

Evolution of drivers behaviour: 2012 and previous years (except speed)

Briefing note

March 2015

Surveys on the observation of road safety parameters realized on behalf of French Road Safety Observatory does not only focus on speeds practised by the different categories of users on French roads, but on other indicators of drivers' behaviour too. Among them, the seat belt wearing and helmet use for the two-wheeled motorized users and, since 2009, cell phone use while driving. Moreover, annual observation of approximately 200 000 vehicles on different categories of networks, in the open field as in urban zones, make possible to extrapolate a number of relevant data on the traffic composition or the level of occupancy of vehicles.

This note, additional to « Speeds Observatory », mentions successively cell phone use while driving, seat belt, helmet use and the level of occupancy of vehicles.

• I – Cell phone use while driving

The measure of the rate of cell phone use by drivers on road networks has been introduced in 2009 in the specifications of the provider who does “speed” surveys on behalf of the Observatory.

Method

It consists in a visual observation of the vehicles by investigators placed on the side of the traffic lane on different types of networks. 3 situations are listed :

- The driver has his cell phone on hand and in his ear,
- The driver has his cell phone on hand but not in his ear,
- The driver has not his cell phone on hand¹.

In 2012, observations recorded 20 894 vehicles and took place from September to December 2012, at daytime, on 92 points of observation divided into the different types of networks.

According to the type of network, the number of observations was :

- Intercity motorways : 3 053
- Bypass motorways : 2 910
- A roads with 2x2 ways : 3 757
- A roads and B roads with 2 or 3 ways : 7 489
- Roads through urban areas : 1 950

¹ Note that « hands free kit » use (or of phone functions « hands free » integrated to the vehicle) is not detectable with a simple observation in the conditions chosen for this survey. Drivers using or not such tools at observation time are therefore, classified in the third category.

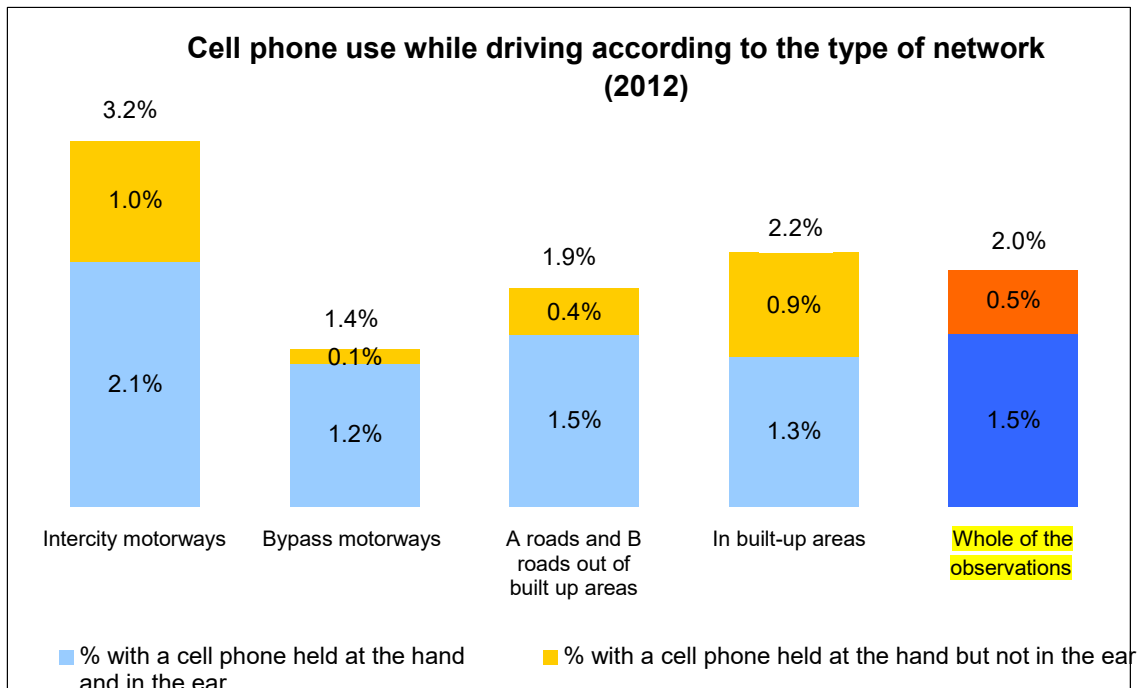
- City centers : 1 735

The 20 894 vehicles observed are divided into :

- 17 226 light vehicles (VT),
- 2 018 goods vehicles (VUL),
- 1 650 heavy goods vehicles (PL).

