

1 Article

## 2 **Victimization and Social Structure: The Case of Spain** 3 **in 1999 and 2016**

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11 **Abstract:** After brings about a brief review of the theoretical explanations and researches on the  
12 reasons for being a victim, this article is organized into two sections. The first presents a comparative  
13 analysis of the data for 1999 and 2016 in terms of perceptions, profiles and most significant  
14 sociodemographic and socioeconomic variables. The second one shows an explanatory analysis  
15 based on a multivariate logistical regression model using as an independent variable lifestyle of the  
16 population and socioeconomic variables, and as dependent variables individual's susceptibility to  
17 becoming a victim of certain crimes. The results points towards an explanatory model of  
18 victimization in which sociodemographic variables play an increasingly less important role while  
19 variables related to lifestyle and subjective perceptions make a significant contribution to greater  
20 understanding of the nature of being the victim of a crime.

21 **Keywords:** victimization; lifestyles; crime; social structure, Spain.

22

### 23 **1. Introduction**

24 A major focus of research in the area of victimization relates to how lifestyles shape  
25 victimization (von Henting 1948; Hindelang et al. 1978; Joutsen 1987). This "scientific victimology"  
26 approach differs from others such as those of "humanistic victimology" (Fattah 1992) or even of so-  
27 called "radical victimology", which is mainly concerned with human rights and societal power  
28 structures (Elias 1986, 1993; Dignan 2005; Dixon et al. 2006; Walklate 2015). In this sense, while is it  
29 believed that the connection between victimology and human rights through the analysis of victims'  
30 movements and power structures in society is a very important perspective, this is essentially  
31 unviable to explore given the state of available data. One limitation of the field concerns the lack of  
32 proposals made from a feminist perspective (Genn 1988; Crawford et al. 1990; Walklate 2007; Sharp  
33 2009).

34 While initially the tendencies of such research may be referred to as those of "positivist  
35 victimology" (Miers 1989), "conservative victimology" (Karmen 1990) or "conventional victimology"  
36 (Walklate 1989), the methodology utilized in national surveys rules out other options. In this realm,  
37 the objectives of victimology coincide with the classical proposal (Mendelsohn: 1976) to prevent

38 victimization from occurring, to minimize damage resulting from victimization, and to prevent  
39 repeated victimization.

40 Although the vulnerability of potential victims has more to do with their appeal for possible  
41 delinquents than with their objective characteristics, it is also true that lifestyle, understood as routine  
42 vocational (work, school, etc.) and leisurely daily activities (going out at night, frequenting certain  
43 locales, etc.) conditioned by the subject's social structure such as his or her age, sex, race or habitat  
44 among others, and the frequency of contact with unknown persons are key to understanding the  
45 victimological profile of a society and in this case of Spain for 1999 and 2016. Marvin Wolfgang (1957)  
46 conducted an empirical study of homicides, including those involving victim precipitation and  
47 provocation. In the former case, the victim is a direct and positive precipitator of the crime; 26% of  
48 the 588 cases he analysed were precipitated by victims. He also established a series of variables that  
49 affect precipitation: sex, race, marital status and substance use. As Frederick Wertham states in his  
50 work, *The Show of Violence*, "One cannot understand the psychology of the murderer if one does not  
51 understand the sociology of the victim" (Clevenger, S.H. et al. 2018).

52 In Spain, 12 surveys have been conducted by the Centre for Sociological Research with  
53 questions referring to victimization, addressing the period running from January of 1978 to 2016.  
54 Features of the surveys conducted are as follows:

