Chapter 3

Selected sub-national data on security and justice in Mexico

The government of Mexico has taken steps to advance measurement in the domain of security and justice, implementing, for instance, methodological improvements to national victimisation surveys and collecting increasingly detailed data on law enforcement and justice sector resources and operations. This chapter presents an overview of available regional data which could be considered in measuring the performance of criminal justice systems, specifically in terms of their capacities, effectiveness and efficiency. As discussed in the previous chapters, however, translating this data into actionable evidence may require further consideration of the limitations of the existing information as some gaps remain. Greater standardisation and harmonisation across time and regions/jurisdictions and agencies may be necessary to improve performance evaluation and monitor the impacts of ongoing reforms.

Introduction

Given the strong territorial nature of crime, crime policies should take local specificities into consideration and be tailored to the root driving causes unique to each region. To support this, evidence is needed not just at the national level but at the sub-national level as well. Consequently, this chapter explores the availability, validity and reliability of crime statistics at the state level in Mexico, which was carried out through a detailed data-scoping exercise. The selection criteria used for data included in this chapter are:

- availability of data for a critical mass of Mexican states;
- quality of data in terms of validity and reliability;
- comparability – *e.g.* similar or common definitions and methodologies across states;
- alignment, to the extent possible, with commonly used international indicators in order to allow, eventually, international comparison of Mexican regional data.

Data meeting these requirements are presented in this chapter and grouped according to the framework described in Chapter 1 – inputs, processes, outputs and outcomes – which, when combined, can provide insights into the various dimensions of performance including capacity, efficiency, effectiveness and quality. This chapter is divided into three parts, starting with capacity indicators, followed by output indicators, and finally concluding with outcome indicators. Altogether, it presents 18 indicators. It is important to note that the dataset presented here does not constitute a formal proposal of indicators that should be adopted to measure the performance of the Mexican criminal justice system. Rather, it is a first step in assessing the strengths and weaknesses of available sub-national level data with the ultimate goal of constructing a suite/cadre of variables that can be agreed upon by stakeholders to benchmark the performance of the criminal justice system over time regionally, and to the extent possible, internationally. As a result, for each indicator information is provided on why it is relevant; how it is measured; measurement across states; and its strengths and weaknesses in terms of capturing the phenomenon of interest to policy makers. While the average, minimum and maximum values, as well as dispersion of the variables are noted, there is no detailed analysis or explanation of the differences found across states. Further research is required to ascertain statistically significant and causal relationships between the variables identified.

The results of this first scoping exercise show that there are important data gaps that could hinder the evaluation of the performance of the Mexican criminal justice system. Those gaps exist in expenditure data, information on processes and public management practices as well as the quality of those processes and services provided such as access to criminal justice, the responsiveness of police, prosecutors and courts, accuracy or quality of decisions.

Input indicators

When measuring the performance of criminal justice institutions, it is essential first to consider their capacities to achieve the desired policy objectives. Indeed, having able institutions endowed with adequate resources is arguably a key driving force of positive performance. There is evidence, for instance, estimating that a 10% increase in the

number of police officers can reduce certain kinds of crimes – mainly property crimes – by as much as 3% (Klick and Tabarrok, 2005). Other research indicates that prison capacity may influence recidivism (*e.g.* inmates from overcrowded prisons are more likely to be repeat offenders) (Chen and Shapiro, 2007). Input data are also a necessary piece of the puzzle in terms of evaluating efficiency, or value for money, attained with taxpayers' money, helping researchers ascertain whether an increase in financial investments corresponds to an equally proportional increase in quantity or quality.

Table 3.1. **Summary of regional indicators included in this study**

Dimension of performance	Sub-dimension	Indicator	Sources used
Input variables	Government outlays (spending proxy)	State appropriations for criminal justice	Annual state budget decrees
		State appropriations for criminal justice by function	Annual state budget decrees
		State appropriations for criminal justice *per capita*	Annual state budget decrees
		Federal transfers to states for criminal justice	Federation's annual budget
	Human and infrastructure resources	Police officers per 100 000 inhabitants and reported crimes per police officer	SESNSP
		Reported crimes per public prosecutor	INEGI, SESNSP, CONAPO
		Prison capacity per 100 000 inhabitants	SSP
Output variables	Processes	Clearance rate for total reported crime	SESNSP, INEGI
		Clearance rate for intentional homicide	INEGI
		Percentage of total prison population awaiting conviction	SSP
Outcome variables	Crime rates	Violent crime as a share of total reported crime	SESNSP
		Intentional homicides	INEGI, CONAPO
		Vehicle theft reports per 10 000 registered vehicles	SESNSP
		Victimisation rate	National Victimization Survey, INEGI
		Estimated reported crime as a share of total crime	National Victimization Survey, INEGI, SESNSP
	Trust in criminal justice institutions	Trust in institutions: police (state and municipal)	National Victimization Survey, INEGI
		Trust in the court system: public prosecutors and judges	National Victimization Survey, INEGI
	Perceptions of safety	Perceptions of safety	National Victimization Survey, INEGI

However, in addition to measuring the quantity of investments and resources, understanding their quality can be equally important. For instance, further information on the recruitment, training and performance management of criminal justice employees would provide valuable insights into the skills and competencies of human resources, as well as the incentive structure in place for better individual performance. Likewise, the compensation or remuneration practices for police/judges/prosecutors and prison officials can help evaluators better understand potential vulnerabilities to corruption.

As we have seen, the capacity dimension of performance corresponds to the "inputs" and "processes" categories of indicators. As a general trend, input data are the most common performance information utilised in evaluations due to their availability and accessibility, as line ministries and parliaments are generally required to monitor and disclose financial and operational information on spending in their annual budgets as well as mid-year and end-year audits/reports. Indeed, this category of indicators accounts for nearly half of the variables included in this chapter. The amount of sub-national government outlays destined for (and federal transfers received by) the administration of criminal justice institutions are therefore presented here, along with the numbers of police, judges and prosecutors scaled to the size of the regional population. Additionally, information on prison capacity is included as an indicator of the available infrastructure in the prison system. One finding that has emerged from this exercise is that further information is required on the public management practices of criminal justice institutions at the sub-national level in Mexico. Developing a standardised method of collecting this information, either through existing survey instruments or through the development of a tailored framework, could be considered as a next step for measuring the performance of criminal justice institutions at the regional level.

1. State appropriations for criminal justice

In the absence of detailed expenditure data at the sub-national level, the amount of state appropriations allocated to criminal justice institutions and their policies provides one proxy for the financial resources invested in preventing and combating crime in each state. These data sum up regional governments' budget itemisations related to three main areas: *i)* public safety, crime prevention and the penitentiary system; *ii)* justice prosecution; and *iii)* the court system.

A higher percentage of appropriations relative to the total budget, however, could have a couple of explanations: it may suggest a higher priority, or political attention, placed on this issue relative to other policy areas. It could also be a reflection, however, of greater need, *e.g.* states with higher incidences of crime may require greater financial investments in this area than states with less crime.

On average across the states, appropriations on criminal justice account for 6.4% of the total state budget, or just over 0.7% of state GDP – the large majority of states stay close to this figure. Mexico's Federal District has the highest amount of appropriations (14.4% of its budget), mainly because of its large police force. The state of Puebla shows the lowest appropriations (2.5% of its budget). Nuevo León is the state with the largest positive change between the years 2009-2011 with a 2.8 percentage point increase in criminal justice appropriations. Conversely, Sinaloa ranked last with a reduction of 2 percentage points in the same period.

Definitions and methodology

Data were compiled from each state's approved (final) annual budget and include those line items appropriated to the three categories described in the text. Please see indicator 2 of this chapter for a description of the categories of appropriations constituting this aggregate. These appropriations are summed and divided by the total annual approved budget for each state. Data refer to fiscal years not calendar years.

It is important to note that these appropriations also include transfers received from the federal budget. Please see indicator 4 for data on federal transfers.

In the absence of detailed expenditure data, budget appropriations can act as a proxy for government spending. As opposed to government expenditures, which represent funds already spent, appropriations represent line items in the budget approved for spending for certain purposes. However, they represent government intentions (not actions) and are subject to change. For instance, there is some flexibility on the part of different agencies on how and when appropriated funds may be used (*e.g.* they may be transferred to other programmes under their policy portfolios and/or be carried over to the next fiscal year).

For Baja California Sur, the total corresponds only to public safety and prosecution appropriations.

In Figure 3.4, the black label represents average of states with available data.

Sources

Data for this indicator are compiled from the annual state budget (final) approved by each state's legislature. Data for states' GDP are from the National Geography and Statistics Institute (INEGI).

Reference years

All data corresponds to fiscal years 2009-2011. For the following states, data was only available for the noted years: Queretaro (2011), Jalisco (2010-2011), Puebla (2010-2011) and Tlaxcala (2010-2011).

Figure 3.1. **State appropriations on criminal justice as a percentage of total state budgets (2011)**

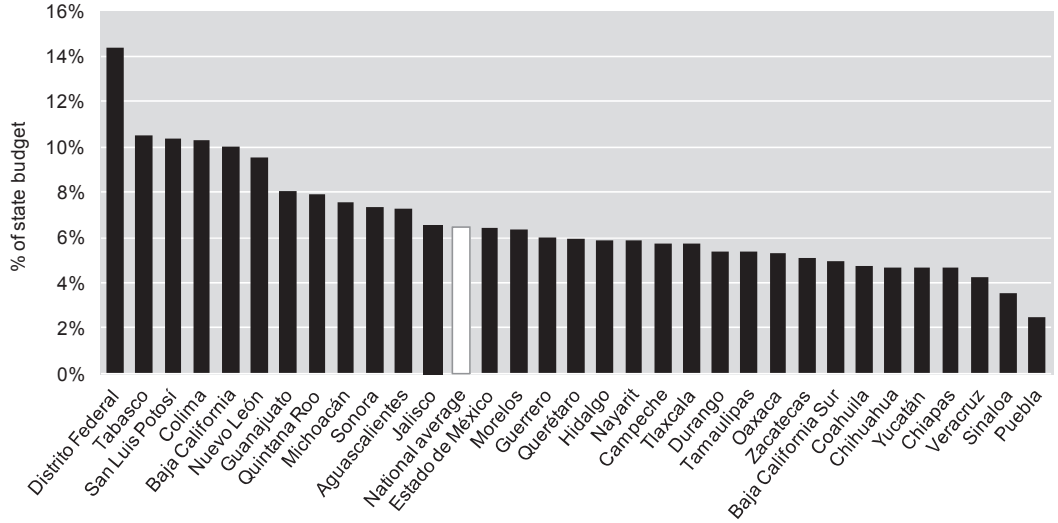


Figure 3.2. **State appropriations on criminal justice as a percentage of state GDP (2011)**

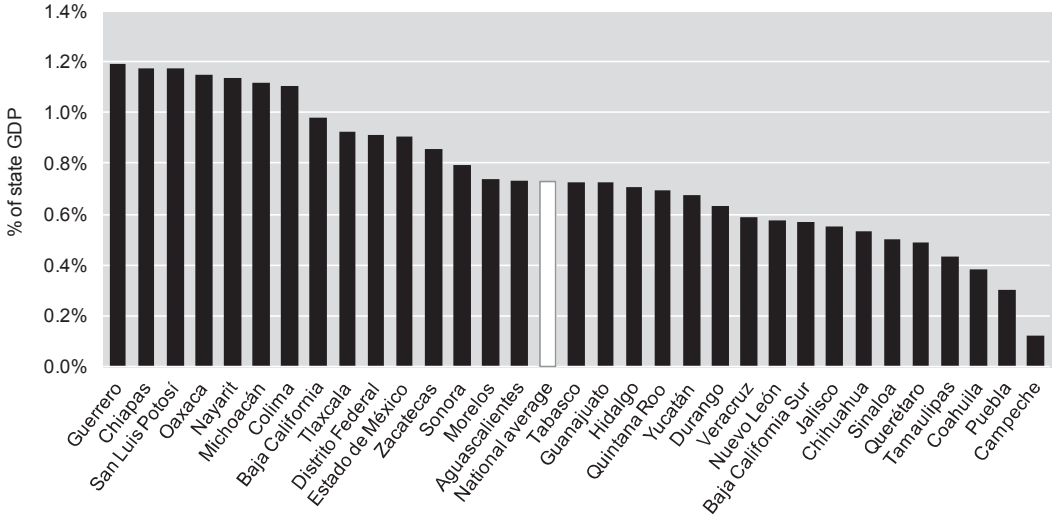


Figure 3.3. **Change in state appropriations on criminal justice as a percentage of total state budgets (2009-2011)**

In percentage points

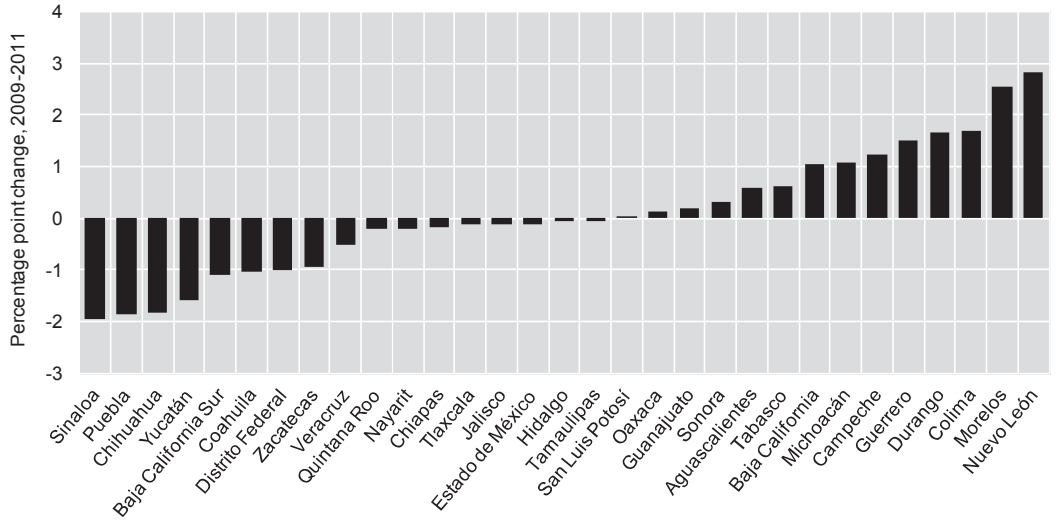


Figure 3.4. **Dispersion analysis: State appropriations on criminal justice as a percentage of total state budgets (2011)**

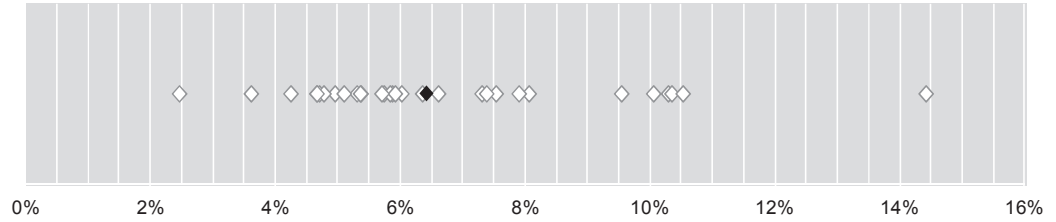


Figure 3.5. **Geographical analysis: State appropriations on criminal justice as a percentage of total state budgets (2011)**

Note: The intervals for the geographical analysis maps are: 1st interval: Values lower than mean minus one standard deviation; 2nd interval: Values between 1st interval and the mean; 3rd interval: Values between 2nd interval and values of mean plus one standard deviation; 4th interval: Values higher than mean plus one standard deviation. This map is for illustrative purposes only and is without prejudice to the status of or sovereignty over any territory covered by this map.

2. State appropriations for criminal justice by function

Further disaggregation of state appropriations on criminal justice institutions can be useful for identifying the priorities and main cost components within this area of spending. Having a better understanding of the individual components of spending provides greater insights into which specific areas may be the key "levers" related to certain outputs, and ultimately, crime reduction. For instance, appropriations for public safety and crime prevention, which correspond namely to the police force and to the penitentiary system, may correlate more strongly with incidences of crime than with other categories of spending. On the other hand, justice prosecution and court system appropriations may be more related to the functioning of the courts, *e.g.* clearance rates and average processing times. Further research is needed to establish causality between these variables, but without the necessary disaggregation of data such analyses cannot be performed.

On average across the states, the highest area of spending is on public safety and crime prevention, with on average 47% of the total state budget for criminal justice. Comparatively, justice prosecution receives 29% and the court system 24%.

From an efficiency perspective, appropriations by function are also crucial for understanding the key cost drivers of criminal justice institutions and identifying potential good practices. Given similar demands or socio-economic conditions across certain states, comparisons may reveal which states can produce the same outputs with fewer resources. Again, detailed expenditure data is needed for calculating unit costs (*e.g.* cost per case, for instance).

However, the relationship between financial inputs and performance is not always evident. The most interesting observation made after ranking states by the percentage of appropriations allocated to public safety and crime prevention (see Figure 3.6), for instance, relates to the states of Chihuahua and Sinaloa. Although these two states have very high criminal incidence levels, they do not allocate funds intensively towards the prevention of crime and public safety. The lack of expenditure may account for the low performance levels. On the other hand, Coahuila has quite intensively assigned funds towards the prevention of crime and public safety. This important allocation might be a response to increasing levels of criminal incidence.

Conversely, with regards to ranking states according to the share of funds dedicated to justice prosecution and the court system, it could be expected that states with lower levels of criminal incidence have a higher proportion of appropriations destined towards prosecution and the criminal justice system, the main reason being that those states do not have to spend larger amounts of resources towards crime prevention and public safety and should rather focus on a more efficient handling of those individuals that were indicted. Yet the two states that rank the highest, Chihuahua and Sinaloa, do not fit this profile. The state of Tlaxcala has low levels of criminal incidence but dedicates few resources to the criminal justice system.

Definitions and methodology

Data were compiled from each state's approved (final) annual budget. Budgetary line items relevant to criminal justice appropriations were aggregated into three categories: *i)* public safety and crime prevention represent mostly preventive and responsive police duties; *ii)* prosecution refers to the part of the criminal justice system responsible for processing reported crime, investigative criminal duties and representing the state in the criminal trial; *iii)* the court system refers to the state's judicial branch in charge of maintaining the district courts and administrating trials. These appropriations are summed and divided by the total annual approved budget for each state. Data refer to fiscal years, not calendar years.

