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Measuring Car-Crime in France: Victimisation Surveys and Police Statistics Since the Mid 1980s

This is the next of a series of presentations, by Penal Issues, *of studies on crime trends. The series started with papers on homicide (September 2008) and non-lethal personal violence (December 2008), personal theft (June 2010), and burglary (March 2011). The present paper, based on work by* ***Renée ZAUBERMAN, Philippe ROBERT, Sophie NÉVANEN*** *and* ***David BON****, on contract with the* Agence Nationale de la Recherche*, is devoted to car crime.*

Measuring crime is a complex operation for which research, following early work based exclusively on institutionally produced data (court statistics at first, more recently police statistics) has attempted to diversify its sources,. Because many illegal acts are not recorded in statistics recounting police and gendarmerie activity, social sciences have developed specific tools devised to take hold of them. One of these tools is known as the victimisation survey, which interrogates sampled populations on the offences to which they claim to have been prey over a given period of time. This paper compares estimations from these two sources, in order to observe the trends in car crime in France since the mid 1980s.

Data and methods

Victimation surveys

Surveys conducted in France are a heterogeneous collection:

- a first nationwide survey was conducted by the CESDIP in the mid 1980s, on a sample of 11,000 respondents;
- following a 10-year interruption, 11 annual surveys on the living conditions of households (*Enquête Permanente sur les conditions de vie des ménages*, EPCVM) including a module on victimisation, were conducted by the *Institut National de la Statistique et des Études Économiques* (INSEE), the national statistical agency, starting in the mid 1990s;
- since 2007, this module has been replaced by annual surveys on living environment and safety (*Cadre de Vie et Sécurité*, CVS), entirely devoted to victimisation. This overhaul was meant to improve comparability of the survey findings with police data rather than to retain their comparability over time, an option which has made the serialisation of the findings a complex course of action[1].

The first EPCVM reached some 6,000-odd respondents; the following ones touched close to 11,000. The last two questioned as many as 25,000 people, after which the figure was adjusted at 17,000 for the CVS.

Each of these surveys asks questions about victimisation suffered over the two years prior to the study. The CESDIP survey contained an all-purpose module on thefts within which the respondent was asked whether the theft was of or from a car; the EPCVM included a module devoted to thefts of and from cars, and the distinction between the two was only introduced in the last two surveys; the CVS reproduced the regional and local survey model, with separate questions on thefts of cars, thefts from cars, thefts of two-wheeled vehicles and car vandalism.

Additional survey data will be entered in the comparison:

- from surveys on the Île-de-France, *i.e.* the Paris Region, conducted every second year since 2001 by the *Institut d'Aménagement et d'Urbanisme* (IAU- ÎdF), on large samples of some 10,500 respondents;
- from local surveys conducted by the CESDIP in Amiens in the late 1990s and in 2005 in a number of communities of the Paris Region (Aubervilliers, Aulnay-sous-Bois, Gonesse, Saint-Denis) and Lyons for the *Forum Français pour la Sécurité Urbaine* (FFSU). Samples ranged from 1,000 to 5,000 respondents.

The nationwide surveys all used face-to-face interviews, whereas the interviews of the regional and local surveys were conducted over the telephone.

The Ministry of the Interior statistics, under the heading of *Crimes et délits constatés*, count offence reports transmitted by the police and the gendarmerie to the criminal justice system; this particular tally excludes traffic violations, acts of negligence and petty offenses calling for the least severe sentences.

Methodology: various preliminary operations are required to ensure comparability of these two data sources:

Surveys provide information on the **proportion of victims among respondents (prevalence)** and on the **number of victimisation incidents of a same type (multiple victimisation)** over the past two years. Multiplying one by the other yields the **rate of incidence** (number, per 100 respondents, of incidents of the same type suffered over the reference period). Applying this rate to the number of households in the surveyed population yields **estimates in absolute figures**, which may then be compared with police data.

Among the 107 crime categories (called *index*) used in French police statistics, a selection was made of those closest to the phrasing of the survey items (index 35: car thefts ; index 37: theft from car, and 38: theft of accessories from registered motor vehicles[2]).

