6%	7%	5%	11%

Total	Total N=19,342	Male Drivers N=9,267	Female Drivers N=4954	Front Male Passengers N=1,649	Front Female Passengers N=2,237
Seat Belt Worn	94%	92%	97%	91%	97%
Seat Belt Not Worn	6%	8%	3%	9%	3%

Total	Total N=19,342	All Male N=11,530	All Female N=7,812
Seat Belt Worn	94%	91%	97%
Seat Belt Not Worn	6%	9%	3%

When a driver doesn't wear a seat belt it promotes poor levels of seat belt compliance among passengers.

For cars with a driver and front passengers, when the driver was wearing a seat belt, 97% of the front passengers were wearing a seat belt. When the driver was not wearing a seat belt, 51% of front seat passengers in the same car were not wearing a seat belt.

Relationship Between the Driver and Front Seat Passenger on Seatbelt Wearing Behaviours

Total	Front seat passenger Wearing a seat belt N=3,680	Front seat passenger Not wearing a seatbelt N= 206
Driver wearing a seatbelt	97%	3%
Driver not wearing a seatbelt	49%	51%

Children less likely to be compliant...

There was a lower level of compliance among minor passengers in cars (89% compliance) compared to adult passengers (93%). Rear seat minors were slightly less compliant (87% versus 91% among those in the front seat).

Boys equally compliant in front or rear...

Male minors are equally compliant (88%) whether in the front or rear of the car. Female minors on the other hand are less compliant in the rear (86%) than the front (93%).

Primary school children are more likely to be compliant than secondary school children

91% of primary school children were seat belt compliant compared to 88% of secondary school children.

Incidence of Seat Belts Being Worn By Children



Total	Total Child Passengers N=3418	Child Front Passengers N=2065	Child Rear Passengers N=1353
Seat Belt Worn	89%	91%	87%
Seat Belt Not Worn	11%	9%	13%

Total	Total Children N=3418	Child male front N=1,038	Child female front N=1,027	Child male rear N=581	Child female rear N=772
Seat Belt Worn	89%	88%	93%	88%	86%
Seat Belt Not Worn	11%	12%	7%	12%	14%

Total	Total Child Passengers N=3,418	Primary school N=1389	Secondary N=2029
Seat Belt Worn	89%	91%	88%
Seat Belt Not Worn	11%	9%	12%

Urban secondary road users least likely to have seat belt buckled...

As detailed in the chart below drivers on urban secondary roads¹ (88%) were least likely to have their seat belts fastened, followed by those on rural primary roads (92%) and country roads (93%). This represents a change from previous waves, with rural road users becoming more compliant.

Incidence of Seat Belts Being Worn by Road Type – Adult Drivers

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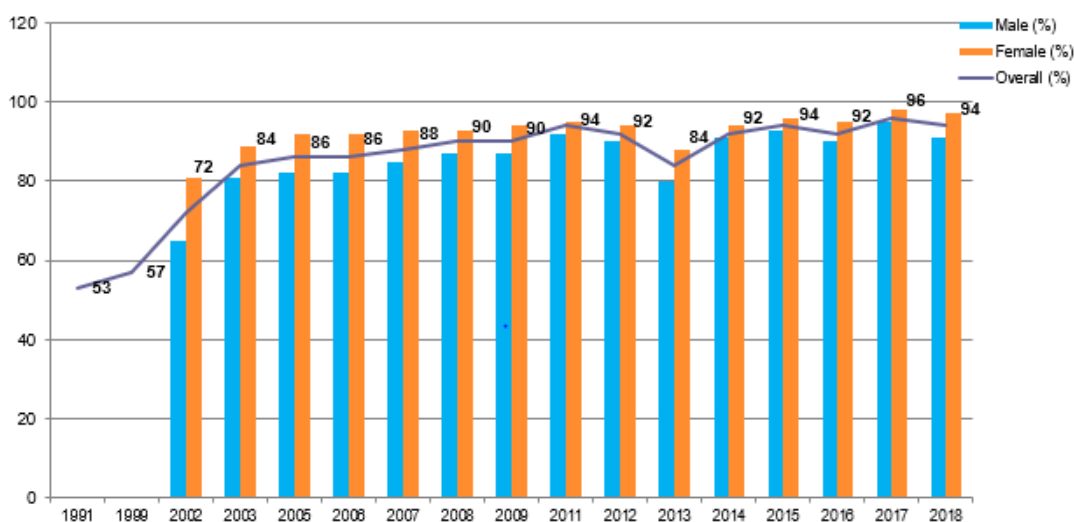
Total	All Drivers N=14221
Country Road N=3,438	93%
Regional Road N=2,407	94%
Rural National Primary Road N=1,777	92%
Rural National Secondary Road N=1,087	94%
Urban Road N=4268	95%
Urban National Primary Road N=965	96%
Urban National Secondary Road N=279	88%

Year on year females show higher rates of seat belt compliance...