- 55 1. Criminality; January 1978; Study 1,149; Size 1,204; Scope National.
- 56 2. Victimization; May 1978; Study 1,152; Size: 5,706; Scope National.
- 57 3. Citizen Insecurity; November 1980; Study 1,251; Size: 1,156; Scope Madrid.
- 58 4. Victimization and Drugs; January 1980; Study 1,206; Size 1,147; Scope National.
- 59 5. Citizen Insecurity; Mayo 1982; Study 1,313; Scope Municipal.
- 60 6. Citizen Insecurity III; July 1991; Study 1,974; Size 2,490; Scope National.
- 61 7. Delinquency, Citizen Security and Police Image; April 1995; Study 2,152; Size 3,919; Scope  
62 National.
- 63 8. Demands for Security and Victimization; December 1995; Study 2,200; Size 14,994; Scope  
64 National.
- 65 9. Citizen Security and Victimization (I); April 1998; Study 2,284; Size 2,284; Scope National.
- 66 10. Citizen Security and Victimization (II); January 1999; Study 2,315; Size 12,994; Scope National.
- 67 11. Delinquency and Victimization in the Community of Madrid; June 2007; Study: 2,702; Size: 1,501;  
68 Scope: Autonomous Community of Madrid.
- 69 12. Spanish General Social Survey; March 2016; Study 3,123; Size 5,290; Scope National.

70 While some of these surveys have already been analysed (Alvira and Rubio: 1982; Torrente:  
71 2001), a comparative analysis remains to be done and especially regarding variables that have  
72 traditionally been defined as victimological in nature in relation to the lifestyles of Spaniards.

73 Although in this case due to methodological issues the present work focuses on two surveys—  
74 those for 1999 and 2016—curiously, while Spain's crime rate has varied over the years, rates were  
75 nearly identical in 1999 and 2016 at 44% and 43%, respectively. The surveys mentioned lack a data  
76 and do not include homogeneous series for a given frequency. On the other hand, the two selected  
77 surveys are methodologically similar to victimization surveys, as both use a large sample size: the  
78 1999 survey with 12,994 cases and the 2016 survey with 5,290 cases. However, one of the objectives  
79 of this article is to comparatively determine whether perceptions, profiles and social variables are  
80 coincident or divergent for both periods.

81 This article is divided in two sections. The first presents a comparative analysis of the data for  
82 1999 and 2016 in terms of perceptions, profiles and most significant sociodemographic and  
83 socioeconomic variables; the second presents an explanatory analysis based on a multivariate  
84 logistical regression model using the lifestyle of the population and socioeconomic variables as  
85 independent variables, and individual's susceptibility to becoming a victim of certain crimes as  
86 dependent variable. Theoretical framework

87 The applied approach is used as part of the broader framework of lifestyle exposure theory,  
88 which focuses on the actions and behaviours of potential victims that increase their susceptibility to  
89 becoming the victim of a crime. As stated by Clevenger et al. (2018), "LET was proposed by  
90 Hindelang, Gottfredson and Garofalo in 1978 and is very similar to the routine activity theory (RAT)  
91 by Cohen and Felson...". In fact, routine activity theory is viewed as an extension of lifestyle exposure  
92 theory (Choi 2008).

93 Lifestyle exposure theory states that the risk of becoming a victim varies in societies  
94 depending on the positioning of individuals in the social structure depending on their age, sex, race  
95 or ethnicity or social class. Meanwhile, individuals and their activities and lifestyles are interwoven  
96 with roles and their expectations. More recently, the theory has been successfully applied to study  
97 victimization in cases of cybercrime (Reyns et al. 2011). Recent studies (Navarro and Jasinski 2015)  
98 have demonstrated the vulnerability of becoming a victim through exposure to social networks such  
99 as Facebook and susceptibility to being exposed to cyberbullying through the daily use of such  
100 networks. In a similar vein, evidence of the harassment of young women using online videogames  
101 has been observed (Breuer et al. 2015; Tang and Fox 2016).

102 Using a classical approach Von Henting (1948) has established a typology of characteristics of  
103 crime victims based on, for example, the emotional and physical vulnerabilities of young people, the  
104 physical vulnerabilities of women, challenges facing immigrants with regard to their assimilation to  
105 a new culture, etc. (Clevenger et al. 2018). From other classical perspective, Hindelang et al. (1987)  
106 argue that a link exists between the routine activities of individuals and their susceptibility to  
107 becoming the victim of a crime.