Results

The use of cell phone while driving according to the type of network is described in the following graph.



The utilisation rate for cell phone use while driving varies significantly according to the type of network. It is the higher on intercity motorways, and the less important on bypass motorways.

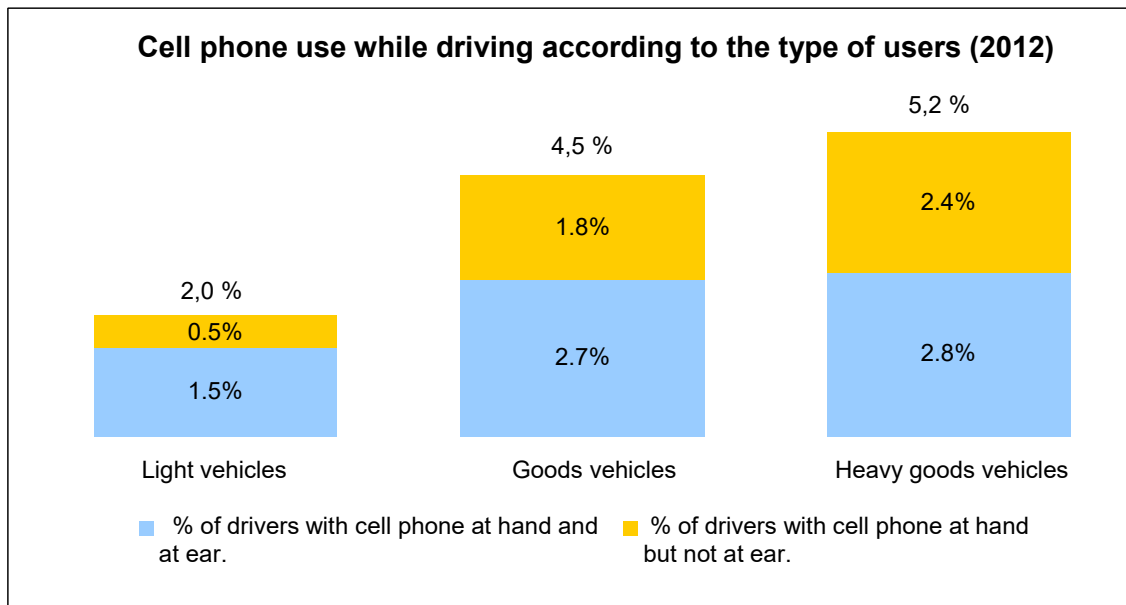
On bypass motorways and roads outside built up areas, these results are similar to the ones observed in 2011.

On intercity motorways, global use rate of cell phone use while driving is also steady but the distribution between the two ways of use evolves strongly, with a doubling of the use of the cell phone held on hand but not in the ear part.