¹ Urban secondary roads have a smaller sample size

Trends in adult driver and passenger seat belt compliance

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Based on observations of over 19,000 adult drivers and passengers observed at 111 sites in 2018.

Compliance levels hit a peak last year, while they have dropped back slightly, they are still at one of the highest levels since measuring started in 1991.

Mobile Phone Usage

8% of drivers using their mobile phone while driving...

8% of drivers were observed with their mobile phone in their hand (4%) or at their ear (4%) while operating their vehicle. Males (9%) were slightly more likely to be using a mobile phone than females (7%) while behind the wheel. There was slightly lower mobile phone usage at the additional sites with 6% using their phones and no differences between male and female drivers.

Looking at the two sites combined, the results mirror the main observational findings with 8% of drivers using a mobile phone while driving.

Incidence of Mobile Phones Being Used

Main Sites

Total	Total N=14,221	Male Drivers N=9,267	Female Drivers N=4,954
No Mobile Phone	92%	91%	93%
Mobile Phone in Hand	4%	4%	4%
Mobile Phone by ear	4%	5%	3%

Additional Sites

Total	Total N=2,177	Male Drivers N=1,415	Female Drivers N=762
No Mobile Phone	94%	95%	94%
Mobile Phone in Hand	3%	3%	3%
Mobile Phone by ear	3%	3%	3%

Both Sites

Total	Total N=16,398	Male Drivers N=10,682	Female Drivers N=5,176
No Mobile Phone	92%	92%	93%
Mobile Phone in Hand	4%	4%	4%
Mobile Phone by ear	4%	5%	3%

Light goods vehicle drivers most likely to be using their mobile phone while driving...

15% of light goods vehicle drivers were recorded using their mobile phone whilst behind the wheel of their vehicle, compared to 12% of lorry drivers and 6% of car drivers. Both, light goods vehicles and heavy goods vehicle drivers were more likely to have their phones by their ears than in their hand.

Incidence of Mobile Phones Being Used by Vehicle Type

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Total	Total N=14,493	Hand	Ear
Car N=11,076	6%	3%	3%
Light Goods Vehicle N=2,239	15%	6%	9%
Heavy Goods Vehicle N=906	12%	3%	9%

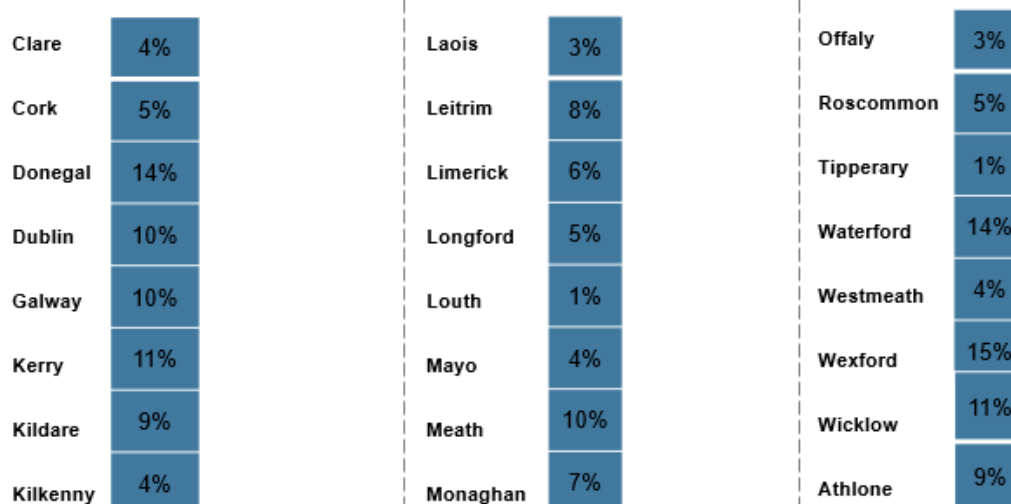
Mobile phone usage varying across the country...