108 They establish eight factors shaping risks of victimization:

- 109 1. The probability of becoming a victim is directly related to the amount of time a person spends in  
110 certain public spaces at night.
- 111 2. The probability of being in a public space at night varies according to the lifestyle of the  
112 individual.
- 113 3. Contact and social interactions disproportionately occur among individuals who share similar  
114 lifestyles.
- 115 4. The likelihood of victimization depends to a large extent on an individual sharing demographic  
116 characteristic with delinquents.
- 117 5. The amount of time an individual spends with individuals who are not family members varies  
118 by lifestyle.
- 119 6. The probability of experiencing personal victimization and specifically robberies increases  
120 depending on the amount of time an individual spends with persons who are not family  
121 members.
- 122 7. Variations in lifestyle are associated with changes in the capacity for individuals to isolate  
123 themselves from persons with delinquent characteristics.

124 8. Variations in lifestyle are associated with variations in the convenience, desirability and visibility  
125 of a person as an object of personal victimization.

126 This model has not been free of criticism (Walklate 2007) given the problematic nature of  
127 measuring lifestyles; given ambiguities concerning whether structural variables contributing to  
128 patterns of victimization include age, sex, social class and ethnicity rather than ageing, sexism,  
129 classism or racism; and given the model's systematic disregard of power relations.

130 However, the model has been used in most victimization surveys to address the regularity  
131 of victimization to reduce risks of crime on one hand (Hough and Mayhew: 1983; Felson: 2006) and  
132 to consider impacts of victimization on the most socially disadvantaged groups on the other (Kinsey  
133 et al.: 1986; Crawford et al.: 1990).

134 Nevertheless, both national and international surveys victimization surveys such as the  
135 International Crime Victims Survey conducted for the first time in 1989 have not been without  
136 methodological problems (Walklate 2005; Anderson et al. 1994; Armstrong et al. 2005; Pease and  
137 Tseloni 2014). The limitations of victimization surveys are well known. The most frequently noted  
138 are as follows: circumscription to the least serious crimes; not collecting information from young  
139 people under 15 years of age, which in Spain represented 15% of the population susceptible to crime  
140 in 1978 and 1980 (Alvira et al. 1982) while in England and Wales, 35% of people between 10 and 15  
141 years of age were victims of crime in 2003, 19% of whom faced five or more incidents (Wood: 2005);  
142 not taking into account businesses and shops in urban centres where there are high rates of incidence;  
143 the need to obtain large samples via panel sampling (six months over three years); victimless crimes  
144 are excluded; and no reference is made to crimes related to fraud, health, the possession of drugs and  
145 white-collar crimes in general (Walklate 2007; Spalek 2006). In international surveys, there are also  
146 problems of a comparative nature such as those related to translation, the standardization of  
147 questions, etc. (Nelken 2009). In questions on victimization, 11 forms of victimization ranging from  
148 domestic crime to consumer fraud and street corruption have been considered (del Frate and van  
149 Kesteren 2004).

150 This survey is sponsored by the Dutch Ministry of Justice, and subsequent surveys were  
151 held in 1992, 1996 and 2000. Telephone interviews were used in developed countries, and face-to-face  
152 interviews were employed in non-industrialized countries. However, the problem lies in the  
153 reliability of questions given through telephonic surveys and particularly in the most complex ones  
154 such as those related to crimes of a sexual nature. As indicated by Walklate (2007) in her general  
155 critique of such surveys, "the assumptions of a white, middle-class, westernized, male became the  
156 domain assumptions bounding what can be asked, how it can be asked, and what sense might be  
157 made of the data in relation to the experience of crime". Another survey that has used the same  
158 methodology is that of the United Nations Interregional Crime and Justice Research Institute  
159 (UNICRI). Such surveys have been carried out at the urban level to determine problems affecting  
160 large urban areas. Even so, these surveys establish consistent patterns that should be taken into  
161 account and that are logically taken into account in our analysis of the case of Spain.