A strong weakness of the data on court system appropriations is that there is no distinction between appropriations for civil and criminal law systems. The court system appropriations presented in these indicators, therefore, overestimate the appropriations for criminal courts. Second, it is important to note that these appropriations also include transfers received from the federal budget.

Most states present sufficiently disaggregated data that enable the compilation of this indicator. However, the following states use a different reporting methodology, which makes this variable unavailable: Coahuila's state budget merges public safety and prosecution; Queretaro merged public safety, prosecution and the judicial branch into one category before 2011; and Zacatecas before 2010.

Please see indicator 1 of this chapter for further information on the differences between expenditures and appropriations.

Source

Data for this indicator are compiled from the annual state budget approved by each state's legislature.

Reference years

All data are compiled for the fiscal years 2008-2011, with the following exceptions; Durango (2011), Queretaro (2011), Jalisco (2010-2011), Nayarit (2010-2011), Puebla (2010-2011) and Tlaxcala (2010-2011).

Figure 3.6. **Structure of criminal justice appropriations by function (2011)**

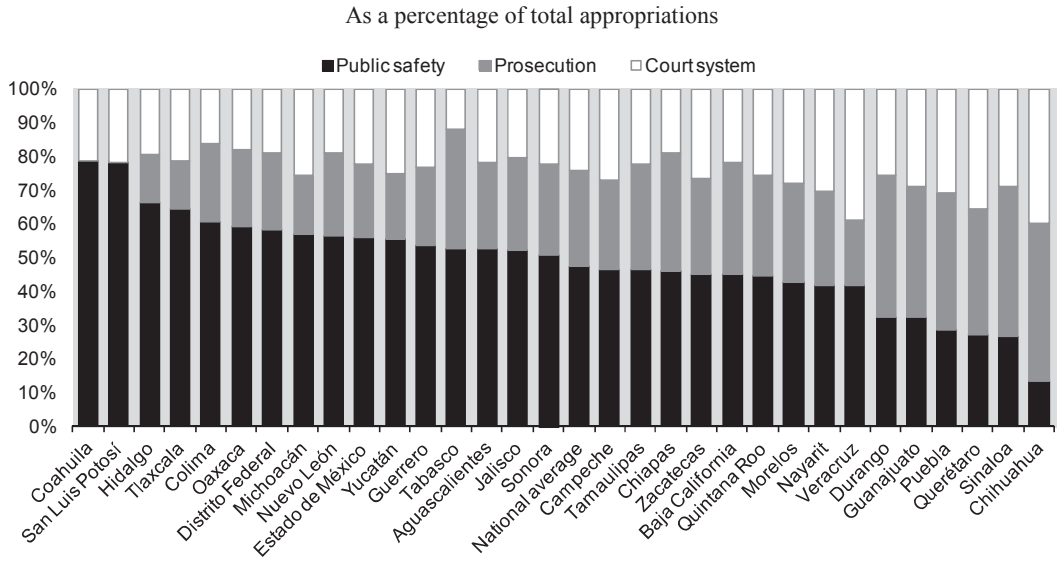


Figure 3.7. **Criminal justice appropriations by function (2011)**

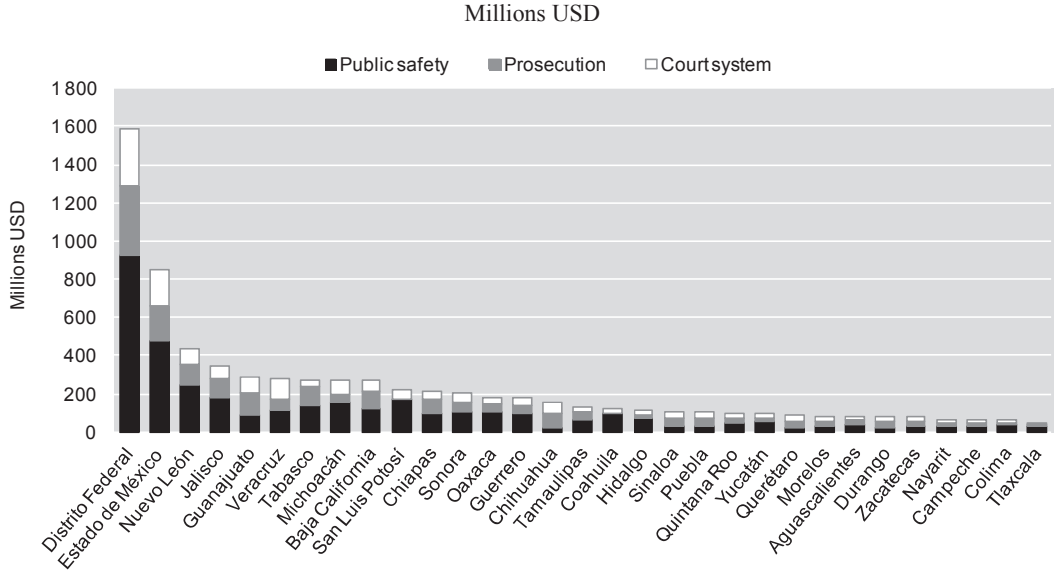
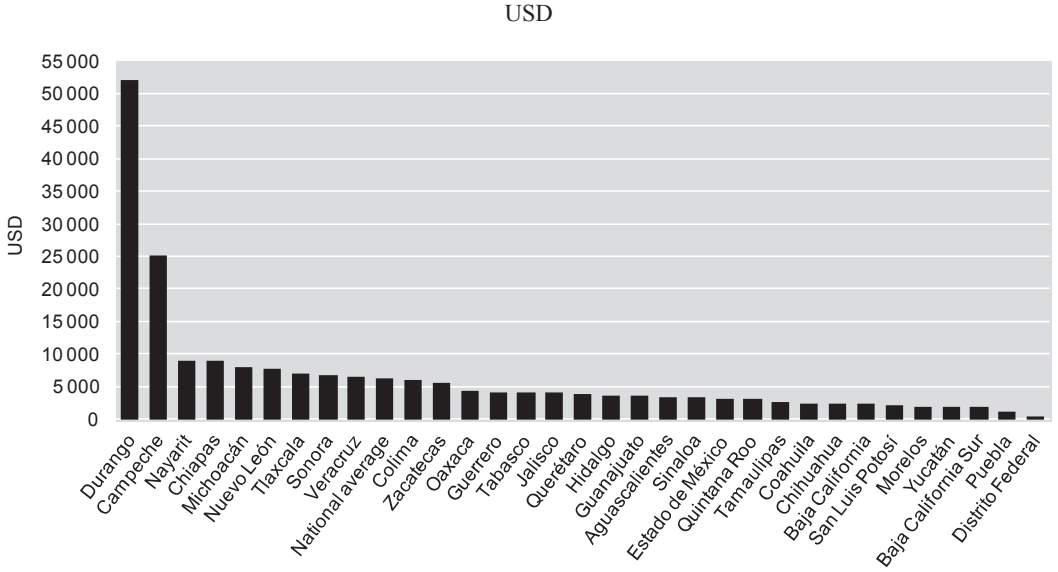


Figure 3.8. **Criminal justice appropriations by crime (2011)**



3. State appropriations on criminal justice per inhabitant

While criminal justice appropriations are one important proxy of governments' efforts towards criminal justice, scaling these appropriations to the state population is important for data interpretation. Indeed, more (or less) spending on criminal justice could, and often does, reflect the higher (or lower) demands due to population size. Additionally, excluding federal transfers, criminal justice appropriations on a *per capita* basis can provide an indication of the tax/revenue burden on individuals for maintaining spending on criminal justice over the longer term relative to other public goods and services.

Because this variable is the one the most related to the state efforts towards law enforcement and criminal justice, it is expected to be strongly correlated to access to justice, efficacy and efficiency indicators. Furthermore, it would be expected that states with higher *per capita* appropriations for criminal justice have better overall criminal incidence outcomes, justice system performance outcomes and, consequently, higher public perception outcomes such as public trust in institutions and perceptions of public safety.

The first striking result from comparing all Mexican states in this category (Figure 3.9) is the extremely high amount – almost USD 180 per person – appropriated by the Federal District for criminal justice. It significantly outperforms most states in this category, which is impressive given the size of its population. In comparison, the only other state with comparable population levels, the State of Mexico, spends less than a third of what the Federal District spends per inhabitant. With USD 18, the state of Puebla allocates the least amount of funding per inhabitant towards criminal justice. Another interesting result is that the states of Coahuila, Tamaulipas and Chihuahua all rank significantly below the national mean despite facing high elevated criminal incidence outcomes. Finally, dispersion analysis (Figure 3.11) shows that per inhabitant expenditure on criminal justice is comprised between USD 50 and USD 60. While there are a few extreme outliers, most states spend similar amounts of resources per inhabitant, a fact that might be useful for future benchmarking and comparison.

Definitions and methodology

This indicator represents the state appropriations on criminal justice divided by each state's respective population that includes all state residents. It is important to note that these appropriations also include transfers received from the federal budget. Please see indicators 1 and 2 for a description of appropriation categories and the difference between expenditures and appropriations.

To facilitate international comparison, all state appropriation figures were converted into USD, utilising the 2011 exchange rate average from the Bank of Mexico whereby USD 1 = MXN 12.43.

Sources

Data for this indicator are compiled from the annual state budget approved by each state's legislature. Relevant population data comes from Mexico's National Population Council (CONAPO) projections. National Population Council (CONAPO) Database on Population Projections for years 2008-2011, *www.conapo.gob.mx/en/CONAPO/Proyecciones*.

Reference years

All data compiled for the fiscal years 2008-2011, with the following exceptions: Durango (2011), Queretaro (2011), Jalisco (2010-2011), Nayarit (2010-2011), Puebla (2010-2011) and Tlaxcala (2010-2011).

Figure 3.9. **Criminal justice appropriations per inhabitant (2011)**

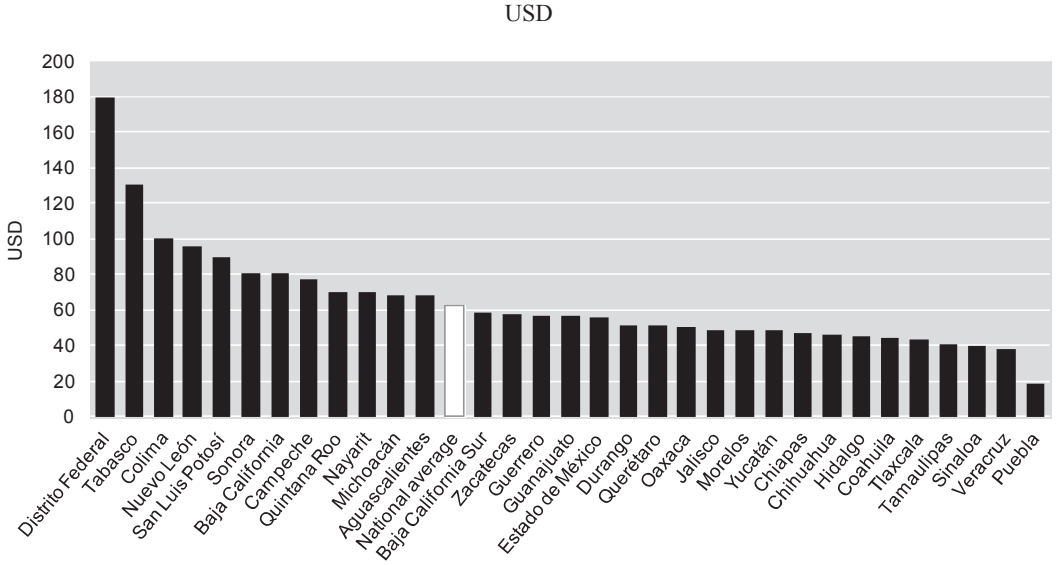


Figure 3.10. **Criminal justice appropriations per inhabitant by function (2011)**

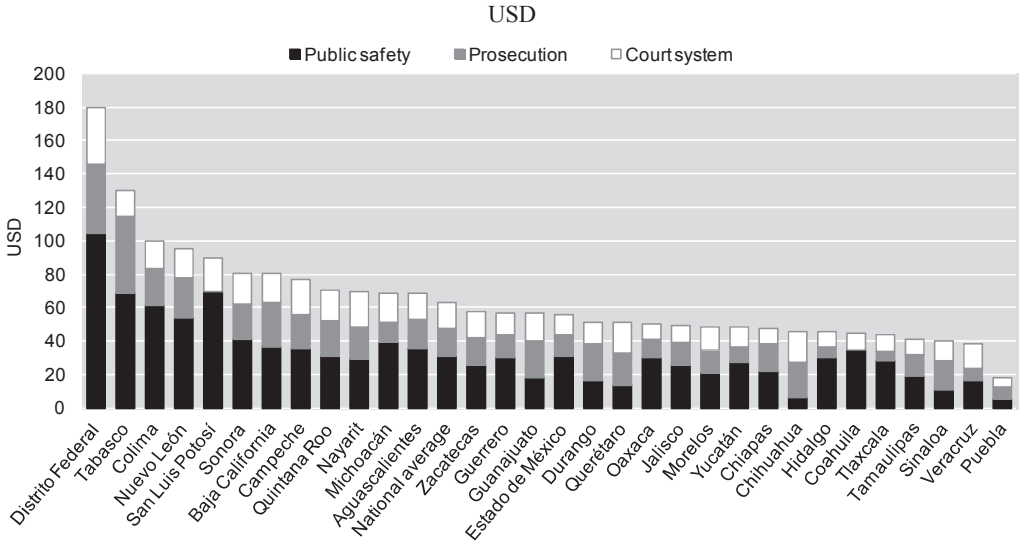


Figure 3.11. **Dispersion analysis: Criminal justice appropriations per inhabitant (2011)**

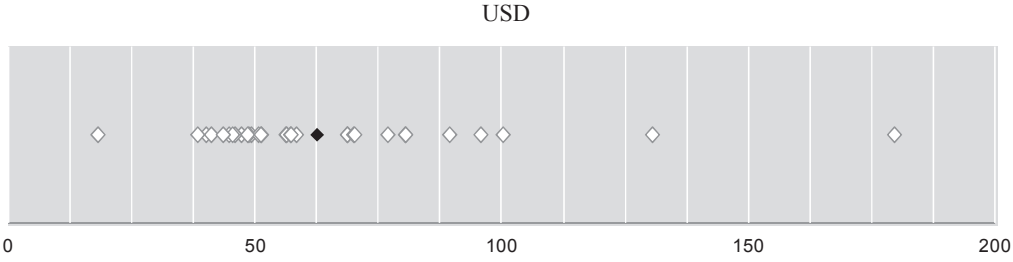


Figure 3.12. **Geographical analysis: Criminal justice appropriations per inhabitant (2011)**

Note: This map is for illustrative purposes only and is without prejudice to the status of or sovereignty over any territory covered by this map.

4. Federal transfers to states for criminal justice

In September of each year Mexico's lower chamber of Congress approves the budget for the upcoming fiscal year. A sizeable part of this budget consists of transfers that are assigned to the states to fulfil a variety of specific objectives, including the functioning of criminal justice institutions. The indicators below examine the resources transferred by the federal government to the state governments that are subsequently directed towards crime prevention, public safety and law enforcement objectives. The amount of transfers a state receives can depend on a number of factors, including need (*e.g.* incidences of crime) or population.

The transfers included in this category are directly aimed at improving the functioning of state-level institutions that have public safety, law enforcement and, to a lesser degree, criminal justice competencies. In contrast to most state-level appropriations, these federal transfers provide resources to improve the mentioned institutions, for example by improving and training police forces or by facilitating the transition to the new criminal justice system characterised by oral trials. Due to their origin, it is also important to note that these transfers are subject to supervision and evaluation by the federal government.

The federal transfers included for this indicator originate from two main programmes: the Accountable Police Programme and the Public Safety Contributions Fund (FASP), which is the most sizable of the two. FASP transfers for fiscal year 2011 are determined by the following formulaic allocation: population (40%), criminal incidence levels (25%), vetting of the state police force (15%), reporting of public safety information (15%) and previous use of public safety federal transfers (5%). The Accountable Police Programme transfers a bulk USD 2.4 million for those states subscribed to the programme with up to an additional USD 8 million depending on results. Other federal programmes for the improvement of state-level public safety and criminal justice exist but the programmes considered for this indicator only include those where resources were directed towards state governments. These additional programmes include, but are not limited to, the Municipal Public Safety Subsidy (transfers to municipalities).

By combining this information with the states' budget appropriations, the percentage of law enforcement and criminal justice state expenditures that originates from federal sources can be estimated. This indicator is valuable for a number of reasons. Firstly, as a measure of "dependency" and state effort: showing to what extent a particular state is spending its own resources on public safety. Secondly, it allows an analysis on how effectively and efficiently the federal government allocates its law enforcement/criminal justice transfers. Accordingly, it would be interesting to see if the federal government is transferring more resources to states with the most pressing needs of reform and improvement, such as those under current pressure from large-scale drug trade organisations.

On average, federal government transfers for criminal justice purposes represent about USD 8.3 per person. Federal transfers accounted, on average, for 14.2% of total criminal justice appropriations. The ranking of Mexican states according to the percentage of federal transfers that constitute their public safety, law enforcement and criminal justice appropriations (Figure 3.13), does not yield a clear result. Interestingly, the first ranked state, Tlaxcala, has a low population and a low criminal incidence level, yet still almost a quarter of its outlays come from federal sources. Admittedly, states with those characteristics have little incentive to invest in law enforcement due to their low

criminality levels. In contrast, the Federal District, because of its huge expenditure, has a very low share of federal transfers in its criminal justice budget. Similarly, the State of Mexico also has very large outlays for criminal justice objectives and ranks second to last.

In general, federal transfers seem to be tightly packed in between 10% and 20% of total criminal justice appropriations with only a few states outside of this range. Some states, notably Nuevo León, Michoacán, Jalisco, Baja California and Veracruz, receive transfers below the national average despite public safety concerns in these regions.