While there are low levels of mobile phone usage in Louth and Tipperary; Wexford, Waterford and Donegal road users are more likely to handle their mobile phone while behind the wheel.

Mobile Phone Usage by County

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All Drivers



Mobile phones more likely to be held in the hand of drivers with no seat belt...

15% of drivers with no seat belt were recorded using their mobile phone, almost double the 8% of driver using their mobile phone and wearing a seat belt. Seat belt usage was similarly lower for those on their phones (89%) compared to those not on phones (94%).

Relationship Between Seatbelt Wearing Behaviours and Mobile Phone Use among All Drivers

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Total	Driver seat belt N= 13,277	Driver no seat belt N=944
Using a mobile phone	8%	15%
Not using a mobile phone	92%	85%

Total	Using a mobile phone N=1,151	Not using a mobile phone N= 13,070
Driver seat belt	89%	94%
Driver no seat belt	11%	6%

4. Conclusions

Wearing a seat belt is the best form of protection in the event of a collision. The most recent laws on seat belt wearing; EC Compulsory Use of Seat Belts and Child Restraints Systems in Motor Vehicles Regulations 2006 (S.I. No.240/2006), state that where seat belts are fitted, they must be worn. In accordance with The Road Traffic Act 2006 (Restriction on Use of Mobile Phones) Regulations 2014, it is an offence to hold a mobile phone, send or receive a text while driving.

Although all occupants of motorised vehicles (with a few exceptions), are required to wear a seat belt when provided, more than 1 in 16 drivers observed were not obeying this law. Male drivers and male front seat passengers showed a higher propensity of not complying with the law compared to their female counterparts. Rear adult passengers showed the lowest levels of compliance with 11% recorded not wearing their seat belt while in the vehicle. Compliance is lower among child passengers, with those in the rear of the car once again less likely to be properly secured.

Adults travelling in vehicles on urban secondary roads are the least likely to wear their seat belt (88% usage), while occupants of vehicles on urban national primary roads are most likely to comply with the rules of the road (96%).

Mobile phone usage by vehicle drivers stands at 8%, broken out equally between being held in the driver's hand or by their ear. This coupled with low seat belt usage could lead to dangerous consequences as drivers are distracted and unrestrained.

	Total	Male	Female
Drivers	14,221	9,267	4,954
No seat belts worn and mobile used	0.93% (132)	1.32% (122)	0.20% (10)

Almost 1% of drivers (0.93% or 132 of the drivers observed), were handling a mobile phone while driving and not wearing a seat belt. Males were more likely to fall into this category.

This observation highlighted some important and worrying trends, not least the instance of non-seat belt usage among rear seat passengers, particularly among children. Young children especially should be properly restrained by their parents as they may be unable to do it themselves. As one of the leading causes of driver distraction, a worrying number of drivers are also using their mobile behind the wheel, particularly, light goods vehicle and heavy goods vehicle drivers who may be on the road for a large part of their day.

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APPENDIX

Appendix 1

Survey Point Locations

1. Main locations front and Rear

Town	Road	County	Road Type
Athlone, Strand Street		Westmeath	Small Urban Areas
Kilkee	N67	Clare	Rural National Secondary Route
Caherlean		Clare	County Road
Caherbarnagh	R474	Clare	County Road
Aug Na Glanna Bridge		Clare	Regional Road
Kilfenora		Clare	County Road
Monard-Oola	N24	Cork	Rural National Primary Route
Fermoy	N8	Cork	Urban National Primary Routes
Monahan Road		Cork	Cork (Urban)
Mt. Pleasant Road		Cork	Cork (Urban)
Clanricard Park		Cork	Cork (Urban)
N Main Street		Cork	Cork (Urban)
Cathedral Road		Cork	Cork (Urban)
High Street		Cork	Small Urban Areas
Bartlemy		Cork	County Road
Dirk-Long Strand		Cork	County Road
Ballyhooly		Cork	County Road
Meelin		Cork	County Road
Coolagh Inc	R576	Cork	Regional Road
Ballyknockane		Cork	County Road
Ballymackeagh		Cork	County Road
Glanworth		Cork	County Road
Dungloe	N56	Donegal	Rural National Secondary Route
Lifford	N15	Donegal	Rural National Primary Route
Donegal Town	N15	Donegal	Rural National Primary Route
Ballyshannon	N15	Donegal	Rural National Primary Route
Mc Ivors Farm		Donegal	County Road
Letterkenny-Trentagh		Donegal	County Road
Castlemurry		Donegal	County Road
Donegal-Glenties	R262	Donegal	Regional Road
Clonmany-Lennan		Donegal	County Road

