Challenges in victimization surveys. Raising the value of official statistics

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Public security is one of the emergent issues in the public agenda in Latin America. In Mexico, 58% of the population reported in 2014 that public security was their main concern (National Survey on Victimization and Perception of Public Security, INEGI, 2014). Public policies related to public security and justice require highly-specialized statistical information. Administrative data from police or justice institutions provide considerable information. However, victimization surveys have a very special role in public policy design. In order to raise its value as an official statistic, these surveys face several challenges, like representativeness not just at the national level, but also at the regional or local level; permanent improvements in its methodologies; comparability across countries or regions, and, of course, its recognition as one of the most valuable data-producing instruments. The scope of indicators that victimization surveys can provide is essential to the understanding of a complex phenomenon such as crime. The prevalence and incidence rate of crime, the type of crimes with highest incidence, violent crimes, dark figure, levels of fear of crime, cost of crime, among others. This presentation will resume some of the most important results that victimization surveys have provided in Mexico, through a series of four annual measurements since 2011, but also the challenges that are faced by victimization surveys in order to accomplish the strategic user's need to support public policies.

Keywords: victimization; victimization surveys; prevalence victimization rate.

Criminal statistics in Mexico

With the establishment of the National System of Statistical and Geographical Information in 2008, that provided a new legal framework, the National Institute of Statistics and Geography (INEGI) created a Subsystem to focus on the production of statistical information on governance, public security and justice (*Subsistema Nacional de Información de Gobierno, Seguridad Pública y Justicia*).

The purpose of this Subsystem is to support the design, implementation, monitoring and evaluation of public policy related to these matters. Given its Federal character, in Mexico the use of administrative records with statistical purposes in the criminal justice system faces several challenges in standardizing crime categories and making comparability possible at the subnational level. To overcome this issue, INEGI, with the involvement of the main public stakeholders established the Technical Regulations for the National Classification of Crimes for Statistical Purposes (*Norma Técnica para la Clasificación Nacional de Delitos del Fuero Común para Fines Estadísticos*).

Moreover, INEGI currently carries out the National Census on the Federal Justice System; the National Census on State Government, Public Security and Prison System; the National Census on State Public Prosecution; and the National Census on the State Justice System. These instruments provide information on the most relevant characteristics of government institutions, for example, the number of police officers in each state, the number of interns in state prisons, the availability of public security mechanisms, among other aspects.

Victimization Surveys

Victimization Surveys are the other instruments used by INEGI to obtain information on subjects associated with public security and justice. The following surveys on these subjects have been developed and implemented: the National Survey on Victimization and Perception of Public Security (ENVIPE) and the National Survey on Crime against Business (ENVE).

Both these instruments are considered information of national interest by law, which means that the results they produce are official and must be used by government institutions for the design and implementation of official public policy.

The National Survey on Victimization and Perception of Public Security (*Encuesta Nacional de Victimización y Percepción sobre Seguridad Pública, ENVIPE*) is the flagship victimization survey among the ones produced by INEGI. Its main objective is to obtain information about the incidence of crime among people aged 18 years and older at the national and state level, as well as the victims' and crimes' most important characteristics. The survey is also used to measure citizens' perceptions on public security in their place of residence and where they go about their daily activities; as well as their confidence in public security institutions and their perception of the authorities' effectiveness. Other factors that are taken into account are the cost of crime on citizens and households, the "Dark Figure" of crime, the consequences of crime on victims and to measure and identify the victims´ behavior and experiences with public security institutions and public attorneys.

The conceptual framework on which the ENVIPE is based on is partly derived from the UNECE-UNODC Manual on Victimization Surveys, which was published in 2010 as an international effort to develop methodological guidelines for the design of victimization surveys[1]. In addition, the survey design considered the local legislation regarding the necessary procedures for reporting a crime to the national public security and justice system, as well as conceptual documents on crime, fear of crime, social disorder, victimization, physical and social vulnerability, among other criminology theories and concepts[2].