Definitions and methodology

Mexico's national Congress annually approves a number of transfers to states intended for a variety of law enforcement and criminal justice uses. These include an assortment of expenditures towards outcomes such as the training of state police forces, the national public security system and the transition to the new penal justice system. In general, these federal transfers come from formulaic allocation that takes into account indicators such as the state's population and the reported crime levels. These transfers were summed and divided by each state's criminal justice and law enforcement appropriations.

It is important to note that the ratios shown here reflect a proxy in the absence of detailed expenditure data at the sub-national level in Mexico. Though all figures are attained from official budget documents, the numerator and denominator of the ratios are from two different sources (*e.g.* federal budgets *vs*. states' budgets).

In Figure 3.14, the black label represents average of states with available data.

Sources

Annual federal transfers to states for public safety and criminal justice purposes are published by the Chamber of Deputies in the federation's annual budget: *www.secretariadoejecutivo.gob.mx/work/models/SecretariadoEjecutivo/Resource/394/1/images/Difusion_Asignacion_Resultados_FASP_2011.pdf.*

Detailed FASP and Accountable Police Programme transfers are published by the SESNSP (SEGOB, 2011).

Reference years

All data are compiled for fiscal year 2011 to correspond with state criminal justice appropriations.

Figure 3.13. **Share of states' criminal justice budget that originates from federal transfers (2011)**

In %

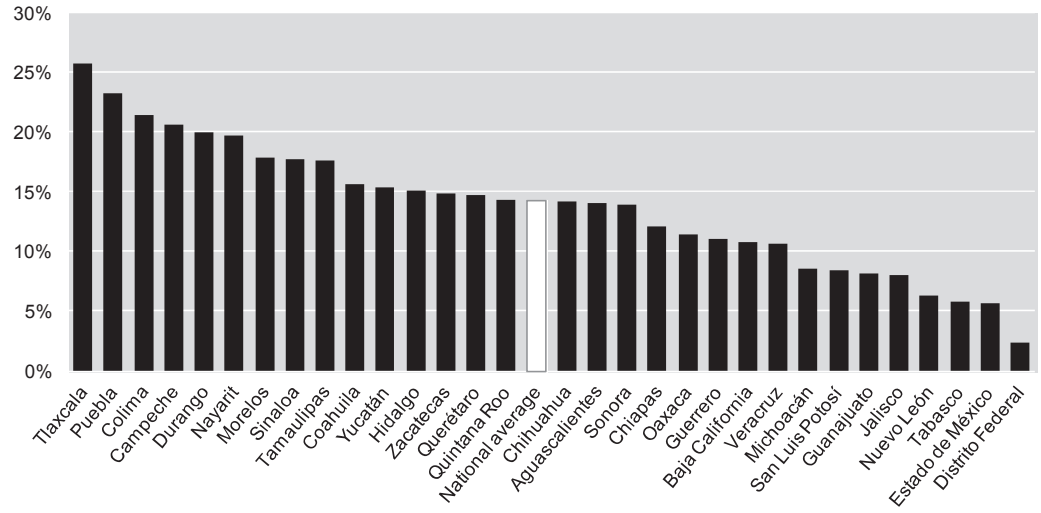


Figure 3.14. **Dispersion analysis: Share of states' criminal justice budget that originates from federal transfers (2011)**

In %

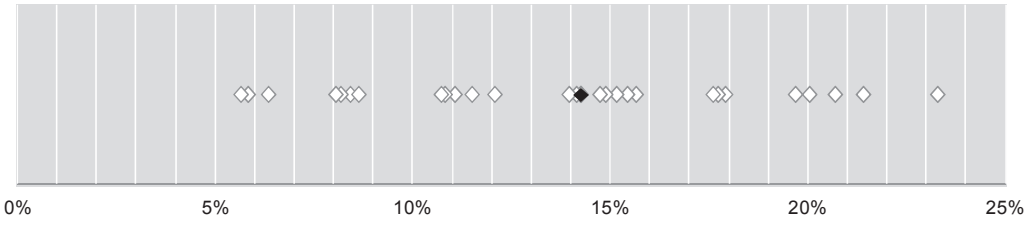


Figure 3.15. **Federal transfers per inhabitant for criminal justice (2011)**

USD

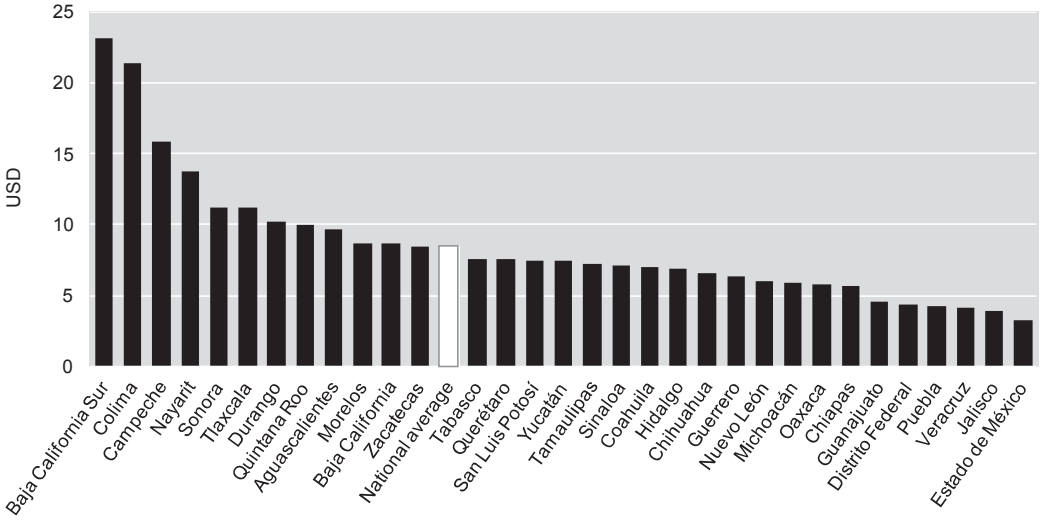


Figure 3.16. **Geographical analysis: Federal transfers as a share of total criminal justice appropriations (2011)**

Note: This map is for illustrative purposes only and is without prejudice to the status of or sovereignty over any territory covered by this map.

5. Police officers per 100 000 inhabitants and reported crimes per officer

In addition to the financial resources invested in improving security, the quantity of human resources allocated to this cause is also key. One would expect that the stronger the police presence, the less the criminal activity, or certain types of it. However, the causality of this relationship is difficult to discern as the number of police in the field is expected to increase with growing incidences of crime.

The relationship between the number of police and crime becomes more complex when considering the overlapping jurisdictions between municipal and state police, as well as the amount of under-reported crimes (less than 20% of crimes are reported).

Scaling the number of crimes to the number of police, for instance, could provide a better indication of the adequacy of the police force to the security situation of each state, if not an indication of the "burden" or workload on officers. However, the indicator is not immune to under-reporting, which must be considered when interpreting this variable.

In Figure 3.17, Mexican states are ranked according to the number of police officers per 100 000 inhabitants; with an average of 317. From this graphical analysis it is easy to see the very large number of police officers in the Federal District, which is even more impressive when considering the extremely large population within its jurisdiction. Additionally, the Federal District has a very small geographic area to serve, making police officers' access to any given place within the city easier. With numbers of this scale, it is surprising that the Federal District still ranks 4th in terms of the level of victimisation.

Across Mexico, there is an average of 5.4 reported crimes per police officer (Figure 3.20). Most notably, the majority of states currently suffering from a criminality crisis rank very high in regard to the number of reported crimes per police officer. This could be due to the natural lag between higher criminal incidence levels and the time needed to increase the state's capabilities to respond to such levels. It could also reflect limited budgetary resources in these states to increase police forces.

Definitions and methodology

This variable divides the state's police force (number of officers) by the corresponding state population and the total reported crimes by the state's police force. The state's police force includes municipal police, state police and investigative police (*Policía Ministerial*). For the Federal District it also includes bank and commercial police (*Policía Bancaria y Comercial*).

In general terms, municipal and state police are assigned to public safety and crime prevention tasks. Ministerial police perform investigative duties relevant to prosecution and could be considered equivalent to a detective police force. Bank and commercial police are mostly responsible for protecting bulk cash transfers and financial institutions.

Total reported crime was compiled by the National Public Safety System (SNSP) with information from the Office of the General Attorney for crimes of the federal charter and from each state's attorney's office for crimes of the local charter. The difference between crimes of the local and federal charter is described in the section "Prosecutors per reported crimes".

In Figure 3.18, the black label represents average of states with available data.

Sources

Police force data was compiled from a publication by the Executive Secretariat of the National Public Safety System (SESNSP), a dependency of the federal executive power (SEGOB, 2011): "The State of the Police Forces".

www.secretariadoejecutivosnsp.gob.mx/en/SecretariadoEjecutivo/Estado_de_Fuerza_de_las_Corporaciones_Policiales_Estatales. Total reported crime as compiled by SESNSP, using federal and state reported crime data. Population data obtained from CONAPO.

Reference years

All data refer to the year 2011.

Figure 3.17. **Number of police officers per 100 000 inhabitants by state (2011)**

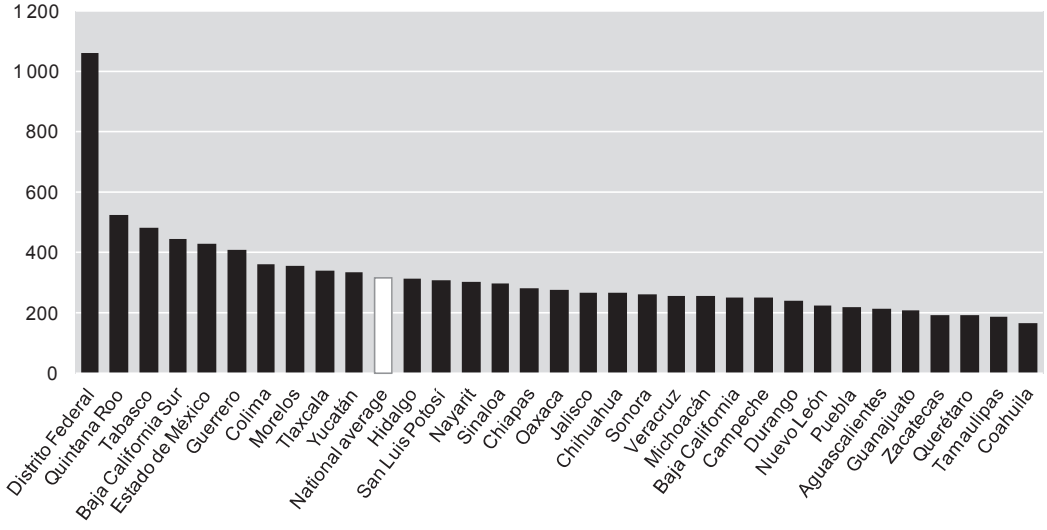


Figure 3.18. **Dispersion analysis: Number of police officers per 100 000 inhabitants (2011)**

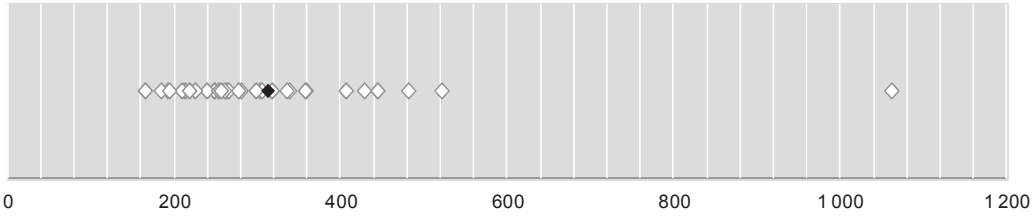


Figure 3.19. **Geographical analysis: Number of police officers per 100 000 inhabitants (2011)**

Note: This map is for illustrative purposes only and is without prejudice to the status of or sovereignty over any territory covered by this map.

Figure 3.20. **Number of reported crimes per police officer (2011)**

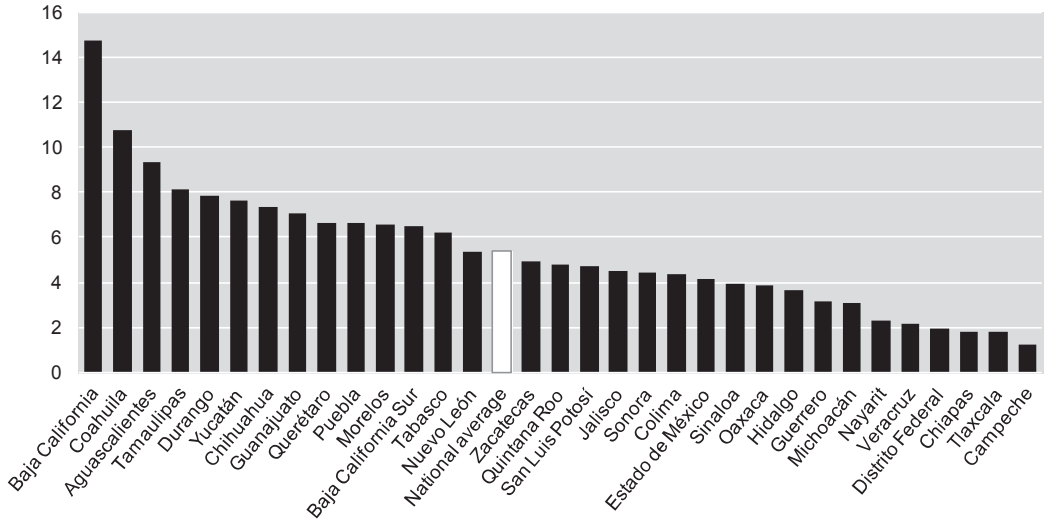


Figure 3.21. **Geographical analysis: Number of reported crimes per police officer (2011)**

Note: This map is for illustrative purposes only and is without prejudice to the status of or sovereignty over any territory covered by this map.

6. Reported crimes per public prosecutor

In addition to the number of police, the number of public prosecutors can provide another important indication of capacity. The number of reported crimes per public prosecutor gives an estimate of the workload that each state prosecutor must undertake, and may point out those states in which the number of prosecutors is insufficient.

Additionally, such data can be one of several indicators that could be examined from an efficiency perspective. It may be expected that a high number of reported crimes per prosecutor would relate – to some extent – to a higher average processing time of cases

reflected in pre-trial populations, as well as clearance rates. It is important to note, however, that several other factors might also lead to increased efficiency, such as the use of ICT or more streamlined procedures for case management.

The average number of reported crimes per prosecutor is 226. The state with the largest number of crimes per prosecutor was Yucatán with 1 017; the state with the lowest number was Campeche (23).

Definitions and methodology

This indicator divides the number of reported crimes (for both the federal and local jurisdiction) by the number of public prosecutors (of the respective federal or local charter).

Federal charter crimes include criminal behaviours such as organised crime, electoral crime, crime committed by public officials and behaviour that directly affects the federation, such as those related to natural resources. Local charter crime includes the most frequent criminal activities such as property crime, assault and homicide.

The total number of public prosecutors is compiled by INEGI, taking into account those of the federal charter from the Office of the General Attorney and those of the local charter from the state's attorney offices.

Total reported crime is compiled by SNSP with information from the Office of the General Attorney for crimes under the federal charter and from each state's attorney office for crimes under the local charter.

In Figure 3.23, the black label represents average of states with available data.

Sources

Public prosecutor data are compiled from INEGI. Total reported crime as compiled by SESNSP, using federal and state crime report data.

Reference years

Public prosecutor data is available for years 1994-2009.

Figure 3.22. **Number of reported crimes per public prosecutor (2009)**

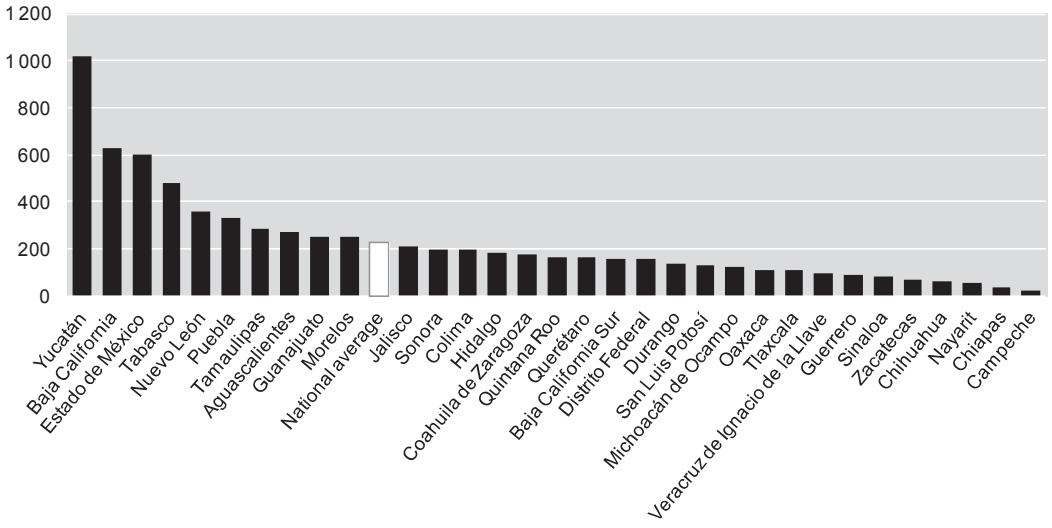


Figure 3.23. **Dispersion analysis: Number of reported crimes per public prosecutor (2009)**

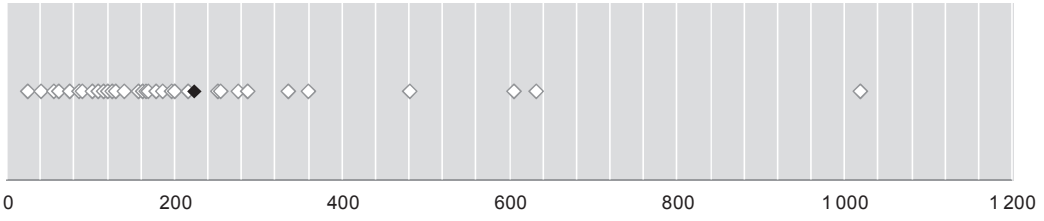


Figure 3.24. **Geographical analysis: Number of reported crimes per public prosecutor (2009)**

Note: This map is for illustrative purposes only and is without prejudice to the status of or sovereignty over any territory covered by this map.