Palmerstown Avenue junction	N4	Dublin	Urban National Primary Routes
Inchicore	N7	Dublin	Urban National Primary Routes
Walkinstown Park		Dublin	Dublin (Urban)
St Finbarrs Rd		Dublin	Dublin (Urban)
Old County Road		Dublin	Dublin (Urban)
Kinvara Avenue		Dublin	Dublin (Urban)
Tonlegee road		Dublin	Dublin (Urban)
Richmond Road		Dublin	Dublin (Urban)
Dolphin Road		Dublin	Dublin (Urban)
Pearse Street		Dublin	Dublin (Urban)
Malahide Road		Dublin	Dublin (Urban)
Mount Street Upper		Dublin	Dublin (Urban)
Fairview		Dublin	Dublin (Urban)
Ardmore Park		Dublin	Dun Laoighire (Urban)
Sallynoggin Road		Dublin	Dun Laoighire (Urban)
Sandycove Road		Dublin	Dun Laoighire (Urban)
South Strand Road, Rush		Dublin	County Road
Tobersoole Lane		Dublin	County Road
Millview Road Malahide		Dublin	County Road
Portumna	N65	Galway	Rural National Secondary Route
Galway-Claregalway	N17	Galway	Rural National Primary Route
Galway	N6	Galway	Urban National Primary Routes
Seapoint Prom.		Galway	Small Urban Areas
Fr. Bourke Road		Galway	Small Urban Areas
Dominick Street		Galway	Small Urban Areas
Doonwood Golflinks		Galway	County Road
Monivea	R339	Galway	Regional Road
Irish College Spiddal	R336	Galway	Regional Road
Castleisland-Tralee	N21	Kerry	Rural National Primary Route
Killarney	N22	Kerry	Urban National Primary Routes
Drumclough School		Kerry	County Road
Ballineanig		Kerry	County Road
Mountrice	R414	Kildare	Regional Road
Paulstown	N9	Kilkenny	Rural National Primary Route
Michael Street		Kilkenny	Small Urban Areas
O'Learys Cross	R697	Kilkenny	Regional Road
Damma	R695	Kilkenny	Regional Road

Portlaoise	N7	Laois	Urban National Primary Routes
Castletown		Laois	County Road
Killenure		Laois	County Road
Drumsna-Dromod	N4	Leitrim	Rural National Primary Route
Claughan Fort		Limerick	Limerick (Urban)
Brookville Avenue		Limerick	Limerick (Urban)
Shellbourne Road		Limerick	Limerick (Urban)
Kilglass	R513	Limerick	Regional Road
Edgeworthstown	N55	Longford	Rural National Secondary Route
Moate-Horseleap	N6	Longford	Rural National Primary Route
St. Josephs Road		Longford	Small Urban Areas
Great Water Street		Longford	Small Urban Areas
Killenboy/Carrickboy		Longford	County Road
Platin Road		Louth	Small Urban Areas
Foxford-Swinford	N57	Mayo	Rural National Secondary Route
Westport	N59	Mayo	Urban National Secondary Route
Mulranny-Achill	R319	Mayo	Regional Road
Julianstown-Drogheda	N17	Meath	Rural National Primary Route
Navan	N51	Meath	Urban National Secondary Route
Bonestown	R125	Meath	Regional Road
Carrickmacross	N2	Monaghan	Rural National Primary Route
Rakeeragh	R178	Monaghan	Regional Road
Drumbear	R165	Monaghan	Regional Road
Rahan-Ballycumber		Offaly	County Road
Broughal	R437	Offaly	Regional Road
Cadamstown	R440	Offaly	Regional Road
Castleplunket		Roscommon	County Road
Thurles-Templemore	N62	Tipperary	Rural National Secondary Route
Templemore	N62	Tipperary	Rural National Secondary Route
Nenagh	N52	Tipperary	Rural National Secondary Route
Waterford	N9	Waterford	Rural National Primary Route
Waterford City	N25	Waterford	Urban National Primary Routes
Main Street		Waterford	Small Urban Areas
Curraghkidy		Waterford	County Road
Knockadskagh	R671	Waterford	Regional Road