162 Traditionally, as previously noted, the most significant variables that predict who is most  
163 likely to become a victim of crime are: social class, age, gender, and ethnicity or race. In general terms,  
164 the most significant conclusions regarding the propensity to be a victim of crime are as follows:

- 165 1. In terms of habitat, those who live in cities with more than 100,000 inhabitants;
- 166 2. The highest income households;

- 167 3. Individuals under the age of 55 at a rate twice that of older people;  
168 4. Those who go out the most as well as singles;  
169 5. In relation to robberies, assaults and threats, men are 20% more likely than women to be involved;  
170 and  
171 6. The most widespread crimes are car thefts, representing more than 40%, and bicycle and  
172 motorcycle thefts, representing 10% (van Kesteren et al. 2002; Goodey 2005).

173 National surveys normally include information that is both consistent and discordant. For  
174 example, in the case of Spain (Alvira et al. 1982), consistent data are used for living area, age and sex  
175 (men between the ages of 26 and 35), and there is a positive relationship between victimization and  
176 higher rent and higher professional level. Alvira et al. (1982) establishes that behaviour in Spain is  
177 different from that observed in the Anglo-Saxon world. In this sense, the notion is consistent with  
178 Walklate (2007). For example, in the United States, homes in urban areas with incomes of less than  
179 \$7,500 are more likely to be subjected to robberies and assaults within and outside of the home  
180 (Catalona 2005). In the case of England and Wales (Nicholas et al. 2005), those most susceptible to  
181 home robberies are persons between the ages of 16 and 24, single parent families, low income families  
182 (£5,000), and homes left unoccupied for more than five hours a day and without private security.

183 Groups most vulnerable to victimization over the last decade (Mawby and Walklate 1994;  
184 Walklate 2007) include the following: low-income people, ethnic minorities, renters, the elderly,  
185 young people, single parent families and women (especially older women). However, the picture  
186 becomes more complex when we take into account people and homes. Pease and Tseloni (2014) argue  
187 that the two differ based on risk factors such as location, visible goods, a lack of employment and  
188 lifestyles, but a greater risk of victimization is borne by both reiterative subjects and homes. Several  
189 projects, such as that led by Kikholt in Rochdale, Lancashire, have proven predictive vigilance to be  
190 successful (Forrester et al. 1988). Pease and Tseloni (2014) consider the frequency of domestic crimes  
191 and their predictions based on the following traits: three or more cars; single parents; inner city  
192 location; social housing; duplex or townhouse; between five and 15 years of age; and urban areas.

193 In short, citizens' lifestyles are objective facts that we can determine from different variables such  
194 as habitats, neighbourhoods of residence, locales frequented, night-time outings, age, social class,  
195 race or ethnicity, belonging to unstructured families and socially disadvantaged groups, etc.  
196 However, lifestyles can also be determined subjectively from individuals' perceptions and opinions  
197 about citizens' insecurity or from perceptions they have of being victims of a crime.

## 198 2. Methods and Data

199 To summarize, our hypothesis points towards an explanatory model of victimization in which  
200 sociodemographic variables play an increasingly less important role while variables related to  
201 lifestyle and subjective perceptions make a significant contribution to greater understanding of the  
202 nature of being the victim of a crime.

### 203 Methodology

204 As stated above, this article on one hand is based on a comparative analysis of the 1999 and  
205 2016 surveys conducted in Spain and on the other hand on an explanatory analysis of victimization  
206 based on the second survey. The two surveys were carried out by the Centre for Sociological Research  
207 (CIS, for its initials in Spanish, find more information at <http://www.cis.es>) with a similar  
208 methodology (see Table 1). Both studies focus on the national environment and on the population

209 over 18 years of age with large samples in Spain, although the 1999 sample is especially large, with  
 210 nearly 13,000 interviewees. Sample selection with a broad network of sampling points by  
 211 municipality and with systematic sampling conducted over several phases culminated with face-to-  
 212 face interviews. The sampling error was measured at roughly 1%, with that for the 1999 survey being  
 213  $\pm 0.88\%$  and that for the 2016 survey being  $\pm 1.4\%$  for the entirety of the corresponding sample.