…/…

[1] For an in-depth discussion of the problems raised by this serialisation, *see* MICELI, *et al.*, 2009.

[2] To be perfectly accurate, thefts of motorcycle accessories would have to be removed from these figures, but it is impossible to make that distinction.

Since victimisation surveys were designed specifically for the collection of incidents that went unreported to, or remained uncovered by the police and therefore were not tallied in crime figures, police recordings stand theoretically at a lower level than survey estimates.

To account for this divergence, the notion of reported incidence is brought in, which includes only those victimisation incidents for which respondents claimed to have lodged a complaint. Here again, the rate found is applied to the reference population to obtain estimates in absolute numbers comparable to the police data.

The latter should, theoretically, come close to estimated reported incidence, or at least fall within the confidence intervals[3] for it. If such is the case, the difference between the two sources is entirely explained by the propensity of victims to report incidents to the police. Conversely, if police data are located above or below the limits of the confidence interval the reasons for the difference between the two sources must be sought elsewhere.

A Persistent Decrease

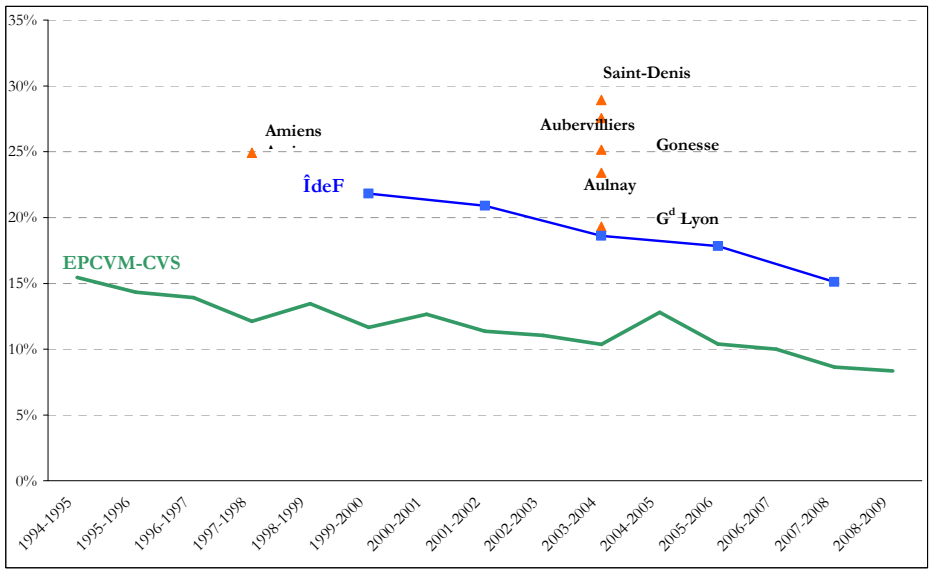
The only valid indicator of the national long-term trend in car crime is a compound estimation of thefts of and from cars, as the first nine EPCVM make no distinction between the two. The option of calculating the victimisation rates on the at-risk population, *i.e.* on households possessing a car has led, in a first stage, to eliminate the 1980s CESDIP survey, since it did not provide information on car ownership.

Table 1. Thefts of or from cars; nationwide surveys 1994-2009 (car-owning households)

	% of households within the population experiencing thefts of/from cars (prevalence)	average number of thefts of/from cars per household (multivictimisation)	% of thefts of/from cars within the population (incidence)
EPCVM 1994-1995	15.45	*1.54*	23.73
EPCVM 1995-1996	14.33	*1.43*	20.51
EPCVM 1996-1997	13.92	*1.41*	19.59
EPCVM 1997-1998	12.11	*1.37*	16.64
EPCVM 1998-1999	13.46	*1.41*	19.03
EPCVM 1999-2000	11.66	*1.42*	16.57
EPCVM 2000-2001	12.64	*1.44*	18.21
EPCVM 2001-2002	11.35	*1.39*	15.81
EPCVM 2002-2003	11.06	*1.33*	14.72
EPCVM 2003-2004	10.38	*1.43*	14.79
EPCVM 2004-2005	12.80	*1.54*	19.69
CVS 2005-2006	10.40	*1.40*	14.57
CVS 2006-2007	10.00	*1.38*	13.79
CVS 2007-2008	8.85	*1.40*	12.09
CVS 2008-2009	8.33	*1.35*	11.25