Cappaquin-Youghal		Waterford	County Road
Knockaville		Westmeath	County Road
Mullingar	R400	Westmeath	Regional Road
Mullingar	R392	Westmeath	Regional Road
Near Wexford Town	N25	Wexford	Rural National Primary Route
Dunganstown		Wexford	County Road
Ballytarina		Wexford	County Road
Ballyorney Road	R760	Wicklow	Regional Road

2. Main locations: Rear only

Town	Road	County
Carlow Junction of Main Street & N9		Carlow
Cork near Jack Lynch Tunnel		Cork
Seatown Roundabout Swords		Dublin
Salthill		Galway
Tralee Main Street		Kerry
Newcastle West Main Street		Limerick
Longford Town Main Street		Longford
Dundalk Main Street		Louth
Drogheda old N1		Meath
Sligo Town		Sligo
Thurles N62 Main Street		Tipperary
Athlone near bridge at Roundtower		Westmeath
Mullingar Main Street		Westmeath

3. Primary Schools

Primary Schools
Aine Naofa, Gort, Galway
Brackenstown, Swords
Christ the King Cabra
Holy Family, Balloonagh, Tralee
Illies, Ballymangan Lifford, Donegal
Mountmellick Community School, Laois
Naomh Padraig, Donabate
Our Lady of Consolation, Collins Avenue, Dublin 5
Presentation College, Thurles
St Mary's National School, Rathowen, Westmeath
Sciol Na Molua Ardagh, Limerick
Scoil Spirit Naomh, Bishopstown
St. Michaels Stradone, Cavan

4. Secondary Schools

Ardee Community School
Ballymun Senior Comprehensive School
Belvedere College Dublin
Castlecomer Community School
Colaiste Mhuire, Cobh
Community School, Carrick-on-Shannon
Drumcollogher, Community School
Leixlip Community Celbridge Rd
Meanscoil Iognaid Ris, Longmile Road
Scoil Mhuire, Greenhill, Carrick-on-Suir
Scoil Muire gan Smal, Roscommon
St. Joseph's, Rochefortbridge, Mullingar
St. Mary's Ballysadare, Sligo
St. Patrick's College, Tuam
Tullow Community School

5. Additional Sites

New Mobile Locations - Observation from within a Vehicles	
N11, Bray Road	Dublin
Leopardstown, M50 - adjacent road	Dublin
N11 - South of Newtownmountkennedy junction on southbound carriageway	Wicklow
N18 - East of R462 junction	Clare
N22, east of R590/N22 junction	Cork
R446, west of Horseleap	Offaly
R639 between Horse & Jockey and Urlingford on the northbound carriageway	Tipperary
N67, Kinvara to Kilcolgan	Galway
N60, south of Castlebar	Mayo
N56, south of Dunafanghy	Donegal
R516, approx. 5km east of Bruff	Limerick
R118 - Rock Road at Blackrock College	Dublin
Kylemore Road on the bridge	Dublin
R448, north-eastern approach from Kilcullen	Kildare
N18, northside of Gort Town	Galway
N61 (Athlone Road), approx. 1.5km Southeast of Roscommon	Roscommon

4. Additional Sites Survey Dashboard

Record	Mark fields below by using ✗ or ✓						S E A T B E L T S											
	Vehicle Type			Mobile Phone			Driver	Front Passenger		Rear Passenger		Rear Passenger		Rear Passenger				
	Car	Van	Lorry	Ear	Hand	None												
							1=Male	1=Yes	1=Male	1=Yes	1=Male	1=Yes	1=Male	1=Yes	1=Male	1=Yes		
						2=Female	2=No	2=Female	2=No	2=Female	2=No	2=Female	2=No	2=Female	2=No			
1																		
2																		
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Weather update every 20 vehicles (please tick one)

Clear/Dry

Mist/Drizzle

Overcast

Fog

Snow

Rain

Lighting conditions update every 20 vehicles (please tick one)

Bright

Dark