The ENVIPE is a cross sectional survey that includes a probabilistic, stratified and cluster sampling method where the sampling unit are households. The unit of analyses is composed of the population aged 18 years and older that live in the households. The interviews are made face to face and through computer-assisted personal interviewing (CAPI), which selects the informant randomly by computer with the use of an algorithm. The survey includes two questionnaires, a general one that obtains information about the household and its members, crimes for which they had been victimized, perception on public security, among others; and a victimization module that is designed to capture information about the crimes that the selected person and his or her household had been a victim of during the year. This design contributes to the flow and reduces the time of the interview.

The ENVIPE survey has been implemented since 2011 on an annual basis, with 2010 as the first reference year. Since its inception, ENVIPE has undergone some changes that have improved its reliability; nonetheless, its main indicators are comparable over time. Among these indicators, the number of victims of crime per 100,000 inhabitants has been estimated since the beginning. Figure 1 shows the results for this indicator between 2010 and 2013, which shows an

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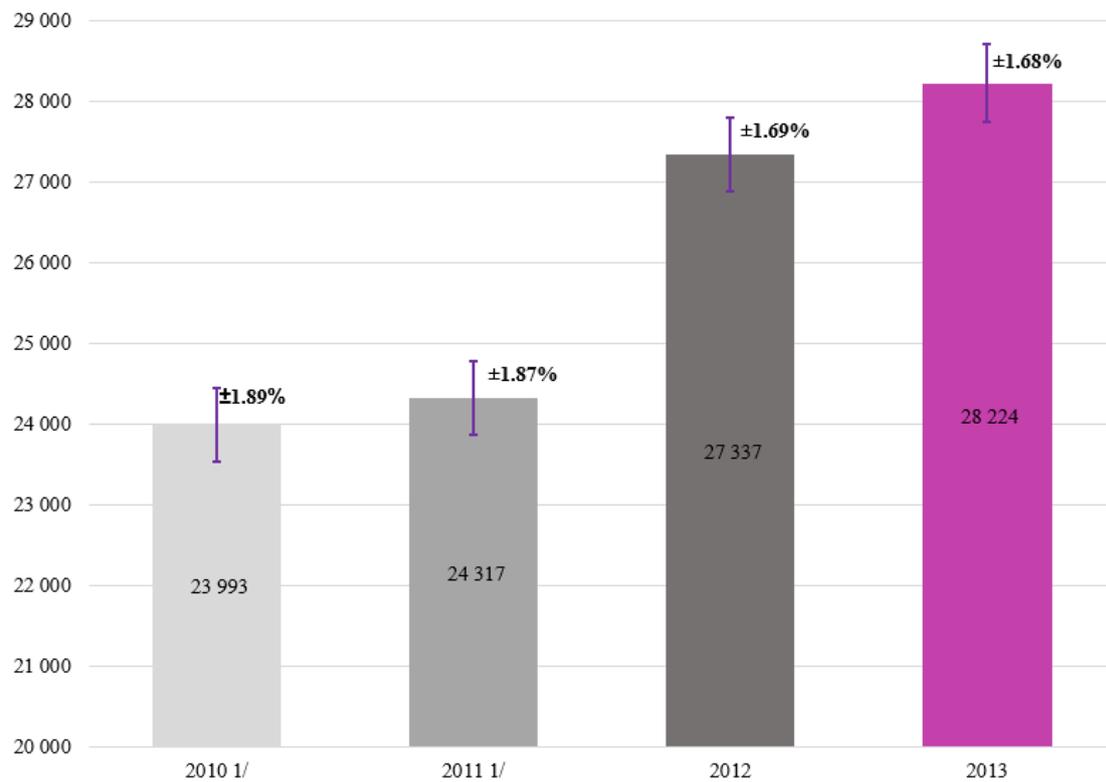[1] UNECE-UNODC (2010). Manual on Victimization Surveys. United Nations.
[2] INEGI (2014). Encuesta Nacional de Victimización y Percepción sobre Seguridad Pública 2014 ENVIPE. Marco Conceptual. INEGI.

increase in the number of victims per 100,000 inhabitants, with marked rise between 2011 and 2012.

Rate of victims of crime per 100,000 population   Figure 1
2010 - 2013

1/ Results adjusted according to new population projections 2010-2050. National Council of Population (CONAPO) & Population and Housing Census 2010. INEGI.