214 All methodological information drawn from the two surveys such as data sheets,  
 215 questionnaires, data tables and descriptive results are available for download from the corresponding  
 216 link (see Table 1). The instrument or questionnaire of each survey presented a set of items measuring  
 217 different types of crimes experienced within in the last year (12 for the 1999 survey and 19 for the  
 218 2016 survey), making it possible to construct the dependent or victimization variable. The list of items  
 219 of victimization derived from the 2016 questionnaire was reduced to 17, as there had been no cases  
 220 of “terrorism” in the last year and “rape” was added to the category “sexual aggression”, as it  
 221 appeared on the questionnaire during the 1990s. The independent variables cover traditional  
 222 sociodemographic issues (sex, age, subjective social class, ideology, education and habitat), and other  
 223 questions used to explain victimization (e.g., lifestyles or free time spent outside the home covering  
 224 four items, perceptions of the safety of one’s neighbourhood or locality and the probability of being  
 225 the victim of a crime) of the same crimes were measured on a scale of 0-10.

226 **Table 1.** Surveys of victimization in Spain (1999 and 2016)

	1999	2016
		CIS N° 3123
Study:	CIS n° 2315 Citizen security and victimization	Spanish General Social Survey
Scope:	National	National (excluding Ceuta and Melilla)
Universe:	Spanish population, both sexes, 18 years and over	Spanish population, both sexes, 18 years and over
Sample:	12,994 interviews	5,290 interviews
Allocation:	Non-proportional	Non-proportional
Sampling points:	513 municipalities and 52 provinces	523 municipalities and 48 provinces
Sampling procedure:	Multi-stage stratified by clusters with the random proportional selection of primary sampling units (municipalities) and secondary units (sections) and with the selection of final units (individuals) by random routes and sex and age quotas.	Two stages and stratified by cluster. The selection of primary sampling units (sections) is proportional to the resident population, and the selection of final units (individuals) is carried out through a systematic selection of individuals residing in the area by house number.
Sampling error:	For a confidence level of 95.5% (two sigma) and where $P = Q$ , the error is $\pm 0.88\%$ for the whole sample.	For a confidence level of 95.5% (two sigma) and where $P = Q$ , the real error is $\pm 1.4\%$ for the whole sample and for the simple random sampling association.
Date:	From 11 January to 28 February of 1999	From 22 December of 2015 to 12 April of 2016
URL:	<a href="http://www.cis.es/cis/openm/ES/1_encuestas/estudios/ver.jsp?estudio=1304">http://www.cis.es/cis/openm/ES/1_encuestas/estudios/ver.jsp?estudio=1304</a>	<a href="http://www.cis.es/cis/openm/ES/1_encuestas/estudios/ver.jsp?estudio=14252">http://www.cis.es/cis/openm/ES/1_encuestas/estudios/ver.jsp?estudio=14252</a>

227 Source: The authors.

228 On one hand, the analysis of the data applied describes the evolution of victimization and of the  
 229 reporting of different crimes experienced through the two surveys described, which address a period  
 230 of 17 years, and on the other hand, it is used to explain or construct a model with which to understand  
 231 which variables cause one to become or not become a victim of a crime based on the 2016 survey  
 232 alone. For the descriptive analysis, the victimization rate or the percentage of victims of each type of  
 233 crime who have reported a crime is used. Meanwhile, for the explanatory study, a logistic regression  
 234 analysis is carried out with a dichotomous dependent variable (having been a victim of a crime in the  
 235 last 12 months or having never experienced any crime) and with the independent variables described  
 236 above.