Sources : CESDIP, INSEE. *Coverage : Métropolitan France.*

Figure 1. Thefts of or from cars, % of car-owning households within the population (prevalence), in various surveys (1994-2009)



Sources : CESDIP, INSEE, IAU-ÎdF. *Coverage : variable, depending on survey.*

[3] Since the findings of a sample survey can only be probabilistically extrapolated to the overall population, the confidence interval – more or less wide open depending on the size of the sample – is the interval in which there is a 95 % chance that the actual figure is located.

The proportion of households suffering thefts of and from their cars has declined practically continuously at least since the mid-1990s, and the few exceptions visible on the chart are probably due to fluctuations in the survey protocols, which changed, some years, the phrasing of their questions to include attempted thefts. Be this as it may, these minor peaks do not modify the overall trend.

This trend is in fact corroborated by the IAU-ÎdF surveys conducted since 2001. In the Île-de-France area, however, the downward trend is developing at a higher level, (*see* **figure 1**). There is nothing surprising about that, since the Paris Region is an extremely developed urban area, where property offenses are, as a rule, more frequent than in the country as a whole[4]. Overvictimisation by car crime is actually even higher in the few Paris Region suburban cities surveyed in 2005.

As the magnitude of multivictimisation remained unchanged, the incidence develops the same overall downward trend.

It is therefore reasonable to conclude that the extent of this victimisation has declined steadily over the last fifteen years.

Converging Sources

No estimation of a crime level should be considered valid unless based on comparison of various sources. In the present case, a comparison of the estimated numbers of incidents according to national victimisation surveys and to police statistics (**table 2** and **figure 2**) shows an overall downward trend at least since the mid 1990s, despite some inconsistent, short-lived irregularities here too, most probably ascribable to fluctuations in the data-collecting scheme. The mid-1980s survey can be included here, and by the same token the police statistics for the 1984-1994 decade. Despite the absence of any survey between the mid-1980s and 1990, the two sources concordantly suggest that the drop seen since 1994 probably followed a rise during the previous decade.

Nonetheless, the fact that the two sources indicate the same trend, upward at first, then downward, should not conceal the wide gap in their magnitudes. The survey findings are consistently at least 1.5 times as high as police data, and the gap has even tended to widen (reaching 2.3) since 2005.

A focus on those thefts that survey respondents claim to have reported to the police (reported incidence), as compared to police data, shows that the latter are within (or very near) the confidence interval of

[4] On this subject, *see* ROBERT, ZAUBERMAN, 2011, 123.

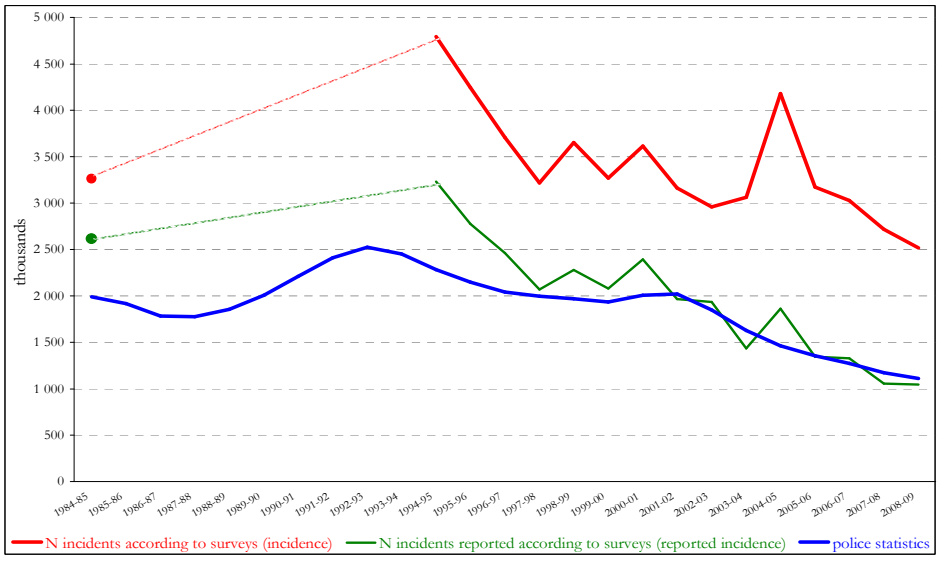
Table 2. Thefts of and from cars, a comparison between surveys and police statistics, expressed in thousands, 1984-2009