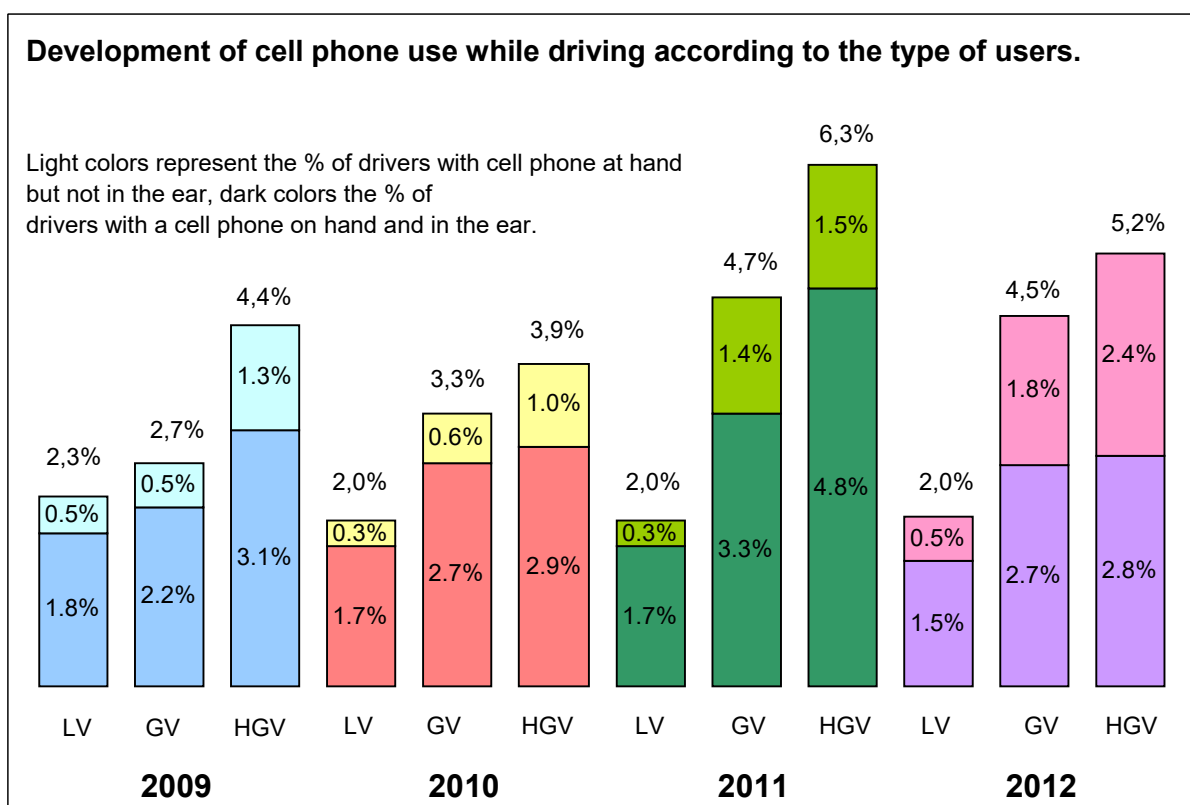
The only significant increase of the whole cell phone use while driving global rate is observed in built up areas (+ 0,5 points) ; this variation results mainly from the nearly doubling of the hand use rate instead of in the ear, while the use rate on hand and in the ear remain steady compared to 2011.

So, the relative global stability of cell phone use while driving seems to go with an evolution of uses aiming at a greater consultation of the devices screens. However, on the whole of the observations made, the use on the ear still represent the three quarters of the global cell phone while driving use.

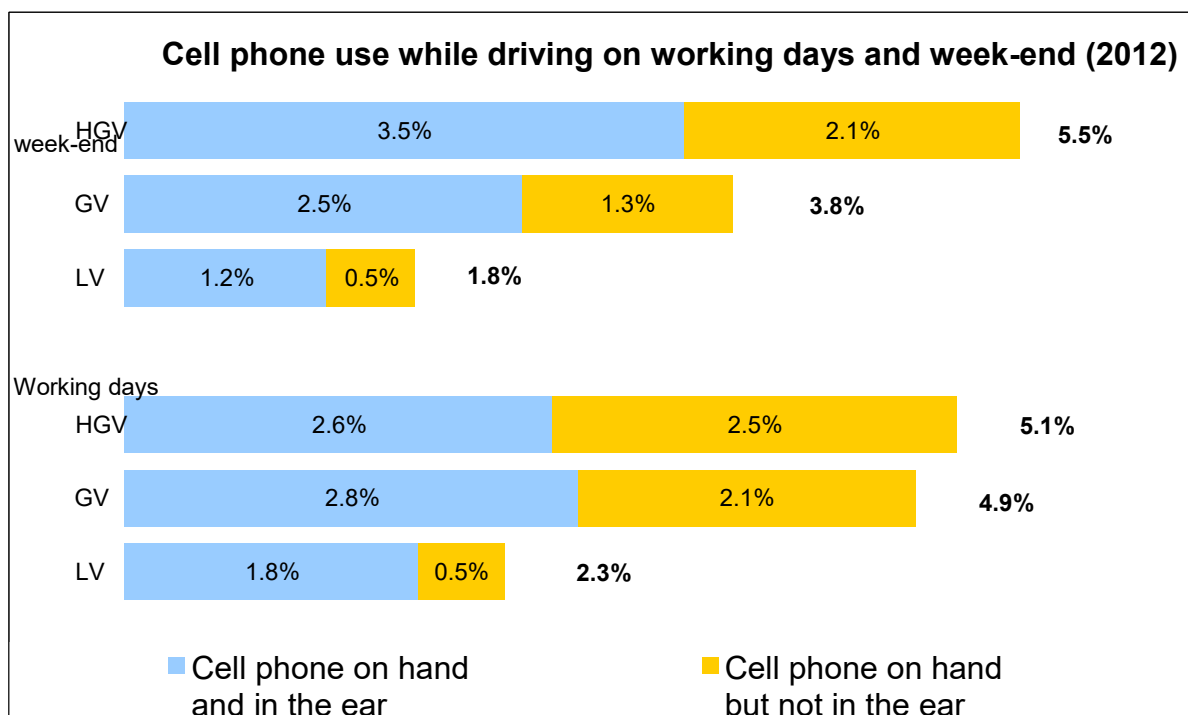
The following graph details cell phone while driving use for three categories of users : light vehicles, heavy goods vehicles and goods vehicles drivers.