7. Prison capacity per 100 000 inhabitants

The relevance of this indicator is based on its ability to show how well-prepared a state's criminal justice system is in relation to the incidence of crime. It also provides critical information on pressure for court sentencing (*e.g.* highly overcrowded prisons may suggest a need for alternative solutions to traditional punishment). State governments should strive for sufficient prison capacity to adequately allow offenders to be processed, indicted and sentenced through their court systems.

Each state should have a sufficient prison capacity (considered here as the number of prisoner spaces) to accommodate the expected number of incoming inmates. Due to the difficulty of expanding prison capacity rapidly, states should, in theory, have a buffer, implying an unused capacity to house inmates in the eventuality of a higher number of inmates than expected. Alternatively, such information should influence sentencing and legal reform, to allow for alternatives to imprisonment for certain crimes. Also, states with higher historical criminal incidence rates should accordingly have greater prison capacities.

Figure 3.25 ranks Mexican states according to their prison capacity. The average prison capacity in Mexican states was 179 prisoner spaces per 100 000 inhabitants, with the highest value in Baja California (446) and the lowest in Hidalgo (27.9). With the exception of Colima, the majority of states with high prison capacities are those that have had historically higher criminal incidence rates, for example Baja California and the Federal District.

Definitions and methodology

This indicator divides the number of prisoner spaces (prison capacity) for each state by the state's total population (total residents).

One key weakness of this indicator, however, is that this data only takes into account those prisoners recorded by the state government, even though the prison population may also include inmates of the federal charter. Such information could therefore provide an under-estimation.

In Figure 3.27, the black label represents average of states with available data.

Sources

Prison capacity compiled from a publication from the Federal Public Safety Secretariat (SSP), an organisation of the federal executive branch (SSP, 2012). Relevant population data from CONAPO.

Reference years

Prison capacity data is only available for 2011.

Figure 3.25. **Prison capacity (number of prisoner spaces) per 100 000 inhabitants (2011)**

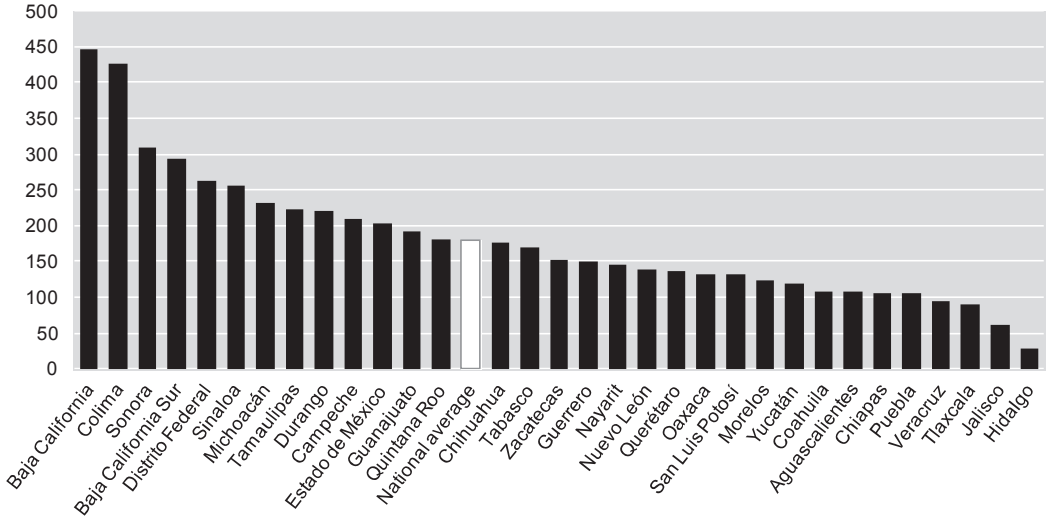


Figure 3.26. **Prison capacity (number of prisoner spaces) per 100 000 reported crimes (2011)**

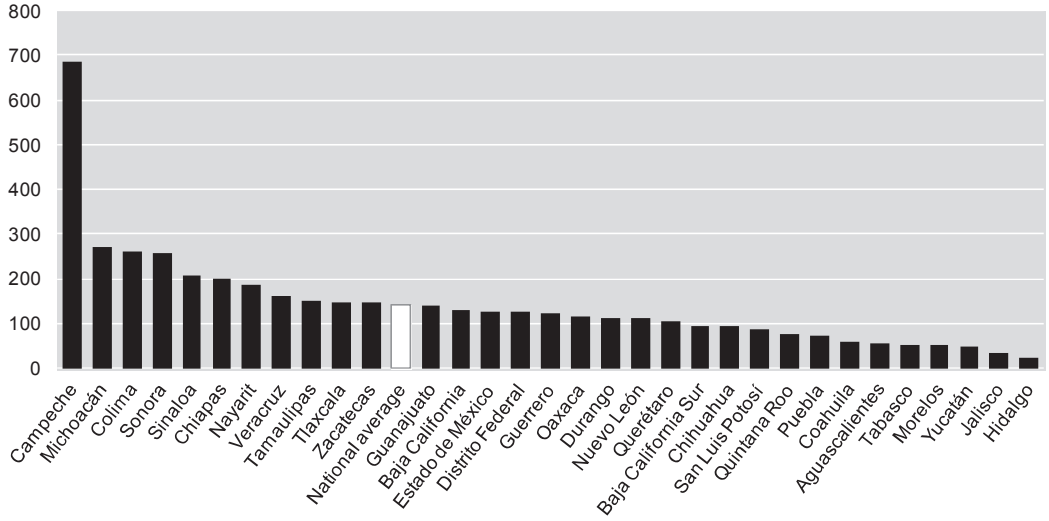


Figure 3.27. **Dispersion analysis: Prison capacity (number of prisoner spaces) per 100 000 inhabitants (2011)**

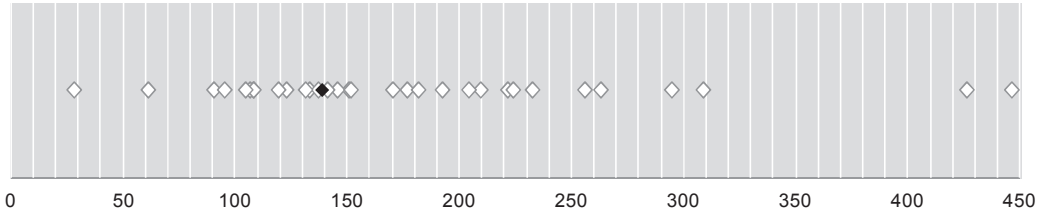


Figure 3.28. **Geographical analysis: Prison capacity (number of prisoner spaces) per 100 000 inhabitants (2011)**

Note: This map is for illustrative purposes only and is without prejudice to the status of or sovereignty over any territory covered by this map.

Figure 3.29. **Prison population per 100 000 inhabitants (2011)**

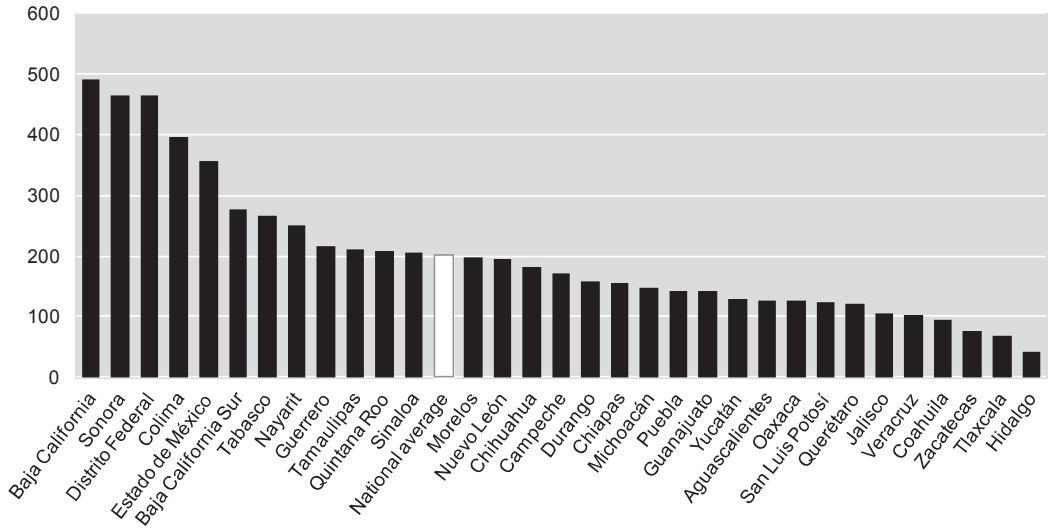
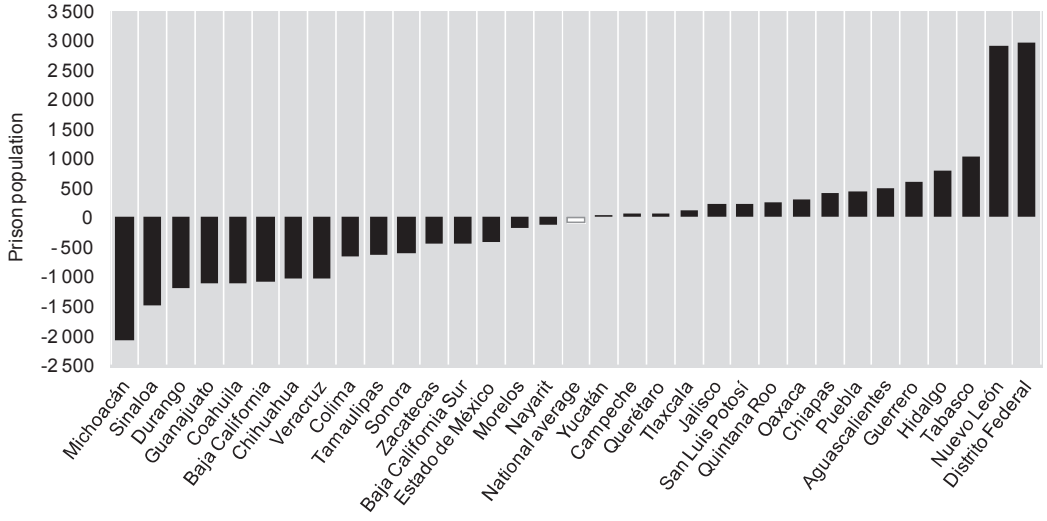


Figure 3.30. **Change in prison population between 2008 and 2011**



Output indicators

In addition to variables on inputs and processes, which can provide an indication of the capacities of criminal justice institutions and law enforcement agencies, indicators on outputs are needed to provide insights on whether these institutions and agencies are meeting their objectives and how wisely and efficiently they are utilising their allotted resources. Strictly defined, output variables are those related to the measurement of the goods and services produced by government agencies (*e.g.* in the education sector this could include teaching hours delivered to students in an academic year; in the health sector it could be the number of doctor consultations with patients, etc.). In the justice sector, these can be represented by such measures as the number of cases processed in a given amount of time, the number of convictions passed down, the number of inmates entering and leaving the penitentiary system, amongst others.

When outputs are matched with input data, they can be used as indicators of efficiency, to evaluate how well resources are being matched to needs and whether there is room for improvement (in speed, quality or quantity) given the resources invested. For instance, data in this section show that the number of police officers is correlated with a proxy for states' clearance rates (convicted crimes).

8. Clearance rate for total reported crime

As defined in this study, for a particular crime to be "cleared", several parts of the criminal justice system must effectively perform their assigned duties. Firstly, the police force must apprehend the suspect either *in flagrante delicto* (caught in the act) or as a result of an investigation; next, the state's attorney office and its prosecutors must perform the preliminary criminal investigation and proceed to prosecute the suspect in court; and finally, the court system must then try the offender. It is only after a suspect has been tried and a verdict declared that the crime is logged as cleared by federal and state authorities.

In this case, the variable only examines guilty convictions as a proxy for the "effectiveness" of law authorities to try and convict criminals. Certainly, however, this indicator does not demonstrate the quality of the decisions (*e.g.* whether guilty verdicts are accurate or whether sentencing was appropriate given the crime). Complementary variables for this indicator could therefore include the percentage of convictions appealed and overturned.

In Mexico, the average clearance rate was 9.4% in 2011. The state of Campeche had the highest clearance rate (nearly 32%), whilst Morelos had the lowest – less than 2% of reported crimes resulted in a conviction.

Definitions and methodology

The clearance rate is calculated by dividing the total number of resolved cases (with a guilty verdict) in a state by the total number of reported crimes (in the same state). Due to the different jurisdictions, the total number of convictions is collected from two sources: the federal government and individual state governments, which are summed together. This method of calculation is not without some weaknesses, since more than one person may be convicted for a particular crime, *e.g.* more than one person may be involved in a particular crime.

In Figure 3.33, the black label represents average of states with available data.

Sources

Total reported crime is drawn from data compiled by SESNSP. The total number of convictions is obtained from INEGI's penal system statistics database.

Relevant years

Data is compiled for years 2008-2010.

Figure 3.31. **Clearance rate for total reported crime (2010)**

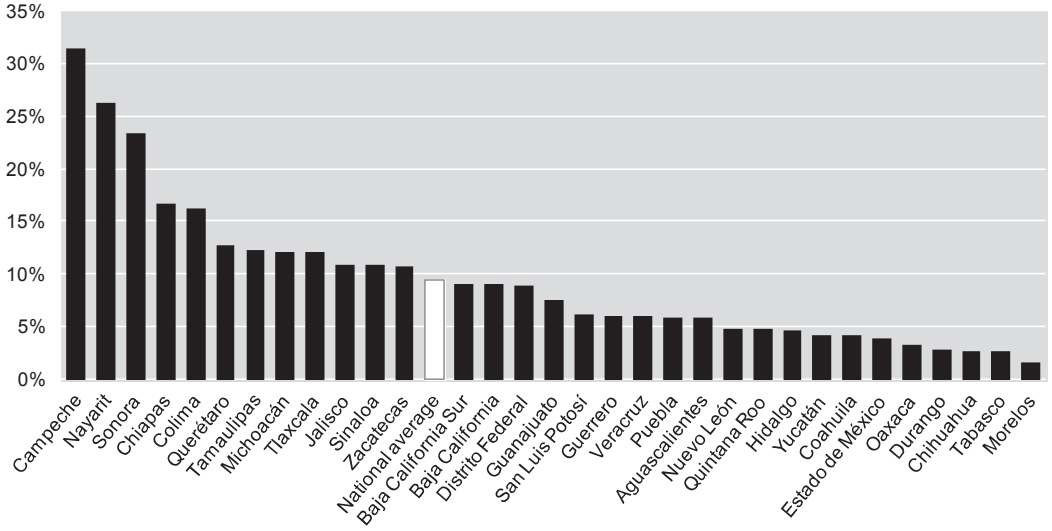


Figure 3.32. **Percentage point change in clearance rates (2009-2010)**

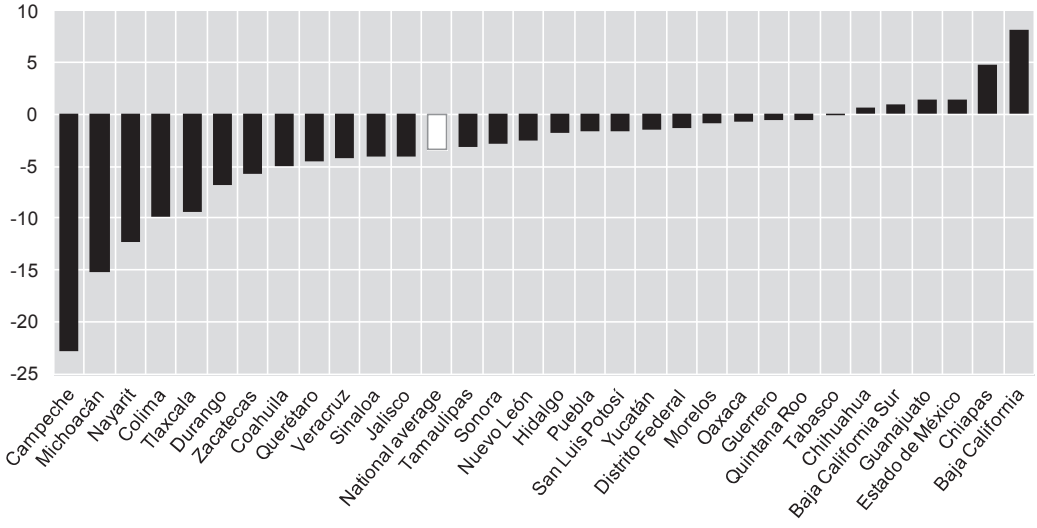


Figure 3.33. **Dispersion analysis: Clearance rate for total reported crime (2010)**

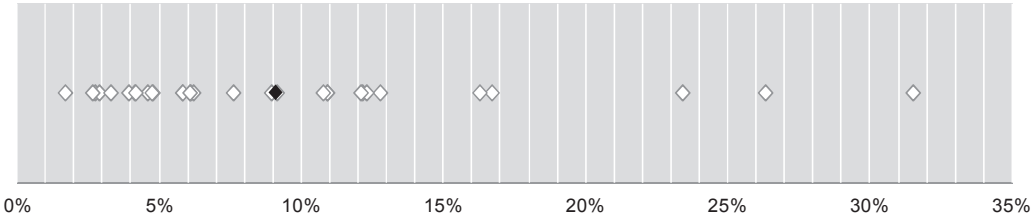


Figure 3.34. **Geographical analysis: Clearance rate for total reported crime (2010)**

Note: This map is for illustrative purposes only and is without prejudice to the status of or sovereignty over any territory covered by this map.

9. Clearance rate for intentional homicide

The previous indicator examined the clearance rate using data for total reported crimes in a state under both the federal and the local charters. It is also interesting to examine the clearance rate for a particular type of crime, both in terms of better accuracy (*e.g.* these are only counted under the local charter, therefore the data is more accurate), and because homicides, relative to other crimes, may be particularly tied to citizens' perceptions of security. Indeed, intentional homicide is much more visible and harmful than most other crime, and it is for this reason that criminal prosecution of this offense should also be much more stringent. That is why comparing the clearance rate for total reported crime with the clearance rate for intentional homicide can help us better examine the overall effort of each state to persecute and punish serious crime more intensely than overall crime.