Source: INEGI. Encuesta Nacional de Victimización y Percepción sobre Seguridad Pública (ENVIPE), 2011-2014.

The ENVIPE's application has not only provided important statistics on victimization, but has also been instrumental in the design and creation of public policy aimed at curbing crime and diminishing its effects on the general population. Another reason that its results are relevant to both citizens and government is that they reveal a more detailed picture of criminal activity and its consequences on society. In contrast, administrative records only capture information on criminal activity that has been directly reported to the authorities by the citizenry. This leaves out a considerable amount of crimes that are not reported to the police due to, among other factors, a lack of confidence in the institution.[3]

The percentage of crimes that are not reported to the police and/or that are reported but never investigated is known as the "Dark Figure" of crime. This indicator not only compliments the information that is produced by the police, it provides relevant information for understanding the scope of criminal activity at the state and national level. Figure 2 shows the results for the "Dark Figure" of crime from 2010 to 2013. The "Dark Figure" that was estimated for the first three surveys (2010-2012) did not show significant changes from one year to the next; nevertheless, the "Dark Figure" showed a significant increase between 2012 and 2013, going

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[3] Vilalta Perdomo, Carlos J. *El miedo al crimen en México. Estructura lógica, bases empíricas y recomendaciones iniciales de política pública* (Fear of crime in Mexico. Logical structure, empirical bases and initial recommendations for public policy). Gestión y Política Pública, Vol. XIX, Num. 1.

from 92.1% with a confidence interval of $\pm$0.50% to 93.8% with a confidence interval of $\pm$0.37 percent.

Dark Figure of crime 2010-2013   Figure 2
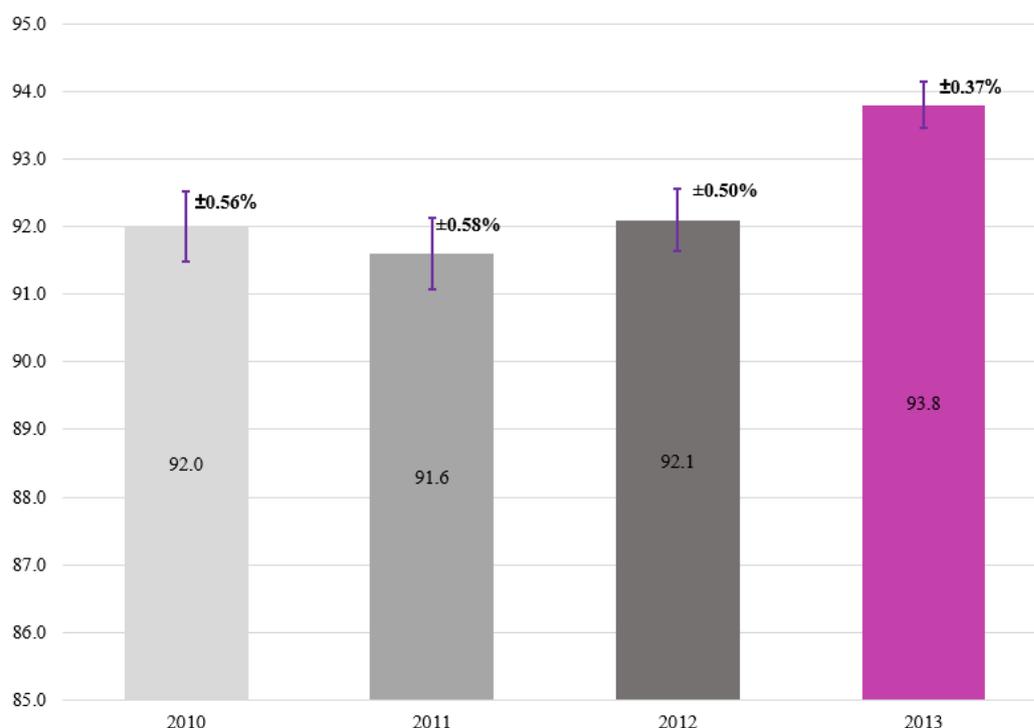
Source: INEGI. Encuesta Nacional de Victimización y Percepción sobre Seguridad Pública (ENVIPE), 2011-2014.