Cell phone use while driving is 2 or 2,5 times more common for « professional » drivers than for light vehicles drivers. The share of cell phone hold in hand use but not in the ear is higher too (of the order of 4 users on 10) for « professional » drivers.



Significant variations are not observed between 2011 and 2012 for LV and goods vehicles. Given the size of the sample observed, the diminution of 1,1 points noticed for HGV is not statistically significant.



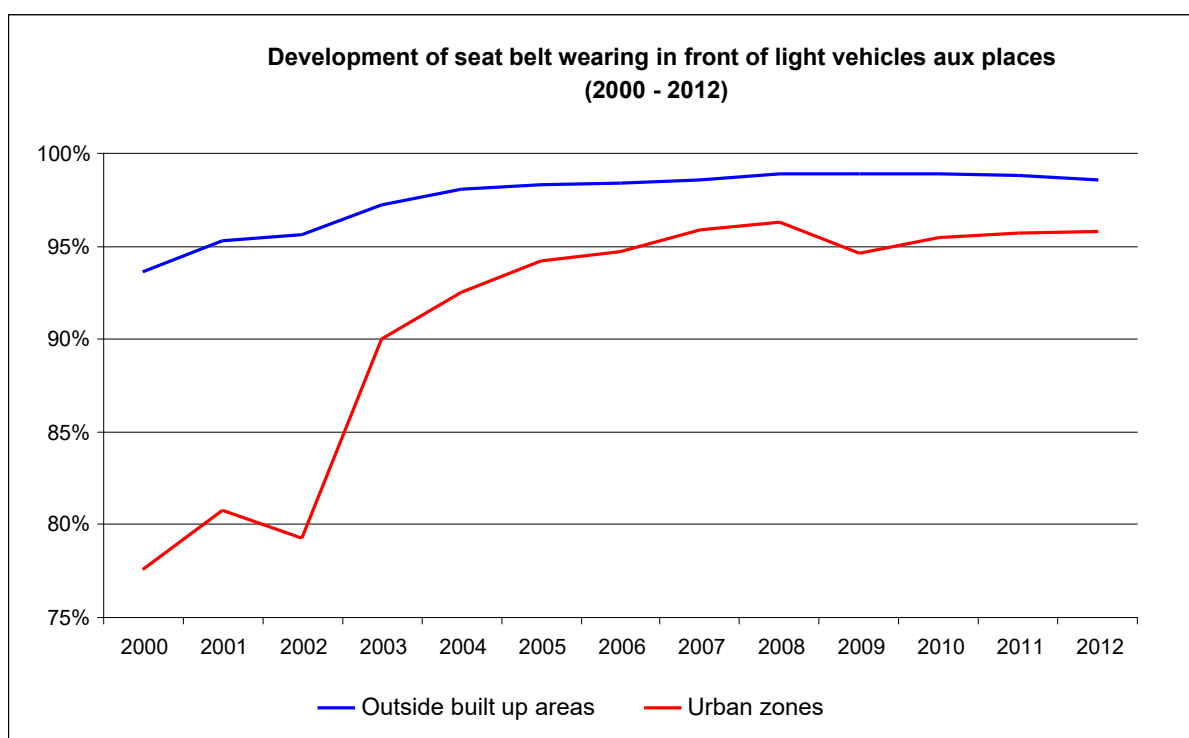
Cell phone use by drivers while driving is more common on working days than on week-ends. In contrast, concerning goods vehicles and heavy goods vehicles, the number observed doesn't make possible to consider that the differences between working days and week-ends are statistically significant.