As with the clearance rate for total crime, this indicator seeks to lend insight into the performance of the criminal justice system for this crime. However, it needs to be coupled with additional information (on the percentage of cases appealed and/or overturned) to provide information on the quality of the judicial decisions reached.

Using this method, the average clearance rate for homicide in Mexico was 63.9% in 2010, a figure substantially higher than the 9.4% for total reported crime. Comparing the highest ranking rate and the lowest ranking rate provides a striking piece of information; whereas Yucatán boasts a 247% rate (see below for an explanation), Chihuahua obtains only 2.9%. Most of the poorly performing states are those that have experienced a surge of intentional homicides in the past few years. A tentative explanation for this could be that those states have fallen into a feedback loop in which a higher number of homicides saturates the system, making each homicide less likely to be cleared.

Definitions and methodology

Analogous to the clearance rate of total reported crime, this indicator represents the percentage of total intentional homicides that result in a conviction (*e.g.* guilty verdict). This variable is calculated by dividing the total number of convictions for intentional homicide for a given year in a state by the total number of intentional homicides reported in that state in the same year.

As is the case with the clearance rate for total reported crime, this indicator may not be entirely accurate as one particular homicide may result in more than one individual being convicted. Indeed, as shown here, the clearance rate for intentional homicide may be higher than 100% due to reporting from previous years and/or more than one individual being convicted for the same crime.

In Figure 3.37, the black label represents average of states with available data.

Source

Total number of intentional homicides is compiled from INEGI's mortality statistics database. Total number of convictions for intentional homicide derives from INEGI's penal system statistics database.

Reference years

All data is compiled for years 2008-2010.

Figure 3.35. **Clearance rate for intentional homicides (2010)**

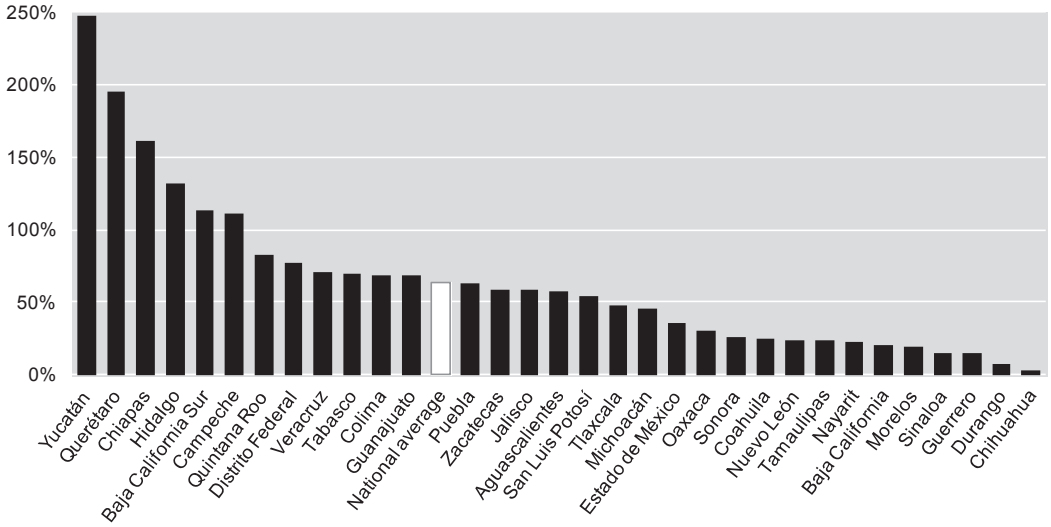


Figure 3.36. **Change in clearance rate for intentional homicides (2008-2010)**

In percentage points

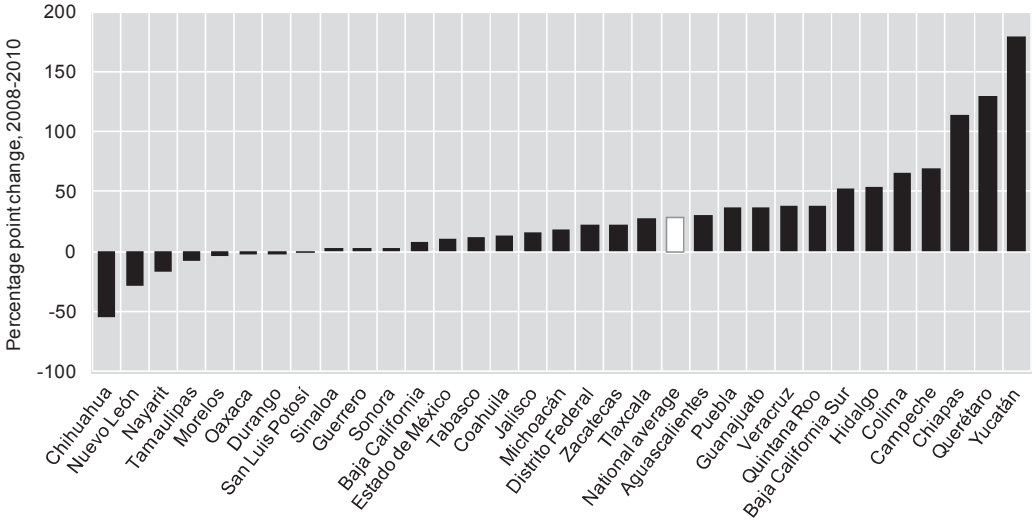


Figure 3.37. **Dispersion analysis: Clearance rate for intentional homicides (2010)**

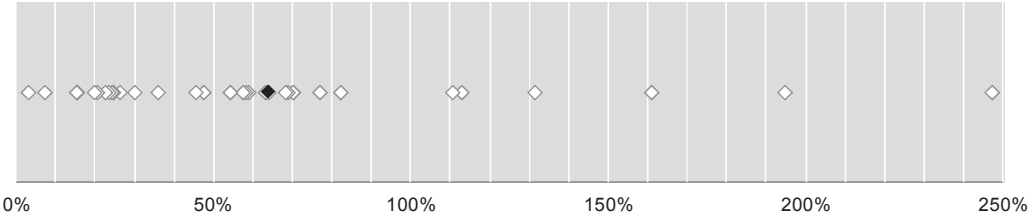


Figure 3.38. **Geographical analysis: Clearance rate for intentional homicides (2010)**

Note: This map is for illustrative purposes only and is without prejudice to the status of or sovereignty over any territory covered by this map.

10. Percentage of total prison population awaiting resolution ("pre-trial population")

The right to representation and a fair trial is a key tenant of the rule of law in developed countries. Indeed, the police may arrest and process a suspect for an alleged violation of the law, but the rule of law, in theory, guarantees the presumption of innocence until there has been a trial and formal resolution to the case (*e.g.* guilty or innocent verdict). A judicial system which is unable to uphold this basic right within a reasonable amount of time may be showing signs of backlog and/or inefficient case management processes or systems. In extreme cases, conceivably, an arrested inmate could remain in prison awaiting trial for a period longer than the standard sentence of the crime that he/she is accused of.

Therefore the share of the prison population awaiting trial (either those awaiting a first trial or those tried but awaiting sentence) could be one key effectiveness measure of how well justice systems are functioning. Additionally, this variable could point to the possible excessive use of preventive prison detention in certain states, whereby individuals that have been indicted are made to face trial while in prison. Legally, the use of preventive prison is only stipulated for suspects of serious crimes (*e.g.* homicide, organised crime, kidnapping), or when the individual is deemed a flight risk, yet this measure is notoriously overused.

Although this variable provides one useful indication, it is not without weaknesses. For instance, it does not demonstrate whether pre-trial inmates are kept in separate quarters from convicted prisoners. Second, such data would need to be coupled with information on the average length of time pre-trial inmates await a judge's decision. On the other hand, one could hypothesise that a large share of the pre-trial population may be positively correlated with average processing time. Finally, the indicator measures

two types of individuals; those indicted and awaiting trial and also those individuals under trial but not yet sentenced.

According to official government reports, on average 44.5% of the Mexican inmate population is awaiting trial. There is, however, great variation between states, with Baja California Sur having the highest pre-trial inmate population (approximately 64%) and Puebla the lowest (29%).

Definitions and methodology

Data reports the percentage of prison inmates in each state that have been processed (*e.g.* have been arrested and subsequently indicted by the prosecution) but not convicted by a judge. The indicator measures two types of individuals: those indicted and awaiting trial and those who are under trial but not yet sentenced.

The second variable represents the percentage of indictments that result in conviction (*e.g.* total indictments for a state divided by number of convictions in that state for the same year). Values can be greater than 100% due to indictments from previous years and/or more than one individual being convicted for the same crime.

In Figure 3.41, the black label represents average of states with available data.

Source

Indicator values are compiled from data published by SSP (2012). "Estadísticas del Sistema Penitenciario Federal", September, 2012 *www.ssp.gob.mx/portalWebApp/ShowBinary?nodeId=/BEA%20Repository/365162//archivo*.

Relevant years

Data are only available for the year 2011.

Figure 3.39. **Percentage of the total prison population awaiting conviction (2011)**

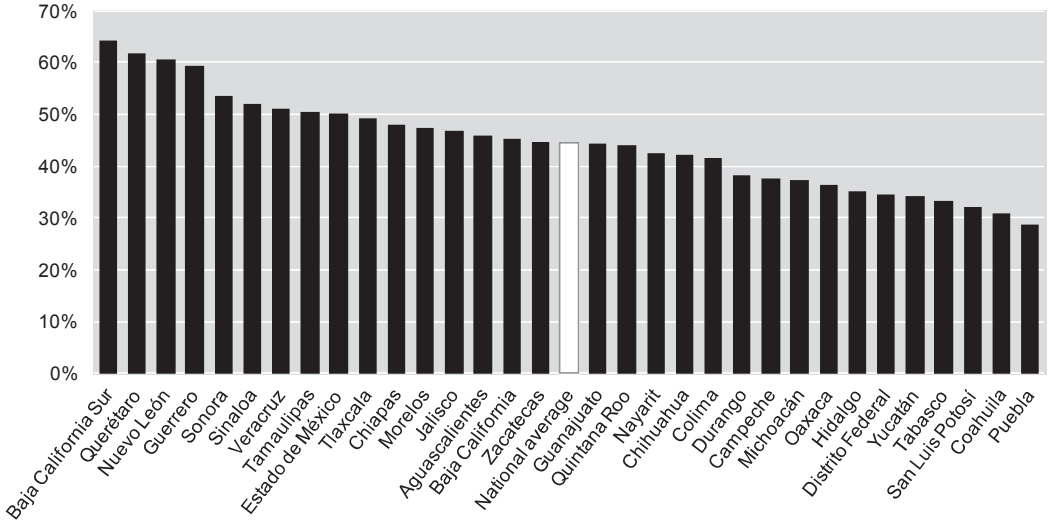


Figure 3.40. **Percentage of indictments resulting in a conviction (2011)**

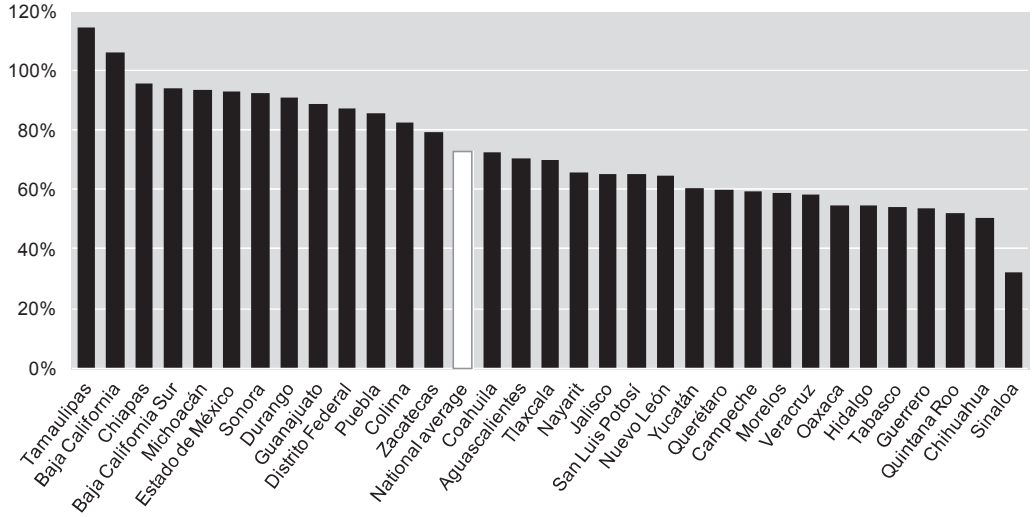


Figure 3.41. **Dispersion analysis: Percentage of the total prison population awaiting conviction (2011)**

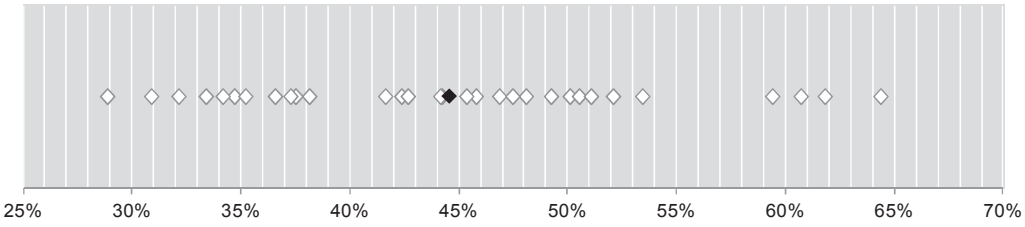


Figure 3.42. **Geographical analysis: Percentage of the total prison population awaiting conviction (2011)**

Note: This map is for illustrative purposes only and is without prejudice to the status of or sovereignty over any territory covered by this map.

Outcome indicators

The final dimension of performance indicators, outcomes, covers variables measuring the impact (whether intended or not) of governments' policies. They can range from more direct outcomes, *e.g.* crime rates, victimisation rates (as shown here), to more indirect outcomes (affected by additional external variables) such as trust in institutions and perceptions of safety, also included in this section. Outcome indicators are critically important as they view performance from the users' perspective (citizens and firms); however, they are also more sensitive to interpretation due to the other factors that can affect them. A few of these, such as poverty and inequality, have already been discussed in Chapter 1. Additionally, as we have seen in the case of the data in this chapter, these indicators should be interpreted with caution due to issues of comparability, the inherent weaknesses of perception data and missing observations (*e.g.* under-reporting of crime).

11. Violent crime as a share of total reported crime

Ultimately, one of the principal goals of law enforcement agencies and the courts is to reduce crime and create/ensure a secure environment for both citizens and firms. Crime rates, which aim ultimately to capture the incidence of crime on society, are key outcome indicators for measuring the performance of criminal justice systems. In particular, the incidence of violent crime is often of greater relative concern, as it may naturally have a greater impact on perceptions of security.

In Mexico, on average 25% of total reported crime is of a violent nature, with the state of Nuevo León showing a rate of nearly half of all reported crime. Since 2009, this region has also shown the greatest increase in violent crime (26 percentage point increase). Although Baja California Sur reported the least number of violent crimes in 2011, Guerrero demonstrates the largest decrease in crime with a 10 percentage point reduction.

Figure 3.43 shows Mexican states ranked according to the level of violent crime as a percentage of all reported crime. As expected, the worst case is Nuevo León, being hard hit by drug trade violence and organised crime. The case of the State of Mexico is more puzzling as it ranks second to last, although it has not been hit by the recent wave of violence. In contrast to Nuevo León and Sinaloa, violent crime is more persistent over time in the State of Mexico.

For most Mexican states, the share of violent crime is compacted heavily between 20% and 30% of total crime.

As with all indicators on reported crimes, one key weakness is that it may not accurately reflect true incidences of crime due to under-reporting. Because of the higher likelihood of violent crime being reported, the share of crime involving violence might be inflated. Additionally, although data are attained from a single national source, there may be differences in reporting among states and this should be considered when making comparisons across regions.

Definitions and methodology

This indicator represents the share of total reported crime that is of a violent nature. Violent crime includes assault, violent theft, homicide and any other reported crime in which the criminal preliminary investigation cites the use of physical violence. Total

reported crime consists of all crime registered either in the attorney general's office for crime of the federal charter, or the state's attorney general's office for crime of the local charter.

Categorisations of crimes may vary across regions but have been standardised to the extent possible by the SESNEP database. While each state is responsible for defining and penalising each type of crime, this variable only asks whether the preliminary criminal investigations cite the use of violence in the criminal act.

In Figure 3.45, the black label represents average of states with available data.

Source

Both total crime and total violent crime were compiled from data published by SESNSP.

Reference years

All data are compiled for years 2009-2011.