### 237 3. Results

238 A comparison of the victimization rates derived from the 1999 and 2016 surveys offers several  
 239 results of interest to us. First, the most frequent crimes reported by both are the same: the theft of  
 240 objects from vehicles, the theft of a purse or wallet and home and shop robberies. Second, crimes  
 241 varying most significantly are muggings (-87.8%), vehicle thefts (-84.4%) and thefts of objects from  
 242 vehicles (-67.1%). Finally, total aggregate victimization levels decline from 15.5% to 9.6%, reflecting a  
 243 reduction of nearly six percentage points or a negative variation of 38.2% (see Table 2).

244 According to both studies, crimes most frequently reported are identity crimes and with the  
 245 same percentage, thefts of vehicles (reporting rates of 86.4% for 1999 and of 83.2% for 2016) and home  
 246 robberies (reporting rates of 74.7% for 1999 and of 79.7% for 2016). While a percentage increase is  
 247 observed in the rate of reporting for more crimes, of note are crimes involving thefts of objects from  
 248 vehicles, cases of abuse or coercion and cases of fraud and scams, which show increases of over 40%.  
 249 Thus, for the aggregate set, the rate of reporting increased significantly by 43.2% or nearly 20  
 250 percentage points.

251 In sum, a comparison of the survey for the end of the 1990s and the more recent one most notably  
 252 shows that along with a reduction in the victimization rate (-38.3%) there has been an increase in the  
 253 rate of reporting (43.2%). Thus, from these data and the surveys, we can conclude that while the  
 254 statistics denote a similar percentage of reported crimes over the two years (1999 and 2016), behind  
 255 this lies a reduction in the number of crime victims and an increase in reporting by victims, each  
 256 compensating for the other.

257 **Table 2.** Comparison of the victimization and reporting rates by type of crime derived  
 258 from the 1999 and 2016 surveys for Spain.

Rates	1999		2016		DIF. (2016-1999)	
	Victimization	Reporting	Victimization	Reporting	Victimization	Reporting
Mugging	1.6%	43.1%	0.2%	52.4%	-87.8%	21.7%
Purse theft	0.7%	62.6%	0.2%	57.9%	-73.0%	-7.6%
Purse or wallet theft	2.6%	58.7%	1.6%	66.0%	-37.7%	12.4%
Home or shop robbery	2.3%	74.7%	1.3%	79.7%	-42.7%	6.8%
Car theft	1.7%	86.4%	0.3%	83.2%	-84.4%	-3.7%
Theft of objects from a vehicle	4.7%	42.6%	1.6%	64.3%	-67.1%	50.8%

Fraud or scams	1.2%	28.5%	0.8%	41.0%	-28.4%	44.0%
Intimidation or threats	1.8%	28.8%	0.8%	34.6%	-54.9%	20.2%
Physical aggression	1.1%	35.0%	0.3%	48.9%	-70.2%	39.6%
Rape or sexual aggression	0.1%	40.0%	0.0%	50.0%	-50.9%	25.0%
Disorderly behaviour or vandalism	2.0%	26.9%	1.8%	37.6%	-13.5%	39.9%
Abuse or coercion by authorities	1.4%	13.5%	0.6%	19.7%	-58.8%	45.5%
Farm robbery			0.8%	52.6%		
Online identity theft			0.2%	48.1%		
Internet fraud			0.6%	51.4%		
Psychological assault			0.8%	25.5%		
Sexual assault			0.2%	14.3%		
Total (aggregate)	15.5%	46.2%	9.6%	66.1%	-38.3%	43.2%
N	2,018	932	507	335		

259 Source: The author based on CIS studies (2,315 (1999) and 3,123 (2016)).

260

261 The evolution of the sociodemographic profiles of those who have experienced a crime in recent  
 262 months between one survey and the other allows us on one hand to confirm which variables are  
 263 significantly associated with victimization and to on the other determine whether this has varied over  
 264 the long term. Thus, the profile of a victim according to the 1999 survey is a man of 18 to 30 years of  
 265 age, of high social standing, of leftist ideology, with higher education and residing in a city with more  
 266 than 100,000 inhabitants. All sociodemographic variables were found to be significant ( $p < .01$ ) with  
 267 the exception of ideology. The same profile is derived from the 2016 survey, though in addition to  
 268 the variables of sex and social class, ideology in this case is statistically significant.