II – Seat belt

Seat belt wearing in cars front places

The observations concerning seat belt wearing in front of the car are realized at daytime on different interurban networks (intercity and bypass motorways, national roads, departemental roads) and in seven large urban areas (Paris, Lille, Metz, Nantes, Lyon, Toulouse, Avignon). The survey 2012 focused on 37 372 light vehicles.

The rate observed for seat belt wearing in front of the car is of 98,6 % on the outside built up areas network and of 95,8 % in built up areas. Values are globally stable since 2003 outside built up areas and since 2007 for the urban zones.



Out of built-up areas, the different types of network does not point at significant differences between them :

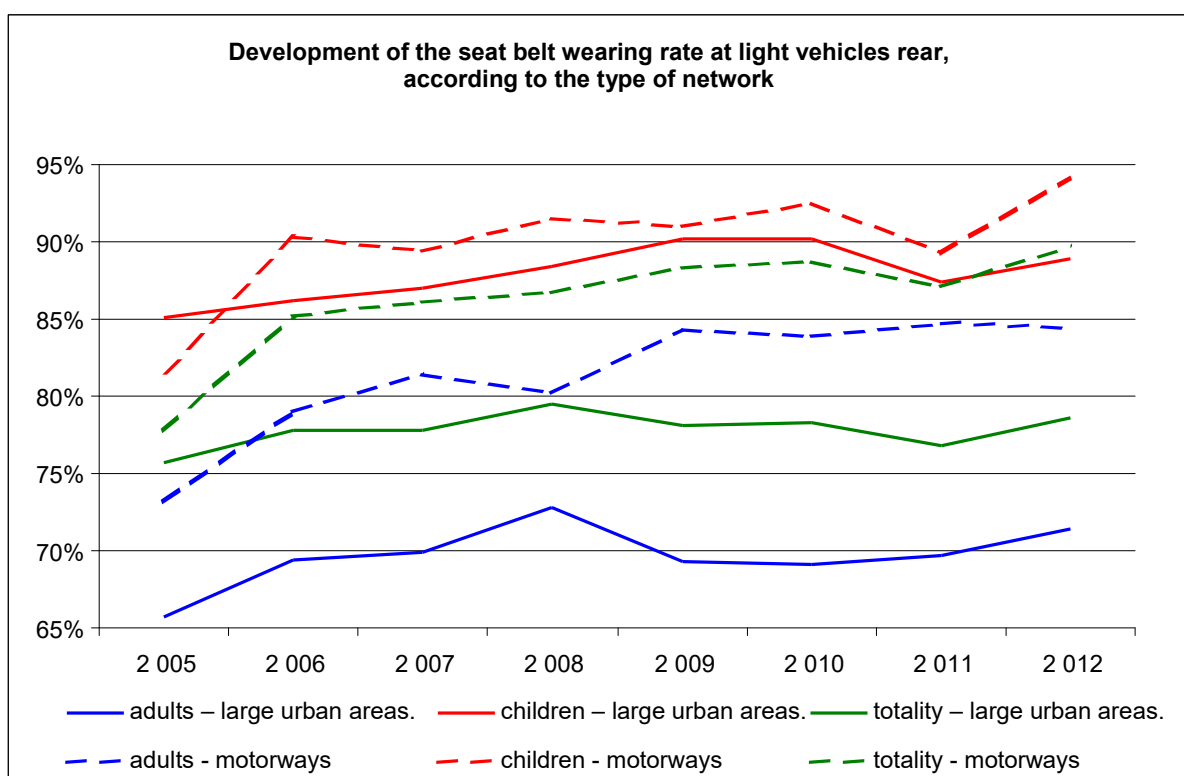
OUTSIDE BUILT-UP AREAS	
Intercity motorways	98,8 %
Bypass motorways	98,9 %
National roads	98,7 %
Departemental roads	98,4 %

The rate of seat belt wearing in front of the car is the same on working days and on week-ends on the network outside built up areas. Observations made in large urban areas have been carried out in different cities during working days and week-ends. This does not make possible a direct comparison between these two types of days.

Seat belt wearing rate at the vehicles rear places (adults and children)

Observations on seat belt wearing by rear passengers are made at daytime at the toll gate of some of the motorways and in seven of large urban areas (Paris, Lille, Metz, Nantes, Lyon, Toulouse, Avignon). The survey 2012 focused on 5 667 light vehicles.