Figure 3.43. **Violent crime as a share of total reported crime (2011)**

In %

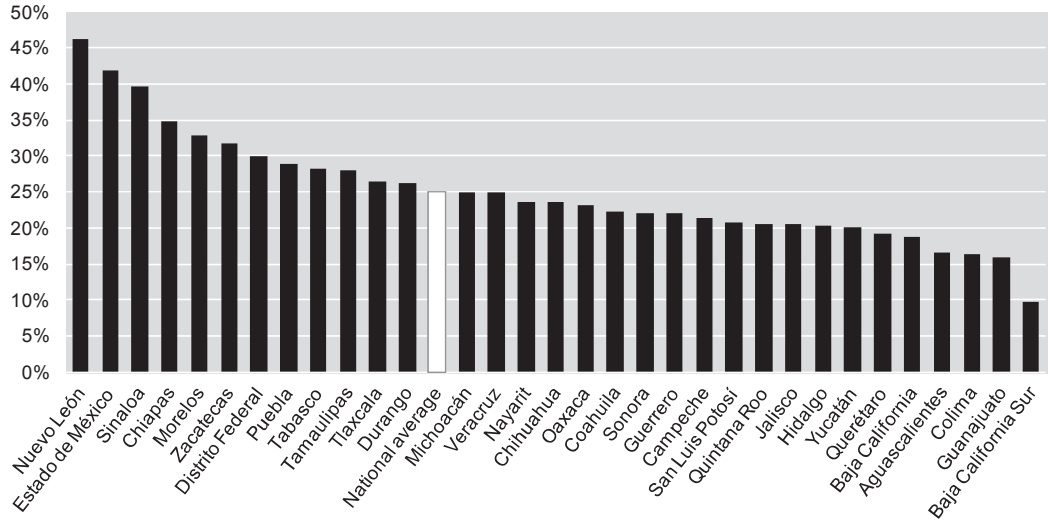


Figure 3.44. **Change in violent crime as a share of total reported crime (2009-2011)**

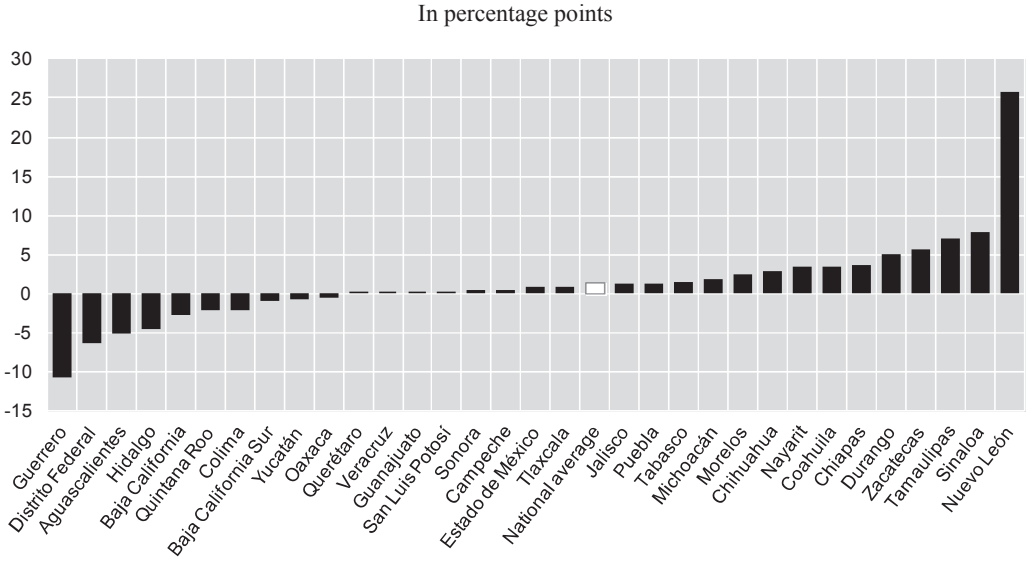


Figure 3.45. **Dispersion analysis: Violent crime as a share of total reported crime (2011)**

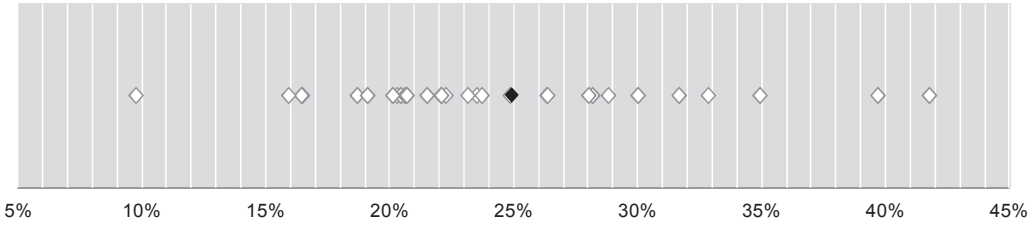


Figure 3.46. **Geographical analysis: Violent crime as a share of total reported crime (2011)**

Note: This map is for illustrative purposes only and is without prejudice to the status of or sovereignty over any territory covered by this map.

12. Intentional homicides

The rate of total reported intentional homicides controlled by population is one of the most widely used criminal incidence indicators used by policy makers and researchers due to its explicative power and specificity, which allows for better benchmarking and comparison across regions and countries. Furthermore, relative to other types of crime, the issue of under-reporting is less of a concern as such crimes are more likely to be recorded. However, methodological issues remain, since slight differences may exist in the categorisation of reported homicides across regions or countries (*e.g.* different reporting criteria). Likewise, harmonisation and alignment of data between public health and law enforcement statistics require further efforts to improve measurement and comparability: mortality statistics from public health databases (*e.g.* data on causes of death) differ from those of justice systems.

From a performance measurement perspective, homicide rates are key outcome indicators to complement crime rate data. Indeed, physical safety is a key element of security and well-being. Homicide rates also influence citizens' perception of security. The relationship between homicides and perceptions of safety, for instance, is greater than that of some property crimes (*e.g.* vehicle theft) and feelings of safety.

In 2011, the national average for this indicator was 22.4 homicides per 100 000 inhabitants. There is a large disparity between states, where the best performing states such as Yucatán (2.3) have homicide rates comparable to highly developed regions of the world, and states such as Chihuahua (88.1) and Sinaloa (71.7) having extremely high rates of homicide.

An analysis of the change in rates between 2009 and 2011 shows that the situation deteriorated in a great majority of states between 2009 and 2011. The homicide rate in the state with the largest negative change – Nuevo León – increased by 38 more homicides per 100 000 inhabitants during this period. Another interesting result comes from the state of Chihuahua, a state that while still by far the worst-faring state, has nevertheless shown an improvement in the number of homicides per 100 000 inhabitants compared to 2009 levels. Finally, there is a great improvement in the homicide rate for the Federal District, although it is still considerably above the national average.

Further specificity and comparability across states can perhaps be achieved when analysing a particular category of homicides: those caused by a firearm. Homicides caused by firearms usually involve deaths resulting from armed robbery, kidnapping and even open confrontation between criminal groups and/or police forces.

Definitions and methodology

The number of intentional homicides per 100 000 inhabitants is calculated by dividing the total number of reported intentional homicides for a given year by the corresponding state population (residents) for the same year.

Intentional homicide is defined as per the United Nations Office on Drugs and Crime (UNODC) definition, as unlawful death purposefully inflicted on a person by another person. However, it is difficult to ascertain whether each state strictly applies the same definition.

The share of total reported intentional homicides that are caused by firearm is also shown below. A homicide is considered to have been perpetrated by firearm if the preliminary criminal investigation cites the involvement of one.

In Figure 3.51, the black label represents average of states with available data.

Sources

Intentional homicide data are from INEGI's mortality statistics database. Relevant population data is from CONAPO and refers to residents. The definition of intentional homicide is from UNODC.

Reference years

Data are compiled for years 2009-2011.

Figure 3.47. **Number of homicides per 100 000 inhabitants (2011 and 2009-2011 average)**

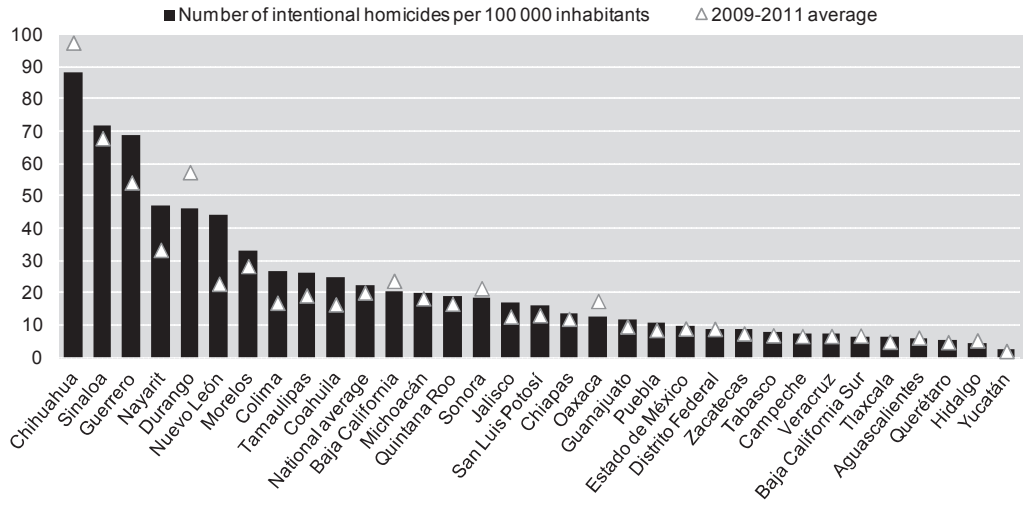


Figure 3.48. **Change in the number of homicides per 100 000 inhabitants (2009-2011)**

In percentage points

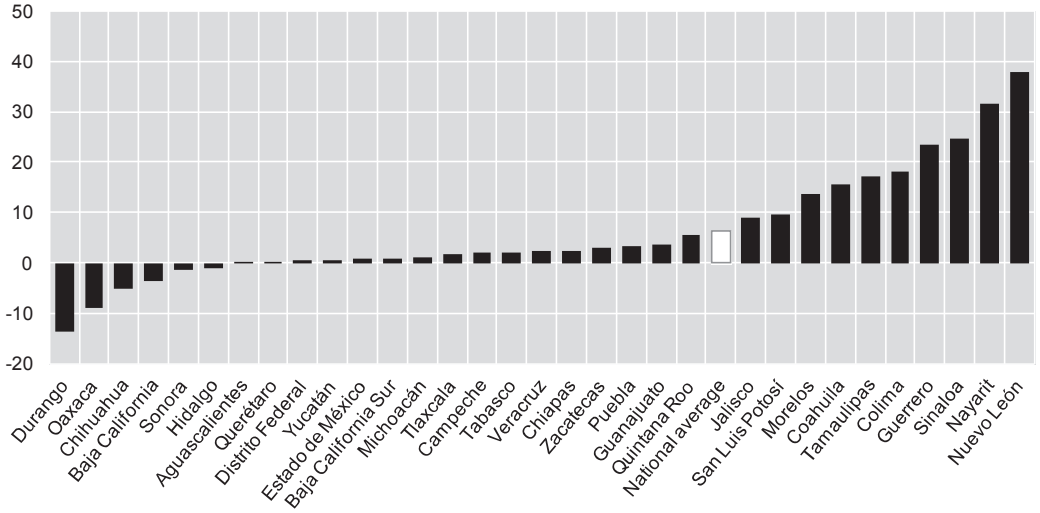


Figure 3.49. **Geographical analysis: Number of homicides per 100 000 inhabitants (2011)**

Note: This map is for illustrative purposes only and is without prejudice to the status of or sovereignty over any territory covered by this map.

Figure 3.50. **Share of intentional homicides perpetrated using a firearm (2011)**

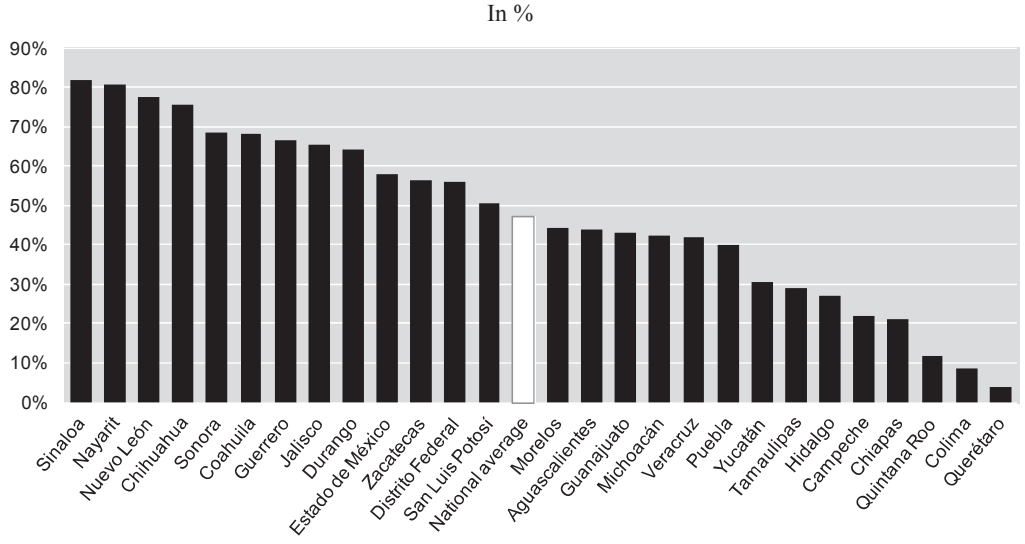


Figure 3.51. **Dispersion analysis: Share of homicides perpetrated using a firearm (2011)**

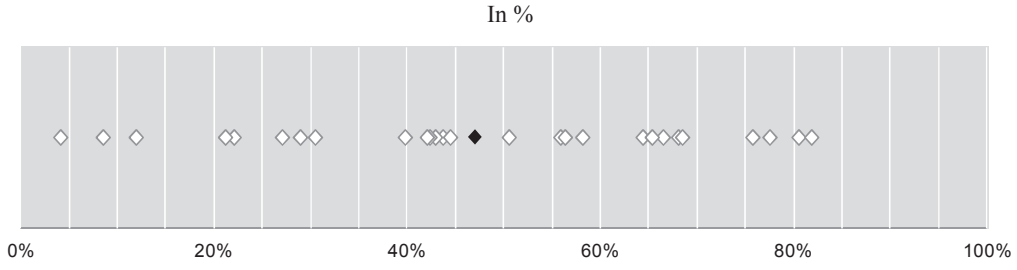


Figure 3.52. **Geographical analysis: Share of homicides perpetrated using a firearm (2011)**

In %

Note: This map is for illustrative purposes only and is without prejudice to the status of or sovereignty over any territory covered by this map.

13. Vehicle theft reports per 10 000 registered vehicles

While violent crimes, including homicides, may have a stronger psychological and media impact on perceptions of safety, property crimes may more directly influence economic outcomes such as the propensity to attract investment. Second, property crimes are generally much more common than homicides, and thus it is important to measure and monitor them as a phenomenon. Additionally, from a comparability perspective, this indicator has the advantage that vehicle theft has a much smaller "dark number" (percentage of crimes that go unreported) than most other property crimes due to the fact that crime reports are necessary to obtain reparations from insurance companies. In addition to this monetary incentive, individuals have a further motivation to report such crime since individuals who report their vehicle as stolen are cleared from responsibility of any wrongdoings or crimes committed using their stolen vehicle.

One concern for this indicator is that there is likely to be a number of vehicles in circulation that are not registered, which could inflate vehicle theft rates. A mitigating factor for this is that insurance companies require the vehicle to be registered, so the proportion of unregistered vehicles reported stolen is likely to be much lower than the proportion of registered vehicles. In 2010, an average of 616 registered vehicles per 10 000 were stolen across Mexico, with Chihuahua (2 382.7) reporting the highest incidences and Yucatán (52) the fewest. Also, between the years 2009 and 2010, Durango had the highest increase in the number of vehicle thefts, with an additional 955.1 per 10 000 vehicles stolen. Conversely, Quintana Roo presented 1 032 fewer reports per 10 000 registered vehicles in the same period.

Definitions and methodology

This variable is calculated by dividing the total number of vehicles reported stolen in each state in a given year by the total number of registered motor vehicles in each state for the same year.

Vehicle theft reports for this category include any motor vehicle reported stolen to the state's attorney general's office regardless of the monetary value of the vehicle. Comparisons with other international indicators that adopt a threshold, should consider this difference. INEGI's motor vehicle database includes cars, cargo trucks, passenger buses and motorcycles.

Information on the number of vehicles is provided to INEGI by each state's finance secretariat who reports the number of vehicles that are registered in the same state.

In Figure 3.54, the black label represents average of states with available data.

Sources

Grand theft auto reports are compiled from SESNP's criminal incidence database. Total numbers of registered vehicles by state were compiled from INEGI's motor vehicle registry database.

Relevant years

Data are compiled for years 2009-2010.

Figure 3.53. **Number of vehicle theft reports per 100 000 registered vehicles (2010)**

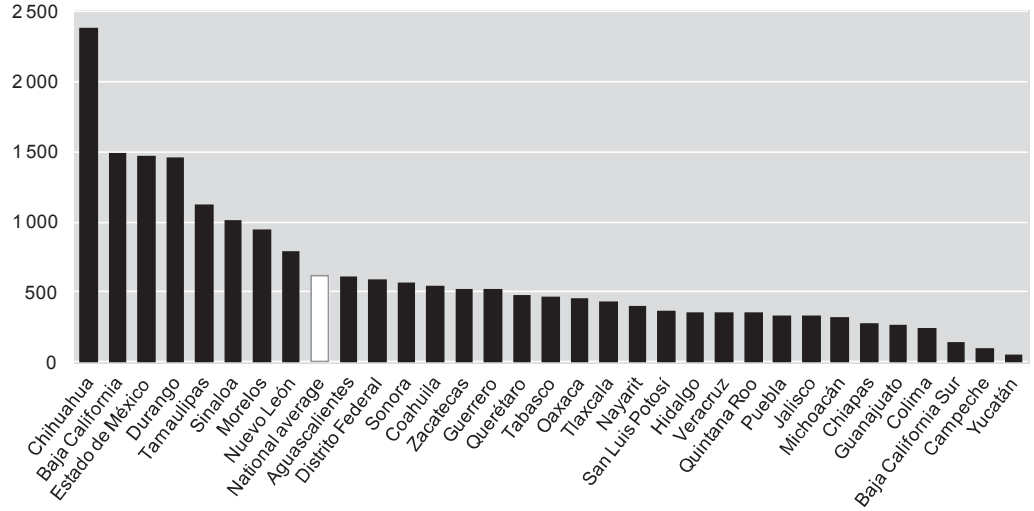


Figure 3.54. **Dispersion analysis: Number of vehicle theft reports per 100 000 registered vehicles (2010)**

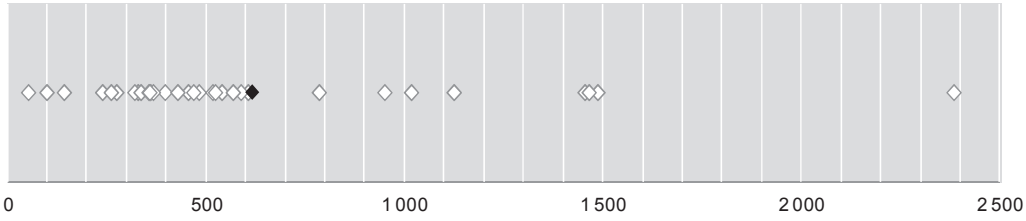


Figure 3.55. **Geographical analysis: Number of vehicle theft reports per 100 000 registered vehicles (2010)**

Note: This map is for illustrative purposes only and is without prejudice to the status of or sovereignty over any territory covered by this map.