The indicators that are shown above are just a few that victimization surveys can provide, and are among the main variables used to make comparisons at the international level. However, differences in methodology (cross sectional vs longitudinal), between target populations (15 years or older vs 18 years or older) and the geographical scope (national vs main cities), among others, can limit comparisons between countries. Fortunately, there are efforts at the United Nations Statistical Division and the United Nations Office on Drugs and Crime involving National Statistical Offices to broaden the production of crime statistics and improve its comparability.

One of the challenges for victimization surveys is to provide estimates at the subnational level in order to provide information for the design of public policy at the local level. INEGI produces the indicators mentioned above, and several others, at the state level to cover this information need.

Another important challenge for ENVIPE has been the estimates for low prevalence crimes, such as kidnapping. In order to overcome the difficulties in measuring kidnapping, INEGI developed a method based on the assumption of symmetrical information within the household for this type of high-impact crime, which has provided estimates and some relevant information about kidnapping in Mexico. Small area analysis for crime victimization is the next step with the aim of providing more information for local authorities that can shape their strategies to reduce and prevent crime.

The other major victimization survey that was designed by INEGI and has been implemented since 2012 on a biennial basis is the Crime against Business National Survey (*Encuesta*

Nacional de Victimización de Empresas, ENVE). This survey was the first of its kind in both Mexico and Latin America and was developed through a joint effort with the United Nations Office on Drugs and Crime (UNODC) with the support of the Center of Excellence INEGI-UNODC. International experts were also involved in its design in order to ensure its comparability. The results from this survey also serve as a complement to the information provided by the ENVIPE and are considered information of national interest by law.

The survey's main objectives are similar to ENVIPE's, with the main difference being that the units of analysis are businesses instead of households. This survey also provides important indicators that can be used as valuable input for determining public policy measures related to crime against the private sector. One of these indicators is the number of crimes committed against businesses per economic unit during the year. The data for this indicator for the 2012 and 2014 surveys can be seen in Figure 3, which shows that there was a decrease in crimes per economic unit for businesses belonging to all three sectors of the economy. This data shows that private sector efforts and public policy that has been implemented helped in some degree to reduce crime against business, nevertheless, other factors must be considered before arriving at this conclusion.

**Crimes per economic unit
2011 and 2013**   Figure 3
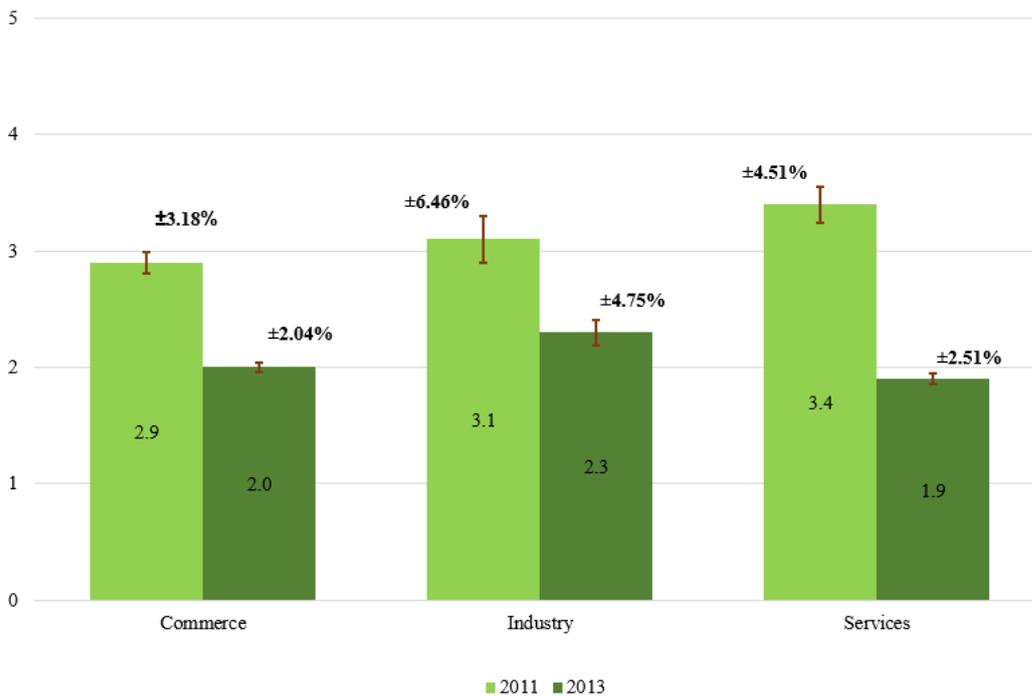
Source: INEGI. Encuesta Nacional de Victimización de Empresas (ENVE), 2012 and 2014.