Survey 2012 – Rate of seat belt wearing at rear					
Large urban areas			Toll gates on motorways		
adults	children	totality	adults	children	totality
71 %	89 %	79 %	84 %	94 %	90 %



On the whole, the rates of seat belt wearing at rear places have increased since the first observations of its type made in 2005. However, seat belt wearing rate is very clearly lower at adults compared to children's.

At toll gates, the rate of seat belt wearing is higher during the week-end than on working days, as much for the adults (working days 82 %, week-end 89 %) than for the children (working days 93 %, week-end 96 %). In large urban areas, the structure of the observations does not make possible a direct comparison between these two types of days.

In any case, important progresses have to be made concerning seat belt wearing at rear as to reach the wearing rates noticed in front of the vehicles.

III – The helmet use by motorcyclists

The survey 2012 on the helmet use by motorcyclists focuses on the observation at daytime of 733 motorcycles², which of 243 on different interurban networks and 490 in seven large urban areas, which of the Parisian urban area.

On working days, observations have been made on 685 motorcyclists which of :

- 154 motorcyclists on inter urban networks,
- 350 motorcyclists on the parisian urban area,
- 181 motorcyclists on the province large urban areas.

Among them, only 2 did not use helmet (both in the Parisian urban area).

On week-end, observations have been made on 145 motorcyclists dividing up as follows :

- 125 motorcyclists on inter urban networks ; 9 of them (7 %) did not use helmet ;
- 20 motorcyclists in a province large urban area ; 4 of them (20 %) did not wear helmet.

Observations realized in 2010 and 2011 have pointed out a similar differentiation between working days and week-ends :

	Helmet use rate	Working days	Week-ends
2010	Inter urban networks	190 on 200 (95 %)	176 on 200 (88 %)
	Large urban areas	481 on 489 (98 %)	n.d.*
2011	Inter urban networks	166 on 173 (96 %)	134 on 151 (89 %)
	Large urban areas	539 on 544 (99 %)	n.d.*
2012	Inter urban networks	154 on 154 (100 %)	116 on 125 (93 %)
	Large urban areas	529 on 531 (100 %)	n.d.*

* the sample observed in large urban areas during the week-end are too low to make possible to express a relevant rate of the helmet use.

So, despite the relatively reduced numbers of users observed, it appears that the absence of helmet use is overwhelmingly noticed on week-end, while the rate of use is near of 100 % during working days.

² The very low number of moped riders observed does not make possible to produce relevant statistics for these users.

IV – Level of occupancy of light vehicles

Results 2012

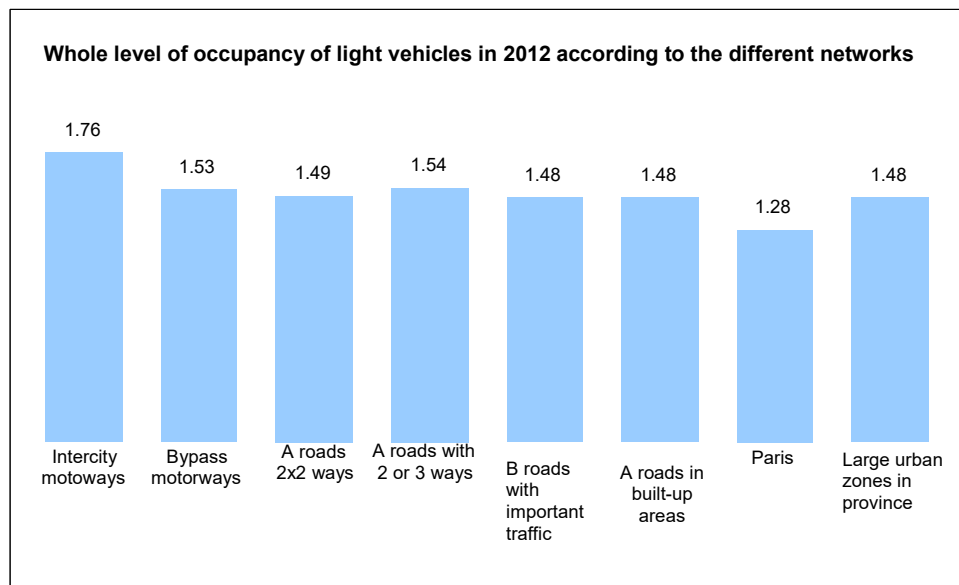
The survey 2012 on the level of occupancy of light vehicles focuses on the observation at daytime of 37 372 vehicles, on the different urban and outside built-up areas networks.