14. Victimisation rate

The previous indicators (homicide, vehicle theft) are exceptional in the sense that these types of crimes are more likely to be reported to the police than other crimes. They are therefore helpful performance indicators from the point of view of comparability across states and countries, in terms of better accuracy of the data. However, one of the primary concerns in evaluating government policies against crime is the unobservable nature of the true number of crimes committed. Petty theft, for instance, is much more common and may have a broader impact on perceptions of safety, but may often go unreported. Indeed, it is estimated that the "dark number" of unreported crime may be greater than 90%, even for developed regions. For this reason, survey data collected directly from citizens is often used to provide information complementary to that retrieved from official police reports.

As with all data collected via perception surveys, however, there are some inherent weaknesses. Surveyors asking about citizens' experiences with crime are relying on subjective accounts and memories. They also may retrieve biased information if only cities or urban areas are surveyed. The survey approach used (*e.g.* phone, Internet) may

further limit the representativeness of the sample. Perception survey methodologies have, however, improved over time with better sampling, survey tools, clearer wording and definitions, but the weaknesses do need to be considered when interpreting data based on them.

This indicator is expected to be related to total reported crime and to impact public perception variables more strongly than the official crime figures.

The National Victimization Survey's (ENVIPE) victimisation data show that on average Mexico had 23 206 crimes per 100 000 inhabitants, which means roughly 1 in 4 individuals are victims of a crime each year.

The following figures compare victimisation rates across Mexican states. Unexpectedly, the worst performing state is Aguascalientes, which has not been affected by the current wave of organised crime. However, victimisation rates do not reflect the intensity of crime, only the number of crimes. So this state may suffer from a large number of relatively less serious crimes. Even so, other states that perform poorly include Chihuahua, the Federal District, Baja California and Sonora.

From Figure 3.56 it can be also observed that victimisation rates are much less dispersed than other criminal incidence indicators.

Definitions and methodology

Citizens' direct reports on their experience with crime, via surveys, are an alternative method to measure the incidence of crime. The indicator presented here represents how many crimes (whether reported or unreported) occur per 100 000 inhabitants. It is obtained from data compiled by INEGI's ENVIPE which asks a sample of households if anyone in their household has been a victim of a crime in the past year. This data is then extrapolated to obtain the overall victimisation rate for each state controlled per 100 000 inhabitants.

The ENVIPE asked respondents questions on the incidence of particular crimes (to mitigate the lack of knowledge of some respondents about what constituted a criminal incident); the total victimisation rate constitutes the sum of those particular crimes.

Approximately 2 500 households were surveyed per state for a total of 78 179 households at the national level. This sample was controlled for urban or rural population and different income ranges so as to obtain the most representative sample as possible.

In Figure 3.57, the black label represents average of states with available data.

Source

Victimisation data from INEGI's ENVIPE results: INEGI's 2011 ENVIPE Results. Instituto Nacional de Estadística y Geografía (INEGI), "Encuesta Nacional de Victimización y Percepción sobre Seguridad Pública (ENVIPE)", *www.inegi.org.mx/est/contenidos/proyectos/encuestas/hogares/regulares/envipe/default.aspx.*

Figure 3.56. **Total crime per 100 000 inhabitants as calculated from victimisation surveys (2011)**

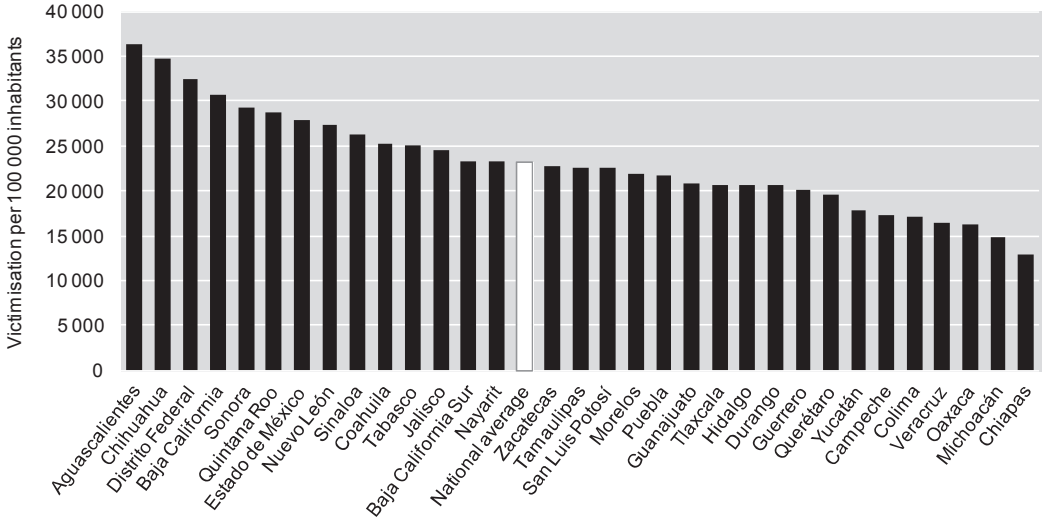
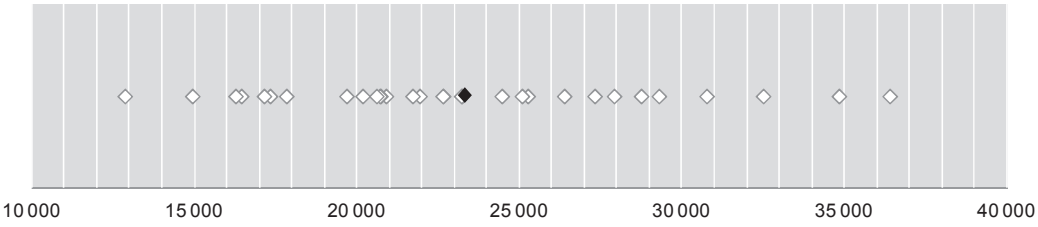


Figure 3.57. **Dispersion analysis: Total crime per 100 000 inhabitants as calculated from victimisation surveys (2011)**



15. Estimated reported crime as a share of total crime

Comparing information on the incidence of crime from victimisation surveys and criminal justice institutions themselves provides us with one estimation, or proxy, of the share of total crime which is recorded (or, alternatively, goes unreported) to the police. Indeed, the share of crime that is unrecorded is often referred to as the "dark number" of crime. It is first and foremost a complementary measure, to be used alongside data on reported crime rates, to measure the incidence of crime in society. Second, it can act as a measure of the reliability of existing data by using reported crime data from the justice system.

The "dark number", however, can also provide an indication of the degree of trust placed in the police and the criminal justice system as a whole. On the one hand, not all crime is recorded; certainly, some crimes go unrecorded as victims may feel that the crime is too trivial to report or that the monetary value of the crime (*e.g.* in cases perhaps of petty theft) may be low. Alternatively, some crime may go unrecorded by police, even if reported by a victim, if there is insufficient evidence to classify it as such. Nonetheless, a high degree of unrecorded crime, particularly in a comparative perspective with other regions or countries, may suggest low levels of trust in the police. Citizens and firms may be reluctant to report crimes if they believe the police will not act or that the legal system

will not effectively reach a resolution to the case. They may also believe the costs (*e.g.* time, bureaucracy or fees) of the system are excessive.

On average, it is estimated that only about 7% of total crime is reported in Mexico. Using this methodology, the state that reports the highest share of its total crime is Yucatán with 14.2%, while in Campeche only 1.8% of crime is reported.

Definitions and methodology

This indicator was computed by dividing the total number of reported crime obtained from SESNSP by the victimisation rate obtained from the ENVIPE, which estimates the incidence of both reported and unreported crime. From this we obtain an estimation of the share of crime that may be reported annually in each state.

The "dark number" represents the share of total crime that goes unreported and is obtained by subtracting the share of crime that is reported from 100%.

In Figure 3.59, the black label represents average of states with available data.

Sources

Total crime data is compiled from SESNP's criminal incidence database.

Victimisation data from INEGI's ENVIPE results: INEGI's 2011 ENVIPE Results. Instituto Nacional de Estadística y Geografía (INEGI), "Encuesta Nacional de Victimización y Percepción sobre Seguridad Pública (ENVIPE)", *www.inegi.org.mx/est/contenidos/proyectos/encuestas/hogares/regulares/envipe/default.aspx.*

Relevant years

Data is only available for 2011.

Figure 3.58. **Reported crime from police statistics as a percentage of total crime as per victimisation surveys (2011)**

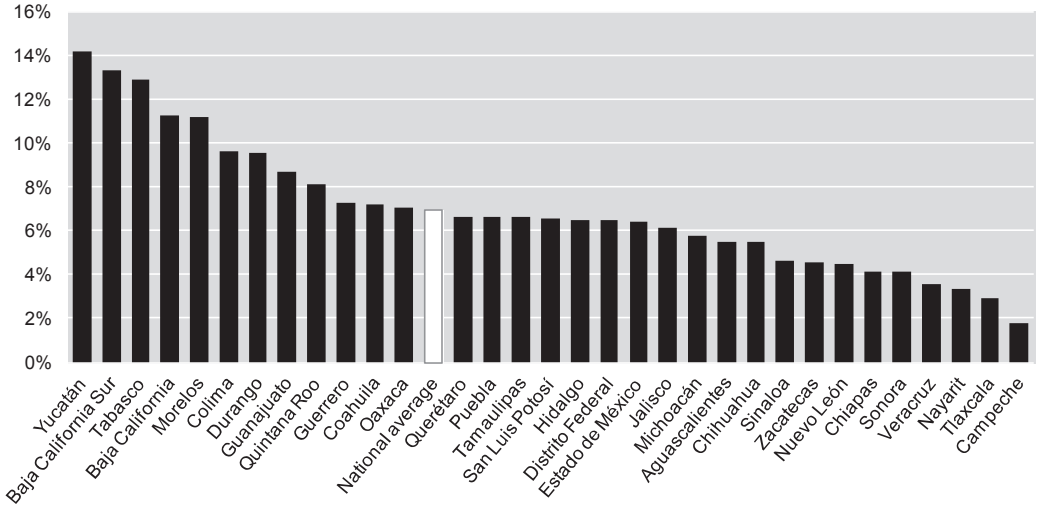


Figure 3.59. **Dispersion analysis: Reported crime from police statistics as a percentage of total crime as per victimisation surveys (2011)**

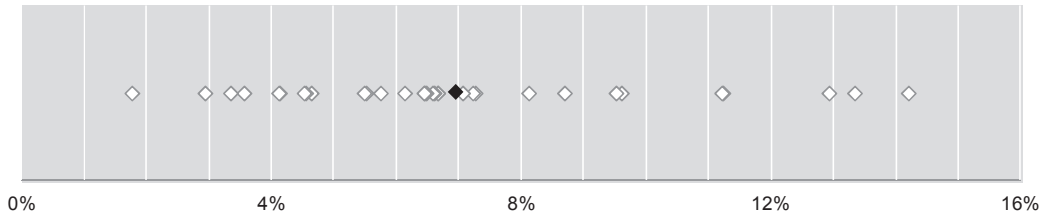


Figure 3.60. **Geographical analysis: Reported crime from police statistics as a percentage of total crime as per victimisation surveys (2011)**

Note: This map is for illustrative purposes only and is without prejudice to the status of or sovereignty over any territory covered by this map.

16. Trust in institutions: Police (state and municipal)

Often the police is the first point of contact between the criminal justice system and citizens/firms. Indeed, municipal and state police in Mexico fulfil mainly preventive and responsive police duties. They are in charge of patrolling, both to deter possible offenders and catch criminals; they work with community groups and may participate in and/or implement educational or preventative initiatives; they are amongst the first respondents to emergencies participating in dispute resolutions, and take action (*e.g.* make arrests or issue fees or citations) when they deem a crime or infraction has been committed.

Trust in police is necessary for good collaboration between citizens and police in jointly preventing or responding to crime. It may also be a determinant of whether citizens are likely to report crimes. Low trust in the police may also be symptomatic (whether accurate or not) of perceived corruption or ineffectiveness of the police, or it may send a warning signal to policy makers that police forces lack the capacity or resources to be effective (*e.g.* insufficient staff or training).

As with all perception data, this indicator's weakness is that citizens may be unable to distinguish between municipal and state police (the average is used here for this indicator). Likewise, their perceptions of the police may be influenced by news reports or perceptions of police elsewhere, and attributed generally to local/municipal police without considering their true performance.

Using this methodology, 41% of the total Mexican population trust their state and municipal police forces. The state with the most confidence is Coahuila (60%) and the lowest levels of trust can be found in Chiapas (26%).

Definitions and methodology

This indicator was computed directly from the results of the trust in public institutions section of the ENVIPE. As part of this survey, respondents were asked to rate their level of trust in state and municipal police in categories that ranged from "a lot of trust", to "some trust", "a little trust" and "no trust".

The first two options are interpreted here to be the positive responses and are utilised in these calculations as a proxy of "positive trust".

The percentages of trust for each institution (municipal police and state police) were then averaged to estimate the level of trust in state-wide police institutions.

Around 2 500 households were surveyed per state for a total of 78 179 at the national level. This sample was controlled for urban or rural population and different income ranges so as to obtain the most representative sample possible.

In Figure 3.62, the black label represents average of states with available data.

Source

INEGI's 2011 ENVIPE Results. Instituto Nacional de Estadística y Geografía (INEGI), "Encuesta Nacional de Victimización y Percepción sobre Seguridad Pública (ENVIPE)", *www.inegi.org.mx/est/contenidos/proyectos/encuestas/hogares/regulares/envipe/default.aspx.*

Relevant years

Data is only available for 2011.

Figure 3.61. **Trust in state and municipal police (2011)**

% of positive trust responses

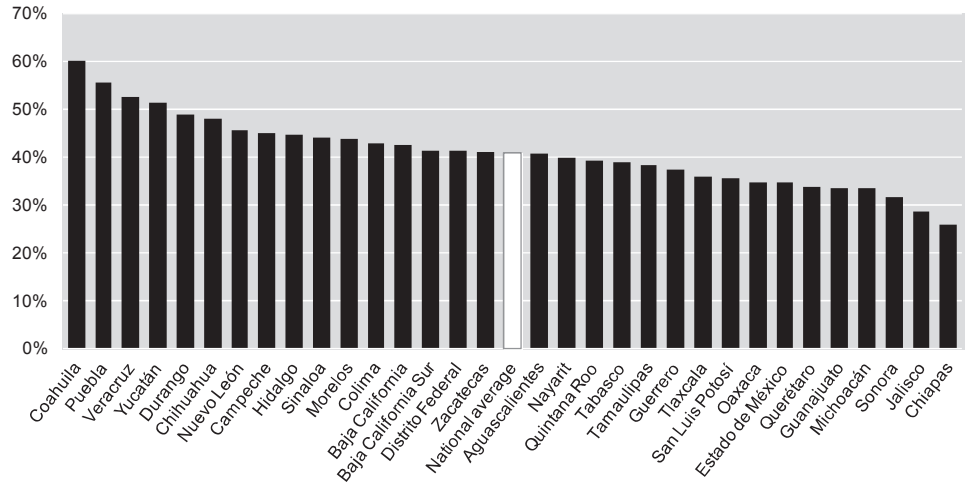


Figure 3.62. **Dispersion analysis: Trust in state and municipal police (2011)**

% of positive trust responses

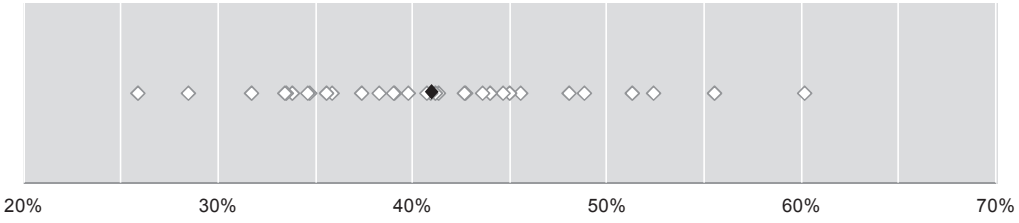


Figure 3.63. **Geographical analysis: Trust in state and municipal police (2011)**

% of positive trust responses

Note: This map is for illustrative purposes only and is without prejudice to the status of or sovereignty over any territory covered by this map.

17. Trust in the court system: Public prosecutors and judges

Public prosecutors are a vital part of any criminal justice system; they are responsible, alongside investigators, for conducting the preliminary criminal investigation and their findings are critically important elements of a trial. The quality and objectivity of their work is key. The honesty with which prosecutors conduct investigations has long been a concern in Mexico because of the relative ease of fabricating or omitting evidence (such concerns have, for a great part, contributed to the very recently reformed penal system).

Likewise, judges are another very vital part of the criminal justice procedure, as they are ultimately responsible for the conviction or acquittal of suspected offenders and their respective sentencing. Even with a highly efficient investigative police work and prosecution, judges decide the eventual fate of alleged criminals. It is for this reason that the objectivity of judges has long been a public concern in Mexico, and more recently even the ability of certain judges to fulfil their jobs has come into question.

Citizens' trust in prosecutors and judges can, for that reason, be an important proxy of whether they believe the court system is capable, objective and free of corruption.

Many of the same weaknesses apply as for the police. Citizens may not distinguish between prosecutors and judges at different levels of government. Furthermore, inefficient court systems may not be due to corruption but to a variety of other factors. Nonetheless, coupled with other information on the functioning of the courts, it is one important indicator of their performance.

On average across Mexico, 37.8% of the population trusts public prosecutors to some degree. The state with the highest levels of trust is Guanajuato with 51% of the population trusting public prosecutors, while the State of Mexico comes in last with only 19%. The average trust across Mexico for judges amounts to 42.5% of the population, with Colima having the highest percentage of the population (57.3%) trusting judges and the State of Mexico the lowest (26%).