		estimated number of thefts of and from cars according to surveys (incidence)	estimated number of thefts of and from cars reported according to surveys (reported incidence)	police statistics
CESDIP	1984-1985	3 263 [3 002-3 524]	2 616 [2 407-2 826*]	1 990
	1985-1986			1 918
	1986-1987			1 783
	1987-1988			1 776
	1988-1989			1 851
	1989-1990			2 004
	1990-1991			2 211
	1991-1992			2 410
	1992-1993			2 519
	1993-1994			2 451
EPCVM	1994-1995	4 793 [4 480-5 106]	3 234 [3 023-3 445]	2 286
	1995-1996	4 248 [3 963-4 534]	2 775 [2 589-2 961]	2 146
	1996-1997	3 709 [3 439-3 979]	2 462 [2 283-2 641]	2 043
	1997-1998	3 219 [2 961-3 477]	2 072 [1 906-2 239]	1 998
	1998-1999	3 654 [3 382-3 926]	2 282 [2 112-2 452]	1 968
	1999-2000	3 272 [3 006-3539]	2 080 [1 911-2 250]	1 935
	2000-2001	3 615 [3 339-3 892]	2 394 [2 210-2 577]	2 006
	2001-2002	3 161 [2 909-3 413]	1 965 [1 809-2 122]	2 020
	2002-2003	2 962 [2 731-3 194]	1 933 [1 782-2 085]	1 847
	2003-2004	3 063 [2 894-3 231]	1 435 [1 356-1 514]	1 627
	2004-2005	4 180 [3 972-4 387]	1 862 [1 769-1 955]	1 461
CVS	2005-2006	3 173 [3 020-3 327]	1 348 [1 282-1 413]	1 355
	2006-2007	3 028 [2 876-3 179]	1 328 [1 261-1 394]	1 272
	2007-2008	2 717 [2 570-2 864]	1 055 [998-1 112]	1 173
	2008-2009	2 516 [2 374-2 658]	1 045 [986- 1 104]	1 110

Sources : CESDIP, INSEE, ministry of the Interior. *Coverage : Metropolitan France.*

* The figures in square brackets show the estimates' upper and lower limits of the confidence intervals.

Figure 2. Thefts of and from cars, trends in incidence and reported incidence in surveys and police findings (expressed in thousands), 1984-2009



Sources : CESDIP, INSEE, ministry of the Interior. *Coverage : Metropolitan France.*

the survey findings for almost every campaign over the last ten or so years. Which is to say that the victims' propensity to file a complaint suffices (at least at the national level) to account for the discrepancy between the two sources. In other words, the two counting systems form a coherent whole over the long term.

This can lead to the conclusion that this type of offending has declined in the past fifteen years. The persistently low detection rate (with about 7 % of cases in which the police or gendarmerie were able to identify and interrogate a suspect, consequently issuing a written report) is hardly an indication that this long-term trend may be ascribable to police action. More plausibly, it might be due to improved anti-theft devices (preventing any unauthorised person from starting a car engine, in particular), just as the earlier drop in burglaries was seen to be related to the development of anti-trespassing devices (and perhaps also the deliberate residential segregation of some high-status social groups). Strikingly, in any case, the agreement between insurance companies and car manufacturers which set the tone for the systematic development of protective devices dates back to the mid 1990s (February 10, 1994).