The following board indicates the levels of occupancy in front and at the rear of light vehicles found in 2012 on the different types of network.

	Intercity motorways	Bypass motorways	National roads with 2x2 lanes	National roads with 2 or 3 lanes	Departemental roads with important traffic	National roads in built-up areas	Paris	Large urban zone in province*
In front occupancy	1,53	1,40	1,38	1,41	1,38	1,37	1,23	1,35
At the rear occupancy	0,23	0,13	0,11	0,13	0,11	0,11	0,05	0,13

* Lille, Metz, Nantes, Lyon, Toulouse, Avignon

The whole level of occupancy (sum of in front and at the rear levels) is illustrated in the graph below :



Since 2009, the highest level of occupancy is on intercity motorways. In contrast, it is the lowest in urban zones, and in particular in Paris.

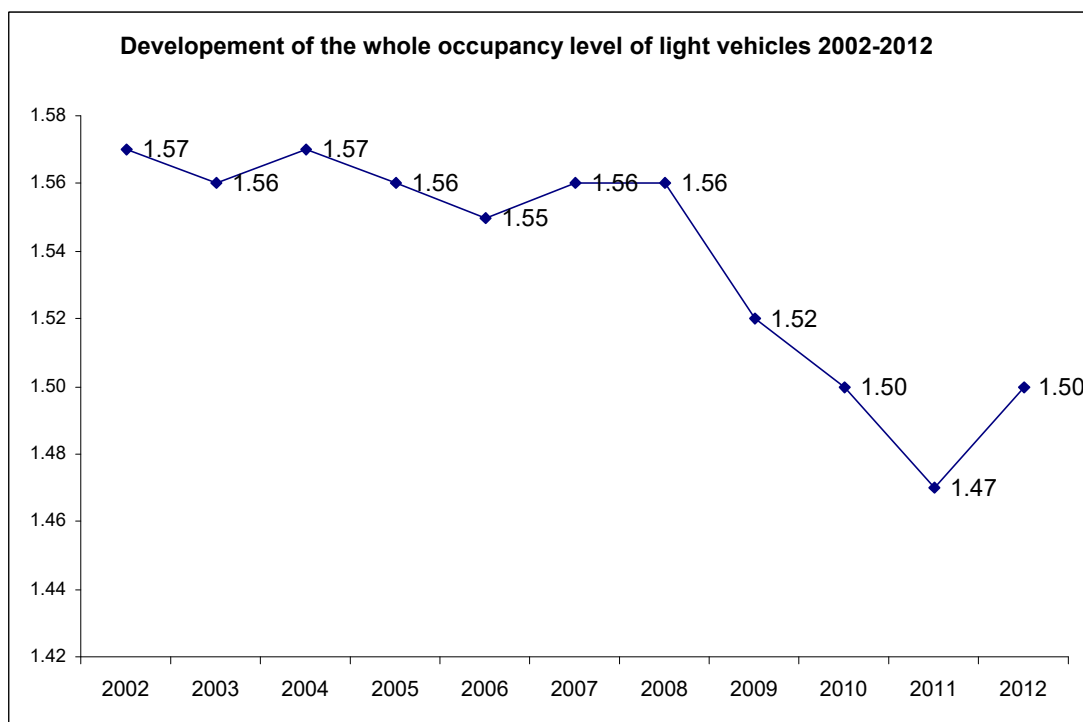
Globally, corrected of the traffic weight on the different types of networks, the level of occupancy at all levels in 2012 are the following ones :

In front occupancy level	1,38
At the rear occupancy level	0,12
occupation level on the whole	1,50

On interurban axis, the occupancy rate is higher during the week-end (1,79 on the whole of the observations) than on working days (1,45 on the whole) ; this fact is valid regardless the type of network. The observations made in large urban areas have been done in different cities on working days and week-ends, which doesn't make possible a direct comparison between the two types of days.

Development of light vehicles occupancy level

The graph below recounts the development of light vehicles occupancy level, all networks taken together, since 2002.



This development shows two periods well marked : a relative stability from 2002 to 2008, then a diminution starting in 2009.