Despite this overall reduction in crimes per economic unit, some offenses saw an increase in the amount that were committed. According to the 2012 Crime against Business Survey, for every 10,000 economic units 765 were victims of extortion in 2011. In 2013, this rate had increased to 802 victims of extortion per 10,000 economic units. Moreover, the modality with which extortion was committed changed during this period. In 2011, 12.1% of extortions were direct or done directly confronting the individuals who ran the establishment. By 2013, this percentage had risen to 29 percent. Similarly, the proportion of businesses that paid extortion money also saw an increase from 14.2% in 2011 to 21.5% in 2013.

Extortion crimes committed against businesses   Figure 4
2011 and 2013

Year	Economic units victims of extortion (Rate per 10,000 economic units)	Extortion crimes (% of extortions)		Extortion crimes (% of extortions)	
		Virtual extortion 1/ (By telephone, email, etc.)	Direct extortion (In the establishment)	Paid	Not paid
2013	802	71.0	29.0	21.5	78.5
2011	765	87.9	12.1	14.2	85.8

1/ Extortion by telephone, email, and other modalities.
Source: INEGI. Encuesta Nacional de Victimización de Empresas 2014 (ENVE), 2012 and 2014.

Conclusions

Criminal statistics in Mexico have grown and gained a prominent role in the shaping of public policy with respect to public security. In 2008 a Subsystem was established within the National Institute of Statistics and Geography to produce and manage information related to government, public security and justice. This change lead to the creation of government census and surveys with the purpose of generating statistical information on these subjects. Both these types of instruments provide valuable information on these issues from different sources. Because of this, the information that these instruments provide is complimentary.

Government census have helped to improve the use of administrative records with statistical purposes in the criminal justice system. Even though government census have expanded on the data from administrative records, in terms of criminal statistics, it is necessary to complement them with victimization surveys, since they provide information from crimes that are directly reported to public prosecution authorities. The development of victimization surveys, like ENVIPE and ENVE, has helped bridge this gap since they offer a wider scope of data on criminal activity.

Victimization surveys in Mexico have also overcome important challenges such as providing estimates at the subnational level and developing techniques to measure low prevalence crime but of high impact to the population such as kidnapping. This has contributed to the improvement of the quality of the information needed for public policy design and for a greater understanding of crime in Mexico. Representativeness is one of the main challenges for any criminal victimization survey. In order to have a clearer understanding of the dynamics of crime, it is necessary to have more detailed data on where crimes are committed. With this in mind, an important lesson obtained through victimization surveys in Mexico is the importance of representativeness for the subnational level estimates, along with small area analysis, and new indicators that should be devised accordingly in order to provide tools for public policy and to reduce the levels of crime and violence. International comparability is another challenge in which National Statistical Offices can contribute to the standardisation of crime statistics and in particular of victimization surveys, which could lead to an improvement in the comparability of data at the international level.

References

UNECE-UNODC (2010). Manual on Victimization Surveys. United Nations.

INEGI (2014). Encuesta Nacional de Victimización y Percepción sobre Seguridad Pública 2014 ENVIPE. Marco Conceptual. INEGI.

Vilalta Perdomo, Carlos J. *El miedo al crimen en México. Estructura lógica, bases empíricas y recomendaciones iniciales de política pública* (Fear of crime in Mexico. Logical structure, empirical bases and initial recommendations for public policy). Gestión y Política Pública, Vol. XIX, Num. 1.