Below the Broader Trend, a Wide Range of Incident Types

Whereas the format of the questionnaire has restricted the long term analyses to the compound series of thefts of and from cars, more recent surveys differentiate between the two types of offences, for a few years at least, thus allowing more qualified conclusions. The most recent surveys also include items about car vandalism.

The first noteworthy fact is the discrepancy between the prevalence levels for car theft and thefts from cars: there are two to three times as many victims in the second category.

This finding is further substantiated by the proportion of attempted thefts within the car theft group: victims of completed thefts only represent a small minority; in most cases, the theft failed.

This all strengthens the hypothesis advanced earlier as to the effectiveness of theft prevention devices. It is increasingly difficult to steal a car, so that thieves are usually unsuccessful. It is easier, on the other hand, to steal a car accessory or an object left in the vehicle. The notion of attempted theft is practically meaningless in this case, since the offence is constituted when the person realises that an object has disappeared. Sometimes deterioration of a car is noticed, a forced lock for example, possibly indicating an attempted theft from the car, but some doubt may subsist.

The most recent nationwide surveys as well as the Île-de-France surveys measure precisely the prevalence of victimisation to car vandalism. This victimisation affects a much larger proportion of households than those mentioned previously.

The three types of car victimisation also differ as to their reporting rates: findings from the total corpus of victimisation surveys available in France[5] show an excellent convergence between studies, with an average reporting rate somewhere around 70 % for car thefts (sometimes rising to 90 % for completed thefts), shortly under 50 % for thefts from cars and around 30 % for car vandalism.

In the absence of time series of sufficient extent from nationwide studies, and beyond remarking on the respective magnitudes and the discrepancies in the levels of these three types of car victimisation, long-term trends cannot be determined for any of them. However the Île-de-France surveys, covering a slightly longer period, seem to indicate a downward trend for thefts of and from cars, but not for car vandalism. Moreover, these regional findings, which rest on a much more stable

[5] ROBERT, ZAUBERMAN, 2011, 67.

Table 3. Various car-related offences: % of car-owning households (prevalence); national surveys 2003-2009, regional surveys 1999-2008

		car thefts	completed car thefts	thefts from cars	car vandalism
EPCVM	2003-2004	2.21		9.03	15.51
	2004-2005	6.42		8.92	16.51
CVS	2005-2006	4.22	1.16	7.54	9.06
	2006-2007	3.58	1.10	7.49	11.08
	2007-2008	3.12	0.77	6.39	11.04
	2008-2009	2.97	0.82	6.03	11.02
Île-de France	1999-2000	11.43		14.54	16.52
	2001-2002	11.09		13.86	15.85
	2003-2004	8.07		12.75	15.63
	2005-2006	7.18		12.33	16.46
	2007-2008	6.42		10.51	15.80

survey protocol than those used for national campaigns, reach similar conclusions as to the disproportion in magnitude between the three sorts of offences, further substantiating that finding.

Conclusion

Thefts of and from cars have been declining consistently for the last decade and a half, and in addition, most attempted thefts fail. While cars make a choice target, since they are often parked in the streets, on the other hand anti-theft devices are increasingly effective. In spite of major differences in magnitude, victimisation surveys and police statistics constitute a coherent whole, at least on this count, and yield converging indications as to trends. However, the fact that car vandalism affects a much broader range of victims than thefts should not be overlooked. Furthermore, there is no indication that this type of victimisation is declining. Since most victims of that offence are not inclined to file a complaint, there is reason to believe that police statistics will tremendously underestimate car vandalism.

However apparently trivial it may seem, car crime is not a negligible type of victimisation. It is, strikingly, particularly widespread in peri-urban areas, where cars are an essential means of transportation, and also in destitute neighbourhoods where they often represent a major asset for low-income families[6].

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[6] *See* BON, *et al.*, 2011, 202, table 88.

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