269 In this way, the sociodemographic variables lose an association or significant link to victimization.  
 270 Thus, from the 1999 survey, five of the six classification variables analysed were found to be  
 271 significant (sex, age, social class, education and living area), while for 2016, only three were found to  
 272 be significant (age, education and living area). Additionally, when we analyse differences between  
 273 the differences (see Table 3), values of the sociodemographic variables highlighted decline with  
 274 respect to the total for the 2016 survey (male, -0.5; between 18-30 years of age, -1.8; etc.).

275 **Table 3.** Comparison of the sociodemographic profiles of people who have experienced a crime in  
 276 the last 12 months in Spain (1999 and 2016).

	1999	2016	DIFFERENCE in the DIFFERENCE <sup>1</sup>
	%	%	
SEX	(**) <sup>2</sup>	(-)	
<b>Male</b>	<b>16.8</b>	<b>10.4</b>	-0.5
Female	14.4	8.8	0.3
AGE	(**)	(**)	5.9
<b>From 18-30</b>	<b>20.9</b>	<b>13.2</b>	-1.8



From 30-45	17.3	11.3	-0.1
From 46-60	13.9	9.7	1.7
Over 60	8.8	5.7	2.8
SOCIAL CLASS	(**)	(-)	5.9
Low	13.2	8.5	1.2
Middle	14.6	9.7	1.0
<b>High</b>	<b>22.1</b>	<b>13.7</b>	-2.5
IDEOLOGY	(-)	(-)	5.9
Left	<b>17.7</b>	10.7	-1.1
Centre	15.7	9.9	0.1
Right	15.8	<b>10.9</b>	1.0
EDUCATION	(**)	(**)	5.9
Primary	10.7	4.9	0.1
Secondary	17.6	9.6	-2.1
<b>Higher education</b>	<b>21.3</b>	<b>13.6</b>	-1.8
HABITAT	(**)	(**)	5.9
Less than 10,000	10	6.7	2.6
From 10,000-100,000	14.6	9.7	1.0
<b>Over 100,000</b>	<b>19.4</b>	<b>11.1</b>	-2.4
TOTAL	15.5	9.6	0.0

277 Source: The author based on CIS studies (2,315 (1999) and 3,123 (2016)).

278 <sup>1</sup>Difference in the difference = (v2016-total2016) - (v1999-total1999)

279 <sup>2</sup>Chi-square is significant for \*p-value<.05 or \*\*p-value<.01.

280

281 The binary multivariate logistic regression allows us to evaluate how the dependent variable  
 282 "having been or not been a victim of a crime in the last 12 months" is presumably related to the  
 283 independent variables and to build a model or equation for predictive purposes. The independent  
 284 variables are those used in the descriptive analysis and are considered continual variables except for  
 285 sex, which is treated as categorical (male=1; female=0), and three variables are added regarding  
 286 lifestyles or free time and regarding perceptions of the safety of one's environment and of the  
 287 probability of becoming the victim of a crime. The variable on lifestyle and leisure covers four items  
 288 regarding the frequency of a series of free time activities occurring outside of the home ("I'm going  
 289 to read you a series of leisure activities, and I would like you to tell me, for each one, if you often  
 290 engage in them: go out to meet friends; go to the movies, to the theatre or the concerts; go to museums  
 291 or exhibits; and attend conferences or colloquia"). Perceptions of safe neighbourhoods were  
 292 measured with a question rated on a scale of 0 to 10 (In thinking about these types of problems or  
 293 situations, on a scale from 0 to 10 where 0 denotes "I feel very unsafe" and where 10 denotes "I feel  
 294 very safe", how would you characterize the feelings that you experience when you are in your  
 295 neighbourhood/locality?). Finally, the probability of being the victim of a crime is determined by  
 296 adding the scores from 0 to 10 from the interviewees for the 17 types of crimes ("to what extent do  
 297 you think that it is possible for you to be a victim of the following crimes in the  
 298 neighbourhood/locality in which you live?").