Definitions and methodology

These indicators were computed directly from the results of the trust in public institutions section of the ENVIPE which measures the overall perception of public safety in each state. For the questions relevant to this indicator respondents were asked to rate their level of trust in state prosecutors and judges (*agentes del ministerio publico* and *jueces*) in categories that ranged from no trust at all to complete trust. The number depicted in our indicator represents the percentage of the population with positive trust in prosecutors.

The survey asked to give the level of trust with four possible responses: "a lot of trust", "some trust", "a little trust" and "no trust". The first two are considered to be positive responses.

In the case of judges, the survey does not differentiate between civil court judges and criminal court judges.

Around 2 500 households were surveyed per state for a total of 78 179 at the national level. This sample was controlled for urban or rural population and different income ranges so as to obtain the most representative sample possible.

In Figure 3.65, the black label represents average of states with available data.

Source

INEGI's 2011 ENVIPE Results. Instituto Nacional de Estadística y Geografía (INEGI), "Encuesta Nacional de Victimización y Percepción sobre Seguridad Pública (ENVIPE)", *www.inegi.org.mx/est/contenidos/proyectos/encuestas/hogares/regulares/envipe/default.aspx.*

Relevant years

Data are only available for 2011.

Figure 3.64. **Trust in public prosecutors (2011)**

% of positive trust responses

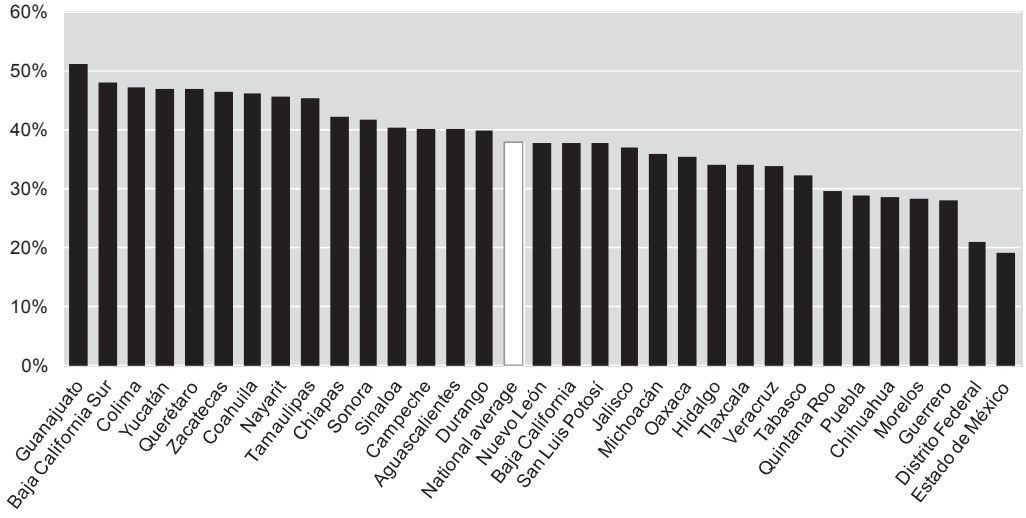


Figure 3.65. **Dispersion analysis: Trust in public prosecutors (2011)**

% of positive trust responses

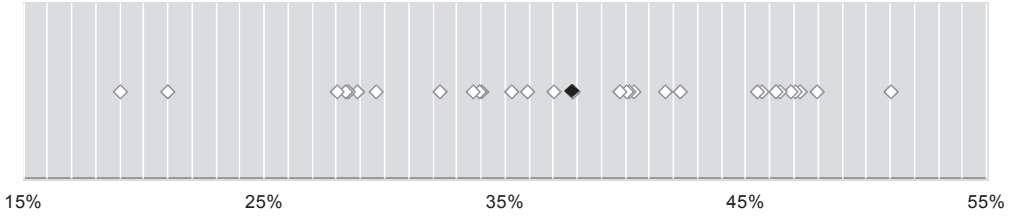


Figure 3.66. **Geographical analysis: Trust in public prosecutors (2011)**

% of positive trust responses

Note: This map is for illustrative purposes only and is without prejudice to the status of or sovereignty over any territory covered by this map.

Figure 3.67. **Trust in judges (2011)**

% of positive trust responses

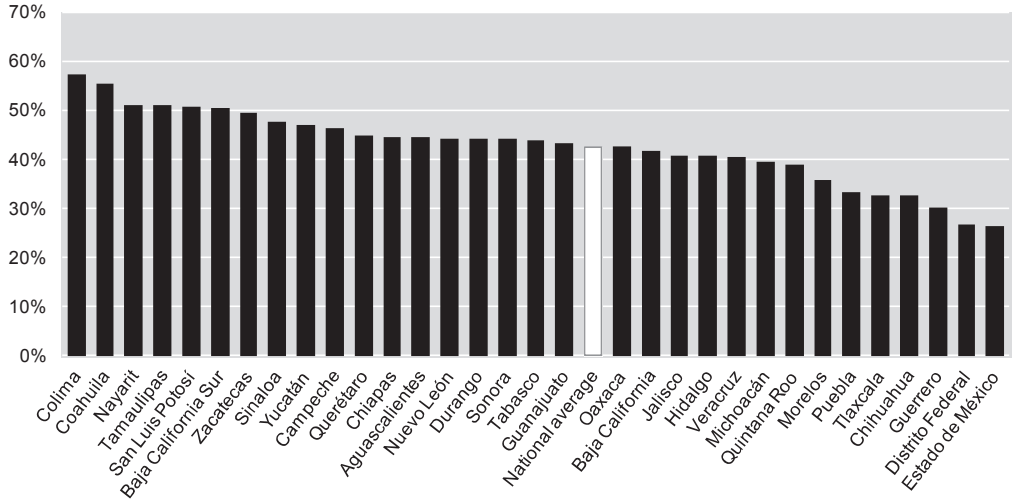


Figure 3.68. **Dispersion analysis: Trust in judges (2011)**

% of positive trust responses

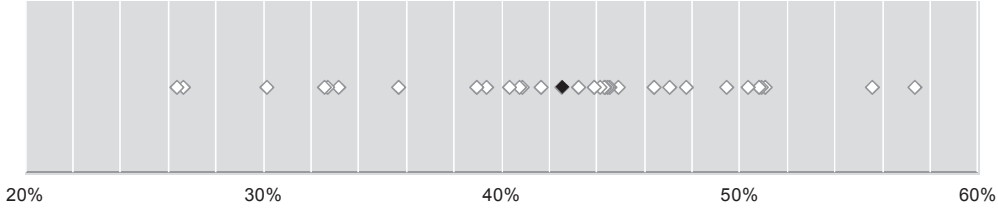


Figure 3.69. **Geographical analysis: Trust in judges (2011)**

% of positive trust responses

Note: This map is for illustrative purposes only and is without prejudice to the status of or sovereignty over any territory covered by this map.

18. Perceptions of safety

Perhaps the most important ultimate outcome of criminal justice institutions is improving perceptions of safety. Effective law enforcement policies and well-functioning courts should serve to ultimately increase society's sense of security. Indeed, as we saw in previous indicators, there is a relationship between reported crimes, in particular violent ones, and perceptions of safety. Certainly, however, many factors that may influence perceptions of safety, other than the performance of criminal justice institutions or crime rates.

An average of 32% of the population feels safe in their state. The highest level was in Yucatán, where 72.6% of the population reported feeling safe, while the lowest value was found in Chihuahua, where only 8.7% responded they felt safe.

According to the same survey, an average of 27.6% of Mexicans felt unsafe walking alone in their state. Just as with the feeling of safety indicator, the best performing state was Yucatán (only 10.7% felt unsafe) and the worst Chihuahua (61.7%).

Definitions and methodology

This indicator was computed directly from the results of the ENVIPE, which measures the overall feeling of safety for the household population of each state. Respondents were asked if they felt safe from crime. The percentage depicted in our indicator represents the share of respondents/surveyed population who responded they felt safe in their state (for this question the only possible responses were "feel safe" and "feel unsafe"). The same source is used for the indicator on fear of walking alone, representing the percentage of responses that replied they felt unsafe walking alone in their state.

Around 2 500 households were surveyed per state for a total of 78 179 at the national level. This sample was controlled for urban or rural population and different income ranges so as to obtain the most representative sample as possible.

In Figure 3.71, the black label represents average of states with available data.

Source

INEGI's 2011 ENVIPE Results. Instituto Nacional de Estadística y Geografía (INEGI), "Encuesta Nacional de Victimización y Percepción sobre Seguridad Pública (ENVIPE)", *www.inegi.org.mx/est/contenidos/proyectos/encuestas/hogares/regulares/envipe/default.aspx.*

Relevant years

Data are only available for 2011.

Figure 3.70. **Percentage of the population that feels safe in their state (2011)**

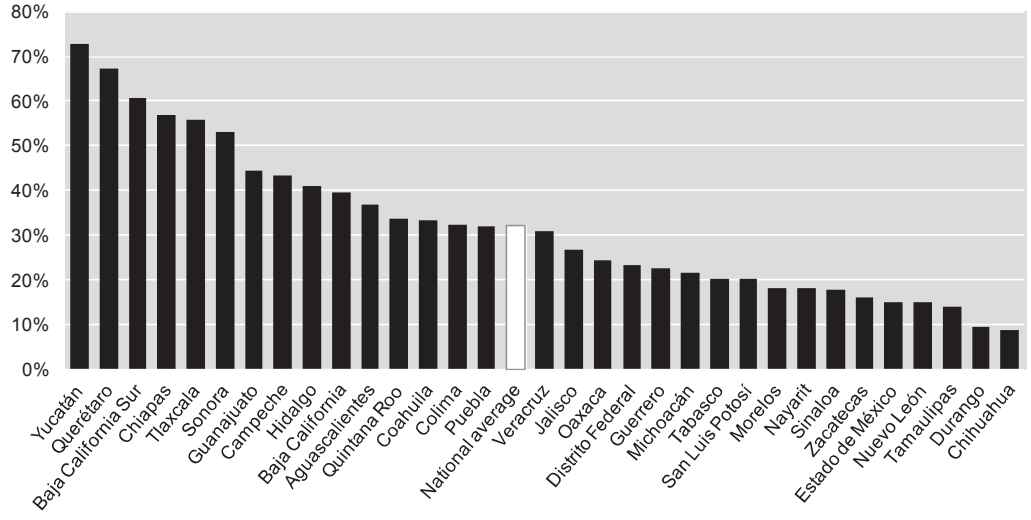


Figure 3.71. **Dispersion analysis: Percentage of the population that feels safe in their state (2011)**

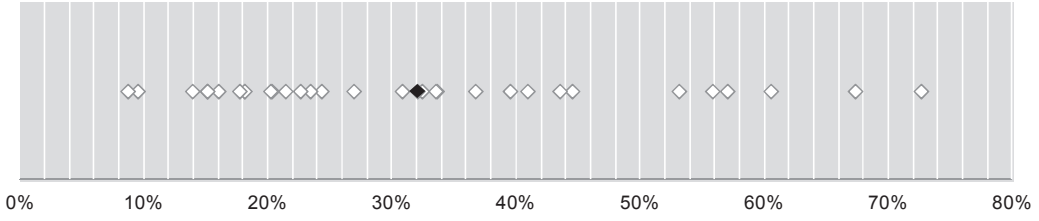


Figure 3.72. **Geographical analysis: Percentage of the population that feels safe in their state (2011)**

Note: This map is for illustrative purposes only and is without prejudice to the status of or sovereignty over any territory covered by this map.

Figure 3.73. **Percentage of the population that feels unsafe walking alone in their state (2011)**

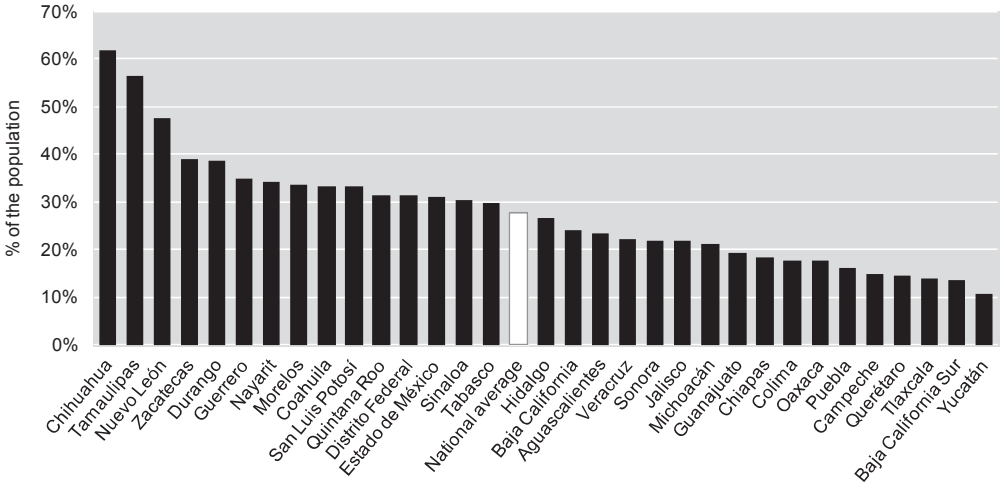


Figure 3.74. **Dispersion analysis: Percentage of the population that feels unsafe walking alone in their state (2011)**

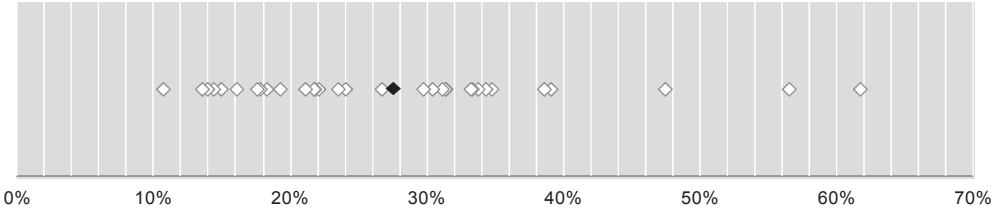


Figure 3.75. **Geographical analysis: Percentage of the population that feels unsafe walking alone in their state (2011)**

Note: This map is for illustrative purposes only and is without prejudice to the status of or sovereignty over any territory covered by this map.

Conclusion

Mexico is making improvements in measuring the incidence of crime. INEGI, an autonomous dependency of the executive branch, and SESNSP, a dependency of the Ministry of the Interior (SEGOB), produce internationally harmonised crime statistics disaggregated to the state level (*e.g.* property crimes such as car theft and violent crime including homicides). Furthermore, INEGI implements a victimisation survey, with results also disaggregated to the sub-national level. This survey instrument continues to improve with recent changes to questions to increase the accuracy and reliability of responses. Additionally, a strong dataset exists for Mexico on perceptions of safety and levels of public trust in police and justice institutions. Such information is collected not only by INEGI as a component of victimisation surveys, but also by additional independent opinion polls, which lend themselves to international comparison.

As shown in this chapter, however, these data are not immune to common methodological problems of crime statistics and perception surveys which should be considered in constructing indicators and subsequent analysis. For data gathered from law enforcement and justice institutions, this includes issues of comparability due to differences which can exist across states in terms of case and crime classification systems. Though some crimes are more prone to under-reporting than others, this issue was shown to be an important barrier in general in Mexico – but particularly for property crimes – with implications for under-estimating the true incidence and nature of crime. Conversely, for perception data on feelings of security and trust in institutions, such information is sensitive to media coverage on crime and does not distinguish between types of law enforcement and justice personnel. Likewise, statistics gathered from victimisation surveys, though improving through better questionnaire techniques, can also

be sensitive as they rely on understanding the questions and accurate recall of past events. International comparisons of perception data are cautioned, as cultural and domestic events particular to individual countries are key determinants of results.

In the framework presented in Chapter 1, these statistics would correspond to the category of outcomes indicators; that is, variables which can shed light on the consequences or impacts of security and justice policies. Measuring the performance of criminal justice institutions – their effectiveness and efficiency – as well as establishing the cost-effectiveness of certain policies over others, however, requires generating additional data. The following paragraphs summarise the main gaps identified as part of the scoping exercise conducted for this study.

Inputs

Information on the number of personnel generally exists for the individual states. However, standardised expenditure data for the police, courts and penitentiary systems are unavailable in Mexico at the regional level. This issue is further complicated by the inability in some cases to distinguish between civil justice and criminal justice expenditures, creating ambiguity in relationships between inputs and outcomes. Calculating unit costs, for instance (*e.g.* "cost per case"), is not possible at this stage. As a proxy for expenditures, budget appropriations can be used and are presented in this study for indicative purposes. Nonetheless, given the weaknesses of such data (*e.g.* the degree of flexibility that agencies have in how and when appropriations are spent), the study proposes further data collection initiatives for this area. Line-items in state budgets differ, making compilations of appropriations data subject to some subjectivity or over-/under-estimation.

Processes

There is a need for harmonised data collection efforts to collect information from states in key areas of public management including human resources practices such as training, recruitment and performance evaluations, and integrity (anti-corruption policies such as requirements for the disclosure of potential conflicts of interest, the monitoring and follow-up of this information, and opportunities/protection for whistleblowers). These practices influence the functioning of law enforcement and judicial institutions, helping to identify additional "policy levers" with which to improve their performance. Indeed, trust in police, for instance, could be improved if mechanisms for preventing corruption were strengthened.

Furthermore, information on co-ordination practices is needed. Greater inter-institutional co-ordination is necessary for overcoming issues of overlapping or fragmented competencies across agencies and territories. It is also a key driver of positive performance, but little, if any, data exists, for example, on the degree of information or intelligence sharing amongst law enforcement agencies, the formal or informal co-ordination mechanisms that may exist for dialogue and co-operation, the amount of joint financing in place to overcome unfunded mandates, or the use of joint initiatives (such as training) to better exploit economies of scale and avoid wasting funds.

Outputs

This study has found little comparable output data at the sub-national level on the functioning of the police and courts. That is, on the average length of time taken to

process a case, the amount of case back-log, the quality of the judicial decisions taken (measured, for instance, by the percentage of cases appealed, overturned or cancelled due to inadmissible evidence or other errors). The need for such information is urgent as important judicial reforms are underway. The study recommends participation in the judicial performance questionnaire implemented biennially by the Council of Europe's Commission for the Efficiency of Justice.

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