299 The results demonstrate that six of the nine variables contribute significantly to the  
 300 explanatory model on being the victim of a crime over the last 12 months. The six variables  
 301 correspond to three sociodemographic variables and another three are related to lifestyles, to free  
 302 time spent outside of the home, to subjective perceptions of the safety of one's neighbourhood and  
 303 to the probability of being a victim. The latter variable generates the highest Wald test statistic (35.204)  
 304 followed by sex (9.350) and free or leisure time spent outside of the home (9.185). In any case, the  
 305 Omnibus test is highly statistically significant ( $p < 0.000$ ), although the proportion of the explained  
 306 variability of being a victim of a crime according to our model is not excessively high (between 12.9%  
 307 for Cox and Snell's R-squared and 21.2% for Nagelkerke's R-squared).

308

**Table 4. Logistic regression analysis**

	<b>B</b>	<b>S.E.</b>	<b>Wald</b>	<b>df</b>	<b>Sig.</b>	<b>Exp(B)</b>
SEX (1=male)	.567	.185	9.350	1	.002	.567
Age	.003	.006	.226	1	.635	1.003
Social class	.112	.083	1.826	1	.177	1.118
Ideology	-.074	.044	2.828	1	.093	.929
Education	.093	.033	7.737	1	.005	1.097
Habitat	.141	.058	5.948	1	.015	1.152
Free time	.084	.028	9.185	1	.002	.919
Perceptions of neighbourhood safety	-.125	.051	5.986	1	.014	.883
Probability of being a victim	.020	.003	35.204	1	.000	1.020
Constant	-1.067	.948	1.268	1	.260	.344

309

Source: The authors based on CIS study 3,123 (2016).

#### 310 4. Conclusions

311 The first conclusion drawn from the descriptive and comparative study verifies the evolution  
 312 of the sociodemographic variables profiling or relating to victimization from the 1999 and 2016  
 313 surveys for Spain. While sex (being male), age (young), education (higher education or university)  
 314 and living area (urban) maintain associations with being a victim of crime for both surveys, it has  
 315 been demonstrated that the sociodemographic or classificatory variables have declined in intensity,  
 316 and some have even lost their associations as in the case of social class while others were never  
 317 associated as in the case of ideology.

318 Second, the explanatory model obtained again demonstrates that besides sex, education and  
 319 habitat, the other sociodemographic variables of age, social class and ideology did not achieve  
 320 statistical significance. By contrast, variables related to lifestyle or leisure, free time spent outside of  
 321 the home, and subjective perceptions of the safety of one's neighbourhood and the probability of  
 322 being a victim of crime do grow in importance in the explanatory model and particularly in the case  
 323 of the latter.

324 This study also shows that there is a need for future work to expand on the role of the  
 325 probability of being a victim or of an awareness or fears of experiencing a crime. Thus, research on  
 326 perceptions of fear and their relationship to victimization is salient as confirmed by recent studies

327 (Chadee et al. 2017; Chadee 2016; Doran and Burgess 2012), and psychosocial variables and  
328 subjective perceptions of crime are clearly associated with variables regarding lifestyles,  
329 neighbourhood locations and social contexts. From this work future studies may also examine the  
330 evolution of victimization and its relationship to reporting crimes, as the data demonstrate a  
331 reduction in the victimization rate and an increase in the rate of reporting. In this sense, researching  
332 the causes of this process and potential hypotheses (increased civic responsibility, social pressures, a  
333 loss of fear, increased ease of reporting, etc.) may be an area of interest for the social sciences.

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